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NAVAL WAR COLLEGE

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Operation Albion: German Excellence in Applying Maritime Warfare Theory and Operational Art

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A paper submitted to the Faculty of the Naval War College.

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

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The Germans applied maritime warfare theory masterfully in executing their operational idea during Operation Albion in World War I. Three naval theorists and their contributions to maritime warfare theory provide key lenses to critique the German execution of their operational idea. First, Germany incorporated Milan Vego's critical elements of a strong operational idea. Further, the idea demonstrated essential components of theater geometry that supported an exceptional balance of the operational factors of time, space, and force. Second, Germany's idea aligned with each of Wayne Hughes' six cornerstones of maritime warfare. Third, Germany's operational execution revealed each of Geoffrey Till's requirements for a successful amphibious assault. Germany's application of maritime theory did have some important weaknesses. However, Germany's mitigation of these weaknesses made for nearly seamless execution of their operational idea. Ultimately, Germany achieved its objective because it executed a bold and creative operational idea that exemplified critical tenets of maritime warfare and operational art.

A clear operational objective that directly supported Germany's strategic aims served as the foundation for Germany's successful planning and execution of Albion. In October 1917, Germany's strategic objective was to knock Russia out of WWI to focus its efforts on the Western Front before U.S. forces fully mobilized. To accomplish this strategic aim, Germany devised a maritime operation to seize the Baltic Islands. Germany's operational objective was two-fold. First, Germany aimed to capture the Baltic Islands to secure the Gulf of Riga to threaten the Russian capital of Petrograd by exposing it to land and naval assault. Second, Germany understood that Russian domestic turmoil amid the Russian Revolution made it extremely vulnerable—a decisive blow on the Baltic Islands could end the war in the East. Thus, Germany's objective was not just to secure the islands, but to inflict a decisive blow on the

Russians by eliminating the main force there. The Germans believed that leveling this decisive blow would have one of two outcomes. It would knock Russia out of the war as that politically-divided nation might sue for peace after its failure in the Baltics demonstrated its military plight. Or the German seizure of the Gulf of Riga and Baltic Islands would open sea and land lines of communication for a German offensive on Petrograd in the spring of 1918 to knock Russia out of the war at that time. Forming an excellent foundation for the entire operation, Germany's operational objective denoted a clear desired end state that supported its strategic aims.

With the operational objective determined, German planners correctly identified the enemy center of gravity—the Russian land forces on Ösel Island. The Germans sought to control the sea lines of communication (SLOCs) to mainland Russia. The Gulf of Riga was the key to the SLOCs in the Baltics. Both Russia and Germany understood that whoever controlled Ösel and Moon islands could dominate the Gulf. Thus, the Germans identified the Russian center of gravity as the land forces on Ösel Island. Ösel was the main island in the Baltics. Destruction of this force was the only outcome that would deliver the decisive blow required in the objective. Conversely, the land forces on Ösel were the only source of power that could defeat the German landing force once on the island, and they were the only force that could deny Germany its objective by simply escaping to Moon Island or the mainland. German planners had a strong basis for determining the Russian center of gravity because the operational objective was clear in the requirement to eliminate the Russian land force on Ösel. As a result, German planners mitigated the significant risk inherent in identifying an incorrect center of gravity when conducting a maritime operation. Having identified the correct center of gravity based on the operational objective, Germany had a strong foundation to devise its operational idea.

The German operational idea was so outstanding because it directly supported the operational objective by employing a bold and creative concept that incorporated key elements of maritime warfare theory. It called for the navy to establish sufficient sea control to support simultaneous amphibious landings at Tagga Bay and Pamerort on Ösel Island. Then, employing maximum speed and maneuver, the German landed forces would immediately strike decisive points in simultaneous attacks across the island. These actions would enable friendly naval fires in support of the landed force while cutting off the Russian's route of escape.

Germany's concept fit Milan Vego's framework for a comprehensive operational idea. In Vego's "Operational Warfare at Sea," he offers that the operational idea should ensure that decisive force is employed while confronting the enemy with multiple threats that he cannot defeat. A surprise attack should be employed—one that does not use a previous pattern of operation. All of these elements should characterize the idea, but most importantly it should directly support the destruction of the enemy's operational center of gravity. The German operational idea included all of these elements. The scheme centered on rendering a decisive blow that would meet the objective. Additionally, the concept employed a lightly armed bicycle brigade as a secondary landing force in a scheme the Russians were very unlikely to expect. Further, the idea called for confronting the Russians with multiple threats over divergent lines of operation to cut him off and trap him in a pincer between Arensburg and Orrisar with his line of retreat to the mainland blocked at the causeway.

The German operational execution also incorporated the key elements of Vego's operational idea framework. First, regarding the application of one's source of power, the Germans opted for simultaneous attacks on decisive points to stretch and overwhelm enemy defenses. Second, Germany had a clear method for defeating the enemy center of gravity: they

maximized their maneuverability by employing the cyclist brigade to race across the island to take the causeway at Orrisar and cut-off the Russian retreat. This scheme allowed the main assault force to smash the enemy in between two German forces and ultimately resulted in the surrender of the entire Russian force per the operational objective. Third, the concept utilized maneuver of forces from the main landing site down to crush the artillery batteries at Fort Zerel to open the Irbe Straits to German naval fires to support the landing force maneuver on Ösel to trap the Russian forces. Fourth, the German idea included identification of main and supporting forces. The main landing force embarked at Tagga, and a supporting force landed at Pamerort in a scheme that supported both maneuver and deception. Finally, the Germans targeted decisive points in three sectors of effort: Fort Zerel, Arensburg, and the causeway at Orrisar in simultaneous attacks that denied the Russians the operational pause they hoped to utilize to reinforce themselves against the assault.

Germany's exemplary application of maritime warfare theory is also apparent when evaluated using Milan Vego writings on theater geometry in, *Joint Operational Warfare: Theory and Practice*. First, Germany maximized its initial position in its operational idea. Assaulting Ösel from the sea, the German idea called for an advance from their exterior position on exterior lines that allowed it as the attacker to dictate the landing sites. Germany took advantage of this exterior position by attacking Russia simultaneously at both Tagga Bay and Pamerort. Next, the Germans planned for and maneuvered upon multiple and divergent lines of operations that brought sufficient force on numerous decisive points. The main force at Tagga advanced on two main lines of operations. One towards Fort Zerel on Sworbe Peninsula to neutralize the coastal batteries to open the Irbe Straits to German navy warships to provide covering fire to the landed forces. The other line of operation from Tagga extended to the decisive point of Arensburg.

Arensburg was the capital of Ösel, the Russian military headquarters on the island, and the hub of the island road network. A last major line of operation extended from the secondary landing site at Pamerort and ranged along the island's northeast coast to the critical causeway at Orrisar. Another decisive point, the Russian-held causeway at Orrisar served as the Russian escape route off of Ösel. It also represented Russia's line of sustainment from the mainland to their base of operations at Arensburg. Finally, the entire operation was conducted to open the land and sea lines of communication to Petrograd. Thus, the German idea was so comprehensive in its application of theater geometry that it even provided a path for next steps if the Germans took the islands but failed to annihilate the Russian force. This straightforward concept included the essential elements as prescribed in maritime warfare theory.

German execution of their operational idea was so successful because it informed an operational design that achieved a fantastic balance of the operational factors of time, space, and force. The Germans balanced space and force by maximizing speed and maneuver first to land on Ösel at two locations before immediately advancing on intermediate objectives. They balanced space and time by taking simultaneous actions against decisive points and by denying the enemy any operational pause to reinforce critical positions. Though the case study states that numbers, geography, and time—virtually everything—militated against them, the Germans overcame these obstacles through creative adaptation. By landing the cyclist brigade at Pamerort, 30 km closer to their objective at Orrisar, the Germans maximized maneuver and balanced the factor of space by compressing distance. The Germans thus flipped the factors of time, space, and force in their favor with the use of the cyclist force to minimize the time required to move across the island space to secure the critical intermediate objective of the causeway at Orrisar. They seized the initiative and took the fight to the enemy at a speed of action the Russians could

not match. It was this balancing of time, space, and force that led directly to the Germans achieving their operational objective. Because the Germans balanced these factors so effectively through adaptation, they were able to compound tactical successes to bring their enemy to a culminating point as the Germans trapped and captured the Russian force. Such synergy between tactical effects and operational ends in support of the objective underscores Germany's excellence in operational art in this case.

Measuring the German operational idea against Wayne Hughes's six cornerstones of maritime warfare outlined in his book, *Fleet Tactics and Coastal Combat*, also demonstrates the brilliance of the German scheme. In perfect harmony with Hughes, Germany's operational idea revealed that the Germans perceived that the *seat of purpose is on the land*. Germany devised its operational idea in pursuit of the correctly identified enemy center of gravity: the land forces on Ösel whose destruction could render a decisive blow to the flagging Russians. The objectives at sea including mine-clearing and securing sufficient sea control to deliver and support the landing force, directly supported the overall objective on land. German planning and their operational idea manifest that they understood this tenet. Next, the German scheme employed Hughes' prescription to *attack effectively first*. Unlike the Russians who calculated the risk of attacking the anticipated amphibious landing as too great, the Germans assessed the risk and opted to attack effectively first. In doing so, the Germans maximized surprise, seized the initiative in dictating the locations of their assault, and imposed their will on the enemy in pursuit of their objective. Further, the German understanding that *men matter most* was evident throughout the operation. German senior leaders empowered their subordinate commanders through mission command to carry out their intent amid the numerous simultaneous actions that required decentralized execution. The creativity of planners, the speed of the amphibious force, and trust

in their troops to carry out commander's intent underscores that the Germans understood that men mattered most.

Hughes noted that *a ship is a fool to fight a fort*. The Germans were no fools in the Baltic. They opted not to try to seize their objective through a naval bombardment of the Ösel garrison. Instead, their operational idea called for a bold amphibious assault under intense pressure to execute before the onset of winter prohibited an offensive. The idea called for coherent joint operations to neutralize the island fortifications. German planners tasked the landing force with eliminating the artillery batteries on the Sworbe Peninsula. In a critical joint division of labor, the Germans devised a scheme to overcome the defender's advantage of defending the island with coastal artillery. Doing so was significant because destroying these batteries opened the Gulf of Riga and Soela sound to German supporting naval fires. Furthermore, German planning also demonstrated that they perceived that to *know tactics, know technology*. Incorporation of its cyclist brigade into the amphibious landing force was an enormous stroke of creativity. While a relatively simple technology, bicycles offered incredible innovation in achieving the maneuverability Germany required to achieve its objective of cutting off the Russians to destroy them. The Germans achieved their objective because they sharpened their tactical scheme of maneuver by employing simple technology to great operational effect.

Finally, the Germans were seemingly at their weakest in regards to Hughes instruction that *doctrine is the glue of tactics*. The Germans had no amphibious or joint experience, doctrine, or training that would suggest that they were likely to succeed with Albion. One could argue that the Germans took enormous—and foolish—risk in hastily organizing this amphibious operation without superior force and with no doctrine or training to guide execution. However, though they lacked formal doctrine based on experience, the Germans mitigated this vulnerability to a great

extent. By developing extremely clear objectives, empowering planners to execute creative schemes, employing excellent mission command by insisting on subordinate commander's understanding and execution of their stated intent, the Germans achieved an extremely high level of unity of effort. This unity of effort was reinforced by the notable collaboration between the German navy and army, despite a lack of joint doctrine. Unity of command under General von Hutier at the Eighth Army level and General von Estorff leading the main assault force also lessened the effects of the Germans having no formal doctrine to bind tactics. For these reasons, comparing the execution of the German operational idea to Hughes' six cornerstones demonstrates just how inseparable the German idea was from these critical tenets that characterize maritime warfare theory.

In *Seapower: A Guide for the Twenty-First Century*, Geoffrey Till outlines five requirements for successful amphibious operations that illuminate Germany's application of maritime warfare theory in executing their operational idea. First, Till outlines maritime superiority as the initial requirement of a properly conceived amphibious operation. He cites Corbett's description of the need for reasonable naval preponderance in a specific area to support a successful amphibious operation. Though Germany did not gain full sea control, they did meet Corbett's standard of reasonable naval preponderance in a specific area, the Soela Sound, to facilitate amphibious landings at Tagga and Pamerort. The German navy did its job of covering the amphibious force in transit to the landing sites and kept them from being intercepted by the Russian navy. Luck also lessened the ultimate consequences of Germany not having a higher degree of sea control. In a major boost to the invasion, when the amphibious force transited the Kassar Inlet, it was extremely fortunate to find that it not been mined.

Next, Till states that specialist skills and training are essential to amphibious operations. On this point, the Germans were lacking in specialized skills in transiting, disembarking, covering, or supplying the force and this lack of skill did expose the Germans to increased risk of operational failure. However, despite having no formal joint doctrine, the Germans relied on unity of effort and joint cohesion to deliver and support the amphibious force in pursuit of their objective. Similarly, Till emphasizes the role of joint cohesion in amphibious operations. This point is at the heart of the brilliance of the German operational idea. Exactly as Till highlights, the Germans put aside service egos to drive seamless unity of effort in pursuit of their shared objective. Corbett offers that the army and navy must be inseparable from the object centered in the minds of those in command. This type of joint interoperability is precisely what the Germans achieved in executing their operational idea based on the commander's intent for the operation.

Surprise and maneuver are another of Till's requirements that the Germans fully incorporated into their planning and execution. Till distinguishes operational surprise—the anticipation of an amphibious operation—from tactical surprise regarding the actual time and place of the assault. While the Russians anticipated a German assault, the Germans achieved tactical surprise in their dispersed landings. Further, the German operational idea maximized maneuver. Well ahead of their time, the Germans demonstrated major elements of ship to objective maneuver (STOM). The STOM concept emphasizes maneuver beyond the typical idea of amphibious assault in which the landing force establishes a beachhead and moves on further objectives after an operational pause. Consistent with this modern amphibious concept, the Germans bypassed the operational pause so not to squander their surprise and initiative of attack effectively first. The German forces moved straight to their intermediate objectives in simultaneous maneuvers to overwhelm the enemy at decisive points.

Finally, Till suggests that an amphibious force should have a compensatory military-technological advantage to succeed. The Germans did benefit from good fortune as they lacked the military technology to overcome the significant advantages of the defender in contesting amphibious operations. However, luck played a significant role as the Germans faced minimal Russian resistance during the landings. Instead, the Russians ceded the initiative, committing to a phased withdrawal for fear of being overrun at the landing site. Because the Russians considered it far too risky to defend multiple potential landing sites, the Germans did not face the consequences of not having the technology—or mass—to overcome a typical defender's advantage. As demonstrated in Albion, an evaluator should not underestimate the role of luck in critiquing operational execution. With noted exceptions, the German operational idea included Till's key requirements for amphibious operations.

Conclusion

The strategic effects of Operation Albion are challenging to decipher given the instability of the Russian government amid revolution that ultimately took Russia out of the war shortly after the operation. However, Germany's effectiveness in applying maritime warfare theory in executing their operational idea was outstanding. German unity of command drove unity of effort and laser-like focus on the operational objective. To achieve that objective, the Germans devised and executed an excellent operational idea that embodied the standard described by Vego. Further, the German operational performance displayed complete harmony with Hughes' cornerstones of maritime warfare, and it achieved Till's requirements for successful amphibious operations. Ultimately, the Germans overcame disadvantages in time, space, and force by mitigating their weaknesses and through boldness and creativity. Good luck also helped a great

deal. Though Germany improvised from the outset, Albion is an archetype of coherent maritime warfare theory informing a superb operational idea to achieve a clear objective.

Contemporary military leaders should not miss the timeless military lessons of the German operational execution in Operation Albion. First, the Germans keenly understood their strategic objective and devised their operational idea and intermediate objectives with complete focus on that overall objective. Modern civilian and military leaders should consider this example carefully as it is the foremost responsibility of every wartime leader to ensure that military operations support the strategic and political objective. Next, despite not having formal doctrine to guide their vision for a joint operation to crush the enemy, the Germans adapted and put service prerogatives aside in order to achieve mission success. Finally, the Germans were bold and creative in their operational planning and trusting of subordinate commanders to carry out their audacious ideas during mission execution. For these reasons, a thoughtful student of military strategy and operational art will find a wealth of insight in Albion to inform future maritime operations.