

THE AXIS AND THE INTENDED INVASION
OF MALTA IN 1942: A COMBINED
PLANNING ENDEAVOR

A Monograph

by

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ABSTRACT

THE AXIS AND THE INTENDED INVASION OF MALTA IN 1942: A COMBINED PLANNING ENDEAVOR, by MAJ Alessandro Vivarelli, 93 pages.

This monograph analyzes the Axis planning and preparations for intended invasion of Malta in 1942 from the perspective of a contemporary military planner of joint and coalition warfare, and seeks to identify relevant lessons for today's practice of operational art and the conduct of military planning in a multinational and inter-service context.

At the beginning of 1942, the German-Italian Axis coalition had a unique opportunity to redirect a thus far poorly conceived strategy for the Mediterranean basin. The opening of a new front in North Africa in mid-1940 had increased Malta's already considerable value. The Axis responded to this threat by developing a combined plan for the invasion of the island, by the means of airborne and sea-borne assaults. For the first time ever a combined Italian and German staff was created and set to work.

Esigenza C3, as the operation was code-named, represented a pinnacle of Axis coalition warfare, even though it never went beyond the planning and preparation phases. After 70 years, the examination of the Axis combined planning for Esigenza C3 still provides key insights into the challenges of coalition warfare for military planners. The convergence of several factors operating at different levels of authority enhanced the effectiveness of the planning for Esigenza C3. First, at the strategic level, human interaction and individual characters had a major role in framing and negotiating ends, ways, and means for the Mediterranean strategy and the invasion of Malta, supplying for the absence of any common top-level consultation or decision-making process. Second, the Italian and German operational planners applied an innovative planning methodology, which enhanced collaboration, parallel planning, and information sharing, integrated lessons learned from previous combat experiences, and valued the contributions of subject matter experts. Finally, coherently and concurrently with planning, important decisions enabled the build-up of the force, its training and logistical preparation.

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ACRONYMS

FNS	<i>Forza Navale Speciale</i> [Naval Special Force]
OBS	<i>Oberbefehlshaber Süd (OB Süd)</i> [Commander-in-Chief South]
OKW	<i>Ober Kommando der Wehrmacht</i> [German Armed Forces High Command]

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INTRODUCTION: MALTA, A TEST BED FOR THE AXIS COALITION

Malta is the key that commands Egypt.

—Napoleon Bonaparte, quoted in
Francis Gerárd, *Malta Magnificent*

It was a cold day in mid-February 1942. Field-Marshal Albert Kesselring had been walking nervously back and forth along the hall leading to Hitler's office at the Eagle's nest in Berchtesgaden. Waiting to meet with the *Führer* and his direct superior Reichsmarshal Hermann Goering, Commander in Chief of the *Luftwaffe* (German Air Force), he continued repeating his argumentations in favor of the conduct of an Italian-German operation to capture the island of Malta. Since his appointment as *Oberbefehlshaber Süd* (OBS, Commander-in-Chief South), and the establishment of his small headquarters in Rome the previous November, Kesselring had realized the need to stabilize the Axis' position in the Mediterranean by taking the British island of Malta. He had repeatedly urged both Goering and Hitler on that matter, becoming one of the keener supporters of the Italian proposed invasion of Malta. At that time, he had even persuaded Field-Marshal Erwin Rommel, the German senior commander in North Africa, to back him up, fully aware of his influence on Hitler. Had he known that Great Admiral Erich Raeder, Commander in Chief of the *Kriegsmarine* (German Navy), was advocating a similar position for the Mediterranean naval strategy, they probably could have delivered a coordinated and more powerful message to Hitler.¹ That day's interview probably represented his last chance to get the operation endorsed by the German senior leadership. Tension ran high as usual, the *Führer* yelling and staring at his subordinates with spirited eyes, but eventually, and perhaps unexpectedly, Kesselring succeeded in getting his ideas approved. "Keep your shirt on, Field-Marshal Kesselring. I'm going to do it!" finally exclaimed Hitler in his Austrian dialect, while

¹Albert Kesselring, *The Memoirs of Field-Marshal Kesselring* (repr., Novato, CA: Presidio, 1989), 109.

grasping his subordinate commander by the arm.² Hitler's approval would mean the availability of the precious resources in terms of manpower, naval vessels and aircrafts, and raw materials that the Italians were lacking to launch the operation. That decision triggered a hectic phase of the planning process, during which Italian and German military staffs worked side by side—for the first time ever—to set the conditions for a combined effort against Malta.

At the beginning of 1942, the German-Italian Axis coalition had a unique opportunity to redirect a poorly conceived strategy for the Mediterranean basin. In his continental outlook, Hitler had left the Mediterranean Theater of Operations under Italian control, giving advance consent to any action that Mussolini might care to take in the area.³ The opening of a new front in North Africa in mid-1940 had increased Malta's already considerable value. The British air and naval forces based on the island could attack Axis ships, transporting vital supplies and reinforcements from Europe. Rommel quickly recognized the threat and commented in May 1941 "without Malta the Axis will end by losing control of North Africa."⁴

Moreover, the Italian setbacks in North Africa and the Balkans had urged a German intervention in support of its ally. The first five months of 1941 had seen the stabilization of Yugoslavia and continental Greece, Rommel's eastward advance through the North African

²Kesselring, *Memoirs*, 109.

³Germany, Italy, and Japan signed the Tripartite Pact on 27 October 1940, formally dividing the world in three zones of influence. However, as early as in 1936 Hitler had made similar statements to Count Galeazzo Ciano, Italian foreign minister. Galeazzo Ciano and Malcolm Muggeridge, *Ciano's Diplomatic Papers* (London, UK: Odhams Press, 1948), 57; Gehrard L. Weinberg, *A World at Arms: A Global History of World War II* (Cambridge, England: Cambridge University Press, 1994), 168-169, 182, 199-201, 744.

⁴Quoted in A.J.P. Taylor, and S. L. Mayer, eds. *A History Of World War Two* (London, UK: Octopus Books, 1974), 182.

desert, and the conduct of Operation Merkur, the airborne assault to capture the Greek island of Crete.⁵

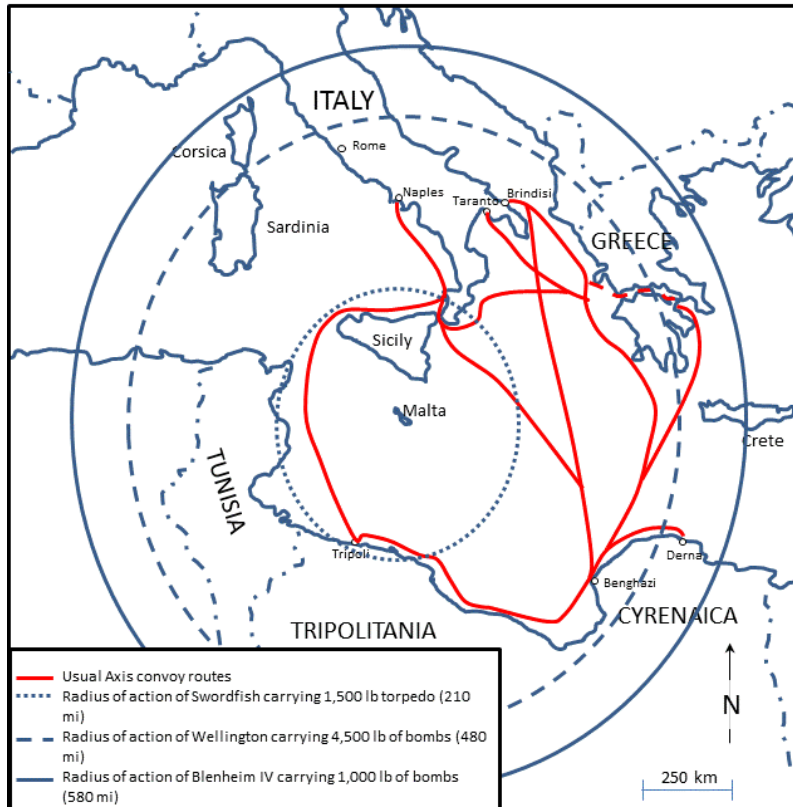


Figure 1. Radius of Action of Aircrafts from Malta in Relation to the Axis Shipping Routes

Source: Created by author using information from Paul Collier, *The Second World War: The Mediterranean 1940-1945* (Oxford, England: Osprey Publishing, 2003), 42.

During the winter of 1941-1942, while forced on the defense by the stubborn resistance of the Red Army outside of Moscow, the Axis forces were placing great pressure on Great Britain in North Africa. They intended to expel the British from the Mediterranean and the Middle East

⁵Douglas Porch, *The Path to Victory: The Mediterranean Theater in World War II* (New York, NY: Farrar, Straus, and Giroux, 2004), 156-176.

once they seized Malta. Thus, the Axis resolved to bomb and starve Malta into submission, by attacking its ports, towns, cities, and Allied shipping supplying the island. Malta was one of the most intensively bombed areas during the war, as the *Luftwaffe* and the *Regia Aeronautica* (Italian Royal Air Force) flew a total of 3,000 bombing sorties over a period of two years in an effort to destroy air defenses and port facilities.⁶ Nevertheless, the British island garrison continued to harass the supply convoys to North Africa. Total Axis losses in the Mediterranean were heavy and human casualties amounted to 17,240 personnel, and a loss of 315,090 short tons of supplies.⁷ In total, 2,304 Axis ships sank, with a combined displacement of 3,130,969 long tons.⁸ The losses were simply unsustainable and required urgent attention.

Given the unexpected resiliency of Malta to air attacks and naval blockade, an invasion seemed the only viable solution. Indeed, both the German *Oberkommando der Wehrmacht* (OKW, German Armed Forces High Command) and the Italian *Comando Supremo* (Italian Armed Forces High Command) had already independently arrived at such a conclusion. However, Hitler rejected that option in 1941 in favor of the alternative of Crete, while the Italian contingency plans for Malta, in effect since 1938, were not implemented, because Italy lacked the necessary resources.⁹

⁶James Holland, *Fortress Malta: An Island Under Siege, 1940–1943* (New York, NY: Miramax Books, 2003), 417.

⁷The short ton is a unit of mass equal to 2,000 pounds (907.18 kg). The long ton is equal to 2,240 pounds (1,016 kg), and is commonly used in measuring the displacement of ships. National Institute of Standards and Technology, NIST Handbook 44, *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, October 2013, U.S. Department of Commerce, <http://www.nist.gov/pml/wmd/pubs/h44-13.cfm> (accessed 25 November 2013), app. C.

⁸Tony Spooner, *Supreme Gallantry: Malta's Role in the Allied Victory, 1939-1945* (London, UK: J. Murray, 1996), 343.

⁹Mariano Gabriele, *Operazione C3: Malta*. 2nd ed. (Rome, Italy: USMM, 1990), 12-17, 65; Weinberg, *A World at Arms*, 227-229.

Upon Benito Mussolini's declaration of war against Great Britain and France in 1940, *Comando Supremo* issued orders that called for an immediate air-sea offensive throughout the Mediterranean.¹⁰ To Hitler's disappointment, no major operation was launched to capture Malta at the outbreak of the hostilities. The lack of a coordinated strategy, for the conduct of the hostilities in general and the Mediterranean in particular, represented an outstanding characteristic of the military alliance signed in 1936 between Fascist Italy and Nazi Germany—or the “Rome-Berlin Axis” as it was soon christened in 1936. The alliance was formally reinforced in May 1939, when Germany and Italy signed the Pact of Steel, a political and military pact of mutual assistance, which envisioned the conduct of high-level military consultations.¹¹ Nevertheless, since the beginning skepticism and distrust from both sides characterized the coalition, to such an extent that Hitler even forbade his staff to exchange any kind of information with the Italians about the war plans against Poland.¹² Italy was suspicious as well. Italian military leaders viewed the Germans as “grasping and overbearing by nature, and [with a tendency] to subordinate Italian intentions and wishes to their own,” and therefore contacts with the German counterparts were limited to a desultory and unproductive exchange of views.¹³

The *Wehrmacht*'s successful campaign against France in 1940 suddenly reversed the situation, and Mussolini became eager to share in the dividends of an expected imminent Axis victory. He implemented the idea of a parallel war, conducted simultaneously but independently

¹⁰Giuseppe Fioravanzo, “Italian Strategy in the Mediterranean, 1940-1943” (United States Naval Institute Press, 1958), 65.

¹¹Encyclopaedia Britannica, “Pact of Steel,” <http://www.britannica.com/EBchecked/topic/564710/Pact-of-Steel> (accessed 23 November 2013).

¹²Walter Warlimont, *Inside Hitler's Headquarters, 1939-1945* (Novato, CA: Presidio Press, 1964), 23; Thomas Vogel, “A War Coalition Fails in Coalition Warfare: The Axis Powers and Operation Herkules in the Spring of 1942,” in *Coalition Warfare: An Anthology of Scholarly Presentations at the Conference on Coalition Warfare at the Royal Danish Defence College, 2011*, ed. Niels Bo Poulsen, Kjeld Hald Galster and Søren Nørby, (Cambridge, UK: Cambridge Scholar Publishing, 2013), 162-163.

¹³Warlimont, *Inside Hitler's Headquarters*, 64.

from the German ally. Thus, Italy became active in the Mediterranean, but its military failures against Greece in October 1940 and the British in North Africa during the winter of 1940-1941, soon forced the Italian leader to accept Hitler's reluctant offer of assistance, given the need to avoid a complete Italian defeat in his southern strategic flank. The arrival of German troops in Italian Libya in February 1941 represented the major turning point in the relations between Italy and Germany. From then on, Germany expanded its influence in a geographical area traditionally considered under Italian control, and Italy became almost completely dependent on German military assistance.

Nevertheless, the Axis implemented no formal command and control structure until the end of 1941, when the OKW established the *Oberbefehlshaber Süd* under Kesselring's leadership, to exercise command and control of German forces operating in the Mediterranean and in North Africa. Kesselring recognized the validity of the Italian plans for an attack to seize Malta, and worked closely with his counterpart Marshal Ugo Cavallero, Chief of the Italian *Comando Supremo*, to overcome the existing constraints and set the conditions to execute the operation.

Word of Hitler's approval for a combined operation against Malta soon reached Rome, where *Comando Supremo* had recently established a joint planning staff.¹⁴ In a matter of days, that organization would include German planners, specialists of airborne and amphibious operations, and Japanese advisors. Their task was to integrate Italian and German existing operational plans for the conduct of an air and sea-borne assault on the British bastion of Malta. The Italian codename for the operation was Esigenza C3, the German's Hercules.¹⁵ What nobody

¹⁴Jack Todd, "Operation Hercules: The Proposed Axis Invasion of Malta" (Master's thesis, San Jose State College, 1964), 57.

¹⁵Before and during the war, *Comando Supremo* developed a series of studies, or contingency plans, for the invasion and occupation of Corsica (Esigenza C2), Malta (Esigenza C3), and lately Tunisia (Esigenza C4). On the other hand, the Germans used Greek divinities' names for their operations (e.g.

could know then, was that Hitler was already having second thoughts on the enterprise. Despite the apportionment of German forces and the commitment of relevant resources to this operation in the ensuing months, he maintained serious reservations. To commit his precious airborne units in another risky and costly operation, given the lessons bitterly learned with the capture of Crete in April 1941, carried significant risks.¹⁶ In addition, the huge requirements of the eastern front in terms of airplanes and resources, Rommel's promising eastward advance through Tripolitania, and the distrust for the Italians' will and ability to carry out such a complex operation, all contributed to the continual postponements and the eventual cancellation of Esigenza C3 at the end of July 1942. Paratrooper Battista G. Drovero, in his diary, noted his disappointment:

21st of June 1942. It is a memorable day. The Italo-German Army seizes Tobruk, fallen under the British in January 1941. We learn from war bulletins that Rommel is pursuing the 8th British army towards Alexandria. To us, paratroopers of the Folgore Division, Rommel's victory takes away the opportunity to fight. Nobody talks any longer of the capture of Malta, which would facilitate the occupation of Egypt, the control of the oil route and the Suez canal blockade. Rumors of an imminent departure for North Africa, where we will be employed as general infantry. What a delusion, after so much hope and so many efforts!¹⁷

The *Folgore* Division, an *élite* Italian formation, had been training hard for the invasion of Malta, along with some 100,000 other Italian and German soldiers, sailors, and airmen, when

Merkur for the invasion of Crete, Herkules for Malta). The nickname Esigenza C3 will be used throughout the monograph, as the Italian document was comprehensive of both the airborne and seaborne parts, while the German included only the airborne portion. Ugo Cavallero and Giuseppe Bucciante, *Comando Supremo: Diario, 1940-1943 del Capo di S.M.G.* (Bologna, Italy: Cappelli, 1948), 216.

¹⁶In the wake of the capture of Crete, Hitler reportedly said to General Student "Crete has shown that the day of the paratroops is over," reflecting on the high human cost paid for the success of the operation. Correlli Barnett, *Hitler's Generals* (New York, NY: Grove Weidenfeld, 1989), 472-473.

¹⁷Battista G. Drovero, *Ritorno a El Alamein: i Paracadutisti della Folgore in Africa Settentrionale* (Milano, Italy: Mursia editore, 1999), 78. Translated by author.

an unexpected deployment order assigned many of those units to North Africa. This event definitively doomed the idea of capturing Malta.¹⁸

The assessment of the role Malta played in relation to the outcome of the war in the Mediterranean has divided and continues to divide historians. On one side, British historians and strategists, like F.M. Hinsley and Peter Shankland, argued that the inability to capture Malta represented the single most important point of failure of Axis strategy in North Africa and the Mediterranean.¹⁹ On the other side, Martin Van Creveld stated that logistical problems in North Africa were insolvable, regardless of Malta's role in harassing supply convoys between Italy and Tripolitania.²⁰ Similarly, MacGregor Knox identified Italy's inadequate logistical structure and organization, rather than British air and maritime interdiction, as the causes of supply problems for the Axis in North Africa.²¹ A relevant body of works gives a thorough account of the years of the siege of Malta (1940-1943) and of the so-called "convoys' war" in the Mediterranean. Mariano Gabriele's *Operazione C3: Malta* is the only known published monograph on the topic to date. Gabriele provided the Italian perspective on the preparation for the invasion of Malta, and mainly focused his analysis on two major themes, which is the strategic decision-making and the Italian preparation, overlooking the novel character of the joint and combined planning effort. This research approaches the same topic from the peculiar perspective of a contemporary military planner of joint and coalition warfare, and seeks to identify relevant lessons for today's practice

¹⁸Despatch n. 15708, *Comando Supremo to Regio Esercito*, in *Archivio Ufficio Storico Stato Maggiore dell'Esercito (AUSME)*, Rome, Esigenza C3, Correspondence, Studies, and Records of the Supreme Headquarters, December 1941-August 1942, box N1-11, folder 2080.

¹⁹Peter Shankland, and Anthony Hunter, *Malta Convoy* (New York, NY: Ives Washburn, Inc., 1961), 34.

²⁰Martin Van Creveld, *Supplying War: Logistics from Wallenstein to Patton* (Cambridge, UK: Cambridge University Press, 1977), 181-192.

²¹MacGregor Knox, *Hitler's Italian Allies: Royal Armed Forces, Fascist Regime, and the War of 1940-1943* (Cambridge, UK: Cambridge University Press, 2000), 135.

of operational art and the conduct of military planning in a multinational and inter-service context. What factors had the greatest impact on the ability of the Italian and German staffs to plan and prepare a coalition force for the intended invasion of Malta?

Esigenza C3 is a historical contingency, which has attracted less attention than it deserves. Although it never went beyond the planning and preparation phases, it represented a pinnacle of Axis coalition warfare. Richard L. DiNardo, in his seminal work, *Germany and the Axis Powers, from Coalition to Collapse*, highlighted the nature of the Axis coalition and pointed out the inability of Germany in World War II to conduct coalition warfare to its full potential. The Axis powers failed as a coalition largely due to their inability to integrate military decision-making and force structures. The same author identified a change in German approach to coalition warfare in the later phase of the North African campaign, namely during the final stages of the battle for Tunisia (April 1943), when the Axis created a combined command structure for the German-Italian Army Group Africa.²² Arguably, Esigenza C3 represented a test bed for Italian and German planners. In their day-to-day work, they experienced challenges not unlike those faced by today's coalition planners. The most relevant of these were the difficult translation of vague and conflicting political and strategic guidance into clear operational objectives, the necessity to establish working practices and common planning procedures, and the effective translation of studies and ideas in orders and decisions, to enable organization, training, and preparation of a joint and combined force.

Historical evidence proves the relevance of the study of Esigenza C3 to the practitioner of coalition warfare. The convergence of several factors operating at different levels of authority enhanced the effectiveness of the planning for Esigenza C3. First, at the strategic level, human interaction and individual characters had a major role in framing and negotiating ends, ways, and

²²Richard L. DiNardo, *Germany and the Axis Powers from Coalition to Collapse* (Lawrence, KS: University Press of Kansas, 2005), 170-173.

means for the Mediterranean strategy and the invasion of Malta, supplying for the absence of any common top-level consultation or decision-making process. Second, the Italian and German operational planners applied an innovative planning methodology, which enhanced collaboration, parallel planning, and information sharing, integrated lessons learned from previous combat experiences, and valued the contributions of subject matter experts. Finally, coherently and concurrently with planning, important decisions enabled the build-up of the force, its training and logistical preparation.

ATTEMPTS TO FILL THE VACUUM OF STRATEGIC DECISION-MAKING

During the winter of 1940-1941, the preponderance of Germany in the balance of power within the Axis led to a new strategic orientation for the Mediterranean Theater of Operation. Until then, the traditional distribution of spheres of influence among the Axis powers had led the German strategists to disregard the Mediterranean area. Malta was considered purely an Italian problem.²³ Initially, German strategists viewed the Mediterranean as insignificant when compared with the massive Soviet problem. The eastern front required all the available resources. Hitler's personality provides the explanation: his ideological and dogmatic fixation on the East precluded any political and strategic alternative. The German military intervention in the Mediterranean, combined with the intolerable losses inflicted by the British forces operating from Malta, led to a change in German perception. However, the new military engagement in the Mediterranean allowed the Germans to set the strategic priorities, due to their relative strength compared to the Italians, as the unilateral decision to seize Crete in May 1941 exemplified.²⁴

²³Gerhard L. Weinberg, *World in the Balance: Behind the Scenes of World War II* (Hanover, Germany: University Press of New England, 1981), 1-26.

²⁴During the week of 15-22 April 1941, a series of high level planning meetings took place in Berlin. The issue was whether to take Crete or Malta. Goering proposed that his air-army be allowed to seize Crete. Speaking for the OKW Operations Staff, General Alfred Jodl instead recommended that they seize Malta. Hitler decided to give priority to the assault on Crete. From Crete the *Luftwaffe* could cover the Eastern Mediterranean and bring Alexandria and the Suez Canal within operational range. To have given

At the end of 1941, the strategic conditions forced the German side to explore alternative strategies, which revived the interest in Malta. Japan's successful entry into the war and the promising start of Rommel's second offensive in Cyrenaica, opened new perspectives, while the *Wehrmacht's* failure outside Moscow and the temporary defensive on the eastern front, rendered the main theater of war problematic.

The Axis powers did not share any strategic agreement for the conduct of the war in the Mediterranean. Most notably, due to the hegemonic nature of the Nazi and Fascist dictatorial regimes, the two powers could not rely on any common decision-making structure or any top-level consultation mechanism, which would have facilitated a negotiation. Nevertheless, in the space of few months the Axis drafted a common strategy for the Mediterranean and North Africa. Its linchpin became the seizure of Malta, with the Suez Canal as a final objective. Human interaction made it possible, by decisively enabling the negotiation of diverging interests. Personal character and individual commitment of the major key-players helped to fill the void created by the lack of a well-oiled decision-making mechanism on the Axis side. Field-Marshal Kesselring became the "medium" between the German OKW and the Italian *Comando Supremo*, enabling the combined planning effort for Esigenza C3. Meanwhile, Great Admiral Erich Raeder stubbornly pressed Hitler and advocated the adoption of a German naval strategy, which accounted for the role of Malta in the Mediterranean. At the strategic level, these elements contributed largely to the effectiveness of the planning for Esigenza C3.

Unilaterally enforced decisions, the continuous postponements, and the eventual cancellation of Esigenza C3 by the Germans, confirmed the existing imbalance of power between

Malta priority over Crete would have eliminated a thorn in Italy's side. But it would also have required commitment of substantial German resources to a potentially more costly undertaking. Operation Mercury, on the other hand, could be initially mounted on an independent basis, and in the end would have made taking Malta unnecessary, which later proved incorrect. Wayne Charles Lutton, "Malta and the Mediterranean: A Study in Allied and Axis Strategy, Planning and Intelligence During the Second World War," (PhD diss., Southern Illinois University, Carbondale, IL, 1983), 94-96.

the German and Italian regimes at the political and strategic level. In a coalition, the convergence of interests—or at least their composition—should form the basis for common actions against a mutual adversary. Planning is one of the principal means by which politicians arrive at common strategic decisions. Planning should also serve as the basis for determining the resource allocation necessary to accomplish a nation’s or a coalition’s objectives.²⁵ Unfortunately, the Axis strategic decision-making apparatus lacked any mechanisms for the definition of common strategic objectives. The Germans and the Italians failed to establish those structures, foreseen by the second secret protocol to the Pact of Steel, which would serve to reconcile their different strategic interests.²⁶ Consequently, they never sought to conduct any serious top-level consultation or to create a combined strategic decision-making structure. Political summits gradually turned into Hitler’s one-man shows, and the exchange of correspondence between the two dictators was a mere rhetoric, which did not lead to any true decision.

Few conferences of the military high commands took place in the period 1939-1942 under the political shadow of Hitler and Mussolini. Given the nature of the respective national command structures, the participants had no authority to adopt any decisions. Therefore, there was rarely more than a mere exchange of information and opinions with very little outcome. After the unfortunate Italian debut in war in June 1940, Hitler reportedly ordered Field-Marshal Wilhelm Keitel, Chief of the OKW, not to hold staff talks with the Italians.²⁷ Indeed, OKW complied, to such an extent that the first meeting with the then Chief of *Comando Supremo*, Marshal Pietro Badoglio, only took place on 15 November 1940, with the mere purpose of

²⁵Maurice Matloff and Edwin M. Snell, *Strategic Planning for Coalition Warfare* (Washington, DC: Department of the Army, 1953), ix.

²⁶In the second secret protocol to the Pact of Steel, the two Powers pledged to “reach agreement as quickly as possible on the organization, headquarters and working methods of the commissions for military questions and questions of war economy.” Department of State, *Documents on German Foreign Policy, 1918-1945* (Washington, DC: Government Printing Office, 1983), 561-564.

²⁷Lutton, 23.

expressing German disappointment for the Greek fiasco and the dispirited Italian conduct of the war in the Mediterranean.²⁸

In addition, preconditions existing at the national level hindered an effective cooperation in planning and the definition of a coherent command and control structure. Both the national high commands were inadequate for the conduct of joint and combined operations. Hitler and Mussolini deprived the high-level military commanders of any decision-making authority, in order to reserve the final decision for themselves. The relative autonomy of the single services in both countries also reduced the effectiveness of the armed forces. Moreover, the two dictators tended to exploit traditional inter-service rivalries, to strengthen their own personal power.

The presence of bureaucratic and competing power structures was thus common in both the Italian and German military establishment. When the respective structures overlapped in the Mediterranean, the need for an integrated command became particularly evident. Nevertheless, the two high commands were incapable of finding a solution. A mutual distrust continued to be the predominant feature of coalition warfare, representing the major challenge to the effectiveness of a joint and combined planning at operational level. However, the impending disaster of autumn 1941 in the central Mediterranean and North Africa forced the Axis powers to reconsider their positions.²⁹

Eventually, the Germans unilaterally made an organizational decision that helped to overcome the impasse caused by the lack of a combined strategic command structure. On Goering's suggestion, Hitler took the first step toward the establishment of a combined German-

²⁸Lutton, 22, 50.

²⁹November was truly a disastrous month for the Axis in the Central Mediterranean. Of the 79,208 tons of oil and equipment dispatched, only 29,843 tons arrived in North Africa. Only 2,471 tons of fuel arrived and this was carried aboard the Italian Navy's warships. In 20 days of operations at sea, the Axis had lost 13 cargo ships and three destroyers, with two cruisers suffering heavy damage. Marcantonio Bragadin, *The Italian Navy in World War II* (Annapolis, Md: U.S. Naval Institute, 1957), 141.

Italian command and staff element for the Mediterranean, directed by a German General and subordinate to the Chief of the Italian *Comando Supremo*.³⁰ Mussolini's refusal led Hitler to independently appoint Field-Marshal Albert Kesselring, Commander of *Lufflotte II* (2nd Tactical Air Fleet), OBS.

From the central Russian front, Kesselring and his staff arrived in Rome in late November 1941. From then on, German and Italian operations in the Mediterranean would fall under Kesselring's authority, in accordance with Hitler's Directive n.38, issued on 2 December 1941. It established complex and confusing command and control relations; however, this decision had far-reaching effects on the combined planning for the invasion of Malta. In accord to Directive n.38, *Fliegerkorps II* would reposition to south Italy and North Africa. Kesselring would have command of all the forces employed in the Mediterranean, with the tasks to "secure mastery of the air and sea in the area between Southern Italy and North Africa in order to secure communications with Libya and Cyrenaica and, in particular, to keep Malta in subjection; [t]o cooperate with German and allied forces engaged in North Africa; [and to] paralyze enemy traffic through the Mediterranean and British supplies to Tobruk and Malta, in close cooperation with the German and Italian naval forces available for this task."³¹ Moreover, Kesselring was directly subordinate to Mussolini, "whose general instructions he will receive through the *Comando Supremo*."³² To accomplish the aforementioned tasks, the *Luftwaffe* General had direct command over only the German air units stationed in the Mediterranean and North Africa, having to coordinate through different channels the employment of *Wehrmacht* and naval forces.

³⁰Vogel, 172.

³¹George Forty, *Battle for Malta* (Hersham, UK: Ian Allen Publishing, 2003), 43.

³²*Ibid.*, 43.

Kesselring experienced first-hand the dysfunctions of the Axis command relations. The command of all Italian troops and German Army units was already exercised by *Comando Supremo*, which formally refused to place Italian naval and air force units under his command.³³ No inter-allied staff existed, and Kesselring had only his small personal staff at his disposal. Inter-service rivalries and bureaucratic friction complicated his mission even more, as the German navy refused to subordinate its regional commanders to his control. Kesselring did not exercise any actual command over the North African Theater, with the exception of his subordinate air force units.³⁴ Rommel, in command of a German-Italian panzer group, came under the Italian field army commander in Africa, General Ettore Bastico, who in turn came under Cavallero, and could only be approached by that channel, a circumstance that Rommel was quick to exploit for his personal interests.³⁵

Nevertheless, Kesselring faced the situation and the multiple problems with energy and tried to compensate for the organizational deficiencies with his personal traits. He showed a natural ability to discern what was essential from what could be negotiated, and a strong sense of the possible, supported by “his simple philosophy that if he had done his best without complaint he had done his duty.”³⁶ Fluent in Italian and with a flair for diplomacy, “Smiling Albert,” as he was soon nicknamed, liked the Italians, and established very good working and personal relations with the political and military leadership, winning over his counterparts by his tactfulness, never

³³Kesselring, *The Memoirs of Field-Marshal Kesselring*, 104.

³⁴*Ibid.*, 104-105.

³⁵Barnett, 276.

³⁶*Ibid.*, 276.

asserting his rank and position. Cavallero came around so completely that he agreed to show the OBS all his operation orders before issuing them.³⁷



Figure 2. *Waffenkameraden*

Source: *Der Adler*, no. 13 (23 June 1942): front cover, ePier, <http://www.epier.com/biddingform.asp?2063286> (accessed 10 February 2014). Note: *Der Adler*, a Nazi propaganda magazine, celebrates the camaraderie shown by Kesselring (on the left) and Cavallero (right).

Kesselring conferred regularly with Cavallero and the staff of *Comando Supremo* to find a solution to the supply situation in North Africa. He perceived at once that the obvious key was the possession of Malta.³⁸ It was too well defended to neutralize by air actions alone, and in any case, the *Luftwaffe* lacked the heavy bombers required for the task. On 17 January 1942, Kesselring accepted the Italian idea to capture Malta by an airborne and amphibious assault.³⁹ At

³⁷Kesselring, *The Memoirs of Field-Marshal Kesselring*, 104.

³⁸*Ibid.*, 105.

³⁹Gabriele, 96.

a subsequent meeting with Cavallero and Admiral Arturo Riccardi, Chief of Staff of the *Regia Marina* (Italian Royal Navy) on 8 February, they went further into the details of the necessary requirements in terms of vessels and landing crafts, and established a suitable period for the execution of the operation for the following June-July period.⁴⁰

Since then, Kesselring strove to persuade Hitler to support the Italians with reinforcements and equipment. The meeting with Hitler and Goering in mid-February, whose narration opened this monograph, was followed by a message from the *Ober Kommando der Heeres* dated 17 February 1942, which ordered that arrangements should be made for a combined Italo-German invasion of Malta.⁴¹ This would be the first time the Axis designed an operation using a combined staff. On 23 February, Cavallero in turn ordered General Vittorio Ambrosio, Chief of Staff of the *Regio Esercito*, to speed up the revision of the plans for Esigenza C3.⁴²

However, the relation between Kesselring and Cavallero certainly experienced ebb and flow, as the events of March 1942 demonstrated. On 17 March, Kesselring and General Von Rintelen, the German military attaché in Rome, proposed to Cavallero the idea of an airborne raid or *coup de main* against Malta, to be launched as soon as possible, in lieu of the complex operation whose planning and preparation was going on.⁴³ Cavallero strongly disagreed, because of the lack of minimum preparation and means to conduct it. Kesselring tried again on 23 March to convince his counterpart, with the same result.⁴⁴ The abrupt German proposal probably resulted from a misunderstanding, or incorrect assumptions on the Italian willingness or capacity

⁴⁰Cavallero and Bucciante, *Comando Supremo*, 216.

⁴¹Oberkommando des Herres, "Studie Malta. 1941-1942," T78. MR 1754, Collection of Foreign Records Seized 1941-, Record Group 242, National Archives and Records Administration, Washington, DC, 24-28.

⁴²Cavallero and Bucciante, *Comando Supremo*, 223.

⁴³Cavallero and Bucciante, *Comando Supremo*, 232-233; and Gabriele, 116.

⁴⁴Cavallero and Bucciante, *Comando Supremo*, 236; and Gabriele, 120.

to execute such a surprise attack, and confirmed that an imperfect knowledge and the absence of integrated combined means could generate frictions and problems in decision making at the strategic level.

An extensive combined German and Italian air campaign against Malta had been carried out since December 1941, and it peaked between March and April 1942. It seemed to be so effective that on 10 April, Kesselring could boast that Malta had ceased to function as a naval base.⁴⁵ On the 12th of the same month, the German General could confirm to Cavallero a more convinced endorsement of the operation by Hitler. In a meeting with Hitler held a few days before, Kesselring had persuaded the *Führer* the Germans should participate more actively in the planned Italian invasion of Malta. Hitler had consented to make German parachute units and equipment available. He would also send two staff officers to work with the Italian planning staff. Within a few days, in a telegram to General Von Rintelen, the OKW confirmed Germany's willingness to participate with the Italians.⁴⁶ Conditions seemed to definitively be set for the execution of the combined Italo-German operation against Malta.

Meanwhile, German admirals, proponents of an indirect approach against Great Britain in the Mediterranean, had rekindled in the mind of Hitler the idea to capture Malta. The creation of the OBS under the command of Kesselring arguably played a major role in aligning German and Italian political and strategic objectives for the conduct of the war in the Mediterranean. While the strategic dialogue between Kesselring and the *Comando Supremo* on the southern side of the Axis was instrumental to a better definition of roles and responsibilities, as well as the allocation of the required resources, in Germany the Commander in Chief of the *Kriegsmarine*, Great Admiral Erich Raeder, was advocating a new approach in the national naval strategy. It would

⁴⁵Cavallero and Bucciante, *Comando Supremo*, 246-248.

⁴⁶Todd, 71.

contribute to revitalize the role of the Mediterranean, and consequently, of Malta in the Hitler's strategic vision.

Raeder was actively engaged in the German strategic thinking. In 1940, he argued strongly against operation Sea Lion, the planned German invasion of Great Britain. He felt that the war at sea could be conducted far more successfully via an indirect strategic approach, by increasing the numbers of U-boats and small surface vessels in service to wage a *guerre de course* against British shipping.⁴⁷ By mid-1940, Raeder had come to appreciate that submarines were both cheaper and faster to build than warships. He also had doubts about Germany's ability to gain air superiority over the English Channel and the lack of regional German naval superiority. Air supremacy was a prerequisite to successfully preventing destruction of the German invasion fleet by the Royal Navy. The idea of a peripheral naval strategy in the Mediterranean came into play in Raeder's mind when Admiral Gerhard Wagner, in a memorandum dated 29 August 1940, suggested to him that Germany could not defeat Britain in the air or at sea, and should instead seek victory in the Mediterranean as a weak spot of the British Empire.⁴⁸

Germany postponed the invasion of Britain indefinitely in September 1940, due to the *Luftwaffe's* failure to obtain air superiority during the Battle of Britain, and the significantly greater power of the Royal Navy over the German naval forces. On 21 July 1940, Raeder first learned that Hitler was contemplating invading the Soviet Union.⁴⁹ At the time, he had no

⁴⁷Charles Thomas, *The German Navy in the Nazi Era* (Annapolis, MD: Naval Institute Press, 1990), 196.

⁴⁸Ian Kershaw, *Fateful Choices: Ten Decisions that Changed the World 1940-1941* (London, UK: Penguin, 2007), 76-78.

⁴⁹*Ibid.*, 75.

objections to the proposed invasion other than to complain that it was likely to strengthen the budgets of the Army and Air Force at the expense of the Navy.

In September 1940, Raeder presented his “Mediterranean plan” to Hitler.⁵⁰ Raeder supported a strategic focus on the Mediterranean, including a strong German presence in North Africa, plus an invasion of Malta and the Middle East by German, Italian, Spanish, and if necessary, Vichy French forces. Raeder believed that capturing Gibraltar and the Suez Canal would strike a great blow to Britain. Afterwards, Axis forces would use the Canary Islands, the Azores, and the Cape Verde islands to launch naval and air attacks that would destroy British commerce and knock Britain out of the war. On 6 September 1940, and again on 26 September, Raeder met with Hitler to urge the acceptance of his “Mediterranean Plan.”⁵¹

Later on, Raeder focused on Malta. In March 1941, he suggested to Hitler that the island should be taken “[i]n order to enable the Navy to carry out its tasks in the Mediterranean.”⁵² In British hands, it was a threat to naval convoys to North Africa, conversely under German or Italian control; the island would have contributed to establish better control over the central Mediterranean. On 30 May 1941, Raeder reinforced the point, telling Hitler that a major offensive against Egypt to take the Suez Canal would give Germany a chance to strike a blow that “would be more deadly to the British Empire than the capture of London!”⁵³

On 6 June 1941, Raeder presented to Hitler a paper drafted by Lt. Commander Heinz Assman, a staff officer of the *Ober Kommando der Kriegsmarine* (German Navy High

⁵⁰Thomas, 195-196.

⁵¹William Shirer, *The Rise and Fall of the Third Reich* (New York: Simon and Schuster, 1960), 813.

⁵²Adolph Hitler, *Fuehrer Conferences on Naval Affairs, 1939-1945*, ed. Jak P. Mallmann Showell (London, UK: Chatham, 2005), 185.

⁵³Shirer, 813.

Command). The document called for the Axis to take advantage and exploit the recent successes in Greece and in the Balkans, instead of waiting for the conclusion of the planned operation Barbarossa before shifting the main effort to the Mediterranean.⁵⁴ The eight-point offensive he proposed included the “early capture of Malta, followed, at a later date, by Gibraltar”⁵⁵ as a decisive condition for success. However, the *Ober Kommando der Kriegsmarine* could not persuade Hitler to change his priorities. At the time, Hitler’s interests were on the eastern front, the Mediterranean would remain an Italian concern.

On 13 February 1942, Raeder presented Hitler with a new “Great Plan,” a grand strategic design for winning the war by a series of combined operations with Japan and Italy. The “Great Plan” was considerably more detailed than the plan of 1940, and called for a series of mutually supporting attacks between Germany and Italy in the Middle East, and Japan in the Indian subcontinent that were intended to knock Britain out of the war. Raeder called for the Axis forces to take Malta and drive on across the North African desert to the Suez Canal. Once that had occurred, it would be possible for the German and Italian forces in the Mediterranean to link up with Japanese forces in the Indian Ocean via the Red Sea—a situation that Raeder claimed would not only cause the collapse of the British Empire, but also create the preconditions for the defeat of the United States.⁵⁶

This time, Raeder’s arguments seemed powerful enough to attract the attention of Hitler. In his views, the victory in the Mediterranean depended on maritime power and Air-Navy-Army cooperation and mutual dependence. To ensure the latter, “the key is a central base from where to

⁵⁴Lutton, 110.

⁵⁵Ibid., 111.

⁵⁶Keith Bird, *Erich Raeder: Admiral of the Third Reich* (Annapolis: Naval Institute Press, 2006), 170-173.

operate, and the outmost important base in the Mediterranean is the fortress of Malta.”⁵⁷ Raeder demonstrated with statistical data that the Axis losses had greatly reduced after the arrival of Kesselring’s air forces in the Mediterranean. Malta was not the final objective, but surely the most important and the most urgent. Hitler agreed with the Great Admiral on the necessity to take actions against Malta, but wanted to launch an operation as a last resort, in case the air attacks would not neutralize the threat.⁵⁸ With Raeder’s “Great Plan” in mind, Hitler met with Kesselring a few days later. As seen, the result of that meeting was the approval of the Italian proposed combined air and sea assault on Malta. The suggestion of a great victory over the British forces across the Mediterranean and in North Africa, with the control of Suez Canal and the Middle East oil fields was indeed an appealing one to Hitler.

The naval strategy proposed by Raeder arguably influenced Hitler’s decisions. On the other end, Kesselring overcame the difficulties of a chaotic chain of command and worked out with Cavallero and *Comando Supremo* the creation of viable options for the war in the Mediterranean, which included the conduct of a combined operation against Malta. The absence of a well-defined common strategy for the Mediterranean and the lack of any strategic decision-making did not prevent the Axis high commands from eventually reaching a convergence of opinions and an agreement on the objectives of the Mediterranean strategy. That was possible because of the interaction of human characters able to influence the formation of key strategic decisions.

At the end of April 1942, Hitler and Mussolini, along with their military advisors, met at Klessheim castle near Salzburg, to discuss, among the others issues on the agenda, the situation in

⁵⁷Quoted in Gabriele, 101. Translated by the author.

⁵⁸Emilio Faldella, *L'Italia e la Seconda Guerra Mondiale. Revisione di Giudizi* (Bologna, Italy: Cappelli, 1959), 420-421.

the Mediterranean Theater. During the two-day conference, they reached critical decisions and defined a timetable for the Axis offensive, which eventually would doom the execution of operation Esigenza C3. Instead of taking Malta first, Rommel would attack in North Africa at the end of May, capture Tobruk, and stop at the Egyptian border. Only then, the seizure of Malta would happen.

The events of June 1942 unfolded differently. However, an intense period of hectic planning and preparation went on until August 1942, a period during which German and Italian officers would experience, learn, and adapt to the challenges of planning for complex, joint and combined operations.



Figure 3. Council of War

Source: Kaputt, “*Lo sterminio degli ebrei di Roma, Testimonianza di Armirio Wachbergher,*” Kaputt, <http://212.25.168.206/italiano/kaputt/kaputt8.html> (accessed 31 January 2014). Note: Klessheim castle, near Salzburg. 29-30 April 1942. The Axis decides the strategy for the Mediterranean and North Africa. On the far right, General Antonio Gandin, chief of the planning team created for Esigenza C3.

A COMPREHENSIVE AND INTEGRATED APPROACH TO PROBLEM SOLVING

In spite of a strategic context characterized by conflicting agendas and uncertain support for the operation, the ongoing planning for Esigenza C3 helped to integrate planning processes and structures at the operational level not only in practice of coalition warfare by the Axis, but also in the traditional way the Italian armed forces conducted inter-service business. In mid-April 1942, the first joint and combined Italian-German planning staff was finally established within *Comando Supremo*, in order to coordinate and intensify the planning and preparation for the operation. As a result, the conceptual plan for a combined air and seaborne assault against Malta was ready at the beginning of June 1942. It envisaged the employment of a force of nearly 100,000 troops, several hundred attack and transport aircrafts, and almost all the ships available in the Mediterranean, such an “allocation of forces . . . that failure was out the question,” as Kesselring noted in his memoirs.⁵⁹ The outcome itself was indeed impressive, but even more remarkable is the sense of an integrated and coordinated effort that emerges from the analysis of the preparatory documents. The planners applied a methodology that enhanced forms of parallel and collaborative planning and maximized inter-service cooperation, valued and integrated in their work the contribution of subject matter experts and the lessons learned thus far in similar operations during the first two years of war. In the end they produced in a timely fashion an executable concept of operations, which reflected the planning staff’s ability to learn and adapt throughout the process. Had it not been the case, the three services and the German counterpart would not have been able to develop their respective contribution to the general concept issued by *Comando Supremo*, as highlighted hereafter.

⁵⁹Kesselring, *The Memoirs of Field-Marshal Kesselring*, 128; and Gabriele, 165,187,193.

The foremost strength of the overall planning effort for the invasion of Malta was the achievement of a level of integration and cooperation never experienced before, from both an inter-service and an inter-allied perspective. When German planners joined the planning team in April 1942, the ensuing combined effort largely benefited from the existing organization, working practices, and planning products already developed within *Comando Supremo* during the previous five months. Thus, recalling the events that took place in Italy before the arrival of the German planners is not without value, preceded by a short digression on the level of inter-service cooperation then existing in Italy.

Inter-service cooperation and planning integration was not a distinctive feature of the Italian armed forces of the time. No doctrine for integrated ground, air, and naval campaigning existed at the beginning of World War II. It was only in mid-1941 that *Comando Supremo* developed a sort of doctrinal and procedural framework for the cooperation between the Navy and the Air Force, which certainly improved the coordination, but could not replace a still missing joint operational headquarters for the conduct of the war in the Mediterranean theater of operations.⁶⁰ The doctrinal foundation for the cooperation between Army and Air Force was nonexistent as well, and no procedures for close air support, air transport, air resupply, and airborne operations were in place. Since his appointment in 1941 as chief of *Comando Supremo*, Cavallero managed to strengthen the role of the supreme headquarters, but inter-service rivalries and antagonisms continued to undermine its leading role. He still lacked the structures to provide coherence to the conduct of operations, with the “tendency of army and navy to plan and conduct operations in isolation from one another while relegating the air force to a supporting role.”⁶¹

⁶⁰Knox, *Hitler's Italian Allies*, 113.

⁶¹*Ibid.*, 114.

The level of inter-service cooperation in the Italian armed forces was thus at its lowest ebb when Esigenza C3 was conceived during the summer-autumn of 1941. The increasingly difficult situation in the Mediterranean convinced Cavallero of the utter necessity to occupy Malta. On 5 September 1941, he noted in his diary “. . . I talked to the Duce about the plan for the action against Malta. His Majesty is also satisfied.”⁶² A few days later on 13 September, he noted again, “Occupation of Malta! If the Axis wants it, it can do it!”⁶³ Interestingly, this reference to the will of the Axis back in 1941, suggests that Cavallero deemed the German participation in the operation ineluctable. Then, on 14 October 1941, Cavallero ordered the service Chiefs to review the existing studies for the occupation of Malta.⁶⁴

Studies rapidly progressed, under the direction and coordination of a special inter-service committee, led by General (Army) Antonio Gandin.⁶⁵ At the end of 1941, Esigenza C3 was already something different and far more complex than it would have been in the studies and contingency plans previously developed. It now projected the employment of two recently created formations, the *Folgore* parachute Division and the *Forza Navale Speciale* (FNS, Special Naval Force), and a massive involvement of Italian and German navies and air forces in support of the landing force.⁶⁶ Arguably due to the perceived complexity of the problem, early in 1942

⁶²Cavallero and Bucciante, *Comando Supremo*, 138. Translated by author.

⁶³Ibid., 140. Translated by author.

⁶⁴Ibid., 146.

⁶⁵Gabriele, 92, 98.

⁶⁶Even though battalion-size parachute units already existed in Italy since 1939, they were grouped under a divisional headquarters only in September 1941, when the *Folgore* Parachute Division was established. Instead, the FNS was established in October 1940 and comprised specialized units from different services and branches, specifically trained and equipped for the conduct of amphibious landings. Admiral Vittorio Tur, its first commanding officer, became a key player in the planning for Esigenza C3. Arena Nino, *I Paracadutisti: Storia, Cronaca, Immagini del Paracadutismo Militare Italiano* (Parma, Italy: E. Albertelli, 1996), 83-85, 436; and Vittorio Tur, “*Come si Doveva Sbarcare a Malta: l’ordine del Generale Cavallero per la Preparazione dell’impresa.*” *Il Tirreno*, 13 November 1952.

Comando Supremo authorized the creation of a joint staff, called *Ufficio C3*, still directed by General Gandin, which soon reached the number of 25 officers from the three services, and later became the core element for the combined Italian-German planning staff.⁶⁷ It was indeed an initial great feat, given the limited inter-service cooperation experienced thus far in the Italian armed forces.

On 24 February 1942, *Comando Supremo* issued its planning directive and a timeline, a fundamental document that framed the context for any following activity.⁶⁸ It dictated a clear division of labor among the three services, with *Regia Marina* responsible for the planning and preparation of the naval fleet and the assembling of the necessary landing crafts, and the Army in charge of the overall preparation and training of both the airborne and the landing force. The guidance specified the tentative date of 1 August 1942 to launch the operation. Organizational arrangements, training, and preparation would start concurrently with the planning process and proceed hand in hand, as the document suggested.

⁶⁷Lutton, 183.

⁶⁸Minutes of the 24 February 1942 meeting, *Comando Supremo*, Annex “*Schema di Lavoro per la Preparazione dell’Operazione C3*,” in *AUSME*.

Table 1. Synthesis of the Planning Directive Issued by *Comando Supremo* on 24 February 1942

Planning Phase	Activities to be conducted
Phase I (until 10 March)	Studies of the <i>Comando Supremo</i> are conducted by the joint staff with the support of <i>Regia Marina</i> (Admiral Vittorio Tur), <i>Regio Esercito</i> (General Vittorio Sogno), and representatives of the Japanese Naval Mission to Italy. ⁶⁹ After a general orientation, four separate courses of action are developed and examined through a war game session. ⁷⁰ As a result, one solution is brought forward as the basis for the final concept to be approved by the chief of <i>Comando Supremo</i> at the end of phase II.
Phase II (10-30 March)	Representatives of <i>Regia Aeronautica</i> and OBS join the planning staff, in order to check the feasibility of previous plans and define the kind of support provided by the Germans. The phase ends with the approval of the final concept of operations, and the issue of orders for the constitution of an expeditionary command in charge of the final preparation and conduct of the operation.
Phase III (1-30 April)	Constitution of the expeditionary command, development of a detailed plan for the operation, in coordination with <i>Comando Supremo</i> , OBS and the three services.
Phase IV (1 May-31 July)	Plan refinement and preparation.

Source: Created by author using information from Minutes of the 24 February 1942 Meeting, Annex, “*Schema di Lavoro per la Preparazione dell’Operazione C3*,” *Archivio Ufficio Storico Stato Maggiore dell’Esercito (AUSME)*, Rome, Esigenza C3. Correspondence, Studies, and Records of the Supreme Headquarters, December 1941-August 1942, box N1-11, folder 2080.

Throughout the planning process, a better understanding of the problem and the environment emerged from the analysis of previous operations and the assistance of Japanese and German subject matter experts in amphibious and airborne operations. The contribution of experts to the planning sessions became an invaluable asset in the hands of the planning staff. In

⁶⁹Admiral Tur was the aforementioned Commander of the FNS, while General Sogno was the Commander of the VII Corps (later renumbered as XXX), the initial command and control core element identified for the landing force. The Japanese contribution is further detailed in the following pages.

⁷⁰The term “wargame” is here adopted by the author as deemed most appropriate, given the context, than the original “conduct of a training exercise without troop” (translation by the author). For a comparison of the four courses of action proposed, see Appendix D in this monograph.

mid-February 1942, Mussolini had approved Cavallero's proposal to ask for advice from the Germans, but above all from the Japanese, who had accrued vast experience from amphibious operations in the Far East. Thus, in the framework of the Tripartite Pact, *Comando Supremo* called for a meeting of its Military Committee.⁷¹

On 21 February, with German consent, Cavallero chaired a first conference, whose attendees were General Gandin, Admiral Tur, along with other Italian primary staff officers, and Admiral Abe, Navy Captain Mitunobu, and Colonel Shimizu, representatives of the Japanese Military Mission to Rome. During that meeting and a second one conducted the following day, the Japanese officers provided a number of observations and suggestions based on their doctrine, knowledge, and personal experiences. In particular, in planning and conducting amphibious landings and seaborne operations they stressed the importance of factors like concentration of combat power at the point(s) of landing, accurate intelligence, absolute secrecy and surprise, detailed planning and decentralized execution, firm establishment of command and control relations and adequate task organization, as well as preparatory training. Moreover, they placed particular emphasis on the characteristics and the number of the landing crafts necessary. The Japanese officers were so insightful in their briefings that Cavallero and the other participants immediately realized how the complexity of planning, preparing, and executing the amphibious assault, especially in combination with an airborne assault, required the constant support of the Japanese expertise throughout the various steps. Consequently, the Chief of *Comando Supremo* asked for and obtained Japanese participation in the project, having them develop a separate

⁷¹Gabriele, 103. The Tripartite Pact was signed in Berlin on 27 September 1940 by Germany, Italy, and Japan. In the preamble the three nations agreed that for the next 10 years they would "stand by and co-operate with one another in regard to their efforts in greater East Asia and regions of Europe respectively wherein it is their prime purpose to establish and maintain a new order of things." For the text of the pact see Lillian Goldman Law Library, "Three-Power Pact Between Germany, Italy, and Japan, Signed at Berlin, September 27, 1940," Yale Law School, <http://avalon.law.yale.edu/wwii/triparti.asp> (accessed 13 February 2014); and Weinberg, *A World at Arms*, 168-169, 182, 199-201, 744.

study to be subsequently discussed, compared, war gamed, and possibly included, either in its entirety or in part, in the final plan produced by *Comando Supremo*.⁷²

On 5 and 6 March 1942, the Japanese and Italian perspectives were eventually compared.⁷³ In essence, there was a general agreement on the strategic goals and the pre-emptive isolation of Malta by air and sea, even though the Japanese considered the air support should be subordinate to the naval and ground forces, rather than an independent effort. Moreover, the Italian and the Japanese operational approaches were sensibly different, as the latter envisioned the execution of two landings of the same size in the north and south of the island, without planning for any other feint or concurrent action. Again, the Japanese plan considered any employment of airborne units, only after the successful landings from the sea. Finally, a sensible disagreement on the expected duration of the operation emerged, as the Japanese did not propose any deadline for the completion of the conquest of Malta.⁷⁴ In the end, the Japanese plan was valued for the detailed analysis and insights provided with regard to tactical and logistical measures to be adopted. However, the Italian staff decided not to embrace their approach, as— they observed—it did not reflect the real defensive conditions of Malta, “far more powerful and complex than those the British have opposed to the Japanese forces in other Theaters thus far.”⁷⁵ Nevertheless, the collaboration with the Japanese continued during the following months.⁷⁶ The contents of studies, meetings, exercises, and conferences were later summarized in an interesting

⁷²Minutes of the 21 and 22 February 1942 meetings held at *Comando Supremo*, in *AUSME*.

⁷³See Appendix D in this monograph.

⁷⁴Minutes of the 5 March 1942 meeting held at *Comando Supremo*, in *AUSME*.

⁷⁵Minutes of the 6 March 1942 meeting held at *Comando Supremo*, in *AUSME*. Translated by the author.

⁷⁶For instance, the Japanese provided other substantial contributions, in terms of lessons learned from their ongoing operations in Malaya. Specifically, they regarded British tactics, techniques, and procedures, as well as their perceived critical vulnerabilities. Minutes of the 24 March 1942 meeting held at *Comando Supremo*, in *AUSME*.

document, edited by the Italians and the Germans, which was issued to subordinate headquarters, as a guide and a tool for planning. The document “*Considerazioni della Seekriegsleitung circa gli sbarchi compiuti dai Giapponesi*” (Consideration of the Naval Operations section on the Japanese landings), paired with another important circular issued a few weeks before, inclusive of the lessons learned by the Germans in the Baltic islands, as well as the sea raids conducted by British commandos in Norway and France (Dieppe). The content of those documents certainly informed the work done by the service components in response to *Comando Supremo*’s concept of operations.⁷⁷

The Japanese experts were not the only advisors who contributed to the development of Esigenza C3. With planning and preparation proceeding, and the Germans progressively involved in the enterprise, Gandin and his planning staff sought to also integrate the lessons of operation Merkur, the airborne attack conducted by the Germans, nearly a year before, to occupy the island of Crete. Thus, at the beginning of April 1942 Cavallero requested to the German counterparts to make available a staff officer with expertise in air and sea landing operations, as well as in parachute units’ training. Major General Bernhard Ramcke, a veteran of operation Merkur and a prominent *Luftwaffe* figure and parachute expert, was handpicked for the job and arrived in Rome on 11 April 1942.⁷⁸ His tasks was not limited to the education of his Italian counterparts on the challenges and risks inherent in the conduct of airborne operations. Ramcke was expected to

⁷⁷Circulars dated 8 May “*Considerazioni della Seekriegsleitung sugli sbarchi,*” and Circular 6 June 1942, “*Considerazioni della Seekriegsleitung circa gli sbarchi compiuti dai Giapponesi,*” in *Archivio Ufficio Storico Stato Maggiore della Marina Militare (AUSMM)*, Rome, Box 102, folder C-2 *Informazioni* and 102 *quinquies* n. 10681.

⁷⁸Arguably, the OKW had already pondered the necessity to support the Italians with additional German airborne units, to contribute to the success of Hercules as they had christened the operation the day before Ramcke reached the Italian headquarters. In this light, the decision to send one of their best officers in the field of airborne operations, was indeed a remarkable attempt to standardize training, procedures, and equipment for the imminent employment of a combined airborne force. Bruce Quarrie, *German Airborne Divisions: Mediterranean Theater, 1942-1945* (Oxford, UK: Osprey Publishing, 2005), 53; and Todd, 70.

establish a more far-reaching and enduring cooperation with the Italian armed forces, in an effort to achieve a high level of training and standardization within the Italian airborne units.⁷⁹

With his account of the capture of Crete, Ramcke must have impressed the Italian staff and contributed to their learning process and visualization of the necessary requirements in terms of planning and preparation.⁸⁰ The senior German airborne leadership had drawn many lessons from their combat experience in Crete and a large number of those—arguably thanks to Ramcke and later General Kurt Student⁸¹—would be integrated into the planning, training, and preparation for Esigenza C3.⁸² The invasion of Crete had revealed that the control of the sea and the air around and above the island was of utmost necessity for the success of the operation. Air power was crucial in order to provide for the initial fire support to the ground troops during the landings. A clear chain of command and inter-service coordination were to be clearly defined, in accordance with the principle of unity of command over the forces employed. Surprise and intelligence were essential factors of success. Due to poor intelligence and the lack of surprise in Crete, German losses had initially run high and the success was in question until strong

⁷⁹Todd, 70.

⁸⁰Section three further details Ramcke's contribution to the training of the *Folgore* Parachute Division.

⁸¹A legendary figure of German military parachutism, General Kurt Student, then the commander of *Fliegerkorps XI*, was chosen by Kesselring as the commander of the airborne portion of the plan. In this capacity he constantly interacted with the Italian staff. Barnett, 463-479.

⁸²While the Italian primary sources abundantly refer to Student and Ramcke's contribution to the ensuing training and logistical preparation for the operation, no direct account of the initial briefing given by Ramcke is available therein. Therefore, the lesson learned from the German experience in Crete are inferred from the orders issued to subordinate units in preparation for the operation and from other secondary sources. Letter n. 15212 dated 22 May 1942, *Operazione C3. Provvedimenti vari per le Tuppe Paracadutiste*, in *AUSME*; and Department of the Army, Pamphlet No. 20-260, *Historical Study: The German Campaigns in the Balkans (Spring 1941)* (Washington, DC: Center for Military History, November 1953), Internet Archives. <https://archive.org/details/PAM20-260> (accessed 25 February 2014), 140-147; and Stephen L. Kavanaugh, "Comparison of the Invasion of Crete and the Proposed Invasion of Malta," (master's thesis, U.S. Army Command and General Staff College, Ft. Leavenworth, KS, 2006), <http://cgsc.contentdm.oclc.org/cdm/singleitem/collection/p4013coll2/id/691/rec/3> (accessed 27 July 2013), 48-50.

reinforcements and individual initiative shifted the balance. Thus, an intensive intelligence collection and its proper dissemination were to be established and enforced. Equally important was the achievement of a high level of operational security, through the adoption of protective and deceptive measures. Another lesson bitterly learned in Crete was the necessity of a strong “flying” reserve, either to exploit the initial success or to face unexpected threats. Of great importance were also the logistical preparation and the selection of the proper equipment, the provision of an adequate medical service to mitigate the high casualty rate, and the ability to conduct air-resupply.

The arrival of Ramcke in Rome reflected the growing interest and the commitment of the German leadership—or at least of a part of it—to the success of the operation. During the months of March and April 1942, the combined air offensive conducted under the direction of Kesselring’s OBS was progressively taking the character of a preparatory phase aimed at shaping the condition for the landings. Then, in mid-April, the OKW anticipated German participation, which formalized a few days later through the offer of troops, equipment, and resources.⁸³ In view of the imminent arrival of two additional staff officers in Rome on 13 April 1942, the *Ufficio C3* went under a further reorganization, now with the creation of a “German office,” in order to “ensure the best coordination of subordinate headquarters involved” and “give the maximum stimulus to the preparation and organization of the operation.”⁸⁴ The day before, Cavallero had also dealt with the sensitive issue of the selection of the chief of the staff:

12 April – Creation of a combined staff for ESIGENZA C3. Kesselring would like to put General Löhr in command.⁸⁵ I do not agree and we eventually decide that an Italian officer will be the chief of staff . . . We must give the Germans a tangible sign of our

⁸³Todd, 71.

⁸⁴*Comando Supremo*, Historic Diary, 13 April 1942 entry, in *AUSME*. Translated by author.

⁸⁵General Alexander Löhr was the commander of Luftflotte IV, responsible for the air campaign against Stalingrad.

commitment to the success of the operation . . . The office will begin functioning starting from tomorrow.⁸⁶

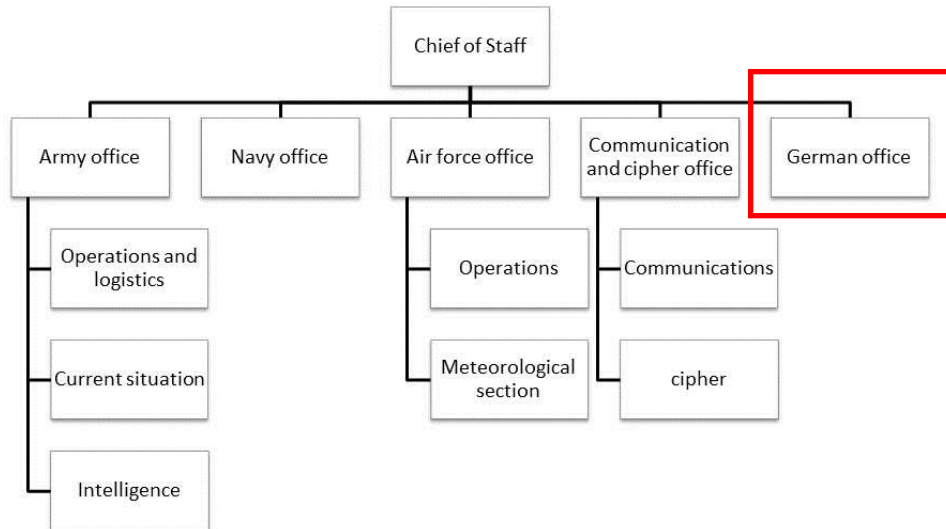


Figure 4. Organizational Chart of the Joint and Combined Planning Staff (*Ufficio C3*)

Source: Created by the author using information from *Comando Supremo*, Historic Diary, 13 April 1942, *Archivio Ufficio Storico Stato Maggiore dell'Esercito (AUSME)*, Rome, Esigenza C3, Correspondence, Studies, and Records of the Supreme Headquarters, December 1941-August 1942, box N1-11, folder 2080.

The Italian and German officers quickly worked out an agreement on the key points of the operation, integrating the results of the works already done separately. In particular, they envisaged an airborne attack to seize the southern heights of Malta and therefore establish a secure lodgment for the follow-on landing force and a base for the assault on the major airfields located south of Valletta. Given the rocky and steep nature of the southern and eastern coasts of the island, a landing there would have been considered improbable and the area scarcely defended—the planners arguably thought. Moreover, the south-north direction of the main attack

⁸⁶Cavallero and Bucciante, *Comando Supremo*, 246-248. Translated by author.

would have avoided the ominous “Victoria line,” a well-fortified defensive line running across the northwestern corner of the island.⁸⁷ The next objective for the German-Italian airborne force was the seizure of the three existing airfields of Luqa, Takali, and Hal Far, to allow for the air landing of additional forces and supplies.

The main amphibious assault would launch, preceded by underwater demolition teams and storming parties, specifically trained and equipped to climb and secure the cliff. The first wave, two infantry divisions, would attack to seize Marsaxlokk and its port facility, and the second wave/reserve, once ashore, would proceed north and westward to complete the occupation of the island. A minor amphibious attack against Marsaxlokk’s Bay, several feints and demonstration attacks in the northwestern part of the island and a supporting effort to seize the island of Gozo complemented the operational approach.

As a result, on 22 May 1942, *Comando Supremo* issued its Concept of Operations to three service chiefs and Field-Marshal Kesselring.⁸⁸ The operation was “a complex battle for the control over the central Mediterranean sea by the Axis,” and comprised actions “specifically aimed at the conquest of the Maltese archipelago with the massive employment of all the available air and naval forces against any enemy attempt to oppose resistance.”⁸⁹ It was a two-phase operation, with phase I including the worsening of the already existing air and naval blockade of the island, and the conduct of an air campaign whose objectives were enemy air

⁸⁷The “Victoria line” was the most relevant defensive structure, which ran from south-east (Bigemma hills) to north-east (Maddalena bay), following a natural cliff. Entrenchments and artillery positions, as well as a number of machine gun nests covered the approaches from north-west to the island’s central plateau. Though a powerful defensive organization, the Italian intelligence proved it was not reversible. Therefore the south-north axis of advance was evaluated as the best one during the planning. Gabriele, 108.

⁸⁸Letter n. 15210 dated 22 May 1942, *Direttive Esigenza C3*, in *AUSME*.

⁸⁹*Ibid.* Translated by author. The translation kept the original term “battle,” but it would not be inappropriate to term it “operation,” given the joint and combined character of the enterprise and the fact that it sought the achievement of strategic aims.

bases, air and coastal defenses, known enemy defensive positions, water distribution facilities (with the exclusion of those within the projected air- and beach-heads), and command, control and communication nodes. In phase II, the Concept of Operations foresaw the intensification of the attacks against the previously recalled objectives, in order to isolate Valletta and prevent the British forces from counter-attacking; the creation of an air-head through the employment of the two parachute divisions under the protection of air and naval forces; the immediate reinforcement and enlargement of the air-head from the sea with heavy equipment and armaments to reinforce the parachutists; and the subsequent landing of two divisions to seize Marsaxlokk from the rear. Concurrently, another division was to attack to occupy the island of Gozo, for subsequent use as a logistics base. An infantry division (air land) was the initial reserve during the air assault, while two other divisions, initially held in reserve, would complete the occupation of the island once ashore, and unhinge the “Victoria line” from south. The document ended with the order to the subordinate headquarters to send back their respective plans no later than 31 May 1942.⁹⁰

Five days later, *Comando Supremo* issued an addendum, which detailed the concurrent and diversionary actions planned in support of deception and surprise.⁹¹ It comprised a secondary, concurrent amphibious attack conducted by navy special forces and light infantry units against Fort Benghaisa and Fort Delimara, initially focused on diverting enemy forces and enabling the main landing, and subsequently aimed at supporting the attacks against Marsaxlokk Bay. Further deception would be achieved by the conduct of a series of amphibious demonstrations along the

⁹⁰Letter n. 15210 dated 22 May 1942, *Direttive Esigenza C3*, in *AUSME*. For a detailed account of the decision-making process leading to the concept of operations for Esigenza C3 see the minutes of the 14, 15, 17, 19, 20, and 21 May 1942 meetings held at *Comando Supremo*, in *Stato Maggiore dell'Esercito, Verbali delle Riunioni Tenute dal Capo di SM Generale*, vol. 3 (Roma, Italy: USSME, 1985), 476-518.

⁹¹Letter n. 15255 dated 27 May 1942, *Direttive Esigenza C3*, in *AUSMM*, folder “*Studi e Corrispondenza con Kesselring*”.

northern and eastern coastline, as well as the airdrops of dummy parachutists in the north concurrently with the execution of the actual airdrops.⁹²

The three services and the OBS intensified the activities to complete their respective portion of the plan, so that they were able to abide by the 31 May deadline. *Comando Supremo's* staff, throughout the development of the plans, paid special attention to the issues of Italian-German cooperation, and inter-service coordination with regard to the synchronization of air, sea, and ground actions.⁹³ Indeed, those elements emerge from the analysis of the services' plans, as well as from the documents that Kesselring sent to Cavallero. A detailed account of the content of each plan is beyond the scope of this monograph, but some general considerations are necessary. First, although they were essentially no more than the service's concepts of operation to be further developed by the subordinate headquarters responsible for the execution, all the plans presented a high level of details. Second, the overall respect of the imposed deadline, given the short period allotted, reinforces the point of a deliberate recourse to forms of collaborative and parallel planning. Finally, the abundance of cross-references in each plan, and the existence of a single, minimal discrepancy in the four overall constructs work again in support of the thesis of truly integrated and comprehensive planning.⁹⁴ The German portion of the plan included the airborne plan developed by the staff of Student's *Fliegerkorps XI*, the detailed target list for the

⁹²It is interesting to note that, in support of operation Overlord, the Allies adopted an analogue deception measure, airdropping some 500 dummy parachutists. The paradummies, nicknamed "Ruperts," were dropped over Normandy along with six Special Air Service men who also played recordings of battle noises. The aim of the deception, known as operation Titanic, was to draw German troops away from the Normandy beaches that the main invasion force would invade hours later. The Decoy Paratrooper Dummy History Site, Internet Archive, <http://web.archive.org/web/20100326052243/http://home.att.net/~1.elliott/paratrooperdummyhistorysite.html> (accessed 1 February 2014).

⁹³Gabriele, 148, 257-268, 273-275.

⁹⁴There was a discrepancy of approximately 24 hours in the execution timelines of the Army and the Navy. Arguably, such a mismatch would have been certainly noted and corrected, had the plans been passed to subordinate formations for the detailed synchronization and preparation. For the three services' plans see Gabriele, 281-306.

combined air campaign conducted under Kesselring's direction, and a proposed general timeline for the execution. It accounted for the time necessary for the return of German air units to Sicily, rest and refit, after the conclusion of Theseus, Rommel's already agreed advance in North Africa to retake Tobruk. From 28 June to 17 July, OBS and *Regia Aeronautica* would launch the combined final offensive against Malta (phase I of *Comando Supremo*'s Concept of Operations), to set the conditions to move to phase II.⁹⁵

Plans were thus almost ready and agreed by the major key players. However, the entire construct relied on three major assumptions. The first of those was the availability of the German air transport, as well as the arrival of the reinforcements already promised. The provision by the German ally of the fuel necessary to move the Italian fleet, given the chronic shortage, which affected the *Regia Marina*, represented indeed the second assumption. Finally, the ability to transport and put ashore about 70,000 troops was the third important assumption of the plan. While seeking to untie those three fundamental knots, many other relevant organizational decisions happened, units underwent an intense training, and preparatory activities were performed to enable the execution of Esigenza C3.

⁹⁵Lutton, 183.

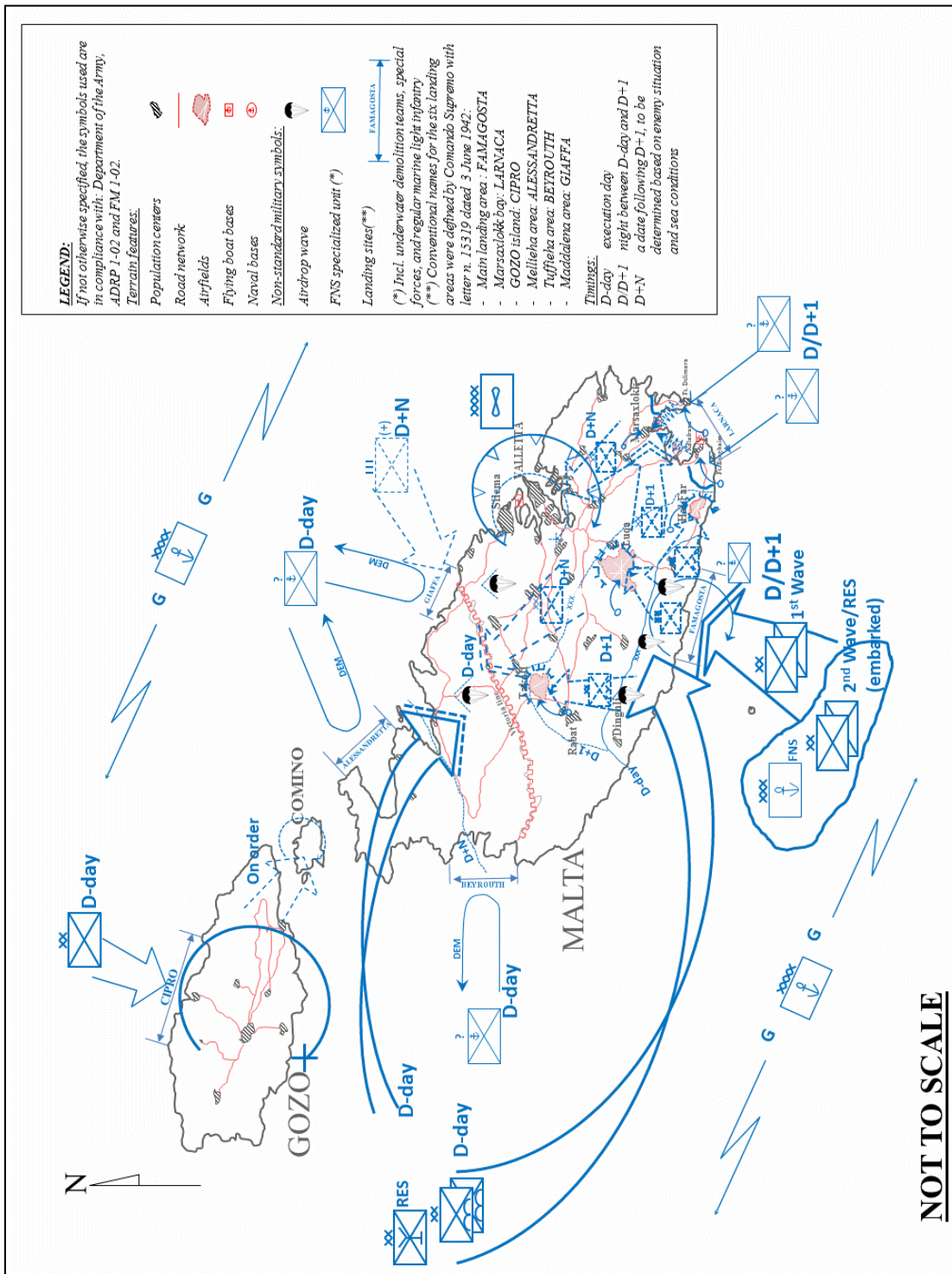


Figure 5. *Comando Supremo's* Concept of Operations for Esigenza C3

Source: Created by the author using topographical information from Akhil Kadidal, "Malta the Island that Refused to Die," *Hermes' Wings*, 17 March 2013, WordPress, <http://chindits.wordpress.com/2013/03/17/the-battle-for-malta-1940-1942/> (accessed 10 February 2014).

IN PREPARATION FOR THE LANDING

Detailed planning, synchronization, and organizational activities soon overlapped, complemented, and informed the refinement of studies and the further development of the concept of operations. The process ran in the two directions, and further enhanced top-down, bottom-up, and lateral exchange of information and coordination.⁹⁶ During the period January-July 1942, *Comando Supremo*, in close coordination with the three Italian service Chiefs and the German counterparts, took and implemented a significant number of decisions, which affected and shaped the preparation of the joint and combined force for Esigenza C3. They ranged from decisions about force allocation and the definition of command and control relations, to planning and execution of training activities, to the fulfillment of the logistical requirements emerging both from training itself and from additional analysis of the operational problem.

Since *Comando Supremo* had conceived from the beginning the seizure of Malta as the central objective of the national strategy for the Mediterranean, Italian naval and air forces were already employed there massively. Therefore, the definition of the support provided by *Regia Marina* and *Regia Aeronautica* was not of particular concern.⁹⁷ The most compelling decision was arguably the definition of the quantity and quality of troops allocated, in light of competing requirements of other theaters and the key tasks that the ongoing planning was identifying. The results of planning continuously shaped the build-up of the ground element, by the means of force allocation and the progressive refinement of command and control relations, and in view of the

⁹⁶U.S. Army doctrine provides the framework of conceptual and detailed planning. ADRP 5-0 states that “[p]lanning activities occupy a continuum ranging from conceptual to detailed . . . On one end of the continuum is conceptual planning. Understanding the operational environment and the problem, determining the operation’s end state, establishing objectives, and sequencing the operation in broad terms all illustrate conceptual planning . . . At the other end of the continuum is detailed planning. Detailed planning translates the broad operational approach into a complete and practical plan . . . Detailed planning works out the scheduling, coordination, or technical problems involved with moving, sustaining, synchronizing, and directing the force.” Department of the Army, Army Doctrinal Reference Publication 5-0, *The Operations Process* (Washington, DC: Government Printing Office, 2012), 2-3-2-4.

⁹⁷Cavallero and Bucciante, *Comando Supremo*, 202, 221.

expected German involvement. When the latter became substantial in April 1942, such organizational activities also included the coordination and definition of role and responsibilities with the German ally.

At the end of January 1942, *Ufficio C3* defined the initial force pool for the operation, in concert with *Regio Esercito* and *Regia Marina*. It comprised four divisions—*Folgore* Parachute Division, *La Spezia* Air Land Division, *Livorno* and *Superga* Infantry Divisions—and Admiral Tur's *Forza Navale Speciale* (*San Marco* Marine Infantry Regiment, a navy parachute-swimmers battalion, and four *Camicie Nere* Fascist Militia Landing Battalions).⁹⁸ Even though *Ufficio C3* had not yet defined the landing force commander, the inclusion of General Vittorio Sogno, then commander of VII Corps, in the working group for Esigenza C3, suggests the initial orientation towards this organization as the core command element of the landing force.⁹⁹ On 10 March 1942, *Regio Esercito* sanctioned, in a memorandum to General Sogno, the list of the divisions allocated for Esigenza C3. In the same document, VII Corps was directed to assume the command of the four aforementioned divisions and be relieved of any territorial duty, to carry out the specific activities related to the planning and preparation for both Esigenza C2 (occupation of Corsica island) and Esigenza C3. *Friuli* and *Cremona*, the other two organic divisions, were billed for Esigenza C2.¹⁰⁰

On 21 April 1942, Kesselring finally confirmed to Cavallero that Hitler had authorized the German participation in Esigenza C3, the employment of the reconstituted 7th *Flieger*

⁹⁸Gabriele, 98; and Quarrie, 53-54.

⁹⁹On 22 May 1942, *Regio Esercito* renumbered the VII Corps as the XXX Corps, and transferred it to southern Italy, in order to focus on the preparation for Malta. Letter n. 11725 dated 22 May 1942, *Regio Esercito* to subordinate headquarters, "*Trasferimento Comandi VII e XXX Corpo d'Armata*," in *AUSME*.

¹⁰⁰Memorandum n.1/C3op. dated 10 March 1942, *Regio Esercito* to General Sogno, "*Esigenza C3*," in *AUSME*.

(parachute) division, the provision of naval and air transport assets, and other equipment.¹⁰¹ The news indeed greeted by *Comando Supremo*, but it raised the issue of the negotiation of roles and responsibilities with the German ally. In doing this, the existing good working relations certainly helped and paid their dividends. Cavallero and Kesselring could agree the Germans receive the command of the airborne portion, in consideration of the preponderance of air transport assets made available and the uncontested leadership and expertise in the specific field.¹⁰² Therefore, at the end of April, General Kurt Student, then the commander of *Fliegerkorps XI*, reported to Kesselring in Rome and was appointed commander of the combined airborne corps for Esigenza C3.¹⁰³ A rather intricate command and control design—arguably the outcome of intense bargaining among the various key players—determined that Cavallero would retain the overall command of the operation, to be exercised through the service chiefs, Kesselring, and their respective subordinate commanders during the conduct of airborne, seaborne, naval, and air operations.¹⁰⁴ No delegation of command authority was foreseen.

¹⁰¹For a detailed account of the German support see Appendix F in this monograph. Cavallero and Bucciantie, *Comando Supremo*, 248; and Quarrie, 25.

¹⁰²Cajus Bekker, *The Luftwaffe War Diaries: The German Air Force in World War II*, trans. and ed. Frank Ziegler (New York, NY: Da Capo Press, 1964), 243-244.

¹⁰³Todd, 77.

¹⁰⁴*Comando Supremo*, Historic Diary. 15-30 April 1942, “*Studio e Concretamento del Corpo di Spedizione*,” in *AUSME*.

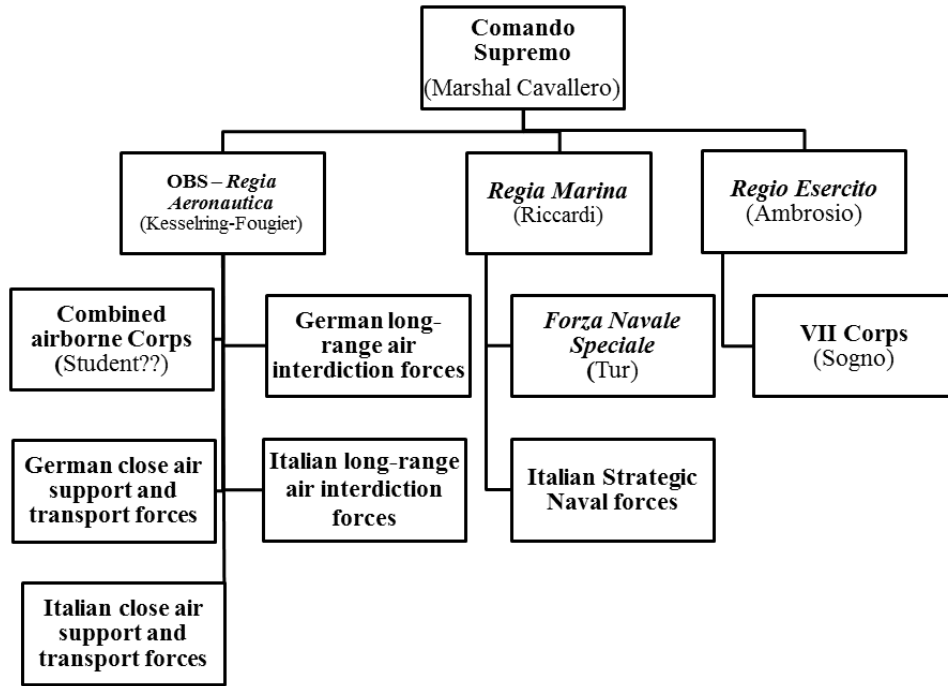


Figure 6. Initial Allocation of Forces and Command and Control Arrangements (as of April 1942)

Source: Created by the author using information from *Comando Supremo*, Historic Diary, 15-30 April 1942, “*Studio e Concretamento del Corpo di Spedizione*,” *Archivio Ufficio Storico Stato Maggiore dell’Esercito (AUSME)*, Rome, Esigenza C3, Correspondence, Studies, and Records of the Supreme Headquarters, December 1941-August 1942, box N1-11, folder 2080.

In the meantime, *Ufficio C3* had identified the need for additional ground forces, and *Comando Supremo* coordinated with *Regio Esercito* accordingly. An interesting exchange of letters between the two headquarters shaped and formalized the forthcoming changes in task organization and command and control arrangements. On 6 May, *Regio Esercito*, given the recent allocation of three additional infantry divisions to the enterprise (*Friuli*, *Napoli*, and *Assietta*), and the resulting increased span of control, suggested the opportunity to reorganize the seven divisions under three separate corps headquarters. The proposal was for one airborne corps inclusive of the German forces, one for the first landing wave, and one for the second wave/reserve, in accordance with the different key tasks of the plan, and in consideration of

preparation priorities and support requirements.¹⁰⁵ *Regio Esercito* also suggested the employment of an army headquarters, responsible for preparation and execution. Two days later, *Comando Supremo* agreed on the repartition of the divisions under three different corps headquarters, but did not approve the second proposal, rather being in favor of *Regio Esercito* as the coordinating authority of the entire ground force package for Esigenza C3.¹⁰⁶ Thus, the VII Corps commander knew that the *Assietta* and *Napoli* divisions would transition under another corps (XII, later XVI) for actual employment.¹⁰⁷

Regio Esercito, through its *Stato Maggiore* (Army General Staff), was responsible for the preparation of the land forces and the execution of the ground tactical plan. At the end of May, General Armando Vecchiarelli, *Regio Esercito*'s Deputy Chief of Staff for Operations, who had thus far supervised the Army's planning for Esigenza C3, was appointed commander of the "*Corpo di Spedizione*" (literally, Expeditionary Corps). The appointment was indeed unclear, as only ground forces would fall under Vecchiarelli's authority. In fact, *Regia Marina*, *Regia Aeronautica*, and OBS would retain control of their naval and air assets, while a *Comando Tattico Superiore* (Tactical Higher Command), a specific headquarters led by Vecchiarelli, activated in the imminence of the operation, would exercise command and control of all the forces ashore.¹⁰⁸ Therefore, *Comando Supremo*, was still to function as the overall operational command responsible for the execution.

¹⁰⁵This point reinforces the thesis, defended in section two, of a truly integrated planning process. *Regio Esercito* here a clear appreciation of higher headquarters' overall concept of operations, in spite of the fact that *Comando Supremo* would formally issue the document only two weeks later.

¹⁰⁶Letter n. 144 dated 6 May 1942, SMRE to *Comando Supremo*, "*Esigenza C3*," Memorandum n.15095/op. dated 8 May 1942, *Comando Supremo* to Gen. Ambrosio, in *AUSME*.

¹⁰⁷Letter n. 273 dated 18 May 1942, SMRE to VII Corps, "*Unita' interessate all'Esigenza C3*," in *AUSME*.

¹⁰⁸*Comando Supremo*, Historic Diary. May 1942. "*Specchio n.2. Ordinamento G.U., Reparti e Servizi del Regio Esercito. Comando Tattico Superiore*," in *AUSME*.

Eventually, in mid-June *Comando Supremo* ordered the activation of *Comando Tattico Superiore* as of 1 July 1942, issuing specific guidance on command and control relations. *Comando Tattico Superiore* was subordinate to *Regio Esercito* for the final preparation, while during the execution it would coordinate Italian and German ground forces, reporting directly to *Comando Supremo*. Student's airborne Corps and FNS's specialized landing units (*San Marco* Marine Infantry Regiment and *Camicie Nere* Landing Battalions) would progressively transition under *Comando Tattico Superiore*'s authority, once beachheads were established.¹⁰⁹ The commander of FNS would exercise command and control of *Regio Esercito*'s units during the movement from the points of embarkation to the moment of landing. From then on, FNS would coordinate the landing of follow-on forces, artillery pieces, vehicles, and supplies with *Comando Tattico Superiore*.¹¹⁰

¹⁰⁹Letter n. 15478 dated 19 June 1942, *Comando Supremo* to Service Chiefs and OBS, "Operazione C3: Costituzione Comando Tattico Superiore," in *AUSME*.

¹¹⁰Gabriele, 292.

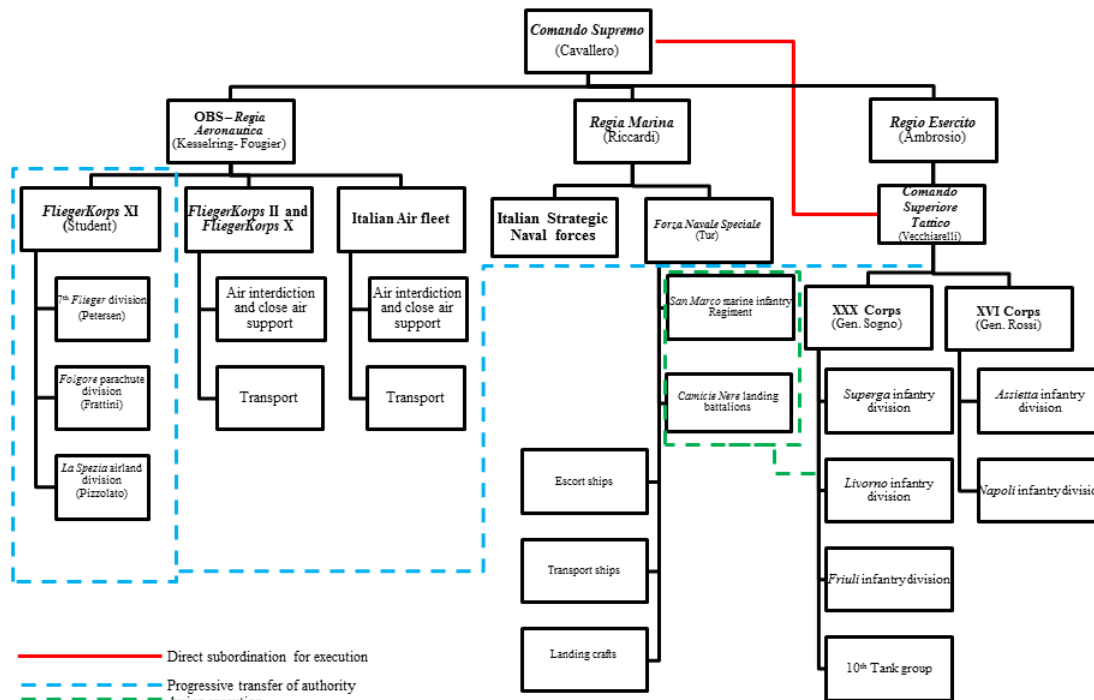


Figure 7. Final Allocation of Forces and Command and Control Arrangements (as of July 1942)

Source: Created by the author using information from Letter n. 15478, 19 June 1942, *Comando Supremo* to Service Chiefs and OBS, “*Operazione C3: Costituzione Comando Tattico Superiore*,” *Archivio Ufficio Storico Stato Maggiore dell’Esercito (AUSME)*, Rome, Esigenza C3, Correspondence, Studies, and Records of the Supreme Headquarters, December 1941-August 1942, box N1-11, folder 2080.

Studies and plans for Esigenza C3 fueled an intense training period for the units nominated for the operation, which in turn enabled the experimentation and assimilation of German and Japanese lessons, doctrinal development, significant changes in the existing tables of organization and equipment, and generally an enhanced inter-service and inter-ally familiarization and standardization of procedures. The initial definition and the continuous refinement of the chain of command for the operation certainly helped with the conduct of focused and effective training, as separate headquarters progressively assumed specific responsibility for training and preparation.

Regio Esercito, responsible to *Comando Supremo* for the preparation of the ground force, issued General Sogno a training guidance based on two main pillars; the build up and training of airborne units (parachute and air land), and the conversion of generic infantry formations into a specifically organized, trained, and equipped landing force. *Regio Esercito* also established a three-phase training calendar (from 20 March through the planned execution date), with a progression from individual and small units tactics to the conduct of large-scale airborne and seaborne landing exercises. The achievement of a high level of inter-service cooperation (Army-Air Force and Army-Navy), and the interoperability of *Folgore* and *La Spezia* Divisions with the German counterparts were of paramount importance.¹¹¹

Since mid-April, both *Folgore* and *La Spezia* benefited from the training assistance of Major General Ramcke and his pool of instructors. Training had been in progress since 1 March 1942 and the two divisions soon impressed the German trainers with the high level of morale of the officers and men, all volunteers.¹¹² In Tarquinia, *Folgore*'s units progressively filled their ranks, and underwent an intense program, based on daily jump trainings, demanding physical activities, field tactical exercises, hand-to-hand combat, and survival skills. In close coordination with *Regia Aeronautica*, large-scale exercises were conducted in Sardinia, and later in southern Italy, whose central theme was the execution of parachute jumps followed by tactical actions, with the intent to recreate the conditions expected in Malta.¹¹³ Ramcke made a special point of avoiding the mistakes of Crete. In addition to the training assistance, he contributed to a number

¹¹¹Letter n.4800 dated 26 February 1942, *Regio Esercito* to General Sogno, "Esigenza C3," memorandum n.1/C3op. dated 10 March 1942, *Regio Esercito* to General Sogno, "Esigenza C3," memorandum n.8 "C.3" dated 27 March 1942, *Regio Esercito* to General Sogno, "Esigenza C3," in *AUSME*.

¹¹²The quality of Italian paratroopers not only impressed Ramcke, but also Student and Kesselring. The latter noted in his memoirs that "[t]he exercises at which I was present showed the men were the right material." Kesselring, *The Memoirs of Field-Marshal Kesselring*, 128; and Bekker, 244.

¹¹³Todd, 77.

of improvements in organization, weaponry, and equipment, seeking to achieve the same standards as the German partnered formation.¹¹⁴



Figure 8. Work in Progress

Source: Nino Arena, *L'Italia in Guerra: Retrosceca Tecnico della Disfatta* (Parma, Italy: E. Albertelli, 1997), 113. Note: Tarquinia (Italy), Spring 1942. Mussolini shows a Moschetto 91/38 to a puzzled Ramcke. The rifle initially adopted for the parachute units was not certainly the weapon best suited for élite forces.

During the same period, the German leadership of the 7th *Flieger* Division was rebuilding the precious combat power lost in Greece and integrating the lessons bitterly learned there nearly a year before.¹¹⁵ In the end, since in February 1942 OKW had approved the formation of two additional *fallschirmjäger* (parachute) regiments, the division could assume the

¹¹⁴Improvements included the adoption of better weapons and uniforms, improved jump gear and harnesses, technical modifications to the Italian aircrafts, and the enhancement of organic medical service. Letter n. 15212 dated 22 May 1942, *Comando Supremo* to *Regio Esercito* and *Regia Aeronautica*, “*Operazione C3. Provvedimenti vari per le Truppe Paracadutiste*,” in *AUSME*.

¹¹⁵Quarrie, 24.

planned ternary configuration, and underwent an equally intense training through June 1942.¹¹⁶ Crete remained Student's nightmare. He and his staff did everything in their power to avoid a similar outcome, and new parachute harnesses, better protections, and individual weapon containers appeared. The Germans also increased their airlift capability, introducing new and more efficient gliders in addition to the existing ones and the tri-motor Junkers JU-52.¹¹⁷ The innovations adopted in Germany also interested the Italians, but issues related to geographical distance, logistics, and operational security, impeded the two parachute divisions from achieving reciprocal knowledge through combined training and exercises. Nevertheless, the Italians attempted to achieve the maximum possible level of standardization and familiarization with German procedures and equipment, seeking to conduct jump training with German airplanes and equipment whenever possible, an activity strongly encouraged by *Comando Supremo*.¹¹⁸

In the meanwhile, *La Spezia*, the third divisional formation of Student's projected airborne corps, faced the demanding task of converting from an infantry to an air land division. The undertaking was exceptionally tough, given the absence of any doctrinal or procedural precedent in Italy. The initial guidance that *Regio Esercito* provided to VII Corps in March 1942 included the definition, in coordination with *Regia Aeronautica*, of standardized procedures for the rapid loading and unloading of personnel, vehicles and equipment from the airplanes, as well as the conduct of frequent air transportation tests to verify the conditions of the freight under different flight conditions.¹¹⁹ On 17 May 1942, *Regio Esercito* sent *Comando Supremo* its

¹¹⁶Quarrie, 24; and Lutton, 184.

¹¹⁷Lutton, 185-186.

¹¹⁸Letters n. 15001, 15020, and 15088/op. dated 14, 19 April and 4 May 1942, *Comando Supremo* to *Regio Esercito*, "Esigenza C3. Unita' Paracadutisti," in *AUSME*.

¹¹⁹Memorandum n.8 "C.3" dated 27 March 1942, *Regio Esercito* to General Sogno, "Esigenza C3," in *AUSME*.

observations, resulting from the multiple experiments conducted in Pisa.¹²⁰ The report included the assessment of the loading potentials of the available aircrafts, and concluded suggesting the opportunity of a command decision to clearly define the number and type of aircrafts allocated to the division, in order to define a standardized loading plan, and therefore reduce the inherent uncertainty and limitations of last-minute planning. *Regia Aeronautica* still needed to develop the specific training and procedures of the crews further.

The training of the sea landing force became the second focused area for *Regio Esercito*. Amphibious warfare was as unexplored as airborne operations, with the exception of the limited experience of Admiral Tur's FNS. This latter consisted of specialized naval units, trained to conduct isolated, small parties' actions to sabotage port facilities or secure landing points for follow-on forces. Instead, VII Corps' divisions were to get ashore in force, and quickly break out from the beachheads to seize the assigned objectives. The task required the transformation of traditional infantry formations—in general terms, poorly manned and equipped, and strongly reliant on corps artillery support—into a homogeneously trained and equipped amphibious landing force, capable of rapidly transitioning from ship to shore under expected enemy fire, and self-sufficient in terms of organic fires. The development of standardized procedures in coordination with *Regia Marina*, and the availability for each division of sufficient special landing crafts to train at least one regimental combat team at a time, represented the number one priority for *Regio Esercito*. To this regard, VII Corps, as directed, established a direct liaison with FNS, to enjoy the contribution of the existing expertise, and to coordinate its support in terms of landing crafts, “at least in order to ensure the initial familiarity with sea navigation and the ability to conduct the preliminary actions after landing,” while efforts to build or requisition additional

¹²⁰Letter n.297 dated 17 May 1942, *Regio Esercito* to *Comando Supremo*, “*Addestramento della Divisione La Spezia*,” *AUSME*.

crafts proceeded.¹²¹ A few weeks later, on 17 April 1942, *Regio Esercito* published the doctrinal manual “*Norme di impiego per Grandi Unità di assalto e sbarco*” (Employment of large assault and landing formations), out of which the contribution of Japanese experts and the results of initial training trials and errors merged. In particular, the document sanctioned the landing of storming parties as the first action of the seaborne assault, immediately followed by the first wave of infantry troops to establish and widen the beachhead.¹²²



Figure 9. Amphibious Training

Source: Mariano Gabriele, *Operazione C3: Malta*, 2nd ed. (Rome, Italy: USMM, 1990). Note: Gaeta (southern Italy), Spring 1942 Troops of the VII Corps conduct landing exercises on a rocky and steep coastline, similar to the one expected to encounter in Malta.

The newly introduced doctrinal and procedural tenets were further tested and refined, and Army-Navy coordination improved, once additional transport ships and landing crafts became

¹²¹Translated by the author. Memorandum n.8 “C.3” dated 27 March 1942, *Regio Esercito* to General Sogno, “*Esigenza C3*,” in *AUSME*.

¹²²Gabriele, 131.

available to train larger formations. However, geographical dispersion of VII Corps' subordinate formations, the still insufficient number of ships, and operational security concerns limited the training to one division at a time, though conducted with extraordinary realism and attempts to replicate the characteristics of the Maltese shoreline.¹²³ Thus, in mid-June Admiral Abe enthusiastically applauded Italian achievements in the field of amphibious warfare, in a letter to Admiral Tur. “. . . I came back to Rome—the Japanese Admiral wrote—convinced that you can accomplish brilliantly, having observed your tenacious exercises, conducted with indomitable spirit and severe discipline . . .”¹²⁴ Successful night maneuvers launched against pre-alerted Italian coastal defense units, and a final exercise, during which 4,500 men safely landed along the precipitous cliffs south of Livorno (Italy) showed the measure of the high level of coordination achieved by the Army-Navy team in preparation for Esigenza C3.

The energy and the vast amount of resources devoted by the Italian and German armed forces during the preparatory phase confirmed the priority the two high commands were giving to Esigenza C3. Other secondary, but no less important, training activities involved divisional staffs, as well as specialized personnel, complementing the preparation of the joint force. As a result, at the end of June 1942, *Comando Supremo* could positively assess the preparation and status of readiness of the several divisions involved, before the situation in North Africa began drawing forces and resources from Esigenza C3.¹²⁵

¹²³Specific location were selected along the Italian peninsula, which offered the necessary requirements of security and sustainment. Divisions rotated there for the conduct of training and exercises with the support of the Navy.

¹²⁴Translated by the author. Tur.

¹²⁵*Comando Supremo*, Final Report on the preparation for Esigenza C3, section III, “*Approntamento personale e mezzi*,” in *AUSME*.

Table 2. June 1942 Preparation and Readiness
Status of *Regio Esercito* Divisions

Unit	Initial Situation	Final Situation
<i>Folgore</i> Parachute Division	Tentative Formation: - 6 infantry battalions - 2 artillery battalions - engineers and sustainment support Training Level: poor	Current Formation: - 9 infantry battalions - 1 saboteur battalion - 3 artillery battalions Training Completed Reinforced with mortars, grenade-launchers, and other equipment
<i>La Spezia</i> Air Land Division	Table of Organization and Equipment: incomplete Training Level: poor	Current Formation: - 6 infantry battalions - 1 mortar battalion - 1 saboteur company - 1 reconnaissance team - 3 artillery battalions - engineers and sustainment support Training Completed Reinforced with Personnel and Equipment
Infantry Divisions: - <i>Livorno</i> - <i>Superga</i> - <i>Friuli</i>	Regular Infantry Divisions	Transformed in Special Landing Divisions: - 6 infantry battalions - 1 mortar battalion - 1 antitank battalion - Saboteurs, climbers - 1 reconnaissance team - 3 artillery battalions - engineers and sustainment support Training Enhanced, Personnel and Equipment Completed
Infantry Divisions: - <i>Assietta</i> - <i>Napoli</i>	Regular Infantry Division	Reinforced with Antitank and Antiaircraft Weapons, Machine Guns, Saboteur and Climbing Teams

Source: Created by the author using Table n.7, “*Approntamento Grandi Unità e servizi Regio Esercito*,” *Archivio Ufficio Storico Stato Maggiore dell’Esercito (AUSME)*, Rome, Esigenza C3, Correspondence, Studies, and Records of the Supreme Headquarters, December 1941-August 1942, box N1-11, folder 2080.

The fulfillment of the multifaceted logistics requirements deriving from the synergic conduct of planning and training activities became the third critical pillar of the preparation for Esigenza C3. Given the inherent complexity of the plan, logistics became an area of particular concern, where decision-makers and planners sought to identify and adopt the necessary

measures to avoid culmination and extend operational reach, through the availability of necessary supplies (especially, ammunition and fuel), and the provision of an adequate number of means of transportation to ensure the feasibility of the plan as conceived.¹²⁶ While *Comando Supremo* could only rely on the Germans for the promised delivery of fuel and ammunition and the provision of additional aircraft for the airborne assault, Italian resolve and ingenuity led to a series of deliberate actions, in conjunction with the Germans, which contributed to providing for the initial shortage of the naval crafts necessary for the operation. Finally, by the means of new naval constructions, requisitions and conversion of existing commercial vessels, at the end of June 1942, *Regia Marina* had the ability to transport and put ashore 29,000 men fully equipped, plus organic tanks, artillery, and supplies, not including the crafts offered by the Germans.¹²⁷

Finding, collecting, and modifying such a diverse collection of naval crafts represented arguably the most difficult task in preparation for Esigenza C3. *Regia Marina* took over the responsibility of coordinating and directing the efforts of a collection of different actors—FNS, the Ministry of Merchant Navy, public and private shipyards, and local Maritime Commands—to supplement the 48 motor-sail boats and four tankers already available for the occupation of Corsica with newly-built special motor launches and barges, converted steamers, and a number of other small crafts.¹²⁸ The problem was further exacerbated by the necessity to ensure the ability to put ashore, on a rocky and steep coastline, personnel, artillery, tanks, after cruising a distance of 80-120 nautical miles in the open sea.

¹²⁶On the eve of Klessheim strategic meeting of 29-30 April 1942, Marshall Cavallero wrote to his counterpart in the OKW, stressing the urgency to receive, as soon as possible, the promised support in terms of aircrafts (200 Junkers JU-52, 52 gliders of various types), and fuel (40,000 tons of naval fuel and 12,000 tons of gas), without which the operation could not happen. Again, on 20 June Mussolini reinforced Cavallero's concerns writing to Hitler: "The action against Malta is now of utmost necessity . . . instrumental to its execution is the problem of fuel." (translated by the author). Gabriele, 133-134; and Cavallero and Bucciante, *Comando Supremo*, 274-275.

¹²⁷Table n.5-6, "*Mezzi Speciali da Sbarco 1^a ondata*," in *AUSME*.

¹²⁸Gabriele, 148-149.

The construction of two completely new types of special landing crafts began in earnest and could be completed by June 1942. They were Class ML motor launches (*Motolance*) and Class MZ motor barges (*Motozattere*). At the end of 1941, *Regia Marina* had ordered one hundred *Motolance* specifically designed for Esigenza C3, which were ready for the summer of 1942.¹²⁹ *Regia Marina* also obtained design plans from the *Kriegsmarine*, to build in the Italian shipyards the Class MZ motor barges, copies of *Marinefährrahm*, using diesel train engines, and Italian weapon systems in substitution of the German ones. Sixty-five of those “sea mules,” were completed by July 1942.¹³⁰

¹²⁹The geographic dispersion of the naval shipyards along the Italian peninsula made the effort to coordinate the construction even more difficult. In a memorandum dated 17 May 1942, the Navy officer in charge of the project reported the progression of the work, listing not less than a dozen of locations where crafts were being assembled. *AUSMM*.

¹³⁰Table n.5-6, “*Mezzi Speciali da Sbarco 1^a ondata*,” in *AUSME*. Tullio Marcon, *I Muli del Mare* (Parma, Italy: Albertelli, 1998), 222-224.

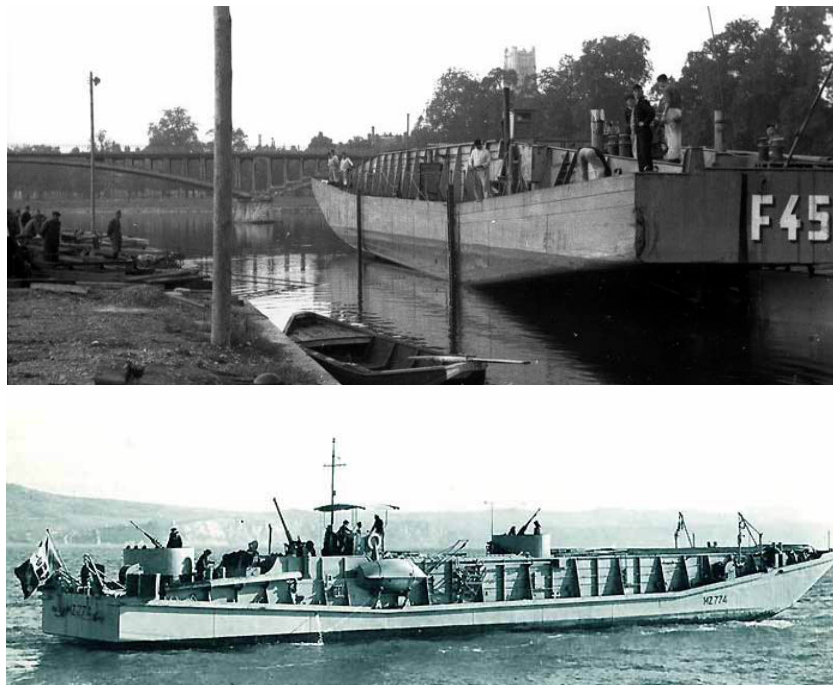


Figure 10. German *Marinefährrahm* (MFP), above,
and Italian *Motozattera* (MZ), below

Source: German Federal Archives, “*Historisches MarineArchiv, Propagandakompanien der Wehrmacht - Marine (Bild 101 II), Unita’ da sbarco Regia Marina,*” http://historisches-marinearchiv.de/projekte/landungsfahrzeuge/marinefaehrprahm/ausgabe.php?where_value=1150; http://xoomer.virgilio.it/ramius/Militaria/unita_da_sbarco.html (accessed 5 March 2014).

Kriegsmarine transferred another 27 German *Marinefährrahm* to the Mediterranean in support of the operation. They were part of the package made available to the Italians, but delivered when the operation was going to be indefinitely postponed.¹³¹ It also included 10 *Siebel* ferries (catamaran barges), six Type 39 *Pionierlandunsboote* (small engineer boats), six Type 40 *Pionierlandunsboote* (a larger version of Type 39), 81 *Sturmboote* (assault boats) with German crews, another 200 *Sturmboote* without crews, plus some 300 large and small inflatable crafts,

¹³¹Nino Arena, *L’Italia in Guerra: Retrosceca Tecnico della Disfatta* (Parma, Italy: E. Albertelli, 1997), 337.

some powered by outboard motors and some powered only by oars, necessary to ease the transfer from ship to shore of personnel and materiel.¹³²

Regia Marina also requisitioned, modified, and converted a collection of merchant naval vessels, whose characteristics made them suitable for military use. These comprised two former railway ferries, converted to transport heavy tanks; 30 special motor-sail vessels; another 20 motor-sail vessels to transport equipment; four passenger steamships; five former motor vessels; four converted minelayers; four tankers; and 26 lagoon motorboats.¹³³ All of those ships underwent substantial structural improvements, with the addition of specific wood bumpers on their sides to allow for berthing at rocky cliffs, and the installation of boardwalks and stairs to facilitate the ascent. Inventiveness also contributed to develop other special equipment for saboteurs and swimmers, individual fog-machines, wireless stations for each ship, navigation aids, and a number of many other items, designed in response to the difficulties that emerged from training and experimentation.¹³⁴

An intense period characterized by organizational design, training, and logistical preparation spawned from and developed in parallel with continuous politico-strategic negotiation and operational planning to successfully launch the assault on Malta. Despite difficulties, delays, and uncertainties connected with the provision of the necessary German support, the organization for Esigenza C3 was almost complete and ready well before the tentative execution date of 1 August 1942. Meanwhile, Student's sudden return to Germany at the beginning of June began to raise serious concerns among the Italians about the real attitude of Hitler towards the idea to

¹³²Italian primary sources highlight characteristics and capabilities of the different types of crafts. Letters n.15164 and 15719 dated 16 May and 15 July 1942, *Comando Supremo to Regio Esercito*, “*Operazione C-3: Mezzi di Sbarco Tedeschi*,” in *AUSME*.

¹³³Table n.5-6, “*Mezzi Speciali da Sbarco 1^a ondata*,” in *AUSME*.

¹³⁴Gabriele, 197.

capture Malta.¹³⁵ Later, Rommel's initial successful advance in North Africa provided Hitler with new arguments to reinforce his ideas that the operation was unnecessary, thus definitively dooming it to oblivion.

CONCLUSION: CONSIDERATIONS FOR COALITION PLANNERS

On a warm and lovely morning in June 1942, General Kurt Student reached his headquarters in Rome to start another busy day of meetings in preparation for the imminent operation against Malta. His airborne corps would play a key role in securing the initial lodgment for the subsequent landing of an "impressive force" of 70,000 men.¹³⁶ The date for the execution was still pending, but everything was almost ready by then, and only the details were under discussion. In his heart, he was thankful to Kesselring, for having so vigorously sustained the validity of Italian plans and for the second opportunity he had to prove the effectiveness of airborne warfare, after the near fiasco in Crete. That morning, he received an unexpected phone call. He had to report immediately to Hitler, at his headquarters in East Prussia. "I forbid you to return to Italy! You will stay in Berlin," was the conclusion of his short interview with the *Führer*, during which Hitler expressed his complete mistrust for the Italians and their ability to conduct the planned operation.¹³⁷ Student was dismayed to learn that for months he had been working to prepare an operation to which Hitler had probably never really desired. Even more appalled were Cavallero and Kesselring, both convinced of the successful outcome of the operation. Everyone knew that Student's departure meant more than just the need to rearrange the chain of command. It was clear that the indispensable German support would default. Nevertheless, planning and preparation continued until the end of July 1942, even though the

¹³⁵Bekker, 244.

¹³⁶Ibid., 244.

¹³⁷Ibid., 244.

departure of fundamental elements of the projected organization was clearly marking the fate of Esigenza C3. On 27 July 1942, *Comando Supremo* sanctioned the conclusion of the coalition experience, with the closure of *Ufficio C3* and *Comando Tattico Superiore*.¹³⁸

The question of whether or not Esigenza C3 could have been successful indeed lies outside the realm of any serious research. This monograph sought to support, with historical facts, the thesis that Esigenza C3 is of high relevance to the professional education of a military planner of joint and coalition warfare. Several factors, acting at different levels of authority, contributed to the effectiveness of Axis planning for this peculiar operation. First, at the strategic level human interaction and individual characters had a major role in framing and negotiating ends, ways, and means for the Mediterranean strategy and the invasion of Malta, providing for the absence of any common top-level consultation or decision-making process. In a coalition, strategic decision-makers are expected to reach a clear articulation of common objectives in a coherent strategy. As this was not the case for the Axis strategy in the Mediterranean, key individuals like Cavallero, Kesselring, and, to a lesser extent, Raeder committed themselves to mediate and counterbalance the erratic views of their respective political leaders, giving military planners the necessary left and right limits to build their options. Second, for the first time ever, the Axis partners crafted an integrated planning staff, which presented the Italian and German officers of the three services with the challenging experience of a multinational environment. In spite of linguistic and cultural differences, the Italian and German operational planners applied an innovative planning methodology, whose pillars were the integration of decision-making processes, collaboration, and sharing of available information. They also exploited the opportunity to incorporate the observations resulting from previous combat experiences, and maximized the contributions of

¹³⁸Letter n.15797 dated 27 July 1942, *Comando Supremo* to service Chiefs, “*Esigenza C-3: Provvedimenti Vari*,” and letter n. 15887 dated 15 August 1942, *Comando Supremo* to *Regio Esercito*, “*Esigenza C-3*,” in *AUSME*.

subject matter experts in the specific fields of amphibious and airborne operations. Finally, coherently and concurrently with the design of the operation, detailed planning shaped the buildup, training, and preparation of the joint force. Planners continuously revised the initial force allocation and command and control arrangements, in order to create a combat organization agile and adherent to the emerging requirements. The definition and conduct of specific training activities contributed to achieve a level of preparedness adequate for the complexity of the operational problem. Training also played a major role in the definition of the logistical requirements for the operation, which accounted for the relevant lessons, which daily trials and errors were teaching. Inter-ally coordination and support also partially provided for the lack of the necessary resources.

After 70 years, the examination of the Axis combined planning for Esigenza C3 still provides key insights into the challenges of coalition warfare for military planners. Today, coalition warfare is a living matter, whose development in the near future seemingly follows two major threads. First, as the North Atlantic Treaty Organization steps down major combat operations in Afghanistan, several members of the alliance, and therefore the North Atlantic Treaty Organization as a whole, are redefining their posture for the future. Political statements are being made in favor of the conduct in the future of short-term contingency operations to quickly stabilize a crisis and then transition to other organizations, in lieu of a long-term commitment of personnel and resources. Second, the enduring economic crisis affects key strategic and military policy decisions. In this respect, initiatives like the European Union's Pooling and Sharing, or the North Atlantic Treaty Organization's Smart Defense will increase the interdependence of militaries across the alliances on the other members, as those programs favor specialization and repartition of specific military capabilities among the partners. As the tendency is towards short-notice, contingency operations in the framework of alliances or coalitions of willing, military practitioners should understand and prepare themselves for the complexity of similar forms of

expeditionary and coalition warfare. A coalition environment and its inherent complexity further exacerbate the difficulties inherent in joint operations, each of the members bringing their separate capabilities, orientation, and limitations in the practice of warfare. To this regard, the findings of this monograph provide considerations for today's planners.

The first consideration is that shared and clear objectives are the foundation of coalition planning. At the political and strategic level, the preliminary agreement on coalition objectives and their formulation enable operational planning for coalition warfare. Ambiguity, unclear political objectives, or unilateral changes of priorities among coalition partners lead to waste of resources and duplication of efforts. The Axis never implemented any strategic decision-making mechanism and, given the dictatorial nature of the two regimes, in the end, both Hitler and Mussolini nullified the planning efforts for Esigenza C3, continuously changing priorities, and reallocating resources.

The second consideration is that a common planning process is essential. In a time-constrained and ever changing operational environment, mature forms of collaborative planning and established mechanisms for sharing information with higher, lower, and lateral headquarters enhance planning effectiveness. Planning exercises and forms of agreement among coalition members should seek to define common planning processes and procedures. Moreover, a comprehensive approach to problem understanding and problem solving, with the inclusion in the planning team of non-military partners, as well as subject matter experts, helps to gain a better understanding of the problem at hand from multiple perspectives. *Ufficio C3* progressively integrated service representatives, subject matter experts, and German planners, and constantly maintained a dialectical approach to problem solving which increased understanding and reduced planning time.

The third consideration is that the effectiveness of a joint and combined force rests on the clear definition of command and control relations. Proper command and control relations

dramatically reduce frictions and uncertainty during execution. The initial definition of command and control arrangements is a vital aspect of the planning process and should be continuously refined as planning progresses. Given the complexity of the current operational environment, granting the adequate level of decisional authority to subordinate elements is a key to success. The plan for Esigenza C3 provided for an integrated Italian and German command structure, however *Comando Supremo*'s decision to retain the overall command of the operation would have arguably become a limit to the responsiveness and initiative of subordinate commanders in case of execution of the plan, given the distance and the limitations of the communication systems of the time.

The fourth consideration is that preparation cannot be improvised. Coalition planning should account for the conduct of proper training and the responsibility to provide for resources. Standardization and preliminary agreement on responsibilities for common users' logistics among coalition members certainly facilitate planning. Similarly, frequent joint and multinational training enhances familiarization and definition of common operating procedures. However, they do not substitute mission focused training, rehearsals, and the detailed definition of the logistics system to support an actual operation. Because of security concerns, Italians and Germans units never had the opportunity to conduct combined training in preparation for Esigenza C3. It would jeopardize coordination and add an additional risk factor to the operation. On the other end, an intense collaboration between the two allies led to the clear definition (and the partial provision) of the support required in terms of naval crafts and airplanes.

The buildup of a multinational joint force to conduct a combination of airborne and seaborne attacks to gain access and secure a lodgment into a remote and inhospitable region of the earth could be more likely than it appears. Either way, military planners must not be caught unprepared, and should follow Clausewitz's advice to make the best use of historical examples,

like the Axis planning endeavor for Esigenza C3, to improve their professional education and understanding of the complexity of coalition planning.¹³⁹

¹³⁹Carl von Clausewitz, *On War*, ed. Michael Howard, and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 170-174.

GLOSSARY

Archivio Ufficio Storico Stato Maggiore dell'Aeronautica. Archive of the Historical Office of the Italian Air Force General Staff

Archivio Ufficio Storico Stato Maggiore dell'Esercito. Archive of the Historical Office of the Italian Army General Staff

Archivio Ufficio Storico Stato Maggiore della Marina. Archive of the Historical Office of the Italian Navy General Staff

Comando Tattico Superiore. Higher Tactical Command, the title assigned to the headquarters in charge of the landing force

Comando Supremo. Italian Armed Forces High Command

Comando Tattico Superiore (CTS). Tactical Higher Command

Ober Kommando der Heeres (OKH). German Army High Command

Ober Kommando der Luftwaffe (OKL). German Air Force High Command

Fliegerkorps. Air Corps

Forza Navale Speciale (FNS). Naval Special Force

Kriegsmarine. German Navy

Luftflotte. Tactical Air Fleet

Luftwaffe. German Air Force

Motolancia (ML). Motor Launch

Motozattera (MZ). Motor Barge

Ober Kommando der Heeres (OKH). German Army High Command

Ober Kommando der Luftwaffe (OKL). German Air Force High Command

Ober Kommando der Kriegsmarine (OKM). German Navy High Command

Ober Kommando der Kriegsmarine (OWK). German Navy High Command

Regia Aeronautica. Royal (Italian) Air Force

Regia Marina. Royal (Italian) Navy

Regio Esercito. Royal (Italian) Army

Stato Maggiore della Regia Aeronautica (SMRA). Italian Royal Air Force General Staff

Stato Maggiore del Regio Esercito (SMRE). Italian Royal Army General Staff

Stato Maggiore della Regia Marina (SMRM). Italian Royal Navy General Staff

Stato Maggiore Generale (SMG). Italian Joint Staff

Stato Maggiore. Service General Staff

Ufficio C3. Office C3, the denomination of the joint, and later combined planning staff set up for
ESIGENZA C3 created within *Comando Supremo*

APPENDIX A: CHRONOLOGY

Date	Events in the Mediterranean and North African Theater of Operations	Events related to the planning and preparation for the invasion of Malta
Dec. 1940	British counteroffensive in North Africa which leads to the loss of Cyrenaica. Italy urges Germany to send reinforcements in North Africa	
Dec. 1940-Jan. 1941	X Fliegerkorps is transferred from Norway to Sicily to support Italian operation in the Mediterranean and North Africa. A blocking force is organized and sent in support of the Italian defense of Tripolitania	
Jan.-Feb. 1941		Hitler directs the armed forces to prepare a study for the capture of Malta and other Mediterranean bases.
22 Feb. 1941	Rommel arrives in Tripoli and moves East to establish contact with British troops at El Agheila	
23 Feb. 1941		The seizure of Malta is planned for autumn 1941, after operation BARBAROSSA is completed.
18 Mar. 1941		Admiral Raeder meets with Hitler to urge the capture of Malta. Hitler replies that a recent report from Goering revealed difficulties greater than expected
24 Mar. 1941	Rommel occupies El Agheila and continues moving East toward Tobruk	
6 Apr. 1941	Germany launch operation MARITA (offensive against Greece), ISO Italian forces. By the end of April both Greece and Yugoslavia are conquered	To capitalize the success in the Balkans, the Axis acknowledge the need to establish air superiority over Eastern Mediterranean Sea, by capturing either Malta or Crete, as not enough resources are available for both.
15 Apr. 1941		Lt. Gen. Student submits to Goering a plan for capturing Crete, considered of primary strategic importance for Germany. On the same day, the OKH submits to OKW a similar plan to capture Malta first and then Crete
21 Apr. 1941		Hitler decides to take Crete first.
April-May 1941	Rommel's offensive in Cyrenaica	
20-28 May 1941	Operation Merkur (Invasion of Crete)	Due to the heavy losses suffered, Germany cannot undertake a

		second airborne operation against Malta, and urges Italy to plan for an attack on Malta. Italy replies that an attack on Malta cannot be envisioned before September 1941.
Jun. 1941	German air squadrons are transferred from the Mediterranean to the Russian campaign, Italy is given the task to protect the supply lines to North Africa and continue the air campaign on Malta	
Jul. 1941		The early successes in operation BARBAROSSA give a new impetus to the study of Mediterranean problem
Aug.-Sep. 1941	German submarines are moved to the Mediterranean in support of convoy operations to North Africa and <i>Fliegerkorps X</i> units in North Africa is directed to protect naval convoys from Greece to North Africa	
29 Oct. 1941	<i>Luftflotte II</i> and <i>Fliegerkorps II</i> are withdrawn from Russian front and sent to Sicily.	
18 Nov. 1941	Second British counteroffensive in Cyrenaica (Operation CRUSADER). Rommel retreats to Gazala, and eventually to El Agheila (beginning of January 1942), despite the protest of the Italian Commander in Africa, Gen. Bastico.	
2 Dec. 1941	Field Marshall Kesselring becomes Commander in Chief South.	
Second half of Dec. 1941	Beginning of a massive air and naval campaign against British forces in Malta, to help alleviate the worsening situation in North Africa.	The Italian Supreme Headquarters begins to study options for Malta's capture. A special Malta planning staff is established under the Command of Gen. Gandin. Construction of landing crafts begins. Several Divisions begin training for landing operations.
24 Dec. 1941	British forces seize the port of Benghazi.	
21 Jan. 1942	Rommel's counteroffensive leads to reoccupy Benghazi e greatest part of Cyrenaica. Culmination at El Gazala (5 February)	
Feb. 1942		Kesselring meets with Hitler, to

		<p>urge the capture of Malta, backed by Cavallero and Rommel.</p> <p>Japanese experts provide assistance to the Italian planning staff with their expertise in amphibious operations</p>
24 Feb. 1942		<p><i>Comando Supremo</i> issues its planning directive</p>
End of Feb. 1942		<p>Hitler orders increased bombing of Malta, and set the date of 2 April for the final air attack, in conjunction with the proposed Italian invasion.</p>
Early Mar. 1942	<p>Rommel meets with Hitler and Kesselring. Request for additional reinforcements and agrees with Kesselring on the capture of Malta and Tobruk as the following steps to take.</p>	
Mar.-Apr. 1942		<p>Insufficient preparation and lack of equipment leads to the postponement of the invasion to July, not allowing for the exploitation of the air campaign.</p> <p>Hitler leaves the planning and preparations up to the Italians.</p> <p>Mussolini keeps him informed.</p>
12 Mar. 1942		<p>Admiral Raeder urges Hitler to provide assistance to Italian operation against Malta</p>
11-12 Apr. 1942		<p>After two months of heavy bombing on Malta, Kesselring reports to Mussolini and Cavallero that the islands has ceased to function as a naval base, and his intention to continue the air offensive until 20 April. Same report is sent to Hitler on 15 April. Cavallero optimistically orders the preparation for the attack, to be executed at the end of May. He also requests to German counterpart the contribution of SMEs in the planning staff. MG Ramke arrives in Rome.</p>
Mid-April 1942		<p>Kesselring meets with Hitler and persuades him to play a more active role in the Italian attack on Malta.</p> <p>German parachutists and equipment are made available, as well as staff officers.</p> <p>A joint and combined Axis operational staff is established for the first time ever, and</p>

		immediately sets to work.
21 Apr. 1942		Von Rintelen, German military attaché in Rome, receives a telegram which specifies the number of troops and supplies provided for the operation.
29-30 Apr. 1942		Hitler and Mussolini meet in Salzburg (Austria). Agreement to launch the attack to take Tobruk (end of May) before Operation Hercules (July 1942).
End of April 1942		The chain of command of the operation is established. Cavallero retains the command of the overall operation. Kesselring appoints Lt. Gen. Student as the commander of the airborne portion of the invasion. Fleigenkorps XI moves to Sicily to establish campsites for the operation
21 May 1942		Hitler is again skeptical about the planned attack and in a meeting with Student he rejects the proposed plan.
26 May 1942	Rommel starts his offensive toward Tobruk and Egypt	
15 Jun 1942	British supply convoys force through to Malta, helping the revival of island's offensive power	Hitler meets with Raeder and confirms that he does not want to carry out the invasion of Malta, thanks to Rommel's success. Raeder continues to support the importance of Malta in Axis' Mediterranean strategy
20 Jun. 1942		Mussolini writes to Hitler to reiterate the arguments in favor of the capture of Malta
21 Jun. 1942	Tobruk surrenders to Rommel. Due to the favorable conditions Rommel requests to prosecute the attack to Alexandria and even Cairo.	Kesselring favors the initial plan to take Malta before any further attempt to advance into Egypt. Hitler writes to Mussolini to approve Rommel's proposal. Mussolini, despite Cavallero objection, enthusiastically agrees. The invasion of Malta is postponed to September.
July 1942	Rommel's attempt to break through at El Alamein fails, in large part because of the rising losses of ships and supplies from Sicily.	Italy agrees to send reinforcements to North Africa, drawn from the forces already prepared for the invasion of Malta. The idea to invade Malta definitely vanishes.

APPENDIX B: BIOGRAPHICAL NOTES

Ugo Cavallero (1880-1943). Italian military commander before and during World War II. Appointed Chief of Comando Supremo in 1940, he was dismissed after the armistice of 8 September 1943. Few days later he committed suicide. He was also a recipient of the Knight's Cross of the Iron Cross (German: *Ritterkreuz des Eisernen Kreuzes*). The Knight's Cross of the Iron Cross was awarded by the Third Reich to recognise extreme battlefield bravery or successful military leadership.

Albert Kesselring (1885-1960). German *Luftwaffe* *Generalfeldmarschall* during World War II. Kesselring became one of Nazi Germany's most skilful commanders. After the war, Kesselring was tried for war crimes and sentenced to death. The sentence was subsequently commuted to life imprisonment. A political and media campaign resulted in his release in 1952, ostensibly on health grounds.

Erich Raeder (1876-1960). Naval leader in Germany who played a major role in the Naval history of World War II. led the *Kriegsmarine* (German Navy) for the first half of the war; he resigned in 1943 and was replaced by Karl Dönitz. He was sentenced to life in prison at the Nuremberg Trials, but was released early due to failing health.

Bernhard Ramcke (1889-1968). Commander of the paratroopers in Crete (1941) and commander of the Brest Fortress (1944). After surrender, Ramcke was sent to the United States as a prisoner of war, and later to England and France. In 1951 Ramcke was charged with war crimes in France, but he managed to escape from captivity to Germany. He returned voluntarily and was sentenced to five years imprisonment by a French court in March 1951, but was released on 24 June 1951.

Vittorio Sogno (1885-??), Italian general, Commander of VII Corps, later XXX, which he led after cancellation of ESIGENZA C3 in Tunisia. After Axis forces surrendered in North Africa, he assumed the command of the defense of Rome.

Kurt Student (1890-1978). German *Luftwaffe* general who fought as a fighter pilot during the First World War and as the commander of German *Fallschirmjäger* (paratroopers) during the Second World War. He was convicted of war crimes for his actions in Crete.

APPENDIX C: AXIS LOSSES IN SHIPPING TO LIBYA, JUNE 1940–JULY 1942

Year	Month	Personnel		Supplies (in tons)	
		Shipped	Reached	Shipped	Reached
1940	June (*)	1,358	1,308	3,618	3,608
	July (*)	6,407	6,407	40,875	40,875
	August (*)	1,221	1,221	50,669	50,669
	September (*)	4,602	4,602	53,669	53,669
	October (*)	2,823	2,823	29,306	29,306
	November	3,157	3,157	60,778	60,778
	December (**)	9,731	9,731	65,556	58,574
1941	January (**)	12,491	12,214	50,505	49,084
	February (**)	19,557	19,557	80,357	79,173
	March (**)	20,975	20,184	101,800	92,753
	April (**)	20,698	19,926	88,597	81,472
	May (**)	12,552	9,958	73,367	69,331
	June	12,886	12,886	133,331	125,076
	July	16,141	15,767	77,012	62,276
	August	18,288	16,753	96,021	83,956
	September	12,717	6,603	94,115	67,513
	October	4,046	3,541	92,449	73,614
	November	4,872	4,628	79,208	29,843
	December	1,748	1,074	47,680	39,092
1942	January (**)	2,840	1,355	66,214	66,170
	February (**)	531	531	59,468	58,965
	March(**)	391	284	57,541	47,588
	April (**)	1,349	1,349	151,578	150,389
	May (**)	4,396	4,241	93,188	86,439
	June	1,474	1,249	41,519	32,327
	July	4,566	4,435	97,794	91,491

(*) periods when the *Regia Aeronautica* was the only air force in action against Malta

(**) periods when the *Luftwaffe* made significant efforts against Malta

Source: Created by the author using information from Tony Spooner, *Supreme Gallantry: Malta's Role in the Allied Victory, 1939-1945* (London, UK: J. Murray, 1996), 327.

APPENDIX D: COMPARISON OF THE FOUR
STUDIES DEVELOPED DURING THE PLANNING PROCESS

The following table synthesizes the main features of the four studies developed and presented to Marshal Cavallero for his approval. The originators of the studies were General Vittorio Sogno (*Regio Esercito*), Admiral Vittorio Tur (*Regia Marina*), General Gandin (*Comando Supremo, Ufficio C3*), and the Japanese members of the Naval Mission to Rome.

	<i>Regio Esercito</i>	<i>Regia Marina</i>	<i>Comando Supremo</i>	Japanese experts
Strategic pre-conditions	Air and naval supremacy in the Mediterranean, Tripartite Pact operations in Russia and Far East, concurrent offensive in Cyrenaica, Deception based on propaganda and intensified naval traffic to Libya			
Preparation	Secrecy, thorough preparation of naval crafts, intense focused training, preparatory air bombing campaign, naval blockade of the island			
Concept of operations:				
a. Main operation	Combined assault of parachute units, sea-landed infantry and airborne forces against the southern part of Malta with Valletta as the final objective			Landings of equal strength are planned both in the south and north of Malta. No parachute or airborne employment
b. Concurrent operations	Feints and demonstrations in the northern part of Malta. Landing in Maddalena Bay after the main landing in the south.	Feints and demonstrations in the northern part of Malta	Three landings in the northern part, in order to fix the defenses along the “Victoria line”	There is no distinction between main and concurrent operations
c. Occupation of Gozo island	Planned, with a force of 3,000 troops to be employed later as reserve	Not planned as deemed a superfluous waste of resources	Planned, with a force of 1,700 troops to fix and/or divert enemy forces	Initially deemed necessary to silence the enemy artillery able to target Malta, later dismissed
Timings	General agreement on the opportunity to employ parachute units during night, though admitting the technical difficulties of night jumps and the limitations coming from the limited knowledge of terrain. General agreement on the necessity that sea landings begin one hour before early morning nautical twilight.			Sea landing conducted during night

Ground forces	1 parachute division, 2 landing divisions, 1 airland division, 4 <i>Camicie Nere</i> landing battalions, 2 infantry divisions, tanks (at least 100), support units	The projected availability of naval crafts allows for a first wave of: - 24,000 troops; - 32 guns; - 30 tanks	2 parachute divisions, 2 landing divisions, 1 airland division, 4 <i>Camicie Nere</i> landing battalions, 2 mountain battalions, 2 infantry divisions, tanks (at least 100), support units	3 divisions, for a total of 23 infantry battalions, 6 artillery battalions
Naval forces	Direct support: minesweepers, convoy escort, naval gunfire, sabotage actions against Valletta port facilities, feints and demonstrations Indirect support: naval forces to prevent any attempt of enemy intervention from west (less probable) and east			
Air support	Independent actions conducted against objectives different from those of the landing force Provision of forces in direct support of ground and naval units	Air actions directly coordinated by ground and naval commanders		

Source: Created by the author using *Comando Supremo*, March 1942 Historic Diary, “*Esame dei progetti sommari per azione metodica proposti da Ammiraglio Tur, Generale Sogno, Comando Supremo, e Ufficiali Giapponesi.*” *Archivio Ufficio Storico Stato Maggiore dell’Esercito (AUSME)*, Rome, Esigenza C3, Correspondence, Studies, and Records of the Supreme Headquarters, December 1941-August 1942, box N1-11, folder 2080.

APPENDIX E: GERMAN SUPPORT TO ESIGENZA C3

The following table synthesizes the German offer of forces for Esigenza C3 and the support requested by *Comando Supremo* and made available by the ally as of June 1942.

	Units made available	Equipment and resources	
		Requested	Granted
Army	1 parachute division 1 pioneers battalion	- 10-12 heavy tanks	
		- 1,200 Mauser rifles	800
		- 1,200 sights	800
		- 1,200 Schiesstucke (shoot parts)	800
		- 400 grenade pistols	
		- 96,000 antitank grenades	14,800
		- 88,000 artillery shells	10,000
		- 88,000 bomb	
		- 1 million ammunition rounds	500,000
		- antitank shells	
		- 2,000 smoke charges	
- 1,000 3 kg. explosive charges			
Navy	Submarines, guardships, and minesweepers already deployed to Mediterranean	- 81 assault boats with German crew	81
		- 200 assault boats without crew	200
		- 12 catamaran barges	10
		- 170 small and 100 large inflatable crafts	300 in total
		- 21 motorbarges 120 tons	27
		- 40,000 tons of fuel	
Air Force	All the OBS forces (approx. 500 aircrafts)	- Transport aircrafts	
		- Decoy parachute dummies	
		- Gliders	
		- 25,000 air supply kits	
		- 10,000 tons of fuel	
		- 500 tons of lubricants	

Source: Created by the author using *Comando Supremo*, May 1942 Historic Diary, Table “Reparti e Mezzi Tedeschi,” *Archivio Ufficio Storico Stato Maggiore dell’Esercito (AUSME)*, Rome, Esigenza C3, Correspondence, Studies, and Records of the Supreme Headquarters, December 1941-August 1942, box N1-11, folder 2080.

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