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DISRUPTIVE DEFENSE PAPERS

# Envisioning Strategic Options

## *Comparing Alternative Marine Corps Structures*

By By LtCol Frank G. Hoffman, USMCR (Ret.)
and Col G. P. Garrett, USMC (Ret.)

Center for a New American Security

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## About the Authors

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# I. INTRODUCTION

By LtCol Frank G. Hoffman, USMCR (Ret.)
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The recent 2014 Quadrennial Defense Review (QDR) and the National Defense Panel afford the nation's policymakers the opportunity to gauge military plans and assess how they match the nation's long-term security needs. While the armed services may prefer to think in terms of near-term force reductions and focus inward on their current core competencies, the Department of Defense (DOD) should encourage greater forward-thinking in force structure designs and seek more creative and efficient solutions to preserve and advance national security interests.

This paper lays out some alternative Marine Corps structures to stimulate a debate. The current service guidance and literature reflect an effort to institutionalize lessons learned from the past decade and a strong interest in getting back to sea. While this literature does focus on the future of the Marine Corps and acknowledges the need for change, there are to date very few specific proposals based on the new missions for the Marine Corps and potentially disruptive geopolitical scenarios. In the face of end-strength reductions posed by the deficit and post-war drawdowns, the services should consider synergistic force designs that reflect the dynamic security environment projected by analysts and the intelligence community. Instead, there has been a focus on the current force levels and programs, which may lead to a smaller, less integrated and riskier version of yesterday's force.

This paper analyzes different force designs that produce different capability/capacity mixes aligned with the projected drivers of the future strategic environment. The proposed designs include: a "Deterrent/Power Projection" Marine Corps invested in distributed modes of amphibious operations; a "Small Wars" force synergistically engaged with Special Operations Command; and a "Avenger's Shield Force" design for a world described as the "Revenge of the Melians."[1] We detail the end strength, major force composition and equipment mix for each option. Finally, we propose a "Crisis Response" Marine force that synthesizes capabilities and risk tradeoffs and provides a balance between the three proposed future scenarios.

## II. THE IMPORTANCE OF STRATEGIC PLANNING

This paper invokes the strategic acumen of Marine LtCol Earl H. "Pete" Ellis, a clairvoyant strategic planner who envisioned future hostilities with Japan and developed "Operation Plan 712, Advanced Base Operations in Micronesia" in 1921. This campaign design was truly prescient, describing how a war across the Pacific would be fought more than two decades later. Revered for the impact of his work on the Corps' success in World War II and on the subsequent development of the modern Marine Corps, Ellis's spirit is routinely invoked when Marines contemplate the future. Invariably, Marines wonder, "What would a modern Pete Ellis be thinking?"[2]

Today's Ellis would have much to ponder, including the shifts in the strategic pivot points as economic and political power has shifted toward the Pacific and Indian Oceans.[3] Ellis would readily grasp the geostrategic issues posed by the key trade and energy routes running between Africa and the Persian Gulf, the Indian Ocean, the Strait of Malacca and the South China Sea. This critical "world jugular vein" affects the global economy and energy supply. Ellis would also quickly recognize that the world depends heavily on hydrocarbon imports for economics and trade and that approximately 80 percent of the conventional oil supply lies in the hands of unstable or autocratic (and potentially unstable) states. And he would not neglect the importance of the modernization of China's People's Liberation Army.[4]

Given these trends, Ellis would recognize that the existing Marine Corps and its planned investment program would not suffice for the future.[5] For instance, he would realize the impossibility of relying on existing, off-the-shelf plans to respond to China's rise. Major trends – such as the sharp rise in urbanization and immigration, especially in Africa and Asia – could not be ignored. The majority of the world's people live in dense urban centers, where they face insufficient governance, employment and stability.[6] Although the Arab Spring had many causes, the uprisings were in part a reflection of failed governance structures that did not provide for the security and aspirations of their citizens. Poor governance, combined with volatile food and energy prices, water stress and stagnant standards of living, challenge the foundations of weak states. Ellis served in the Caribbean during the "banana wars," and therefore understood the instability engendered by poverty, inequality and failed states.

To live up to Ellis' standards of strategic foresight, today's planners must consider the new threats posed by nuclear proliferation, the emergence of al Qaeda and affiliated groups, and the diffusion of advanced conventional capabilities to groups like Hezbollah, among other transnational threats. The impact of these factors on the security of the homeland cannot be ignored given the tragedies of 9/11 and several subsequent thwarted plots. Technological proliferation will continue to offer greater means of destruction to smaller groups of actors, and game-changing options will be increasingly available from commercial sources.[7] Political extremism may soon be paired with extreme lethality.[8]

In today's complex world, with multiple strategic drivers in constant interaction, today's strategic planners must derive balanced, nuanced responses. This paper seeks to catalyze a discussion on these responses, addressing a series of critical questions: What drivers should be considered as the Marines shape their future force for the challenges facing our nation in the 21st century? What world and what missions will the Marines confront as the nation's force in readiness? Ultimately, the discussion much also include the larger question: "What is the best size and shape for the Marine Corps in the 21st century?"[9]

Recently, senior Marine leaders have pressed for a renewal of the Corps' skill set focused on amphibious power projection, whereas others have made the case for more visionary thinking.[10] Institutionally, the Marine Corps now clearly recognizes the challenges posed by modern technology in the hands of U.S. opponents,[11] and some leaders within its ranks are already looking for ways to meet fiscal pressures.[12]

Other leaders are critical of the Corps' devotion to its unique statutory mission and its slavish devotion to costly acquisition programs, such as the Joint Strike Fighter and the Expeditionary Fighting Vehicle.[13] Some Marines contend that the Marine Corps is out of balance, tilted toward an expensive aviation element that does not serve the Corps' missions well.[14]

Some leaders think that the Corps should both retain its traditional focus on amphibious missions and also invest substantially in dedicated training/advisory units.[15] Still others agree that some specialization is worthwhile but wonder if training and advising is a sufficient mission set and of greater priority than homeland defense, counterterrorism or special operations.[16]

The recent publication of the 2014 QDR provides an opportunity to create and test force-structure proposals against postulated threats and within a joint context. The focus over the past two years has been on efficiencies and meeting mandated fiscal reductions, with insufficient attention paid to the longer-term strategic environment. Legislation for the 2014 QDR requires an effort to look beyond the Five-Year Defense Program and examine longer-range issues. To do so, planners in the DOD and the Joint Staff will have to examine trends, indicators and signposts to explore the contours of what cannot be predicted with great fidelity but must be rigorously explored with serious purpose.

## III. USING SCENARIOS AS A TOOL OF STRATEGIC PLANNING

Strategic planners often employ multiple, detailed scenarios to assist leaders in exploring possible futures. These are "thought experiments" and not scientific predictions. Planners must be modest about the limitations of these scenarios.[17] Yet scenarios seek to broaden existing intellectual frameworks and probe the implications of paradigm shifts. Modern strategic planners, like Ellis, would benefit from scenarios that test the current posture and readiness against multiple, plausible futures. To create the scenarios, this papers selects three principal geopolitical drivers of change, from among the many noted above: China's emergence as a great power; the increase in failed states with economic and governance deficits; and violent extremism from state-sponsored actors or religiously inspired groups. These three drivers reflect the major trends identified by the National Intelligence Council's long-range Global Trends assessment.[18] When we array these drivers as the axes of a three-dimensional box, we can produce a strategic "planning space" that depicts the range of possible futures.

These drivers, when extrapolated out to their most pronounced states, produce three distinctive projected environments:

- ***Scenario One: Rise of the Red Dragon,*** which focuses on the character of China's re-emergence as an advanced economic and military power.
- ***Scenario Two: Fragmented World,*** which depicts a future characterized by failed states and economic disorder.
- ***Scenario Three: Revenge of the Melians,*** which describes a future of extreme insecurity, including violent but diffused extremism at home and abroad.

Existing trends can support each of these scenarios as a plausible source of future security challenges, but we cannot predict how each scenario will evolve. Each option could produce an environment that ranges from benign or low impact to very volatile or high impact. For example, the rising China scenario could produce benign competition, extreme conflict or anything in between these two futures. Thus, the box that the options collectively describe represents a range of alternative worlds, with potential combinations at each of the corners.

Notionally, each scenario requires a distinctly different set of Marine capabilities and possibly radically different force structures. Yet all of the proposed capability and structure mixes will have to recognize the impact of funding constraints and be built around a force that is either smaller in manpower than the 174,000 end strength currently described by the commandant of the Marine Corps as the smallest viable force for the future or sacrifices substantial elements of current plans for future capabilities to preserve end strength.[19] All of these scenarios represent potential operating environments for the year 2025.

Today's Marine Corps force posture covers a section of this planning space – some areas better than others. The big question for current strategic planners is whether the Corps is well postured to cover the risks presented by the far edges of the planning space and, if not, how to correct this. This paper is a catalyst for further discussion by DOD planners and Marine leaders about the risks inherent to the current size, shape and training of the Marine Corps. Such discussion can lead to a greater awareness of which possible environments the institution is unprepared for (or over-prepared for). The following sections outline the risks and imperatives of each scenario, as well as the strategic Marine Corps structures that follow from these imperatives.

### Scenario One: Rise of the Red Dragon

This scenario addresses the emergence (or re-emergence) of tensions between great powers in the

*The big question for current strategic planners is whether the Corps is well postured to cover the risks presented by the far edges of the planning space and, if not, how to correct this.*

Western Pacific and Indian Oceans. China's rise – in political, economic and military terms – could be the single most significant geopolitical event in the 21st century. Its steadily improving military power and aggressive stance on territorial issues around its eastern and southern periphery throw a dark cloud over the Pacific, and potentially over the Indian Ocean as well. By threatening the margin of military strength that has been the foundation of regional stability, China's activities in cyberwarfare, naval modernization and space capabilities are raising acute concerns for the United States and its partners throughout Asia.[20]

Regional security and prosperity are now threatened. China's stability is tied to its own steady economic growth, which depends on access to critical resources, especially energy. Without these, China's internal economy and domestic political situation will very likely implode. Recognizing this, China's leadership can be expected to go to great lengths to ensure the nation's internal stability and the preservation of the current regime.

In this future scenario, Taiwan's economy has inexorably blended with that of mainland China, and China's navy has extended its focus from securing the East Asian periphery to securing its links to overseas energy resources, particularly those only reachable by routes crossing the Indian Ocean. China's ability to project and sustain power is no longer limited to East Asia and the South China Sea, but it is increasingly contested by its Asian neighbors, particularly India in the waters west of Singapore. The East China Sea goes into a boil.[21]

Both China and India have created modern power-projection fleets (including mid-sized carriers), modest surface fleets and substantial submarine forces, both nuclear and diesel. China has also acquired access to major bases in Iran, Pakistan, East Africa and West Africa, using these to sustain forward-deployed naval forces that can secure its foreign energy investments and aggressively defend its critical sea lines of communication against disruption. With ever-increasing confidence and aggressiveness at sea, China establishes a security relationship with Iran that mirrors the U.S. relationships with Saudi Arabia and the Gulf States and has strengthened ties with Pakistan.

Although it has not reached parity with China's economy, India is nearing China's population level and is asserting its growing naval and air power, including long-range missiles, in what it sees as its historic role of being the security custodian of South Asia and the Indian Ocean basin. Not content to allow Southeast Asia, Sri Lanka or Pakistan to become bridgeheads for a westward-looking China, India is competing with China in these areas and along the African coast, both directly and by proxy, to ensure that the Indian Ocean remains solidly under its control.

As a result of this strategic competition, unfettered U.S. access to the global commons – particularly the trade flows to and from U.S. allies in the Persian Gulf, Indian Ocean and Western Pacific – is under increasing threat, if not directly at risk. Instead of portraying this clash of interests as the spark for a titanic Battle of Midway redux circa 2025 or a vast missile duel off of China's Pacific seaboard, this scenario anticipates more indirect contests, with skirmishes between Indian and Chinese proxies erupting at flash points around the

littorals of the Middle East, Africa, Southeast Asia and Oceania.[22]

In this possible future, a modern Ellis might logically decide to provide a Marine Corps capable of acting as a deterrent through robust power-projection capabilities. The United States would find itself playing a key role in responding to various crises triggered by both of the Asian giants, not only for the sake of its relationships in the Pacific but also in the interest of preserving global stability and economic vitality.

### STRATEGIC RESPONSE TO SCENARIO ONE

For this scenario, we suggest a Deterrent/Power Projection force, which would be embodied in seven Marine Expeditionary Brigades (MEBs) of roughly 14,000 Marines. Three of the MEBs should be based in the continental United States, one in Hawaii and two in the Western Pacific/Indian Ocean. The seventh MEB would be positioned in the Mediterranean region, possibly using one or more bases in Southern Europe. Each MEB would provide the rotation base for a forward-deployed Marine Expeditionary Unit or Special Purpose Marine Air-Ground Task Force (MAGTF) and would be able to deploy rapidly around the world as needed to support the geographic combatant commanders or Special Operations Command (SOCOM).[23]

These brigades would round out the capabilities of forward-deployed Navy and Air Force elements and act as the nation's primary deterrent forces throughout these contested regions, demonstrating a ready and adaptive ability to deliver a potent response to aggression. With a wide range of scalable capabilities, they would provide immediate, credible support to allies and partners; quickly prevail over all but the largest threats; and serve as the lead, "shaping" element of any larger or longer-term national response or solution. Each brigade would be able to deploy as a whole or in subelements, using any combination of warships; amphibious, fast sealift or other commercial vessels; strategic airlift or even self-deployment via MV-22 and C-130J tactical aviation. Because of the reach and speed afforded by the MV-22, the advance elements of these forces would constitute the principal U.S. alert ground force in areas that are difficult to reach quickly from the continental United States. As these brigades closed in on a crisis area, they would leverage the capabilities aboard Maritime Prepositioning Force vessels and possibly other strategically prepositioned materiel.

The MEB structure would do away with standing Marine Division and Wing headquarters, reducing overhead and leaving the sustained land-combat mission and major land-combat tasks to the Army. The ground-combat elements of these brigades would include three infantry battalions, supported by a mix of reconnaissance, tank, amphibious assault, combat engineer and light armor companies, in addition to an artillery battalion of four batteries capable of long-range precision fires. The aviation-combat elements would be built around a mix of tilt-rotor, heavy lift and light attack helicopter squadrons, as well as one C-130J squadron and three squadrons of 10 fixed-wing aircraft. These aircraft would be configured to control a variety of remotely piloted aircraft in numerous roles ranging from direct attack against high-end air defenses to aerial surveillance and even tactical resupply. This would constitute an affordable critical mass of aviation capability that, when the aviation elements of multiple crisis-response brigades are combined, could provide decisive, flexibly based, air-combat power. This force would be maintained at a wide range of locations, both afloat and ashore, within an amphibious objective area, thereby avoiding the need for an extensive preliminary buildup concentrated at a limited number of easily targeted land airbases.

Up to four of these active MEBs could be regularly and quickly combined into a large power-projection force, or Marine Expeditionary Force (MEF), under a standing MEF headquarters based on the

west coast of the United States. This powerful force could conduct large-scale amphibious operations or other theater-opening operations as the lead element of much larger joint forces and give the MEBs significant deterrent value in a "higher-end" scenario.

As this MEF forms, the forward-deployed active forces outside the crisis area would be backfilled as required by forces drawn from Marine Forces Reserve in order to continue providing a global response capability outside the primary crisis area. Constituted from the battalions and squadrons (fixed-wing, helicopter and tilt-rotor) that currently comprise the Selected Marine Reserve, these forces would be equipped and structured to mobilize and deploy within 30 to 45 days to minimize disruption of ongoing missions and support the other regional combatant commands.

By looking at current unit organization, we can estimate sustainable ratios of time deployed to time at home base (or "dwell time"), the typical percentage of the force that is in transit or in school at any given time, and the potential tradeoff between the cost of active-duty end strength and the cost of new ground and aviation procurement. As currently envisioned, this scenario implies a Marine Corps end strength sustained at roughly 185,000 active Marines and 40,000 reservists. However, the actual active end strength would depend on whether the Corps opted to pursue a completely new design for amphibious combat vehicles, upgrade the existing designs or continue with current plans to replace the FA-18C/D and AV-8B fleets with the F-35B. Advanced systems will increase the deterrent power of a smaller force far more than simply holding on to current capability and end strength.

The Navy would also need to preserve the size of its amphibious force and address current shortfalls in naval surface fire support and mine warfare. However, the need for these latter capabilities is most critical to big, deliberate amphibious assaults, which are likely to be linked to the timing of reserve mobilization and deployment.

In this scenario, both the amphibious MEF and the forces in reduced/reserve status should be fully exercised each year, not only to ensure that the mastery of detailed planning, execution and support for "big amphib" operations is kept current but also to reassure U.S. allies and deter would-be adversaries. This routine would systematically explore new thinking about amphibious operations, including a full range of potentially risk-reducing contributions from robotic technologies. Amphibious assault operations would include extensive use of robotic "assault breacher" versions of existing amphibious vehicles that both reduce risk to troops during the leading waves of ship-to-shore movement and augment the combat power of the landing force as it faces potent new anti-access/area-denial (A2/AD) technologies.[24]

Such a force would affordably preserve the flexibility and power of today's expeditionary forces while retaining a robust amphibious power-projection capability. Having a ready, yet affordable, capability to execute forcible-entry operations at a time, place and scale of the United States choosing would produce a potent deterrent effect. This potential would be essential to reassure allies and partners in the Indo-Pacific region who face a growing threat from the so-called A2/AD strategy being pursued by China.[25] If A2/AD strategies appear to be effective in this region, U.S. influence will be diminished, its alliance system undercut and access in the Pacific reduced. This option would also be valuable in a Pentagon strategy focused on assuring access.[26] A notional force structure for this scenario is depicted in Tables 1 and 2.

## Scenario Two: A Fragmented World

This scenario is primarily driven by failed states and urban chaos. At its extreme end, it resembles a scenario developed by the National Intelligence

### TABLE 1. COMPARISON OF ALTERNATIVE MARINE CORPS GROUND FORCE STRUCTURES

| | CURRENT FORCE | DETERRENT/ POWER PROJECTION | SMALL WARS | AVENGER'S SHIELD FORCE |
|---|---|---|---|---|
| **TOTAL END STRENGTH (X 1,000)** | **190 ACTIVE COMPONENT 36 RESERVE COMPONENT** | **185 ACTIVE COMPONENT 40 RESERVE COMPONENT** | **170 ACTIVE COMPONENT 20 RESERVE COMPONENT** | **160 ACTIVE COMPONENT 40 RESERVE COMPONENT** |
| **GROUND COMBAT ELEMENT** | | | | |
| Infantry Battalions | 27 | 21 | 18* | 6 |
| Reconnaissance Companies | 9 | 7 | 3 | 0 |
| Tank Companies | 8 | 7 | 0 | 0 |
| Assault Amphibious Companies | 8 | 7 | 0 | 0 |
| Light Armored Vehicle/Urban Fighting Vehicle Companies | 12 | 7 | 6** | 6** |
| Artillery Battalions | 8 | 7 | 6*** | 5*** |
| Civil Affairs Battalions | 0 | 0 | 3 | 1 |
| Combat Engineer Companies | 9 | 7 | 3 | 3 |
| Military Information Support Operations Companies | 0 | 0 | 3 | 1 |
| Cybersecurity Groups | 0 | 0 | 0 | 3 |
| Chemical Biological Incident Response Force | 1 | 1 | 0 | 3-4 |
| Military Police/ Law Enforcement Battalions | 3 | 1 | 3 | 5 |
| **MARINE CORPS SPECIAL OPERATIONS COMMAND** | | | | |
| Special Operations Battalions | 3 | 3 | 4 | 2 |
| Training/Advisory Battalion | 1 | 0 | 2 | 0 |
| **Total MARSOC** | **2,500** | **2,500** | **30,000** | **5,000** |

* Nine are specialized for urban missions, and another 9 are specialized for stability missions.

** Equipped with Urban Fighting Vehicles.

*** 120-mm mortar batteries.

Source: Current Force numbers: *U. S. Marine Corps Concepts and Programs 2013,* Headquarters, U.S. Marine Corps, Washington, 2013.

**TABLE 2. COMPARISON OF ALTERNATIVE MARINE CORPS AVIATION FORCE STRUCTURES**

| AVIATION COMBAT ELEMENT | CURRENT FORCE | DETERRENT/ POWER PROJECTION | SMALL WARS | AVENGER'S SHIELD FORCE |
|---|---|---|---|---|
| Fixed-Wing Squadrons | 12 FA-18<br>7 AV-8B | 21 total<br>(10 aircraft each) | 8 FA-18 | 6 total |
| C-130 Squadrons | 3 | 2 | 3 AC-130 | 3 |
| Light Rotary-Wing Squadrons | 8 | 7 | 9 | 6 |
| Medium Rotary/Tilt-Wing Squadrons | 15 | 14 | 9 S-92, 9 CV-22 | 6 S-92, 6 CV-22 |
| Heavy Lift Rotary-Wing Squadrons | 9 | 7 | 4 | 6 |
| Unmanned Aerial Vehicle Squadrons | 3 | 3 | 3 | 3 |

Source: Current Force numbers: *U. S. Marine Corps Concepts and Programs 2013,* Headquarters, U.S. Marine Corps, Washington, 2013.

Council in 2004 in which "weak governments, lagging economies, religious extremism, and youth bulges align to create a perfect storm for internal conflict in certain regions."[27] In this alternative future, the type of turmoil associated with the Arab Spring broadens into a winter of discontent and open disorder across wide areas from West Africa to Southeast Asia. Spurred by the failures of the Muslim Brotherhood in Egypt and the collapse of Syria, numerous Islamic counter-revolutions emerge across the Muslim world.[28] The spill-over effects lead transnational networks to grow in power and lethality and begin to undercut governance and security relationships, particularly in the Middle East and Asia but also in the Western Hemisphere.[29]

This perfect storm would result in numerous failed states and large-scale civil disorder in major cities in the developing world. Some of these states – such as Pakistan, Saudi Arabia or Mexico – may threaten critical U.S. interests, although others in Africa or South Asia might not.[30] As we have seen in Libya and Syria, extremist groups may gain access to elements of the failed state's nuclear or chemical weapons programs or advanced anti-air or anti-ship missile systems.[31]

This potential future includes persistent chaos in the littoral regions and in ungovernable "feral cities."[32] Although the United States might choose to ignore many of these troubled areas, their sheer number is likely to eventually produce threats to key interests of the United States and its partners. This, in turn, would lead to a number of armed stabilization missions, many if not most of which would be protracted, along the littoral regions of the developing world. Sprawling megacities in Africa and Asia would be the most frequent operating environment for Marines, who would be operating beyond the traditional mission of "seize, occupy and defend."

### STRATEGIC RESPONSE TO SCENARIO TWO

In scenario two, an optimal Marine Corps would revert to its pre-World War II roots and exploit its versatility and institutional experience in small wars. Some historians, such as Max Boot, have urged this approach.[33] The Corps would build on its combat-proven ethos of adaptability and

warfighting excellence and exploit its institutional agility for this new era. It would also expand its contributions to sea-based units capable of special operations and enable or support special operations.

This Small Wars approach would require altering the basic structure of the Marine Corps. Although the basic Marine MAGTF concept could be retained, it would need to be organized into more modular components as warranted by specific operational challenges. As needed, ground units would be further adapted to provide specific mission expertise. Under this approach, the Corps would retain 18 infantry battalions but divide them into nine traditional "rifle" battalions and nine stability battalions. The traditional rifle battalions would train to be the world's experts in assault roles in urban warfare, with frequent opportunities to train in this demanding operational environment at the world's best training site. They would be specialized for operations in the world's littoral mega-cities and would regularly rotate into the Marine component at SOCOM to support joint operations that are beyond the capabilities of special operations forces. The stability units would be regionally oriented and would focus on security, stability and governance tasks in dangerous or contested environments. These units would not be specialized for urban operations.

Although the two battalion types would have many skills in common, they would differ substantially in their equipment sets. Instead of maintaining heavy assets like tanks, long-range rocket systems and amphibious assault craft, this Marine Corps would be substantially lighter and more mobile. Plans for future replacements for the M1A1 main battle tanks and the Amphibious Combat Vehicle would be scrapped. Although potentially ideal for a Marine Corps built around the rare forcible-entry operation, Amphibious Combat Vehicles would be inadequate for tactical maneuvers during small wars, especially in urban areas. In this scenario, the Marine Corps would instead focus on acquiring a medium-weight platform that would be provide mobility akin to the existing light armored vehicle but with higher protection suitable for urban combat.[34]

A focus on small, typically urban, wars would also require the creation of new units to address specific capability shortfalls: psychological operations, security cooperation and training of foreign militaries, and active-component civil affairs. Such a scenario would require nonkinetic capabilities to win the battle of narratives and influence local populations. These capabilities would be embodied in two military information-warfare battalions to help the MAGTF commander excel in information operations. Thus, MAGTF commanders could better maneuver in the information domain, interact with local governments and dominate the narrative.[35] In addition to active-duty civil-affairs battalions, a dedicated training and advisory capacity would be needed.[36] Such capabilities would be organized into a pair of Marine Special Operations Brigades that would be highly useful as enablers and "utility" complements to the existing Marine special operations command in the "savage wars of peace" postulated in this scenario.[37] Most analysts believe that the future will bring increased reliance on special operations forces, but these forces are in limited supply. Their impact could be maximized with a sea-based posture that exploits amphibious or maritime shipping.[38] A marriage of Marine utility and highly skilled special operations forces would be one way to create low-footprint synergy from the sea.[39]

In this option, Marine aviation would need additional rotary-wing assets suited for urban operations and special operations support. The Marines would rely on traditional, and much more affordable, medium-lift helicopters for their extensive operations in urban

areas. Marine aviation would also rely more on long-loiter unmanned aerial systems and AC-130 aircraft, as well as balancing on-going procurement of the F-35B with reductions in other ground-combat programs. Although the F-35B might appear to have less utility in this environment, its highly sophisticated sensors, data architecture and other combat systems, as well as its distributed basing capability, provide an opportunity for a whole new approach to precision special operations support – a high-performance (and cyber) dimension of special operations capability that does not yet exist.[40] The current augmentation of Navy carrier air wings by Marine squadrons would end, and these squadrons would be retained for support of Marine Expeditionary Brigade deployments.

By extrapolating from existing estimates for new personnel requirements, we estimate that this force would consist of 170,000 Marines – which is smaller than what the Marine Corps has determined to be optimal.[41] However, a longer training and education pipeline would be required to provide the desired intellectual agility, culture and language acuity, and high level of urban combat skill. Furthermore, this force would be slightly older (and therefore more costly). This plan would also require substantially increasing officer and enlisted education programs and expanding the Marine Corps University by an order of magnitude.[42] Increased support for special operations forces would relieve them of the need to continue projected increases and focus scarce resources on high-tier missions.[43]

Thus, an active-duty end strength of 170,000 Marines is proposed for the Fragmented World scenario, with a smaller reserve component of only 20,000 Marines to sustain certain key skill sets for cyberwarfare, information warfare and security cooperation capabilities.

## Scenario Three: Revenge of the Melians

The third scenario draws its name from the historical example of the Melians, who occupied a small island in the Cretan Sea. In the famous Melian Dialogue captured by Thucydides, the Athenian heralds warned the Melians that power was the coin of the realm and that "the strong do what they wish and the weak suffer what they must."[44] The inhabitants of Melos paid for their moral stance with their lives; their city was destroyed, and their families were sold into slavery. Modern counterparts to the Melians can now strike back directly at modernity and globalization represented by the current-day equivalent of Athens via terrorism, cyberattacks or the threat of weapons of mass destruction.[45]

The principal driver in this scenario is violent extremism stemming from anti-Western and anti-globalization sentiments. It is fanned by the collapse of long-standing political and social systems in the Middle East and could be aggravated by deep economic instability arising in the undeveloped world. At the scenario's extreme edge, numerous non-state groups and super-empowered individuals use violence to create and sustain their own political and ideological agendas.[46]

This Avenger's Shield Force option requires a Marine Corps that is uniquely prepared for a world of powerful individuals and networks.[47] This represents the essence of what has been called fourth-generation (or by some, fifth-generation) warfare (4GW/5GW). Today's "long war" makes the originators of the concept of fourth-generation warfare appear prophetic. This idea correctly captured the rise of non-state actors, the confluence and blurring of civilian and military spheres, and the salience of culture and popular will.[48]

In this scenario, U.S. adversaries create violent events to convey tailored messages to enemy policymakers over a protracted period. They exploit a full spectrum of political, social, economic and military

networks through a mixture of transnational and subnational actors.[49] This world is marked by the increased power of smaller and smaller groups and the explosion of biotechnology.[50] The U.S. intelligence community has judged that the employment of biotech weaponry not only is feasible but also could have devastating consequences – becoming a true "game changer" against America.[51] 5GW advocates focus on this potential threat to the homeland.[52]

The nexus of violent al Qaeda associates, other Islamic extremists and transnational criminal organizations comes full circle in this imagined future. Large violent gangs have proliferated throughout the developed world and have no compunction about urban violence. Non-state actors possess weapons of mass destruction and have successfully employed them. Several states in Africa and South Asia are virtually ungoverned. The U.S. economy has continued to struggle, despite the burgeoning domestic energy industry, and has suffered yet another steep decline in the banking and transportation industries.

Threats close to home take greater precedent. America suffered three acts of catastrophic terrorism after 2015. The first was a series of mysterious airplane crashes, which killed only 500 citizens but sharply curtailed the transportation sector of the U.S. economy. A number of small anthrax attacks took place in U.S. cities. The anthrax was genetically modified to produce small but hardy spores that lasted much longer in the air than traditional forms, which increased its deadly effect to several thousand fatalities per incident.[53] Finally, a major radiological, or "dirty," bombing occurred at the major oil refinery near Long Beach, CA. Given the severe economic crisis and the government's need to husband resources while dealing with extraordinarily disruptive threats to the homeland and the American way of life, the role of the U.S. military could change significantly as it takes on more responsibility for protecting U.S. bases and embassies overseas, as well as maintaining homeland security, with Northern Command displacing Department of Homeland Security resources. American inhibitions and laws regarding the domestic use of armed military forces would be substantially revised given the persistent character of the threat to the homeland.[54]

*The U.S. intelligence community has judged that the employment of biotech weaponry not only is feasible but also could have devastating consequences – becoming a true "game changer" against America.*

### STRATEGIC RESPONSE TO SCENARIO THREE

In this environment, the posture of the Corps would be extensively altered. Its role as a force in readiness would remain, but the nature of the threat would mean that it would be used just as often for what are now considered homeland security tasks as for overseas missions. The number of Marines assigned to State Department duty would increase. Additionally, the Marine Corps would be a force provider to both SOCOM and Northern Command to support the Department of Homeland Security. In this alternative world, non-SOCOM Marines are routinely allocated to border security (especially those associated with maritime access), critical infrastructure protection, disaster relief and urban security missions near home and overseas. Marine Special Operations Command, in turn, would be reinforced with extensive command and control, intelligence, aviation and logistics augmentation compared to today's small contingent of 2,600 Marines.

As in the previous scenario, Marine operational forces would be organized into six permanent MAGTFs of brigade size and a single Marine expeditionary force/force readiness command headquarters.[55] Five of the brigades would have a ground combat element made up of an infantry battalion, a law enforcement battalion and a composite battalion with a robust chemical and biological incident-response force and an extensive domestic interagency/civil affairs staff.[56]

The infantry battalion would be trained in urban security operations and follow a training program similar to that of today's fleet antiterrorist security team. Ground mobility would require a new urban fighting vehicle. These vehicles would use sophisticated sensors to detect weapons of mass destruction. The Corps would not field any tanks, amphibious vehicles or artillery forces.[57]

A single, small brigade would be assigned to SOCOM. The aviation combat element for the brigade would include a squadron of F-35Bs dedicated to the precision support of special operations forces. However, the brigade would rely extensively on rotary-winged assets, as well as AC-130s and numerous unmanned aircraft, all of which could be controlled by F-35Bs and used to augment high-performance and precision-engagement capabilities. These unmanned aircraft would be organized in their own aviation group, reflecting not only a sharp increase in the use of unmanned systems by the Corps but also the central role of such systems in supporting operations in all four elements of the MAGTF. Such a force would play a large role in pushing back against proxy forces and more unconventional threats in the Middle East.[58]

For long-range missions and situations requiring increased responsiveness at long distances, the Corps would rely on CV-22s. But for situations involving low-level transits and insertions in urban areas, a different helicopter platform like the S-92 would be more cost effective.

On basis of the structure shifts and expected personnel overhead costs described in the previous scenarios, we estimate that the end strength for such a force could be in approximately 160,000 Marines. However, this figure would not necessarily account for "dwell" time as discussed above. The Corps would have a number of naval detachments and extensive riverine/boat units but would not be responsible for forcible entry or regular amphibious deployments. Thus, the amphibious fleet would be far smaller than it is today.

## IV. RECOMMENDATIONS

Within the planning "box" described by these three scenarios and their associated force options, we recommend a hybrid variant of the Deterrent/Power Projection force that we term the Crisis Response force. This force would be focused not only on the Rise of the Red Dragon scenario but also on crisis response in support of all the regional combatant commands. It would take into account both the overall impact of continued funding constraints and the Marine current investment program.

Within this hybrid option, crisis response capabilities would be principally embodied in four MEBs, one based on each coast in the continental United States, one in the Western Pacific and one in the Mediterranean region, possibly using one or more bases in Southern Europe. As in the Deterrent/Power Projection alternative, each MEB would provide the rotation base for a forward-deployed Marine Expeditionary Unit or Special Purpose MAGTF and would be globally deployable as needed to support the geographic combatant commanders or SOCOM.[59] These brigades would be the core of nation's conventional alert forces, able to deploy quickly to provide the initial national response to emerging crises but with sufficient sustainability to operate for weeks without immediate reinforcement or need for an immediate decision on reserve call-up. With a wide range of scalable capabilities, they could provide rapid support to allies and partners, quickly prevail over a small to medium threat or stabilize the immediate situation and buy time for U.S. leaders to orchestrate a larger national or international response.

As outlined in the first scenario, each brigade would be able to deploy as a whole or in sub-elements, using any combination of available lift options, including organic aviation. The reach and speed afforded by tilt-rotor technology would allow advance elements of these forces operating from advanced bases or maritime platforms to constitute the nation's first responders in the vast majority of crisis responses. Other existing conventional forces in the United States, would still form an important component of the Joint Force toolkit and would complement the MEBs as part of a global crisis-response system.

Unlike the force described in the first scenario, these brigades would each include four infantry battalions but would still be supported by a mix of reconnaissance, tank, amphibious assault, combat engineer and light-armor companies, as well as an artillery battalion of five batteries capable of long-range precision fires. Ground formations would be augmented by robotic resources and exoskeleton suits for various load-bearing, mobility and urban fighting tasks.[60] The Marines established their initial needs statement for these capabilities in 2004, and now is the time to start implementing them.[61] Tactical unmanned systems, both ground and air, would be ubiquitous rather than concentrated in stand-alone units. The Corps would be a leader in unmanned and exoskeleton systems, exploiting the game-changing potential of these developing technologies in many battlefield functions, including logistics.[62]

Aviation combat elements would continue to be built around a mixture of tilt-rotor, heavy-lift and light-attack helicopter squadrons and one C-130J squadron, but they would also have three F-35B squadrons of 12 aircraft each, a smaller ratio of fixed-wing squadrons to infantry battalions (though each fixed-wing squadron would have two additional aircraft). All of those elements would be possess a range of remotely piloted platforms, for a variety of roles ranging from assault breaching to precision attack against high-end air defenses, air-to-air combat, and even tactical resupply. The savings from lowering the total number of aircraft purchased under existing plans would be applied to aggressive development of air and ground robotic systems that would amplify the potential combat power of each manned aircraft.

As in the Deterrent/Power Projection option, these four active MEBs could be quickly combined into a MEF under a standing MEF headquarters based in the continental United States. Alternatively, this force – most likely formed for a major amphibious power-projection mission – could be formed by forces drawn from the Marine Forces Reserve in order to allow the active MEBs to continue providing global response capability. Although this would represent a dramatic departure from the traditional Marine Corps (and Army) bias against using reserve-component forces for "the main event," it would allow the Marine Forces Reserve to focus on, and specialize in, amphibious warfare. This would be consistent with the virtual certainty that any mission of such scale would arise in the context of a major national reserve call-up, and it would allow for force-sizing economies associated with a mission that is widely regarded as relatively low probability in the near term.

We can predict the necessary end strength for this force by looking at current unit organizations, sustainable ratios of time deployed to time at home base (dwell time), the typical percentage of the force at any given time that is in transit between duty stations or in schools, and the trade-off between the cost of active-duty end strength and the cost of F-35B procurement. Taking these factors into account, we estimate that this scenario involves a Marine Corps end strength sustained at roughly 160,000 active Marines and 40,000 reservists.

Given the current world trends regarding disorder and instability that require timely and responsive crisis-response mechanisms, as well as the continuing prospect of significant fiscal pressure on the defense budget, we believe that the Crisis Response variant is the most useful of the force alternatives presented here.[63] In terms of the scenarios described herein, this prospective force is poised between the Rise of the Red Dragon and Fragmented World vectors. The rise of China as a threat is less probable but generates potential consequences that cannot be tolerated. Failed states and under-governed areas are far more probable, but the threats are not as extreme. This is a calculated posture that strives to balance the Corps' unique maritime presence and flexibility of maneuvering at sea with its responsive capacity to stabilize small crises. The threat posed by terrorism is allocated to Special Operations Command and the intelligence community, but Marine Security Guard Battalion assets could also be strengthened slightly. This option is consistent with proposed principles for sustainable preeminence, particularly the prioritization of naval forces and increased service interdependence.[64]

This force option gives the nation what it needs now as an efficient means of responding to crises in an era of emergent instability and disorder, and it also provides a balanced capability set that can provide time and decision space for theater commanders and the nation's leaders. With sufficient capability to contain a range of threats and challenges before they require a full-scale commitment of national military power, this force also focuses the limited resources available for readiness and for likely requirements of potential forced-entry operations.[65] The latter types of mission remain possible but reflect strategic requirements where risk will have to be consciously taken.

This alternative will provide the Marines with a distinctive role and mission and reduce confusion while still ensuring that the Marine Corps can augment the Joint Force during major combat operations.[66] This option retains both the capabilities and the capacity to conduct joint access operations.[67]

At the same time, the nation will ultimately have to confront the types of security challenges inherent in the Fragmented World and Revenge of the Melians scenarios, and the Marine Corps must be prepared to respond with the appropriate

**TABLE 3. COMPARISON OF CURRENT AND CRISIS RESPONSE MARINE CORPS GROUND FORCE STRUCTURES**

| | CURRENT FORCE | CRISIS RESPONSE |
|---|---|---|
| **TOTAL END STRENGTH (X 1,000)** | **190 ACTIVE COMPONENT 36 RESERVE COMPONENT** | **160 ACTIVE COMPONENT 40 RESERVE COMPONENT** |
| **GROUND COMBAT ELEMENT** | | |
| Infantry Battalions | 27 | 16 |
| Reconnaissance Companies | 9 | 4 |
| Tank Companies | 8 | 4 |
| Assault Amphibious Companies | 8 | 4 |
| Light Armored Vehicle/Urban Fighting Vehicle Companies | 12 | 4 |
| Artillery Battalions | 8 | 4* |
| Civil Affairs Battalions | 0 | 0 |
| Combat Engineer Companies | 9 | 4 |
| Military Information Support Operations Companies | 0 | 0 |
| Cybersecurity Groups | 0 | 0 |
| Chemical Biological Incident Response Force | 1 | 0 |
| Military Police/ Law Enforcement Battalions | 3 | 0 |
| **MARINE CORPS SPECIAL OPERATIONS COMMAND** | | |
| Special Operations Battalions | 3 | 3 |
| Training/Advisory Battalion | 1 | 1 |
| **Total MARSOC** | **2,500** | **2,500** |

* Each consisting of 4 lightweight 155-mm howitzer batteries.

Source: Current Force numbers: *U. S. Marine Corps Concepts and Programs 2013,* Headquarters, U.S. Marine Corps, Washington, 2013.

capabilities. A sea-based Crisis Response Marine Corps is relatively accessible and affordable in the near term, particularly as it trades size (end strength and personnel costs) against the capability gains represented by the F-35B and MV-22. However, such a Corps would have to develop capabilities and refine its structure to address the failed states and violent extremists that are already destabilizing security in several regions. The costly investment in aviation capabilities must not only yield incremental improvements but also radically change the precision, reach and agility with which the Corps fights. This force would take a more distributed operational approach that exploits the synergies of the Marine air-ground team within tomorrow's contested zones.[68]

**TABLE 4. COMPARISON OF CURRENT AND CRISIS RESPONSE MARINE CORPS AVIATION FORCE STRUCTURES**

| AVIATION COMBAT ELEMENT | CURRENT FORCE | CRISIS RESPONSE |
|---|---|---|
| Fixed-Wing Squadrons | 12 FA-18<br>7 AV-8B | 12 F-35B |
| C-130 Squadrons | 3 | 4 KC-130J |
| Light Rotary-Wing Squadrons | 8 | 4 |
| Medium Rotary/ Tilt-Wing Squadrons | 15 | 12 |
| Heavy Lift Rotary-Wing Squadrons | 9 | 4 |
| Unmanned Aerial Vehicle Squadrons | 3 | 4 |

Source: Current Force numbers: *U. S. Marine Corps Concepts and Programs 2013,* Headquarters, U.S. Marine Corps, Washington, 2013.

Our evaluation of the merits of the four alternative forces presented here is displayed in Table 5. We informally assessed the force designs according to four criteria: deterrence, partner reassurance, versatility and cost. Although the Power Projection force offers a great deal of deterrent value, its cost is high, and other capabilities in the nation's arsenal could generate more deterrence by punishment than the Marines. Conversely, the Avenger's Shield Force described in Revenge of the Melians is more affordable but very specialized and less useful as a possible partner within the Joint Force. For local scenarios, this option would be hard pressed to be as responsive as existing first-responder assets and the National Guard. All of the force options could exploit unmanned and robotic capabilities better than current U.S. Marine force-planning efforts.

*We do insist that [Marine Corps] structure be shaped to serve best "from the sea," integrated with the Navy.*

More than 60 years ago, the nation's leadership elected to frame the Marine Corps as an integrated air-ground force capable of responding immediately to a wide range of flash points. We too see the need for a Corps that can provide response across a spectrum of crises, from conventional force-on-force/state-based conflict to the violent cauldron of failing states and feral cities to the often amorphous but deadly threats of violent, empowered extremists. We do not seek to shortchange the role of the Marine Corps in our national security architecture, but as suggested by Congress, we do insist that its structure be shaped to serve best "from the sea," integrated with the Navy.[69]

**TABLE 5. EVALUATION OF FOUR MARINE CORPS FORCE OPTIONS**

| | DETERRENT/ POWER PROJECTION | SMALL WARS | RADICAL FORCE | CRISIS RESPONSE |
|---|---|---|---|---|
| Deterrence | High | Moderate | Low | Moderate |
| Reassurance | High | Moderate | Moderate | High |
| Versatility | Moderate | Moderate | Low | High |
| Cost | High | Moderate | Low | Moderate |

## V. CONCLUSION

These scenarios present what we believe are new battlefronts that constitute "the box" in which lie a range of "disruptive" options for force design. These options can be used to stimulate discussion in QDR implementation and subsequent debates over roles and missions in an age of austerity and dynamic technological change.[70] They also pose varied solutions for the nation's "force in readiness."

"Ready for what?" is certainly a question in need of an answer.[71] Should a new "Operation Plan 21" posture the Corps for a single driver or strike a balance between several potential futures? We believe the latter because of the dynamic character of the strategic environment and the diverse risks posed by numerous trends. This option also balances the posture of the Corps against converging technologies and hybrid threats.[72] Given the upcoming severe but necessary reductions in the Pentagon budget, this plan will require a judicious risk calculus from a joint, and even national, perspective. Few Marine leaders have taken such a perspective or factored in today's fiscal reality.[73]

In our view, these options frame the planning space that a modern-day Pete Ellis would have to consider in arriving at an answer. Ellis would probably not solely examine amphibious options for the Corps in a replay of War Plan Orange in the Pacific. He was a first-rate strategist who saw threats and opportunities well ahead of his contemporaries and was capable of strategic thinking across the conflict spectrum.[74]

Advances in several technologies portend disruptive changes in the security environment, as both threats and opportunities.[75] The reputation of the Marine Corps for anticipatory conceptual development and experimentation goes back to Ellis and must be extended if the Corps is to remain a force in readiness. Although amphibious operations may be complicated by A2/AD threats, they are likely to remain useful to policymakers, and the Marine Corps should continue to explore creative solutions for 21st-century challenges.[76] The Marines recognize that "as adversaries and weapons grow more advanced, amphibious doctrine must evolve, and the Navy-Marine Corps team must keep the blade sharpened for sea-to-shore capabilities."[77] Ellis would agree, as seaborne crisis response affords decisionmakers innumerable advantages in creating and controlling options.[78]

There are signs that the Marines are searching for, and adapting to, new ideas and formations.[79] Some Marine leaders are calling for out-of-the-box, disruptive thinking.[80] But the future will be highly complex, and a premium should be placed on versatile forces, not narrow, specialized or single-purpose assets. The Corps must find a new balance between maintaining the enduring traditional logic of its role as soldiers of the sea and meeting the challenges of a new security environment. It cannot just become a smaller version of its pre-Iraq force design.[81] A new force structure will also have to take into account DOD decisions regarding the Army's force structure.[82] Given the breadth of the vast Pacific theater, there are plenty of missions to keep American ground forces occupied.[83]

This essay offers several alternative scenarios and force options to catalyze discussion. The options stress some elements of the Pentagon's current strategic guidance to test assumptions and assess risk.[84] Each alternative structure supports a plausible future and accounts for some implications of that future on the design of the force. None of these singular futures is likely, but each could occur. Perhaps elements of all three worlds will emerge at once in different regions. Whatever happens, 238 years of history suggests that the Marines will be ready.

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83. Rajiv Chandrasekaran, "Army's 'Pacific Pathways' Initiative Sets up Turf Battle with Marines," *The Washington Post,* December 29, 2013.

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