The end of the cold war has shifted the attention of U.S. Navy from the open ocean to the world’s littorals. Operational Maneuver From the Sea (OMFTS) and Ship to Objective Maneuver (STOM) are the flagship concepts that the sea services are maturing to adapt amphibious operations to this new threat environment; OMFTS at the operational level and STOM at the tactical level. However, after years of experimentation, OMFTS and STOM are exhibiting friction points, most notably in the area of logistics. Are these challenges merely the growing pains of amphibious evolution or could they be symptoms of a greater problem, flawed operational art?

OMFTS-STOM, as envisioned in concept, threatens to unhinge an operationally successful, battle-tested, operational art construct (trade space for time, invest time in force, apply force at decisive point) by over-emphasizing space and time (maneuver and tempo) at the expense of force. The most alarming impacts of such a shift in amphibious doctrine will be felt on logistics. This paper explores the rationale and logic behind the current vector of ongoing transformation through a logistic and operational art lens and suggests the U.S. maintain a flexible amphibious capability, comprised of both traditional and evolving amphibious operations concepts.
OPERATIONAL ART AND THE AMPHIBIOUS ASSAULT: WILL OMFTS BREAK THE U.S. AMPHIBIOUS ASSAULT SWORD?

by

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

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3 February 2003

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The end of the cold war has shifted the attention of U.S. Navy from the open ocean to the world’s littorals. *Operational Maneuver from the Sea* (OMFTS) and *Ship-to-Objective Maneuver* (STOM) are the flagship concepts that the sea services are maturing to adapt amphibious operations to this new threat environment--OMFTS at the operational level and STOM at the tactical level. However, after years of experimentation, OMFTS and STOM are exhibiting friction points, most notably in the area of logistics. Are these challenges merely the growing pains of amphibious evolution or could they be symptoms of a greater problem, flawed operational art?

OMFTS and STOM, as envisioned in concept, threaten to unhinge an operationally successful, battle-tested, operational art construct (trade space for time, invest time in force, apply force at decisive point) by over-emphasizing space and time (maneuver and tempo) at the expense of force. The most alarming impacts of such a shift in amphibious doctrine will be felt on logistics. This paper explores the rationale and logic behind the current vector of on-going transformation through a logistic and operational art lens and suggests the U.S. maintain a flexible amphibious capability, comprised of both traditional and evolving amphibious operations concepts.
INTRODUCTION

Amphibious flexibility is the greatest strategic asset that a seapower possesses. B.H. Liddell Hart, “The Value of Amphibious Flexibility and Forces”

The end of the cold war has shifted the attention of U.S. Navy from the open ocean to the world’s littorals. *Operational Maneuver from the Sea* (OMFTS) and *Ship-to-Objective Maneuver* (STOM) are the flagship concepts that the sea services are maturing to adapt amphibious operations to this new threat environment--OMFTS at the operational level and STOM at the tactical level. The defining principles of OMFTS are: a focus on an operational objective; use of the sea as maneuver space; generation of overwhelming tempo and momentum; pitting of strengths against weaknesses; emphasis on intelligence, deception, and flexibility; and an integration of all organic, joint, and combined assets.¹ STOM is the tactical piece of OMFTS and is distinguished by the absence of lodgement--an evolution which would break the momentum so crucial to OMFTS; STOM emphasizes uninterrupted movement from ship to objective, avoiding a beach head.² While OMFTS and STOM represent the sea services’ efforts to bring amphibious operations into the twenty-first century, they are, after years of experimentation, exhibiting friction points, most notably in the area of logistics. Are these challenges merely the growing pains of amphibious evolution or could they be symptoms of a greater problem, flawed operational art?

OMFTS-STOM, as envisioned in concept, threatens to unhinge an operationally successful, battle-tested, operational art construct (trade space for time, invest time in force, apply force at decisive point) by over-emphasizing space and time at the expense of force. The most alarming impacts of such a shift in amphibious doctrine will be felt on logistics. This paper will explore the rationale and logic behind the current vector of on-going transformation through a logistic and operational art lens. The central question for the reader
to keep at the fore is this: do the benefits conveyed by the speed and tempo of OMFTS-STOM outweigh the cost in operational power and weight to such a degree that amphibious doctrine, based on decades of operational success, should be so compromised? In order to properly frame the discussion of how the OMFTS-STOM conceptual construct will potentially affect doctrine evolution and subsequent amphibious operations, it is useful to first examine the foundation of our current amphibious doctrine.

THE SUCCESSFUL RECORD OF AMPHIBIOUS ASSAULT

The raising of that flag on Suribachi means a Marine Corps for the next 500 years.
James Forrestal, Secretary of the Navy, 23 February 1945.

The heritage of U.S. amphibious assault is steeped in operational success. The roots of this success can be found in the foresight and work of Lt Col Pete Ellis, USMC; specifically his prophetic document, “Advance Base Operations in Micronesia,” which became the cornerstone of Marine Corps strategic planning for a Pacific War. Prior to World War II, building on Ellis’ effort, a Quantico-based Marine study group produced the Tentative Manual for Landing Operations, the backbone of U.S. amphibious doctrine for forces in every theater during World War II. The relevance and utility of this doctrine was such that U.S. forces, both Army and Marine, were able to successfully execute amphibious assaults in every major theater, against a broad range of threats and facing a wide spectrum of anti-landing defenses--from the light opposition of MacArthur’s New Guinea Campaign to arguably the most formidable anti-landing defense ever created, Rommel’s Atlantic Wall. In World War II the United States executed 58 major amphibious landings/assaults; every one a success. Amphibious assault characterized the war in the Pacific Theater and opened the door to our engagement in the European Theater.
U.S. amphibious doctrine has also proved effective as a deception tool, lending credibility to the implied threat of the amphibious assault. In the modern era, British forces in the Falkland Islands conflict benefited from a mistaken Argentine assumption that a British landing would come at Port Stanley; an assumption based primarily on the notion that U.K. assault forces would be using U.S. amphibious doctrine. The British reinforced this notion, and, consequently, the Argentines focused the major effort of their defense at Port Stanley while the actual landing came at San Carlos Water. Another example of the implied power of traditional amphibious assault was demonstrated during Operation DESERT STORM, when three Iraqi infantry divisions were ultimately occupied by the threat of an amphibious landing staged by U.S. Marines off Kuwait. Thus, the potential power of traditional amphibious assault is two-fold: implied and actual; U.S. amphibious doctrine has served admirably in both regards, and we should pause before reducing it as OMFTS prescribes, for the consequences of such a reduction are two-fold as well. Given this record and the effectiveness, durability, and operational success of such doctrine, it begs the question: why change?

WHY CHANGE DOCTRINE? THE CASE FOR OMFTS

The heart of Operational Maneuver from the Sea is the maneuver of naval forces at the operational level, a bold bid for victory that aims at exploiting a significant enemy weakness in order to deal a decisive blow.

“Operational Maneuver from the Sea”

Despite a rich history of success, the death knell is ringing yet again for traditional amphibious assault. Why? Simply, the evolution of doctrine is healthy and the sea services recognize this. Evolving amphibious doctrine is smart, especially when faced with the complex threat environment of the twenty-first century; OMFTS is leading the charge in adapting amphibious operations to meet this challenge. The OMFTS-STOM central focus
lay in using the sea as a maneuver space; landing where the enemy isn’t; placing him on the horns of a geo-positional dilemma, forcing him to always wonder where the attack will come; and always aiming for the operational objective and the enemy center of gravity, seeking operational yield for tactical investment. Proponents of OMFTS-STOM argue that traditional amphibious assault is a relic, that “naval forces must dispense with previous amphibious methods in which operational phases, pauses, and reorganizations imposed delays and inefficiencies upon the momentum of the operation”; in short, no more lodgement. Herein lays the operational art concern: the emphasis of space (maneuver) and time over force and the components necessary to project and sustain operational power and prevent culmination.

**MESSING WITH SUCCESS?**

The importance of properly evaluating the factor of force in planning for, and conducting a campaign or major operation cannot be adequately emphasized.

Milan Vego, *Operational Warfare*

One could argue that the bitter fruit of OMFTS’ over-emphasis on space is being sampled today in the OMFTS-STOM experimental shakedown. In 1998 the USMC identified several challenge areas that were to drive OMFTS-STOM experiments in 2000 under CAPABLE WARRIOR; these challenges were: over the horizon communications on the move, sea-based expeditionary fires, sea-based logistics, mine counter-measures, and USN-USMC relationships. Note, all of these challenges affect the operational factor force. Prominent among these force concerns is logistics, a U.S. critical strength that, under OMFTS-STOM, has potential to become a critical vulnerability. The logistic challenges seen today in OMFTS could threaten what has been an incredibly successful record of amphibious
success and may well bring U.S. amphibious forces dangerously close to the culminating point.

**COURTING CULMINATION**

Lack of adequate *logistical support* is probably one of the most frequent causes of culmination.

Milan Vego, *Operational Warfare*

Logistics vulnerability is a key factor of incurring culmination; two accelerators of logistic culmination are an untenable distance from base to objective and a lack of operational pause to regenerate combat power. The OMFTS-STOM construct runs dangerously afoul of these operational art by-laws. A significant piece of the OMFTS construct is sea-basing, a logistic concept that places supply ships/mobile off-shore bases over the horizon, far away from the littoral threat. Those supplies would then be airlifted directly to forces ashore, eliminating the need for a lodgement; however, the elimination of the lodgement has two potential negative effects: it increases the distance between base and objective, thus threatening overextension, and eliminates operational pause and with it the ability to regenerate combat power. A logistic construct that exhibits one of these traits should give the operational planner pause; a construct that exhibits both, as does OMFTS-STOM, should cause serious concern for the integrity of operational sustainment.

Furthermore, the OMFTS concept invests heavily in a consistent ability to translate tactical effort into operational yield. Given the logistic challenges witnessed in experimentation efforts, the more likely pay-off is frequent culmination. Are these challenges a product of trying to pull operational weight through a tactical straw? Sometimes operational problems and objectives require operational weight. A doctrine dependent upon the routine yield of operational weight from tactical force seems to dangerously flirt with culmination.
LOGISTIC DEMONS OF THE AIR BRIDGE

Sustaining troops in forcible entry operations into immature theaters is usually fraught with great difficulties. Light forces with limited supplies are inserted initially, but their success often depends on the prompt arrival of properly balanced combat and support forces. Milan Vego, Operational Warfare

Courting the culminating point is a significant concern for the operational commander. Efforts to recognize and prevent culmination are among some of the most difficult considerations in warfare. The air bridge, a key piece of the STOM construct, brings historic baggage that indicates a propensity to hasten culmination; this should be a concern for the operational commander as well as shapers of doctrine. History provides many cautionary tales addressing the vulnerability and limitations of the air bridge, including the famous episodes at Stalingrad and Dien Bien Phu, and the not-so famous, but very relevant to OMFTS, 1974 Turkish invasion of Cyprus.

Outside Stalingrad, the Soviet-encircled German Sixth Army was promised air supply from the Luftwaffe as the only means of sustaining combat power and effectiveness; however, weather and Soviet air defenses impacted the Luftwaffe’s supply effort to such a degree that a rate of only ninety-four out of the necessary 400 tons per day was achieved; the Sixth Army withered away and eventually capitulated.11

Perhaps the most infamous air bridge lesson occurred at Dien Bien Phu in 1954. The French experience at Dien Bien Phu provides the premier example of the lesson that “an over dependence on air support and supply can lead to disaster during a guerilla-type campaign in difficult terrain or adverse weather conditions.”12 French troops were guaranteed fifty supply drops per day; however, “weather, anti-aircraft fire, mechanical wear and tear, and crew exhaustion made this goal almost impossible to meet.”13 The French rapidly met their culminating point. Additionally, Dien Bien Phu casts an ominous mirror-image upon
OMFTS-STOM as French dependencies upon “technological advantages, maneuver, speed, and surprise to conduct combined-arms penetration from a support base directly to operational objectives inland.”\footnote{14} appear strikingly similar to those of an envisioned STOM force. In weighing the comparative risks of amphibious assault and OMFTS-STOM, it might be worth asking which are scarier: the ghosts of Dien Bien Phu or those of Tarawa?

A more recent case that closely resembles OMFTS in method and concept, and stands to bear fruitful lessons for the evolution of OMFTS, is the 1974 Turkish invasion of Cyprus. The Turkish operational concept was:

1. a coordinated surface and vertical maneuver forces (heliborne) launched from sea-based platforms 40 miles over the horizon...the invasion force focused on an operational objective;
2. used the sea as maneuver space; generated overwhelming tempo and momentum; pitted strengths against weaknesses; emphasized intelligence, deception, and flexibility; and integrated all organic, joint, and combined assets available.\footnote{15}

However, when operations failed to capture a key airfield, Turkish forces had to rely on sea-basing and ad-hoc arrangements ashore for sustainment; limited deck space strangled throughput and flexibility, and alternate measures ashore proved inadequate. Consequently, Turkish forces ran critically short of water and ammunition, and it is believed the Turkish agreement to the cease-fire was precipitated by the ammunition shortage.\footnote{16}

OMFTS-STOM, in choosing to rely significantly on airlift has assumed the attendant vulnerabilities and throughput limitations as illustrated in the above cases. In contrast, sealift holds a substantial quantitative advantage over airlift and is still counted upon to deliver the lion’s share of war materiel to theater. “During Desert Shield/Storm, about 95% of all equipment and supplies came by sea while the nation strained its airlift assets to the limit to provide the remaining 5%.”\footnote{17}

OMFTS-STOM experimentation is currently wrestling with air bridge vulnerabilities and limitations; limited air platforms and supporting deck space are testing the viability of
OMFTS. A 1997 OMFTS-STOM feasibility analysis concluded that in order to support OMFTS-STOM, even given the availability of projected STOM platforms (e.g. the Advanced Amphibious Assault Vehicle [AAA], Landing Craft Air Cushion [LCAC], and the V-22 Osprey), “there must be either a shift to more lethal landing forces having smaller logistic demands, or a sizable increase in airlift capability. The figures suggest that to maintain a safe stand-off distance from shore, maintain operational flexibility, and still support OMFTS, the Navy will need to push development of inshore combat tactics.”

Are OMFTS-STOM logistic challenges pushing these concepts back into the arms of tradition?

The throughput limitations of the air bridge also raise a concern about restrictive planning. “Limited capacity of any of the various factors comprising logistics may serve to limit the possible course a commander can pursue.”

The logistic limitations of OMFTS-STOM serve to potentially restrict the operational commander’s amphibious planning options. By applying OMFTS-STOM across the entire spectrum of amphibious operations, are we prepared to assume the consequent restrictions that would carry over to other levels of amphibious operations?

**OMFTS: HISTORIC LESSONS MISAPPLIED?**

The study of campaigns and major operations in the distant and the more recent past is perhaps the single greatest source of operational lessons learned.

Milan Vego, “Operational Warfare Addendum”

When lessons are properly drawn, history can serve a valuable basis for sound doctrine as the USMC of the 1930s proved with the *Tentative Manual for Landing Operations*; however, as a rule, it is unwise to draw historic lessons from a singular defining event or draw on particular aspects of an operation without considering the greater context. OMFTS-STOM has potentially erred in both respects. OMFTS-STOM relies substantially
on the historical example of Operation CHROMITE, a dependence which runs afoul of the aforementioned rule of placing too much weight upon the crutch of a single, defining historic episode. Where is the substantial historic base of other OMFTS-like successes that would lend the gravity needed to justify a doctrinal shift away from traditional assault? The absence of such a caseload should raise a flag of concern. In contrast, traditional amphibious assault has a deep well of successful operational precedence from which to draw lessons and form a strong foundation for doctrinal integrity.

Another troubling aspect of OMFTS’ reliance on CHROMITE is the selective nature in which OMFTS lessons are drawn. OMFTS seems overly concerned with the maneuver aspect of CHROMITE while ignoring the logistic aspects. It is curious then that OMFTS, characterized by the lack of lodgement, holds Operation CHROMITE up as an historical model, for CHROMITE’s operational success was largely due to the power conveyed by a traditional logistic construct--the lodgement. That power, drawn from the lodgement and the efforts of the combat service support elements, fueled the push from Inchon to Seoul. Without the advance on and capture of Seoul, enabled by the lodgement, even OMFTS proponents agree CHROMITE’s effect would have remained merely tactical. The irony is that by modeling OMFTS after CHROMITE, as they do, OMFTS proponents seem to run a greater risk of incurring more the logistic vulnerabilities of the over-extended North Korean Army than the operational power of MacArthur’s victorious amphibious forces at Inchon.

There is no coincidence between the successful heritage of traditional amphibious assault and its detractors’ inability to declare it obsolete; the traditional form conveys incredible power and advantage to those who possess it and leverage it effectively. A brief look at some of the most challenging and successful amphibious assaults ever mounted
underscores this point and highlights the critical roles of logistics and operational art as catalyzing agents of amphibious success.

THE STRUGGLE OF DIRECTING MINDS AND AMPHIBIOUS SUCCESS

Sound application of operational art is the key to winning decisively in the shortest time and with the least loss of men and materiel.

Milan Vego, Operational Warfare

The power and advantage conveyed by the integration of sound logistics and operational art are best exhibited by the accomplishments of operational commanders throughout history. MacArthur, Eisenhower, and Woodward—in the Falklands conflict—have demonstrated that a modern amphibious assault can be successfully executed under almost any geographic and anti-landing defense conditions, when sound considerations of operational art and sustainment are kept at the fore of planning and execution. Moreover, these commanders’ experiences provide vivid illustration of the inherent value in capitalizing upon an adversary’s vulnerable lines of communication.

General Douglas A. MacArthur was a master at translating sacrificed space into operational payback at the adversary’s expense. In Operation RECKLESS, the New Guinea Campaign of World War II, MacArthur displayed a keen appreciation for the logistic role of successive staging bases from which he could draw the power and protection needed to roll back the Japanese forces that had advanced so far in 1941 and 1942. Establishing, extending and protecting the sea lines of communication was central to the sequentially supporting nature of the U.S. force “leapfrog” island hopping campaign and the entire Southwest Pacific Area Theater concept of operations for advancing on the Philippines. In fact, it could be argued that with the birth of the leapfrog approach MacArthur and the Army may justly lay some claim to the patent on OMFTS.\textsuperscript{21} The time invested in laying the logistic groundwork
to support this movement scheme paid off tremendously as “MacArthur’s Amphibious Navy” rolled up the over-extended Japanese forces in and around New Guinea and the Solomon Islands.

Like MacArthur, General Dwight D. Eisenhower displayed a deep appreciation for the role logistics played in successfully bringing in an amphibious assault. Central to Eisenhower’s concept of operations for OVERLORD was the establishment of a lodgement on the European continent. The timing, manner, and execution of OVERLORD was dominated by logistic considerations. Eisenhower was perceptive enough to recognize a combat power deficiency in the early OVERLORD plans—a deficiency that would need to be rectified by the acquisition of additional amphibious lift in the form of the landing ship, tank (LST). However, LSTs were in very short supply; as Churchill noted: “the destinies of two great empires seem to be tied up in some god-damned things called LSTs, whose engines themselves need to be tickled on by LST experts…of which there is [also] a great shortage!”

General Eisenhower, by adjusting schedules for OVERLORD and Operation ANVIL, and by lobbying both the British and the U.S. Chief of Naval Operations, Admiral King, was able to secure enough LSTs for OVERLORD to supply the additional operational weight needed to increase the probability of success; in short, “It was Ike that found extra assault shipping, and that was what brought OVERLORD to life.”

Eisenhower, like MacArthur, also demonstrated an appreciation for the value of striking enemy logistic vulnerabilities as a catalyst for amphibious operation success. His Transportation Plan, which focused on bombing rail infrastructure targets, shaped the OVERLORD battlespace and degraded the German Army’s ability to mobilize and respond to the OVERLORD landing. Eisenhower brought OVERLORD to success despite
challenges of weather and geography and facing what may arguably be considered history’s most formidable anti-landing defense at the water’s edge.

More recently, in the Falkland Islands War, Admiral Sandy Woodward, the British Falklands Battle Group Commander, like his more famous predecessors, displayed a keen appreciation for the role of logistics and operational art in his planning and execution of Operation CORPORATE--the campaign to recapture the Falklands Islands. His regressive planning effort was driven by the onset of the severe South Atlantic winter and its potential impact on his ability to sustain operations. Operation CORPORATE was brought to successful conclusion—with about 10 days to spare—on the back of an astounding logistics feat, projecting a traditional amphibious assault across 8,000 miles of open ocean, using Ascension Island and two carriers as intermediate and forward staging bases, respectively, against contested sea and air space.

RECKLESS, OVERLORD, and CORPORATE provide powerful lessons in the utility of the traditional amphibious assault, even in the modern era; however, few would argue that MacArthur’s Operation CHROMITE, during the Korean War, provides the premiere example of the operational payoff that the traditional form brings. Yet, on its face, never was there a less likely candidate for amphibious assault success than Inchon. MacArthur’s forces faced seemingly insurmountable geographic obstacles and incredible logistic challenges of approach, phasing, sequencing, and off-load evolutions in the Inchon landing area. Nevertheless, on the back of a sound operational concept; an incredible intelligence collection effort; and the preparedness, training, and doctrine of the Marine Corps; he brought CHROMITE to stunning success. All of the aforementioned factors were
successfully brought to bear to overcome the logistic challenges facing CHROMITE planners.

The success of CHROMITE is owed largely to MacArthur’s foresight and appreciation of operational art and logistics. He recognized the vulnerability and dependence of the North Korean People’s Army (NKPA) on supply lines, and it shaped his entire concept of operations. In landing at Inchon and capturing Seoul, MacArthur successfully brought an amphibious assault into the most undesirable site that one could imagine and achieved stunning operational success. CHROMITE stands today as the pre-eminent example of the power and advantage conveyed by the weaving of logistics and operational art into amphibious success in the face of seemingly impossible odds. Yet in another ironic twist, it is doubtful that even MacArthur, architect of the very operation upon which OMFTS is modeled, would have received the green light for launching CHROMITE from today’s proponents of OMFTS.

The historic depth and breadth of amphibious assault success stands upon the shoulders of USMC doctrine and the Tentative Manual for Landing Operations. The salient point is simply this: as a fighting force the United States military is undefeated in this form. Where logistics are strong and operational art sound, the United States has proved invincible in this branch of warfare; however, OMFTS is poised to surrender this advantageous construct without it ever having suffered a single defeat. Furthermore, the logistic weaknesses of OMFTS-STOM present an adversary the opportunity to exploit a window of vulnerability against U.S. forces employing OMFTS-STOM; the opportunity to capitalize upon the same vulnerabilities--over-extension and throughput--that operational commanders
like MacArthur, Eisenhower, and Woodward exploited to great advantage in successful
traditional amphibious operations over the last half-century.

**THE ARGUMENT AGAINST TRADITION**

Naval forces must dispense with previous amphibious methods in which operational phases,
pauses, and reorganizations imposed delays and inefficiencies upon the momentum of the
operation.

“Ship-to-Objective Maneuver”

There are many arguments against maintaining traditional amphibious assault
capabilities and methods. Among the most often cited are budget, nature of threats (the
nature of littoral threats and the decreased probability of future threats warranting a
traditional assault response), operational art, and the disadvantage of the amphibious attacker.

The budget argument is perhaps the strongest. We certainly do not have the resources
to maintain an amphibious force on the scale of World War II. Then again, perhaps it is not
necessary to build and sustain a force of that scale; the important point is that we preserve in
document the operational advantage conveyed by the traditional amphibious assault construct
and prevent its subordination to an improperly placed overemphasis on speed of operations
or technology.

Of threats, many would argue that today’s threat environment, characterized by
regional and low-intensity conflicts, has obviated the need for amphibious assaults (i.e. no
more Tarawas). This paper would argue that perhaps we are too close in historic distance
from the end of the Cold War to make such a determination. As the probability of greater
engagement in Asia increases, so too does the likelihood of the necessity for traditional
amphibious capabilities. Potential contingencies in China, Indonesia, Korea, and Taiwan,
just to name a few, are hard to imagine without some form of traditional amphibious assault
and/or landing playing a role. Furthermore, simply because a particular scenario is difficult to envision does not necessarily mean that such a scenario will not materialize.\textsuperscript{29} Few would argue that it is better to plan and prepare for an eventuality than to construct doctrine upon the hope that such an eventuality will not occur.

Traditional amphibious assault critics also point to the operational momentum-breaking quality and positional vulnerability of the beach head lodgement, and present, as a counter, the arguably more favorable high-tempo enabling and positionally advantageous character of sea-based logistic platforms. While it is true that a lodgement certainly creates a break in operational tempo, are we to assume that the need for maneuver will always trump the need for power, born of the phasing and operational pause of lodgement?

The positional superiority of sea-basing over lodgement is also questionable. Does sea-basing truly provide a stronger positional advantage than a lodgement? Such a perceived advantage is suspect, given that the very littoral threats--submarines and anti-ship missiles, if not mines--that OMFTS proponents argue justify and necessitate a shift from traditional doctrine, would also certainly threaten sea-basing, the logistic bedrock of OMFTS-STOM. The loss of the \textit{Atlantic Conveyor} and the subsequent impact on lift (with the loss of Wessex helicopters, U.K. Marines had to walk to Port Stanley from San Carlos Water) for U.K. forces in the Falklands Conflict certainly bears this out.\textsuperscript{30} Given operational art considerations of reach, base to objective distance, the culminating point, and the multi-dimensional aspects of protection, a lodgement solution seems to have certain appeal over sea-basing, not to mention simplicity, when compared to the complex mechanics of executing logistic support operations afloat. Logistics is hard; and it is even harder on a rolling deck.
There is also a perception that amphibious attackers are at a disadvantage; that operational advantage lies with the defender. There is little historical support for this perception, save a few grand failures; if anything, the record of the modern amphibious assault proves the reverse is true--that the traditional amphibious assault is incredibly difficult to defend against and that the attacker will almost always successfully land. In the course of solid operational design and planning one must take care not to place misperceived notions of risk and disadvantage above sound operational art; on its face, OMFTS seems to come dangerously close to doing just that.

On balance, the combined wealth and winning record of traditional amphibious success juxtaposed against emerging OMFTS and STOM challenges should give the sea services serious pause in placing all of our amphibious eggs in the OMFTS-STOM basket. In the midst of such a pause perhaps it would be worthwhile to energetically seek an answer to the question: are these challenges simply evolutionary growing pains or indicators of a more troubling source--flawed operational art?

CONCLUSIONS

As the sea services train their focus upon the world’s littorals, OMFTS and STOM have gained momentum as the flagship concepts that will define the way the United States projects power from the sea to points ashore. The concepts of OMFTS and STOM show great promise in enhancing amphibious operations at the low-intensity end of the operations scale; however, they also display troubling logistic and operational art aspects. The OMFTS-STOM emphasis on maneuver and tempo (space and time) seem to incur costly impacts to the operational factor force. And, while it is not the intent of this study to advocate abandonment of OMFTS-STOM, nor is it the purpose of this study to reduce successful
amphibious assault to formula, a concern must be recognized: that by placing all amphibious operations under the OMFTS-STOM umbrella, we are potentially unhinging an extremely successful operational art construct and perhaps inviting more risk than the benefits of OMFTS-STOM can offset. All things considered, it might be wise to slow the OMFTS-STOM train of thought and reconsider ways to reinforce and/or reconstruct the OMFTS equation with a more balanced consideration of time, space, and force. The traditional amphibious assault construct can help in this regard and bring balance, ensuring the operational integrity and power of U.S. amphibious operations capability.

The sea services should retain and foster a broad range of amphibious operations capabilities, blending the best of traditional amphibious assault and OMFTS, as opposed to dismissing traditional amphibious assault altogether. As MacArthur so ably proved during Operations RECKLESS and CHROMITE, Operational Maneuver from the Sea and lodgement are compatible! The specific blend of each might be determined by the greater priority of the particular operation: speed/maneuver (OMFTS-STOM) or power (traditional amphibious assault). Whatever form or combination is employed, the operational commander should keep the tenets of sound operational art at the fore of operational design, planning and execution. The moment we subordinate sound operational art to capabilities conveyed by technology is the very moment we surrender cognitive advantage, present vulnerability, and potentially arm our adversaries with the operational art weapons we have wielded, through traditional amphibious assault, so well in the past; in that vein, let OMFTS-STOM be the stone upon which the U.S. amphibious assault sword is honed, not broken.
NOTES


6 Theodore L. Gatchel, At the Water’s Edge: Defending Against the Modern Amphibious Assault (Annapolis, MD, Naval Institute Press, 1996), 201.


8 “Ship to Objective Maneuver,” II-4.


10 Milan N. Vego, Operational Warfare (Newport, R.I., Naval War College, 2002), 343.


13 Ibid., 126.


16 Ibid., 87.


23 Ibid., 261.

24 Ibid., 261.


29 Gatchel, 216.

30 Woodward, 298.


Gatchel, Theodore L. At the Water’s Edge: Defending Against the Modern Amphibious Assault. Annapolis, MD: Naval Institute Press, 1996.


“Ship to Objective Maneuver.” Lkd. USMC Warfighting Concepts Division Page.” [http://192.156.75.102/stom/docs/stomfinal.pdf](http://192.156.75.102/stom/docs/stomfinal.pdf) [6 December 2002].


