

Military Implications of the Falklands War: From Japan's Point of View

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Introduction

The Falklands War of 1982 involved fighting by two Western countries in the four physical environments of land, sea, air and underwater, using various weapons which ranged from the cutting edge to the antiquated. It was also a war in which Western naval warships were exposed for the first time to prolonged aerial attacks from multiple jet aircraft. The war began over a territorial dispute involving the Falkland Islands, with Argentina launching a surprise attack to take control of the islands. In response, Britain launched air strikes and a naval bombardment preparatory to an amphibious assault which resulted in the recapture of the islands and an end to the conflict.

Japan's international environment has changed in recent years, with the emergence of neighboring countries in which economic and population growth has led some to make greater efforts to strengthen their military capabilities, to display greater interest in securing various natural resources, and to make unilateral territorial claims. The purpose of this presentation is to identify the military implications for Japan within this recent environment, based on various research concerning the Falklands War. The logistical aspects of the conflict will not be discussed here, as this has been covered in detail by Dr. Stephen Badsey. This presentation will first highlight the peculiar characteristics of key aspects of the Falklands War which may serve as reference points, and then draw inferences from them in discussing the implications for Japan.

1. Aspects of the Falklands War

(1) Strategic background

Preparations for war

This section will examine the strategic background to the Falklands War as one of the key aspects of the war. Specifically, the focus will be on both sides' preparations for the war and securing of strong alliance partners. These two issues were significant because the Falklands War lasted only 74 days from the occupation of Stanley, the capital of the Falkland Islands, by Argentina, to its recapture by British forces. Because the war ended so quickly, sudden changes in armaments and international relations which could have had any significance were difficult to carry out, which meant that military preparedness prior to the start of the war and relationships with alliance partners had a more significant impact on the war.

Despite the fact that the United Kingdom and Argentina had held prolonged negotiations over their territorial claims to the Falkland Islands, their differences were too diametrically opposed, and this eventually led to war. In such a situation, one might expect that both

countries had made a great effort to prepare for war. Since neither the British nor Argentine forces had considered that war would actually break out or that it would occur in the manner that it actually did, however, neither country had prepared to any extent if at all. The following section will examine the preparations for war (or lack thereof) and their impact on the conflict.

From the British point of view, most of its citizens did not even know where the Falklands were until the war broke out. The Falklands issue had never been viewed as an important matter in Britain, which meant preparations of any kind had not been made in terms of weapons, organization, or training which would be suitable for fighting specifically in the Falklands.¹ In addition, since the end of the Second World War, Britain had downsized its navy because of its long-term economic troubles. In 1971, it had scrapped its policy to maintain a military presence in the British Commonwealth and former colonies east of the Suez.² Furthermore, following a revision of British defense policy in 1981, contributing to NATO operations in Europe became the primary mission of British forces. Thereafter, weapons which could have been useful in a fight in the South Atlantic were steadily eliminated.³

As for the Argentinian forces, conventional logic suggests that they should have been fully prepared militarily, since they initiated the hostilities. Argentina was certainly eager about occupying the Falkland Islands, and it did take control of the islands in just one day, on April 2, 1982, yet the country's armed forces had never thought about how to defend the islands after seizing them. Argentina had believed that Britain was a declining imperial power which was reducing its armaments accordingly, and therefore would not mount a counteroffensive against an Argentine occupation of the Falklands.⁴ The war was therefore unanticipated by both sides, which meant that both were unable to commit weapons which were ideal for the theater or the war. This had a great influence on the unfolding of the conflict, as will be discussed in further detail below.

Jorge Anaya, Commander-in-Chief of the Argentine Navy, was one of the most hawkish of those within Argentina's military junta who advocated the occupation of the Islas Malvinas (Malvinas was the name used for the Falklands in Argentina).⁵ The Argentine Navy was

¹ "Editor's Preface," Stephen Badsey, Rob Havers and Mark Grove eds., *The Falklands Conflict Twenty Years on: Lessons for Future* (London and New York: Frank Cass, 2005), xiv; Nick van der Bijl and David Aldea, *5th Infantry Brigade in the Falklands 1982* (South Yorkshire: Leo Cooper, 2003), p. 5. Prior to the war, the British Foreign & Commonwealth Office ranked the priority of the Falkland Islands as 242th (Eugene L. Rasor, *The Falklands/Malvinas Campaign: A Bibliography* (New York: Greenwood Press, 1992), p. 6.).

² John E. Woods, "The Royal Navy since World War II," *United States Naval Institute Proceedings* (vol. 108, no. 3, March 1982), pp. 86-88.

³ Ministry of Defence, *The United Kingdom Defence Programme: The Way Forward*, Cmnd 8288 (London: HMSO, 1981), paras. 7, 27-31, pp. 5, 10; Alastair Finlan, *The Royal Navy in the Falklands Conflict and the Gulf War: Culture and Strategy* (London: Frank Cass, 2004), note 75, p. 31.

⁴ Martin Middlebrook, *The Fight for the 'Malvinas': The Argentine Forces in the Falklands War* (London: Penguin Books, 1990, first published by Viking, 1989), pp. 1-4; Robert L. Scheina, *Latin America: A Naval History 1810-1987* (Annapolis: Naval Institute Press, 1987), pp. 234-235.

⁵ Middlebrook, *The Fight for the 'Malvinas'*, p. 1.

considered one of the most capable navies in all of Latin America.⁶ Compared to Royal Navy, however, which was still one of the world's foremost navies, there was quite a gap in terms of both equipment and training.

First, the Argentine Navy was almost completely unprepared for anti-submarine warfare. In April, the British established a blockade around the Falkland Islands, 200 nautical miles off its coast, which completely severed maritime communications between the islands and the Argentine mainland, with the exception of a few ships which managed to penetrate the blockade.⁷ In addition, on May 2, the ARA (Armada de la República Argentina) *General Belgrano*, an Argentine cruiser, was sunk by the British nuclear submarine HMS *Conqueror*. Thereafter, the Argentine Navy never ventured beyond Argentina's territorial waters.⁸ Since the Argentine Navy retired to the safety of Argentina's territorial waters without seriously engaging in anti-submarine warfare, which is one of the most important missions of any modern navy, it was guilty of not only military ill-preparedness or negligence, but virtually of a crime against the Argentine nation, especially in view of the fact that it was an enthusiastic proponent of the seizure of the Malvinas in the first place.

Second, Argentina did not make the preparations which would have enabled it to maximize the effect of its various weapons. The ARA *Venticino de Mayo*, Argentina's only aircraft carrier, had a top speed of 24.25 knots (about 45 km/h) when it was completed in Britain in 1945.⁹ During the Falklands War, however, the vessel was only able to achieve 15 knots.¹⁰ In addition, the Argentine Navy had purchased two modern Type 209 diesel submarines from West Germany in 1974.¹¹ One of these, the ARA *Salta*, had just come back from an overhaul in Argentina's naval shipyards when the war broke out, but it made too much noise while submerged and could not be used in the war. Argentina was unable to fix this problem before the war's end. The other submarine, the ARA *San Luis*, had no problems as a functioning vessel and patrolled the sea around the Falkland Islands. It did have problems with its torpedo control system, however, which rendered it unable to hit any British ship during these patrols, even though it actually fired torpedoes at them a number of times.¹²

Argentina's naval air force also failed to prepare for the war. The naval air force became the first in the world to sink an enemy ship in actual combat with the AM-39 Exocet air-to-ship sea-skimming missile, which caught the world's attention. The Argentine Navy only had a total of five Exocets in its arsenal during the war, however, and only five aircraft, the Super Etendard, capable of launching them (moreover, one such Super Etendard was cannibalized

⁶ Robert L. Scheina, "Regional Review: Latin American Navies," *United States Naval Institute Proceedings* (vol. 107, no. 3, March 1981), p. 24; Norman Friedman, "The Falklands War: Lessons Learned and Mislearned," *Orbis* (vol. 26, Winter 1983), p. 908.

⁷ Middlebrook, *The Fight for the 'Malvinas'*, p. 68.

⁸ David Brown, *The Royal Navy and the Falklands War* (London: Guild Publishing, 1987), p. 139.

⁹ *Jane's Fighting Ships 1982-1983* (London: Jane's, 1982), p. 9.

¹⁰ Lawrence Freedman, *The Official History of the Falklands Campaign Volume II* (London: Routledge, 2005), p. 266.

¹¹ *Jane's Fighting Ships 1982-1983* (London: Jane's, 1982), p. 8.

¹² Scheina, *Latin America*, pp. 262-263.

for spare parts, which left only four aircraft that could actually take part in the fighting).¹³ The naval air force had originally planned to purchase 14 Super Etendards and 20 Exocet missiles from France.¹⁴ Since, however, the British eventually sent a task force of more than 100 vessels, including transport ships, Argentina could have deterred the Royal Navy's fleet only if it had several hundred Exocet missiles and several dozen Super Etendards (along with several tanker aircraft capable of aerially refueling them). The Argentine Navy itself did not understand the revolutionary nature of the Exocet weapons system, which is added proof that the Navy had not considered a British counteroffensive to recapture the Falklands.

The Argentine Air Force also failed to prepare for the Falklands war in a number of ways. First, immediately after the occupation of the Falklands, the Argentine Air Force did not extend the runway at Stanley Airport, which was the only paved runway in the Falklands. This runway was only 4,100 feet long (approximately 1,250 meters), which rendered it adequate only for emergency landings by jet fighters and attack aircraft. The Argentine Air Force should have transported materials, machinery and construction workers and constructed a 10,000-foot (3,000-meter) runway, along with aircraft bunkers, before the Royal Navy could establish a naval blockade.¹⁵ If the airport had been converted into a more effective military air base, the Royal Navy's task force probably would not have been able to approach the Falklands as easily as it did. However, the Argentine Air Force never realized this.¹⁶

The use of outdated aircraft by the Argentine Air Force is the second indication of its failure to prepare for a conflict with Britain. The Argentine Air Force's main fighter plane was the Mirage III, while its air-to-air missiles were the MATRA R530, MATRA R550 and Shafrir 2. The Royal Air Force's Sea Harrier FRS.1 was not all that new itself, given that it was based on the original Harrier. The model deployed by the Royal Air Force, however, had a thrust-to-weight ratio of more than 0.9. This was superior to the thrust-to-weight ratio of the Mirage III, which was somewhere between 0.5 and 0.7 (with afterburner). The British also had AIM-9L air-to-air missiles, which were a generation newer than the missiles used by Argentina.¹⁷

Finally, the Argentine Air Force had not expected to engage in anti-ship warfare. Argentina had assigned responsibility for defending Argentina from attacks from the sea to its Navy in 1969, when it determined the assignment of missions and division of responsibilities

¹³ Rodney A. Burden, Michel I. Draper, Douglas A. Rough, Colin R. Smith, David L. Wilton, *Falklands the Air War* (Dorset: Arms and Armour Press, 1986), p. 34.

¹⁴ Scheina, *Latin America*, p. 256.

¹⁵ René De La Pedraja, "The Argentine Air Force versus Britain in the Falkland Islands, 1982," Robin Higham and Stephen J. Harris, eds., *Why Air Forces Fail: The Anatomy of Defeat* (Lexington: The University Press of Kentucky, 2006), pp. 242-243.

¹⁶ *ibid.*, p. 243. Lawrence Freedman notes that the Argentine Air Force temporarily placed airstrip matting on a transport ship bound for the Falklands, but they were taken off the ship after their priority was changed. (Freedman, *The Official History of the Falklands Campaign* Volume II, p. 734.)

¹⁷ Anthony H. Cordesman and Abraham R. Wagner, Ch. 3, "The Falklands War," *The Lessons of Modern War*, vol. III (Boulder: Westview Press, 1991), pp. 306, 309, 310. The engine thrust to weight ratio was calculated by the author based on aircraft data (Supervising Editor Hidemasa Kimura, *Kôkûjânaru bessatsu—Sekai no gunyôki 1982* (*Aviation Journal Separate Volume—Military Aircraft of the World 1982*), December 1981), pp. 21, 43).

among its Army, Navy, and Air Force.¹⁸ As a result, the Argentine Air Force hastily conducted training in attacking ships at sea with conventional bombs only after the war began. The haste with which this training was conducted was reflected in the Air Force's combat performance. For example, even when the Air Force managed to hit a British warship with bombs in an ultra-low level attack, the bombs often failed to explode because the fuses were incorrectly set. The Argentine Air Force managed to directly hit British warships approximately 25 times, but 18 to 20 of these failed to detonate.¹⁹

The Argentine Army's lack of preparation can be seen in the fact that it allowed the war to begin in April. One of the Argentine military's problems was caused by its conscription system. Argentine males had to serve one year (actually 10 months) during the year in which they turned 19 years of age, after which time they were considered reserve soldiers that could be called up at any time in a national emergency. The Argentine Army's year began in January, when its officers, commissioned and non-commissioned, prepared for the incoming group of conscripts for that year. The Argentine system did not separate its enlisted personnel into ranks. Infantry regiments normally began training in February, when the draftees for that year arrived, and the release of draftees began as the end of the year approached. The status of the draftees was low, and they were never promoted. During the Falklands War, the Argentine Army's soldiers consisted almost entirely of the cohort of draftees born in 1963. Some 90,000 of the army's total of 130,000 personnel were draftees, with similar numbers for the Navy and Air Force being 18,000 out of 36,000, and 10,000 out of 19,500, respectively.²⁰

The drawback of this conscription system was that the Army's units were perpetual training organizations for first-year draftees, regardless of the existence of a professional core of commissioned and non-commissioned officers. Joint training involving different units was rarely undertaken, let alone training in combined armed operations. The combat readiness of units was especially low for the first few months of every year, and yet Argentina embarked upon the Falklands War during this period of the year, when the combat readiness of units was at its lowest. Upon being told they were to be deployed to the Falklands, some Argentine units even replaced their draftees that had just been inducted in 1982 with reservists that had completed their training the previous year.²¹

Next, the presentation will take a closer look at the lack of military preparations on the part of the British forces. As noted earlier, after the British reviewed their national defense policy in 1981, the role of the Royal Navy was to operate as a component of NATO strategy. Its most important mission would be to conduct anti-submarine operations against the Soviets

¹⁸ Pedraja, "The Argentine Air Force versus Britain in the Falkland Islands, 1982," p. 234.

¹⁹ Chris Hobson with Andrew Noble, *Falklands Air War* (Hinckley: Midland, 2002), pp. 66, 79-82, 88, 92, 95-97, 107, 124-128; Brown, *The Royal Navy and the Falklands War*, pp. 159-160, 191-194, 207, 212-214, 218-223, 250, 297-304; Freedman, *The Official History of the Falklands Campaign* Volume II, pp. 787-788.

²⁰ Middlebrook, *The Fight for the 'Malvinas'*, pp. 49-52; *Military Balance 1981-1982* (autumn 1981), pp. 92-93.

²¹ Middlebrook, *The Fight for the 'Malvinas'*, p. 52; Freedman, *The Official History of the Falklands Campaign* Volume II, p. 82.

in the Northeast Atlantic.²² As a result, the Royal Navy came to place less emphasis on amphibious operations, and possessed only one amphibious assault ship, the HMS *Fearless*, when the Falklands War began. Her sister ship, the HMS *Intrepid*, had just been retired and was about to be scrapped. The *Intrepid* was saved from this fate and quickly repaired, its previous crew re-assembled, and it sailed from Britain for the Falklands on April 26.²³

As noted above, a poor economy forced Britain to abandon its policy of projecting its military “east of Suez” in 1971, after which Britain focused instead on combating Soviet naval forces in the Eastern Atlantic. As a result, the country’s last remaining aircraft carrier capable of accommodating conventional take off and landing (CTOL) aircraft was retired in 1979.²⁴ The only Royal Navy aircraft carriers which took part in the Falklands War were two anti-submarine warfare (ASW) aircraft carriers that were only able to accommodate vertical/short takeoff and landing (V/STOL) aircraft and helicopters. In addition, these two carriers could not operate early-warning aircraft. This was because the two carriers were supposed to operate in the eastern Atlantic, where air support could be provided from ground bases.²⁵

However, the only aircraft in the Royal Air Force capable of actually flying from their ground bases to the Falklands were the Vulcan bomber, Nimrod patrol aircraft, Victor tanker aircraft, and Hercules transport aircraft. These could reach the Falklands only by aerially refueling enroute, and could not stay in the airspace around the Falklands for any sustained period of time.²⁶ This proved to be a major problem for fleet air defense and, by extension, the maintenance of air superiority in the area around the Falkland Islands.

The Royal Navy’s defenses were not designed to withstand concentrated air attacks from small attack aircraft. The Royal Navy’s defenses had been designed to counter cruise missiles launched from long-range Soviet bombers, Soviet nuclear submarines, and Soviet nuclear weapons.²⁷

Both military forces thus were ill-prepared as they entered the war. One side proved itself superior, however, and emerged as the victor at war’s end. What made the difference? Some observers have noted that the British were adept at overcoming problems through self-innovation and improvisation, and displayed these traits at joint operations level. Others have commented that, in particular, the excellent training, preparation, leadership, skills, boldness, and strong determination on the part of the British made the difference.²⁸

²² Ministry of Defence, Cmnd 8288, paras. 21, 22, p. 8.

²³ *ibid.*, para. 31, p. 10; Brown, *The Royal Navy and the Falklands War*, pp. 65, 68; Burden et al., *Falklands the Air War*, p. 433.

²⁴ Woods, “The Royal Navy since World War II,” pp. 86-87.

²⁵ Ministry of Defence, Cmnd 8288, para. 25, p. 9.

²⁶ Eleven Victor tanker aircraft were needed for the roundtrip flight of one Vulcan bomber between Ascension Island and East Falkland Island for the attack on the Stanley Airport runway launched on May 1, 1982 (Jeffrey Ethell and Alfred Price, *Air War South Atlantic* (London: Sidgwick & Jackson, 1983), p. 45).

²⁷ Finlan, *The Royal Navy in the Falklands Conflict and the Gulf War*, pp. 70-71.

²⁸ Cordesman and Wagner, “The Falklands War,” p. 351; Pedraja, “The Argentine Air Force versus Britain in the Falkland Islands, 1982,” p. 227.

Securing Strong Alliance Partners

The second strategic issue this presentation will look at is the securing of strong alliance partners. Since Ken Kotani will discuss matters related to diplomacy, this presentation will examine the military impact of this strategy. In 1978, during the Carter administration, the United States alleged the Argentine military junta was responsible for human rights violations and invoked an arms embargo on Argentina. After the start of the Reagan administration, however, Argentina's military junta was an active supporter of the American anti-Communist policy in Central America. This was partly because the military junta opposed communism, but, more importantly, also because the junta wanted America to lift its arms embargo.²⁹

However, the arms embargo was still in place at the outset of the Falklands War. Because Argentina had purchased many weapons from the United States, the arms embargo had a serious negative impact on the operational rates of the electronics of Argentina's weapons and other components of Argentina's arsenal. For example, Argentina was unable to replace the antiquated rechargeable batteries on the submarine ARA *Santa Fe*, formerly the USS *Catfish*, which restricted the *Santa Fe*'s ability to stay submerged.³⁰ Similarly, the operational rates of the A-4 Skyhawk attack aircraft used by the Argentine Air Force and naval air arm were poor, due to maintenance problems caused by the arms embargo.³¹

In addition, Argentina anticipated that the United States would take a neutral stance toward the Malvinas territorial dispute, as it had in the past.³² However, America pledged its full support to Britain, and gave it a huge amount of American assistance, including weapons, logistical support and intelligence.³³ This included AIM-9L air-to-air missiles, which played an important role in the conflict, Harpoon anti-ship missiles, Shrike anti-radar missiles, Stinger ground-to-air missiles, 47 million liters of aviation fuel, 4,700 tons of airfield matting, and a huge number of mortar rounds.³⁴ This assistance from the United States made it easier for Britain to attain victory.

Relations with neighboring countries which were not superpowers also had an impact on the war. Argentina had a long-running territorial dispute with Chile, with which it shares a long border, regarding the Beagle Channel and the sovereignty of the islands located therein. On occasion, the two sides clashed militarily. Argentine-Chilean relations were thus in a poor state.

Argentina's military initially believed that Britain would not retaliate, but once it became clear that the British would mount a counteroffensive, Argentina's military reinforced the army units deployed in the Falkland Islands, in order to prevent their recapture. The units chosen for this mission were Brigada Mecanizada X (10th Mechanized Brigade) and Brigada

²⁹ Lawrence Freedman and Virginia Gamba-Stonehouse, *Signals of War: The Falklands Conflict of 1982* (London and Boston: Faber and Faber, 1991, first published 1990), pp. 32-33.

³⁰ Scheina, *Latin America*, p. 262.

³¹ Freedman, *The Official History of the Falklands Campaign* Volume II, p. 264.

³² Freedman and Gamba-Stonehouse, *Signals of War*, p. 33.

³³ Cordesman and Wagner, "The Falklands War," p. 260; Freedman, *The Official History of the Falklands Campaign* Volume II, p. 73.

³⁴ Cordesman and Wagner, "The Falklands War," pp. 260-263.

de Infanteria III (3rd Infantry Brigade). These particular brigades were chosen because the 10th Mechanized Brigade was stationed around the capital, far from the national border, while the 3rd Infantry Brigade was stationed on the border with Uruguay, which had a stable relationship with Argentina. These units were not suited to fighting in the Falklands, which are located around 50 degrees south latitude, and were about to enter the winter season.³⁵ In other words, the 3rd Infantry Brigade was stationed in the north of the country in a subtropical zone, while the 10th Mechanized Brigade was also unprepared for operations in cold climates.

The Argentine Army did have other formations which seemingly were more suitable for the Falklands War, in terms of equipment and climate. The Brigada de Montaña VI (6th Mountain Brigade) and Brigada de Montaña VIII (8th Mountain Brigade) were superbly equipped, while the Brigada Mecanizada XI (11th Mechanized Brigade) was more prepared for cold weather operations because it was stationed in the southernmost region of the country. These units were fully operational, but none could be employed in the Falklands War, because all three were stationed on the border with Chile.³⁶

In its fight against Britain, which was still a major, albeit declining, power, Argentina completely misjudged the response of not only Britain, but also America, the superpower with great influence. This turned out to be a fatal error and determined the outcome of the war. In addition, Argentina remained weighed down with its dispute with Chile, even though one ideally should minimize the number of its adversaries when starting a war. Argentina therefore was unable to fully concentrate its military forces where it needed them the most.

(2) Tactical aspects

The Securing of Air Superiority

Next, this presentation will examine the characteristics of the tactical aspects of the Falklands War, focusing on the following five issues.

The first involves the securing of air superiority. It goes without saying that the attacker needs to secure air superiority before it may launch an amphibious operation aimed at recapturing an island defended by the enemy. If the Argentine military had firmly secured air superiority over the Falkland Islands, the British would not have been able to stage a counterlanding there. The British for their part, however, did not necessarily maintain complete air superiority, were unable to completely nullify attacks by Argentina's Air Force and naval air arm, and suffered considerable damage to their warships as a result.

The British used their Sea Harrier aircraft as the first means of securing air superiority. As noted above, the manoeuvrability of the Sea Harrier and the reliability of its AIM-9L air-to-air missiles were superior to Argentina's Mirage III and MATRA air-to-air missiles. Furthermore, British pilots were more skilled than their Argentine counterparts.³⁷ In the first battle over the Falklands between Argentine Air Force and Royal Navy pilots, both sides

³⁵ Middlebrook, *The Fight for the 'Malvinas'*, pp. 52-56.

³⁶ Middlebrook, *The Fight for the 'Malvinas'*, p. 56.

³⁷ Ethell and Price, *Air War South Atlantic*, p. 64.

recognized the superiority of the Sea Harrier.³⁸

However, after a Super Etendard of the Argentine Navy hit the HMS *Sheffield* of the Royal Navy with an Exocet air-to-ship missile on May 4, Rear Admiral John Woodward of the Combined Task Group 317.8 (the British Carrier Task Group) sent its two aircraft carriers far to the east of the Falklands, beyond the range of the Super Etendard, in order to avoid further exposure to the threat posed by the Exocet missile.³⁹

The Sea Harrier was the primary British means for seizing air superiority, and the Sea Harrier needed the two carriers HMS *Hermes* and HMS *Invincible* for operations, maintenance and refueling. Although the Royal Navy did establish electronic countermeasures (ECM) against the Exocet missile after the loss of the *Sheffield*, Admiral Woodward probably wished to minimize any risk to his carriers, in order to ensure the maintenance of British air superiority.⁴⁰

The Sea Harrier, however, had a short cruising range, and was therefore unable to maintain a constant patrol over the Falklands when they were based on carriers deployed so far out to sea in the east. This made it difficult for the British to maintain air superiority round the clock over the Falklands. As a result, many Royal Navy warships were hit and damaged by Argentine air units. If the British had been able to use early-warning aircraft, they probably would have been able to move their aircraft carriers closer to the Falklands. As stated earlier, however, Britain retired its last conventional aircraft carrier in the late 1970s, which was capable of accommodating the Gannet early-warning aircraft. This left it with only the HMS *Hermes* or HMS *Invincible*, which could not operate the Gannet.⁴¹

The Sea Dart, Sea Wolf and other ship-to-air missiles, Rapier, Blowpipe and other ground-to-air missiles, and anti-aircraft cannon served as shields for the British near the Falklands when there were no Sea Harriers immediately available. These weapons deployed onboard or on the ground were the second method of securing air superiority employed by the British. However, these systems also had flaws. The British ship-based air defense system was not truly effective as a whole, because the integration of sensors and fire control systems, integration of electronic support systems and jamming systems such as chaff, and the integration of long-range and short-range air defense systems was not very advanced in the British Fleet. Because of the characteristics of its acquisition radar, the Sea Dart was ineffective at long range against targets flying lower than 2,000 feet, and at short range against targets flying lower than 50 feet. Likewise, the Sea Wolf was unable to simultaneously track multiple (two or more) targets.⁴²

³⁸ Burden et al., *Falklands the Air War*, pp. 145-146; furthermore, this was the first aerial battle in the history of the Argentine Air Force.

³⁹ Freedman, *The Official History of the Falklands Campaign* Volume II, p. 469; Hobson, *Falklands Air War*, p. 57.

⁴⁰ The British established ECM against the Exocet air-to-ship missile after the attack on the HMS *Sheffield* and used this method during the war. The reason why an Exocet missile struck the SS *Atlantic Conveyor* container ship on May 25 was because the ECM caused the missile to go for the chaff, just beyond which was the ship. The SS *Atlantic Conveyor* did not have electronic support measures (ESM) and ECM on board. (Brown, *The Royal Navy and the Falklands War*, pp. 145, 169, 228.)

⁴¹ Burden et al., *Falklands the Air War*, p. 243.

⁴² Cordesman and Wagner, "The Falklands War," pp. 345-347.

After May 1, the Argentine Air Force and naval air arm attempted to avoid direct combat with the Sea Harrier. Like the British, Argentina did not have early-warning aircraft, so AN/TPS-43 radar sets deployed around Stanley, capital of the Falklands, acted as the “eyes” of the Argentines. However, this radar could detect targets at low altitude over the sea only if they were within 26 nautical miles (nm), and within 35 nm if the target was at an altitude of 500 meters.⁴³ The Falkland Islands have roughly the same land area as Niigata Prefecture (about 12,000 square kilometers), and reach a high elevation of 705 meters. Stanley is a port town at low elevation located on the westernmost tip of the Falklands, which means the radar sets placed around Stanley must have had extremely large blind spots. As a result, Argentina’s aerial warning system in all likelihood also did not work perfectly.

Argentina’s air forces inflicted considerable damage to the Royal Navy fleet after the British landed at San Carlos on May 21, but many have noted that Argentina erred in determining the priority of its targets. In other words, Argentina could have improved its prospects in the subsequent ground fighting by attacking British transports while they were in the process of unloading their cargoes and by bombing the unloaded military supplies which were stacked in the open around San Carlos, before the British could deploy their Rapier ground-to-air missiles on the ground.⁴⁴ However, the Falklands were at the extreme range of Argentine fighters and attack aircraft which sortied from the Argentine mainland, and the A-4 Skyhawk and Super Etendard were the only types capable of being refueled in air; the Mirage III and the Dagger lacked this capability. In addition, Argentina only had two KC-130 aerial tankers, which made it impossible to send a large attack group which could be refueled enroute, and then rely on sheer numbers to overwhelm the British fleet’s air defense system. Therefore, Argentina’s pilots often attacked the first target that they saw, and the British deployed its ships so that warships armed with anti-aircraft missiles would be closer to the Argentine mainland and could shield the rest of the fleet.⁴⁵

The Argentine Air Force also suffered serious losses. Argentina’s air forces lost a total of 45 aircraft in aerial combat throughout the war. 25 of these were lost in combat against the Sea Harrier (AIM-9L missiles accounted for 18 of these, while five were gunned down with 30mm cannon, and one was lost to a combined attack with AIM-9L missiles and 30mm cannon. In addition, one crashed into the sea while trying to evade attack). 20 Argentine aircraft were shot down by British anti-aircraft missiles and guns (five by Sea Dart ship-to-air missiles, three by Sea Wolf ship-to-air missiles, and one each by Sea Cat ship-to-air missiles, Rapier ground-to-air missiles, and 40mm cannon. Five were downed by Blowpipe and Stinger ground-to-air missiles, and four were shot down by a combination of these weapons).⁴⁶ The Argentine Air Force was able to attack in reasonable strength only until May 25, but after May 26, less than

⁴³ *ibid.*, p. 279.

⁴⁴ Middlebrook, *The Fight for the ‘Malvinas’*, pp. 164-165.

⁴⁵ Horacio Mir Gonzalez, “An Argentinean Airman in the South Atlantic,” Stephen Badsey, Rob Havers and Mark Grove, eds., *The Falklands Conflict Twenty Years on: Lessons for the Future* (London: Frank Cass, 2005), pp. 77-78.

⁴⁶ Ethell and Price, *Air War South Atlantic*, p. 245.

ten Argentine sorties per day managed to reach the airspace over the battlefield.⁴⁷

In the end, the passive tactic of avoiding combat with Sea Harriers left Argentina unable to maintain air superiority, and unable to repulse the British amphibious operation. Argentina needed an aggressive operational policy of attacking the Sea Harriers, antiaircraft missiles, air defense radars, and aircraft carriers, the last of which were the operating bases of the Sea Harriers, and all of which were the key components of Britain's air superiority. The Argentine air forces, however, had too many shortcomings to carry out such an aggressive policy.

The Securing of Command of the Sea

The next tactical aspect that will be discussed is the securing of command of the sea. Generally speaking, command of the sea or sea control is all but guaranteed if one's air superiority extends over the water, but in the Falklands War, the British secured sea control before air superiority. On April 12, 1982, ten days after Argentina began its occupation of the Falklands, the British had established a naval blockade around the islands extending offshore to 200 nautical miles. This was possible because the nuclear submarine HMS *Spartan* had arrived and began patrolling the area prior to the arrival of British air forces.⁴⁸ The *Spartan* had departed Gibraltar on April 1, one day before Argentina invaded the Falklands.⁴⁹ This demonstrated the Royal Navy's superior ability to respond and the high mobility of its nuclear submarines.

As noted earlier, the Argentine Navy failed to prepare for anti-submarine warfare. As a result, all seaborne communications were cut off between the Argentina mainland and the Falkland Islands.⁵⁰ Argentina therefore could not send fuel, spare parts, and other supplies to the Falklands, which casts doubt on whether Argentina could have fought effectively in the Falklands even if they had been able to send many vehicles, helicopters, and even jet fighter units to the Falklands. In addition, Argentina was unable to transport a large amount of construction equipment to the Falkland Islands because of the naval blockade, which left it unable to fortify the islands.⁵¹

On the other hand, Argentina's diesel-powered submarines had a significant impact on British task force operations. At the start of the war, the Argentine Navy possessed four diesel submarines. One of these, the ARA *Santa Fe*, was captured by British forces on April 25, during the recapture of South Georgia Island.⁵² The only submarine of the remaining three that was able to conduct patrols against the British task force was the ARA *San Luis*. Moreover, as stated earlier, the fire control system of the *San Luis* was defective, and, as a result, it did not achieve anything of military significance during the war.⁵³

Nevertheless, the Royal Navy expended a great amount of energy and a large number of anti-submarine munitions on anti-submarine operations against the lone and crippled *San*

⁴⁷ Freedman, *The Official History of the Falklands Campaign* Volume II, pp. 488-490.

⁴⁸ *ibid.*, p. 80.

⁴⁹ Freedman, *The Official History of the Falklands Campaign* Volume I, p. 200.

⁵⁰ Middlebrook, *The Fight for the 'Malvinas'*, pp. 67-68.

⁵¹ *ibid.*, p. 61.

⁵² Scheina, *Latin America*, p. 247.

⁵³ *ibid.*, p. 262.

Luis.⁵⁴ From April to June, two British helicopter squadrons flew a total of 2,253 sorties and spent 6,847 hours on anti-submarine patrols. Three helicopters at a time were constantly airborne, patrolling 24 hours a day above the British task force. One particular helicopter logged 265 flight hours in a single month, which meant it had spent one third of all the hours in a month airborne.⁵⁵ Despite this effort, however, the Royal Navy was still unable to sink the *San Luis*. This is one example that shows how the mere presence of a diesel submarine posed a threat.

Later, on April 30, the British task force arrived in the area around the Falkland Islands, and the British naval blockade was strengthened and expanded to a total blockade of the Falklands, which included the severing of aerial traffic to and from the islands. On May 2, the Argentine cruiser ARA *General Belgrano* was sunk by the Royal Navy's nuclear attack submarine HMS *Conqueror*. After this, the Argentine Navy's warships retreated to the safety of Argentina's territorial waters, and the British solidified their command of the sea around the Falklands.⁵⁶

Concentration of Firepower and Mobility during the Ground War

The third tactical aspect that will be discussed is the concentration of firepower and mobility of the ground forces. The Argentine Army had many tanks on the mainland, but the only combat vehicles it could send to the Falklands were approximately ten French Panhard AML 90 armored cars, armed with 90mm guns. These purportedly provided firepower support during the defense of Stanley in the final stages of the war. The British sent eight light tanks to the Falkland Islands, which took part in the attack on Wireless Ridge on June 13, one of the final battles of the war.⁵⁷

Throughout the war, however, both militaries fought predominantly with infantry supported by artillery. The Argentine military supposedly did not emphasize mobile warfare because it did not have an interest in waging aggressive mobile battles.⁵⁸ Even in that case, however, Argentina's military absolutely should have sent tracked vehicles to the Falkland Islands beforehand, in order to confirm the extent of their mobility on local terrain that included peaty soil and rocky ridges.

Since it could deploy only 12,000 infantry on an island the size of Niigata Prefecture, Argentina was unable to station troops on every square foot of the islands. Argentina's military employed a static defense of the vital areas of the Falklands, deploying 70% of their forces in the capital of Stanley and the remaining 30% at Goose Green, Port Howard, and Fox Bay Village, the latter two being on West Falkland Island.⁵⁹

General de Brigada Mario Benjamín Menéndez, Commander of Argentine army forces

⁵⁴ Friedman, "The Falklands War," p. 914.

⁵⁵ Hobson, *Falklands Air War*, pp. 157-158.

⁵⁶ Freedman, *The Official History of the Falklands Campaign* Volume II, pp. 296-298, 301.

⁵⁷ *Military Balance 1981-1982*, p. 92; Cordesman and Wagner, "The Falklands War," pp. 287-288; Andrew R. Jones, "British Armour in the Falklands," *Armor* (vol. 92, no. 2, March-April 1983), pp. 26-30.

⁵⁸ Cordesman and Wagner, "The Falklands War," pp. 282-283, 288.

⁵⁹ Middlebrook, *The Fight for the 'Malvinas'*, pp. 58-59, 61-62.

in the Malvinas, considered how to mobilize his infantry for an attack on the British beachhead that was established when the British landed in San Carlos on May 21. Because available transport limited his forces to foot marches, the General gave up, because his forces had no way of protecting themselves against British air attacks while enroute.⁶⁰ Generally speaking, the Argentine Army was rather passive and failed to take the initiative.

There were moments when the British faltered in their assaults on Argentine defenses, such as during the Battle of Goose Green on May 28, when the British attack was momentarily derailed by Argentina's defensive fire. If Argentina had concentrated its forces and counterattacked, the British may have had to abandon their efforts to take Goose Green. The Argentine forces remained committed to their fixed positional defenses, however, and lost the opportunity to deal the British a setback.⁶¹

The British likewise faced similar problems in terms of mobility. On May 25, an Exocet missile fired from a Super Etendard of the Argentine naval air force struck the British merchant navy ship *SS Atlantic Conveyor*, causing a huge fire. Because of this fire, three Chinook and six Wessex helicopters on board the ship were lost, which threw the original British plan to use these helicopters to move all ground forces that had landed in San Carlos into disarray.⁶²

The British did not give up because of this setback, however. Two battalions advanced on foot across eighty kilometers of peat and rocky ridges, with each man carrying fifty kilograms of equipment on his back. Moreover, this was accomplished without complete superiority in the air, just like the Argentine forces. In the end, the British forces were able to utilize mobile tactics while the Argentines could or would not, even though both sides operated under the same or similar geographical and tactical conditions.⁶³ Helicopters thus necessarily did not satisfy all of the ground forces' requirements, but British helicopters played a vital role in the movement of troops, transport of ammunition, missiles, and other munitions, resupply of materiel and ammunition, and the evacuation of wounded, among others.⁶⁴

The British excelled at the concentration of firepower. The mainstay of British artillery in the Falklands was the 105mm L118 light gun. The British used helicopters to support the movement of these guns and their ammunition, and were able to aggressively provide fire support by relocating their artillery according to changes in the tactical situation.⁶⁵ The British used 81mm mortars and MILAN anti-tank missiles in support of their infantry. 66mm LAW anti-tank rockets (M72 Light Anti-Tank Weapon), 84mm Carl Gustav recoilless rifles and 40mm M79 grenade launchers were used when assaulting fortified positions.⁶⁶ In addition, the British actively used naval gunfire to support ground operations, which was in sharp contrast with the Argentine Navy, which retreated to the safety of Argentine territorial waters after

⁶⁰ Freedman and Gamba-Stonehouse, *Signals of War*, pp. 363-364.

⁶¹ Mark Adkin, *Goose Green: A Battle Is Fought to Be Won* (London: Cassell, 2003, first published by Leo Cooper, 1992), pp. 140-141.

⁶² Freedman, *The Official History of the Falklands Campaign* Volume II, pp. 559-560.

⁶³ *ibid.*, pp. 584-589.

⁶⁴ Cordesman and Wagner, "The Falklands War," pp. 325-327.

⁶⁵ *ibid.*, pp. 289-290.

⁶⁶ Adkin, *Goose Green*, p. 33.

the sinking of the *General Belgrano* and did nothing to support its ground units. Especially noteworthy was the attachment of Naval Gunfire Observers (NGFO), who had been specially trained to monitor and redirect the targeting of naval gunfire, to both Royal Army and Royal Marine units.⁶⁷

The Argentine military brought four 155mm cannon to the Falklands, which were the largest caliber artillery used by either side during the entire war. However, the fourth was transported by air only during the night of June 13, the night before Argentina's defeat. The Argentine forces' main artillery was the 105mm Model 56 pack howitzer. The Argentines fielded a similar number of 105mm guns as the British 105mm light gun, but the range of fire of the Argentine 105mm was less than that of the British gun. The Argentine forces also used the 81mm mortar, 106mm recoilless gun, and 20mm and 35mm antiaircraft cannon, which proved to be relatively effective. The Argentine military exceeded the British in terms of total firepower, but the Argentines did not concentrate their firepower and carry out concentrated barrages or bombardments. The Argentines also were passive when they needed to aggressively hit targets. The Argentines thus failed in the employment of their artillery and guns.⁶⁸

Superiority in Intelligence, Surveillance, and Reconnaissance

The fourth tactical aspect that will be discussed is superiority in intelligence, surveillance, and reconnaissance. As is clear from the fact that it could not prevent Argentina's invasion of the Falklands, the British did not have a system in place to collect intelligence on the South Atlantic area. The only intelligence that the British had on the Argentine military when the war began was what had been gleaned from *Jane's Military Almanac* and *The Military Balance*. After war broke out, the British received extremely valuable intelligence from the United States on Argentina's capabilities. The British also received information from France about the performance and limitations of the weapons, especially the Exocet missile, that France had sold to Argentina. Furthermore, France provided the British with actual Mirage III and Super Etendard aircraft, and even arranged for mock combat engagements using these aircraft for the benefit of Britain's Harrier pilots.⁶⁹

The British furnished Chile, which was locked in a border dispute with Argentina, with Hawker Hunter fighters and Canberra bombers. In exchange, the British were permitted to set up a radar installation on the Chile-Argentina border, which was operated by Chile and from which it obtained information on the movements of Argentine aircraft. In addition, Chile allowed the British to conduct secret reconnaissance missions, using Nimrod reconnaissance aircraft which flew from the airport on San Felix Island, located in Chile's territorial waters in the Pacific Ocean.⁷⁰

⁶⁷ *ibid.*, p. 76; Cordesman and Wagner, "The Falklands War," pp. 289-290.

⁶⁸ Cordesman and Wagner, "The Falklands War," pp. 289-290.

⁶⁹ Freedman, *The Official History of the Falklands Campaign* Volume II, pp. 72-73. Cordesman states that the United States also provided satellite images, but Freedman, who is quoted in the presentation, says that the United States did not provide satellite images other than those for South Georgia Island (Cordesman and Wagner, "The Falklands War," pp. 274-275.).

⁷⁰ Freedman, *The Official History of the Falklands Campaign* Volume II, pp. 394-403.

The British used Nimrod MR2 reconnaissance aircraft stationed on Ascension Island for monitoring the seas between the Falkland Islands and the coast of the Argentine mainland. The Nimrod MR2 was equipped with electronic support measures (ESM), while the Nimrod R1, which also took part in the war, was used for electronic reconnaissance, and likely flew missions to collect signal intelligence (SIGNINT) and communication intelligence (COMINT).⁷¹

In addition, the British sent Special Air Service (SAS) and Special Boat Squadron (SBS) units to the Falklands, starting May 1. These special forces enabled the British to collect information on the ground regarding, among others, possible landing sites for the counterassault, the deployment of the Argentine forces, and commanding elevations and other aspects of the terrain.⁷² The British Army also carried out prudent warning and surveillance activities after landing.⁷³

Argentina could not rely on any other country to provide it with intelligence, as the British could and did on the Americans. The Argentine Air Force used Boeing 707 passenger jets, C-130 transport aircraft and Gates Learjets equipped for aerial photography for surveillance and reconnaissance. On April 21, 1982 an Argentine Boeing 707 was able to sight the British aircraft carrier battle group moving south from Ascension Island. Excluding the Learjet, these aircraft were not specially modified for reconnaissance missions, and since they were commercial aircraft used to carry passengers or cargo, there were limitations when it came to operating them in a war zone. In fact, one C-130 and Learjet each were shot down by the British while on reconnaissance missions around the Falkland Islands.⁷⁴

The Argentine naval air force possessed two Lockheed Neptune patrol aircraft. One of these detected the British carrier battle group to the south of the Falklands on May 4 and reported its position. Argentina then dispatched a flight of Super Etendards to intercept the carrier battle group, and damaged the destroyer HMS *Sheffield* with Exocets. However, the airframes, engines radar, and electronics of the Argentine Navy's Neptunes were old and had reached the limits of their service lives. Both of the aircraft were pulled from active duty on May 15, and were not replaced by any successor aircraft for the remainder of the war.⁷⁵

The Argentine Army did not carry out sufficient warning and surveillance activities during its ground operations. During the Battle of Goose Green and in the fighting around Stanley, Argentine forces were not sufficiently alert against British night-time attacks.⁷⁶

The weakness of intelligence, surveillance, and reconnaissance on the part of the Argentine military created many problems for the Argentines during the war. These included

⁷¹ Cordesman and Wagner, "The Falklands War," pp. 277-278; Burden et al., *Falklands the Air War*, pp. 401-404.

⁷² Freedman, *The Official History of the Falklands Campaign* Volume II, pp. 394-403.

⁷³ Adkin, *Goose Green*, p. 119.

⁷⁴ Burden et al., *Falklands the Air War*, pp. 76-89.

⁷⁵ Santiago Rivas, *Wings of the Malvinas: The Argentine Air War over the Falklands* (Manchester: Hikoki Publications, 2012), pp. 243-244, 266; Burden et al., *Falklands the Air War*, pp. 47-48; Hobson, *Falklands Air War*, pp. 165-166.

⁷⁶ Spencer Fitz-Gibbon, *Not Mentioned in Dispatches...: The History and Mythology of the Battle of Goose Green* (Cambridge: Lutterworth, 1995), p. 34; Ministry of Defence, *The Falklands Campaign: The Lessons*, Cmnd 8758 (London: HMSO, 1982), para. 212, p. 17.

the inability of Argentina to attack the British task force before the British landed at San Carlos, the attacking of destroyers rather than transports off of San Carlos, and the inability of the Argentines to quickly send reinforcements to sectors which were under attack in the ground fighting.

The Importance of Joint Operations

The fifth tactical aspect that will be discussed involves the importance of joint operations. The British Permanent Joint Headquarters (PJHQ) did not exist in 1982, having been established only in 1996.⁷⁷ However, to the British, wars historically involved the transport of forces overseas, where the fighting took place. It may therefore be argued that Britain always possessed the necessary foundation for joint operations. During the Falklands War, Admiral Sir John Fieldhouse was appointed Commander Task Force, or CTF317/324, and placed in charge of Britain's army, navy, air force, and marines which were involved in the Falklands conflict. Joint operations involving Britain's army, navy, and air forces were, for the most part, a success in this war.

There was one precarious moment during the war when a difference in opinion arose between Admiral Fieldhouse and Brigadier Julian H. A. Thompson, who was in charge of the Landing Group, shortly before and after the start of fighting at Goose Green. This discrepancy arose because Brigadier Thompson was in the field and only knew about conditions in the Falklands, while Admiral Fieldhouse was in London where he was more in touch with the sentiment of the British people and the thoughts of politicians.⁷⁸

In comparison, the Minister of Defense and Joint Chiefs of Staff in Argentina did not wield a great deal of power, and the commander-in-chiefs of the Army, Navy, and Air Force each focused exclusively on the matters that pertained to their branch of service. As a result, Argentina only had a minimal joint operations plan.⁷⁹ Consequently, joint operations were simple and conducted only to the extent of, for example, Navy planes being refueled by the Air Force's tankers or the Navy transporting supplies for the Army. Argentine joint operations never attained a level wherein the three services could undertake operations jointly to realize the objectives of the nation.

For example, in the case of the Falklands War, the Navy planned the invasion of the "Malvinas," and the Navy and Marines provided the bulk of the forces which actually conducted the operation.⁸⁰ As stated previously, after the *General Belgrano* was sunk by a British nuclear submarine on May 2, the Argentine Navy withdrew nearly all of its ships back to the safety of ports in Argentina proper. After this, the Navy's only involvement in the war was in the form of attacks by naval air forces, actions by the Marines, and the transport of supplies around the

⁷⁷ Jonathan Bailey and Davis Benest, "The Development of the Joint Doctrine since the Falklands Conflict," Stephen Badsey, Rob Havers and Mark Grove, eds., *The Falklands Conflict Twenty Years on: Lessons for the Future* (London: Frank Cass, 2005), p. 284.

⁷⁸ Freedman, *The Official History of the Falklands Campaign* Volume II, pp. 552-564.

⁷⁹ Freedman and Gamba-Stonehouse, *Signals of War*, p. 103.

⁸⁰ Middlebrook, *The Fight for the 'Malvinas,'* pp. 1-6, 14-16.

Falklands. Furthermore, each of these were conducted only on a small scale.⁸¹

This was first and foremost because the Argentine Navy completely misjudged the response and capabilities of the British forces, and were very hasty and somewhat thoughtless in deciding to embark upon a war upon which the fate of their country rested. A second point which should be noted is the fact that Argentina's Navy virtually self-confined itself without having made a serious effort at anti-submarine warfare, which should be the prime specialty of any navy. This indicates that the Argentine Navy had not done for many years what it should have been doing as a navy.

The reasoning that Argentina could not have done much more vis-à-vis Britain because Chile might have attacked if Argentina committed all of its military forces to the Falklands War⁸² indicates that the Argentine Navy was too concerned with its self-preservation, and is only an excuse to deflect attention from its own negligence and skirting of responsibilities. The Argentine Army and Air Force must have felt like it had been sent up on the roof only to see the ladder pulled away, leaving them high and dry. The Argentine Navy pushed Argentina into a war it would lose, forced the Argentine people to suffer unnecessary deaths and injuries, and furthermore, was the first to abandon the area of combat. This attitude obviously could not lead to any decision by the Army or Navy to conduct joint operations.

2. Implications for Japan

First, a few observations about the geography of the Japanese archipelago will be made. Comprising some 6,852 islands, Japan has a land area of 378,000 square kilometers, making it the 62nd largest country in the world. If the combined land area of Honshu, Hokkaido, Kyushu, and Shikoku, Japan's four largest islands, along with the main island of Okinawa, which together are defined as the Japanese "mainland" in Japanese law, are excluded, the remaining 6,847 islands have a combined land area of 16,000 square kilometers, which is only 4.2% of the country's total land area.⁸³ These islands range in size from Etorofu Island, the largest at 3,182 square kilometers, to Okinotorishima Island, the smallest at about 7 square kilometers.⁸⁴

Although nowhere near the distance between the British home isles and the Falklands, the Japanese archipelago is spread across a vast area. Some 3,294 kilometers separate

⁸¹ Scheina, *Latin America*, pp. 255-289.

⁸² *ibid.*, p. 288.

⁸³ Nihon Ritô Sentô (Center for Japanese Solitary Islands), *Ritô Shinkô Handobukku (Solitary Island Promotion Handbook)*, Kokuritsuinsatsukyoku (National Printing Bureau), 2004, p. 1; Morino Gunji Kenkyusyo (Morino Military Research Institute), "Ritô no Bôe Mondai (1): Ritô no Genjô, Shinkôsaku no Jittai (Island Defense Issues (1) Actual Conditions and Promotion Measures of One Island)," *Gunjikenkyû (Military Research)* (Vol. 35 No. 6, June 2000), p. 164; "Kuni no Mensekijun Risto (List of countries and dependencies by area)," *Wikipedia* entry, <http://ja.wikipedia.org/wiki/%E5%9B%BD%E3%81%AE%E9%9D%A2%E7%A9%8D%E9%A0%86%E3%83%AA%E3%82%B9%E3%83%88> (accessed on August 18, 2013).

⁸⁴ Kokudochiriin (Geospatial Information Authority of Japan), *Shimamenseki* (FY2012 study on the land area of each municipality in Japan), <http://www.gsi.go.jp/KOKUJYOHO/MENCHO/201210/shima.pdf> (accessed August 18, 2013); Yoshihiko Yamada, *Nihon no Kokkyô (Japan's National Border)*, (Shincho Shinsho, 2005), pp. 61-62.

Etorofu Island, its northernmost point, from Yonaguni Island, its westernmost extremity. Okinotorishima Island, Japan's southernmost tip, is separated by 3,020 kilometers from Etorofu, its northernmost point. Japan's territorial waters and exclusive economic zone cover some 4.47 million square kilometers, making it the sixth largest in the world.⁸⁵ Needless to say, the country's many islands contribute to the securing of these waters.

Next, this presentation will examine the implications for Japan which may be drawn from the characteristics of the various aspects of the Falklands War which were discussed above.

First, in terms of the strategic background, both Britain and Argentina did not expect such a war, and the military forces of both countries faced major problems in waging the war. The implication for Japan therefore is that Japan must foresee the nature of a possible conflict involving the defending and recapture of islands as accurately as possible, and must prepare its equipment, organization and training accordingly. However, this will involve major challenges and difficulties. First, preparations must be made for a wide range of conditions, since Japan's exclusive economic zone is so expansive and conditions vary greatly among its numerous islands. Second, since Japan will be on the defensive in the beginning of any such conflict, its preparations will be limited by its inability to choose the time, place, or method of fighting when the conflict begins. Because it must prepare for a truly wide range of conditions and contingencies, Japan's defensive arrangements will inevitably be redundant in many ways and require a host of different functions.

Second, Japan needs to secure strong alliance partners. As with Britain, Japan has maintained a strong relationship with the United States, the world's greatest military power, and has carried out joint training in amphibious operations with America, among others. Japan therefore probably has little to worry about concerning its alliance relationships. The nature or specific conditions of any possible future conflict remains unknown, however. Will Japan and the United States fight side by side? Will the United States only provide logistical support, as it did with the British during the Falklands War? Since any conflict involving islands in the Japanese archipelago will relate directly to Japan's sovereignty, however, Japan will almost certainly have to bear the brunt of the toughest parts of the fighting. Japan therefore will require, at the least, the ability to make a successful amphibious landing on a defended shoreline, and to suppress any adversary's air defense capabilities.

It has also been noted in every war that the expenditure of ammunition in wartime greatly exceeds peacetime estimates. During the Falklands War, Britain consumed more ammunition than it expected, and it had to receive supplies of mortar shells, Sidewinder and Harpoon missiles, and other munitions from America. The increased standardization of equipment will also need to be considered in order to enable a more effective response to any emergencies.

Next, this presentation will examine the implications for Japan from a tactical standpoint.

The first involves the securing of air superiority. The key to possessing air superiority is securing the best possible fighter aircraft, missiles and pilots. The Falklands War also

⁸⁵ Yamada, *Nihon no Kokkyô*, pp. 14-15.

demonstrated that early warning aircraft are vital for the effective employment of these resources. The Falklands War also showed the limitations of land-based aircraft. In other words, the effectiveness of land-based aircraft is inversely proportional to the distance from the bases from which they must operate. The Falklands War also illustrated that having only a small number of aerial refueling aircraft is essentially meaningless.

In other words, given Japan's expansive exclusive economic zone, land-based fighter aircraft alone will not be able to ensure air superiority across the entire expanse of these waters. Some areas may possibly be more effectively covered by increasing the number of aerial tankers available. The acquisition of fighters which can operate from aircraft carriers may be another option for areas of the exclusive economic zone which are extremely distant from any land bases.

Second, issues regarding sea control need to be considered. The securing of sea control in Japanese waters will require the maintenance of a strong anti-submarine warfare capability which is effective among islets, i.e. in shallow seas. As discussed earlier, surface and underwater platforms will play a decisive role in any military conflict in remote parts of the exclusive economic zone. Naval warships therefore will require strong fighting capabilities.

The third tactical aspect involves the concentration of firepower and mobility in a ground war. First, regarding the concentration of firepower, the ability to speedily concentrate various types of firepower, and in great quantity, on the island in question will be decisive. In addition, in island operations, the side which seizes control of the air and seas will be able to carry out ground operations more advantageously, since that side will be able to use close air support and naval gunfire to provide fire support to its ground forces.

Mobility will differ greatly depending on the geographic characteristics of the island in question. Helicopters, however, are suitable for most geographic conditions, with the caveat that helicopter operations are easily affected by the weather. In addition, maintenance facilities and personnel, spare parts and fuel will have to be stockpiled on the island itself, or on ships deployed in a nearby area, regardless of whether vehicles, helicopters or ships are used to ensure the ground force's mobility.

The study of the fourth tactical aspect leads to implications concerning intelligence, surveillance and reconnaissance. The British were deficient in these areas, which allowed Argentina to occupy the Falklands. Similarly, Argentina did not know where British forces would be landing, until they actually did at San Carlos. Japan will need to constantly carry out intelligence activities such as the gathering and analyzing of communications and signals intelligence, and to continuously carry out patrol and reconnaissance across its vast economic zone with satellites, early warning aircraft, and patrol aircraft. In addition, immediately prior to the Falklands War, the British undertook surveillance operations using the HMS *Endurance*, an ice patrol ship, and knew about the movements of the Argentine forces. The use of British special forces for on-the-ground reconnaissance in the Falklands played an important role in determining the landing site. This demonstrates that intelligence, surveillance, and reconnaissance are necessary on a number of levels and using a number of methods.

Finally, there are implications concerning joint operations. The defense of islands involves sustained operations on land, at sea, and in the air, and victory can be attained only

if the three services provide mutual support, are familiar with the other services' intentions, and share intelligence, all in the pursuit of a common goal. In 2006, the Japan Self Defense Forces made the transition to a joint operations system. Before then, however, each service of the JSDF generally pursued its own organizational interests. Much education and training will be necessary in order to change the habits and customs ingrained from that period. The defense of islands will require the development of joint operations plans, the designation of specific units from each of the services which will carry out those plans, the establishment of the necessary command structures and communications systems, and the repetition of joint exercises and training.

Conclusion

This study of the Falklands War has provided many inferences for Japan regarding the organization, equipment, and training of its forces. It is often said that a generation lasts thirty years. In this regard, consideration should be given to what has occurred during the thirty years that have passed since the Falklands War ended. For example, consider the weapons systems that are in use now which were not available during the Falklands War. These include AWACS/AEW aircraft, Aegis-radar equipped destroyers, unmanned aerial vehicles, GPS, stealth aircraft, stealth ships, cruise missiles, and network-centric warfare, among others. While Japan has already adopted many of these systems, it must continue to reflect the implications of the Falklands War as its defense evolves, even as it continues to adopt the technical and other advances of the last few decades.

When discussing the Falklands War, Japan is occasionally likened to Britain. However, it needs to be pointed out that some observers note that Argentina could very well have won the war if a few more things had gone in their favor. Cordesman and Wagner argue that Britain may have been forced to concede defeat if the issues involving technology, training and fuses had been slightly in Argentina's favor, and if Argentina had been able to sink just two or three more Royal Navy vessels.⁸⁶ Pedraja believes that an excessive focus on Royal Navy warships as targets, the failure of bombs to detonate, and the failure to use larger aircraft formations were the three major deficiencies for Argentina, and argues that if Argentina had been able to improve even just the reliability of its bombs, Britain probably would have been forced to withdraw.⁸⁷ These arguments likely need to be examined in further detail.

⁸⁶ Cordesman and Wagner, "The Falklands War," p. 351.

⁸⁷ Pedraja, "The Argentine Air Force versus Britain in the Falkland Islands, 1982," pp. 255-256.