

# War in the Peripheries: Global Shaping Operations that Lead to Victory

A Monograph

by

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## Abstract

War in the Peripheries: Global Shaping Operations that Lead to Victory by Maj Jeffrey N.H. Day, Royal Canadian Engineers, 46 pages.

Current US doctrine and the Multi Domain Operations concept are contradictory. Doctrine warns of near-peer or even peer competitors across all domains in the future. After competition leads to war, the Multi Domain Operations draft concept calls for the joint force to penetrate, dis-integrate, and exploit an enemy's Anti Access/Area Denial system. History shows that when major powers resort to global war, they fight in the peripheries in order to shape their enemy prior to penetrating into the enemy's homeland. The contradictions in current US doctrine are a result of a lack of study and understanding of the peripheries.

This monograph examines past decisions to fight away from major theaters, incorporating case studies of Greenland, Iraq and Syria, and Madagascar during the Second World War. The comparative analysis of the cases leads to justifiable and necessary recommendations for amendments to doctrine. The result of this analysis is a reduction of the knowledge and research gap in existing literature and it will allow future planners and doctrine writers to make more informed decisions.

This project proves if planners are able, early in a global war, to recognize their own and the enemy's critical requirements, then defend, seize, or deny them in the peripheries, they will save time, effort, and lives.

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## Abbreviations

A2/AD	Anti-Access Area Denial
ALOC	Air Line of Communication
DOD	US Department of Defense
FM	US Army Field Manual
GLOC	Ground Line of Communication
JP	Joint Publication
LOC	Line of Communication
MDMP	Military Decision Making Process
MDO	Multi Domain Operations
OE	Operational Environment
RAF	Royal Air Force
SLOC	Sea Line of Communication
TRADOC	US Army Training and Doctrine Command

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## Introduction

There is a flaw in current US doctrine. It relies on two mutually exclusive assumptions. The doctrine warns of the potential for near-peer or even great power conflict. Conflict against adversaries who can compete and oppose the United States in all domains and achieve relative advantage either regionally or worldwide.<sup>1</sup> On the other hand, new doctrine implies that if competition and deterrence fail, the Joint Force *quickly* penetrates and dis-integrates enemy anti-access and area denial systems (A2AD) and exploits the resulting freedom in order to win.<sup>2</sup> History demonstrates it cannot be both ways. History shows that when peer great powers succumb to war, the resulting conflict has a global nature. The Allies did not simply penetrate and dis-integrate Nazi Germany or Japan. Rather, they shaped their adversaries globally, often in the peripheries, to set conditions to win in primary theaters.

In the Second World War, the United Kingdom conducted an amphibious landing on Madagascar involving over 10,000 soldiers and dozens of ships, the Allies committed multiple divisions to Iraq and Syria, and small units battled for local control in Greenland. These are not the ‘great’ campaigns and theaters that multiple historians or doctrine writers analyze. If not omitted entirely, they are footnotes to the history of the war, but they were essential to set conditions for success in primary theaters. These examples are not historical oddities. In the Seven Years War, the British attacked the French in Africa. In the First World War, there were gunship battles on the Tigris River and close to the Falkland Islands. Combat on the peripheries occurs throughout the history of global war and the reasons will remain constant for future wars. The lack of study and understanding of the peripheries has led to the contradiction in current US doctrine. This monograph corrects this deficiency by studying the reasons why nations chose to fight in the peripheries.

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<sup>1</sup> US Department of the Army, Army Doctrine Reference Publication (ADRP) 3-0, *Operations* (Washington, DC: Government Printing Office, 2017), 13.

<sup>2</sup> TRADOC Pamphlet 525-3-1, *The United States Army in Multi-Domain Operations 2028*, December 6, 2018.

As part of global war, peripheral campaigns, are economy-of-force engagements separated geographically from a primary or secondary theater, and away from the protected homelands of the adversaries. Through the lens of modern doctrine, peripheral theaters should fall under Global Operations to Shape. By examining past decisions to fight away from major campaigns and theaters, this project will develop recommendations to assist future planners determine the strategic and operational approach to win future global conflicts. As these experiences are not reflected in current doctrine, current commanders and planners lack a doctrinal reference to select where and when they should commit combat power to peripheral campaigns.

This monograph explores three case studies of peripheral campaigns in global war. The cases are drawn from the Second World War, as it is the last example of global war, and it is as close as history allows to study modern global war. In order to provide the widest possible range and variety of operations, studied are the Greenland campaign involving hundreds of soldiers, the British operation to capture Madagascar involving thousands of soldiers, and the British campaign in Iraq and Syria involving tens of thousands of soldiers. The cases are different enough to control for variables, but have enough similarities to be comparable. This variety also allows for analysis to judge if the reasons identified for fighting there are one-off events, due to sample size, history, or geography. Although discussed are the movements during and results of the campaigns, the focus of the case studies are the reasons for the campaigns. Through the analysis of primary and secondary sources, presented are defensible conclusions for the underlying reasons for the campaigns. Following the cases, a comparative analysis breaks down the common reasons from the case studies and looks at the reasons through the lens of theory. It develops recommendations for both planning considerations for future war and potential changes to doctrine. These recommendations reflect the studied history and theory of why a nation may choose to fight in the peripheries.

The relevant literature falls into four broad categories. The first category is general histories of

global wars. These include publications like *History of World War II*<sup>3</sup> by Francis Miller and *The First World War 1914-1918*<sup>4</sup> by Court Repington. From these general histories it is possible to see how important – if at all – the author felt peripheral campaigns were to the global war. They can provide context and often links to better known events which can aid in determining the reasons behind a campaign. At best however, authors of this type of work mention peripheral campaigns as pieces of trivia without linking their significance to the global war, at worst omit them completely. For example, in Miller's 966 page volume, the only mention of Greenland in the chapter on Denmark is the reference, "Outside the country Danes all over the world pledged themselves to work for the freedom of their homeland."<sup>5</sup> There is one short paragraph in Andrew Buchanan's *World War II in Global Perspective, 1931-1953*<sup>6</sup>, which addresses the Allied invasion of Madagascar, while the volume includes a two-page sub-section on war in the entire Middle East.

The second type of literature are volumes written specially addressing peripheral campaigns. Books such as *The Sledge Patrol* by<sup>7</sup> David Howarth, *Iraq 1941* by Robert Lyman<sup>8</sup>, and *Churchill's Secret Invasion*<sup>9</sup> by John Grehan provide excellent details to assess the reasons for the campaigns. Often the preface or introductions clearly spell out the authors' beliefs as to why the campaign occurred and provide an assessment on the campaign's relationship to the remainder of the global war. There are a limited number, compared to major theaters, of studies on peripheral campaigns, leading to a greater importance to consult primary sources.

The third category is primary source documentation. The regular and usually comprehensive

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<sup>3</sup> Francis Miller, *History of World War II* (Toronto, ON: The John C. Winston Company, 1945).

<sup>4</sup> Court Repington, *The First World War 1914-1918* (New York: Houghton Mifflin Company, 1920).

<sup>5</sup> Miller, *History of World War II*, 136.

<sup>6</sup> Andrew Buchanan, *World War II in Global Perspective, 1931-1953. A Short History* (Hoboken, NJ: John Wiley & Sons, Inc, 2019).

<sup>7</sup> David Howarth, *The Sledge Patrol* (New York, NY: The MacMillan Company, 1960).

<sup>8</sup> Robert Lyman, *Iraq 1941. The Battles for Basra, Habbaniya, Fallujah and Baghdad* (Oxford, UK: Osprey Publishing, 2006).

<sup>9</sup> John Grehan, *Churchill's Secret Invasion* (Barnsley, UK: Pen and Sword Military, 2013).

correspondence between Winston Churchill and Franklin Roosevelt proved to be particularly useful to assess British motives. Obviously, high-level diplomatic language may say one thing and mean another, or inaccurately portray intentions in an attempt to gain the support of allies. Also, politicians may not mention the true reasons for campaigns during meetings, record them in the minutes, or send them in letters due to security concerns. To ensure accuracy, included are multiple correspondence and internal government registers such as the records of War Cabinet meetings. These primary sources often explicitly stated the reasons to commit resources to peripheral theaters with detailed explanations, greatly aiding analysis.

The fourth category is current US and Allied doctrinal publications. United States publications like Joint Publication (JP) 3-0, *Joint Operations* and US Army Field Manual (FM) 3-0, *Operations* address what Field Armies and Joint Task Forces will execute during major operations and campaigns. Training and Doctrine Command's (TRADOC) Pamphlet 525-3-1 *The United States Army in Multi-Domain Operations 2028*, describes how US Army forces, as part of the Joint Force, will militarily compete, penetrate, dis-integrate, and exploit adversaries in the future.<sup>10</sup>

Looking across the categories of literature it is clear there is a knowledge gap. There has been no holistic analysis or comparative literature of peripheral campaigns to assess the advantage gained in the peripheries to success in primary theaters. This monograph conducts an analysis of historic peripheral campaigns using the primary and secondary sources. It then compares the reasons to existing doctrine, proving to be incomplete without incorporating lessons from peripheral campaigns. The final section then recommends justifiable and necessary amendments to doctrine. Together, this greatly reduces the knowledge and research gap in existing literature and will allow future planners and doctrine writers to make more informed decisions.

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<sup>10</sup> TRADOC Pamphlet 525-3-1, *The United States Army in Multi-Domain Operations 2028*, December 6, 2018.

# Greenland in the Second World War: Weather, Aluminum, and Lines of Communication

## Strategic Context of the Case

Greenland is the largest island in the world, located in the North Atlantic on the peripheries of both North America and Europe. Its position in the far north and with 80 percent of the island covered in icecaps, severely restricts human activities. In 1939, it had a population of just 18,400 people.<sup>11</sup> Despite these circumstances, its strategic location and natural resources, made it important to both the Allies and Axis powers during the Second World War.

Hans Egede, a Dano-Norwegian Lutheran missionary landed at the mouth of Godthaab Fjord in 1721 and in 1728, he founded the Godthaab settlement. In 1774, the Danish Government took control of all economic operations in Greenland, effectively establishing sovereignty.<sup>12</sup> The Treaty of Kiel, signed in 1814 confirmed Greenland as part of Denmark.<sup>13</sup> Denmark adopted a position of neutrality at the start of the Second World War, which it reaffirmed in a declaration on January 19, 1940, hoping to avoid occupation by Germany.<sup>14</sup> On April 9, 1940, Germany landed troops in Denmark; Denmark offered no resistance as King Christian X gave an order for all Danes to submit to German authorities.<sup>15</sup> Eske Burn, the governor of Greenland believed the order from the King was not given under his own free will, thus he did not submit to Nazi rule.<sup>16</sup> Burn, therefore maintained Greenland's relationship with Allied powers throughout the war.

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<sup>11</sup> "Greenland: Population Growth of the Whole Country," Popular Statistics, accessed October 27, 2019, <http://www.populstat.info/Americas/greenldc.htm>.

<sup>12</sup> M. J. Dunbar, "Greenland during and since the Second World War," *International Journal* 5, no. 2 (1950): 5.

<sup>13</sup> Janice Cavell, "Historical Evidence and the Eastern Greenland Case," *ARCTIC* 61, no. 4 (August 28, 2009): 434.

<sup>14</sup> Miller, *History of World War II*, 943.

<sup>15</sup> *Ibid.*

<sup>16</sup> Howarth, *The Sledge Patrol*, 9.

## Events Drawing Adversaries to the Theater

Well before the Second World War, the United States realized that it might be necessary to defend North America. War plan RAINBOW 4, developed in the 1930s, gave a general outline of how the United States should execute hemisphere defense including Greenland.<sup>17</sup> Until the summer of 1940, weather stations in Greenland transmitted unencrypted weather data. The Germans and British both relied on the information. Danish and British authorities realized this oversight simultaneously and each took steps to end the transmissions.<sup>18</sup> From July to October 1940, each German U-Boat sank an average of eight Allied ships, accounting a loss of 1,489,795 tons of merchant shipping.<sup>19</sup> In late August 1940, Coastal Command of the Royal Air Force established an air base in Iceland to assist convoy escort, reducing attacks on convoys in the area it could cover.<sup>20</sup> The success of this base led Canadian and British planners to desire to extend convoy coverage areas by adding additional basing location on Greenland. Prime Minister Winston Churchill wrote on April 16, 1941, to ask President Franklin Roosevelt for the United States to establish Flying Boats bases in Greenland stating, “They would be a most useful immediate measure,” for anti-U-boat operations.<sup>21</sup>

At this time, Canada, the United Kingdom, and Germany were hesitant to place forces on Greenland due to the Monroe Doctrine.<sup>22</sup> The United States’ Monroe Doctrine states that it does not tolerate the colonization or occupation of nations in the Western Hemisphere and the United States will act to prevent such actions.<sup>23</sup> After Denmark’s occupation in 1940, the status of Greenland became an

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<sup>17</sup> Steven Ross, ed., *U.S. War Plans 1938-1945* (Boulder, CO: Lynne Rienner Publishers, Inc., 2002), 38.

<sup>18</sup> Wilhelm Dege, *War North of 80. The Last German Arctic Weather Station of World War II* (Calgary, AB: University of Calgary Press, 2003), ix.

<sup>19</sup> Peter Young, ed., *The Almanac of World War II* (Middlesex, UK: The Hamlyn Publishing Group, 1981), 45.

<sup>20</sup> *Ibid.*, 73.

<sup>21</sup> Winston Churchill, “Churchill to Roosevelt,” National Archives Catalog Official Correspondence, April 16, 1941, accessed October 11, 2019, <https://catalog.archives.gov/OpaAPI/media/194964/content/arcmedia/media/images/11/17/11-1671a.gif>.

<sup>22</sup> Dawn Berry, “The Monroe Doctrine and Governance of Greenland’s Security,” in *Governing the North American Arctic*, ed. Dawn Berry, Nigel Bowles, and Halbert Jones (London: Palgrave Macmillan, 2016), 112.

<sup>23</sup> “Our Documents - Monroe Doctrine (1823),” Our Documents, accessed September 23, 2019,

issue of immediate concern to the United Kingdom, Canada, the United States, and Germany. A July 29, 1940, *Life Magazine* poll asked the question, “For our own good, should we defend Greenland against invasion by any foreign country?” Of Americans polled, 58.8 percent answered “yes,” while just 15.5 percent responded “no,” showing the American public supported positioning forces in Greenland.<sup>24</sup> With the United States not yet in the war, the presence of the Monroe Doctrine likely contributed to Germany’s decision to not immediately occupy Greenland.<sup>25</sup> Canada and the United Kingdom expressed interest in placing forces on the island. While the British had previously occupied Iceland, Roosevelt could not ignore that Greenland was part of North America. Further, allowing Canadian or British troops in Greenland would set a precedent which Japan could have exploited as justification to seize Dutch colonies after the fall of the Netherlands. So, while remaining officially out of the war, the United States could not allow Canada, Britain, or Germany to occupy Greenland.<sup>26</sup>

## The Campaign

The resources committed to Greenland during World War II by both sides was not substantial. There were a total of US 1,500 soldiers, four US Coast Guard cutters, local experts employed in Northeast Greenland Sledge Patrol by the allies, and a number of small armed weather data gathering missions from the Germans. The campaign in Greenland consisted of three components: the fight for weather data, the defense of Greenland and the Sea Lines of Communication (SLOC) including the air bases, and retaining the cryolite mine at Ivigtut. Germany attempted using several methods to retain access to essential weather intelligence. Their first option was to have U-Boats gather information, while effective, this caused the U-Boats to give away their positions and took them away from other offensive tasks. Their

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<https://www.ourdocuments.gov/doc.php?flash=false&doc=23>.

<sup>24</sup> “What the USA Thinks. A Picture of the U.S. Mind, Summer 1940.,” *Life Magazine*, July 29, 1940, 20, accessed September 24, 2019, <https://books.google.com/books?id=xz8EAAAAMBAJ&lpg=PA20&pg=PA20#v=twopage&q&f=false>.

<sup>25</sup> Miller, *History of World War II*, 7.

<sup>26</sup> Stetson Conn, Rose Engelman, and Byron Fairchild, *Guarding the United States and Its Outposts* (Washington, DC: Center for Military History, US Army, 1964), 442, accessed September 24, 2019, <https://history.army.mil/books/wwii/Guard-US/index.htm#contents>.

alternate option, to reduce reliance on U-Boats, they developed and deployed both manned and unmanned weather stations throughout the Arctic. An example is Operation Holzauge, a German mission to covertly deploy and man a weather station in north eastern Greenland. In early 1942, with the United States now in the war, Germany no longer had political objections to sending forces into Greenland. Leutnant-zur-See Hermann Ritter led a crew of seventeen including a scientist and a meteorologist to sail from Tromsø, Norway to establish a weather station in north-east Greenland between 74 and 75 degrees North.<sup>27</sup> The expedition landed on the Island Sabine Øer, where they established a cabin on the shore while the majority of the crew remained in ship, camouflaged in the pack ice. Despite natural radio interference common at high latitudes, regular weather observation and reporting started on 30 August. The mission continued until March 13, 1943, when they encountered members of the Northeast Greenland Sledge Patrol.<sup>28</sup>

Rear-Admiral E.H. Smith of the United States Coast Guard organized the Northeast Greenland Sledge Patrol in the fall of 1941. It consisted of Danish and Norwegian trappers and Inuit hired to regularly patrol the East coast of Greenland as far north as 77 degrees and reporting any signs of enemy activity.<sup>29</sup> Despite the German's attempts to ensure their position was not reported, and skirmishes which left dead on both sides, including one captured German, a member of the sledge patrol was able to report Operation Holzauge's position. On May 25, 1943, an American B-24 destroyed the hut containing the weather station and on June 17, 1943, the surviving members of the operation evacuated by flying boat.<sup>30</sup> Other manned meteorological missions in Greenland included Operations Bassgeiger 1943, Edelweiss 1944, and Edelweiss-II 1944. While Bassgeiger provided reliable weather data for nine months before its discovery, Edelweiss and Edelweiss-II were quickly discovered by air patrols and their crews captured by

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<sup>27</sup> J.D.M. Blyth, "German Metrological Activities in the Arctic 1940-45," *The Polar Record* Volume 6, no. Number 42 (July 1951): 199.

<sup>28</sup> Ibid.

<sup>29</sup> Howarth, *The Sledge Patrol*, 13.

<sup>30</sup> Blyth, "German Metrological Activities in the Arctic 1940-45," 201.

United States Coast Guard vessels.<sup>31</sup>

To reduce manpower demands and, in an attempt to remain hidden, Germany built twenty-one land-based automatic weather stations capable of transmitting data at predetermined times.<sup>32</sup> An example of an unmanned weather station is weather station “Kurt.” The weather station was a set of metrological instruments, a short wave transmitter and mast, and an array of batteries stored in ten 220lb cylinders.<sup>33</sup> U-537 placed it 300 meters from shore in Attinaukjoke Bay (Now Marting Bay) in northern Labrador, Canada, in October 1943. On October 23, 1943, “Kurt” made its first broadcast, but by mid-November no longer functioned.<sup>34</sup> The weather station was not discovered until 1981. The Germans placed other similar stations around the Greenland theater, with varying degrees of success.

Despite not yet being in the war in early 1941, in order to ensure the sanctity of the Monroe Doctrine, the United States felt compelled to aid in the defense of Greenland. After a series of consultations with allies,<sup>35</sup> the United States announced the establishment of a consulate on Greenland on May 1, 1940.<sup>36</sup> The United States and the Greenland Administration then signed a defensive pact on April 9, 1941.<sup>37</sup> Following the defensive pact, President Roosevelt directed the US Navy to patrol the western half of the Atlantic Ocean and for the United States to assume responsibility to develop and operate military air route across the Atlantic via Greenland.<sup>38</sup>

On April 11, 1941, Roosevelt messaged Churchill to inform him that the United States would be

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<sup>31</sup> Ibid., 218.

<sup>32</sup> Michael L. Hadley, *U-Boats Against Canada: German Submarines in Canadian Waters* (McGill-Queen's University Press, 1985), 163, accessed August 1, 2019, <https://www.jstor.org/stable/j.ctt813bs>.

<sup>33</sup> Ibid.

<sup>34</sup> “Weather Station Kurt,” *WW2DB*, accessed August 1, 2019, [https://ww2db.com/battle\\_spec.php?battle\\_id=328](https://ww2db.com/battle_spec.php?battle_id=328).

<sup>35</sup> Hugh Cummings, “Memorandum by Mr. Hugh S Cummings, Jr., of the Division of European Affairs,” April 24, 1940, *Foreign Relations of the United States Diplomatic Papers, 1940. General and Europe, Vol 2*.

<sup>36</sup> Thomas Ostrom, *The United States Coast Guard in World War II* (Jefferson, NC: McFarland & Company Inc, 2009), 81.

<sup>37</sup> Ibid.

<sup>38</sup> Henry Gole, *The Road to Rainbow: Army Planning for Global War 1934-1940* (Annapolis, MD: Naval Institute Press, 2003), 15.

using forces located in Greenland and other areas to observe enemy and report positions west of 25 degrees west.<sup>39</sup> Churchill replied back on April 16, 1941, to ask Roosevelt for the United States to establish Flying Boats bases in Greenland, stating, “They would be a most useful immediate measure,” for anti-U-boat operations.<sup>40</sup> Churchill continued to encourage and ask for additional United States presence and action in vicinity of Greenland, writing to Roosevelt on May 14, 1941, to highlight the merchant ships sunk by U-boat between the 38<sup>th</sup> and 39<sup>th</sup> parallel. Roosevelt decided it was time to move forces to Greenland, defending his conclusion in a “Fire Side” chat to the nation on 27 May 1941 stating, “The Axis Powers can never achieve their objective of world domination unless they first obtain control the seas.”<sup>41</sup> Shortly after, in June 1941, U.S. Army troops landed in Greenland to provide security and to build airbases, with a goal of a garrison of 1,500 men established before the winter of 1942.<sup>42</sup> On September 11, 1941, Roosevelt issued an order directing US forces to “shoot on sight” any enemy aircraft and naval vessel operating around Greenland; this effectively put American forces at war with Germany three months before the formal declaration.<sup>43</sup> Roosevelt announced:

Our policy is applied from time immemorial the earliest days of the Republic -- and still applies -- not merely to the Atlantic but to the Pacific and to all other oceans as well. Unrestricted submarine warfare in 1941 constitutes a defiance -- an act of aggression -- against that historic American policy. It is now clear that Hitler has begun his campaign to control the seas by ruthless force and by wiping out every vestige of international law, (and) every vestige of humanity. His intention has been made clear. The American people can have no further illusions about it.<sup>44</sup>

Greenland Base Command was formally activated on November 26, 1941. Its stated mission was,

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<sup>39</sup> Franklin Roosevelt, “Letter Roosevelt to Churchill,” National Archives. Official Correspondence, April 11, 1941. accessed October 11, 2019, <https://catalog.archives.gov/OpaAPI/media>.

<sup>40</sup> Churchill, “Churchill to Roosevelt,” National Archives. Official Correspondence, April 16, 1941, accessed November 10, 2019, <https://catalog.archives.gov/OpaAPI/media/194964/content/arcmedia/media/images/11/17/11-1671a.gif>.

<sup>41</sup> Franklin Roosevelt, “Fireside Chat Announcing Unlimited National Emergency,” Address, May 27, 1941, U.S. National Archives and Records Administration.

<sup>42</sup> Gole, *The Road to Rainbow: Army Planning for Global War 1934-1940*, 15. Conn, Engelman, and Fairchild, *Guarding the United States and Its Outposts*, 456.

<sup>43</sup> Ostrom, *The United States Coast Guard in World War II*, 81.

<sup>44</sup> Franklin Roosevelt, “Fireside Chat on Maintaining Freedom of the Seas,” September 11, 1941, U.S. National Archives and Records Administration.

"staging operations involved in the movement of medium range aircraft to England and air operations involved in the defense of Greenland, particularly the air bases and Ivigtut."<sup>45</sup>

## Results of the Campaign

By committing to this campaign, the Allies were able to retain valuable weather intelligence and a strategic basing location while denying the same to the enemy. They protected the supply of an essential resource, and ensured that the Monroe doctrine was not tested, potentially protecting other allied possessions throughout the world. President Eisenhower highlighted the importance of the weather data secured by the Allies and denied to the Axis many years after the war when President Kennedy asked him why the invasion of Normandy had been successful. Eisenhower's response was, "Because we had better meteorologists than the Germans!"<sup>46</sup> What he really meant was that the Allies had better weather data than the Germans, data which came largely from Greenland. Eisenhower wrote to General Marshal on June 3, 1944, stating:

My tentative thought is that the desirability for getting started on the next favorable tide is so great and the uncertainty of the weather is such that we could never anticipate really perfect weather coincident with proper tidal conditions, that we must go unless there is a real and very serious deterioration in the weather.<sup>47</sup>

The Germans did not know the weather would break on June 6, 1944, when the Allies did attack, they had a degree of surprise. The mine at Ivigtut remained in Allied control throughout the war, ensuing at continuous ability to increase production capacity of combat aircraft in North America.<sup>48</sup> While the aircraft bases in Greenland contributed to the Allied ability to defeat U-Boat attacks on convoys, culminating with Germany ordering all U-Boats to cease operations against convoys on May 22, 1943.<sup>49</sup>

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<sup>45</sup> Conn, Engelman, and Fairchild, *Guarding the United States and Its Outposts*, 455.

<sup>46</sup> "Forecasting D-Day," NASA Earth Observatory, last modified June 5, 2019, accessed October 27, 2019, <https://earthobservatory.nasa.gov/images/145143/forecasting-d-day>.

<sup>47</sup> Dwight Eisenhower, "Conditions in Normandy on 3 June, 1944," Letter to Marshal, June 3, 1944, US National Archives and Records Administration.

<sup>48</sup> Mark Harrison, ed., *The Economics of World War II: Six Great Powers in International Comparison* (Cambridge, UK: Cambridge University Press, 1998), 15.

<sup>49</sup> Young, *The Almanac of World War II*, 212.

## Reasons for the Campaign

During World War II, Greenland had value as a location to gather data for European weather forecasts, as a strategic basing location, and as a source of minerals used in smelting aluminum. Due to this value, both belligerents committed significant resources to the peripheries of the European war. In 1921, Norwegian meteorologist Vilhelm Bjerknes published his theory about the concept of a polar front in his book, *On the Dynamics of the Circular Vortex*.<sup>50</sup> The premise of the theory is the positions of Arctic air masses in relation to warmer temperate air masses influence the path of weather systems moving in the northern hemisphere.<sup>51</sup> The subsequent confirmation of the theory established Greenland as an extremely valuable location from which to predict weather patterns in Europe.<sup>52</sup>

Reliable weather forecasts were an essential asset throughout the European war to plan and execute land, air, and sea operations. From the German actions in the campaign, it is evident German forces conducted operations in the Greenland theater in order to gain weather intelligence. They knew that their capability to accurately predict European weather would be critical to their future war efforts. Due to geography, they could not deny the allies this intelligence. In general terms, their reasons were to gain an operational advantage through access to an asset and to minimize strategic risk – of having the Allies have superior weather intelligence.

The most direct flight paths between Europe and North America bisect Greenland. During World War II, few airplanes had the capacity to make a transatlantic flight without refueling, thus Greenland offered an excellent location for refueling points. Airfields constructed on Greenland would also be close enough to maritime convoy routes, that they could provide a base for anti-U-boat operations therefore protecting essential SLOCs. In 1940, the North American aviation industry was heavily reliant on

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<sup>50</sup> Jens Jensen, “Wehrmacht Occupations in the New World: Archaeological and Historical Investigations in Northeast Greenland,” *Polar Record - National Museum of Denmark* 48 (2012): 270.

<sup>51</sup> C.L. Godske and Bjerknes, V, *Dynamic Meteorology and Weather Forecasting* (Boston: American Meteorological Society, 1957), 536.

<sup>52</sup> Berry, “The Monroe Doctrine and Governance of Greenland’s Security,” in *Governing the North American Arctic*, 111.

aluminum, which comprised 75 percent of the material in an average airplane.<sup>53</sup> At that time, the most cost-effective method of aluminum production was from bauxite using cryolite as electrolyte through the Hall-Heroult process. While Bauxite is one of the most abundant minerals on earth, at that time cryolite was only found in commercially exploitable quantities in Ivigtut, Greenland.<sup>54</sup> The mine reached production in 1942 when Canada and the United States received over 90,000 tons of cryolite.<sup>55</sup> The open-pit mine itself was 200m below sea-level and located close to the sea. An attack or an act of sabotage could have severely hampered the North American aviation industry.<sup>56</sup> A denial or disruption of the supply would eliminate an Allied position of relative advantage in manufacturing. The value of the region and its vulnerability led both sides to the Greenland campaign.

Allied forces conducted operations in the Greenland theater in order to deny weather intelligence to the enemy, to protect the cryolite mine at Ivigtut, to defend the Western Hemisphere, and to protect maritime lines of communication. German access to weather data was vulnerable, as was their access to a critical resource. In general terms, their reasons were to gain an operational advantage while denying one to the enemy, to secure resources or deny them from the enemy, and to reduce an adversary's area of influence.

## Iraq and Syria in the Second World War: Lines of Communication and Oil

### Strategic Context of the Case

Prior to the Second World War, Syria was a French Colony. The League of Nations assigned it to France in 1920. The Franco-Syrian treaty of 1936 recognized Syria as an independent nation, but France had not yet ratified the treaty at the outbreak of the Second World War.<sup>57</sup> The League of Nations

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<sup>53</sup> Berry, "The Monroe Doctrine and Governance of Greenland's Security," in *Governing the North American Arctic*, 110.

<sup>54</sup> *Ibid.*

<sup>55</sup> Dunbar, "Greenland during and since the Second World War," 4.

<sup>56</sup> Conn, Engelman, and Fairchild, *Guarding the United States and Its Outposts*, 448.

<sup>57</sup> "In Syria the French Are Still in Possession," *The War Illustrated*, November 29, 1940.

determined Iraq to be a British colony, but the mandate was also never ratified. The British imposed a monarchy on Iraq, which continued after 1932 when Iraq gained its independence. Signed in 1930, the twenty-five-year Anglo-Iraqi treaty, guaranteed the sale Iraqi of oil to Great Britain while Great Britain guaranteed assistance to defend Iraq which included arms sales. The treaty specified the right for Great Britain to maintain two air bases in Iraq.<sup>58</sup>

## Events Drawing Adversaries to the Theater

When France surrendered to Germany in June of 1940, authorities in Syria aligned with the Vichy regime. In response, the United Kingdom's Foreign Office issued a statement on June 28, 1940, which stressed the importance of the region and the unacceptability of it falling into German or Italian hands.<sup>59</sup> Throughout the 1930s, Iraqi nationalism and hostility towards Great Britain grew. On April 4, 1939, a vehicle accident claimed the life of the popular King Ghazi I. German agents were able to capitalize on his death to stoke anti-British sentiment in the population who were eager to believe the British were responsible.<sup>60</sup> On April 9, 1940, former Prime Minister Rashid Ali received a joint German and Italian statement of support.<sup>61</sup> Believing Germany support would be forthcoming in the event of a *coup d'état*, Ali coordinated with four Iraqi generals known as the "Golden Square" to conduct a coup on April 1,

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<sup>58</sup> Lyman, *Iraq 1941. The Battles for Basra, Habbaniya, Fallujah and Baghdad*, 8.

<sup>59</sup> The statement read, "His Majesty's Government in the United Kingdom Understand that General Mittelhausser, the Commander in Chief of the French forces in the Levant, has stated that hostilities have ceased in Syria. His Majesty's Government assume that this does not mean that, if Germany or Italy were to demand the right to occupy Syria or the Lebanon and were to try to do so in the face of British command of the sea, no attempt would be made by the French forces to oppose them. In order, however, to set at rest doubts which may be felt in any quarter, His Majesty's Government declare that they could not allow Syria or the Lebanon to be used as a base for attacks upon those countries in the Middle East which they are pledged to defend, or to become a scene of such disorder as to constitute a danger to those countries. They therefore hold themselves free to take whatever measures they may in such circumstances consider necessary in their own interests. Any action which they may hereafter be obliged to take in fulfilment of this declaration will be entirely without prejudice to the future status of the territories now under French mandate." UK Foreign Office, *Memorandum by Secretary of State for Foreign Affairs: Situation in Syria: Proposed Declaration by His Majesty's Government*, June 28, 1940, The National Archives.

Italy conducted air attacks on British and Palestinian assets from bases the Dodecanese Islands in 1940, and continued to pose a threat until Syria was captured. Nir Arielli, "'Haifa Is Still Burning': Italian, German and French Air Raids on Palestine during the Second World War," *Middle Eastern Studies* 46, no. 3 (May 1, 2010): 331–347.

<sup>60</sup> Ashley Jackson, *Persian Gulf Command. A History of the Second World War in Iran and Iraq* (New Haven, CT: Yale University Press, 2018), 26.

<sup>61</sup> Lyman, *Iraq 1941. The Battles for Basra, Habbaniya, Fallujah and Baghdad*, 12.

1941. The coup quickly succeeded, denying the chance for British intervention, and greatly reducing the security of British access to oil and the lines of communication.<sup>62</sup>

On April 29, 1941, just a month before the Germans launched their airborne attack on Crete,<sup>63</sup> Churchill wrote to Roosevelt explaining his reasons to enter Syria:

At this moment much hangs in the balance...Syria is a far more imminent danger. The German air-borne troops may land there refueling at Rhodes.... If the German air force and troop carrier planes get installed in Syria they will soon penetrate and poison both Iraq and Iran and threaten Palestine.<sup>64</sup>

On 14 May 1941, Churchill wrote again to Roosevelt providing further justification:

In Iraq too we are trying to regain control and anyhow we are making a large strong bridgehead at Basra where later on in the war American machines may be assembled and supplies loaded Syria is, however, a cause of great anxiety. There is no doubt that Darland will sell the pass if he can, and German aircraft are already passing into Iraq.<sup>65</sup>

## The Campaign

The initial British plans for the defense of Iraq included Plan Sabine and Plan Lobster. Plan Sabine was the buildup of forces from India for defense of both Iran and Iraq. The forces intended to initially secure Basra and then establish a base for additional units.<sup>66</sup> Plan Lobster involved reinforcements by an infantry brigade group dispatched from Palestine to Baghdad. These plans were both used in part when hostilities started in the region. In 1941, "RAF Habbaniya was base to over 1,000 RAF personal and 1,250 British-officered Kurds, Arabs and Assyrian Christians of the RAF Iraq Levies. There were also over 9,000 civilian workers and their families."<sup>67</sup>

The Siege of RAF Habbaniya began on April 30, 1941, when Iraqi army units comprising 9,000

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<sup>62</sup> Ibid.

<sup>63</sup> Gavin Long, *The Six Years War. A Concise History of Australia in the 1939-45 War* (Sydney, Australia: The Australian War Memorial and the Australian Government Publishing Service, 1973), 81.

<sup>64</sup> Kimball, Churchill and Roosevelt. *The Complete Correspondence*, C:83X. 176.

<sup>65</sup> Winston Churchill, "Personal and Secret. For the President from the Former Naval Person. C-86x," *Official Correspondence*, May 14, 1941.

<sup>66</sup> Jackson, *Persian Gulf Command. A History of the Second World War in Iran and Iraq*, 33.

<sup>67</sup> Ibid., 66.

troops surrounded the base. HABFORCE (Habbaniya Force), comprising units from Palestine including the 4th Cavalry Brigade, the 1st Battalion, Essex Regiment, the Arab Legion Mechanized Regiment, the 237th Battery, 60th Field Regiment, Royal Artillery, an Australian 2-pounder anti-tank battery and the 169th Light Anti-Aircraft Battery, and Special Operations assets deployed to support the siege.<sup>68</sup> On May 2, 1941, improvised squadrons from the flying school at Habbaniya, and bombers from Shaiba, attacked the Iraqis besieging Habbaniya. Four days of bombing with support from part of a British battalion and five companies of Levies defeated the Iraqis. HABFORCE reached Habbaniya on May 18, and continued to Bagdad arriving on May 30. The next day Rashid Ali fled and the former government regained power.<sup>69</sup>

Near the same time as the revolt in Iraq, the Germans obtained an agreement with Vichy France allowing Axis aircraft to use Syrian airfields as refueling stations and for war material from Syria to support efforts in Iraq. Axis aircraft staged in Syria gave support to the Vichy French and to Rashid Ali including support to the siege of RAF Habbaniya.<sup>70</sup> Although not a decisive factor in the battle in Iraq, German aircraft operating out of Syria, which could further disrupt British forces in Iraq and Palestine, adding to the continued Italian threat, remained a problem the British had to address.

The RAF began their attack on German aircraft in Syria on May 14, 1941. On May 20, Commander-in-Chief Middle East, General Wavell ordered 7 Australian Division to move from Mera Matruah in western Egypt to Palestine and on 21 May, he ordered General Officer Commander-in-Chief British Forces in Palestine and Trans-Jordan, General Maitland to prepare plans for the invasion.<sup>71</sup> On June 8, 1941, several columns of British, Australian, and Free French troops entered Syria supported by

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<sup>68</sup> Ibid., 83. Jacques Soustelle, *The Long March of Israel*, trans. Shirley Tomkiewicz (New York: American Heritage Publishing Co, 1969), 94.

<sup>69</sup> Long, *The Six Years War. A Concise History of Australia in the 1939-45 War*, 80.

<sup>70</sup> Ibid.

<sup>71</sup> Ibid., 81.

the Royal Navy, moving northwards along the coast.<sup>72</sup> Damascus fell to the Allies on 21 June 1941,<sup>73</sup> and an armistice ended hostilities on July 11, 1941.<sup>74</sup> In December 1941, Churchill wrote, “While it would be imprudent to regard the danger of a German south-west thrust against the Persian, Iraq, Syrian front as removed, it certainly now seems much less likely imminent than heretofore.”<sup>75</sup>

## Results of the Campaign

The British retained control of Iraq for the duration of the war, securing with it along with access to Iran and Iraq’s vast oil reserves. Churchill said after the war, “Hitler certainly rejected a brilliant opportunity to gain a great prize in the Middle East with a minimum of investment.”<sup>76</sup> Germany attempted to gain access to oilfields in the Caucasus, meeting army groups of Soviet resistance, considerably more than was in the sparsely defended Middle East in 1941.<sup>77</sup> The Free French took control of Syria, where they continued to support Allied efforts. This victory also provided the British with advanced naval and air bases north of the Suez Canal.<sup>78</sup>

## Reasons for the Campaign

By 1940, Great Britain’s main concerns were the potential for attacks on Britain itself, mounting shipping losses, security of its West African Colonies, and access to oil.<sup>79</sup> It also needed to maintain lines of communications to India and the remainder of the British Empire. The British prized Iraq as a strategic overland line of communication linking the Mediterranean to the Indian Ocean. It offered an invaluable

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<sup>72</sup> Raymond De Belot, *The Struggle for the Mediterranean 1939-1945* (Princeton, NJ: Princeton University Press, 1951), 133.

<sup>73</sup> Long, *The Six Years War. A Concise History of Australia in the 1939-45 War*, 95.

<sup>74</sup> De Belot, *The Struggle for the Mediterranean 1939-1945*, 134.

<sup>75</sup> Winston Churchill, “Winston Churchill to Brigadier Hollis, C.O.S. Committee,” Official Correspondence, December 20, 1941, US National Archives and Records Administration.

<sup>76</sup> Youssef Aboul-Enein and Basil Aboul-Enein, *The Secret War for the Middle East* (Annapolis, MD: Naval Institute Press, 2013), 82.

<sup>77</sup> Lyman, *Iraq 1941. The Battles for Basra, Habbaniya, Fallujah and Baghdad*, 8.

<sup>78</sup> De Belot, *The Struggle for the Mediterranean 1939-1945*, 134.

<sup>79</sup> Jackson, *Persian Gulf Command. A History of the Second World War in Iran and Iraq*, 32.

alternative line of communication to the Suez Canal.<sup>80</sup> Royal Air Force Base (RAF) Habbaniya also provided a crucial air link to India. Iraqi oil, and the pipelines and pumping stations in Iraq that transported Iranian oil to the Mediterranean were critical to the British war effort. Iranian oilfields annually produced over ten million tons of crude, which itself could fill the needs of the Royal Navy.<sup>81</sup>

Churchill's letter to Roosevelt on June 7, 1941 stated, "We enter Syria in some force tomorrow morning in order to prevent further German penetration... We have no political interest at all in Syria, except to win the war."<sup>82</sup> Despite the presence of oil pipelines linking northern Iraq to the Mediterranean, the United Kingdom saw Syria not as a vital territory they must possess, but as territory they must deny from the Axis powers.<sup>83</sup> From the events of the campaign, it is evident that Commonwealth forces conducted operations in the Iraqi-Syrian theater in order to secure their lines of communication to the Indian and the Pacific theaters, to maintain their continued access to Iraqi and Iranian oil, deny the oil to the enemy, and to prevent Germany from using Syria as a base to attack other British interests in the Middle East. Both Britain's access to oil and their lines of communication were vulnerable, yet both were essential to maintaining their war effort. In general terms Britain's reasons were to maintain access to a critical asset, while denying one to the enemy, to minimize strategic risk – of losing their lines of communication to India, and to reduce an adversary's area of influence.

In 1941, Germany's only sources of petroleum were Romania and Russia. The possession of Iraq's oil fields would have met all German requirements.<sup>84</sup> Germany still hoped the war would be short and existing oil suppliers would be sufficient.<sup>85</sup> Consequently, Hitler was more interested in denying British access to Iraqi oil and the strategic lines of communication than using it for his forces. Syria

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<sup>80</sup> Ibid., 5.

<sup>81</sup> Ibid.

<sup>82</sup> Winston Churchill, "Personal and Secret for the President from the Former Naval Person C-96X," The National Archives. Official Correspondence, June 7, 1941.

<sup>83</sup> "The Why and How of the Syrian Campaign," *The War Illustrated*, September 10, 1941.

<sup>84</sup> Lyman, *Iraq 1941. The Battles for Basra, Habbaniya, Fallujah and Baghdad*, 8.

<sup>85</sup> Aboul-Enein and Aboul-Enein, *The Secret War for the Middle East*, 80.

provided a basing location from which Germany could disrupt the British in both Iraq and Palestine. For these reasons, it is evident Axis forces conducted operations in the Iraqi-Syrian theater in order to disrupt British access to oil. They perceived that access to be vulnerable, and linked to an essential capability to maintain the war effort. They elected an indirect approach through their encouragement of the Rashid Ali Al-Gaylani coup to limit British influence in the region. They did not attempt to seize access to this key resource themselves at this point in the war. In general terms, their reasons were to gain a position of relative advantage by denying an essential asset to the enemy and to reduce an adversary's area of influence.

## Madagascar in the Second World War: Sea Lines of Communication

### Strategic Context of the Case

The colonialization of Madagascar came later than other regions in Africa. Up until the early-nineteenth century, it remained free of European control, with the exception of British and French missionaries and traders.<sup>86</sup> The British and French continued their colonial rivalry, ending with France and Madagascar signing a treaty of alliance in 1885. French colonial dominance over the island continued into World War II. With the fall of France in 1940, the Vichy regime retained control of a portion of France and the French Empire.<sup>87</sup> In Syria and in French Indo-China, the Vichy leaders collaborated with Germans and Japanese respectively. The Governor General of Madagascar, Armand Annet, vocally opposed General de Gaulle and the Free French.<sup>88</sup> This led the Allies to believe Madagascar was also vulnerable to Axis exploitation, as Churchill wrote to Roosevelt in February 1941:

The Japanese might well turn up at the former (Madagascar) once of these fine day, and Vichy will offer no more resistance to them there than in Indo-China. A Japanese Air, Submarine and/or Cruiser base at the Diego Suarez would paralyze our whole convey route both to the Middle and the Far east.<sup>89</sup>

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<sup>86</sup> Norman Bennett, *Africa and Europe* (New York: Africana Publishing Company, 1975), 75.

<sup>87</sup> Miller, *History of World War II*, 234.

<sup>88</sup> Peter Kemp and John Graves, *The Red Dragon; The Story of the Royal Welch Fusiliers, 1919-1945* (Aldershot, UK: Gale & Polden LTD., 1960), 99.

<sup>89</sup> Winston Churchill, "Winston Churchill to Franklin D. Roosevelt," *The Franklin D. Roosevelt/Winston*

## Events Drawing Adversaries to the Theater

In early April 1942, the Japanese First Air Fleet attacked Ceylon in the northern Indian Ocean.<sup>90</sup> The Japanese continued to sink 92k tones of shipping in the Indian Ocean during the month.<sup>91</sup> At the same time, a Japanese submarine unit operated in the western Indian Ocean near Madagascar, which damaged one British battleship and sank twenty-five merchant ships.<sup>92</sup> The Allies adjusted, re-routed, and restructured convoys destined for Egypt, India, and the Far East, adding to shipping times and stretching already thin resources.<sup>93</sup> Following this Japanese encroachment, Allied leaders realized the necessity to deny the Japanese the ability to establish themselves in the western India Ocean.<sup>94</sup> The Allies determined Madagascar as vulnerable to Japanese occupation, and given Vichy responses in Syria and Indo-China, they believed the Vichy might allow Japan to do so. Churchill predicted that it would be “disastrous” if the Japanese were to establish basing in Madagascar and cut Britain’s lines of communication with India.<sup>95</sup> This was especially true given the precarious position of the Suez Canal throughout the war. General de Gaulle said Madagascar was “of such high importance” that its capture by the Japanese would be disastrous to his cause.<sup>96</sup>

While not having the resources themselves to achieve it, Germany saw the value in Japan achieving a base in the region. Admiral Fricke of the German Navy’s high command wrote, “The focal

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Churchill Correspondence, 1939 - 1945, 7 Feb 42, Papers as President, Map Room File, 1939 - 1945, accessed October 22, 2019, <https://catalog.archives.gov/OpaAPI/media/195113/content/arcmedia/media/images/11/20/11-1985a.gif>.

<sup>90</sup> Grehan, *Churchill’s Secret Invasion*, 148.

<sup>91</sup> Ibid.

<sup>92</sup> Ibid.

<sup>93</sup> Ibid.

<sup>94</sup> Kemp and Graves, *The Red Dragon; The Story of the Royal Welch Fusiliers, 1919-1945*, 98.

<sup>95</sup> Grehan, *Churchill’s Secret Invasion*, 2.

<sup>96</sup> Ibid.

point of the entire war lies today in the Western India Ocean, as the crushing of the British position in the Near East and the establishment of direct contact there with Japan will decide the war.”<sup>97</sup> Churchill wrote to Roosevelt in February 1942, attempting to dissuade the President from blocking any attempt to seize Madagascar, given the Americans wanted to maintain a relationship with the Vichy French stating, “I hope nothing will be done to give guarantees (to the Vichy French) for the non-occupation of Madagascar and Reunion...At present the action is indefinitely postponed as our hands are too full, but I do not want them tied.”<sup>98</sup> Roosevelt responded four days later stating, “You can be sure that there will be no guarantees given about non-occupation of Madagascar or Reunion.”<sup>99</sup> He was not yet convinced that the value of Madagascar was worth the risk of disrupting trade with the Vichy French. The President’s reluctance to support the British arm was likely motivated by access to the supply of Madagascan graphite, essential for ammunition production and nuclear research.<sup>100</sup> While taking Madagascar would have been an advantage for the Japanese, after losses at Midway and the Coral Sea, it is unlikely the Japanese had the offensive capacity to mount an invasion at that distance. No evidence indicates that the German seriously considered seizing Madagascar. They did not have the resources or the navy required.

## The Campaign

Given the perceived necessity to deny the Japanese a base of operations in the western Indian Ocean, Britain launched a campaign in 1942 to capture Madagascar. On March 14, 1942, Churchill wrote to Roosevelt stating BONUS, the codename for Madagascar -- later remained IRONCLAD -- would go ahead. Nonetheless, it was difficult to take resources away from the British Mediterranean fleet to create a force capable of capturing Madagascar. He asked Roosevelt for two battleships, an aircraft carrier, some cruisers, and destroyers to replace ships that would be leaving the Mediterranean. He again reiterated the

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<sup>97</sup> Ibid.

<sup>98</sup> Churchill, “Winston Churchill to Franklin D. Roosevelt,” Official Correspondence, February 1942.

<sup>99</sup> Warren F. Kimball, *Churchill and Roosevelt. The Complete Correspondence*, vol. I (Princeton, NJ: Princeton University Press, 1984), 353.

<sup>100</sup> Grehan, *Churchill’s Secret Invasion*, 143.

danger in leaving Madagascar to become a Japanese base.<sup>101</sup>

On March 16, 1942, Roosevelt responded that the United States would send a force equivalent to the strength departing Gibraltar to support the UK Home Fleet.<sup>102</sup> Roosevelt was still leery of optics of a UK-US operation, and hoped to minimize the damage to the Vichy-US relationship. He asked that the forces relieved in the UK home fleet could then move the Mediterranean, reliving forces in Gibraltar to support the attack on Madagascar. Troop convoys began to depart the United Kingdom on 24 March 1942.<sup>103</sup> American naval forces, including the USS *Wasp* and USS *Washington* arrived on 5 May in Scotland to support the British home fleet.<sup>104</sup>

The British assembled a force in South Africa that consisted of 13,000 soldiers, 46 ships, and 188 aircraft. Opposing this force was 8,000 men, six tanks, four ships, and 35 aircraft of the Vichy French, augmented with six Japanese submarines.<sup>105</sup> There was a great deal of deception as to the destination of the force. Officially the forces were to go to India to supplement British forces there, but an intentional rumor suggested they were going to Madagascar instead. To further deceive, a second calculated rumor claimed that the first rumor was in fact the deception plan.<sup>106</sup> The attack began on May 5, and by May 7, the British had taken Diego-Suarez, their main objective. The Vichy government ordered a strong resistance for the remainder of the island. The British considered leaving the remainder of the island in Vichy hands, however after strong urging from South Africa, African and South African troops deployed to complete the capture of the island. They captured the capital, Tananarive on September 23. The campaign concluded on November 5, 1942.<sup>107</sup>

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<sup>101</sup> Winston Churchill, "Former Naval Person to President Personal and Most Secret. C-44," The National Archives, Official Correspondence, March 14, 1942.

<sup>102</sup> Franklin Roosevelt, "From President to Prime Minister Personal and Secret - R-119," Official Correspondence, March 16, 1942.

<sup>103</sup> Kemp and Graves, *The Red Dragon; The Story of the Royal Welch Fusiliers, 1919-1945*, 99.

<sup>104</sup> Young, *The Almanac of World War II*, 152.

<sup>105</sup> Grehan, *Churchill's Secret Invasion*, 153.

<sup>106</sup> *Ibid.*, 32.

<sup>107</sup> Kimball, *Churchill and Roosevelt. The Complete Correspondence*, I:483.

## Results of the Campaign

Britain controlled Madagascar until handing it over to the Free French. Allied possession of the deep-water port was essential for control of the seas along the Cape of Good Hope route. Neither Japan nor Germany were able to mount attempts to challenge this control of sea lines of communication in the western Indian Ocean for the remainder of the war. The attack was one of the first large scale amphibious operations conducted by joint UK forces during the war. Future landings incorporated lessons learned from Madagascar. Although combat casualties were light, due to a shortage of the anti-malarial mepacrine and difficulty in utilizing mosquito nets, ninety percent of British troops contracted malaria during the campaign.<sup>108</sup>

In addition, the Allies secured Madagascan resources. Madagascar was a source of high-quality graphite.<sup>109</sup> Graphite was essential for use in the munitions industry, and was also critical in nuclear weapons development. Shortly after the British captured the capital Tamatave, an agreement was signed by United States and the UK authorized the export of 8k tones of graphite.<sup>110</sup> The second nuclear chain-reacting pile built at Los Alamos in the United States in 1943, used Malagasy graphite.<sup>111</sup>

## Reasons for the Campaign

Madagascar is strategically situated along a vital sea line of communication which connects the Atlantic to the India Ocean, traversing the Cape of Good Hope. During the Second World War, thousands of supply and personnel ships used the route to link the United Kingdom to Middle Eastern Oil, Australia and New Zealand, and the Asian theaters.<sup>112</sup> The port in Diego Suarez Bay, located on the northern tip of Madagascar is one of the most advanced natural ports in the world. The anchorage is large enough to have held the combined fleets of all the maritime powers during the war, well sheltered from the sea behind a

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<sup>108</sup> Kemp and Graves, *The Red Dragon; The Story of the Royal Welch Fusiliers, 1919-1945*, 117.

<sup>109</sup> Grehan, *Churchill's Secret Invasion*, 3.

<sup>110</sup> *Ibid.*, 143.

<sup>111</sup> *Ibid.*

<sup>112</sup> *Ibid.*, 9.

great jetty.<sup>113</sup> The arsenal and its workshops, and the new dry dock could accommodate a twenty-eight-thousand-ton battleship and conduct maintenance on large guns.<sup>114</sup>

Allied forces conducted operations in the Madagascan theater to deny the Japanese a base from which they could disrupt sea lines of communication or gain sea control. They perceived their access to essential lines of communication were vulnerable, thus took action to ensure their retention. From the actions in the campaign, it is evident Allied reasons were to gain an operational advantage through the capture of an asset, while denying one to the enemy, and to minimize strategic risk. Vichy French forces simply resisted the British attack in order to maintain sovereignty over Madagascar. Japanese or German forces did not have the capacity to fight for the benefits Madagascar may have offered them, or the disadvantage it may have posed to their adversaries.

## Findings and Analysis

This section compares the three case studies to identify whether there were common reasons why a nation chose to fight in the peripheries of a global war, and examines the implications for future war. It also analyzes how *US Army Field Manual 3-0 Operations* and *TRADOC Pamphlet 525-3-1 - The United States Army in Multi-Domain Operations 2028* could more effectively incorporate lessons from peripheral theaters. In the terms of current doctrine, peripheral theaters allow nations to retain, seize, or deny an adversary terrain which possesses a critical requirement for themselves or an adversary that is vulnerable. By attacking this vulnerability or denying an enemy's ability to attack it, it is possible to gain or maintain a critical capability in support of a primary theater. At the start of the Second World War, the belligerents did not assess of the examined peripheral theaters as valuable enough to commit significant resources to protect. In each case, enemy action, or a perceived friendly vulnerability led to the commitment of enough combat power to secure the territory.

Critical requirements are essential conditions, resources, and means a force requires to

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<sup>113</sup> Ibid.

<sup>114</sup> Ibid.

accomplish an objective. Critical vulnerabilities are those aspects or components of critical requirements that are deficient or vulnerable to direct or indirect attack in a manner achieving decisive or significant results.<sup>115</sup> In a primary theater, staff typically look within their area of responsibility to find their own and enemy critical requirements and critical vulnerabilities, or assume these assets lie in defended homelands. In Greenland, Iraq and Syria, and Madagascar during World War II, planners found critical requirements and critical vulnerabilities in the peripheries, then took action to retain, seize, or deny them. By retaining their own critical capabilities and degrading the enemy's critical requirements, the Allies were able to force the enemy to rely solely on resources, information, and lines of communication within their area of control. This area of control continually diminished throughout the war, through the continued execution of peripheral campaigns. The Allies were then able to attack in the primary theaters at a time of their choosing and from a position of relative advantage or perhaps even absolute advantage. The lack of ability to continue to operate in the global manoeuvre space was a significant factor in the Allied defeat. Figure 1 shows the system of critical capabilities lying in peripheral theaters supporting the main effort.

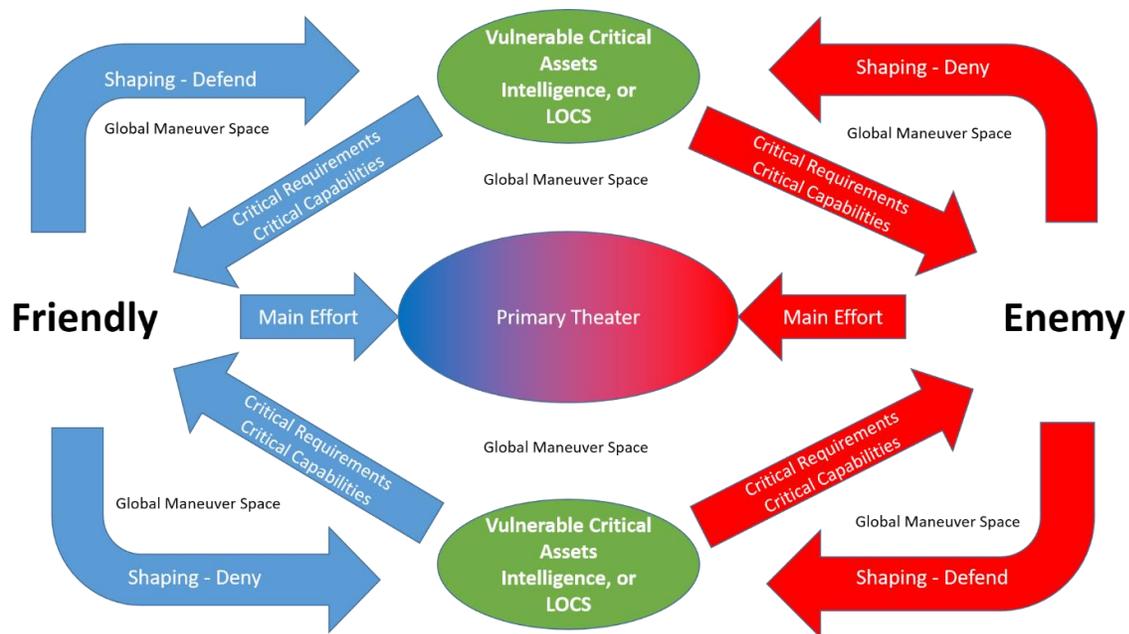


Figure 1. The Critical Assets System. Original by author and Major Matthew Newman.

<sup>115</sup> US Department of Defense. Joint Doctrine Publication 5-0, *The Operations Process*, (Washington, DC: Government Printing Office), 2011. IV-24.

The ability to accurately predict European weather would have given either side an advantage in the European theater. At the start of the war, the Allies already occupied locations where they could collect data used for weather forecasting via the polar front theory; their intent in Greenland was to deny similar data to the enemy. By denying the Germans the data, the Allies gained a position of relative advantage. The Germans sent forces to Greenland not to deny weather intelligence to the Allies, but to secure what they had previously relied upon. Weather information was a critical requirement for the Germans. After the unencrypted signals ceased, they no longer had access to the data from terrain they controlled. Axis meteorologists could no longer forecast the weather as far forward or as accurately as the Allies, which reduced the number of options possessed by the Axis. The German access to weather data was a requirement which led to a vulnerability, which the Allies could attack.

Across the three cases, opponents often sought to retain access to a resource deemed essential enough to the war effort to protect it. Due to their importance to the Allied war effort, cryolite, oil, and graphite were critical requirements. Nonetheless, because these resources were not readily available within secured Allied homelands, their access was vulnerable. If the Axis denied or severely disrupted access, the Axis would gain an immediate position of relative advantage. The supply of cryolite from Greenland was a critical requirement to the United States and Canadian critical requirement of aluminum for the aviation industry. Recognizing the vulnerability of this requirement, the Allies committed forces to retain it. In the Iraq-Syria case, the Germans hoped to deny British access to oil which supported other theaters; the British committed forces to retain this access. To the Germans, Iraqi oil may have proved easier to obtain than the oil from the Caucasus which they planned to capture later in the war, but in 1941, they only intended to deny the British a critical capability through attacking a critical vulnerability. In each case, the risk, i.e., the likelihood and severity of losing access to the resource justified committing forces needed in other theaters.

Control of air, ground, and sea lines of communication was a critical requirement for adversaries in all cases. Greenland provided a position to support the North Atlantic SLOCs, while providing basing for ALOCs. Iraq possessed critical ALOC and GLOC to support the eastern theaters, while Madagascar

provided a location to protect essential SLOC. In each case, an adversary allocated force to the periphery to safeguard control of routes as they posed a critical requirement, and in the Iraq, the Germans committed forces hoping to deny a LOC by attacking a critical vulnerability.

## Implications, Recommendations, and Conclusion

Any location or transportation route where a rare asset comes from is critical requirement, and can be vulnerable. It is possible to disrupt the supply lines for any one essential ingredient of military power anywhere along its life cycle. An analysis of a nation's reliance on imports could yield potential critical requirements, and expose vulnerabilities. In 2018, the United States was completely dependent on imports for arsenic, asbestos, cesium, fluorspar, gallium, natural graphite, indium, manganese, natural sheet mica, nepheline syenite, niobium, rare earths, rubidium, scandium, strontium, tantalum, thorium, and vanadium.<sup>116</sup> Denying imports for some of these resources will have detrimental effects on US and partner capabilities. For example, every F-35 requires 920 pounds of rare-earth material, an Arleigh Burke DDG-51 destroyer requires 5,200 pounds and an SSN-774 Virginia-class submarine needs 9,200 pounds.<sup>117</sup> The United States no longer processes domestically available rare-earth ores, and imports the majority used for defense from Chili and China. Some access to rare-earths may become available, but would require serious investment in infrastructure and exploration.<sup>118</sup> An analysis of further Allied resource critical vulnerabilities could lead to other similar retention efforts.

Key terrain away from secure homelands will become a critical vulnerability. China has heavily invested in Africa and in 2017 officially opened a military base in Djibouti. Chinese economic expansion continues throughout Eurasia with the Belt and Road Initiative. In April 2019, Russian President Vladimir

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<sup>116</sup> James F. Reilly, *Mineral Commodity Summaries 201* (Reston, VA: US Department of the Interior. US Geological Survey., February 28, 2019), 6.

<sup>117</sup> Dash Parham, "Rare-Earth Uncertainty," *Air Force Magazine*, n.d., accessed December 11, 2019, <https://www.airforcemag.com/article/rare-earth-uncertainty/>.

<sup>118</sup> "U.S. Army Will Fund Rare Earths Plant for Weapons Development | RealClearDefense," accessed December 12, 2019, [https://www.realcleardefense.com/2019/12/11/us\\_army\\_will\\_fund\\_rare\\_earths\\_plant\\_for\\_weapons\\_development\\_311184.html](https://www.realcleardefense.com/2019/12/11/us_army_will_fund_rare_earths_plant_for_weapons_development_311184.html).

Putin reconfirmed his plans to secure Russia's foothold in the Arctic.<sup>119</sup> Russia also maintains a number of military bases in other countries and has interests throughout the world. The United States operates overseas military bases in dozens of countries and has a military presence in many more. The major powers in the world have a global footprint, however, because their critical requirements are away from their secure homelands, they represent a vulnerability. When looking to open or close overseas bases, planners must take into consideration which, if any, critical requirements they are able to secure. Similarly, to how a division or corps must commit combat power to its consolidation area, when faced with global war, nations must commit significant resources to protect their critical requirements, which may be in the peripheries. Planners of large-scale combat contingencies must consider ways to protect critical vulnerabilities, and should consider ways to attack near-peer critical vulnerabilities before an adversary can sufficiently defend them.

Additionally, advances in area A2/AD technology may also mean a periphery is the only place worth the risk to attack an adversary. For example, should a conflict arise in the South China Sea, China's anti-ship missiles and A2/AD capability may mean as United States Indo Pacific Command builds combat power, United States Africa Command (USAFRICOM) must fight in its area of operations the peripheries of the primary Asian theater. This would give USAFRICOM the mission to deny critical resources or options to China or retain US capabilities. Campaigns in the peripheries will assist in the disintegration of A2/AD networks through destroying critical requirements supporting the A2/AD network, forcing the enemy to choose to fight away from the protection of his A2/AD or risk his global area of influence reduced, hampering his ability to reconstitute capabilities, and denying his access to the global maneuver space. Continued improvements A2/AD technology may result in peripheral operations becoming essential in order to have any substantial effect on an enemy and create the conditions for joint force entry to a primary theater or the initiation of a primary campaign.

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<sup>119</sup> Vladimir Isachenkov and Irina Titova, "Putin Outlines Ambitious Arctic Expansion Program," *AP NEWS*, last modified April 9, 2019, accessed September 3, 2019, <https://apnews.com/d0c2eb39a3b44b40ac8ddb1749ebe143>.

## Recommendations

Planners must consider ways to protect critical requirements and should consider ways to attack near-peer critical vulnerabilities before an adversary can sufficiently defend them. Nations must prepare to protect their significant critical vulnerabilities worldwide. This means that in addition to a Geographic Combatant Commander's theater campaign plan and its related contingency plans, it should also develop contingency plans that support other combatant commands. For example, while United States Southern Command (SOUTHCOM) might develop a plan in response to Russian activities in Venezuela, it should also develop plans that address potential adversaries' critical requirements in Venezuela and understand which US critical capabilities are found in SOUTHCOM's area of responsibility. An integrated joint planning element, similar to the War Plans Division utilized during World War II may also be able to accomplish this level of planning.<sup>120</sup>

## Recommend Doctrine Amendments

Field Manual 3-0, *Operations* states:

Operations to shape consist of various long-term military engagements, security cooperation, and deterrence missions, tasks, and actions intended to assure friends, build partner capacity and capability, and promote regional stability. Operations to shape typically occur in support of the geographic combatant commander's theater campaign plan or the theater security cooperation plan.<sup>121</sup>

Figure 2 shows how Global Shaping activities carry on throughout the joint phases of a conflict.

Supporting this model, FM 3-0 states, "Theater and global shaping activities occur continuously to support specific joint operations and to meet theater and global requirements."<sup>122</sup> While the shaping phase in a primary theater may end, transitioning into the deterrence phase, or shaping operations as part of a tactical plan may end before a decisive operation, Global Operations to Shape continue.

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<sup>120</sup> "Chapter II: The War Plans Division," accessed January 9, 2020, <https://history.army.mil/books/wwii/WCP/ChapterII.htm>.

<sup>121</sup> US Army, Army Doctrine Publication 3-0, *Operations*, (Washington, DC: Government Printing Office, 2017), 3-1.

<sup>122</sup> Ibid.

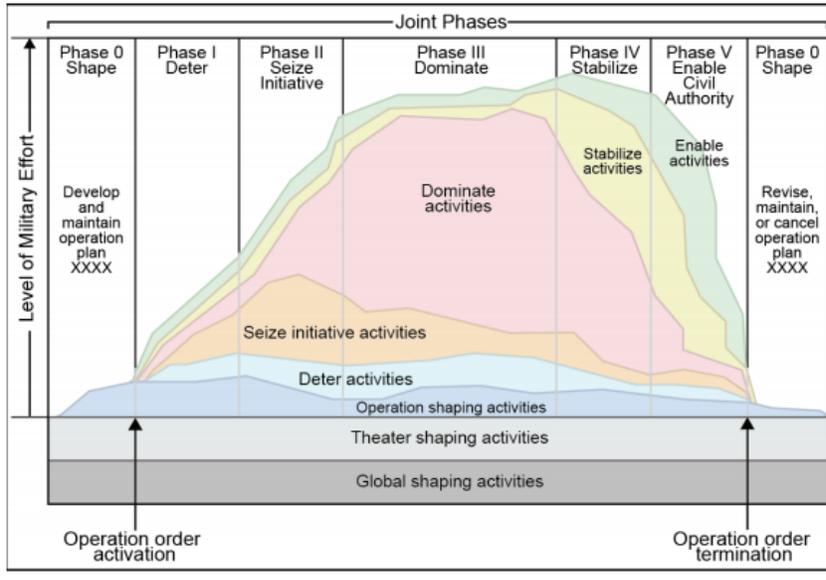


Figure 2. Global Shaping Activities in relation to Joint Phases. Original from US Army, Army Doctrine Publication 3-0, *Operations*, (Washington, DC: Government Printing Office, 2017), 1-12.

With these definitions, the United States support to creating the Sledge Patrol which was essential to denying the Germans weather data, German attempts to dislodge British influence in Iraq, and the British capturing Madagascar to protect their sea lines should all now fall under current doctrine as global shaping operations. Nonetheless, the specific details and tasks qualified in FM 3-0 do not adequately represent global shaping during global war. Field Manual 3-0, *Operations*, defines that operations to shape focus on four purposes: (1) Promoting and protecting U.S. national interests and influence, (2) Building partner capacity and partnerships, (3) Recognizing and countering adversary attempts to gain positions of relative advantage, and (4) setting the conditions to win future conflicts.<sup>123</sup> These tasks are too passive, and do not reflect the realities of peripheral campaigns.

While some of the reasons for fighting in the peripheries in the cases analyzed could fall under recognizing and countering adversary attempts to gain positions of relative advantage, the list is still incomplete. It should expand to include (5) Securing, seizing, or denying access to critical resources, (6) Securing, seizing, or denying access to intelligence, and (7) Defending or denying enemy access to

<sup>123</sup> Ibid.

strategic lines of communication. Figure 5 shows where these tasks should fall within the four strategic roles the Army provides to the Joint Force; the tasks in peripheral theaters acting as a bridge between the Army’s strategic roles. It also highlights shaping operations can be kinetic as part of global war. At the strategic level, it is clear that an area of interest should extend to wherever friendly forces or an enemy gains intelligence or resources during a global war. The definition in Joint Publication 3-0 falls short, stating, “That area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory.”<sup>124</sup> It should expand to state, “That area of concern to the commander, including the area of influence, areas adjacent thereto, extending into enemy territory, and wherever friendly forces or an enemy gains critical requirements or critical capabilities.”

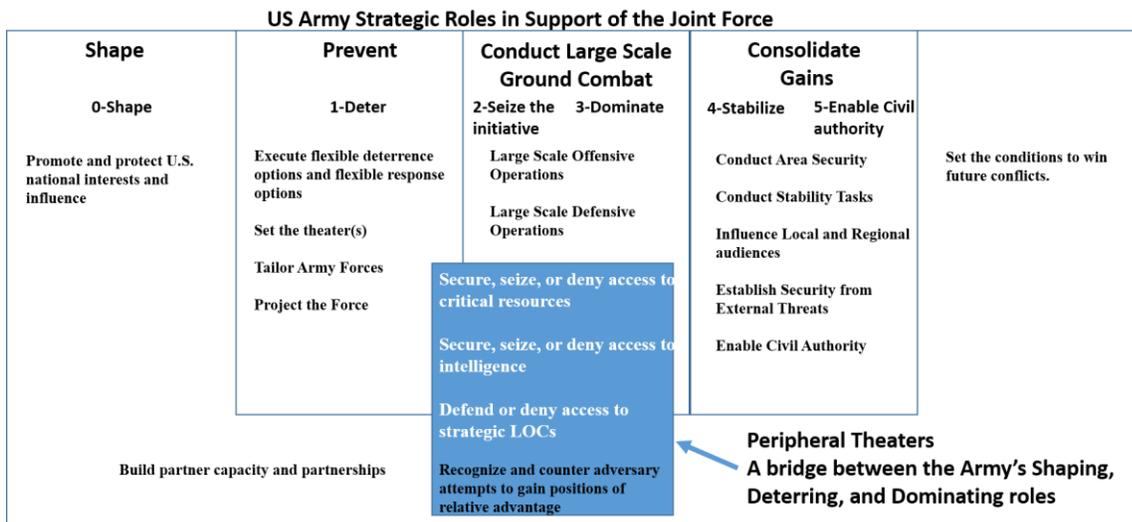


Figure 3. Where the Suggested Tasks Should Fall. Original by author.

Training and Doctrine Command’s (TRADOC) Pamphlet 525-3-1 – *The United States Army in Multi-Domain Operations 2028* describes a concept of how US Army forces, as part of the Joint Force, will militarily compete, penetrate, dis-integrate, and exploit adversaries in the future.<sup>125</sup> The stated central idea of the concept is:

<sup>124</sup> US Army, Army Doctrine Publication 3-0, *Operations*, (Washington, DC: Government Printing Office, 2017), 3-1, 210.

<sup>125</sup> TRADOC Pamphlet 525-3-1, *The United States Army in Multi-Domain Operations 2028*, December 6, 2018.

Army forces, as an element of the Joint Force, conduct Multi-Domain Operations (MDO) to prevail in competition; when necessary, Army forces penetrate and dis-integrate enemy anti-access and area denial systems and exploit the resultant freedom of maneuver to achieve strategic objectives (win) and force a return to competition on favorable terms.<sup>126</sup>

The pamphlet describes how the joint force will break the coherence of the enemy's anti-access and area denial systems. The process described is overly simplistic, relies on huge technological overmatch against a peer competitor, and does not take the history of global warfare into account. Using the logic of Liddle Hart, the joint force must first break the coherence of the enemy's global system to compete and fight the war before it can launch a direct attack on an enemy's A2/AD systems.<sup>127</sup> In the Second World War, before the Allies could attack Germany directly, they had to fight them in the peripheries. Forthcoming Multi-Domain Operations doctrine must acknowledge this.

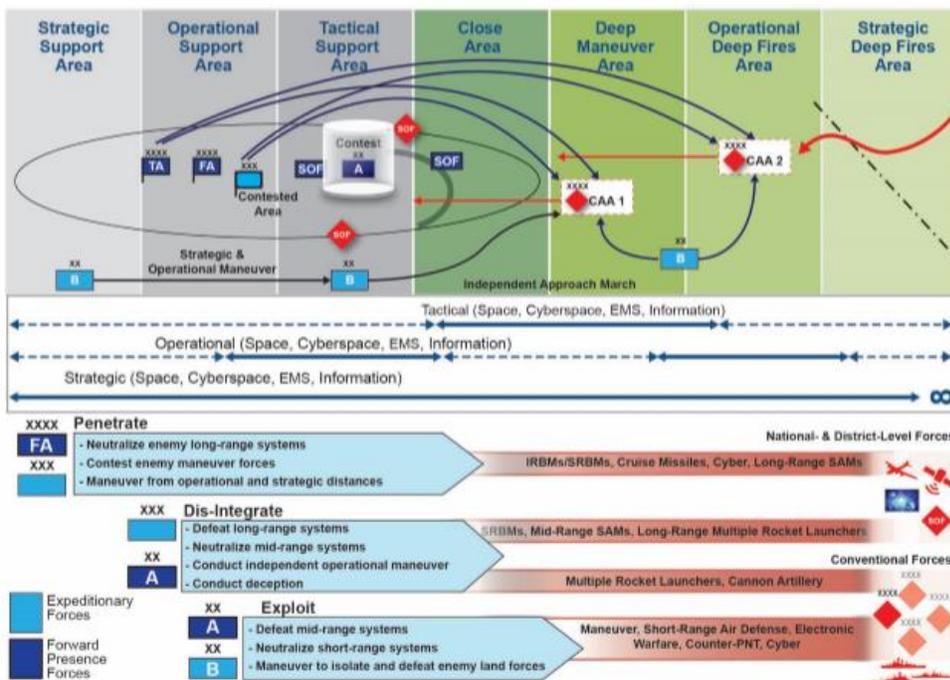


Figure 4 - Penetrate and dis-integrate anti-access and area denial systems; exploit freedom of maneuver, from TRADOC Pamphlet 525-3-1, The United States Army in Multi-Domain Operations 2028, December 6, 2018.

<sup>126</sup> Ibid., vii.

<sup>127</sup> “The first is that, in face of the overwhelming evidence of history, no general is justified in launching his troops to a direct attack upon an enemy firmly in position. The second, that instead of seeking to upset the enemy's equilibrium by one's attack, it must be upset before a real attack is, or can be successfully, launched.” B.H. Liddell Hart, *Strategy* (London: Faber & Faber Ltd, 1954), 147.

Figure 4, from TRADOC Pamphlet 525-3-1, displays how the tasks of penetrating, dis-integrating, and exploiting will lie within the operational framework of a primary theater in the MDO concept. It is one-dimensional, so does not accurately reflect the realities of a global war. A more accurate view could have two dimensions in order to include additional operational framework areas, secondary theaters or the peripheries. Due to the global footprint of any near-peer adversary, they will have critical vulnerabilities, lying in the peripheries, outside of A2/AD systems. Figure 7 shows disintegration beginning in the Operational Support area. Disintegration should actually begin in the global maneuver area, wherever the enemy's critical capabilities lie. Prior to launching a direct attack, planners should first look for ways to dis-integrate an enemy's systems through other means. This logic is shown in Figure 5. Just as the allies denied the Germans weather intelligence led to successful penetration of Normandy, saving Allied lives, offensive global shaping operations in the peripheries can save lives in future wars.

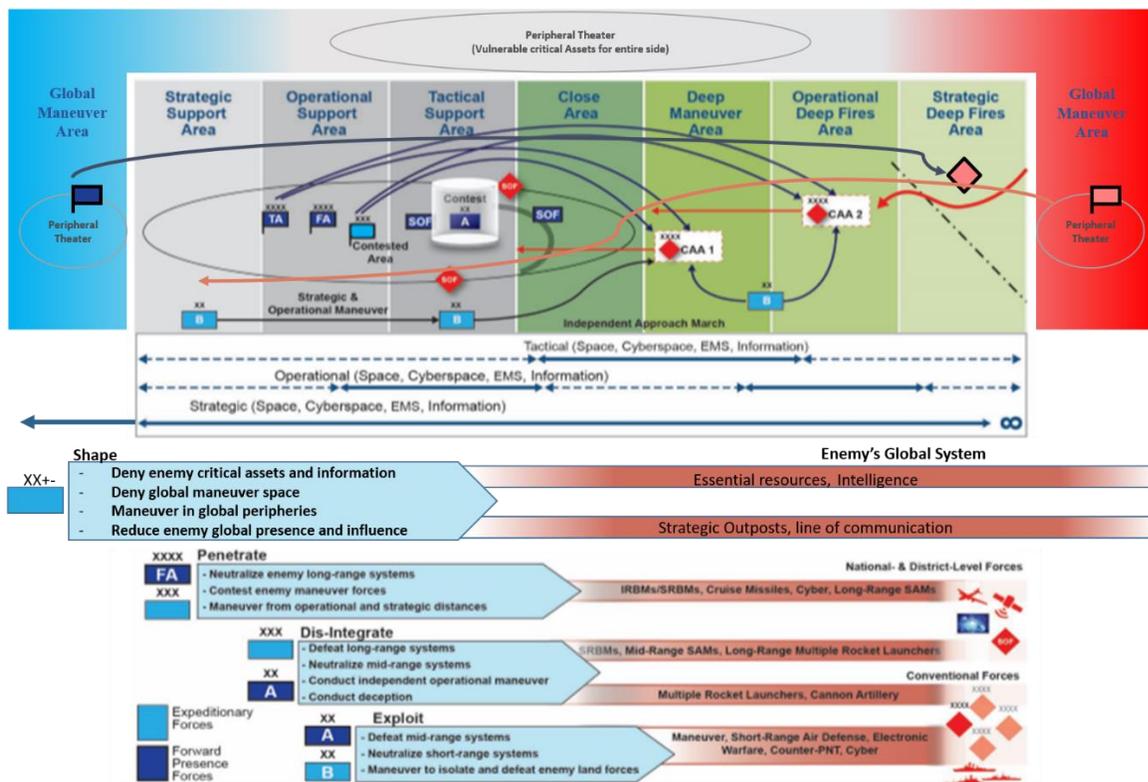


Figure 5. Multi Domain Operations Framework with Shaping tasks added. From TRADOC Pamphlet 525-3-1, The United States Army in Multi-Domain Operations 2028, December 6, 2018. With additions by author.

## Key Recommendations

Large-scale combat planners must consider ways to protect critical vulnerabilities in the peripheries and should consider ways to attack near-peer critical vulnerabilities before an adversary can sufficiently defend them. When framing the operational environment (OE) of large-scale combat operations, planners must consider their own and the enemy's global vulnerabilities. A more thorough framing of the OE, with thought towards the peripheries, will allow the commitment of resources to protect critical capabilities earlier and reduce potentially costly contingency operations. The United States should consider an integrated joint planning element, similar to the War Plans Division utilized during World War II to address this issue. This may be addressed by the planned Global Integration Cell.

To ensure a common understanding, planners and staff throughout design, the MDMP, and Troop Leading Procedures, the definition of Area of Interest must expand to ensure it covers friendly and enemy critical requirements. The Department of Defense's definition of Area of Interest should read, "That area of concern to the commander, including the area of influence, areas adjacent thereto, extending into enemy territory, and wherever friendly forces or an enemy gains critical requirements or critical capabilities." This will permit a wider scope of thought when planning and will ensure resources are better allocated early.

In addition to a combatant commander's theater campaign plan and its related contingency plans, it should also develop contingency plans that retain, seize, or deny critical requirements in support other combatant commands. This will result in the need for more frequent liaison between geographic combatant commands to ensure each command understands how their area relates to critical capabilities of allies and potential adversaries. This is further justification for an integrated joint planning element should be one of the tasks of the Global Integration Cell.

Field Manual 3-0 and other publications that refer to operations to shape should have minor amendments made to reflect the realities of global operations to shape during global war. While the overall conflict may have moved into the domination phase, operations to shape will must carry on in the

global maneuver area. The current defined purposes of Operations to Shape are too passive and do not reflect the continuation of shaping operations. The purposes of Operations to Shape must expand to include: Securing, seizing, or denying access to critical resources, securing, seizing, or denying access to intelligence, and defending or denying enemy access to strategic lines of communication. This will allow staff and planners to use operations to shape as a bridge between the shaping, deterring, and dominating phases of large-scale combat, realizing that kinetic operations can occur in any phase.

While Field Manual 3-0 has elements that are too passive, TRADOC Pamphlet 525-3-1, The United States Army in Multi-Domain Operations 2028 is overly ambitious. Against a non-peer adversary, it is appropriate, but MDO would fail against a peer competitor. Multi-domain operations doctrine should include a shaping phase. Prior to attempting to penetrate enemy A2/AD, planners should first look for ways to dis-integrate an enemy's systems through other means. Use of a shaping phase, which can include kinetic operations against an enemy's critical requirements away from their main defensive area, will reduce the costs and casualties of the penetration phase of MDO.

This monograph focused on the reasons why as part of global war, combatants chose to fight in the peripheries. The subject requires further research into the characteristics, planning considerations, and ways to consolidate gains to be able to fully appreciate peripheral theaters and completely integrate their lessons into modern doctrine.

## Conclusion

When analyzing history and theory, US doctrine writers use the major primary theaters of past wars. They omit almost entirely the global shaping operations in the peripheries that lead to past successes. Had past planners failed to recognize these essential areas, Germany may have been in a stronger position to defend in June 1944, without Iraqi oil the Royal Navy may have been unable to protect transatlantic convoys, and without strategic SLOC to the China Burma India theater, Japan could have extended the war. Military planners and doctrine writers must learn from all of history, but the flaws in current US doctrine shows they have only learned from history's primary theaters. This monograph

proves that if planners are able to recognize their own and the enemy's critical requirements, then take the appropriate action in the peripheries, they will save time, effort, and lives.

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