

# Amphibious Warfare: Theory and Practice\*

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## Introduction

In December 2013, the Government of Japan released its first “National Security Strategy” and announced the “National Defense Program Guidelines for FY 2014 and beyond.” The new Guidelines set forth the buildup of “dynamic joint defense force,” calling for a sufficient amphibious operations capability by means of amphibious vehicles and tilt-rotor aircraft, for example, to cope with potential enemy attack against any of Japan’s remote islands.

This paper analyzes amphibious warfare from a historical viewpoint to show its major framework and concept.

It is no wonder that the scale and form of amphibious operations may differ significantly among states depending on their national strategy, status of military power in the national strategy, military objectives, and historical or geographical conditions. The reason is that the national strategy, which is prescribed according to the national history, geography, culture and more, determines the role of the nation’s military force and way of fighting.

With all these facts taken into account, this paper attempts to propose a general framework for examining amphibious warfare, especially for amphibious operations, and to sort out ideas and terms used in such operations.

## 1. What are Amphibious Operations?

### (1) The issues surrounding their definition

The first issue that one inevitably encounters in examining amphibious operations is the ambiguity surrounding their definition. Without a uniform understanding of the meaning of amphibious operations and of their associated concepts and terminologies, the actual execution of operations will likely be met with difficulties. Nevertheless, a uniform understanding or a “common language” for the associated concepts and terminologies has not been arrived at, not even in the United States, which has conducted many amphibious operations.

Incidentally, the word “amphibian” is derived from Greek and means an amphibious animal or plant.

In general, an amphibious operation is defined as a type of military operation characterized by an attack launched from the sea to a hostile shore by a naval force and a ground force, and today, also an air force. An amphibious operation, in a narrow sense, refers to a way of fighting which was advanced by the U.S. before World War II. Earl H. Ellis, Lieutenant

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\* The views expressed in this paper are the author’s own and do not reflect the views of the NIDS, the Defense Ministry or the government of Japan. The quotation below does not reflect the original.

Colonel in the Marine Corps, was the central figure in shaping this concept.<sup>1</sup> The exact way of fighting, i.e., the doctrine, was codified in “Tentative Manual for Landing Operations” in 1934.<sup>2</sup>

Of course, this meaning in the narrow sense is not utilized in the present day. For instance, the term “amphibious operations” is often used nearly synonymously with “landing operations.” While it is simply a question of nuance, in fact, “amphibious operation” is generally deemed to have a broader meaning than “landing operation.”

Next, there is the term “amphibious warfare.” This term is often used in reference to a higher level of warfare as a whole, including national strategy, rather than military operations. This concept encompasses landing operations, as well as port blockade, sea blockade, and economic blockade. In some cases, the term even covers naval gunfire and gunboat diplomacy.

Another expression which comes to mind in connection with the above term is “the British Way in Warfare.” This expression is indeed sometimes used synonymously with amphibious warfare.

The basic concept of amphibious warfare as well as “the British Way in Warfare” are described by figures, such as Julian Corbett, Charles Callwell, and Basil Henry Liddell Hart, with albeit some differences in their views.<sup>3</sup> According to these figures, “the British Way in Warfare” as a national strategy refers to the use of the “strategy of indirect approach.” In this strategy, the goal of amphibious operations is not permanent occupation of the objective area. They contend that amphibious operations are utilized as a means for enhancing a country’s status by thwarting the enemy’s plan and taking measures, notably, temporarily occupying the enemy’s objective points.

Corbett pointed to the fact that naval forces cannot exist independently of ground forces. From early on, he identified amphibious operations as one of the important roles of naval forces. According to Corbett, Britain, which possessed only a small ground force, was able to rise to become a global empire, as a result of effectively combining Britain’s powerful naval force and ground force. So long as a surprise attack can be made on the enemy’s weak points by transporting ground forces by vessels, i.e., naval forces, it was possible in some cases to influence the war’s outcome.<sup>4</sup>

Nonetheless, it is no easy task to conduct amphibious operations effectively. For example,

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<sup>1</sup> The document Ellis authored is known as Operation Plan 712, “Advanced Base Force Operation in Micronesia.” For more details, see Dirk A. Ballendorf, “Earl Hancock Ellis: The Man and His Mission,” *U. S. Naval Institute Proceedings*, 109, November 1983, pp. 53- 60; Merrill L. Bartlett, ed., *Assault from the Sea: Essays on the History of Amphibious Warfare* (Annapolis: Naval Institute Press, 1983), pp. 157-167.

<sup>2</sup> Allan R. Millett, “Assault from the Sea: The Development of Amphibious Warfare between the Wars, The American, British, and Japanese Experiences,” in Williamson Murray, Allan R. Millett, eds., *Military Innovation in the Interwar Period* (New York: Cambridge University Press, 1996), p. 75.

<sup>3</sup> Geoffrey Till, “Amphibious Operations and the British,” in Geoffrey Till, Theo Farrell, Mark J. Grove, *Amphibious Operations*, The Occasional, Number 31 (Strategic & Combat Studies Institute, November 1997). For more details on the meanings of Liddell Hart’s “the British Way in Warfare” and the “strategy of indirect approach,” see Tomoyuki Ishizu, *Rideruhāto to Riberaru na Sensokan* [Liddell Hart and Liberal Vision of War] (Tokyo: Chuokoronshinsha, 2008), Chapter 9.

<sup>4</sup> Ishizu, *Rideruhāto to Riberaru na Sensokan*, Chapter 9.

opinions frequently conflict about the landing point between the ground forces, which want to land as close to the military target as possible, and the naval forces, which are strongly cautious about enemy counterattack. Corbett thus underscored that it was essential for the ground and naval forces to work together closely to better understand each other's position. He was the lead advocate for establishing an organization equivalent to today's Joint Chiefs of Staff if necessary.<sup>5</sup>

Lastly, amphibious operations are sometimes understood to mean "expeditionary warfare." In particular, in part due to their historical and geographical conditions, American and British military personnel and researchers may have a strong tendency to construe amphibious operations as having the same meaning as expeditionary warfare, where forces travel by sea across long distances.

While these issues of ambiguity surrounding the definition remain, the following sections of this paper examine what amphibious warfare is, focusing on the operational aspect.

## (2) The history of amphibious operations

Let us look back at the history of amphibious operations without dwelling on their definition. Records remain showing that already by 1200 BC, the Egyptians were under attacks by seaborne raiders that lived in the Mediterranean islands and the coastline of southern Europe.<sup>6</sup>

Also in 1200 BC, the ancient Greeks attacking Troy were pressed to gain a lodgment on the shore. The Persian forces that invaded Greece in 490 BC were in the same predicament in a bay in Marathon. The ancient Greek world made maximum use of amphibious operations. The defeat of the Athenian expedition to Sicily in 415-413 BC constitutes a key turning point in the Peloponnesian War.<sup>7</sup>

Later still, the people in the British Isles suffered their first raid by a major amphibious operation in 55 BC. Julius Caesar advanced across the Channel with his legions. In the centuries that followed, the British Isles were subjected to raids by Angles, Saxons, Vikings (Northern peoples), and Normans.

In medieval Europe, following the collapse of the Roman Empire, the Vikings were the most successful with amphibious operations in their raids in Northern Europe, Western Europe, and the coastline of Mediterranean Europe. Scale-wise, of course, these were not very

<sup>5</sup> Tomoyuki Ishizu, "Shi Pawā: Sono Kako, Genzai, Shorai [Sea Power: Its Past, Present, and Future]," in Kyoichi Tachikawa, Tomoyuki Ishizu, Narushige Michishita, Katsuya Tsukamoto, eds., *Shi Pawā: Sono Riron to Jissen* [Sea Power: Its Theory and Practice] (Tokyo: Fuyoshobo, 2008).

<sup>6</sup> Ian Speller, Christopher Tuck, *Amphibious Warfare: Strategy & Tactics from Gallipoli to Iraq* (London: Amber, 2001), pp. 8-12. The rest of this section draws heavily on this book.

<sup>7</sup> For more details on the Peloponnesian War, see Thucydides, Haruo Konishi, trans., *Senshi* [War History] (Tokyo: Chikumashobo, 2013), Vol. I and II. Vol. I contains many descriptions of the amphibious operations that Athens carried out. Vol. II (Vol. 6 and 7 of the original book) gives an account of the Sicilian Expedition. For an overview of the Peloponnesian War, see Donald Kagan, "Athenian Strategy in the Peloponnesian War," in Williamson Murray, MacGregor Knox, Alvin Bernstein, eds., *The Making of Strategy: Rulers, States, and War* (Cambridge: Cambridge University Press, 1994).

large operations.<sup>8</sup>

Meanwhile, in East Asia, the so-called Wokou pirates were active from the 14th to the 16th centuries. In the 15th century, Ming's Admiral Cheng Ho conducted a series of expeditions to the Indian Ocean.<sup>9</sup>

With respect to the aforementioned concept of "the British Way in Warfare," Francis Drake's raid on Spanish possession in the Caribbean from 1585 to 1586 was a prelude to Britain's subsequent amphibious operations that ended in success. In other words, Drake's raid was a revolutionary victory that set the precedent for the capture of Gibraltar in 1704, the capture of Louisbourg in 1758, the capture of Quebec in 1759, the classic landing at Aboukir Bay in 1801, and the capture of Washington DC in 1814.<sup>10</sup>

Of course, while many successful examples can be found in the history of Britain's amphibious operations during this period, it is also true that there were many failures. Examples include Drake's final expedition to the Caribbean in 1595 and the disastrous expedition to Cartagena in 1741. In the Cartagena Expedition, 10,000 soldiers participated, but only 2,600 survived.

By the end of the 19th century, amphibious operations could not be conducted as effectively as before with the advent of long-range coastal defense guns, sea mines, torpedo boats, among other equipment. Following this, the arrival of submarines exacerbated this trend. In addition, the advancement of land communication technologies and the emergence of large, professional armies eroded the strategic advantages of amphibious forces. Ground forces could now utilize railways and modern roads to rapidly move forces.

Indeed, many of the amphibious operations until World War I were conducted not in shores where the enemy built and awaited at defensive positions; rather, amphibious forces landed at points where the enemy was not present. Already by the 19th century, it was technically difficult for the amphibious forces and navies of countries to conduct a forced landing in the presence of the enemy.

However, by around 1945, after Gallipoli during WWI and Normandy in WWII, self-contained amphibious forces with greater mobility presented a useful military option for political leaders. Later, amphibious operations were adopted proactively in warfare, including the Korean War (1950), the Suez Crisis (1956), Lebanon (1958), Vietnam (1964-1975),

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<sup>8</sup> "The Histories" of Herodotus is considered the oldest record on the navy and naval forces. It can be construed from Herodotus's work that in many cases, actual warfare took place not in the sea but on the ground, and that in principle, Persian forces operated naval forces as a means for the transportation of troops. For more details, see Herodotus, Chiaki Matsudaira, trans., *Rekishi* [The Histories] (Tokyo: Iwanami Shoten, 1971-1972), Vol. I, II, and III. A key fact is that from ancient times to recent years, functions similar to ground infantry were often demanded of marines in naval battles. For example, although the aforementioned Vikings have a strong image as marines, in reality they were feared in their capacity as infantry. For more details, see Sam J. Tangredi, "Sea Power: Theory and Practice," in John Baylis, James Wirtz, Eliot Cohen, Colin S. Gray, eds., *Strategy in the Contemporary World: An Introduction to Strategic Studies* (Oxford: Oxford University Press, 2002), pp. 118-119.

<sup>9</sup> Arthur Waldron, "Chinese Strategy from the Fourteenth to the Seventeenth Centuries," in Murray, Knox, Bernstein, eds., *The Making of Strategy*.

<sup>10</sup> Till, "Amphibious Operations and the British," in Till, Farrell, Grove, *Amphibious Operations*; Admiral of the Fleet The Lord Keyes, *Amphibious Warfare and Combined Operations* (Cambridge: Cambridge University Press, 1943), pp. 9-17.

the Falklands War (1982), Grenada (1983), the Gulf War (1990-1991), and the Iraq War (2003).

Today, with the effective combination of trained personnel, various transport vessels, landing craft, and amphibious vehicles, amphibious operations are proving to be useful also for the deployment of disaster relief units and humanitarian assistance activities.

### **(3) Prototype of amphibious operations**

Despite this history of amphibious operations outlined above, many people no doubt hear “amphibious operations” and picture the invasion of Normandy in June 1944 during WWII.<sup>11</sup> In other words, it is the following image. After thoroughly bombarding defense positions using naval guns and aircraft, landing forces move from offshore transport vessels to numerous landing craft, make landings over several waves, stay on the beach, and seize bridgeheads or beachheads. Then, heavy reinforcements, represented by tanks and artillery, as well as large quantities of replenishment supplies arrive, and the forces advance inland.

In the invasion of Normandy, airborne units using parachutes and gliders descended in advance on either sides of and behind the landing points and launched attacks in order to destabilize the enemy and secure strategic points. Today, such missions are often conducted by heliborne units. Furthermore, in Normandy, actual landing operations were preceded by careful intelligence collection (e.g., aerial photos), deception, diversion, and aircraft attacks on railways, roads, and bridges (air interdiction).

But contrary to this image, secret, surprise landings and infiltrations by commando units and special units are becoming common in post-WWII amphibious operations.<sup>12</sup>

Today, the main form of amphibious operations is not concentration of forces and forced landings in the presence of the enemy, as was observed in Normandy. Rather, it is surprise operations conducted secretly from different locations by dispersing forces. In many cases, the operations are conducted by small-scale military forces.

In this sense, in reality, the “aerial” element is becoming critical in today’s amphibious operations. In practice, amphibious operations since the Vietnam War include many examples of aerial operations utilizing helicopters and other means.<sup>13</sup>

In this light, it is highly probably that future amphibious operations will continue taking the form of surprise or secret landings that mobilize commando and other units. In the 21st century-type amphibious operation called “Over the Horizon,” where forces advance to the ground from beyond the visual and radar range (to counter the capability buildup of the defender), tilt-rotor aircraft with a long flight range is expected to become even more useful.

Similarly, amphibious operations that Japan envisions today are not landings from transport vessels and landing craft, as was the case before. They seem to be mainly operations

<sup>11</sup> On the invasion of Normandy, see Bartlett, ed., *Assault from the Sea*, pp. 308-319, 320-333.

<sup>12</sup> For more details on present-day amphibious operations, see Bartlett, ed., *Assault from the Sea*, pp. 419-425; Speller, Tuck, *Amphibious Warfare*, pp. 155-171; M. H. H. Evans, *Amphibious Operations: The Projection of Sea Power Ashore* (Oxford: Brassey’s, 1990), pp. 206-207.

<sup>13</sup> At the beginning of the Iraq War in 2003, the U.K. Royal Marines conducted amphibious operations in the Al-Faw Peninsula with support from the U.S. I Marine Expeditionary Force and Navy and the U.K. Navy. The helicopter played a large role in these operations as well.

involving the transportation of personnel from helicopters and aircraft (or tilt-rotor aircraft) and are not the Normandy-type landings in the presence of the enemy.<sup>14</sup> Japan envisions, rather, circumventing the positions of the enemy by helicopter or other aircraft and advancing behind the enemy from its weak defensive points. Also, Japan attaches importance to making entry by rubber boats, as well as by descending to the sea from low and slow flying helicopters, rather than making landings from sea with numerous landing boats.<sup>15</sup>

In summary, the long-term, full-scale, and attrition-type amphibious operations of the absolute (total) war era are shifting or reverting to amphibious operations of the limited (restricted) war era, when operations were short-term, localized, and hardly accompanied by attrition. Moreover, it can be interpreted that priority is being placed on amphibious operations as a means for dealing with asymmetric war that is confronting today's sovereign nations.

## **2. The Purpose and Functions of Amphibious Operations**

### **(1) The purpose of amphibious operations**

According to the "Joint Doctrine for Amphibious Operations" released by the U.S. Joint Chiefs of Staff on the U.S. doctrine for amphibious operations, amphibious operations seek to exploit the element of surprise and capitalize on enemy weakness by projecting and applying combat power precisely at the most advantageous location and time.<sup>16</sup> The concept includes the projection of combat power from sea to a hostile or potentially hostile shore. An amphibious force is organized according to its assigned mission. The task force is the most distinctive feature of the amphibious force.

In general, the purpose of amphibious operations may be further specified into the following five items.<sup>17</sup> They are: (1) As preparation to conduct further military operations; (2) Secure an advanced naval or air base; (3) Decisively deny the use of a vital area or facility to the enemy; (4) Conduct swift and unexpected incursion into hostile territory or inflict casualties and damage to enemy personnel and material; and (5) To gather vital information about the enemy activities and intentions.

### **(2) The functions of amphibious operations**

Ordinarily, the following four general categories are identified for amphibious operations. They are: (i) Assault; (ii) Raid; (iii) Withdrawal; and (iv) Demonstration. In recent years, the importance of a fifth category has been underscored, which is: (v) Support to other

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<sup>14</sup> Noboru Yamaguchi, "Nihon ni Totte Bei Kaiheитай no Igi towa Nanika? [What is the Significance of the U.S. Marines for Japan?]," in Shotaro Yachi, ed., *Ronshu: Nihon no Anzen Hosho to Bōei Seisaku* [Collection of Essays: Japan's National Security and Defense Policy] (Tokyo: Wedge, 2013), Chapter 3.

<sup>15</sup> Yamaguchi, "Nihon ni Totte Bei Kaiheитай no Igi towa Nanika?," in Yachi, ed., *Ronshu: Nihon no Anzen Hosho to Bōei Seisaku*.

<sup>16</sup> Joint Publication 3-02 *Joint Doctrine for Amphibious Operations* (19 September 2001), Executive Summary, p. ix.

<sup>17</sup> [http://www.defence.gov.au/adfwc/documents/doctrinelibrary/addp/addp\\_3\\_2\\_amphib\\_ops.pdf](http://www.defence.gov.au/adfwc/documents/doctrinelibrary/addp/addp_3_2_amphib_ops.pdf)

operations.<sup>18</sup>

The following section outlines the functions.

### **i. Amphibious assault**

The first category, amphibious assault, is the principal and most known category of amphibious operations.<sup>19</sup> Assaults are conducted in order to land and establish a military force on a shore where an enemy awaits, so that further objectives may be achieved.

Examples of assault include the invasion of Normandy mentioned earlier, as well as the North African landings of November 1942 and the landings in Sicily in 1943.

Of course, the key factor that defines the nature of the respective assault operations is the objective they are designed to achieve. It is thus difficult to make generalizations about types of assault. For example, between 1941 and 1945, the Soviet Union conducted a total of 110 small “tactical” amphibious assaults and four larger “operational” assaults.

### **ii. Amphibious raid**

The second category is amphibious raid.<sup>20</sup> The overriding difference between raid and assault is that raid involves the pre-planned withdrawal or re-embarkation of the landing force. That is, the purpose of a raid is to occupy an objective for a limited time period by a military force for achieving its mission. As such, the amphibious raid is generally limited in time and space. Compared to a conventional assault, many of the raids have been small in scale in terms of mobilized resources.

There exist of course exceptions. The most well known large-scale raid is the landings in Dieppe in 1942. One infantry division was mobilized for this operation, supported by 60 tanks and three commando units.<sup>21</sup>

Such amphibious raids are conducted for many objectives.

One of the objectives is to inflict loss or damage on the enemy. An example is the British landings in Zeebrugge in April 1918. This operation was conducted to sink blockships in the harbor and thereby deny its use to German submarines.<sup>22</sup> There are also many examples of raids from WWII. In fact, the British formed designated, special commando units for achieving these objectives. Such a commando unit conducted landings in German-occupied Lofoten Islands off northern Norway.

Secondly, an amphibious raid is conducted to obtain information. A third objective is to create a diversion. Lastly, a raid is conducted to capture certain individuals or vital military equipment.

<sup>18</sup> Speller, Tuck, *Amphibious Warfare*, pp. 12-20. Very similar categories are also used in the U.S. Joint Chiefs of Staff’s “Joint Doctrine for Amphibious Operations.” *Joint Doctrine for Amphibious Operations*, pp. x-xi.

<sup>19</sup> Speller, Tuck, *Amphibious Warfare*, pp. 12-15.

<sup>20</sup> Speller, Tuck, *Amphibious Warfare*, pp. 15-17.

<sup>21</sup> On the landings in Dieppe, see Bartlett, ed., *Assault from the Sea*, pp. 249-260; Evans, *Amphibious Operations*, p. 205.

<sup>22</sup> For more details on the landings in Zeebrugge, see Bartlett, ed., *Assault from the Sea*, pp. 154-156; Arch Whitehouse, *Amphibious Operations* (New York: Doubleday, 1963), pp. 153-173.

### **iii. Amphibious withdrawal**

The third category of amphibious operations is amphibious withdrawal.<sup>23</sup> Withdrawals involve the embarkation of military or civilian personnel and supplies. Furthermore, there are two types of withdrawals: pre-planned operation; and emergency embarkation from a hostile or potentially hostile shore.

Examples of withdrawals of a friendly military force in contact with the enemy include Gallipoli in 1915-1916, Dunkirk in 1940, Crete in 1941, and the Korean War in 1950.

Amphibious operations are often conducted to evacuate civilian personnel. However, such amphibious operations have actually proven to be highly effective in so-called Non-Combatant Evacuation Operations (NEOs). The final withdrawal of U.S. citizens from Saigon in 1975 largely relied on the helicopters that flew from naval vessels. In addition, the withdrawal of United Nations peacekeeping forces from Somalia in 1995 was conducted by amphibious vessels.

Having the ability to withdraw or pull out personnel and equipment to the sea is important in order to ensure that a defeat in a ground operation does not lead to a decisive debacle.<sup>24</sup> In short, amphibious withdrawals play an essential role for preventing personnel and equipment from falling into the hands of the enemy, or for saving them from destruction or demolition. Of course, as was noted, amphibious withdrawals may be pre-planned operations conducted as the final stage of an amphibious raid, or operations arising from unforeseen situations as a result of enemy attack.

In the Gallipoli landings, 83,000 troops, 186 artilleries, and 4,695 horses and donkeys were withdrawn through withdrawal operations conducted in Suvla Bay and Anzac Cove. In Suvla Bay, the operation left just two injured and only nine artilleries abandoned or destroyed. Not one soldier was left in the Gallipoli Peninsula. Similar outcomes were achieved in Anzac Cove.

The withdrawals were conducted in direct contact with the enemy, and moreover, under its constant surveillance. Furthermore, the withdrawals were carried out within the firing range of the enemy. The fact that military forces were withdrawn under these circumstances without hardly any casualties and without losing a majority of the artillery and other equipment was a significant achievement. Of course, there were preconditions that were in place, namely, the British had complete or at least local sea control.

Conversely, the withdrawal in Dunkirk highlighted the difficulty of conducting amphibious withdrawals under conditions where there is hardly any preparation time, there are no port facilities, and air superiority has not been attained.

Japan's withdrawal operation in Guadalcanal was conducted over three instances in February 1943 using 20 destroyers respectively. This operation succeeded in the withdrawal of 9,800 ground force personnel and 830 navy personnel.

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<sup>23</sup> Speller, Tuck, *Amphibious Warfare*, pp. 17-18.

<sup>24</sup> Speller, Tuck, *Amphibious Warfare*, pp. 119-133.



#### **iv. Amphibious demonstration**

The fourth category of amphibious operations is amphibious demonstration. It is used to deceive and divert an enemy or as a show of strength.<sup>25</sup>

In a sense, all peacetime military exercise falls into the latter purpose. The reason is that an exercise demonstrates the strength of a national capability, and in some cases, can deter a potential aggressor.

Demonstrations in wartime are usually aimed at tying down enemy forces or diverting them away from the main area of operations. The most successful example of amphibious demonstration is probably that of the U.S. Marine Corps and the U.S. Navy during the 1991 Gulf War.

#### **v. Amphibious support to other operations**

Analysts assess that contemporary amphibious forces equipped with the ability to project combat power ashore by making use of, for example, vessels with large carrying capacity, highly trained personnel, advanced command and control functions, landing craft, and helicopters, are effective also in operations designed for disaster relief and humanitarian assistance.<sup>26</sup>

Of the 107 amphibious operations that the U.S. conducted between 1990 and 2010, 78 are said to fall under the category of “support to other operations.”

In summary, amphibious operations capability can deal with a broad spectrum of conflict. In other words, sustained and overwhelming power can be projected across a range of conflict, from humanitarian assistance operations, peace support operations, low-intensity conflict, to high-intensity military operations (warfare).<sup>27</sup> Amphibious operations capability can provide a firm, self-contained operational platform for forward deployment. Additionally, as amphibious forces principally work at the intersection of ground and naval forces, amphibious forces possess the capabilities of each of the forces. On top of that, naturally, units possessing various aircraft possess the capabilities that the air force is equipped with.

Further still, balanced amphibious operations capability of a self-sufficient nature equipped with mobility, flexibility, and maintenance capability could be utilized as a highly powerful national strategic tool, especially if supported by appropriate naval power and there is air support.

### **3. The Phases and Components of Amphibious Operations**

#### **(1) The phases of amphibious operations**

Next, this paper examines the phases of amphibious operations.

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<sup>25</sup> Speller, Tuck, *Amphibious Warfare*, pp. 19-20.

<sup>26</sup> Speller, Tuck, *Amphibious Warfare*, p. 20.

<sup>27</sup> Ibid.

Ordinarily, amphibious operations consist of five phases.<sup>28</sup> They are: (i) Planning and preparation; (ii) Passage to the battle zone; (iii) Pre-landing operations; (iv) Securing the beach; and (v) Consolidation and exploitation. The following section outlines each of the phases of amphibious operations in this order.

### **i. Planning and preparation**

Careful planning and preparation make the difference between decisive success and failure accompanied with many casualties in amphibious operations.<sup>29</sup> In particular, amphibious operations require the integration (joint and combined arms) and coordination of many different services and branches of the services, and at times, a coalition with allies.

It can be said that the landings in Normandy were a success case. The landing force was initially mobilized in order for five divisions of different nationalities (U.K., U.S., Canada) to make landings from the sea, as well as for three airborne divisions to secure vital points on either sides of this landing force and behind the enemy's forces.

To support this large-scale military force on the logistic side, the development of Mulberry harbors was conceived. After the initial landings, the Allied forces towed artificial harbors or piers across the Channel and assembled them in Arromanches and Saint-Laurent off the coast of Normandy.

Some criticize, however, that the pre-planning in the Normandy landings was excessively detailed, and therefore, the landings could have failed easily.<sup>30</sup> This raises other questions about war execution, including the leadership and decision-making ability of leaders.

### **ii. Passage to the battle zone**

The second phase is passage to the battle zone. The period during which amphibious forces move to the battle zone is deemed to be the most vulnerable period, when the route is crammed and crowded with numerous transport vessels.<sup>31</sup>

The passage to the battle zone refers to the transit after the implementation of the amphibious plan has been decided and the force assembled, in which the component units of the task force that were formed for the amphibious operation move either from their points of boarding and embarkation or from forward deployed positions to the Amphibious Objective Area (AOA), the area of operations. Needless to say, a successful passage to the battle zone or transit is a prerequisite of the entire operation taking place.

For a successful passage, attaining sea control (or command of the sea or sea superiority)

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<sup>28</sup> Speller, Tuck, *Amphibious Warfare*, pp. 23-101. From a different point of view, amphibious operations can also be classified into the following five categories. The first three are: (i) Planning; (ii) Embarkation; and (iii) Rehearsal. The purpose of conducting (iii) rehearsal is to: (1) test the adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces; (2) ensure that all echelons of participating units are familiar with plans; and (3) test communications-information systems. The remaining phases are: (iv) Movement; and (v) Assault. [http://www.defence.gov.au/adfwc/documents/doctrinelibrary/addp/addp\\_3\\_2\\_amphib\\_ops.pdf](http://www.defence.gov.au/adfwc/documents/doctrinelibrary/addp/addp_3_2_amphib_ops.pdf)

<sup>29</sup> Speller, Tuck, *Amphibious Warfare*, pp. 23-37.

<sup>30</sup> Martin Van Creveld, *Supplying War: Logistics from Wallenstein to Patton* (Cambridge: Cambridge University Press, 1977), Chapter 7.

<sup>31</sup> Speller, Tuck, *Amphibious Warfare*, pp. 39-53.

is indispensable.<sup>32</sup>

Along with attaining sea control, the importance of logistics and replenishment must not be forgotten. The replenishment of especially fuel, food, and water is a minimum necessary requirement in any operation.

Interestingly, in the 1982 Falklands War, which was Britain's largest-scale amphibious operation since the 1956 Suez Crisis, the British task force on the whole effectively conducted the passage to the battle zone to the Falkland Islands, notwithstanding the fact that Britain failed to attain definitive sea control and air superiority.<sup>33</sup>

### iii. Pre-landing operations

It goes without saying that the success or failure of operations conducted before the main landing operations determines the success or failure of amphibious assaults. On the other hand, however, conducting numerous advance operations also gives rise to dilemmas.<sup>34</sup>

The aim of most pre-landing operations is to create the best circumstances for the actual landing by isolating the genuine objective area from enemy support and reinforcements. Naturally, obtaining various information in advance helps with the main landing operation. Also, degrading enemy defense capability contributes to the landing operation.

For this reason, such pre-landing operations are sometimes termed "shaping the littoral battlespace."

The naval gunfire of the U.S. Navy prior to the landings in Iwo Jima in February 1945 is a well-known example of pre-landing operation. In fact, however, other operations were also conducted effectively prior to the full-scale landing, including deception, diversion, reconnaissance, mine counter-measures, airstrikes, destruction of beach obstacles, and special forces raids.

The Normandy landings are another example which clearly illustrates the importance of conducting many operations prior to the main landing operation against a heavily defended beach. The pre-landing operations in Normandy were wide-ranging. For instance, intelligence operations played a critical role in the actual landing planning. Various deception and diversion operations generated a surprise attack effect. Furthermore, the pre-landing operations encouraged German forces to focus their defense efforts in areas far away from Normandy. Effective air interdiction also contributed to degrading the counterattack capabilities of the German forces after the Allied landings were under way.

Nevertheless, the important point here is where the equilibrium point is between these

<sup>32</sup> Although the term "sea control" is commonly used in recent official documents and literature on amphibious operations, this term also raises questions, such as, what does sea control mean and how is it different from the concepts of command of the sea and sea superiority, exposing the need to define and unify both the concept and term.

<sup>33</sup> Stephen Badsey, "The Logistics of the British Recovery of the Falkland Islands 1982," in The National Institute for Defense Studies, ed., *International Forum on War History 2013: Defense of the Wider Realm: the Diplomacy and Strategy of the Protection of Islands in War* (Tokyo: NIDS, March 2014); The National Institute for Defense Studies, ed., *Aspects of the Falklands War*, 2014, Introductory Chapter and Conclusion.

<sup>34</sup> Speller, Tuck, *Amphibious Warfare*, pp. 55-69.

elaborate pre-landing operations and surprise attack, a vital element in amphibious operations. The reason being that conducting many pre-landing operations may cancel out the effect of surprise attack, the major advantage of amphibious operations.

#### **iv. Securing the beach**

Conducting a landing even when there is zero or hardly any enemy opposition entails an array of problems in reality. But an amphibious operation conducted with the enemy awaiting are amongst the most difficult and dangerous of all military operations.<sup>35</sup>

To repeat, even when there is absolutely no enemy opposition, landing a military force is accompanied by a host of difficulties. For example, at Guadalcanal in 1942, initially, the landing operation of the U.S. forces was quickly mired in chaos due to scheduling or logistic problems, despite the absence of a Japanese beach defense. Of course, the process of landing a military force ashore amid opposition by an enemy defending the landing site further compounds these difficulties. Therefore, generally, an area where there is no enemy opposition is often chosen as the landing site in amphibious operations.

However, here too, a different dilemma arises. For instance, landing at a beach where there is no enemy opposition may result in the force being too far from sites of operational importance. In some cases, this could bring about all but meaningless results in terms of the operation as a whole.

What an amphibious force is expected to do immediately after landing is to build up and stabilize combat power at the landing site. In other words, the force needs combat power for fighting off enemy counterattacks and ensuring the safety of the bridgehead or beachhead.

Under these circumstances, a lack of equipment interoperability between services and military branches, or between ally countries, leads to major problems in mutual communications. This was actually the problem observed between the British and French forces during the Suez Crisis.

It is a well-known fact that during the Gallipoli landings, a renovated coal ship, the *River Clyde*, was operated as a primitive amphibious assault ship. This too was a measure taken in order to secure the landed beach site as quickly as possible.<sup>36</sup>

The importance of the efforts for securing the beach are demonstrated vividly by the landing in Dieppe, Normandy, and the Al-Faw Peninsula during the 2003 Iraq War.

#### **v. Consolidation and exploitation**

Needless to say, amphibious operations are no more than a means and are not an end in and of themselves. Landing a military force ashore is a complex and dangerous task in itself. However, a successful landing does not mean that the entire amphibious operation will be

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<sup>35</sup> Speller, Tuck, *Amphibious Warfare*, pp. 71-85.

<sup>36</sup> For more details on the Gallipoli landings, see Admiral of the Fleet The Lord Keyes, *Amphibious Warfare and Combined Operations*, pp. 34-53; Alan Moorehead, *Gallipoli* (London: Hamish Hamilton, 1956); Harvey Broadbent, *Gallipoli: the Fatal Shore* (Victoria: Viking, 2005); Bartlett, ed., *Assault from the Sea*, pp. 142-153; Evans, *Amphibious Operations*, pp. 16-18; "Garipori Joriku Sakusen [Gallipoli Landings]," in *Rekishū Gunzo Ōkaibu: Daiichiji Sekai Taisen* [History Archives: World War I], Gakken Publishing, 2011, Vol. I, pp. 86-100.

successful. Whether the operation succeeded or failed needs to be evaluated based on what was achieved after the landing.<sup>37</sup>

To say that an amphibious operation was successful requires the success of both the consolidation of the initial lodgment and the following exploitation phase.

With regard to the former consolidation, its first objective is to reinforce the integrity of the first lodgment area. The second objective is to prepare for the subsequent exploitation phase. The third important objective is to develop the logistic infrastructure at the bridgehead.

This consolidation phase is needed to expand the bridgehead to an adequate size, to defend the site against enemy counterattacks, and to build up combat power, logistic support power, and command and control power. This is because combat power as well as logistic support and command and control powers become essential elements during the breakout for achieving the objectives of the next phase.

When consolidation is complete, the military force in the bridgehead then launches a breakout from there. From this phase, the amphibious operation will increasingly take the nature of a land campaign.

During the latter exploitation phase, ground and air forces will advance inland, and they will need to make effective use of their initial superiority—for example, surprise attack—surprise attack itself is also an outcome of the landing operation. Whether exploitation succeeds usually depends on whether there are adequate means for transporting replenishment supplies from the bridgehead to the combat units operating in inland.

Failure of the exploitation phase will also affect the entire amphibious operation. For example, during the Suvla Bay landing in Gallipoli, while the landing itself succeeded, the slow exploitation that followed in reality led to the failure of the entire Gallipoli operation.

Similar to the Suvla example, in the Anzio landings during the 1944 Italian Campaign, the failure of the exploitation phase decimated any chances of success of subsequent operations. In this case as well, this situation resulted despite the success of the initial landing operation.<sup>38</sup>

The difficulty of exploitation in landings conducted in the presence of an enemy, where a powerful enemy is awaiting, was indeed proven in Normandy. For example, is it better for the advancing military forces to stop their breakout to mop up the remaining enemy? In other words, is it optimal that the forces consolidate their position, accepting the risk of losing momentum? Or should they continue on with their breakout without hesitating? In this case, the offensive forces would be accepting the risk of counterattacks from their flanks and rear.

Precisely because a dilemma could arise between consolidation and exploitation, a balance must be struck between the time spent in the consolidation phase and the necessity of exploiting a successful landing.

## **(2) The components of amphibious operations**

The next section provides a rather rudimentary list of the main equipment utilized in amphibious operations. Please note that the following is only a rough illustration, as the scale and nature

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<sup>37</sup> Speller, Tuck, *Amphibious Warfare*, pp. 87-101.

<sup>38</sup> For more details on the Anzio landings, see Bartlett, ed., *Assault from the Sea*, pp. 326-330, 331-333.

of amphibious operations naturally vary depending on what the higher-level national strategy is intended to achieve.

In general, the components of present-day amphibious operations include: landing force; amphibious assault ship; various types of landing craft; amphibious (assault) vehicle; attack helicopter; transport helicopter; fighter (attack) aircraft (e.g., Harrier: for air superiority); tilt-rotor aircraft (e.g., Osprey); air borne force; heliborne force; transport vessel and tanker (for logistics and supply); ground force artillery; naval vessel (for firepower support); aircraft (for firepower support); and amphibious vessel, such as aircraft carrier (for sea control or sea superiority, and platform).

With regard to amphibious assault ship, the operation of the aforementioned *River Clyde* is one interesting example from the Gallipoli landings.<sup>39</sup> It was common in amphibious operations at the time to transfer a landing force from transport vessels to boats or barges and then advance towards the beach as the target. For the purpose of swiftly sending in the landing force to the landing point, doors were cut in both sides near the bow of *River Clyde*, and from there a ramp to the waters was attached. Of course, this was still before the time of tanks, and thus, it was only infantry that made the landings. As an idea, however, *River Clyde* was the first amphibious assault ship in modern warfare. This idea is considered to have made an actual decisive impact on the subsequent design of landing ships (so-called LSIs) in countries, such as Britain, the U.S., and Japan.

At any event, it can be understood from the above brief example that amphibious operations include numerous components which cut cross the ground, naval, and air services, as well as the branches of each service.

#### **4. The Importance of Logistics in Amphibious Operations**

While the importance of logistics in amphibious operations was already touched upon briefly in the planning and preparation phase of amphibious operations, the following section reexamines the issues surrounding logistics, given their importance throughout all phases of amphibious operations.<sup>40</sup> However, this paper will keep to just listing the characteristics of logistics in amphibious operations.

First, amphibious logistics require so-called “tactical loading” or “combat loading.” “Tactical loading” is a measure for conducting the entire landing operation efficiently by loading, in reverse order, equipment deemed necessary according to the phase of the amphibious operation.

On top of that, ideally, each cargo—transport vessel—will be self-contained. This is because a military force inside each transport vessel will then be able to act autonomously during the assault phase. In other words, even if a transport vessel is lost due to enemy attack, the remaining military force will be adequate for dealing with the situation. It is important that this loss does not adversely affect the entire operation.

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<sup>39</sup> For more details on this, see “Garipori Joriku Sakusen” in *Rekishi Gunzo Ākaibu: Daiichiji Sekai Taisen*, Vol. I, pp. 86-100.

<sup>40</sup> Speller, Tuck, *Amphibious Warfare*, pp. 103-107; Evans, *Amphibious Operations*, pp. 169-176.

During the Gallipoli landings, the amphibious force did not conduct “tactical loading” initially. In contrast, during the Normandy landings, “tactical loadings” were conducted to a certain extent. In addition, most of the challenges surrounding the logistic supports for the entire operation were solved during the planning phase—for example, through the development of Mulberry artificial harbors or piers. In fact, as the 1942 raid in Dieppe demonstrated the difficulty of securing harbors by direct landings, the mobile Mulberry harbors were conceived during the subsequent Normandy landings.

In an amphibious operation, “ship-to-shore movement” is of decisive importance. This is precisely why the Mulberry harbors were towed across the Channel and assembled in the Normandy shore following the success of the early-stage landings. In the Normandy landings, an offshore oil pipeline called “Pluto” was also utilized as a separate measure for solving logistics problems.

Meanwhile, in the Pacific theater in 1942 to 1945, the U.S. built a mobile logistic support system termed a “fleet train” (also sometimes called a “floating supply train”). Especially after the 1944 occupation of the Marshall Islands, the maritime logistic system of the U.S. forces became the main type of logistic supports, helped by the large-scale U.S. ship building project. In short, a fleet train was organized, which had the capability to meet a variety of demands of war execution, including oil tanker, ammunition transport ship, repair ship, tugboat, hospital ship, and replenishment ship.

In recent years, Maritime Pre-Positioning Ships (MPS) have constituted a means for resolving logistic problems. MPS is beginning to attract the attention of experts, coupled with the concept of sea-basing.<sup>41</sup>

## 5. The Logic of Defenders

This paper has thus far examined the issue of amphibious operations from the side that is conducting the operation, i.e., the attacker side. If amphibious operations are examined from the other side, i.e., the defender side, what characteristics and challenges would then come to light?

While the material is slightly dated, in the Defense of Japan 2013, a section entitled “Operations Protecting the Land” in Part III “Measures for Defense of Japan” describes the need for dealing with enemy invasions as much as possible between offshore seas and shorelines or at landing points and defeating enemies at an early stage.<sup>42</sup> While the defense of remote islands is not necessarily the sole consideration in this statement, the whitepaper nevertheless presents three categories: (i) Measures in waters around our coasts; (ii) Measures in coastal areas; and (iii) Measures in the inner territory. In other words, the aim of the first phase is to deal with an enemy invasion at sea and in airspace if possible. However, if this fails, then in the next phase, the enemy will be fought in offshore, shore, and inland areas. That is

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<sup>41</sup> Narrowly, sea-basing means a logistic framework for a task force to conduct activity in an expeditionary or amphibious warfare without reliance on land bases within the operational area. Williamson Murray, “21 seiki no Shī Beishingu [Thoughts on Sea Basing in the Twenty-First Century],” in Tachikawa, Ishizu, Michishita, Tsukamoto, eds., *Shī Pawā*.

<sup>42</sup> *Defense of Japan 2013* (Tokyo: Nikkei Printing, 2013).

the anticipation.

By WWII, defenders in fact had already developed a similar operational concept for dealing with amphibious operations. This concept can be broadly classified into three categories: (i) Defense at the water's edge; (ii) Mobile ground defense; and (iii) Defense in depth.<sup>43</sup>

To reiterate, it is of course best for defenders if an enemy invasion can be interdicted at sea and in airspace prior to the enemy's landing. However, should this defense fail, then the phase will shift to defense at the island itself.

The first category, defense at the water's edge, means fighting the landing force of the enemy at the water's edge. The ultimate objective of defenders is to interdict the attacker's establishment of a bridgehead.<sup>44</sup> Examples of defense at the water's edge during WWII include Algeria, Normandy, Tarawa, and Saipan.

The second category, mobile ground defense, is premised on a carefully assembled strategic reserve force lodging a counterattack against the landing force. Germany used this approach in Sicily, Salerno, southern France, among other locations.

In the third category, defense in depth, the coastline is abandoned in principle. For example, the Japanese forces made use of defense in depth for combat in Iwo Jima, Okinawa, and Luzon.

In addition, the "Joint Doctrine for Amphibious Operations" referred to earlier sets out that a defender's measures for dealing with amphibious operations basically constitute the development of four barriers within the littorals.<sup>45</sup> They are perimeter barrier, main barrier, engineer barrier, and beach barrier. The type of barrier to develop is determined depending on the terrain, resources, the time remaining for deployment, among other factors. The perimeter barrier is mainly for mines, the main barrier for mines, the engineer barrier for landmines and obstacles near the shoreline, and the beach barrier for counterattacks by reserve forces.

British historian David French once criticized the "British Way in Warfare" advocated by Liddell Hart for hardly understanding the difficulties that actually accompany amphibious operations in which a military force travels across the sea and lands on a shoreline where the enemy has built defensive positions and is waiting. Indeed, the Gallipoli landings are one example of this.<sup>46</sup>

Also, for example, mines remained the principal threat to amphibious vessels between 1945 and 1973, the postwar period when the concept of amphibious operations was finalized

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<sup>43</sup> The description that follows draws heavily on: Theodore Gatchel, *At the Water's Edge: Defending against Modern Amphibious Assault* (Annapolis: Naval Institute Press, 1996). See also Carter Malkasian, "Joriku Sakusen no Rekishiteki Henka [Historical Changes of Landing Operations]," in Tachikawa, Ishizu, Michishita, Tsukamoto, eds., *Shi Pawā*.

<sup>44</sup> Gatchel, *At the Water's Edge*, p. 123.

<sup>45</sup> *Joint Doctrine for Amphibious Operations*, pp. IX-1-2.

<sup>46</sup> David French, *The British Way in Warfare* (London: Unwin Hyman, 1990). On this point, see also: Michael Howard, "The British Way in Warfare: A Reappraisal" and "Three People: Liddell Hart, Montgomery, Kissinger," in Michael Howard, ed., *The Theory and Practice of War* (London: Cassell, 1965); Paul M. Kennedy, *Strategy and Diplomacy* (London: Fontana, 1984); Hew Strachan, "The British Way in Warfare," in David Chandler, ed., *The Oxford Illustrated History of the British Army* (Oxford: Oxford University Press, 1994).



for the most part and their effectiveness was proved in actual warfare. The Incheon landing operation during the Korean War managed to prevent the laying of mines across a vast area by North Korea. However, the impact that mines would have had on the Incheon landing operation was demonstrated one month later in Wonsan.<sup>47</sup>

Furthermore, the recent advancement of surface-to-ship missiles has compounded to the difficulties of amphibious operations. This explains precisely why a new concept emerged for amphibious operations, i.e., “Over the Horizon.”

## **6. The Organization, Culture, and Mentality Deemed Necessary for Amphibious Operations**

The following section serves as a guide for thinking about the organizational structure needed for effective amphibious operations. It presents the particularly notable features, using the U.S. Marine Corps as an example. These features of course cannot be applied immediately to different organizations of different nations. Nevertheless, they will provide key suggestions in examining the structure of amphibious forces.

### **(1) Independent or autonomous organizations from the three services**

One of the secrets to the strength of the U.S. Marine Corps lies in the fact that it is an independent service or organization from the Army, Navy, and Air Force. The Marine Corps does not possess its own military academy; many of the Marines come from regular universities. This reality is deemed to contribute to the Marines’ free ideas, which are slightly distanced from the “military mind” specific to military personnel.<sup>48</sup>

The requirements for conducting successful amphibious operations which are often underscored are: high-level training; appropriate leadership; a joint doctrine; and organizational flexibility. To ensure such flexibility, it is desirable that an organization exists which is detached from the military mind—in this context, military mind in a negative sense—and can think freely.

The above case concerns the U.S. Marine Corps, and an independent service or organization is of course not necessarily needed in other nations. It is nonetheless important that organizations have at least a different culture and mentality.

### **(2) Marine Air-Ground Task Force (MAGTF)**

One of the organizational features of the U.S. Marine Corps is the Marine Air-Ground Task Force (MAGTF). This idea of structurally integrating ground and air forces principally for the

<sup>47</sup> Bartlett, ed., *Assault from the Sea*, pp. 337-353; Malkasian, “Joriku Sakusen no Rekishiteki Henka,” in Tachikawa, Ishizu, Michishita, Tsukamoto, eds., *Shi Pawā*.

<sup>48</sup> Ikujiro Nonaka, *Amerika Kaiheitai: Hieirigata Soshiki no Jikokaiikaku* [U.S. Marine Corps: Self-Reform of a Non-Profit-Type Organization] (Tokyo: Chukoshinsho, 1995), p. 151, 159-160; Jun Kitamura, Aiko Kitamura, eds., *Amerika Kaiheitai no Dokutorin* [The Doctrine of the U.S. Marine Corps] (Tokyo: Fuyoshobo, 2009), Part 2 “Beikoku Kaiheitai Nyumon [An Introduction to the U.S. Marine Corps]”; Jun Kitamura, *Kaiheitai to Osupurei* [Marine Corps and Osprey] (Tokyo: Namiki Shobo, 2012), Chapter 1.

provision of close air support was institutionalized already in 1954.<sup>49</sup>

The U.S. Marine Corps is organized with the MAGTF forming the basis. Each unit consists of a Command Element (CE) that has command functions, a Ground Combat Element (GCE) such as infantry and artillery, an Aviation Combat Element (ACE) that equips fighters and helicopters, and a Logistics Command Element (LCE) that is in charge of the logistics such as maintenance and supply. This makeup is the same for all units, ranging from the Marine Expeditionary Force (MEF) which has as many as 40,000 to 50,000 personnel, to the Marine Expeditionary Brigade (MEB) with about 15,000 personnel, and the Marine Expeditionary Unit (MEU) with about 2,000 personnel.<sup>50</sup>

That is to say, the U.S. Marine Corps are a “package” of units with balanced ground and air power as well as logistic support capabilities—a “nested”-type organizational structure (Ikujiro Nonaka). The units are united organically into a large, medium, or small force depending on the nature of the crisis and the military strength of the enemy. They are also ready for swift dispatch. In other words, the U.S. Marine Corps are a module-type organization that is formed by freely combining the various component elements. Each MAGTF is a self-contained organization and is not a mere component element of another MAGTF.

These MAGTFs are supported by the amphibious fleets of the U.S. Navy. The U.S. Marine Corps, by its very structure, can operate ground, naval, and air power organically.<sup>51</sup> Indeed, it is an organization that is worthy of being called a task force.

While the U.S. Marine Corps initially specialized in amphibious operations, in recent years they have been given an additional mission of “Force in Readiness” to respond to various conflicts.<sup>52</sup>

Indeed, between the late 20th century and today, the U.S. Marine Corps has elevated its value as an organization which can carry out both combat missions in times of war or conflict, as well as Military Operations Other Than War (MOOTW) or non-combat missions, the leading example being humanitarian assistance activities. The formation of MAGTFs is indispensable also for the effective implementation of these missions.

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<sup>49</sup> Nonaka, *Amerika Kaiheitaï*, p. 119.

<sup>50</sup> The content that follows was compiled by the author by referring to: Yamaguchi, “Nihon ni Totte Bei Kaiheitaï no Igi towa Nanika?,” in Yachi, ed., *Ronshu: Nihon no Anzen Hoshô to Bôei Seisaku*; Nonaka, *Amerika Kaiheitaï*, pp. 113-170; Jun Kitamura, Aiko Kitamura, eds., *Amerika Kaiheitaï no Dokutorin*, Part 2; Kitamura, *Kaiheitaï to Osupurei*, Chapter 2.

<sup>51</sup> In principle, the Navy operates vessels which transport Marines and equipment, as well as vessels which serve as the takeoff and landing bases for various aircraft. Usually, the Marine Corps alone carries out a majority of the maneuvers from such platforms. In other words, the image is of Marines approaching enemy territory aboard vessels, getting aboard amphibious (assault) vehicles and helicopters and landing on enemy territory, attacking the enemy and supporting the landing force from fighter (attack) aircraft and helicopters operated by Marines, conquering the enemy as infantry while receiving support from the armored vehicles they were aboard as well as from artillery, and securing the bridgehead. For more details, see Jun Kitamura, Aiko Kitamura, eds., *Amerika Kaiheitaï no Dokutorin*, Part 2, especially p. 123.

<sup>52</sup> Nonaka, *Amerika Kaiheitaï*, p. 193, pp. 197-198.

### (3) The logic of maneuver warfare and manoeuvrists

Maneuver warfare<sup>53</sup> is considered to be at the essence of today's U.S. Marine Corps doctrine.<sup>54</sup>

In fact, the Marine Corps, which adopts the "manoeuvrist" position, published the first edition of the doctrine document "War Fighting" in 1989, and following the Gulf War that broke out immediately afterwards, published the second edition of the document in 1998. This document is filled with the manoeuvrist thinking, i.e., the "strategy of indirect approach," of which Liddell Hart was the key proponent.<sup>55</sup>

According to "War Fighting," the "strategy of indirect approach," lies at the heart of maneuver warfare. It means avoiding frontal attacks of the enemy's center of gravity, and instead, attempting concentrated attacks on the enemy's weaknesses—its critical vulnerabilities (CV)—and as a result, paralyzing the enemy's center of gravity. In other words, the concept of maneuver warfare not only suggests a type of fighting that leverages mobility, but also includes the idea of targeting the enemy's weaknesses and making the enemy psychologically confused. Indeed, it is vital that amphibious operations have "tempo" that is superior to that of the enemy's counterattack, and such operations require both mobility and swiftness.

In order to adapt to the new mission shared with today's "Force in Readiness," the U.S. Marine Corps are demanded to swiftly adapt to a broad spectrum of crises and conflicts. To this end, the logic of manoeuvrists is indispensable.

### (4) Respecting discretion and decentralizing decision-making: Finding clues from "mission tactics"

Generally speaking, in terms of the mission of the organization that is in charge of amphibious operations, it is ideal that the organization's command and control system is decentralized.

Leaving aside the question of whether this system is called "Auftragstaktik" after the German word, "mission tactics," "mission command," or "directive control"<sup>56</sup>, an organization which is assigned a Marine Corps-type mission will, by its very nature, often need to have its discretion respected, and by extension, have decentralized decision-making.

As is well known, "mission tactics" is not a system whereby a superior gives detailed instructions to subordinates on how to achieve the mission, but rather, a system where a superior leaves it up to subordinates to achieve the mission by giving them discretion to some extent. In other words, because the exact method of achieving the mission is left up to subordinates, they are given discretion in determining the measures to be taken according to the situation. This in turn is said to lead to prompt decision-making and the emergence of a sense of duty

<sup>53</sup> Evans, *Amphibious Operations*, pp. 199-209.

<sup>54</sup> Jun Kitamura, Aiko Kitamura, eds., *Amerika Kaiheitai no Dokutorin*, Part 2. The rest of this paragraph draws heavily on this book.

<sup>55</sup> However, "War Fighting" does not touch at all on Liddell Hart's strategic thought. Nevertheless, it is clear that Liddell Hart had an impact on the Marine Corps' doctrine. For more details on the "strategy of indirect approach," see Ishizu, *Rideru Hāto to Riberaru na Sensokan*, Chapter 9.

<sup>56</sup> Evans, *Amphibious Operations*, p. 204.

among subordinates.<sup>57</sup>

Looking back at history, there of course exist contradictory opinions on the merits and demerits of “mission tactics.” In this regard, caution needs to be exercised in terms of its operation. However, it is true that Marine Corps-type organizations which are frequently demanded to make decisions quickly at the frontline require some level of discretion at the site.

### **(5) Civilian control**

Then the question is, how can a balance be struck between “mission tactics” and civilian control—a system whereby the political leadership has total control of the military?

A case study that suggests an answer to this question is British Prime Minister Margaret Thatcher’s leadership during the 1982 Falklands War. During this war, the war cabinet’s strong leadership and the Rules of Engagement (ROE) that were developed as needed allowed civilian politicians to secure civilian control.<sup>58</sup>

### **Conclusion: Implications for Japan**

Lastly, let us examine what the theory and practice of amphibious operations described above suggest for present-day Japan. Of course, what follows are general ideas and are no more than the personal opinions of the author.

We begin with an excerpt of an interview that Japan’s Ministry of Defense and Self-Defense Force personnel conducted with Major General Julian Thompson, who participated in the Falklands War as Commander of the 3 Commando Brigade of the British Royal Marines. He stated as follows.

First, the amphibious operations capability of Japan and Britain is similar with respect to scale, in the sense that both, in essence, do not have carrier strike capability.

Secondly, amphibious operations are special joint operations. The relationship with the Navy is the most important aspect of the operations. Accordingly, a concept for joint operations with the Navy must be created.<sup>59</sup>

Thirdly, amphibious operations require a designated force. The Navy and this designated force, i.e., Marine Corps, must be situated in the same location. This is because two-way communication is critical.

The above outlines the interview of Major General Thompson. Of course, this does not mean that it is a major problem if an organization for amphibious operations is established within the ground forces, for example. As it turns out, between the Imperial Japanese Army and

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<sup>57</sup> However, there is no clear answer to the fundamental question of what level of discretion is permitted exactly by “mission tactics.”

<sup>58</sup> For more details on this, see The National Institute for Defense Studies, ed., *Aspects of the Falklands War*, Introductory Chapter and Conclusion.

<sup>59</sup> Indeed, for example, the “Naval Operations Concept 2010” that the U.S. Navy released explains when, where, and how to implement strategies for the capabilities that the Navy gives priority to, namely, forward presence, deterrence, sea control, power projection, maritime security, and humanitarian assistance and disaster response. The document identifies amphibious operations capability as the core capability in this context. <http://www.navy.mil/maritime/display.asp?page=noc.html>

Navy, it was the Army that expressed strong interest in amphibious operations. The relevant equipment of the Army was superior by far.<sup>60</sup>

Indeed, the problem lies with the organization's culture or mentality. In short, the organization for amphibious operations needs a culture and mentality which are different from those of conventional ground forces. Furthermore, due to the nature of its mission, the organization must work closely with especially the Navy. Moreover, amphibious operations are premised on joint operations. Depending on the situation, they may require the participation of a broad range of ground forces, naval forces, air forces, and space forces, as well as of the commandos and special forces of the respective services. In this sense, it is imperative that the organizational formation and command and control functions enable mutual close coordination and cooperation.

Secondly, precisely because joint operations play a large part in amphibious operations, it is necessary to have a joint headquarters at least at the theater level, and if possible, a permanent joint headquarters. The organization as a whole will likely function efficiently if a Maritime Self-Defense Force personnel is the commander of the headquarters.

Thirdly, as was already noted, a unique organizational culture or mentality is needed for amphibious forces to sufficiently demonstrate their power. One way of accomplishing this is the adoption of "mission tactics," which requires respect for the discretion or autonomy of the personnel. Amphibious forces must develop this kind of unique ethos. Meanwhile, in order to secure adequate civilian control against "mission tactics," it will be necessary to establish restrictions in military domains through ROE and through the strong leadership exercised by, in the case of the Falklands War, the war cabinet, or in present-day Japan, the National Security Council.

Fourthly, with regard to the logistics of amphibious operations, it is necessary to consider the necessity of developing conventional logistic and communication platforms, as well as the possibility of utilizing Ships Taken Up From Trade (STUFT) and sea-basing-type operations. Of course, the distribution system of the private sector will no doubt also be of considerable reference.

Fifthly, in the case that there are people residing in the remote island that is the target of amphibious operations, it will be essential to maintain communication with the islanders from peacetime. Although small in scale, there are reports that during the Falklands War, the islanders of British descent conducted resistance activities against Argentinian forces while cooperating with British forces.

Furthermore, in not only amphibious forces but in any organization, it is indispensable that a system is in place for constantly drawing out new lessons learned or implications—for example, the OODA loop (John Boyd). This is because the chances are high that the learning curve of the entire organization will improve owing to such a system. For instance, during WWII, the U.S. Marine Corps quickly identified the lessons learned in Tarawa, where the Marine Corps struggled, and applied these lessons to subsequent battles in Peleliu, Saipan,

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<sup>60</sup> Millett, "Assault from the Sea," in Murray, Millett, eds., *Military Innovation in the Interwar Period*; Grove, "The Development of Japanese Amphibious Warfare, 1874 to 1942," in Till, Farrell, Grove, *Amphibious Operations*.

Tinian, Guam, Iwo Jima, and Okinawa.<sup>61</sup>

Similarly, in the European theater, the Allies studied their failures in Dieppe and conducted reviews of everything from their equipment to its way of fighting. In addition, they stockpiled equipment and developed tactics necessary for conducting successful large-scale amphibious operations across the Channel. In such ways, the lessons learned in Dieppe contributed to the successful landings in Normandy.<sup>62</sup> What the Allies were particularly conscious of were the importance of pre-landing bombardments, as well as the fact that the landing force would be at risk as long as the enemy's shoreline, battery, and other areas are not destroyed or disempowered through bombardment.<sup>63</sup>

It is said that based on this fact, Britain's Lord Mountbatten stated that one casualty in Dieppe saved ten lives in Normandy.<sup>64</sup>

A closer look at the challenges of amphibious operations at the military level reveals that in light of the characteristics of remote islands, namely, lack of depth and isolation, it becomes essential that forces secure temporal and spatial sea control (or sea superiority) and air superiority. Remote islands require the deployment of sufficient initial strength, as well as an independent combat power, i.e., a MAGTF-type strength. Of course, it means that should a nation's remote island become occupied, then the force would be operated to recapture the island. In this regard, amphibious operations capability may be what Japan, home to many remote islands, needs at the bare minimum.<sup>65</sup>

The Falklands War demonstrated the effectiveness of submarines—both nuclear and conventional—for defending and recapturing remote islands.<sup>66</sup> During this war, it appears that Britain infiltrated various types of commandos and special units to obtain the latest information about the field as much as possible, and based on this information, revise operational plans according to the circumstances. In this sense, commandos or special forces have an indispensable presence.

Indeed, a seamless organization and implementation of operations are essential for the success of amphibious operations. In that respect, an organization which encapsulates equipment, such as amphibious assault ship, transport vessel, amphibious vehicle, and minesweeper, into a single package—an organization like the MAGTF of the U.S. Marine Corps—is necessary.

Amphibious operations capability is furthermore effective for actual combat mission, as well as non-combat mission, for example, conducting rescue operations from the sea when a large-scale natural disaster strikes. Rescue operations from the sea will be critically important especially in Japan, which experiences frequent natural disasters and is characterized by

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<sup>61</sup> Nonaka, *Amerika Kaiheitai*, pp. 90-94.

<sup>62</sup> "Dieppe no Genzai [Dieppe Today]," *Rekishi Gunzo*, Gakken Publishing, 2014, p. 5.

<sup>63</sup> "Dieppe Kyōshū Jōriku: Ōkuno Kyokun wo Nokoshita Kanadagun no Kaimetsu [Dieppe Landings: The Destruction of the Canadian Forces that Left Many Lessons Learned]," *Rekishi Gunzo*, pp. 156-165.

<sup>64</sup> "Dieppe Kyōshū Jōriku," pp. 156-165.

<sup>65</sup> Jun Kitamura, Aiko Kitamura, eds., *Amerika Kaiheitai no Dokutorin*, p. 126.

<sup>66</sup> For more details on this, see The National Institute for Defense Studies, ed., *Aspects of the Falklands War*, Introductory Chapter and Conclusion.

terrain that is shallow in depth.<sup>67</sup> In fact, Japan's Ministry of Defense and Self-Defense Forces organized and efficiently operated a Joint Task Force in the aftermath of the 2011 Great East Japan Earthquake.

Globally, countries make use of amphibious operations capability, which cuts across ground, naval, and air forces, for deployment in response to natural disasters and for humanitarian assistance activities. In the wake of the major earthquake off the coast of Sumatra in December 2004, the U.S. Marine Corps demonstrated its amphibious operations capability to the fullest.

Finally, amphibious operations is defined as joint operations, and at times, combined operations. For this reason, the integration of military services is indispensable, and preparations need to be made for combined operations with allies. This demands that common terminologies and concepts related to amphibious operations are quickly established among military services and branches. If possible, coordination with allies from peacetime is also desirable. This is because, for example, doctrine in one phrase is "common language." The existence of a doctrine will be integral to the success of amphibious operations.

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<sup>67</sup> Jun Kitamura, Aiko Kitamura, eds., *Amerika Kaiheita no Dokutorin*, p. 126.

