

THE UNIVERSITY OF CALGARY

**"Still Our Best Allies": The Romanian Armed Forces
in the Interwar Period and on the Eastern Front in 1941**

by

Alexander Statiev

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ABSTRACT

This thesis examines the Romanian Army in the interwar period and in the first year of war against Russia. In 1941-1944 the Romanian Army was the second largest Axis' army on the Eastern Front, yet historians know little about its fight. The thesis deals with the arms that are least known, in particular, with the armour, the Air Force and the Navy. It traces their interwar development in the context of Romanian strategy, investigates the factors that affected their efficiency and evaluates their performance in war. Although the Romanian Army was initially intended to be used mainly for auxiliary duties, the failure of the Blitzkrieg resulted in assignment to it of missions that exceeded its capacity. This led to excessive attrition of some arms and the virtual annihilation of others. Although the Romanian Army achieved no spectacular victories, it fought tougher battles than any other German ally and made a qualitatively more substantial contribution to the 1941 campaign than either the German or the Soviet High Commands could foresee.

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To Fedor Streban, Engineer of the Red Air Force

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ABBREVIATIONS

- DHM - Deutsche Heeresmission [German Army Mission]**
- DLM - Deutsche Luftwaffenmission [German Air Force Mission]**
- DKM - Deutsche Kriegsmarinemission [German Navy Mission]**
- GAL - Gruparea Aeriană de Luptă [The Air Combat Group]**
- GHQ - General Headquarters**
- HQ - Headquarters**
- OKH - German Army High Command**
- OKW - German Armed Forces High Command**

CHAPTER ONE: INTRODUCTION

On 22 June 1941 the Romanian dictator Ion Antonescu issued a passionate appeal to the nation and a Napoleonic-style order to the soldiers to raise a "Holy War" against Bolshevism, "to recover what had been stolen from us" and "to make a contribution to the noble struggle for restoration of civilization in Europe carried out by Germany under the leadership of the great Adolf Hitler".¹ King Mihai was stunned but still blessed his nation for war, and Romanian soldiers marched against the USSR. A year earlier, few Romanian politicians could have imagined that Romania might wage an offensive war against any country, and none that it would attack the eastern great power "shoulder to shoulder and heart to heart" with two countries that in the summer of 1940 had been listed among the primary potential adversaries.

From June 1941 to June 1944, the Romanian Army remained the fourth largest European combatant army and the second largest Axis' army on the Eastern Front. More Romanian soldiers fought at Odessa than in the battle of El-Alamein on both sides taken together,² and they constituted only a part of the Romanian forces engaged on the Eastern Front. Four out of each ten Axis soldiers that faced the Soviet offensive at Stalingrad were Romanians.³ In 1945 the Soviet government awarded the honorary title of Hero-city to four cities that had been defended by the Red Army with particular vigour. The Romanian Army took part in the battles for three of them: Odessa, Sevastopol and Stalingrad. It assaulted Odessa for two months without help. None of the European Axis armies engaged in an independent operation of such a scale after the Italian disasters in Greece, Libya and Ethiopia. As soon as Romania switched sides in August 1944, it fielded the fourth largest army of the Allies. From the autumn of 1944 to the spring of 1945, Romania committed

¹Marschall Ion Antonescu (Bucharest: Luceafărul, 1941), 73-75.

²In October 1942 at El-Alamein 104,000 Axis' soldiers faced 195,000 Allied troops. Matthew Cooper, The German Army 1933-1945 (London: Macdonald and James, 1978), 381. At Odessa the Romanian Army committed 340,223 soldiers. Alesandru Duțu, et al., Romania in World War II (Bucharest: Sylvi s.r.l., 1997), 87.

³P.N. Pospelov, ed., Istoriia Velikoi Otechestvennoi Voiny Sovetskogo Soiuza [History of the Great Patriotic War of the Soviet Union], (Moscow, MO SSSR, 1961), 3: 25.

more troops against the Axis than France, and fought heavier battles than the latter as well.

Despite the fact that Romanian armed forces played such a conspicuous role in World War II, their operations on the Axis side are barely reflected in historiography. Until the fall of communism, the regimes in Romania and Russia banned historical research of this subject for the sake of postwar comradeship-in-arms, while encouraging, at the same time, the study of the Romanian effort on the side of the Allies. As a result, virtually all scholarly works on the Romanian participation in World War II published in Romania were devoted to its operations against the Axis. The three-year bloody fight on the Eastern Front, an event far more prominent in Romanian history than the brief western campaign, was presented in a series of hints on a dozen pages of a single monograph - the multi-volume Romanian official military history.⁴ The other Romanian works on twentieth century history published during the communist period trace events up to June 1940, skip the next four years and continue their narrative starting with August 1944, when Romania switched sides and joined the Allies.

One can extract only scarce, indirect and too often misleading information on the Romanian Army from Soviet historiography. Writing about the battles between the Red and the Romanian armies, Soviet authors often avoided explicit identification of the opponent, referring to it as "fascists", "hitlerites", or "the adversary". Since the same labels were applied to the Wehrmacht, it is hard or impossible to find out from these studies whom the Red Army faced in certain battles. For example, describing the battle of Nalchik in October 1942, the Soviet official history of World War II states that the city was taken by "the enemy", but does not mention that this was the 2nd Romanian Mountain Division.⁵ Similarly, the Soviet pilot A. Cherevatenko who took part in the defence of Odessa from the first to the last day failed to specify even once in his memoirs against whom he, actually,

⁴Ion Alexandrescu, et al., Istoria militară a poporului român [Military History of the Romanian Nation], 10 vols., (Bucharest: Editura militară, 1989).

⁵Pospelov, ed., Istoria, 2: 466.

fought.⁶ Such purposeful omissions were the rule for Soviet historiography.

Both Romanian and Soviet authors had to follow their regimes' directives stipulating how exactly the past had to be interpreted, while primary sources were inaccessible for anyone in these countries but a handful of court historians. Western scholars were not liable to censorship and had access to the most important Romanian war documents available at the Bundesarchiv-Militärarchiv (Freiburg) since the mid-1970s. However, few of them were interested in the East European Axis. The attempts of several American authors to touch upon the Romanian Army on the Eastern Front provided examples of spectacular ignorance and did little to illuminate this neglected subject. These historians could not come to unanimous agreement about basic issues: how many and which Romanian armies were engaged on the Eastern Front, what their rough strength was, in which battles the Romanian armed forces took part, or whether the Romanians suffered heavier losses on the Axis or on the Allied side. The study by J. Lee Ready offers a glaring example. Describing the balance of forces on the eve of *Barbarossa*, Ready states:

The Romanians faced a Soviet force of six tank and motorized, three cavalry, and thirteen infantry divisions. To oppose them the Romanians only had the Third Army with six brigades and the First Army of four Divisions. The First Army, on the southern flank, actually came under tactical control of German Eleventh Army. (...) At sea the Romanian Navy cautiously hugged the coast aided by some German boats (...) and Italian MASboat Flotilla. There were also six Italian and six German midget submarines.⁷

All these claims are wrong. In fact, to oppose the Soviets, Romania fielded almost three times as much manpower as Ready claims, but the core of the Axis forces were eight German divisions that he failed to mention. It was not the 1st Army that never fought on the Eastern Front but the 4th Army that took position on the southern flank, and it was not this Army but the 3rd that was under the operational command of the 11th Army HQ. Finally,

⁶A. Cherevatenko, *Nebo Odessy. 1941* [The Sky of Odessa, 1941] (Odessa: Maiak, 1978).

⁷J. Lee Ready, *The Forgotten Axis* (Jefferson: McFarland & Co., Inc., 1985), 145.

there were no other Axis navies but the Romanian one in the Black Sea in 1941. Unfortunately, all but one western study dealt with the Romanian Army only casually, and most were based exclusively on secondary sources of dubious quality. Georges Castellan discovered a Second Romanian Army on the Eastern Front that allegedly assaulted Odessa.⁸ Actually, this army had been disbanded in 1940 and was never raised again.⁹ Larry Watts points out that the Romanians lost 62,871 men killed by August 1944 (but fails to provide the number of wounded), while in the western campaign they lost 111,379 dead and wounded. On this basis, he argues that the number of Romanian casualties on the Eastern Front was comparable to the losses suffered on the side of the Allies and draws several other bizarre conclusions.¹⁰ In fact, Romania lost 3.4 times as many dead and 2.7 times as many wounded on the Eastern Front as it did on the side of the Allies.¹¹ Even the works of the most respectable experts on the Eastern Front are full of grave mistakes when they refer to the Romanian Army. For instance, David Glantz gives a figure for Romanian forces on the Eastern Front in 1941 that is less than half of their actual strength.¹²

Until the mid-1990s, only German historians produced worthy studies of the Romanian participation on the Axis side. Andreas Hillgruber was the first who worked on this subject. He dealt mainly with the diplomatic aspects of the Romanian reorientation towards the Axis.¹³ The topic of German-Romanian relations was further discussed by Jürgen

⁸Georges Castellan, A History of the Romanians (New York: Columbia University Press, 1989), 208.

⁹Alesandru Duțu, Mihai Retegan, et al., Armata română în al doilea război mondial [The Romanian Army in the Second World War], vol.1 (Bucharest: Editura Militară, 1996), 61.

¹⁰Such as the claim that "the Soviet Army kept their new Romanian allies in the front line, with little relief, in order to maximize the attrition of Romanian officers and experienced combatants", Larry L. Watts, Romanian Cassandra (New York, Columbia University Press, 1993), 340, 383.

¹¹Duțu, et al., Romania in World War II, 299.

¹²David Glantz, Johnatan M. House, When Titans Clashed (Lawrence: University Press of Kansas, 1995), 301.

¹³Andreas Hillgruber, Hitler, König Carol und Marschall Antonescu (Wiesbaden: Franz Steiner Verlag GmbH, 1965).

Förster,¹⁴ and finally, by the authors of the German official history of the World War II.¹⁵ As well, Friedrich Forstmeier published a book that remained the sole scholarly work in western historiography devoted mainly to Romanian operations on the Eastern Front.¹⁶ However, German historians based their studies on primary German and secondary Soviet sources that deprived them of the chance to get a view of the Romanian armed forces from within.

After the fall of communism, Romanian and to a considerably lesser degree Russian archives became accessible to the public. The centre of research on the Romanian Army finally shifted to its natural location. Romanian historians have already published several works on the Romanian Army on the Eastern Front using native primary sources. Most of them are rather more descriptive than analytic, yet a few studies of sound quality have been produced as well. Most significant is the official military history.¹⁷ So far only one volume has been published that covers the first month of the war. Romanians also published many primary war documents and uncensored memoirs.¹⁸ In contrast, no changes in the depiction of the Romanian war effort have occurred so far in post-communist Russian historiography. Another serious study of the Romanian armed forces, Third Axis, Fourth Ally, appeared in the west.¹⁹ Although this book became the best work in western historiography on Romanian war operations in 1941-1945, an attempt to fit such a large topic in a single volume resulted in a sketchy overview. The book is based on primary Romanian and secondary German and

¹⁴Jürgen Förster, Stalingrad. Risse im Bündis 1942/43 (Freiburg: Verlag Rombach, 1975).

¹⁵Horst Boog, et al., Das Deutsche Reich und der Zweite Weltkrieg [Germany and the Second World War], vol.4 (Stuttgart: Deutsche Verlag-Anstalt, 1983).

¹⁶Friedrich Forstmeier, Odessa 1941 (Freiburg: Verlag Rombach, 1967).

¹⁷Dușu, Retegan, et al., Armata română în al doilea război mondial [The Romanian Army in the Second World War], vol.1. (Bucharest: Editura Militară, 1996).

¹⁸Vasile Bărboi, Gheorghe Ionița, Alesandru Dușu, eds., Veteranii pe drumul onoarei și jertfei [Veterans on the Path of Honour and Sacrifice] (Bucharest: Vasile Cârlova, 1996).

¹⁹Mark Axworthy, Cornel Scafeș, Cristian Crăciunoiu, Third Axis. Fourth Ally (London: Arms and Armour Press, 1995).

Soviet sources. It has a number of factual mistakes, some of which are mentioned in the following chapters. The major flaw of the book is, however, the omission of reference to sources.

Thus, the history of the Romanian armed forces on the Eastern Front remains barely touched by historians. Such neglect has led to gross distortions in the general understanding about how and why World War II progressed as it did, and what was the relative contribution of its participants to the war effort. The West-European Axis formations that played a minor role on the Eastern Front, such as 8th Italian Army or the Spanish Blue Division, enjoyed more attention from historians than the Wehrmacht's major and most dedicated ally that fought several central battles. Actually, western historiography allots Italy a place disproportionate to its role in the war. Although the Italian Army remained larger than the Romanian, the bulk of it was employed in occupational duties in the Balkans, while large Romanian forces were engaged as front line troops in each year of the war. Arguably, the Romanian Army was more central to the Axis war effort in Europe than the Italian land forces. Historians, however, know little about the interwar development of the Romanian Army, about its strategy, doctrine, tactics, or about the operational aspects of its fight on the Eastern Front.

This thesis aims to illuminate the problems experienced by the armed forces of a second-rate military power struggling under the permanent threat of a great power, and eventually drawn into a confrontation with it, and to analyse the roots of these problems. It examines how a second-rate power sought to come to terms with the leading edge of advanced technology and tactics in an attempt to adapt its army to modern warfare and to enable it to compete with a great power's army, and how it did so in the first year of war against the USSR. This thesis traces the interwar development of the Romanian armed forces, examines the impact of Romanian defence policy and, in particular, the political reorientation towards the Axis, discusses their place in German strategy and the reasons why they were employed contrary to the initial operational plans. A common perception of the Romanian armed forces in World War II is one of ill-equipped, untrained and unmotivated infantry. Although this thesis challenges some aspects of this view on Romanian infantry,

its main objects are the more advanced arms, specifically, armour, air force and navy. It highlights the development of Romanian military thought, analyses the conformity of the armour, air and naval doctrines to the planned strategy and available means, and examines the attempts to follow these doctrines in practice. It evaluates the performance of Romanian armour, air force and navy in the war against Russia and reveals the reasons for such a performance. In conclusion, it distinguishes between the Romanian arms' potential and the effectiveness of their actual employment, between their efficiency and their role in the Romanian and the overall Axis war effort in 1941.

I was bound to use mainly primary sources because of the extreme scarcity of historiography on the Romanian armed forces. This is the first study based on primary documents collected from the military archives of all three participants of the 1941 campaign on the southern flank of the Eastern Front. I tried to avoid absolute judgements and compared, whenever possible, the performance of the Romanian Army with that of its adversary, and also made comments about the credibility of the sources. I focused on the battle of Odessa because this was the major independent operation carried out by Romanian GHQ in World War II and therefore should provide the most conclusive evidence for the assessment of the Romanian Army's combat value.

CHAPTER TWO: THE ROMANIAN DEFENCE POLICY AND STRATEGY (1918-1941)

Romania's fortunes in the period 1916-1940 were the direct outcome of its war-time foreign policy marked above all by opportunism. Romania joined the Allies in August 1916 on the side of the Allies, when its government decided that defeat of the Central Powers was imminent. However, its army soon suffered a series of crushing defeats after which two thirds of the country, including the capital, were occupied. Romania was forced to conclude a humiliating separate peace with the Central Powers in May 1918. About 10% of the population was killed in battles or died of privations and typhus.¹ But through excellent timing for reentrance in the war on 10 November 1918, and skillful exploitation of the revolutionary chaos in Hungary and Russia, Romania became one of the major winners. Having incorporated several Austro-Hungarian provinces and Bessarabia, Romania doubled the size of its territory.² The triumph, however, was short-lived. In the summer of 1940 Romania surrendered most of the lands acquired in 1918-1919 to three of its neighbours. By September 1940, Romanian society was in disarray, the prospects for preservation of the country's independence were grim and the armed forces were demoralized.

This turmoil had its roots in the expansion of 1918-1919. The extremely favourable outcome of the war had a negative aspect. Romania acquired two new enemies who never accepted their losses. The Soviet government described the new frontier with Romania simply as a "demarkation line";³ meanwhile, sabre-rattling from Hungary was a constant background of Romanian interwar realities. The older enemy, Bulgaria, sought to recover the South Dobrudja that had been annexed by Romania in the Second Balkan War. Thus three of Romania's neighbours aspired to revenge and waited for a convenient moment to

¹Keith Hitchins, Rumania 1866-1947 (Oxford: Clarendon Press, 1994), 291.

²Nicolae, Ciobanu, Constantin Botoran, "The 1918 Decisions for Union at Chişinău, Cernăuţi and Alba Iulia. The Unitary Romanian National State", International Review of Military History, 77 (1992): 103.

³Pogranichnye voiska SSSR 1939 - i iun' 1941. Sbornik dokumentov i materialov [Frontier Guard Troops of the USSR 1939 - June 1941. Collection of Documents] (Moscow: Nauka, 1970), 415.

settle scores.

The logical defence policy in such a tough strategic situation would have consisted first, of securing allies interested in the preservation of the Versailles status quo; and second, in maintaining an army able to keep the revisionists at bay. Romanian defence policy-makers preferred to concentrate their efforts in the sphere of diplomacy. The frantic activity of the Foreign Office brought fruit in the form of several alliances, namely, the Little Entente, the Balkan Entente and the Mutual Assistance Pact with Poland. The Romanian government also tried hard to normalize relations with Russia but met a cool response. Despite the desperate efforts of Romanian diplomats to keep the alliances alive, however, they all disintegrated by the end of the 1930s. After the value of British and French guarantees had been revealed in the cases of Czechoslovakia and Poland in 1939, the Romanian government realized that the army remained the only pillar on which the country's integrity rested.

However, this pillar was fragile because of the neglect that it experienced until the mid-1930s. The idea of preparing for a future total war was alien to the nation both because Romania did not have any territorial claims after World War I, and because the population had suffered such grave losses that the public was reluctant to accept that this experience might be repeated. After the Great War, the government resolutely sought to balance the budget. Romania received virtually no reparations and had to mobilize internal financial resources by curtailing its expenditures. GHQ later noted that in light of the dominating pacifist ideas, the army was treated "merely as a burden" that impeded the revival of the economy.⁴ The military budget was consistently cut. Its share of government expenditures was one of the smallest in Europe. In 1931 it constituted only 14.7%, while Poland allotted 45%, USSR 33%, Germany 30.1%, and Bulgaria 23% of government expenditures for

⁴Bundesarchiv-Militärarchiv, Freiburg, Germany (BA-MA), FC 2327b N, p.570. Marele Cartier General, Cauzele care au împiedicat armata română să aibă o victorie rapidă și strălucită la Odesa și propuneri de principiu pentru înlăturarea acestor cauze [GHQ, Factors That Prevented the Romanian Army From Quick and Brilliant Victory at Odessa and Proposals for Elimination of the Flaws], 29 September 1941.

defence purposes.⁵ The military budget reached its minimum in 1933.⁶ The meager funds were further depleted by notorious corruption at all levels of administration. One example among many was the so-called Škoda scandal. After receiving bribes, Romanian officials purchased Czech guns that cost the same as comparable French-made guns, but that had to be supplied by ammunition 22% more expensive than the French.⁷ The money that reached the army was often spent irrationally. For instance, the King's passion for exotic garments led to a waste of scanty funds on a great variety of impractical military uniforms that were changed "with consummate skill", such as "white knickers with gold piping, a tunic of violet velvet, with golden brandenburgs and fur collar, a fur cap (...) and a huge cape of pearl gray velvet".⁸ Meanwhile, the army could not afford forage, so instead of refining their training, units were instructed to participate "on the largest possible scale in agricultural work on the basis of share cropping contracts".⁹ Poor funding was one of the key factors that undermined the army's capacity.

Another factor was the backwardness of industry. In the interwar period Romania remained an agrarian country. In 1939, 78.6% of the population was engaged in agriculture.¹⁰ The government was reluctant to invest funds in the development of the defence industry which, with the notable exception of the air factories, was unable to supply the armed forces with anything but a limited assortment and minuscule quantity of the least sophisticated weaponry, such as infantry arms. Supply of the army with modern weaponry depended exclusively on imports. Purchases abroad were expensive, and the tiny military

⁵Alexandrescu et al., *Istoria militară a poporului român*, 6: 172, 173.

⁶Constantin Olteanu, *The Romanian Armed Power Concept* (Bucharest: Military Publishing House, 1982), 223.

⁷Watts, *Romanian Cassandra*, 63.

⁸*Ibid.*, 140, 127.

⁹Olteanu, *The Romanian Armed Power Concept*, 233.

¹⁰M.I. Semiryaga, ed., *Strany tsentral'noi i iugo-vostochnoi Evropy vo vtoroi mirovoi voine* [Countries of Central and South-Eastern Europe in World War II] (Moscow: MO SSSR, 1972), 190.

budget did not allow the army to upgrade its equipment. In the beginning of the 1930s, it remained armed with a great variety of weaponry of pre-World War I vintage. The infantry used ten systems of rifles (starting with the 1879 model "Henri-Martini"), five systems of carbines and nine systems of machine-guns of different calibers, most of them well worn. The field and heavy artillery was in a similar shape: out of 3,451 guns that the Romanian Army possessed in 1931, only 1,974 pieces were in working order and 127 of them were modern. In 1934 the army had only 24 functioning anti-aircraft guns, most of them improvised out of field artillery pieces.¹¹

Romanian defence policy was plagued by strategic uncertainty. The General Staffs of most European states could, with relative ease, define their primary potential opponent and therefore elaborate a doctrine that they believed would be efficient against a certain enemy. The Romanian General Staff, however, expected attacks from several adversaries that possessed quite different military potential. Its estimation of the most and the least probable adversaries resembled playing solitaire in which the cards designating Russia, Hungary, Bulgaria, and later also Germany, were shifted continually in accordance with the evolution of the international situation.¹² The General Staff had the tough task of elaborating the strategies that the army would follow if Romania was attacked by one or several adversaries simultaneously, or if aggression was unleashed against Romanian allies, such as Poland or Yugoslavia, who also expected attacks by several adversaries. In theory the GHQ had to plan completely different strategies for war against great powers and against enemies whose military potential was comparable to that of Romanian; for actions to be taken in case of a direct attack on Romania and in case of aggression against the allies.

The General Staff could not escape a vicious circle in planning its strategy. The Romanian military potential was still superior to the Bulgarian and comparable to that of Hungary; hence, Romania could, theoretically, plan an offensive war against either of these

¹¹Alexandrescu et al., *Istoria militară a poporului român*, 6:166, 168, 214.

¹²Alexandrescu et al., *Istoria militară a poporului român*, 6: 132, 262; Mihai Eugen Cămpănu, "Romania's General Staff National Defence Strategy over 1918-1939", *International Review of Military History*, 77 (1992), 112-115.

countries. Such offensives would presume a concentration of the bulk of the available forces against a single enemy. The General Staff estimated, however, that war with any adversary would likely provoke an intervention by other hostile neighbours. It was understandably reluctant to repeat the experience of 1916, when Romania concentrated most of its forces against Austria-Hungary, but was attacked also from the south and suffered a crushing defeat. GHQ believed that Romania had no choice but to maintain a large peace time army. In 1925 Romania, having a population of 17 million, kept 23 infantry divisions while France with a population of 40 million had only 20¹³ It was largely due to strategic uncertainty that the Romanian Army, as German military experts noted, was "based on numbers instead of quality":¹⁴ on the one hand, Romania had to keep a large conscript army, on the other hand, it could not sufficiently equip or train such an army with the allotted funds. Since the General Staff realized that the army's offensive power was modest and it could find no way to concentrate all forces against a single enemy, it decided to follow a universal defensive strategy.

This option was also prompted, to some degree, by the policy-makers' self-delusion. Mixing ideology, strategy and tactics, many statesmen and not a few military commanders insisted that "a defensive war suits us better because our country's policy does not aim primarily at waging wars of conquest".¹⁵ Such a position allowed them to skip over numerous problems that would have inevitably arisen, had they chosen to maintain a well-equipped army able to undertake a strategic offensive. The geographic circumstances appeared to favour of defensive strategy as well: the Carpathians in the north and west, the Danube in the south and three wide parallel rivers Dneestr, Prut and Siret in the east offered good defensive positions where the army, as it was believed, could put up a prolonged resistance to superior forces.

¹³Ion Şuţa, *Infanteria română* [Romanian Infantry], (Bucharest: Editura Militară, 1982), 2: 171.

¹⁴BA-MA, RH 31-I/98, DHM Ia Nr.32/42 g.Kdos., *Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission*, [Structure and Employment of the Romanian Army Since Establishment of the German Military Mission], p.1, 18 January 1942.

¹⁵Câmpian, "Romania's General Staff National Defence Strategy", 110.

Experience in World War I, however, played a major role in the choice of defensive strategy. Romania had started the war with a strategic offensive against the Central Powers in Transylvania with a numerical superiority of 10.3 to 1 in infantry and 8.6 to 1 in artillery.¹⁶ The offensive eventually turned into a disaster in which Romania lost a third of its army killed, wounded or taken prisoners.¹⁷ All other attempts to launch offensives were unsuccessful as well. The only real Romanian victory was gained in the defensive battle at Mărășești in 1917 when Romanian/Russian forces frustrated an all-out attempt of the 9th German Army to crush the Romanian Front. The experience of the war appeared to confirm the assumption that in positional warfare the Romanian Army could successfully counter even the toughest adversary. After the war, Romanian officers believed that "concrete trenches, endless nets of barbed wire, firepower of small-caliber automatic weapons" offered "an opportunity to contain enemy that is ten times stronger".¹⁸ In the course of World War I, the Romanian Army had been trained by the French Military Mission. After the war, Romanian theoreticians concluded that "as in the future, the war will be carried out similarly to the world one, it means that French doctrine will have the widest implementation".¹⁹ The adoption of the French doctrine was further sustained by the traditional francophilia of the Romanian officer corps. The Russian General Staff reported on the eve of World War I that "best officers of the country [Romania] were trained in foreign military schools (...); returning to their army, they naturally become promoters of tactical ideas, circulating in foreign armies".²⁰ The great majority of those who graduated from foreign military schools

¹⁶Nicolae Ciobanu, Costică Prodan, "The Romanian Army's Strategic Offensive in Transylvania in the 1916 Campaign", *International Review of Military History*, 77 (1992), 60.

¹⁷Hitchins, *Rumania 1866-1947*, 265.

¹⁸Hoover Institution Archives, Stanford, USA, [HIA]. Collection Radu Irimescu, Box 4, Constantin Negru, *Avion și submarin sau vas de suprafață* [An Aircraft and a Submarine or a Surface Ship], p.16, 4 January 1938.

¹⁹Olteanu, *The Romanian Armed Power Concept*, 216.

²⁰Iskritsky, *Glavnoe upravlenie General'nogo Shtaba* [Head Office of the General Staff]. *Vooruzhennyya sily Rumynii* [Romanian Armed Forces], (St.Petersburg: Voennaia Tipografiia, 1912), 150.

had studied in France. Not surprisingly, French ideas dominated in the Romanian Army, and it continued to be trained by French instructors. Up to the end of 1939, its tactical regulations were "a verbatim translation of French manuals".²¹

A considerable discrepancy existed, however, between the theoretical understanding of proper strategy and tactics, and real operational plans. Although the "Provisional Regulations of Tactical Employment of Large Formations" of 1938 formally stated that the offensive was "the only way to gain victory", none of the Romanian war plans envisaged a strategic offensive.²² Instead they stipulated that in case of attack from the west or from the east the army would retreat from Northern Transylvania and Bessarabia to the Carpathian mountains or to the fortified line along the Lower Siret where it would make a stand.²³ The doctrine presumed that "the enemy should be exhausted on defensive positions echeloned in depth and then repelled by a counterattack".²⁴ Romanian regulations treated the offensive not as the primary, but merely as one of the possible tactics. Offensives were to be conducted methodically by short stages and were to pursue the limited goal of "disorganization of the enemy", not his destruction.²⁵ Though regulations stressed the necessity of an active defence, in practice the army did little to train personnel for the tactical offensive or counteroffensive. GHQ admitted later that "the army was trained from the very top to the very bottom exclusively for defense".²⁶ In 1935 American experts doubted that the Romanian Army "could be counted on to carry out unassisted successful offensive operations of a major

²¹Public Record Office, WO 208/1744. British Army Military Intelligence Division. Compilation Files, Roumania, Ch.XXXVIII/4/1, 8 April 1940.

²²Alexandrescu, et al., *Istoria militară a poporului român*, 6:133, 202, 203.

²³BA-MA, FC 2328 N, pp. 10, 24, 69, 71, Armata 3-a, Jurnal de operații, 10 September, 29 September, 18 December 1939, 21 February 1940.

²⁴BA-MA, RH 31-I/33, OKH Az.3a/n - Abt.Fr.Heeres Ost (I) Nr.250/40 g.Kdos., Die rumänische Kriegswehrmacht. Stand 1.2.1940, p.8, 10 February 1940.

²⁵Șuța, *Infanteria română*, 2: 176.

²⁶BA-MA, FC 2327b N, p.564. Marele Cartier General, Cauzele care au împiedicat armata română să aibă o victorie rapidă și strălucită la Odesa, 29 September 1941.

character".²⁷ British officers believed that the Romanian regulations "focus too much importance on the dangers that may threaten the attacker at all stages, and too little on the vital importance of getting forward." They concluded that "Roumanian ideas regarding the conduct of the attack have always been weak, and their practical application of these ideas even weaker".²⁸

Like their French teachers, the Romanians planned to spend a significant share of the military budget on permanent fortifications. In 1930 the General Staff discussed a wild scheme to build a Romanian version of the Maginot Line along the frontiers. The cost of the project was estimated to be 100 billion lei²⁹, equalling roughly eleven annual military budgets of 1930 and twenty military budgets of 1933.³⁰ Fortunately, this unrealistic and unwise proposal was dropped, but building of permanent fortifications on a smaller scale was started in 1937 under the guidance of French and Czech instructors and continued until 1941, diverting funds from the modernization of the army.³¹ In 1939 the construction was intensified, so that by July 1940, 267 out of 312 projects were completed.³² Many of the fortifications were lost after Romania surrendered provinces on its borders that summer.

The governmental financial policy affected not only the army's equipment but also its training. Striving to make the army paying, the government promulgated in 1920 the law stipulating that soldiers could be placed "at the disposal of the civilian authorities, of the enterprises and societies which aimed at the economic reconstruction of the country".³³

²⁷University Press of America, U.S. Military Intelligence Reports. Combat Estimates: Europe. 1920-1943. Reel 3, 4209-c. G-2, War Department, 1.3.35.

²⁸Public Record Office, WO 208/1744. British Army Military Intelligence Division. Compilation Files, Roumania, Ch.XXXVIII/4/1, Ch.XXXVIII/4/3, 8 April 1940.

²⁹Câmpan, "Romania's General Staff National Defence Strategy", 112.

³⁰Calculated from Olteanu, The Romanian Armed Power Concept, 223.

³¹BA-MA, RH 31-I/33, OKH, Die rumänische Kriegswehrmacht. Stand 1.2.1940, p.15, 10 February 1940.

³²Olteanu, The Romanian Armed Power Concept, 227.

³³Ibid., 232.

Although conscripts served 2-3 years depending on the arm they were enlisted in, they were actually trained for less than half a year,³⁴ while they were employed the rest of their service as a cheap labour force in construction and agriculture. Maneuvers were rare due to financial limitations. Troops were so short of cartridges that it became a common practice to imitate shots by cracking a whip during exercises.³⁵ Lack of basic equipment was one reason for the bias in training towards theoretical discussions not linked to practice - officers and soldiers were ordered not to practice war, but to explain verbally how they would act.³⁶ German, British and American military experts noted that Romanian field and staff officers were "extremely capable on paper", but unable to embody their ideas in practice.³⁷ Romanian GHQ admitted later that "officers' training was entirely theoretical and scholastic, fully stripped of practical character. We were satisfied by work in offices (...). Accordingly, officers were promoted also on a scholastic base and the best were believed to be those who submitted the prettiest [paper] work. (...) Eminent scholars (...) were raised instead of combat officers".³⁸

The quality of the officer corps suffered from the low prestige of the military profession in Romania. Few Romanians strove for martial glory. Nepotism, usual in the Balkans, combined with poor salaries that were paid with great delays, created a favourable environment for corruption. The scale of corruption in the Romanian Army struck both British and German observers who reported that officers spent "much of their time in minor

³⁴BA-MA, FC 2327b N, p.561. Marele Cartier General, Cauzele care au împiedicat armata română să aibă o victorie rapidă și strălucită la Odesa, 29 September 1941.

³⁵Ibid., pp.560, 562.

³⁶Ibid., 563.

³⁷Public Record Office, WO 208/1744. British Army Military Intelligence Division. Compilation Files, R/H.L.B., Value for War, Ch.XLVI/5/1, 26 November 1936; University Press of America, U.S. Military Intelligence Reports. Combat Estimates: Europe, 1920-1943. Reel 3, p.10. G-2, War Department, 1.7.43; BA-MA, RH 31-I/98, DHM, Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, p.3, 18 January 1942.

³⁸BA-MA, FC 2327b N, pp.562, 563. Marele Cartier General, Cauzele care au împiedicat armata română să aibă o victorie rapidă și strălucită la Odesa, 29 September 1941.

intrigues for improving their material situation"³⁹ instead of performing their direct duties. The number of officers in the peace time army was artificially inflated. The ratio of privates to NCOs, officers and generals equalled 7 to 1, 46 to 1 and 620 to 1, while in other European armies the corresponding proportions were 18-35 to 1, 54-102 to 1 and 1200-1700 to 1.⁴⁰ Many senior officers were evaluated by foreign observers as "dead weight (...) incapable of improvement".⁴¹ In 1935 American experts reported that "20 per cent of the officers may be rated as good, 50 per cent fair, and 30 per cent low grade - according to Eastern European standards".⁴² Later General Erich von Manstein stated that "a considerable proportion of the Rumanian officers holding senior and medium appointments were not up to requirement".⁴³ The German advisors were surprised to find that "staff officers have no position of influence"; instead they played the role of clerks attached to commanders.⁴⁴ British and German experts also believed that the army's efficiency was considerably impeded by the lack of a NCO corps in the British or the German sense of the word.⁴⁵ But this argument has to be treated with caution. In some armies, including the Romanian and Soviet, the duties of NCOs were simply transferred to junior officers. The problem was not in the lack of western style NCOs, but in the failure of junior officers to fulfill their duties.

³⁹Public Record Office, WO 208/1744. British Army Military Intelligence Division. Compilation Files, R/H.B., Value for War, Ch.XLVI/3/1, 26 November 1936; BA-MA, RH 31-I/25b, Abwehrstelle Rumänien Nr.406/40 g.Leiter, Beurteilung rumänischer Offiziere, 30 December 1940.

⁴⁰Șuța, *Infanteria română*, 2: 200.

⁴¹Public Record Office, WO 208/1744. British Army Military Intelligence Division. Compilation Files, R/H.B., Value for War, Ch.XLVI/5/1, 26 November 1936;

⁴²University Press of America, U.S. Military Intelligence Reports. Combat Estimates: Europe. 1920-1943. Reel 3, 4209-c. G-2, War Department, 1.3.35.

⁴³Erich von Manstein, Lost Victories (Novato: Presido, 1958), 207.

⁴⁴BA-MA, RH 31-I/22, LKA Nr.11/41 g.Kdos., Lt.-Colonel Hölter, Bericht über Erkundigung einer Verteidigungstellung in der allg. Linie Pruth - Stefanesti - Dorohoiu - Höhengelände südl. Radauti, 19 May 1941.

⁴⁵Public Record Office, WO 208/1744. British Army Military Intelligence Division. Compilation Files, Roumania, Ch.XXXVIII/4/2, 8 April 1940; BA-MA, RH 31-I/98, DHM, Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, p.9, 18 January 1942.

The aggravation of the international situation caused by German rearmament finally forced the government to review its defence policy. In 1935 it increased the military budget and adopted a ten-year rearmament program. The main effort was made in the sphere of standardization and modernization of equipment. The army acquired a substantial amount of modern infantry and artillery weapons, mainly from Czechoslovakia. Belated investments in the development of the defence industry bore some fruit. In 1937 Romanian industry provided the army with only 2% of the necessary rifles and did not produce machine-guns. By the time Romania entered the war, native industry was delivering 16% of rifles, 32% of machine-guns and some other equipment.⁴⁶ Import and production of new weaponry, and the modernization of the old one, allowed the army to standardize a large part of the infantry arms and field artillery. After Romania had purchased a few thousand cross-country trucks, almost the entire heavy artillery, three cavalry and one infantry regiments were motorized. In 1939 rearmament was among the top government priorities and the military budget had quadrupled since 1933.⁴⁷ However, with the escalation of tensions, all major weaponry suppliers cut their exports and Romania acquired much less equipment than it was ready to pay for. By the beginning of World War II, the Romanian Army possessed only 57 anti-tank guns⁴⁸ and had no armour-piercing ammunition. Romania was so short of anti-aircraft artillery that all the guns were assigned to defend cities, while the field armies were to operate without anti-aircraft protection.⁴⁹

After the outbreak of World War II, the General Staff found that Romania was "alone and without any political or material support from any foreign power".⁵⁰ All three hostile neighbours found the escalating chaos in Europe convenient means to recover lost territories, and they produced their claims nearly simultaneously. Resistance to Russia was

⁴⁶Șuța, *Infanteria română*, 2: 154.

⁴⁷Olteanu, *The Romanian Armed Power Concept*, 223.

⁴⁸*Ibid.*, 224.

⁴⁹Alexandrescu et al., *Istoria militară a poporului român*, 6: 214, 228.

⁵⁰Câmpan, "Romania's General Staff National Defence Strategy", 120.

hopeless and any local conflict with the other neighbours threatened to provoke intervention of either Russia or Germany, which could lead to the disappearance of Romania from the map of Europe. Having weighed all pros and cons, the Romanian government surrendered most of the claimed provinces. The country lost one-third of territory and the same proportion of population (Map 1).⁵¹ Unfortunately, the concessions excluded only Bulgaria from the list of potential adversaries. Hungary was only half-satisfied with the Vienna Award, while the Soviet leadership began to enjoy the easy conquests and wished to incorporate Southern Bucovina as well. The Soviet government was protracting the negotiations about final settlement of the Soviet-Romanian border, and armed incidents remained a common occurrence on the frontier.

On 6 September 1939 the Romanian government declared neutrality. The oil fields, however, were such an attractive prey (or target, depending on circumstances) for the major players that Romania was left practically no chance to keep out of the war, as it initially aspired. After several neutral states had been overrun by Germany and Russia, the government realized that the only way to preserve the country's existence, if not real independence, was to seek alliances not with remote great powers but with those that were within proximity to Romania and could effectively protect it. The government concluded, in the words of Prime Minister Ion Gigurtu, that "an alliance with Russia would be too dangerous for Rumania, since the great Russian nation would probably then absorb Rumania. Therefore Rumania wished to adapt her policy to the Axis".⁵² One day after the Romanian army left Bessarabia and Northern Bucovina, the government renounced the British guarantee; a day later it informed Adolf Hitler that it sought "close collaboration with Germany in all fields".⁵³

On 30 August 1941 Romania received a German guarantee that was obviously more

⁵¹Dupu et al., *Romania in World War II*, 15.

⁵²*Documents on German Foreign Policy 1918-1945*, [DGFP], (London: Her Majesty's Stationery Office, 1962), Series D, 10: Document No.233, p.306, 26 July 1940.

⁵³*Ibid.*, Document No.80, p.91, 2 July 1940.



Map 1. Romania's territorial losses in 1940

sound than the former Allies' ones. Although the political reorientation led to loss of an independent foreign policy, it provided the country with a reliable shield against further encroachments and eliminated strategic uncertainty, the plague that had tortured Romania since the Great War. As the Germans kept Hungary in check, the number of immediate potential adversaries was reduced to a single one, specifically, the Soviet Union. Romania finally could reckon that in case of a Soviet attack, its armed forces would be fighting side-by-side with the best army in the world. The new strategic situation created preconditions for a radical change of army doctrine.

The humiliating territorial concessions led to the abdication of King Carol and to the establishment of General Ion Antonescu's dictatorship. One of the highlights of the new government's agenda was urgent and sweeping reform of the armed forces. Since the 1940 campaign in France had demonstrated the bankruptcy of the French doctrine and proved the credibility of the German one, part of the Romanian General Staff started to believe that the quickest way to turn the army into an efficient force would be to retrain it according to the German pattern. In this context, on 2 July 1940 the King asked Hitler to send German military instructors to Romania, but Hitler remained aloof.⁵⁴ Immediately after taking power, Antonescu repeated the request and this time Hitler chose to honour it. The German Army and Air Force Missions [Deutsche Heeresmission (DHM) and Deutsche Luftwaffenmission (DLM)] arrived to Romania on 12 October 1940. In February 1941 they were joined by the Navy Mission [Deutsche Kriegsmarinemission, (DKM)]. Initially, the DHM consisted of a motorized division converted later into an armoured division.⁵⁵ By January of 1941, one more armoured division arrived.⁵⁶ Italy also sent a small number of instructors to the Romanian Mountain Corps and Navy. In fact, this Mission was not requested by the Romanians but rather imposed on them by the Italians and also by the Germans, who hoped

⁵⁴Tbid.

⁵⁵BA-MA, RH 31-I/24a, Anlage - KTB 1, Bd.1, Anlage 2 zu Kdo.Bef.Nr.1, no date.

⁵⁶Boog, et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 337.

to placate an ally indignant of the German intrusion into the Balkans.⁵⁷ The German instructors worked in Romania until the end of May 1941. Antonescu hoped that the German Military Mission would help him to solve three urgent problems: protect Romania against further encroachments by its neighbours; reform the army; and supply Romania with some modern weaponry. In fact, only the first of Antonescu's aspirations coincided with the intentions of the German High Command. The latter was anxious to safeguard the oil fields against a Soviet attack, British sabotage or an impulsive Romanian government that might decide to destroy the oil wells and refineries in order to prevent them from falling into enemy's hands, as it had done in 1916. Instructing DHM, Oberkommando der Wehrmacht (OKW) stressed that although its task was officially formulated "to help friendly Romania in organization and training of its army", its "real missions, of which neither the Romanians nor our own troops should be aware are: (a) to protect the oil fields from destruction and from attack of some third power; (b) to prepare the Romanian Army for certain missions (...) corresponding to German interests; (c) to prepare, in case of war with Soviet Russia, deployment of German and Romanian forces from Romania".⁵⁸

The hopes on German help with equipment were to be frustrated. Inviting instructors, Antonescu expressed his plea that the DHM would sell its equipment to the Romanian Army after completion of the training process.⁵⁹ The OKH Chief of Staff Franz Halder's reaction was instant and negative: "German war materiel must not on any account be turned over to Romania. We need all we have ourselves. Perhaps, we could let them have some captured enemy materiel".⁶⁰ The position of the German leadership remained essentially the same until late in the war. Its help to the ally was limited mainly to permitting captured Czech and

⁵⁷Alten zur deutschen auswärtigen Politik, 1918-1945 [ADAP], (Bonn: Gebr. Hermes KG, 1964), Serie D, vol.11.1: Document No.192, p.276, 18 October 1940.

⁵⁸ADAP, Serie D, vol.11.1: Document No.84, pp.123-124, 21 September 1940.

⁵⁹BA-MA, RH 31-I/32, Abschrift, von Tippelskirch, Erste Besprechung mit General Antonescu [First Talk with General Antonescu], 16 September 1940.

⁶⁰Franz Halder, The Private War Journal of Generaloberst Franz Halder (Arlington: University Publications of America), 4: 203.

French factories to deliver some of the equipment that Romania had ordered earlier. With the beginning of the war, Germany had nearly monopolized the weaponry traffic in the Balkans; hence, the Romanian government was forced to conclude an "Oil-for-Weapons" pact in May 1940. It was disastrously unprofitable, so that by October 1941, Germany estimated its gain at 80 million Reichsmarks.⁶¹ Nevertheless, the pact allowed the army to considerably improve its armament with anti-tank and anti-aircraft guns.

The Romanian and the German High Commands' views on the aim and the scale of the proposed training program were radically different. Since the Romanian GHQ was unaware of German intentions and no joint operational plans existed until May 1941,⁶² GHQ's position on these issues was based on immediate assessments of the international situation. Therefore, it was inevitably inconsistent. The Romanians had to guess what would be the extent of the Wehrmacht's help in case of a Soviet attack, what would be the nature of the joint actions, what was supposed to be the mission of the Romanian Army within the framework of these actions and, consequently, what the army should be trained for and what should be its size. Although the officially proclaimed aim of the reforms was to build "a small but strong army",⁶³ this uncertainty forced GHQ to continue thinking in terms of a large army. In fact, Antonescu sought to raise "39 well-organized, well-trained and well-led divisions"⁶⁴ by the spring of 1941; obviously he hoped that the Germans would train not only the entire active army, but also the reservists.⁶⁵

The German High Command, however, considered such a massive program neither possible nor wise. In fact, it urged Romanian GHQ to reduce the army and to return "surplus

⁶¹Boog, *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 887.

⁶²Apparently, the first joint operational plan was the "Hubertus", which considered actions in case of a Soviet attack on Romania, BA-MA, RH 31-I/22, DHM, Abt.Ia Nr.448/41 g.Kdos, Kampfanweisung "Hubertus", 5 May 1941.

⁶³Dupu, Retegan, et al., *Armata română în al doilea război mondial*, 1: 55.

⁶⁴ADAP, Serie D, vol.11.2: Document No.388, p.572, 24 November 1940.

⁶⁵BA-MA, RH 31-I/26a, Notiz für KTB, 7 January 1941.

manpower from the army to the economy, particularly to agriculture",⁶⁶ believing that in this way Romania would contribute more efficiently to the Axis war effort. The German position derived from both skepticism about the value of the Romanian army and from confidence in the Wehrmacht's quick victory in the forthcoming campaign against Russia. Being sure that Germany would crush Russia within a couple of months, Hitler believed that the participation of the Romanian Army could be confined mainly to missions that would not require great skill. Plan *Barbarossa* stipulated that the Romanian Army should "support the offensive of the southern flank of the German forces with elite formations, at least in the beginning of the operation, pin down the enemy in areas where no German troops were engaged, and also carry out auxiliary missions in the rear".⁶⁷ In February 1941 OKH planned to employ on the Eastern Front 3 elite Romanian divisions as front line troops, 3 divisions for pinning the Red Army down in Bessarabia and 4 divisions for security duties in the rear.⁶⁸ Thus, the OKH believed that only 3 Romanian divisions should be well-trained.

Accordingly, although the DHM implied that it would have been desirable to train 11 infantry and one armoured divisions, as well as 12 mountain, cavalry and fortress brigades, it finally decided to limit the scope of the training program to three infantry divisions and the Armoured Division.⁶⁹ The DHM believed that, given the current capacity of the Romanian divisions and the allotted number of instructors, more formations could not be turned into an efficient force within the tight time frame, while the German High Command found no reason to send more instructors.

When it invited the DHM, Romanian GHQ did not have a clear idea what should be the essence of the reforms. It insisted that "it is undesirable to seek a more or less acceptable

⁶⁶Cited in Boog, *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 341.

⁶⁷Plan *Barbarossa* in V.I. Dashichev, ed., *Sovershenno sekretno. Tol'ko dl'a komandovaniia. Dokumenty i materialy* [Top Secret. For High Command Only. Collection of Documents] (Moscow: Nauka, 1967), Document 14, p.151, 18 December 1940.

⁶⁸Boog et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 340.

⁶⁹BA-MA, RH 31-I/26b, DHM, Abt.Ia Nr.104/41gKdos, Beurteilung des rum. Heeres, pp. 1, 6, 7. 14 February 1941.

compromise between the German tactics and our doctrine, but everything must be done to secure the thorough implantation of the German principles. (...) These principles must be adjusted to our situation, organization and armament".⁷⁰ Yet that was a contradictory request because the German principles could hardly be attuned to Romanian reality. For example, the request to introduce "the German logistical methods adjusted to our situation, organization and equipment at all levels of our army"⁷¹, was meaningless because the German methods were incompatible with a supply service based almost exclusively on horse-drawn carts and railways of poor capacity.

The German instructors interpreted the aim of the instruction as being the introduction of some principles of mobile warfare, but most important, they sought to convince the Romanians to shift from theoretical discussions to practical exercises. Discussing the problems of the Romanian Army with Wehrmacht officers, Antonescu usually identified only the most obvious flaws, such as the lack and inferiority of the equipment or the inexperience in mechanized warfare, omitting the problems of basic training.⁷² The Romanian GHQ realized that the army's training was far from perfect, but it did not apprehend that this handicap was as serious as the lack of equipment. The German instructors evaluated the training of the cavalry, mountain and Guard formations as satisfactory and the individual skills of the artillerists (although not the leadership) as excellent.⁷³ However, the training of the regular infantry, pioneers and signal units was, as a rule, poor.

⁷⁰BA-MA, RH 31-I/24b, Grosser Generalstab, Ausbildung-Abteilung, Nr.3300/40, Weisung über die Zusammenarbeit an der Kriegsakademie, no date.

⁷¹BA-MA, RH 31-I/25a, Grosser Generalstab, 5.Abteilung, Ausbildungsanweisungen für die Organisierung der deutsch-rumänischen Lehrgänge bezüglich der Verwendung und Tätigkeit des Nachschubwesens, no date.

⁷²BA-MA, RH 31-I/32, Abschrift, von Tippelskirch, Erste Besprechung mit General Antonescu, 16 September, 1940; ADAP, Serie D, vol.11.2: Document No.388, pp.572-576, 23 November 1940.

⁷³BA-MA, RH 31-I/98, DHM Ia Nr.32/42 g.Kdos., Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, p.3, 18 January 1942; BA-MA, RH 31-I/25a, DHM Ia, Protokoll über die Ausbildungsbesprechung mit Kdeuren und W.O. der Ausbildungszentren unter Leitung des Chefs des Generalstabes, 27 November, 1940.

The equipment problem apart, what handicapped the efficiency of the Romanian Army was not so much the adherence to French doctrine as the failure to maintain the level of training which that presumed. British officers reported that "a considerable gap undoubtedly exists between French theory and Roumanian practice".⁷⁴ The corner stone of French doctrine was the sophisticated coordination of arms that could be attained only in the course of long exercises. Although Romanian regulations appreciated the necessity of cooperation of arms, no consistent effort was made to practice it. Not surprisingly, the German observers concluded that "Romanians do not master the cooperation between infantry and artillery".⁷⁵ The neglect of practical training could be, partially, attributed to lack of the funds needed to organize large-scale maneuvers. But the army failed to do even the most elementary exercises that did not require expenditures. The bias towards theory at the expense of practice was, in fact, a chronic flaw of the Romanian Army: the Russian General Staff noted as early as 1912 that Romanian officer schools' curriculum was "extremely theoretical".⁷⁶ As a result, the troops were often ignorant even of the basics of passive defence. The German advisors reported, for instance, that the Romanians did not grasp the necessity to base defensive positions on a system of strongholds and that their fortifications on the eastern border consisted merely of lines of continuous trenches.⁷⁷ Where Romanian GHQ supposed that formations would have to be retrained, the Germans had to start training almost from scratch. They noticed that there was "a strong tendency [among the Romanian officers] to imitate the German methods in form and to forget that their

⁷⁴Public Record Office, WO 208/1744. British Army Military Intelligence Division. Compilation Files, R/H.B., Value for War, Ch.XLVI/1/1, 7 December 1936.

⁷⁵BA-MA, RH 31-I/22, LKA Nr.11/41 g.Kdos., Lt.-Colonel Hölter, Bericht über Erkundigung einer Verteidigungsstellung, 19 May 1941.

⁷⁶Iskritsky, Glavnoe upravlenie General'nogo Shtaba [Head Office of the General Staff], Vooruzhennyya sily Rumynii [Romanian Armed Forces], 197.

⁷⁷BA-MA, RH 31-I/22, LKA Nr.11/41 g.Kdos., Lt.-Colonel Hölter, Bericht über Erkundigung einer Verteidigungsstellung, 19 May 1941.

essence should be apprehended [first]".⁷⁸ Curiously, in 1912 the Russian General Staff made an almost identical observation: the Romanians "quickly grasp the form, but remain aloof from the spirit [of certain tactics] that vivifies these forms".⁷⁹ The German instructors found it hard to overcome the tendency to discuss rather than practice. German advisor with 4th Army reported that "Romanian officers are unable to employ knowledge acquired in the Centres of Instruction" and that "the troops continued to be trained excessively on the barracks' drill-grounds".⁸⁰

Meanwhile, the dislike of the Wehrmacht by a considerable part of the Romanian officer corps slowed the transfer to the new doctrine. DHM evaluated only 32% of medium-rank Romanian commanders of inspected units as "German-friendly", while 43% were described as "anti-German".⁸¹ Some commanders preserved their pro-Allied sentiments, others were antagonized by Nazi ideology as well as by the sympathy of German officers for the despised Romanian fascists (the Legionaries); finally, many senior officers refused to follow the recommendations of Wehrmacht advisors of inferior rank.

The German High Command kept the Romanians uninformed about German strategic plans. On 22 March 1941 Hitler stated that "the Rumanians are to be given no knowledge of the preparations for *Barbarossa* until further notice".⁸² This notice was advanced only on the very eve of the offensive. Paradoxically, the Romanians, who eventually contributed more than any other German ally to the Axis war effort on the Eastern Front, were the least trusted. The German High Command intended to reveal plans about the forthcoming operation to Finland in the beginning, and to Hungary at the end of May, while the

⁷⁸BA-MA, RH 31-I/29, Aufgaben der DVK, Anlage 3 zu DHM Ia/Id Nr.908/41, p.2, no date.

⁷⁹Iskritsky, Glavnoe upravlenie General'nogo Shtaba Vooruzhennyia sily Rumynii [Romanian Armed Forces], 193.

⁸⁰BA-MA, RH 31-I/67, Bericht über die Verbindungsaufnahme mit der IV Armee und der unterstellten Divisionen, bzw. Brigaden, zwischen Jasy und der Ung. Grenze, 6 April 1941.

⁸¹BA-MA, RH 31-I/25b, Abwehrstelle Rumänien Nr.406/40 g.Leiter, Beurteilung rumänischer Offiziere, 30 December 1940.

⁸²DGFP, Series D, 12: Document No.189, p.341, 22 March 1941.

Romanians were to be informed "*as late as possible*".⁸³ Instead of warning Romanian GHQ about the imminent offensive, the OKW preferred to keep the Romanian army on alert, maintaining that "Russian attack is expected any time".⁸⁴ On 30 May the Romanian Minister in Germany was assured that "certain German troop movements had taken place in the east in connection with developments in the Balkans and (...) otherwise there was nothing new in German-Russian relations".⁸⁵ The order for Operation *München* (the attack on the USSR from Romanian territory) issued by the High Command of the German troops in Romania on 9 June 1941 stressed: "The Romanian authorities should not be informed [of the planned offensive] without an explicit order of [the 11th Army] HQ (...). The Romanian authorities are to be notified no earlier than, perhaps, on the first day of Operation *Barbarossa*".⁸⁶ Although Hitler revealed his plans to Antonescu two days after this order had been issued,⁸⁷ he swore Antonescu to secrecy, so that even the General Staff was reportedly unaware of the forthcoming operation until 20 June.⁸⁸ King Mihai learned that his subjects were fighting only after the offensive had started.⁸⁹

Of course, the Romanians were not completely fooled. The Chief of the DHM, General Erik Hansen, objected to such treatment of the ally and believed that at least Antonescu should be notified about *Barbarossa* not later than 20 March. He remarked: "the Romanians are laughing at it [the OKH's intention to delude them]. After all, they are not idiots".⁹⁰ However, Romanian commanders were uncertain what the Romanian Army's role

⁸³Ibid., Document No.431, p.685, 1 May 1941. Emphasis in the original.

⁸⁴BA-MA, RH 31-I/29, DHM, Ia, Nr.531/41 g.Kdos., Memorandum 1, 27 May 1941.

⁸⁵DGFP, Series D, 12: Document No.572, p.927, 30 May 1941.

⁸⁶BA-MA, RH 20-11/8, OKH, Nr.0091/41 g.Kdos Chefs., Befehl für die Vorbereitung der Operation "München", 9 June 1941.

⁸⁷DGFP, Series D, 12: Document No.614, p.1002-1006, 13 June 1941.

⁸⁸Boog et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 345.

⁸⁹Dutu, Retegan et al., *Armata română în al doilea război mondial*, 1: 320.

⁹⁰Boog et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 341, 343.

in actions might be, and the German instructors continued to aim them only at "counterstroke (...) within the framework of defence".⁹¹ Initially, the DHM even strengthened the Maginot Line mentality encouraging the Romanians to build concrete casemates able to withstand direct hits of 120-150 mm shells in tank-vulnerable directions.⁹² Only at the end of May 1941 did the Germans warn GHQ that "the counterstroke against the deploying Red Army demands participation of the Romanian Army beyond the Romanian frontier as well".⁹³

The reticence of the German High Command was understandable, taking into account the paramount importance of keeping the preparation for the campaign hidden. However, German secrecy impeded the army reforms. Not surprisingly, the Romanian GHQ failed to link them to the nature of forthcoming operations. In practice, the army was preparing not for a strategic offensive, but for a change of tactics from passive to active defence. Had GHQ been informed about the planned actions, the reforms might have had different emphases. DHM, for example, attributed Romanian inertness in the reorganization of army logistics to GHQ's ignorance of German plans, pointing out that "in accordance with the directives, the Romanian Army was preparing exclusively for defence, and the supply service was adequate for defence".⁹⁴

By the end of the instruction period, the Romanian GHQ found that its exaggerated expectations - that the German instructors would considerably increase the army's capacity by the spring of 1941 - were not met. The Germans explained that "it was impossible to substitute the German doctrine for the French methodic one within this short period of time" and, therefore, the value of "German instruction consisted mainly in (...) the creation of trust

⁹¹BA-MA, RH 31-I/98, Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, p.2, 18 January 1942.

⁹²BA-MA, EC 2964 N, p.362. Effective, Organizare, Dotare [Complement, Organization, Supply], April 1940 - 30 March 1941. Memoriu asupra reconoastrei executată pe Prut și înălțimile Sud Iași în zilele 4-11 Martie 1941 [Memorandum about Reconnaissance Carried Out on Prut in the Area of South Iassy on 4-11 March 1941], 17 March 1941.

⁹³BA-MA, RH 31-I/98, Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, p.4, 18 January 1942.

⁹⁴Ibid., p.2.

relations".⁹⁵ At the end of training, the DHM assessed that only four infantry divisions (three of them had been trained by the Germans), the armoured division, three cavalry and three mountain brigades could "perform easy offensives if supported by German troops". The DHM stressed that "the Romanian Army cannot be used for tough offensives".⁹⁶ Though the DHM underestimated the quality of some formations which it had not trained, and the endurance which bolstered Romanian defensive actions, this conclusion basically was correct.

However, in the course of the war the Romanian Army was repeatedly assigned missions for which it was unfit, such as the assault on Odessa or the defense against expected strikes of Soviet tank armies at Stalingrad. Antonescu's administration bore a large share of responsibility for the escalation of Romania's involvement in the war. Strategic planning was not among its merits. It failed to conclude a formal allied treaty that would define the extent and nature of the Romanian contribution to the Axis war effort. Neither the General Staff nor Antonescu planned in advance how far the Romanian Army should accompany the Wehrmacht into Russia. Instead, each new objective was set through personal correspondence between Hitler and Antonescu. The lack of a clear strategic perspective resulted in a steady increase of Romanian commitment, precisely as the Blitzkrieg failed.

The entrance of Romania in the side of Germany was supported by all Romanian political parties, except the Communists. However, as soon as the Romanian Army reached the eastern border of Greater Romania, national consensus disintegrated. The leaders of two major political parties, Iuliu Maniu and Constantin Brătianu, demanded that the army halt at the Dnestr and insisted that "we do not have a single Romanian soldier to be offered as a victim in the benefit of some foreign goals".⁹⁷ Antonescu initially claimed that "Romania

⁹⁵Ibid., p.3.

⁹⁶BA-MA, RH 31-I/29, Anlage 3 zu DHM Ia/Id Nr.908/41 geh. Aufgaben der DVK, p.5, no date. Emphasis in the original.

⁹⁷Dupu et al., Romania in World War II, 79.

has no interests to the east of the Dneestr".⁹⁸ But when Hitler asked Antonescu to continue operations first beyond the Dneestr, then beyond the Dnepr and, finally, in the Crimea, Antonescu complied, logically reasoning that since Romania was "indebted to the Führer and the German Army by 80 or even 90%" for the recovery of Bessarabia and the North Bucovina⁹⁹ it would have been impossible "to say the Germans: 'Thank you, I have already taken my share with your help and at the price of your blood, now go forward while I stay here and digest'".¹⁰⁰

Antonescu's failure to negotiate in advance the extent of Romanian commitment derived from his absolute faith in the Wehrmacht's ability to crush Russia. Antonescu was more optimistic about the prospects of the war than the most enthusiastic Wehrmacht generals, believing that the campaign would be victoriously concluded within a month. He even made a special request "not to spare the Romanian soldiers at the expense of the German troops"¹⁰¹. Antonescu claimed that "the Russian Army is placed in one echelon along the border from the Baltic to the Black Sea, behind which there is nothing except a discontented population waiting for liberation". Therefore, "one could break the Russian front and strike towards Kiev with [only] two motorized divisions".¹⁰² A week after the beginning of *Barbarossa*, Antonescu assured Hitler that "the Soviet armies can be regarded as having been annihilated".¹⁰³ His bellicosity reached a culmination in the beginning of August, when he even promised to the surprised Germans that the Romanians would "march

⁹⁸BA-MA, RH 31-I/44a, Talk between DHM's Chief General Hauffe and Antonescu, 23 July 1941.

⁹⁹Boog et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 884.

¹⁰⁰Constantin Hlihor, ed. *Măreșahul Ion Antonescu. Istoria mă va judeca. Scrieri inedite* [Marshall Ion Antonescu. History will Judge Me. Unpublished Writings]. (Bucharest: Editura Academiei de înalte studii militare, 1993), 195.

¹⁰¹BA-MA, RH 31-I/44a, Anlageband 1 zum KTB, 30 June 1941.

¹⁰²ADAP, Serie D, vol.11.2: Document No.388, p.575, 24 November 1940.

¹⁰³DGFP, Series D, 13: Document No.57, p.66, 1 July 1941.

against Hungary at the first opportunity".¹⁰⁴ Being awarded two German decorations four days before the first reverse at Odessa, Antonescu was so moved that he promised Hitler "to occupy not only Odessa, but also Sevastopol and the Crimea".¹⁰⁵

Antonescu's euphoria was by no means unique. In the late spring of 1941 such bravado was usual among the Romanian officers who traditionally regarded the Red Army with a mixture of misgiving about its numerical superiority, and contempt of its efficiency. After Romania acquired the German shield, the second element of this perception suppressed the first. German advisers, themselves not noted for objective assessment of the Red Army, reported that the officers of the 4th Army "underestimate the combat capacity of the Russians with criminal carelessness".¹⁰⁶ GHQ admitted in retrospect that it typically underestimated the enemy "even if the facts and the evidence testified to the contrary. (...) [Information of] the economical capacity of that country, the efforts it made in industrialization and in army training was always falsified".¹⁰⁷

On 26 May the DHM "suggested" that Romanian GHQ carry out a secret mobilization and concentrate Romanian divisions on the eastern border. By 22 June 1941, GHQ raised 21 infantry divisions, an armoured division, 6 cavalry, 4 mountain and 2 fortress brigades. That was a far larger force than was intended initially by the Germans. All of these formations but 4 infantry divisions and one mountain brigade fought on the Eastern Front in 1941.¹⁰⁸

According to the Operational Plan *München*, Romania was to participate with two armies, the 3rd and the 4th, which, along with the German 11th Army, formed the

¹⁰⁴Boog et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 885.

¹⁰⁵DGFP, Series D, 13: Document No.188, p.299, 7 August 1941.

¹⁰⁶BA-MA, RH 31-I/67, Bericht über die Verbindungsaufnahme mit der IV Armee, 6 April 1941.

¹⁰⁷BA-MA, FC 2327b N, p.569. Marele Cartier General, Cauzele care au împiedicat armata română să aibă o victorie rapidă și strălucită la Odesa, 29 September 1941.

¹⁰⁸BA-MA, RH 31-I/9, Anlage zu DHM Ia Nr.32/42g Kdos, Gliederung des rumänischen Heeres vom 22.6 - 16.10.41, [Organization of the Romanian Army 22 June - 16 October 1941], 18 January 1942.

Romanian Front (Table 1, Map 2). All the divisions trained by the Germans as well as all those cavalry and mountain brigades which the Germans found capable of performing easy offensives were included in the 11th Army or in the 3rd Army, that was operationally subordinated to the 11th Army's HQ.¹⁰⁹ The larger 4th Army was assigned a secondary role of defending Romania against a possible Soviet counterattack. It also had to "imitate attacks [across the Prut] in as many places as possible",¹¹⁰ pinning down Soviet forces in Southern Bessarabia. Only after the enemy had started its general withdrawal from the Romanian border under the strikes of the 11th Army was the 4th Army supposed to begin pursuit, "preventing him [the enemy] from making an orderly retreat across the Dneestr and contributing to his destruction".¹¹¹ Hitler suggested that Antonescu be appointed formal commander of the Romanian Front, so that he would "enter history as a victorious leader"; but it was actually the 11th Army's HQ that would elaborate orders and issue them over Antonescu's signature.¹¹² The role of Romanian GHQ was limited to tactical leadership over the 4th Army.

Eventually, however, circumstances reversed the roles of the two Romanian armies. Ironically, indeed, the best formations were assigned far easier missions than the worst ones. Only in the first month and a half of the campaign were the Romanian armies used in accordance with the recommendations of the DHM, and then General Halder noted, "the Romanians are fighting surprisingly well".¹¹³ When, however, the Blitzkrieg failed and the Axis needed many more front-line troops than the German High Command had planned, the recommendations were observed only with respect to the 3rd Army. After the Romanian Front failed to trap the Soviet divisions between Prut and Dneestr, 11th Army HQ found

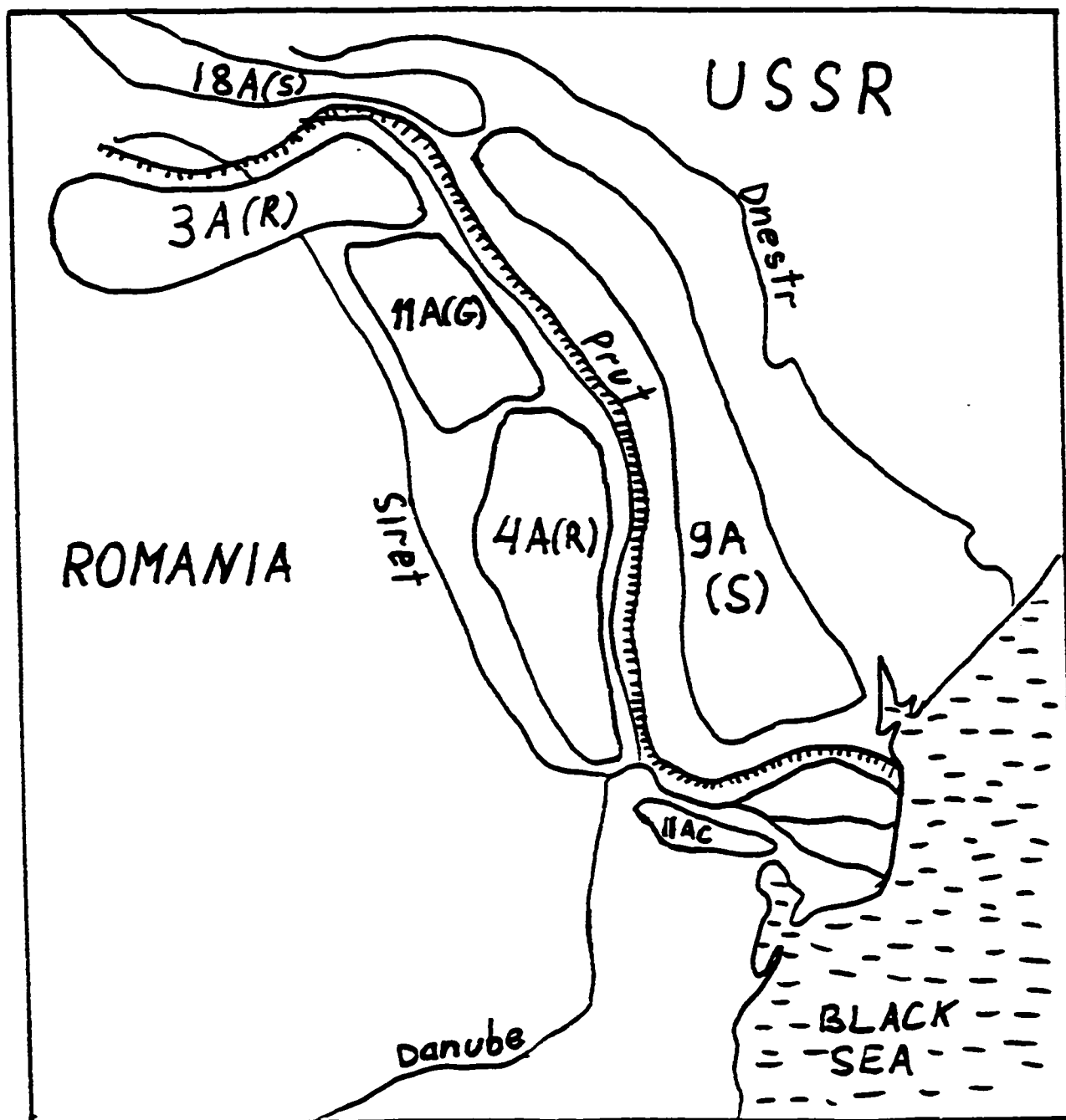
¹⁰⁹*Ibid.*

¹¹⁰BA-MA, RH 20-11/8, Armeekommando 11, Ia Nr.0129/41 geh.Kdos. Chefs., Befehl für die Durchführung der Operation "München", [Order of Carrying Out Operation "München"], 25 June 1941.

¹¹¹DGFP, Series D, 12: Document No.644, p.1049, 18 June 1941.

¹¹²*Ibid.*, p.1048; Boog et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 345.

¹¹³Halder, *The Private War Journal*, 6: 214.



Map 2.

The Romanian Front, 22 June 1941

11 th ARMY					3 rd ARMY					4 th ARMY				
LIV Army Corps (G)	XI Army Corps (G)	XXX Army Corps (G)	Reserves		Mountain Corps (R)	Cavalry Corps (R)				II Army Corps (R)	III Army Corps (R)	V Army Corps (R)	XI Army Corps (R)	
50 th I.D. (G)	76 th I.D. (G)	198 th I.D. (G)	72 nd I.D. (G)		1 st Mt. Br. (R)	239 th I.D. (G)				10 th I.D. (R)	15 th I.D. (R)	21 st I.D. (R)	1 st Fort. Br. (R)	35 th I.D. (R)
5 th I.D. (R)	22 nd I.D. (G)	170 th I.D. (G)	46 th I.D. (G).		2 nd Mt. Br. (R)	6 th I.D. (R)				9 th I.D. (R)	Guard Div. (R)	Frontier Guard Div. (R)	2 nd Fort. Br. (R)	
	Armd. Div. (R)	8 th I.D. (R)			4 th Mt. Br. (R)	5 th Cavalry Br. (R)								
		13 th I.D. (R)			7 th I.D. (R)	8 th Cavalry Br. (R)								
	6 th Cav. Br. (R)	14 th I.D. (R)												

Table 1. The Romanian Front, 25 June 1941¹¹⁴

¹¹⁴BA-MA, RH 20-11/8, Anlage 1 zu AOK 11, Abt. Ia, Nr.0129/41, 25 June, 1941.

that the available German forces would be sufficient for advance only "in a purely eastern direction"¹¹⁵ and could not be diverted to the south if the Russians decided to defend Odessa. On 22 July 11th Army HQ "asked" Antonescu to attack Odessa with the 4th Army. Thus, troops who were regarded unfit even for easy offensives were ordered to attack a fortified city that both Halder and 11th Army HQ suspected might "become a Russian Tobruk".¹¹⁶

Yet it was not 11th Army HQ alone which sent Romanian soldiers to slaughter. Romanian GHQ and Antonescu himself bore the largest share of responsibility for their fate. Romanian GHQ did not expect that the city would be stubbornly defended. Consequently, when the 11th Army offered the Romanians the 50th Infantry Division for the attack on Odessa, Romanian GHQ forbade this division "to advance to the south with any of its units",¹¹⁷ apparently anticipating an easy and prestigious victory. On 20 August, after a first all-out assault on Odessa was repelled with big losses, 11th Army HQ asked the Romanian GHQ whether German help was necessary. Antonescu confidently replied that "Odessa will be taken by the Romanian troops alone".¹¹⁸ The capture of Odessa by the Romanian Army became a matter of prestige. Only on 24 September, after the 4th Army was bled white and two Romanian divisions had been driven nine kilometers back by a Soviet counterattack, did Romanian GHQ admit that "the assault conducted exclusively by our forces might compel the enemy to retreat to new positions (...) but would not lead to the fall of Odessa, which would not increase our prestige". Therefore, GHQ decided "to interrupt the assault and to limit the actions to the siege of the city".¹¹⁹ GHQ finally applied to the Germans for

¹¹⁵BA-MA, RH 31-I/98, Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, pp.5, 6. 18 January 1942.

¹¹⁶Halder, The Private War Journal, 6: 281; BA-MA, RH 31-I/44(a), No.112a, the 11th Army HQ to DHM, 11 August 1941.

¹¹⁷BA-MA, RH 31-I/44a, Nr.112b. Chief of Romanian General Staff A.Ionițiu to Chief of the DHM General Hauffe, Memorandum, 10 August, 1941.

¹¹⁸BA-MA, RH 31-I/44a, Nr.139. 11th Army HQ to the [Romanian] General Staff, 20 August 1941; BA-MA, RH 31-I/43, KTB der DHM in Rumänien (22.2.41 bis 3.11.41), 20 August 1941.

¹¹⁹BA-MA, FC 2327b N, p.523, Nota pentru generalul Hauffe [Memorandum for General Hauffe], 24 September, 1941; Ibid., p.545. Chief of the Romanian General Staff I.Iacobici to Antonescu, 12 October

substantial help. But by this time, all German formations had already been sent far to the east and no immediate assistance was available.

At Odessa Romanian troops were engaged in a positional battle, that is exactly in the kind of warfare they were supposed to be trained for throughout the interwar period. However, since the army had only adopted French-type doctrine in form but lacked the equipment and the training to embody it in practice, the assigned mission proved to be beyond its capacity. The Romanians did not have heavy or medium tanks to break through fortifications, so infantry and artillery bore that burden. While Romanian artillery was traditionally the best arm among the Romanian land forces,¹²⁰ field artillery was efficient only in shooting at certain targets within visual distance; it had not mastered coordinated fire maneuver or cooperation with infantry or tanks. In comparison, Soviet artillery, despite a low density of guns (in average 5.8 guns per 1 km of front),¹²¹ could concentrate the fire of up to 30 batteries on fronts of 2.5–3 km.¹²² Romanian artillery had no experience in laying down a creeping barrage that would have been particularly useful in positional warfare. Artillery spotters did not have radios and were bound to vulnerable wire communications.¹²³ Heavy artillery proved its skill in shelling the Odessa harbour from captured heights. Its precise fire threatened to disrupt sea traffic, and forced the Soviet High Command to bring an infantry division to Odessa to recover the heights.¹²⁴ But, as a rule, the heavy artillery had to perform indirect fire and its efficiency was handicapped by lack of trained air spotters.

1941.

¹²⁰Iskritsky, *Vooruzhennyya sily Rumynii*, 194.

¹²¹Tsentral'nyi archiv Ministerstva Oborony Rossiiskoi Federatsii, Podolsk, Moscow province, Russia, [Central Archives of the Ministry of Defence of the Russian Federation]. (TsAMO RF), Fund 288, Inventory 9900, File 25, p.311, *Tablitsa plotnosti artognia na fronte Primorskoi Armii* [Table of Artillery Fire Density on the Front of the Coastal Army], 20 August 1941.

¹²²Voenno-Nauchnoe Upravlenie General'nogo Shtaba [Military-Scientific Office of the General Staff], *Sbornik voenno-istoricheskikh materialov Velikoi Otechestvennoi voiny* [Collection of Military Historical Documents on the Great Patriotic War] (Moscow: Voennoe izdatel'stvo MO SSSR, 1954), 78.

¹²³Colonel Ștefan Balasan, Interview by the author in Bucharest, 19 July 1997.

¹²⁴I.I. Azarov, *Osazhdennaia Odessa* [Besieged Odessa] (Moscow: Voenizdat, 1966), 110.

Incidents of friendly fire were common.¹²⁵ The army received anti-tank and anti-aircraft guns a few days before the beginning of the campaign, but had no time for training.¹²⁶ Being unable to distinguish enemy aircraft from friendly ones, infantry and anti-aircraft artillerists customarily shot at any aircraft they saw.¹²⁷ Neither the infantry nor the artillery had received basic anti-tank training, so that the appearance of a few enemy armoured cars sometimes caused panic. Senior commanders adhered to stereotyped tactics. The German advisors noted that "in attack the Romanians do not strike, but rather press" the enemy;¹²⁸ that is the commanders continued to follow interwar Romanian regulations. The Germans explained the extraordinarily high Romanian casualties by the fact that commanders forced the infantry to "conduct unimaginative frontal attacks against the toughest strongholds", often without artillery support.¹²⁹ Being excessively concerned about protection of their flanks, the commanders usually missed the opportunity to exploit success. Infantry training was poor. DHM complained that "it was impossible to beat the herd-instinct out of infantry" and observed that instead of crawling, soldiers tended to attack fortifications running upright in compact masses.¹³⁰ The Soviets noticed that as well - indeed they claimed that on 23 August "in the Southern Sector the adversary attacked [fortified positions] with two battalions marching upright in company columns with a flying banner. (...) Up to 50% were annihilated".¹³¹ The army was untrained for night action, though that was particularly

¹²⁵BA-MA, RH 31-I/216, DVK Report, no date.

¹²⁶BA-MA, FC 2327b N, p.561. Marele Cartier General, Cauzele care au împiedicat armata română să aibă o victorie rapidă și strălucită la Odesa, 29 September 1941.

¹²⁷BA-MA, FC 2328 N, p.340. Armata 3-a, Jurnal de operații, 25 June 1941; BA-MA, RH 31-I/216, DVK Report, no date.

¹²⁸BA-MA, RH 31-I/216, DVK Report, no date.

¹²⁹Ibid.

¹³⁰BA-MA, RH 31-I/166, DHM, Beobachtungen aus dem Feldzug gegen Odessa, p.28, no date.

¹³¹TsAMO RF, Fund 288, Inventory 9900, File 32, p.155. The Coastal Army's War Diary, 23 August, 1941, Voennno-Nauchnoe Upravlenie General'nogo Shtaba [Military-Scientific Office of the General Staff], *Sbornik*, [Collection of Military Historical Documents], 23.

effective in positional warfare. At Odessa, the Soviets recorded the first significant Romanian night attack only on 3 September, three weeks after the beginning of the battle.¹³² The quality of the troops sagged considerably during the battle because the pool of reservists that had received at least elementary training was exhausted and the reinforcements arrived absolutely untrained.¹³³

Historians commonly agree that the Romanian Army's morale was low. This view is oversimplified. Granted, the Soviet Coastal Army that defended Odessa preserved higher morale than the 4th Army, although it suffered heavier proportional losses and its formations constantly remained at the front line, while the Romanian divisions were rotated. This fact confirms a pattern that can be traced throughout the history of World War II: indoctrinated soldiers of well-rooted and popular totalitarian regimes were usually tougher fighters than those of other armies under similar conditions. Unlike the German or the Soviet regimes, the young Romanian dictatorship could not and did not actually aim to indoctrinate its troops. For most Romanian soldiers, the objectives of the war against Russia were confined to the return of the lands lost in 1940, and during the campaign in Bessarabia many of them fought courageously. For instance, the Guard and the 21st Infantry Division suffered grave losses in the battle at the Prut bridgeheads (the 24th Regiment of the 21st Division suffered about 50% casualties within two days),¹³⁴ yet their commanders refused to evacuate the bridgehead despite receiving permission. The morale of the Romanian Army was, however, uneven. The divisions were recruited on a territorial basis and the formations raised in the province of Moldova possessed higher morale than those from Transylvania, because the inhabitants of western Romania had a different enemy image and would have more willingly fought their current ally than the Soviets. Notably, Antonescu warned the German High Command that it had to "avoid employing Rumanian and Hungarian troops side by side, in

¹³²TsAMO RF, Ibid., p.185. 3 September, 1941.

¹³³BA-MA, FC 2327b N, p.559. Marele Cartier General, Cauzele care au împiedicat armata română să aibă o victorie rapidă și strălucită la Odesa, 29 September 1941.

¹³⁴Duțu, Retegan, et al., *Armata română în al doilea război mondial*, 1: 266.

order to avoid incidents".¹³⁵ German advisors found that the active junior officers possessed the highest morale.¹³⁶ The 4th Army started its offensive on 1 July having 5,529 officers, but by the end of the battle of Odessa it had suffered 4,599 officer casualties¹³⁷ - testifying that Romanian officers had no lack of courage, and explaining the decline in efficiency of the Romanian Army at Odessa. In general, the 4th Army was willing to make sacrifices during the first two assaults on Odessa. By the beginning of September, however, increasing frustration brought its morale to the verge of collapse, and the 4th Army Commander, Nicolae Ciupercă, reported that "almost all our front-line divisions exhausted their offensive potential, both morally and physically".¹³⁸

The slow progress of the Romanian offensive at Odessa should not be attributed solely to the poor efficiency of the Romanian Army. The assault on Odessa would have been a tough mission for the Wehrmacht as well. In retrospect, the DHM doubted that the 50th German Infantry Division could have shifted the balance in the battle of Odessa.¹³⁹ After all, on 17 September a regiment of German Stosstruppen tried to teach the Romanians a lesson of how properly to fight, but was repulsed with such losses that it never repeated the attempt.¹⁴⁰ The Coastal Army's defence was well-organized, the leadership was flexible and, what was equally important, the command of the Black Sea Fleet over the sea communications secured an uninterrupted flow of supplies. Notably, two assaults on Sevastopol - a mission similar to assault on Odessa - by the tough 11th German Army led

¹³⁵DGEP, Series D, 13: Document No.58, p.68, 2 July 1941.

¹³⁶BA-MA, RH 31-I/80, Handbuch für den deutschen Ausbilder in Rumänien [Textbook for German Instructor in Romania], 1942.

¹³⁷BA-MA, RH 31-I/166, DHM, Beobachtungen aus dem Feldzug gegen Odessa, no date.

¹³⁸Cornel I. Scafeș, et al., *Armata Română 1941-1945* [The Romanian Army 1941-1945] (Bucharest: Editura RAI, 1996), 27.

¹³⁹BA-MA, RH 31-I/166, DHM, Beobachtungen aus dem Feldzug gegen Odessa, p.9, no date.

¹⁴⁰BA-MA, RH 31-I/43, KTB der DHM in Rumänien, 17 September, 1941; BA-MA, RH 31-I/93, Hauffe to OKH, 21 September, 1941.

by Erich von Manstein were beaten off as well.¹⁴¹ The third assault succeeded largely due to massive support by the Luftwaffe that effectively cut off the supply to the Soviet garrison. Since the Romanians were deprived of such a luxury, they had to fight an enemy who was able to deliver supplies and reinforcements faster than they could.

Nonetheless, the Romanian Army was not up to the assigned mission. Throughout the battle, Odessa was defended by 2 regular infantry divisions, one cavalry division numbering 2,200 men and one division hastily organized out of miscellaneous units and mobilized local population. After 30 August, these formations were regularly receiving reinforcements. One more division was brought from Novorossiisk, but in ten days it departed for Sevastopol.¹⁴² The Romanian Army committed to the battle 16 infantry and one armoured divisions, 2 cavalry and 2 fortress brigades.¹⁴³ Encouraging his soldiers, Antonescu stated that the opposing force was formed out of "railway battalions, commercial sailors, policemen, drivers and untrained civilians", and therefore it did "not have any military value".¹⁴⁴ There was some truth to this statement, but the fact that these Soviet troops, grossly outnumbered, successfully beat off assaults for two months proves that the military value of the Romanian Army was still much lower.

In the night of 15/16 October 1941, the Coastal Army evacuated Odessa and sailed to Sevastopol, taking with it most of the weaponry and a great deal of the industrial equipment, thus completing an operation unprecedented in history. Factories and port installations were destroyed. Although Romanian GHQ had been aware of the intention to

¹⁴¹Manstein claims that there were only two assaults on Sevastopol, while the Soviet Command counted also the first impromptu attempt to take the city.

¹⁴²TsAMO RF, Fund 288, Inventory 9900, File 32, p.124. The Coastal Army's War Diary, 15 August 1941; Ibid., pp.329, 330, The Description of Activities of Recruiting Section of the Coastal Army, no date; Ibid., pp.344, 345, List of the Reinforcements Arrived with Marching Companies, 11 March 1942.

¹⁴³BA-MA, RH 31-I/9, Anlage zu DHM Ia Nr.32/42g Kdos, Gliederung des rumänischen Heeres vom 22.6 - 16.10.41, [Organization of the Romanian Army 22 June - 16 October 1941], 18 January 1942.

¹⁴⁴Arhiva Ministerului Apărării Naționale, Bucharest, Romania. [Archives of the Ministry of National Defence]. (M.Ap.N.), File 721-P.II.2.1654, Rapoarte și Note [Reports and Memorandums], p.407, 26 August 1941.

evacuate Odessa at least since 5 October,¹⁴⁵ and had ordered all its formations to strike as soon as the Coastal Army left its positions,¹⁴⁶ Soviet troops marched to the port (some of the units over 20 km) and embarked unmolested. In the afternoon of 16 October the Romanian Army entered Odessa.

According to the Red Army General Staff, total Soviet casualties at Odessa were 34,949 men.¹⁴⁷ This figure is likely to be an underestimation since it includes only 22,024 wounded, while already on 12 September the Coastal Army HQ had reported 25,000 wounded.¹⁴⁸ By 1 November, the 3rd Romanian Army, that, according to the German initial intentions, was supposed to carry the heavier burden of the offensive, had suffered in total 10,838 casualties, while the 4th Army that was believed to be fit only for auxiliary duties had a total of 119,833 casualties.¹⁴⁹ Thus 92% of Romanian casualties were suffered by troops that were used contrary to the recommendations of the DHM. Total Romanian casualties in August-September 1941 equalled 30% of Axis casualties on the Eastern front for this period.¹⁵⁰

Having won a Pyrrhic victory, the 4th Army was sent home. It was excluded from operations for about a year. The Romanian government lost its initial enthusiasm for

¹⁴⁵M.Ap.N., Armata 4-a, Jurnal de operații, p.180, 5 October 1941.

¹⁴⁶BA-MA, FC 2327b N, p.546, Chief of the Romanian General Staff I.Iacobici to Antonescu, 12 October 1941.

¹⁴⁷List of the Coastal Army Casualties, in General'nyi Shtab Krasnoi Armii [The General Staff of the Red Army], Oborona Odessy, [The Defence of Odessa], (Moscow: Voennoe izdatel'stvo Narodnogo Komissariata Oborony, 1943), 74.

¹⁴⁸Azarov, Osazhdennaja Odessa, 116. The difference might be explained by the fact that lightly wounded men were not evacuated from Odessa but were repeatedly sent to the battle after some recovery (Ibid., p.161). Thus on 23 August each division of the Coastal Army was reinforced with 1,000 men dragged out of hospitals (Voenno-Nauchnoe Upravlenie General'nogo Shtaba, Sbornik, p.37). Perhaps, the Coastal Army calculated each case of wounding while the General Staff counted only those unfit for service, no matter how many times they were wounded.

¹⁴⁹BA-MA, RH 31-I/166, DHM, Beobachtungen aus dem Feldzug gegen Odessa, no date. These are DHM data. Contemporary Romanian sources provide figures that fluctuate between 105,243 [BA-MA, FC 2327b N, p.551] and 118,654 men. [BA-MA, FC 2326 N, p.249].

¹⁵⁰Axworthy, Scafeș, Crăciunoiu, Third Axis. Fourth Ally, 72.

"marching with the Axis unto death",¹⁵¹ while the attitude of the Romanian public to the war turned overwhelmingly negative.

Conclusion

The poor performance of the Romanian Army in the first year of the campaign against Russia was a logical consequence of a series of mistakes made by both civilian and military authorities in the interwar period. Planning the defence policy, the government allowed wishful thinking to prevail over cool-headed analysis. Exaggeration diplomacy's possibilities and neglect of the armed forces was a mistake common among the victors of the Great War, such as Britain or France. But this bungle was particularly inexcusable for a country surrounded by enemies seeking revenge. Strategic uncertainty, weakness of industry, self-delusion and mistaken interpretation of the experience of the Great War prompted the adoption of a purely defensive doctrine that in practice degenerated into a conception of passive defence. Poor funding and the low prestige of military service in Romania resulted in a mediocre officer corps that lacked enthusiasm. The rearmament program started in 1935 aimed mainly at modernization of the equipment and did not affect the army's doctrine or training. As a whole, the army remained intellectually stagnant, poorly equipped, untrained and unpopular throughout the interwar years. After the humiliating territorial concessions in the summer of 1940, the necessity for urgent reforms became obvious, but even then many army flaws remained unidentified.

Unlike some other Axis countries, Romania had practically no chance to stay out of the war. Its geographical location between two fighting great powers and the possession of oil fields would most likely have provoked attacks either by the Axis or the Allies. The political reorientation towards the Axis was a pragmatic and, arguably, a reasonable step in the circumstances of 1940. Contrary to the expectations of Romanian GHQ, the army was not transformed into an efficient force by the summer of 1941, partially because the German High Command ordered the DHM not so much to train the Romanians as to guard the oil

¹⁵¹DGER, Series D, 12: Document No.614, p.996, 13 June 1941.

fields, and partially because the Romanian Army was too inefficient to be radically modernized within a short time. Being unaware of German strategic plans, GHQ failed to link the reforms to the nature of forthcoming operations.

The German High Command gave the Romanian government, at least in 1941, the chance to limit the Romanian involvement in *Barbarossa*. However, Antonescu believed that Romania "would never forgive General Antonescu for letting the Rumanian Army remain inactive while the German forces in Rumania were marching against Russia", and decided "to place Rumania's entire military, political, and social resources at the Führer's command".¹⁵² The government's lack of strategic perspective ensured that Romania's commitment to the war escalated directly as the Wehrmacht's situation worsened. The DHM assessed the potential of the Romanian Army objectively and issued numerous warnings that "this army has its limits and one cannot overstrain it".¹⁵³ When the Blitzkrieg broke, however, the German High Command increasingly assigned the Romanian Army missions for which it possessed neither equipment nor training. Its ideas about the employment of the Romanian Army evolved from the intention to use it mainly for auxiliary duties in the rear (plan *Barbarossa*), to charging it with an independent operation on a secondary direction (at Odessa), to entrusting it with an important mission in a decisive battle (at Stalingrad). Romanian GHQ complied with these requests, initially with enthusiasm, later with growing reluctance, yielding to pressure. In 1941 the DHM acknowledged that "within the limits [of his capacity] our ally did everything in his power".¹⁵⁴ The Chief of the DHM, General Arthur Hauffe, believed that the sheer fact that "this army that was (...) trained for pure defence" accomplished what it did "was a little miracle".¹⁵⁵

¹⁵²DGFP, Series D, 12: Document No.614, pp. 997, 1005, 13 June 1941.

¹⁵³BA-MA, RH 31-I/44a, Hauffe to Matzky, 15 August 1941.

¹⁵⁴BA-MA, RH 31-I/166, DHM, Beobachtungen aus dem Feldzug gegen Odessa, no date. Emphasis in the original.

¹⁵⁵BA-MA, RH 31-I/44a, Hauffe to Matzky, 15 August 1941.

CHAPTER THREE: THE ARMOUR

Having analyzed the Allies' victorious tactics in the Great War, the Romanian GHQ decided to build armoured forces. In 1919 it acquired seventy two Renault FT 17 tanks and organized the Armoured Battalion and an armoured school. After the attachment of a few auxiliary units, two years later the battalion was transformed into a regiment.¹ The vigorous beginning was followed by a lingering stagnation. In 1935 the armoured forces had exactly the same number of Renault tanks, except that these were now hopelessly obsolete and mostly broken down beyond repair. Ideas about armour tactics were as old as the tanks themselves.

Many aspects of Romanian interwar defence policy testify to the conservatism of the military administration. However, analysis of the strategic and economical problems of interwar Romania shows that conservatism was not the only factor in GHQ's approach to armour. Armour was affected by the government's resolution to minimize the military budget more than other arms. GHQ, pressed by severe financial limitations, could not afford modern armoured forces. An armoured division cost fifteen times as much to equip as an infantry one², and it was by no means clear whether such expenses were justified. The battles of the Great War demonstrated that the use of armour entailed a great attrition of expensive equipment. The military administration considered it wiser to spend most of the scanty funds on the renovation and standardization of the less expensive and more durable infantry and artillery weapons, rather than to invest them in an enterprise that threatened to drain the tiny military budget. This view had a sound foundation.

The backwardness of Romanian industry also retarded armour development. In 1937 the Romanian military thinker Radu Davidescu warned that a country which intended to build armoured forces could not reckon exclusively on imports and should create its own tank industry, because (a) import was expensive; (b) the swift development of armour

¹Gheorghe Tudor, *Forța de șoc* [The Striking Force] (Bucharest: Editura Militară, 1982), 68, 76.

²Matthew Cooper, *The German Army 1933-1945* (London: Macdonald and James, 1978), 152.

technology would make prototypes ordered abroad obsolescent by the time of their delivery; (c) the armoured forces should be able to maintain and to modernize existing equipment; and (d) with the beginning of war all imports were likely to be cut.³ Although Davidescu revealed the complexity of the problem, he did not offer a solution. Romania lacked the manufacturing facilities needed to build an independent tank industry and the expensive infrastructure connected with it. Moreover, priority in the initial phase of the army's mechanization program had obviously to be given not to tank but to the automotive industry. Romania's prewar motor industry was limited to a single plant with a daily output between six and ten trucks assembled largely from imported components⁴ - hence, there was no real basis for the development of a tank industry. The greatest Romanian achievement throughout the interwar period regarding tracked vehicles was the assembling of 126 unarmoured supply carriers under French license from imported and locally manufactured parts.⁵ Eventually, despite its great wartime effort, Romanian industry was unable to produce armour plate or to copy, let alone to design, a tank engine. In fact, if Romania wished to have sophisticated weaponry, it had no choice but to import. In 1934 GHQ pointed out that since armour grew obsolete much faster than other weapons and Romanian industry could not keep pace with developments in armour technology, the Romanian mechanized forces were "doomed to remain obsolete, incomplete and inferior".⁶ At the same time, modernization and maintenance of tanks by local means was far more complicated than, for instance, upgrading and repair of infantry or artillery weapons. Thus, GHQ could either purchase armour and be permanently dependent on the exporter, or acquire more or less complicated but equally necessary equipment that could be maintained in Romania, such as modern infantry or

³Radu Davidescu, *Carul de luptă și mecanizarea în armatele moderne* [Tanks and Mechanization in the Modern Armies] (Bucharest: 1937), 165, 166.

⁴Mark Axworthy, *Scafeș, Crăciunoiu, Third Axis, Fourth Ally*, 31.

⁵*Ibid.*, 33.

⁶Cited in Dumitru Dobre, "Din istoricul trupelor de tancuri. Divizia 1 Blindată 'România Mare' pe frontul celui de-al doilea război mondial" [From the History of the Armoured Forces. The 1st Armoured Division "Great Romania" on the Fronts of the Second World War] (Bucharest, 1996) [PhD Dissertation], 44.

artillery weapons. Not surprisingly, GHQ preferred the last option.

The development of mechanized forces was further impeded by their poor compatibility with Romanian military doctrine. The tank is most effective as an offensive weapon, but since Romania's strategy was purely defensive, armour was inevitably allotted a secondary role. The armour staff, along with the personnel of the other arms, was trained by French instructors in accordance with French manuals. Exactly like their French teachers, Romanian officers considered tanks primarily not as a weapon of strategic offensive, but as a tactical means of counterattack. Romanian regulations stated that "the success of infantry defines the success of the operation" and that "the natural mission of tanks is infantry support".⁷ The depth of the tank offensive was to be limited by the ability of artillery to provide an effective support, that is, to a few kilometers. Tanks were to serve infantry as "mobile armoured artillery that has the mission (...) to destroy enemy's strongholds"⁸ - a view opposite to both German and Soviet ideas of deep penetration, presuming that tanks had to bypass centres of enemy's resistance. The Romanian regulations did not envisage actions of large and operationally independent armour formations. Tank companies or battalions were to be distributed among infantry formations.⁹ A separate Armour Command did not exist. The Tank Regiment was administratively subordinated first to the Technical Inspectorate of Infantry and then to the General Inspectorate of Artillery.¹⁰ Tank companies were permanently barracked in different cities around the country. The armoured units were to be under the tactical command of infantry formations.¹¹

Armour officers were superficially acquainted with the conceptions of the British

⁷Șuța, *Infanteria română*, 2: 252; T. Tomescu, "Atacul cu care de luptă și apărarea contra carelor" [Tank Attack and Anti-Tank Defence], *Revista infanteriei*, 42/4 (1938), 6.

⁸Cited in Dobre, "Din istoricul trupelor de tancuri", 86.

⁹Tomescu, "Atacul cu care de luptă", 8.

¹⁰Tudor, *Forța de șoc*, 77; Ion Popescu, et al., *Istoria artileriei române* [History of the Romanian Artillery] (Bucharest: Editura Militară, 1977), 203.

¹¹Dobre, "Din istoricul trupelor de tancuri", 109.

school of armoured warfare but were barely aware of either German or Soviet ideas.¹² The swift development of armour theories during the 1930s left only a slight trace in Romanian armour tactics, even though some officers promoted the idea of large mechanized formations. In 1930 Major Radu Dinulescu, for instance, viewed future warfare as a fight between "large motorized formations that would consist of infantry and artillery transported by tracked vehicles and that would advance under the protection of light and heavy tanks in a close cooperation with the air force".¹³ However, such dreams had little chance to be embodied into a doctrine. Armour tactics had to correspond to overall army doctrine and the small Romanian armour unit had to adapt its tactics to the doctrine of the rest of the land forces.

In fact, in Romania's circumstances, an alternative armour doctrine could hardly have been possible. The armoured division was an offspring of the conception of deep penetration. Since Romanian strategy was purely defensive, the idea of concentration of armour in a single formation found little response. Besides, the spectacular armour theories elaborated by the General Staffs of the great powers could not be applied to Romania because they presumed a far higher level of military and economical potential than Romania possessed. The vitality of the deep penetration conception hinged on the attacker's ability to maintain a tempo of breakthrough exploitation and pursuit higher than the speed of the enemy's retreat, so that the latter would not recover until routed. That could only be attained by the coordinated efforts of several armoured formations large enough to sustain striking power despite the great attrition. Armoured losses had to be promptly recovered by industrial production or repairs. The rest of the army had to be sufficiently mobile to follow the armoured spearheads closely and to keep them supplied.¹⁴ Romanian military and economic potential could not meet any of these preconditions. Therefore, Romanian armour officers

¹²Ibid., 4, 7, 87.

¹³Ibid., 39.

¹⁴V. K. Triandafilov, The Nature of the Operations of Modern Armies (Essex: Frank Cass & Co. Ltd., 1994), 136; Heinz Guderian, Tanki - vpered! [Tanks - forward!] (Nizhny Novgorod: Nizhpoligraf, 1996), 142, 143; Cooper, The German Army 1933-1945, 145, 146.

who thought not in terms of mechanized divisions but infantry support were, arguably, not conservative but realist. Romanian armour tactics were primitive, but this was a logical consequence of the chosen strategy and military potential.

Nonetheless, the lack of inspiring prospects caused intellectual stagnation and led to numerous tactical omissions even within the framework of the adopted doctrine. Romanian armour theories were marked by inflexibility and by assumptions that were never tested in practice. The study of armour tactics was limited to stereotyped direct and local attacks across ideal terrain. Theoreticians failed to elaborate the tactics for encounter battle, actions in a city, in a forest or across broken country, in retreat or in defence.¹⁵ Theory stressed the importance of cooperation between armour and other arms, but combined actions were rarely exercised. Romanian regulations did not even mention cooperation between armour and air force.¹⁶

The increase of the military budget in 1935 allowed GHQ to review armoured policy. As a first step, GHQ sought to renovate the park of tanks, that is, it had to choose prototypes that suited its armour doctrine. In the mid-1930s light tanks still dominated armour ideas worldwide, so GHQ ordered only light models, specifically, 126 Czechoslovakian tanks Škoda LT-35 and 200 French tanks Renault R-35.¹⁷ Experts considered Škoda one of the best contemporary light tanks,¹⁸ and the manufacturer claimed it to be "an infantry support tank" (judging from its design, without sound foundation), while the well-armoured R-35 was indeed designed specifically for infantry support. Unfortunately, most of the Romanian roads and bridges were unable to carry even light tanks. Since the improvement of roads seemed

¹⁵Dobre, "Din istoricul trupelor de tancuri", 134.

¹⁶Public Record Office, WO 208/1744. British Army Military Intelligence Division. Compilation Files, Roumania, Ch.XXXVIII/4/1, 8 April 1940.

¹⁷Dobre, "Din istoricul trupelor de tancuri," 70.

¹⁸V.N. Shunkov, Tanki Vtoroi mirovoi voyny [Tanks of the Second World War] (Minsk: Harvest, 1997), 323, 324.

to be financially impossible, GHQ also ordered 417 Czechoslovakian tankettes ČKD AH IV¹⁹ that were too lightly armoured and underarmed to be used in an infantry support role. Considerations about roads and the lower price of the tankette forced GHQ to advocate that 56% of its armoured force consist of tankettes, whether they suited the doctrine or not. It was fortunate that ČKD failed to honour the tankette contract and delivered only 35 units, but Škoda fulfilled the order for tanks. The tankettes were distributed among cavalry brigades to be used for reconnaissance, a role that corresponded to their parameters. Less fortunately, France also failed to execute the contract, delivering only 40 R-35 tanks by November 1940.²⁰

The beginning of World War II prompted a reorganization of Romanian armour. Deeply impressed by the actions of the German armoured divisions in Poland, GHQ concentrated all its armour in a single formation. The Motomechanized Brigade was organized on 24 October 1939,²¹ three weeks after the end of the Polish campaign. This instant reaction did not mean, however, that the General Staff had radically altered its views on armour tactics. The prolonged stagnation deprived GHQ of the necessary expertise on which it could formulate a consistent armour policy. The two tank battalions were affiliated with and subordinated to motorized infantry regiments. Tanks continued to be aimed at local actions in support of infantry. The Brigade's HQ admitted later that the "organization and [outmoded] ideas restricted the range of Motomechanized Brigade's tactics".²²

The training by German instructors conducted from February to the end of May

¹⁹Dobre, "Din istoricul trupelor de tancuri," 53, 70.

²⁰Ibid.

²¹M.Ap.N., Divizia 1 Blindată [1-st Armoured Division], File: 549/1, Jurnal de operații, p.2. Jurnal de operații (1939-1941) consists of two volumes. The first volume (549/1) contains a post-factum historical account of the period October 1939 - June 1941. The second volume (549/2, 7 July 1941 - 10 August 1942) is a day-to-day War Diary that contains also periodical analyses of the Division's actions during the several past days.

²²M.Ap.N., Divizia 1 Blindată, File: 549/1, Jurnal de operații, pp. 13, 13v.

1941²³ affected armour more than other arms. Romanian strategy remained defensive but, at least in theory, land forces turned from a methodical to a mobile doctrine. This led to a dramatic change of armour tactics from the conception of local infantry support to the idea of independent counterstroke in tactical depth. Moreover, it appeared that the political reorientation created preconditions for the employment of armour in accordance with the German model, but on a smaller scale. Had Antonescu's hope that DHM would sell its equipment to Romania after the end of instruction become true, that is, that the Romanians would have acquired the tanks which arrived with the 13th and 16th Armoured Divisions, they might have been able to build two armoured formations large enough to carry out deep offensives. In turn, by cooperating with troops that had been trained in the spirit of mobile warfare - either with German or with retrained Romanian infantry divisions, which, it was hoped, would be provided with additional motor transport - the Romanians might well have gained armoured formations roughly equivalent to the scale of German forces in the Desert Campaign.

The switch to a mobile doctrine automatically enhanced the prestige of the Brigade. The continuous success of German armoured divisions stirred up the enthusiasm of Romanian armoured personnel for reforms. The Brigade War Diary reported that the staff "stroved to organize the formation in a way that would enable it to act according to the German doctrine".²⁴ With the acquisition of more tanks from Czech and French factories and a few dozen interned Polish R-35,²⁵ the Brigade was transformed to a Motomechanized Division in January 1941; and to the 1st Armoured Division one month later. Tanks lost their subordination to infantry and obtained a superior status within the formation. On paper, the Division possessed two tank regiments (one Regiment with 126 Škoda tanks and another with 75 R-35 tanks), two regiments of infantry, an artillery regiment, a special battalion consisting of anti-tank, anti-aircraft, pioneer and signal companies and a reconnaissance

²³Ibid., p.15v.

²⁴M.Ap.N., Divizia 1 Blindată, File: 549/1, Jurnal de operații, p.14v.

²⁵Axworthy, Third Axis. Fourth Ally, 37.

group.²⁶ The Division was the only Romanian formation that was fully motorized.

However, several interconnected factors prevented the Division from reaching a high level of combat efficiency, some material in nature, others stemming from the prolonged stagnation. The most important among the material factors was the chronic shortage and mediocre quality of various equipment. Although both Romanian tank prototypes had been modern at the time they were ordered, the progress of tank technology and anti-tank weapons turned them obsolescent by 1941. The tanks had small-caliber and small-velocity guns, the Škoda was too lightly armoured and the R-35 was too slow even for infantry support. However, the Division was not decidedly outclassed in the quality of tanks either by its allies or by the adversary. Although Romanian tanks were greatly inferior to latest German models, they had far better parameters than the German PzKW 1 or PzKW 2 and were similar to the Czechoslovakian model ČKD LT-38, and these three types constituted 60% of the German invasion armoured force by the beginning of *Barbarossa*.²⁷ Only one of each thirteen Soviet tanks was modern²⁸ and clearly superior to Romanian models by June 1941, while the rest of armour consisted of types with technical characteristics comparable to those of the Romanian tanks (Table 2). The more significant problem was the minuscule size of Romanian armoured forces and their inability to replace losses. In June 1941 Germany deployed 3,600 tanks on the Eastern Front while the total strength of the Soviet armour equalled 22,600 tanks.²⁹ Since the hopes for German help with equipment were frustrated, the Division was unable to reach its supposed complement. Instead of having the two motorized infantry regiments and the two tank regiments indicated on paper, the Division HQ had only one two-battalion Regiment of motorized infantry and one two-battalion Tank

²⁶M.Ap.N., Divizia 1 Blindată, File: 549/1, Jurnal de operații, pp.13, 14, 14v.

²⁷Calculated from Cooper, *The German Army 1933-1945*, 276.

²⁸Calculated from Boog, et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 62; G. F. Krivosheev, "Voina broni i motorov" [War of Armour and Motors], *VIZ*, (1991), 4: 39.

²⁹Boog, et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 977; G. F. Krivosheev, "Voina broni i motorov" [War of Armour and Motors], *VIZ*, 4 (1991): 39.

Type	Crew	Weight (tons)	Armour front/ side (mm)	Armament	Speed (km/h)
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ROMANIAN TANKS

Škoda LT-35	4	10.5	25/16	gun 37 mm 2 MG 7.92 mm	35
R-35	2	9.8	45/20	37 mm gun 1 MG 7.92 mm	19
ČKD AH IV	2	4.2	12/5	2 MG 7.92 mm	45

GERMAN TANKS

PzKW I	2	5.4	13	2 MG 7.92 mm	37
PzKW II	3	9.3	14.5	gun 20 mm 1 MG 7.92	40
ČKD LT-38	4	9.4	25/17.5	gun 37 mm 2 MG 7.92	42

SOVIET TANKS, ODESSA REGION³⁰

T-37A, T-38 (amphibious tankette)	2	3.2	9	1 MG 7.62 mm	38
T-26	3	9.4	25	gun 45 mm 1 MG 7.62 mm	30
BT-7	3	13.8	22/13	gun 45 mm 2 MG 7.62 mm	52
"NI" tankette ³¹ (Armoured agricultural tractor STZ)	2		14	1-2 MG 7.62mm	25/30

Table 2. Technical characteristics of Romanian, German and Soviet tanks³²

³⁰The Soviet tanks' armour protection was often strengthened by additional armour plates.

³¹The item got the semi-official designation "NI" deriving from the abbreviation of the Russian phrase *Na isrug* [Hoping to Frighten]; Azarov, *Osazhdeniia Odessa*, 81.

³²TsAMO RF, Fund 228, Inventory 9900, File 32, p.289, Note about Organization and Actions of the Coastal Army's Tank Battalion; Scafeș, *Armata Română 1941-1945*, 310; Shunkov, *Tanki Vtoroi mirovoi*

Regiment consisting only of Škoda tanks.³³ The R-35s proved too slow to keep pace with the Division, so the 2nd Tank Regiment was detached and subordinated to the 4th Army HQ. The Division also lacked a great deal of auxiliary equipment. There was a striking difference between (a) the ideal organization of a mechanized division as the Romanian theoreticians viewed it, (b) the organization of the Division on paper and (c) what the formation possessed in reality (Table 3). By June 1941, the Romanian Armoured Division possessed only 109 tanks in working order and lacked anti-aircraft artillery.³⁴ DHM reported that the title "division" was misleading and estimated the strength of the formation as ranging somewhere between a weak mechanized brigade and a reinforced tank regiment. The Soviets also referred to the formation as a "brigade".³⁵ Though the formation kept its proud "division" title, it was too weak to perform independent deep penetrations.

It was not only the shortage of armour, however, that imposed limitations on the Division's tactics. General Heinz Guderian pointed out that deep armour strikes were feasible only if supported by other arms that had to "be adjusted to fit in with our [armour] scale of time and space".³⁶ The overall level of mobility of the Romanian Army alone would have confined armour to shallow offensives. The army had no motorized infantry formations. Being short of motor vehicles, the military administration believed that it would be wiser to give each regular infantry division some motor transport rather than to organize a couple of motorized formations, leaving the rest of the army with only horse-drawn carts. Eventually,

voiny [Tanks of the Second World War]; Boog, et al., Das Deutsche Reich und der Zweite Weltkrieg, 4: 63.

³³M.Ap.N., Divizia 1 Blindată, File: 549/1, Jurnal de operații, p.15.

³⁴BA-MA, RH 31-I/48, Sammelmappe Rumänisches Heer, DVK, Anlage 4b zu DHM Ia/d Nr.554/41 g.Kdos., 1 June 1941.

³⁵BA-MA, RH 31-I/98, DHM Ia Nr.32/42 g.Kdos., Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, p.4, 18 January 1942; Ibid., Anlage 3 zu DHM Ia Nr.318/42 g.Kdos. 12 May 1942; Voenno-Nauchnoe Upravlenie General'nogo Shtaba [Military-Scientific Office of the General Staff], Sbornik voenno-istoricheskikh materialov Velikoi Otechestvennoi voiny [Collection of Military Historical Documents on the Great Patriotic War], 34.

³⁶Cited in Cooper, The German Army 1933-1945, 147.

MECHANIZED DIVISION, AS IT WAS SEEN BY RADU DAVIDESCU

Tank Brigade					Motorized Brigade				
Motorized Regiment		Tank Regiment			Motorized Regiment		Motorized Infantry Regiment		
MG Bat.	Light Tank Bat.	Light Tank Bat.	Medium Tank Bat.	Medium Tank Bat.	Motor-cycle Bat.	Moto-rized Bat.	Batta-lion	Batta-lion	Batta-lion

Artillery Regiment		
Artillery Battalion	Artillery Battalion	Artillery Battalion

Auxiliary Units			
Engineer Battalion	Signal Comp.	Anti-tank Unit	Air force Unit

ORGANIZATION OF THE ARMOURED DIVISION, SUPPOSED COMPLEMENT

Motorized Infantry Regiment		Motorized Infantry Regiment		Tank Regiment (Škoda)		Tank Regiment (R-35)	
Bat.	Bat.	Bat.	Bat.	Tank Bat.	Tank Bat.	Tank Bat.	Tank Bat.

Artillery Regiment			Auxiliary Units				
Artillery Bat.	Artillery Bat.	Artillery Bat.	Reconnaissance Group	AT Comp.	AA Comp.	Signal Comp.	Engineer Comp.

REAL STRENGTH OF THE ARMOURED DIVISION

Motorized Infantry Regiment		Tank Regiment (Škoda)	
Battalion	Battalion	Tank Battalion	Tank Battalion

Artillery Regiment			Auxiliary Units			
Artillery Battalion	Artillery Battalion	Artillery Battalion	Reconnaissance Group	Engineer Battalion	Anti-tank Company	Signal Company

Table 3. Ideal, supposed, and real organization of the Romanian armoured formation³⁷

³⁷Tudor, Gheorghe, *Forța de soc* [The Striking Force] (Bucharest: Editura Militară, 1982) 97; M.Ap.N., Divizia 1 Blindată, File: 549/1, Jurnal de operații, pp.14, 14v; M.Ap.N., Divizia 1 Blindată, File: 549/1, Jurnal de operații, p.15.

trucks were distributed more or less evenly among infantry divisions' supply trains and also, logically, given to the heavy artillery while soldiers had to march on foot. The weak armour formation could not operate far ahead of the rest of an army whose tempo of advance was limited by the troops' ability to march. Ultimately, the Red Army found a partial solution to the same problem by amalgamating large armoured and horsed cavalry formations. Judging from the fact that such cavalry-mechanized formations were used until 1945, Red Army GHQ was satisfied with their performance. The Romanian Army also employed six cavalry brigades on the Eastern Front in 1941,³⁸ three of which included one motorized regiment.³⁹ However, although prewar Romanian regulations envisaged joint actions of armour and cavalry,⁴⁰ GHQ viewed this cooperation as reinforcement of large cavalry formations by small armour units and did not try to organize large armoured-cavalry formations. Arguably, that was the only way that Romania could have had a significant mobile force capable of deep penetration in 1941.

The scale of possible offensives, and, particularly of armour operations, was also restricted by the capacity of the supply service. That was based on railways, requisitioned civilian vehicles, but, most of all, on horse-drawn wagons. Mobile warfare presumed not only a qualitatively higher capacity of the supply service, but also a change of its structure - the motor transport would have to be the logistical backbone of offensive operations. GHQ estimated that the mobilized army would require 11,000 motor vehicles.⁴¹ But even this small quantity could not be found. An average German infantry division of 1941 had 447 trucks, while each infantry division of the 4th Army had only 30.⁴² A great variety of trucks' models among the requisitioned vehicles promised logistical problems. As a whole, supply still rested on whatever civilian horses and carts the army managed to requisition. Since peasants

³⁸BA-MA, RH 31-I/9, Anlage 1 zu DHM Ia Nr.32/421 g.Kdos., Gliederung des rumänischen Heeres vom 22.6-16.10.41, 18 January 1942.

³⁹Axworthy, *Third Axis. Fourth Ally*, 64.

⁴⁰Public Record Office, WO 208/1744. British Army Military Intelligence Division. Compilation Files, Roumania, Ch.XXXVIII/3/E/1, 8 April 1940.

⁴¹Duțu, Retegan et al., *Armata română în al doilea război mondial*, 1: 65.

⁴²BA-MA, RH 31-I/46, Anlage 3, May 1941; Friedrich Forstmeier, *Odessa 1941*, 99.

tended to hide their best stock,⁴³ the army acquired weak and ill-assorted horses with heterogeneous harnesses that could pull, according to German observers, only two boxes of ammunition per wagon.⁴⁴ Romanian supply columns were long and inefficient. No mobile repair shops for motor vehicles or carts and harnesses existed when the army started the offensive, and the transport quickly broke down. Having no experience in mobile operations, Romanian commanders could not establish a proper priority of deliveries and loaded the vehicles that were to supply advancing formations with equipment useless in offensives, such as enormous quantity of barbed wire and even furniture.⁴⁵ The Germans called logistics "one of the sorest spots"⁴⁶ of the Romanian Army. The 3rd Army HQ estimated that the capacity of its supply trains limited the range of offensives to 50 km beyond the frontier.⁴⁷ Such handicaps automatically restricted the range of armour operations.

Nor did this end the problems. They were multiplied by troubles deriving from the disastrous state of training. This, to some degree, stemmed from the permanent lack of equipment and funds. Armour commanders were understandably unwilling to use tanks for extensive exercises because, they stressed, "afterwards, naturally, the equipment could not be used in operations because it would have been worn down",⁴⁸ and could not be replaced. Since armour commanders had neither equipment for training nor funds to practice coordinated actions of tanks and other arms, the training of armour personnel was often confined to theoretical discussions. The example of the Reichswehr in the 1920s had proved that keen troops with no equipment could be trained fairly well for modern warfare. But Romanian armour personnel lacked the enthusiasm of their German colleagues. The prospects of service in the armoured force in Romania were uninspiring, and that produced the mediocre quality of the armour officer corps. Both the Division's war diary and DHM's

⁴³BA-MA, EC 2974 N, p.209. Constatări făcute în zilele de 6 și 7 iunie, cu ocazia controlului mișcării [Conclusions Made on 6-7 June about the Control of Traffic], 1941.

⁴⁴BA-MA, RH 31-I/166, DHM in Rumänien, Beobachtungen aus dem Feldzug gegen Odessa, p. 35, no date.

⁴⁵BA-MA, FC 2327b N, p.567, 568. Marele Cartier General, Cauzele care au împiedicat armata română să aibă o victorie rapidă și strălucită la Odesa [Factors That Prevented the Romanian Army From Quick and Brilliant Victory at Odessa], 29 September 1941.

⁴⁶BA-MA, RH 31-I/81, DHM in Rumänien, Ia/d Nr.575/41 g.Kdos., Allgemeine Weisung Nr.3 für die DVK, 5 June 1941.

⁴⁷BA-MA, FC 2328 N, p.343. Armata 3-a, Jurnal de operații, 26 June, 1941.

⁴⁸BA-MA, FC 2336 N, p.242. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

reports testify that until the arrival of the German instructors, Romanian armour officers were poor professionals who neglected available opportunities, however limited, to improve their own skills or to train the rank and file.

The Germans intended to conduct the training process in accordance with their proven educational principles, from the bottom up. They planned to start with instruction of the individual soldier, then to train separate units and finally to attain a harmonic functioning of the whole Division.⁴⁹ However, inadequacy of basic training frustrated this logical program. By the summer of 1941, instruction ceased for motorized infantry and tank personnel at the level of the platoon, for artillery at the level of the battery, and, as the Division HQ frankly admitted, it could not "reckon either on pioneers that have been trained only for 18 days or on signal personnel" that had not been trained at all because it had no radios.⁵⁰ The Division's ability to coherently act as an all-arms formation had never been tested in an exercise before the Division went into battle.

GHQ bore responsibility not only for the quality but also the quantity of available cadres. The complexity of armour equipment made special demands on the education and training of personnel. The tank units had the highest proportion of regulars in the army (25.5% of the personnel of the peace time tank regiments were officers and NCOs, while in heavy artillery regiments, second in line, the proportion equaled only to 13.8%).⁵¹ However, GHQ failed to train a pool of reservists who would compensate for battle attrition. This was particularly unfortunate in a country where the agricultural character of the economy resulted in a low level of general technical knowledge among the population. Only after the first battles did GHQ learn the simple truth that "the personnel of an armoured formation needs a special training that cannot be completed sooner than within a year. There were no trained reservists to compensate for the losses".⁵²

Assessing the Division's capacity, German instructors stressed that "the Division cannot be employed for the breakthrough missions because of it has [only] light tanks" but

⁴⁹M.Ap.N., Divizia 1 Blindată, File: 549/1, Jurnal de operații, p.17.

⁵⁰Ibid., pp.17v., 18.

⁵¹Calculated from BA-MA, EC 2964 N, pp.313, 314. Marele Stat Major, Tabel cu efectivele ce rezultă din Ord.Nr.16300 A. [The General Staff, Table of the Effectives According to Order Nr.16300 A.], 24 October 1940.

⁵²BA-MA, FC 2336 N, p.238. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

"could be, possibly, used as purely motorized division for easy missions".⁵³ Division HQ evaluated as particularly poor the training of "specialists" among whom it numbered everyone but infantry and field artillerists.⁵⁴ The Division entered action insufficiently trained, far under its supposed full strength and without cadre reserves. The German instructors did, however, implant in the Division's personnel the mentality of an army elite and, what was more important, won the hearts and minds of its staff to advanced armoured doctrine.

The Division was the only Axis armoured formation that operated against the Soviet Southern Front. Initially, it was subordinated to the German 11th Army. Until the battle of Odessa, the Division did not meet determined resistance, despite several clashes with rearguards covering the Soviet retreat. The Division had the luck not to face a large Soviet armoured formation. It has become a tradition among western historians writing on the Romanian Army to point to impressive numbers of Soviet tanks in the Odessa Military District.⁵⁵ They fail, however, to mention that two out of three mechanized corps initially included in the Southern Front were withdrawn to the South-Eastern Front before the Romanian armies could meet them, while the remaining II Mechanized Corps fought mainly German divisions at other sections of the front.⁵⁶ Only a small part of this Corps was actually used against Romanian formations and not more than a dozen tanks ever opposed the Armoured Division. Nonetheless, had the Division met a Soviet armour formation of equal size, it would not necessarily have been at a great qualitative disadvantage. The II Mechanized Corps possessed only 60 new tanks while most were obsolescent types (BT-5, BT-7 and T-26).⁵⁷

After the first two weeks of advance, mainly in the second echelon, the Division was ordered to break to the rear of the Soviet 95th Rifle Division that was containing

⁵³BA-MA, RH 31-I/26 (b), DHM, Ia Nr.104/g.Kdos., Beurteilung des rumänischen Heeres, p.7, 14 February 1941. Emphasis in the original.

⁵⁴M.Ap.N., Divizia 1 Blindată, File: 549/1, Jurnal de operații, p.17v.

⁵⁵See Ready, The Forgotten Axis, 144; Axworthy, Third Axis. Fourth Ally, 45.

⁵⁶(TsAMO RF), Fund 228, Inventory 701, File 4, p.104. The Southern Front Staff's Directive, p.1, 25 June 1941; Ibid., File 228, Inventory 701, File 228, pp.103, 104. Actions on 5 July 1941.

⁵⁷M. V. Zakharov, General'ny Shtab v predvoennye gody [The General Staff in the Prewar Years] (Moscow: Voenizdat, 1989), 279.

German/Romanian forces to the west of Kishinev, the capital of Bessarabia, and to cut its retreat across the Dnestr (Map 3). The Armoured Division swept aside the covering rearguards of Red cavalry and after a long drive across a hilly terrain struck Kishinev from an unexpected direction, the north, and conquered the city. Romanian historians consider this to be the major achievement of the Division. Division HQ attributed the success to swiftness of maneuver and boldness of attack.⁵⁸ Indeed, the Division showed resolution and initiative that were atypical of the Romanian Army. Granted, German/Romanian forces attacking Kishinev outnumbered the defender threefold,⁵⁹ and this made the victory less impressive. The Armoured Division captured the city by the attack of one tank battalion unsupported either by artillery or infantry, because almost all Red Army forces were concentrated to the west of Kishinev, so that the tanks fought in the city only a cavalry squadron, one artillery battery and "bands of partisans".⁶⁰ Moreover, though the Armoured Division forced the 95th Rifle Division to hastily retreat, it failed to cut the Soviets off the Dnestr crossing as it was ordered by the HQ of German LIV Army Corps.⁶¹ But the provincial capital was a prestigious prize and the Romanians were proud that their tanks drove into the city ten hours ahead of the German 72nd Infantry Division.

The first Division's actions showed that its capacity was handicapped by deficiencies of equipment, inexperience in mobile warfare and a lack of general training. Antonescu confidently stated in a conversation with Hitler a fortnight before the start of *Barbarossa*, that "the motor in the air and on the ground eliminated space as Russia's ally".⁶² He had to be surprised to discover that armour's problems until the battle of Odessa stemmed not so much from the occasional resistance of Soviet rearguards, but difficulties of cross-country maneuver. On 6, 9 and 15 July the Division was ordered to break to the rear of the retreating enemy columns and cut them off at the Dnestr crossings of Moghilev, Soroca and Tighina, but it failed to carry out any of these missions.⁶³ DHM pointed out that due to the failure to trap the Soviets between Prut and Dnestr, "the enemy was neither destroyed nor significantly

⁵⁸M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, p.95v., 16 July 1941.

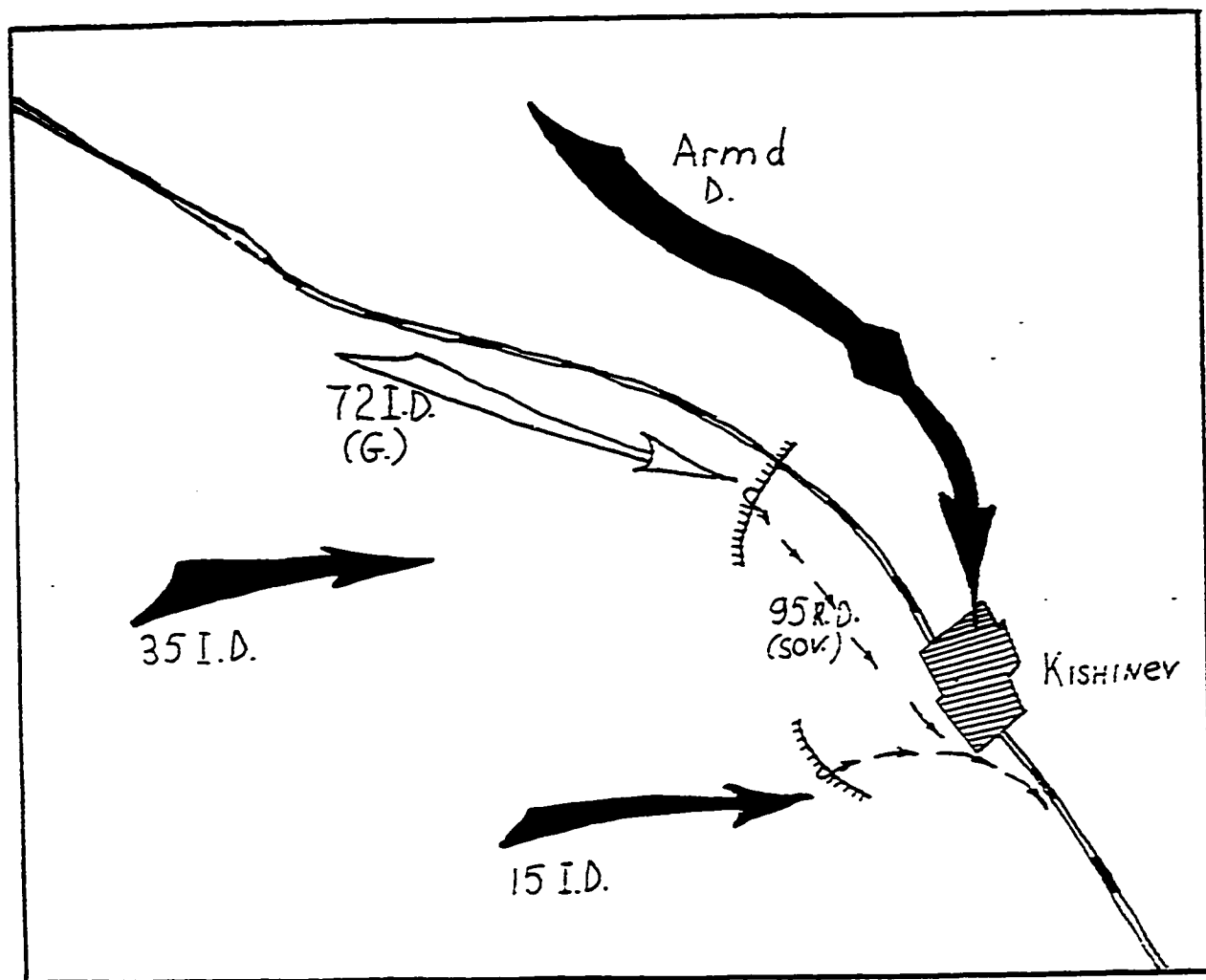
⁵⁹Duțu, Retegan et al., *Armata română în al doilea război mondial*, 1: 228.

⁶⁰M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, pp.91, 92, 95, 16 July 1941.

⁶¹M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, p.89v., 15 July 1941.

⁶²DGEP, Series D, 12: Document No. 614, p.1006, 11 June 1941.

⁶³Ibid., pp. 47, 59v., 89v., 6, 9, 15 July 1941.



Map 3. The capture of Kishinev, 16 July 1941

weakened", so he "employed the same divisions at Odessa and even in Crimea".⁶⁴ The Division's HQ explained each reverse with the impassability of roads after heavy rains. In German armoured divisions, 20% of the vehicles were half-tracked,⁶⁵ while the Red Army's cross-country capacity was improved after it requisitioned caterpillar agricultural tractors. Against this, the entire transport of the Division consisted of wheeled trucks⁶⁶ that were often unable to surmount unpaved muddy roads. GHQ observed with surprise that in rainy weather, infantry was more mobile than armour.⁶⁷ The Division was forced to undertake risky marches across forests without reconnaissance because the only vehicles that were intended to be used for this role were motorcycles that became stuck in Bessarabian roads.⁶⁸ It was by sheer luck that the Division avoided the fate of the neighbouring 35th Romanian or 198th German Infantry Divisions that were ambushed by Soviet armour and suffered heavy losses.⁶⁹ Because of the low cross-country capacity of motor transport, the Division was often spread along great distances, and thus could rarely operate as an all-arms formation. The Division experienced chronic logistical problems because GHQ, despite numerous warnings by the Germans, failed to organize an efficient traffic regulation service and prevent interference between German and Romanian supply routes and bottle-necks.⁷⁰ Unlike the Germans, the Romanians could hardly explain their reverses by claims of unfamiliarity with the nature of the theater, since they operated in an area that had been lost by Romania only a year earlier. The tremendous difficulties that the Division encountered marching across native terrain in the best season were the consequence of the failure to practice long cross-country marches prior to the war. This neglect did not allow the Armour

⁶⁴BA-MA, RH 31-I/166, DHM in Rumänien, Beobachtungen aus dem Feldzug gegen Odessa, pp. 7, 8, no date.

⁶⁵Cooper, *The German Army 1933-1945*, 156.

⁶⁶BA-MA, RH 31-I/98, Anlage 3 zu DHM Ia Nr.318/42 g.Kdos., Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, p.61, 12 May 1942.

⁶⁷BA-MA, FC 2336 N, p.246. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

⁶⁸M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, p.148v., 10 August 1941.

⁶⁹Dupu, Retegan et al., *Armata română în al doilea război mondial*, 1: 248-250; Halder, *The Private War Journal*, 6: 221.

⁷⁰BA-MA, FC 2336 N, p.209. 1st Armoured Division HQ to German LIV Army Corps, 18 July 1941; BA-MA, RH 31-I/44a, Commander of DHM to the Chief of the Romanian General Staff Ioanițiu, 6 August 1941; RH 31-I/98, DHM Ia Nr.32/42 g.Kdos., Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, p.4, 18 January 1942.

Command to identify the problems connected with mobile warfare and to acquire experience in solving them.

Along with their French mentors, Romanian armed forces underestimated the importance of the signal service. It was barely even discussed in Romanian regulations.⁷¹ For an armoured division that was supposed to operate independently in a dynamic environment, the consequences of this omission were particularly grave. The R-35 tanks were not equipped with radio while the Škoda's short-range radios proved to be unreliable, hence tank commanders had to lean out of turrets under fire to communicate by visual signals.⁷² Only on the very eve of *Barbarossa* did the Division get seven long-range radio sets, most of them damaged, that is, less than one radio per battalion. Five radio sets were disabled by mid-July and the range of the remaining two was limited to 30 km.⁷³ The German Weapons Office, by comparison, believed that an armoured division needed radios with a range of 250 km for communication with the Army HQ and 50 km for communication between units.⁷⁴ It was not easy to replace the faulty radios because Romania did not have its own radio industry. Again, after entering actions Division HQ found out that the radio code was so complicated that it was useless in mobile warfare.⁷⁵ HQ discovered that the lack of a proper signal service "often led to interruption of the operations".⁷⁶ To be fair, in its apprehension of communication issues, the Romanian Army was typical of contemporary armies. The Red Army's proficiency in the use of communication means was similar. The Commander of the Southern Front, General Ivan Tulenev, stressed in July 1941 that signals' problems led to situation when "the armies and corps HQs are unaware of their troops' locations. They, in

⁷¹Public Record Office, WO 208/1744. British Army Military Intelligence Division. Compilation Files, Roumania, Ch.XXXVIII/4/2, 8 April 1940.

⁷²BA-MA, FC 2336 N, p.239. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

⁷³BA-MA, FC 2336 N, p.214. Commander of the 1st Armoured Division Sion to the General Staff, 23 July 1941.

⁷⁴James Corum, The Roots of Blitzkrieg: Hans von Seeckt and German Military Reform (Lawrence: Kansas University Press, 1992), 108.

⁷⁵Dobre, "Din istoricul trupelor de tancuri", 319.

⁷⁶BA-MA, FC 2336 N, p.214. Commander of the 1st Armoured Division Sion to the General Staff, 23 July 1941.

fact, do not control their units and everything proceeds spontaneously".⁷⁷

One of the gravest prewar flaws was the failure to organize repair facilities. Since the Division had not conducted marches out of the proximity of its bases prior to the war, the scale of the problem was not obvious. The Division lacked a mobile repair shop. The stationary repair shop located in western Romania (and later in Bessarabia) could perform only basic repairs, otherwise the tanks had to be transported to Bucharest or to Ploëști.⁷⁸ By comparison, a mobile repair company of a German armoured regiment could change even the tank engine in the field.⁷⁹ Division HQ bombarded German superiors with pleas for help with spare parts, but the Germans "failed to satisfy a single request". As a result, during the first three weeks of the offensive, without having engaged in tough fights, the Division lost about half of its tank strength mainly due to break downs.⁸⁰ After the capture of Kishinev, the equipment was so worn down that the Division had to be withdrawn from operations for ten days because repairs and even the routine maintenance could not be provided in the field.

Countless smaller problems derived from the basic inexperience haunted the Division. For example, neglect to ventilate the tanks led to "numerous cases of very heavy poisoning by powder gas produced by gun or machine-gun".⁸¹ Many of these flaws could have been eliminated had the armour units conducted regular exercises in the interwar period, even within the framework of the dominating doctrine and with old Renault tanks.

After the repairs following the capture of Kishinev, the Armoured Division was transferred from the 11th Army to the 4th Romanian Army that was under command of Romanian GHQ. At first, the Division got a mission that corresponded exactly to its strength. It spearheaded the advance of the V Army Corps eastward, pushing aside the Soviet covering rearguards and chasing the adversary at a rate of 30 km per day. But on 10 August, the Division got an order "to advance south in order to get by surprise to the east of Odessa

⁷⁷TsAMO RF, Fund 228, Inventory 701, File 4, p.128. A Southern Front's Order to the Commanders of the 6th, 12th, 18th and 9th Armies, II Mechanized Corps and the Commander of the Rear Services, July 1941.

⁷⁸BA-MA, FC 2336 N, pp.209-211. 1st Armoured Division HQ to German LIV Army Corps, 18 July 1941.

⁷⁹Guderian, *Tanki - vpered!*, 102.

⁸⁰BA-MA, FC 2336 N, pp.209-211. 1st Armoured Division HQ to German LIV Army Corps, 18 July 1941.

⁸¹BA-MA, FC 2336 N, p.246. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

and conquer the city".⁸² The intention to seize Odessa by a surprise attack of the Armoured Division was ambitious and hardly attainable. It was certainly inspired by the memory of the easy capture of Kishinev. Granted, Soviet defences were the weakest in this direction: in the Western and Southern sectors where the main assault was expected, two Soviet divisions were assigned to defend sections of 20-25 km each, while in the east miscellaneous units roughly equal to a division (12,548 men) were spread across 55 km of front - a section 3-4 times longer than a division was supposed to defend according to prewar Soviet regulations.⁸³ However, unlike the Soviet forces at Kishinev, the Coastal Army was ordered "to hold Odessa under any circumstances".⁸⁴ Kishinev was not fortified, while the Coastal Army's positions consisted of three belts of field fortifications built around Odessa. Even had the Division broken clean through the outer fortifications, it would, most likely, have been halted at the nearer approaches to Odessa where the long and 2-5 km wide isthmus between the sea and the salty lakes represented a perfect defence position (see Map 4). The defenders mined the dam separating the largest lake from the sea and intended to blow it up and to flood the narrow neck if Odessa was threatened from this direction.⁸⁵ The Division's first attack was launched just by the available tanks and a regiment of motorized infantry since their artillery and all auxiliary units were stuck in mud far in the rear. When on 11 August the Division unexpectedly ran into stiff resistance at the distant approaches to Odessa, it not only failed to break through but was driven back by counterattacks of Soviet infantry.⁸⁶

By the next morning, the tanks towed the heavy artillery to the front line and the V corps consisting of the 15th Infantry Division and the 1st Cavalry Brigade caught up with the Armoured Division. However, instead of concentrating all available forces in one thrust, V Corps HQ sent the 1st Cavalry Brigade to the south-east, that is, to the area separated from the city by a long lake. Meanwhile, the commander of the 15th Infantry Division preferred methodical tactics and ignored the Armoured Division's request to reinforce tanks

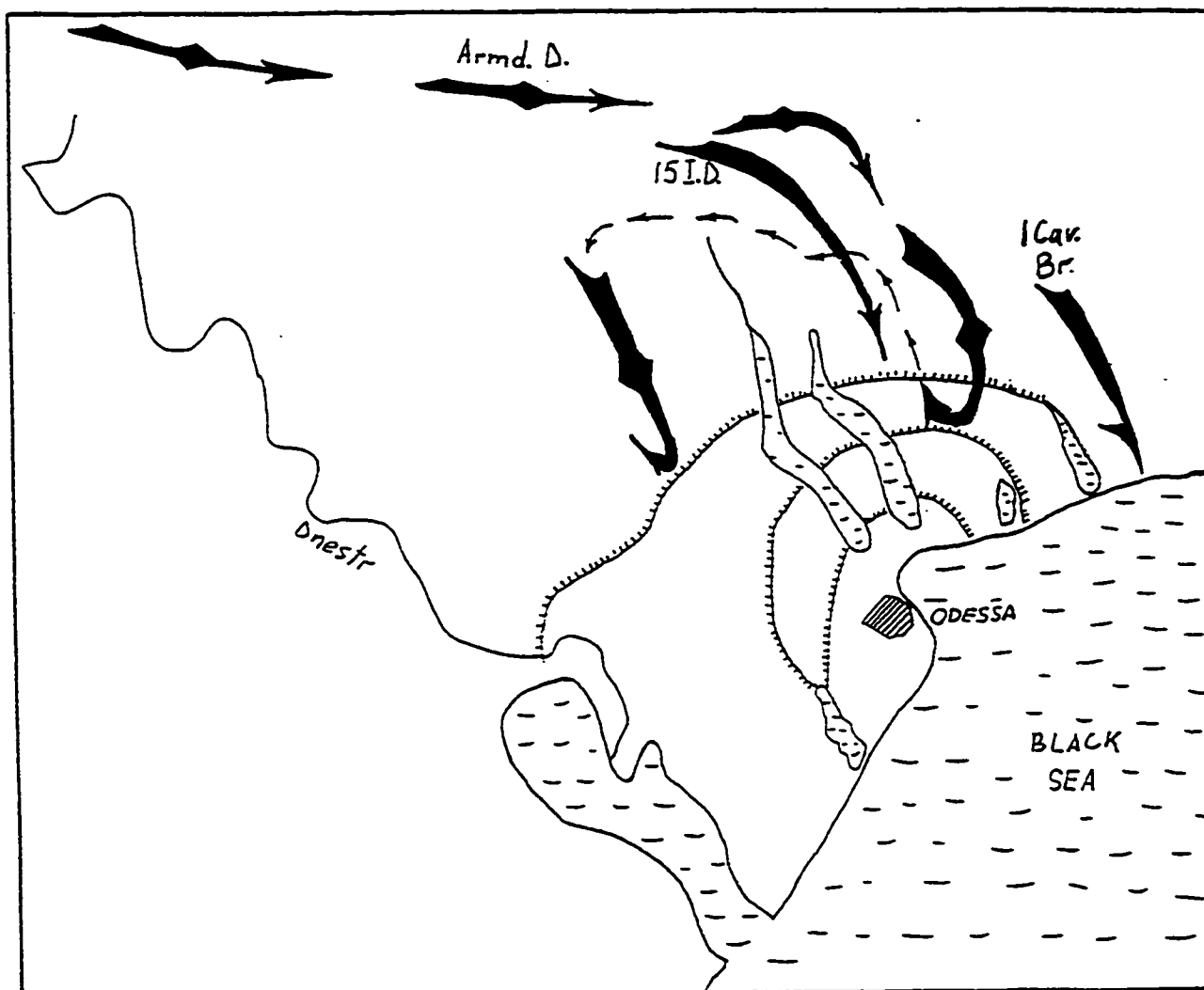
⁸²M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, pp.145v., 146, 10 August 1941.

⁸³TsAMO RF, Fund 228, Inventory 9900, File 32, p.124, 15 October 1941; Forstmeier, *Odessa 1941*, 30; Pospelov, *Istoriia Velikoi Otechestvennoi Voiny Sovetskogo Soiuza* [History of the Great Patriotic War of the Soviet Union], 1: 445. Three defence sectors were founded on 13 August.

⁸⁴TsAMO RF, Fund 228, Inventory 9900, File 2, p.25, 26, The Southern Front Staff's Directive Nr.0019, 18 July 1941.

⁸⁵V. N. Efstigneev, *70 geroicheskikh dnei* [70 Heroic Days] (Moscow: Nauka, 1964), 30.

⁸⁶M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, pp.151, 151v., 11 August 1941.



Map 4. The attacks of the Armoured Division on Odessa

with infantry at a moment when, according to the Armoured Division HQ's claim, undoubtedly exaggerated, "the Division was on the way to the heart of Odessa".⁸⁷ As a result, the Armoured Division and the 15th Infantry Division were both repelled separately by only two Soviet regiments. One of these was an experienced frontier guard regiment but the other, contrary to the assumptions of some historians, was not an "extremely tough regular unit"⁸⁸, but a hastily organized band of sailors. Although their morale was high, they had no infantry training.⁸⁹ These two regiments contained the Armoured Division and the 15th Infantry Division for the next three days, after which the Armoured Division was removed from that section of the front.

The failure of V Corps HQ, despite substantial numerical and material superiority, displayed "a lack of daring" and initiative that, the Germans believed, was a typical characteristic of Romanian commanders and a consequence of their former doctrine.⁹⁰ The inertness of Corps HQ might have also derived from the mistaken belief that Soviet resistance was intended only "to win time for the evacuation of Odessa by sea"⁹¹ and therefore would not last long anyway. Most commanders believed that the Romanian war aims had already been achieved with the recovery of Bessarabia and North Bucovina. Unlike German generals, they did not pursue the total destruction of the Red Army. Thus, they might have preferred not to waste their men in an attempt to trap the Coastal Army, but to enter the city without a fight, although with a few days delay. DHM noticed that the Romanian commanders often "silently opposed" the orders of the 4th Army HQ.⁹² Starting with 23 July, after the Red Army began its general retreat from the Romanian frontier, 4th Army followed it, as the Chief of OKH Staff, Franz Halder observed, without maintaining

⁸⁷M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, pp.160, 160v., 14 August 1941.

⁸⁸Axworthy, Scafeș, Crăciunoiu, *Third Axis, Fourth Ally*, 49.

⁸⁹TsAMO RF, Fund 228, Inventory 9900, File 32, p.131. War Diary, The Coastal Army's Operational Section, 17 August 1941; K.I. Derevianko, *Na trudnykh dorogakh voyny* [On the Tough Roads of War] (Leningrad: Lenizdat, 1985), 80.

⁹⁰BA-MA, RH 31-I/80, Handbuch für den deutschen Ausbilder in Rumänien, p.2, 1942.

⁹¹M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, p.160, 12 August 1941; M.Ap.N. File: 721-P.II.2.1654, p.354. Rapoarte și note informative [Reports and Informative Notes], 11 August 1941.

⁹²BA-MA, RH 31-I/166, DHM in Rumänien, Beobachtungen aus dem Feldzug gegen Odessa, p. 16, no date.

"any pressure".⁹³ Antonescu urged his commanders forward stating, for instance, that "the III Corps is advancing as if it is conducting a funeral"⁹⁴, but with no avail. Until 11 August, 4th Army did not record fights apart from insignificant clashes with Soviet rearguards. The prolonged Red Army retreat led 4th Army HQ to conclude on 9 August that "the Soviet Army in Ukraine has begun to decay".⁹⁵ It was a shock to meet stiff resistance two days later. For the first time since the beginning of the war, the Armoured Division found itself under day and night shelling and frequent air assaults that were particularly damaging in the woodless Odessa region.⁹⁶

Having lost the chance of a surprise attack from the east, GHQ decided to employ the Division in an all-out assault from the north-west of the city. In general, the idea was sensible. The area around Odessa corresponded exactly to the definition of the perfect tank terrain, as General Heinz Guderian viewed it: a flat plane, slightly lowering down to the sea with shallow valleys where tanks could take cover on approach to the target.⁹⁷ The Red Army had manpower enough only to defend one belt of fortifications at a time, so if the infantry broke the front, the armour had a good chance to exploit the success. Although Soviet anti-tank artillery was murderous against lightly armoured tanks (the Soviet 45-mm gun could penetrate armour twice as thick as the Škoda's at a distance of 900 meters; Table 4) the anti-tank defence at Odessa was not impressive. By 17 August, the average density of guns in the Western Sector was only 6.4 per 1 km, including two anti-tank guns. Soviet prewar regulations stipulated that the minimal density of anti-tank artillery (excluding field artillery) should be 5-6 guns per 1 km of the front well-equipped with anti-tank obstacles, with up to 25 anti-tank guns per 1 km in vulnerable areas.⁹⁸

⁹³Halder, *The Private War Journal*, 6: 281.

⁹⁴BA-MA, RH 31-I/166, DHM in Rumänien. Beobachtungen aus dem Feldzug gegen Odessa, p.27, no date.

⁹⁵M.Ap.N., Armata 4-a, File: 4/121, p.439. Rapoarte și note, 9 August 1941.

⁹⁶M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, p.153, 12 August 1941.

⁹⁷BA-MA, RH 31-I/166, DHM in Rumänien, Beobachtungen aus dem Feldzug gegen Odessa, p. 11; Guderian, *Tanki - vpered!*, 88.

⁹⁸Voennno-Nauchnoe Upravlenie General'nogo Shtaba [Military-Scientific Office of the General Staff], *Sbornik*, 120; G.E. Peredel'sky, ed. *Otechestvennaia artilleriia* [National Artillery] (Moscow: Voennoe izdatel'stvo, 1986), 171.

Type	Caliber (mm)	Performance: penetration of armour (mm) / at a distance (m)
GUNS USED BY THE ROMANIAN ARMY		
Bofors	37	36/366
Böhler	47	43/503
Pak	37	38/366
SOVIET GUNS		
M. 32	45	38/915

Table 4. Technical characteristics of Romanian and Soviet anti-tank artillery⁹⁹

However, before the assault, the Division was so weakened by the imprudent actions of superior commanders that its attack was doomed to failure. As long as the Division was subordinated to the 11th Army, its commanders could be sure that the formation's integrity would be preserved. All Romanian formations retrained by German instructors were included either in the 11th Army or in the 3rd Romanian Army. Once attached to the 4th Army, the Armoured Division found itself subordinated to commanders who preserved their old views on tactics. A great disagreement arose between a Division HQ that had fully adopted German tactical ideas and other commanders who followed former doctrine and believed that armour's tasks were supposed to be limited to infantry support. But, because armour did not play a significant role in prewar Romanian doctrine, these commanders had only an obscure idea of how exactly armour should support infantry. GHQ admitted later that tanks were often "given missions absolutely incompatible with the nature of armour".¹⁰⁰ Thus, tanks were ordered to clear the enemy's infantry from the vineyards and bush at night, although infantry could perform this task more efficiently. On 12-14 August the Division wasted its precious tanks in defensive battles, while plenty of conventional infantry was available only a few kilometers in the rear. Moreover, superior commanders stripped equipment or entire units, splitting the formation that had achieved some coherence. On 13 August one (out of four) tank company and most of the Division's artillery were attached to the 1st Cavalry Brigade and the 15th Infantry Division, and soon, GHQ admitted, the tank company "was completely destroyed because of improper employment". The Tank Regiment was further

⁹⁹Scafeș, *Armata Română 1941-1945*, 302.

¹⁰⁰BA-MA, FC 2336 N, pp.717, 719. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

split: one of its battalions was attached to the 11th Infantry Division, while a company that remained from another battalion was lent to the 7th Infantry Division.¹⁰¹ Perhaps, the gravest mistake was the decision to assign the Division's own infantry regiment, which had already learned the basics of cooperation with armour, to another section of the front.

Worst of all, Soviet air reconnaissance spotted the relocation of the Division and Coastal Army HQ learned from captured prisoners about the direction and date of the planned tank attack. There it concentrated its artillery, including anti-aircraft guns that were brought from the city. It also undertook special infantry training and supplied the troops with plenty of "Molotov cocktails". Expecting that the tank attack would be supported by infantry, the 95th Rifle Division HQ increased the density of machine guns in this sector to one on each 40 meters of the front.¹⁰² The Soviets thus prepared the classic "fire sack" that was a typical feature of their artillery tactics.

On 18 August the Division was destroyed. Romanian light tanks could be used efficiently only for exploitation of a breakthrough, not for frontal assaults on fortified positions. Indeed, the 4th Army HQ order stipulated that "after the position of the enemy is broken, its anti-tank defences destroyed and passes in mine fields are cleared by pioneers, tanks should exploit the success, accompanied by infantry". However, in practice, as soon as Soviet machine guns pinned down Romanian infantry, the fate of armour was sealed by the commander of the infantry regiment to which the tank battalion was attached. As he explained in his report, "on seeing that the enemy opened fierce fire by automatic weapons and numerous trench mortars (...) I ordered the tanks to attack". The infantry that "saw a tank for the first time in their life", failed to follow and left "the tanks alone exposed to the barrage of artillery and anti-tank guns".¹⁰³ The tanks drove up to and behind the Soviet trenches into a laid trap where most of them were destroyed.

¹⁰¹M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, pp.160v, 166v. 12, 17 August 1941; BA-MA, FC 2336 N, pp.244, 245. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

¹⁰²S.A. Vol'sky et al., *73 geroicheskikh dnia* [73 Heroic Days] (Odessa: Maiak, 1988), 66; Voenno-Nauchnoe Upravlenie General'nogo Shtaba, *Sbornik*, 27; G.P.Safronov, "Odesskii Platsdarm" [Odessa Bridgehead] in N.I. Krylov et al., *U Chernomorskikh Tverdyn'* [At the Black Sea Strongholds] (Moscow: Defence Ministry Publishing House, 1967), 13; F.N.Voromin, *ibid*, 37.

¹⁰³BA-MA, FC 2336 N, pp.716, 719, 720. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

The Division HQ bitterly remarked that "32 tanks were wasted"¹⁰⁴ and condemned infantry superiors incompetent in armour tactics. The General Staff claimed that the grasp of armour tactics by commanders tended to decline from the top down.¹⁰⁵ Although the orders given during the Division's last attack confirm this conclusion, the very top commanders were far from expert in armoured warfare. 4th Army HQ failed to reinforce the Division on 18 August with the 2nd Tank Regiment, although it was available, but was instead wasted in frontal assaults on strongholds on another section of the front. After the mobile phase of the campaign was over, the slow but better protected R-35 tanks could have been a useful supplement to the fast but thinly armoured Škodas. German advisers observed that superior Romanian commanders repeatedly launched tank attacks without reconnaissance, so that tanks often found themselves in front of an anti-tank trench under deadly fire, although the trench could easily have been located beforehand.¹⁰⁶ Only after the battle of Odessa was over, did GHQ come to the definitive conclusion that "it is impossible to imagine the attack of a well-fortified position by an armoured division otherwise than by heavy tanks supported by an intensive artillery barrage and by dive bombers". In the absence of these conditions, tanks should be seen "only as a tool of exploitation of the success" after the enemy defence position "had been broken by infantry attack".¹⁰⁷

By comparison, the major Soviet tank attack at Odessa on 2 October achieved a spectacular breakthrough. Though Romanian GHQ had also learned from prisoners about the direction of the upcoming attack,¹⁰⁸ it was unable to repel it. Romanian positions were disrupted in a depth of 8-10 kilometers at the price of seven Soviet tanks lost. The different outcomes of these Romanian and Soviet tank attacks stemmed mainly from the quality of training. Only a few of the 35 Soviet tanks that attacked had parameters comparable to the Romanian ones - most were not real tanks but jury-rigged caterpillar agricultural tractors.¹⁰⁹

¹⁰⁴M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, p.181., 23 August 1941.

¹⁰⁵BA-MA, FC 2336 N, p.243. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

¹⁰⁶BA-MA, RH 31-I/166, DHM in Rumänien. Beobachtungen aus dem Feldzug gegen Odessa, p.33, no date.

¹⁰⁷BA-MA, FC 2336 N, pp.244, 245. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

¹⁰⁸M.Ap.N., Armata 4-a, File: 4/122, Jurnal de operații, pp.120, 132, 28-29 September 1941.

¹⁰⁹TsAMO RF, Fund 228, Inventory 9900, File 32, p.282, 289. Memorandum on the Organization and the Actions of the Coastal Army's Tank Battalion, no date.

However, the Soviet attack was carried out in accordance with a carefully elaborated plan of coordination between infantry, artillery (including rocket launchers), tanks and air force, while the attack of the Romanian tanks was improvised and supported only by air assaults. The quality of Soviet anti-tank artillery was superior; besides, the Romanians did not have armour-piercing shells.¹¹⁰ Finally, the Coastal Army took care to provide its troops with at least basic anti-tank training,¹¹¹ while many Romanian soldiers saw tanks for the first time on the battlefield. German advisors noted that "the Romanians most of all are afraid of tanks".¹¹² The Armoured Division's war diary mentions that in its last attack, Romanian tanks had to bypass strongholds that continued to resist,¹¹³ while Romanian defences collapsed completely with the approach of tanks because of the morale breakdown.

One day before the disastrous attack, Antonescu promised Hitler that the Division would support the German offensive to the east.¹¹⁴ However, after the attack only twenty three tanks remained in order.¹¹⁵ The remnants of both tank regiments were fused in a mechanized unit that continued to fight at Odessa without particular success, gradually losing its tanks in frontal assaults. The Romanians could not replace armour losses except by German deliveries that failed to materialize. As Davidescu had predicted prophetically a few years earlier, if a country's own industry could not compensate for the attrition of war, its "mechanized formations would gradually disappear".¹¹⁶

Conclusion

After the destruction of the Division, the Chief of the Romanian General Staff, Alexandru Ioanițiu, called the failure to create efficient mechanized forces in Romania "a crime for which we had to pay with our borders and now are paying tenfold with our

¹¹⁰BA-MA, RH 31-I/46, Artillerie-Kommandeur 20, Ia Nr.198/41 g.Kdos, Bericht über die Verbindungsaufnahme, 16 May 1941.

¹¹¹Voronin in Krylov, U Chernomorskikh Tverdyn', 34.

¹¹²BA-MA, RH 31-I/46, Artillerie-Kommandeur 20, Ia Nr.198/41 g.Kdos, Bericht über die Verbindungsaufnahme, 16 May 1941.

¹¹³M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, p.173, 18 August 1941.

¹¹⁴BA-MA, RH 31-I/66, Antonescu to Hitler, 17 August 1941.

¹¹⁵M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, p.175, 19 August 1941.

¹¹⁶Davidescu, Carul de luptă, 184.

blood".¹¹⁷ He attributed the bungle to the conservatism of top army commanders. However, such an explanation is an oversimplification. The development of armour in Romania was impeded by four major factors: the government's interwar financial policy; the backwardness of industry; the Army's doctrine; and a neglect of training. Since Romania could not build an independent tank industry, it was arguably right to invest the meager allotted funds in less complex and cheaper arms that suited its doctrine better than armour, that could be easier maintained and modernized by local means, and therefore offered a higher degree of independence. Army doctrine predetermined the secondary role of armour, which had to adjust its tactics to the dominating conception. This, combined with the permanent shortage of equipment and low prestige of the armour service, led to the prolonged stagnation of the armoured forces and, consequently, to the low level of professionalism of the armour staff. Officers had little impetus to refine armour tactics or to maintain even that level of personnel training that could have been achieved.

A political reorientation and a change of strategy in favour of coalition warfare elevated the position of the armour among the Romanian armed forces. Though training by German instructors failed to meet the exaggerated expectations, Romanian armour commanders grasped, at least theoretically, the basics of mobile warfare and the benefits offered by the use of tanks in all-arms operationally independent formation. However, since the new doctrine set qualitatively higher demands on equipment, on the degree of sophistication of the services and on personnel training, it would have been unfair to expect distinguished performance from the armoured formation. After all, only four months elapsed between the time the Division was formed, retrained for a completely different doctrine, and then sent to battle. The enormous difficulties that the Division encountered during its short combat history were caused by the inferiority and shortage of equipment as well as by the natural growing pains of the young formation, aggravated by poor basic training inherited from interwar stagnation. These handicaps confined the Division's tactics mainly to surprise attacks or short range pursuit. The 11th Army HQ realized the Division's limitations and employed it accordingly. But eventually, the Division was subordinated to Romanian infantry commanders ignorant of armour tactics who destroyed it. DHM often praised the courage of Romanian armour personnel, but concluded that since "the missions given to the Division

¹¹⁷Cited in Dobre, *Din istoricul trupelor de tancuri*, 83.

were permanently beyond its capacity, its actions were, as a whole, unsuccessful".¹¹⁸ Romanian GHQ shared this assessment noting that to the east of the Dnestr, the armour units "were wasted in local actions with a tactical result that was close to zero".¹¹⁹

¹¹⁸BA-MA, RH 31-I/98, Anlage 3 zu DHM Ia Nr.318/42 g.Kdos., Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, p.61, 12 May 1942.

¹¹⁹BA-MA, FC 2336 N, p. 244. Marele Cartier General, Secția Operațiilor, Nota, 22 October 1941.

CHAPTER FOUR: THE AIR FORCE

The Romanian public had shown keen interest in aviation since man's first flight - not surprising, since it maintained that this man was a Romanian. The Romanians claimed to have built the first aircraft in history able to take off from the ground without assistance of auxiliary equipment. In March 1906 the Romanian engineer Traian Vuia took off from a field near Paris in a self-designed airplane and covered the distance of twelve meters.¹ Though propeller aviation was not marked by further impressive developments, Romanians claim also the invention of the jet airplane. In 1910 the Romanian engineer Henri Coandă demonstrated at the Aeronautic Saloon in France his aircraft powered by a jet engine. Whether this aircraft ever actually flew is not clear, nor is the impact of these events on world air technology - they took a distinguished place, however, in Romania's national heritage. In 1924-1926 Prince Carol, the future king, ran the Aviation Supreme Directorate, the administrative body responsible for aviation, while his son, King Mihai, became a pilot. This testifies to the high prestige of aviation in Romanian society. The Romanian Air Force developed unevenly in the interwar years, but it never stagnated. Unlike other arms, it was supplied to a large degree with products from native industry. When Romania entered World War II, the Air Force yielded to the adversary neither in the quality of its equipment nor in personnel training.

Romanian aviation was born before the Great War. In 1909 the first Romanian pilot, Count Bibescu, obtained one of the earliest pilot licenses issued in France. In 1911 two Romanian air schools were already training pilots and two years later a Romanian workshop started assembling Farman aircraft under license. The Romanian Air Force was officially founded in August 1915.² However, between 1914-1916 Romania was cut off from its traditional suppliers, and missed the great progress of aviation during this period. When

¹Nicolae Balotescu et al., *Istoria aviației române* [History of Romanian Aviation] (Bucharest: Editura științifică și enciclopedică, 1984), 34.

²*Ibid.*, 81.

Romania entered the war, its Air Force consisted of 28 obsolete Farman and Blériot aircraft, none able to fly faster than 80 kph. These aircraft were armed with the pistols of pilots who had no idea of modern air combat tactics.³ The Air Force played no significant role in the war.

Interwar Romanian governments consistently sought to develop a native aircraft industry. Statesmen were receptive to the arguments of airmen who pointed out that "without an aircraft industry the air force, no matter how big at the beginning of the hostilities, would be extinguished within 2-3 months of war. (...) If a number of aircraft represents a certain force at a certain moment, only the national air industry, powerful and self-sufficient, represents a vital and permanent force".⁴ Radu Davidescu pressed exactly these arguments for the development of a native armour industry, but armour never attracted the Romanian public and the government turned a deaf ear to his appeals.

Romania began the ambitious task of building an indigenous aircraft industry in 1921, when the first post-war aircraft factory started assembling reconnaissance aircraft from parts captured in Hungary. Two more factories were founded in the 1920s, and in 1927 Romania built a wind tunnel for scientific experiments.⁵ The foundation of the largest factory IAR (*Industria Aeronautică Română*) by a French/Romanian joint-stock company in 1925 was a corner stone in the development of Romanian aircraft industry. In 1927 IAR started serial production of a French-designed trainer as well as a reconnaissance/light bomber aircraft. In the following years, Romanian industry produced fighters, reconnaissance/light bombers and trainer aircraft under French, Polish, American, German, and Italian licenses, and launched several original projects. In 1936-1940 IAR designed the reconnaissance/light bomber biplanes IAR 37, IAR 38, and IAR 39. This model, differing only in the type of

³HIA, Collection Radu Irimescu, Box 3, România sub aspectul aeronautic, Conference by Radu Irimescu, 2 February 1933; Iskritsky, Glavnoe upravlenie General'nogo Shtaba [Head Office of the General Staff], *Vooruzhennyya sily Rumynii* [Romanian Armed Forces], 46; Hitchins, *Rumania 1866-1947*, 262.

⁴Ministerul Aerului și Marinei [Ministry of Air and Navy], *Realizările Ministerului Aerului și Marinei* [Achievements of the Ministry of Air and Navy], (20 July 1939), 25.

⁵Balotescu, *Istoria aviației române*, 205-207.

engine,⁶ constituted one-third of Romanian combat aircraft by June 1941. The IAR 80, built in series from 1940 and the basic fighter throughout the war, became the summit of Romanian design. In 1940 its design characteristics were comparable to those of contemporary models produced by the leading industrial states and superior to the I-16, the basic fighter of the Red Air Force in 1941.

In 1932 the Aviation Supreme Directorate was transformed into a State Subsecretariate of the Air. Although the Air Force remained within the Defence Ministry, air policy-makers received considerable freedom of action. In 1936 the Subsecretariate was turned into a separate Ministry of Air and Navy, and air policy was conducted independently from the army.⁷

The high prestige of aviation in Romania sustained its development. When the air industry was hit by the Great Depression, the government introduced a special tax - an aviation postal stamp - that had to be attached to all mail. This raised funds and saved the industry dear to the nation.⁸ The aircraft industry was the only Romanian defence industry that came close to self-sufficiency, producing aircraft of native design powered by locally manufactured engines. The government also sought to develop civilian aviation and Romanian state airline LARES carried out regular flights to several European capitals.

However, the path of development of Romanian aviation was far from smooth. It was impaired by poor technology and lack of infrastructure. The aircraft industry comprised an unnaturally advanced branch of a generally underdeveloped manufacturing sector. The backwardness of other industries retarded the development of aircraft technology. Although the design of Romanian prototypes sometimes moved abreast with the best contemporary designs, technological backwardness caused a long gap between the adoption of a new prototype and the beginning of its series production. Thus, models were obsolescent by the

⁶Balotescu, *Istoria aviației române*, 219-221.

⁷Balotescu, *Istoria aviației române*, 137, 142. The Ministry of Air and Navy was turned back to the status of two separate Subsecretariates within the Defense Ministry in October 1940.

⁸Ministerul Aerului și Marinei, *Realizările*, 16, 17.

time they left the factories. The IAR 37 was designed in 1936 but produced only in 1939.⁹ It was intended as a reconnaissance/light bomber, but by 1939 its biplane design became outmoded. The aircraft was slow and underarmed in comparison with contemporary foreign models. The Savoia Marchetti S.79B was among the best medium bombers in 1937 when the Romanians started to consider purchasing the license, but obsolete by 1941 when they produced their first Savoia bomber. Backwardness of technology prompted the Romanians to use the same engine practically for all types of combat aircraft, that is, for fighters, medium bombers and reconnaissance aircraft, which impaired their performance.

The production capacity of Romanian air industry remained small. In 1939 Romania produced only 125 reconnaissance/light bomber aircraft and 25 fighters.¹⁰ Because of the slow production rate and technological backwardness, the aircraft manufactured under license were often of a lower quality and more expensive than the original models.¹¹ The Romanian Air and Navy Ministry wanted the Air Force to replace annually one quarter of the entire aircraft park with modern models,¹² but poor production capacity prevented this from happening. The Romanian aircraft industry never became completely self-sufficient and had to import some raw materials and other equipment. Until 1939, the industry did not manufacture air bombs and it never mastered the production of air machine guns, cannon or radios.¹³

Although financial exigency hampered the Air Force less than the Army, it suffered even more from widespread corruption. Subsecretariate of the Air officials and the administration of the aircraft industry misappropriated, reportedly, much of the funds collected through the aviation stamp. Typically, incidents of bribery were not proven but

⁹Axworthy, *Third Axis. Fourth Ally*, 239, 245, 270.

¹⁰*Ibid.*, 239.

¹¹HIA, Radu Irimescu Collection, Box 4. IAR-ul și dotarea de războiu a aviației [IAR and Air Force Equipment], p.2, January 1938.

¹²Ministerul Aerului și Marinei, *Realizările*, 22.

¹³*Ibid.*, 40.

were strongly suspected. From its foundation, controversial administrative decisions provoked an endless series of scandals for the IAR. The worst one was that around the choice of a basic engine for Romanian aviation. In 1933 Romania ordered 50 Polish PZL 11 fighters and three years later bought a license for their production.¹⁴ The choice of this model had a considerable impact on Romanian designs. In 1934 the Little Entente and Poland decided to standardize, as far as possible, armaments produced by these countries to ease maintenance problems in case of a coalition war.¹⁵ Initially, the IAR administration chose to keep the British Mercury engine used in the Polish aircraft. In a few months, however, it decided, for some suspicious reason, to replace the Mercury with the French-designed Gnôme-Rhône engine. Since Romanian manufacturing facilities were weak and each change of technology threatened lengthy delays of production, it was crucial that air factories pick the best prototypes for serial manufacture. Although the French engine was promising in quality, it had not yet passed the research and development stage. The engineer Cassius publicly accused the commission in charge of choosing the engine due to corruption and took IAR to court. The inquiry about IAR stated that "for the first time in history an aircraft engine (...) is manufactured straight away from blueprints without any previous experiments".¹⁶ However, it was not only corruption that supported the untested Gnôme-Rhône. French companies held the largest share of IAR stocks and imposed a policy that benefitted them more than the Romanians. The Subsecretary of the Air, Radu Irimescu, complained that he faced "the opposition of the French towards any orders that we might give for aeronautical material outside of France".¹⁷ Ultimately, the Gnôme-Rhône design had many drawbacks, but it became the basic engine of the Romanian Air Force, which eroded the performance of most Romanian-built aircraft.

¹⁴HIA, Radu Irimescu Collection, Box 4. Annexă la Nr.11, p.3, 5 March 1938

¹⁵HIA, Radu Irimescu Collection, Box 4. IAR-ul și dotarea de războiu a aviației [IAR and Air Force Equipment], p.6, January 1938.

¹⁶HIA, Radu Irimescu Collection, Box 4. IAR-ul și dotarea de războiu a aviației [IAR and Air Force Equipment], p.6, January 1938.

¹⁷HIA, Radu Irimescu Collection, Box 1. Irimescu to F.B.Odlum, 16 March, 1934.

Romanian airmen argued that "being unable to compete in numbers with the potential adversary, we must at least be equal in quality [of equipment]".¹⁸ But the Romanian aircraft industry always lagged a few steps behind those of the leading European countries. It fell steadily further behind after Europe plunged into an arms race, and the pace of development of air technology rose in the mid-1930s. By 1938, the Air Force looked unimpressive both in its numbers and quality.

Hence, the government initiated a program of urgent modernization of the Air Force that was largely accomplished by the time Romania entered the war. Between 1938-1941, the capacity of the Air Force was radically improved for three reasons. The first was the reform of the aircraft industry. The IAR was nationalized in 1938 and the Romanian Secret Service (Siguranța) investigated the corruption in the industry and Air and Navy Ministry.¹⁹ The IAR launched serial production of the modern fighter IAR 80, while another factory (SET) took over production of IAR 37/38/39. The second factor was the circumstantial acquisition of about 200 Polish aircraft that took refuge in Romania after Poland fell.²⁰ Most of these were obsolete types, but served to meet Romania's need for a great number of trainers for the extensive program of personnel training launched in 1938. The Air Force acquired also at least fifteen relatively modern Polish-designed medium bombers PZL 37.²¹ Finally, Romania modernized its aircraft park by extensive imports of foreign aircraft. Along with some obsolete and obsolescent types, such as the French Bloch 210 and Potez 63 bombers, the British Bristol-Blenheim, and the Italian Savoia S.79B, the Romanian Air

¹⁸HIA, Radu Irimescu Collection, Box 3, Captain-Engineer Nicolau, Memorandum, 12 September, 1932.

¹⁹HIA, Radu Irimescu Collection, Box 4. IAR-ul și dotarea de războiu a aviației [IAR and Air Force Equipment], January 1938.

²⁰Axworthy, *Third Axis, Fourth Ally*, 277.

²¹Pentelescu, Aurel, Florica Dobre, Cristian Crăciunoiu, eds., *Gruparea Aeriană de Luptă. 22.06-16.10.1941* [The Combat Air Group, 22.06-16.10.1941]. Original Documents of Romanian Archives. (Bucharest: Modelism internațional, 1995), Appendix 5. Capacitatea operativă a GAL [GAL's Operative Strength], 22 June 1941.

Force acquired some modern aircraft including the German He 112 and Bf 109 fighters, British Hurricanes and the German He 111 medium bomber. The acquisition of so many models in such small numbers had disadvantages - Romanian statesmen called the Air Force "a museum with 52 types of aircraft and 36 types of motors".²² But the government saw no means to modernize the Air Force rapidly other than to import whatever aircraft it could find on a shrinking market.

Along with this improvement in equipment, the Air Force launched reforms in personnel training. Unlike armour officers, who were handicapped by the lack of modern tanks, Romanian pilots flew modern aircraft throughout the interwar years and maintained a decent quality of training. However, the Romanian Air Force still allotted a smaller share of its budget for training than other air forces. For instance, in 1934 it spent only 2%, while other European air forces spent 8-12% of their budgets for training. At the same time, 60% of the Air Force's budget was reportedly consumed by the salaries of personnel whose rank was far higher than of officers with corresponding positions in foreign air forces.²³ In 1934 the Romanian Air Force had three generals, while the Commander-in-Chief of the Polish Air Force, three times as large as the Romanian, was a colonel. Given such irrational distribution of funds, the Air Force could not prepare many highly-qualified pilots. It opted to sacrifice quantity to quality and thus the rate of training of pilots lagged behind the speed of expansion.

By 1938, the deficit of bomber and fighter pilots reached 50%,²⁴ and the Air and Navy Ministry launched a crash program of pilot training. Before 1938, military schools that trained personnel from scratch had been the main source of military pilots; thereafter, In 1938, the Ministry of Air and Navy began extensive sponsoring of civilian schools, and they became the backbone of the new training program. The possession of a civilian pilot's license was made a pre-requisite for a career in the Air Force, and the military schools had

²²Dupu, Retegan et al., *Armata română în al doilea război mondial*, 1: 66.

²³"Bugetul aviației militare" [The Air Force Budget], *Curentul*, 29 July 1934,

²⁴Balotescu, *Istoria aviației române*, 153.

only to provide civilian pilots with specific skills. This policy bore fruit. Six times as many pilots graduated from civilian schools in 1938 as compared to 1935.²⁵ The best pilots were asked to join the Air Force. The quality of pilots' training was radically improved as well. In 1936 a military pilot needed only 50 hours of flight time to obtain his commission, whereas in 1939 he had to accumulate 200 hours, exactly the same amount as for Luftwaffe pilots.²⁶ Romanian commercial aviation provided an additional source of experienced personnel. Some commercial pilots later became aces. As a whole, the basic personnel training was well organized in the course of the 1938-1941 reforms, and the Air Force never experienced a deficit of trained pilots in World War II.

Unlike their army colleagues, Romanian airmen were not burdened with rigid theoretical conceptions. In 1933 the former head of the Aviation Supreme Directorate, General Gheorghe Rujinski, actually claimed that the Romanian Air Force had no doctrine.²⁷ Although he was jeered in the Senate, no one, including the current Subsecretary of the Air, refuted this statement. Lack of a distinctive air doctrine might be partially attributed to the omnipresent French influence in Romanian armed forces. The best or best-connected airmen were sent for study mainly to France. The French Air Force lacked a clearly articulated doctrine,²⁸ and the Romanian air elite educated along French guidelines saw no reason to do otherwise. As a result, the Air Force failed to establish tactical priorities and to guide pilots' training with them, and generally followed the lead of an air force which slumped into second class after 1934.

The theories of strategic air war popular in the interwar years found some response among Romanian air thinkers. Having studied Italian, French and German works on air

²⁵Ministerul Aerului și Marinei, *Realizările*, 70, 71.

²⁶*Ibid.*, 797; James Corum, *The Luftwaffe: Creating the Operational Air War, 1918-1940* (Lawrence: University Press of Kansas, 1997), 251.

²⁷HIA, Radu Irimescu Collection, Box 3. Cuvântarea, D-lui Radu Irimescu, Subsecretar de stat al aerului, [Speech by Sir Radu Irimescu, State Subsecretary of the Air], 1933.

²⁸Pascal Vennesson, "Institution of Airpower: the Making of the French Air Force", in John Gooch, ed., *Airpower: Theory and Practice* (London: Frank Cass, 1995), 54.

power, one of the Romanian Douhet proponents - strangely, a naval commander, Constantin Negru - promoted the idea of an independent air force and predicted that in the future war aircraft would carry out

massive assaults against industrial, railway (...) [and] demographic centres. (...) Aircraft will devastate enemy's territory within its range that has reached (...) thousands of kilometers, inflicting destruction of these centres by aerial bombardment, incendiaries [and] poison gases (...). Spreading microbes, aircraft will cause panic among the civilian population. (...) Future victory will belong most likely to the belligerent that will cause the collapse of the enemy as a nation, exhausting to the last limit the military potential of soldiers as well as the material and morale potential of the population.²⁹

However, the discussions of strategic air power never went beyond academic interest, because Romanian airmen did not believe that their tiny air force could ever be involved in strategic bombardment. The size of the Air Force confined it to a tactical role. Until the late 1930s, GHQ viewed the air arm not as a striking force but as an auxiliary arm of the land forces, tasked first to provide tactical reconnaissance and observation. In 1934 the Air Force consisted of 130 reconnaissance, observation and liaison aircraft versus 74 fighters or bombers.³⁰ Debates over air power intensified at the end of the 1930s. Having analyzed the experience of the Spanish Civil War and air operations in the beginning of the World War II, some Romanian airmen turned to the idea of an independent air force and started to advocate an offensive air doctrine. In 1939 they pointed out that air policy should not necessarily follow the land forces' doctrine and stressed that "in each form of warfare, even in defensive ones, the air force provides the (...) opportunity for offensive actions". The air force should not be limited to auxiliary service of the land forces, because that would make it "*passive and dependent*, tied to the ground by doctrine and by employment, i.e. restrained by the tempo of advance of the infantry" and as a result "both parties would only lose". Instead, "the air force should be freed from its ties with the land [forces] and should

²⁹HIA, Collection Radu Irimescu, Box 4, Constantin Negru, Avion și submarin sau vas de suprafață [Aircraft and Submarine or Surface Ship], p.3, 4; 4 January 1938.

³⁰Alexandrescu et al., Istoria militară a poporului român, 6: 219.

dominate (...) the enemy's sky (...) thus accelerating the tempo of the land operations". Combat aircraft should be concentrated and subordinated directly to GHQ, while the air arm allotted to the land forces should be "limited to observation aircraft reduced to minimum, to the [aircraft] strictly necessary for reconnaissance in land operations and to a small number of combat aircraft temporarily provided for close air support". Stating that the air power of a country should be "measured in the weight of bombs transported at a certain distance", they maintained that modern offensive air doctrine presumed an increased proportion of bombers in the air force.³¹ These principles corresponded to modern conceptions of air power.

After 1938 the Air Staff reorganized the Air Force in the framework of these ideas. By the beginning of *Barbarossa*, combat aircraft outnumbered other types. Romania possessed a balanced air fleet of 53 squadrons including 11 squadrons of bombers (5 modern), 17 squadrons of fighters (9 modern), 21 squadrons of reconnaissance, observation and liaison aircraft, two squadrons of flying boats, one transport and one ambulance squadron (Table 5). The proportion of fighters and bombers to other aircraft increased from 34% in 1934 to over 53% in 1941. Such an air force could perform not only army cooperation but a variety of independent tactical missions. The Air Force Command was also reorganized in accordance with modern conceptions. Before the attack on Russia, the Air Staff concentrated most of the combat aircraft, including almost all modern aircraft within a single command - *Gruparea Aeriană de Luptă (GAL)* [the Air Combat Group]. The operating armies were allotted only reconnaissance/observation aircraft (Table 6). The Air Staff was subordinated directly to GHQ.³² By the time Romania entered the war, it possessed 1061 aircraft, 440 of them trainers.³³ Excluding liaison, transport, ambulance and inoperative

³¹Alexander Sahini, "Politica aeriană" [Air Policy] in *Revista aerului și marinei* (Bucharest, November/December 1939), 16-18. Emphasis in the original.

³²BA-MA, RL9/39. Gliederung u. Unterstellungsverhältnisse der kgl. rum. Wehrmacht (Luftwaffe) im Kriege. [Organization and Principles of Subordination of the Royal Romanian Army (Air Force) in the War], no date.

³³Dușu, Retegan et al. *Armata română în al doilea război mondial*, 1: 90.

Type	Number of Squadrons	Number of Operational Aircraft
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FIGHTERS

IAR 80	3	23
Bf 109	3	30
He 112	2	23
PZL 11F	6	54
PZL 24	2	20
Hurricane	1	10
TOTAL:	17	160

BOMBERS

He 111	3	23
Savoia 79	2	16
PZL 37	2	12
Bloch	1	6
Potez 63	2	15
PZL 23	1	10
TOTAL:	11	82

RECONNAISSANCE³⁴

IAR 37, 38, 39	15	128
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TRANSPORT. AMBULANCE

Ju 52	2	
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LIAISON

Blenheim, Fleet F 10G	6	
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NAVAL AVIATION

Savoia S.55, S.68; Cant 501	2	20
TOTAL, (excluding transport, ambulance, and liaison):	53	380

Table 5. The Romanian Air Force on 22 June 1941³⁵³⁴These aircraft were sometimes used also as light bombers and for ground attack.³⁵M.Ap.N., Stanul Major al Aerului, Jurnal de operații [Air Staff War Diary], File 130, pp.8, 9. Tabel cu ordinea de bătae a aviației române la începutul ostilităților [Table of Organization of the Romanian Air Force at the Beginning of the Hostilities], 21 June 1941; BA-MA, RL9/39. Gliederung der Deutschen u. Rumänischen

aircraft, by June 1941 the Air Force had about 380 combat aircraft ready for action. The average quality of GAL aircraft was roughly equal to that of the Red Air Force in Odessa Military District by June 1941, which possessed only 18% of new aircraft comparable with the best Romanian models (212 out of 1,178, Table 7).³⁶ Soviet intelligence grossly overestimated the strength of the Romanian Air Force, believing that Romania had 825-900 operational aircraft.³⁷ Following the latest trends, the Air Force organized a paratrooper company in June 1941.³⁸

The major material factor that impeded the Air Force's combat capacity was the inability of industry to cover battle attrition or update aircraft design. Having studied the experience of the Civil War in Spain, the Romanian Air and Navy Ministry concluded in 1939 that monthly industry must produce 30-40% of the initial total number of aircraft in order to replace losses in a major conflict.³⁹ Actual production capacity was much smaller. Despite great efforts during the war, industry delivered at best about 10-15 IAR 80 fighters, 5 Savoia bombers and 15 IAR 39 reconnaissance aircraft per month or about 9% of standing operational strength in June 1941.⁴⁰ Even worse, Romania manufactured the same models of aircraft throughout the war without significant modernization. Among the three combat aircraft produced in Romania, only the IAR 80 fighter was modern in 1941 but became

Luftwaffenverbände [Organization of German and Romanian Air Force Units], June 1941; Pentelescu, ed. Gruparea Aeriană de Luptă, 22.06-16.10.1941, Original Documents of Romanian Archives, Appendix 5. Capacitatea operativă a GAL [GAL Operative Strength], 22 June 1941; Duțu, Retegan et al., Armata română în al doilea război mondial, 1: 94. The number of reconnaissance/observer is approximate because the sources do not indicate whether this is the total number of aircraft or only the number of operational aircraft.

³⁶Komandovanie Odesskogo Voennogo Okruha [HQ of Odessa Military District], "Zapiska po planu deistvii voisk Odesskogo voennogo okruha" [Memorandum on Operational Plans of the Odessa Military District Armed Forces], 20 June 1941, in Gor'kov, Yu. A., Yu. N. Semin "Konets global'noi lzhi", Voennostoricheskii zhurnal (VIZ), 5 (1996): 7.

³⁷Ibid.

³⁸Scafeș et al., Armata Română, 168.

³⁹Ministerul Aerului și Marinei, Realizările, 25.

⁴⁰BA-MA, RL 9/39, Luftrüstungsindustrie [Aircraft Industry], 1942.

**Eastern Front
GAL.**

Regiments	1st Fighter			1st Bomber			2nd Bomber		2nd Observation	
Squadrons	He 112	Bf 109	IAR 80	S. 79	PZL 37	He 111	Potez	Bloch	IAR 38	IAR 38
	He 112	Bf 109	IAR 80	S. 79	PZL 37	He 111	Potez	IAR 37	IAR 38	IAR 39
		Bf 109	IAR 80			He 111			IAR 38	IAR 39
Squadrons	4th Army			3rd Army			Armoured Division			
	IAR 39	IAR 39		IAR 39	IAR 39	IAR 39	IAR 39			

Home Defence

Squadrons	Ploiești		Bucharest		Dobrudja	
	PZL 11		PZL 24		Cant 501	
	PZL 11		PZL 24		Savola S. 55; Savola S. 62	
	PZL 11				IAR 39	
	PZL 11				Hurricane	
	PZL 11					

Table 6. Organization of the Romanian Air Force, 22 June 1941⁴⁰

⁴⁰Statul Major al Aeriului, Jurnal de operații [Air Staff War Diary], File 130, pp.8, 9. Tabel cu ordinea de bătae a aviației române la începutul ostilităților [Table of Organization of the Romanian Air Force at the Beginning of the Hostilities], 21 June 1941.

TYPE	SPEED	CEILING (m)	RANGE (km)	ARMAMENT (mm)	BOMBS (kg)
ROMANIAN AIRCRAFT⁴²					
FIGHTERS					
IAR-80	510	10,600	490	4-6 MG	60
He 112	485	8,500		2 guns, 2 MG	
Bf 109E	570	10,500	600	2 guns, 2 MG	
Hurricane	410	10,900		8 MG	
PZL 11F	360	8,000	550	4 MG	
PZL 24E	400	10,000	680	2 guns, 2 MG	
BOMBERS					
He 111E	420	7,500	1,750	7 MG	2,000
S.79B	350	7,000	1,500	4 MG	1,200/1,500
PZL 37B	410	7,000	1,500	3 MG	2,000
Bloch 210	320	6,000	1,700	3 MG	1,600
Potez 63	425	7,000	1,500	2 MG	400
PZL 23	300	5,800	1,500	3 MG	400/600
RECONNAISSANCE AIRCRAFT					
IAR 37/38/39	335	8,000	650	4 MG	300
SOVIET AIRCRAFT⁴³					
FIGHTERS					
I-15bis	370	9,000	530	4 MG	150
I-16	460	9,700	700	2 guns, 2 MG	200, 6 missiles
IAK-1	570	10,200	700	1 gun, 2 MG	200 or 6 missiles
MIG-3	640	12,000	730	3 MG	
ASSAULT AIRCRAFT					
IL-2	400	7,500	510	2 guns, 2 MG	400/600, 8 missiles
BOMBERS					
SB-2	420	9,500	1,800	4 MG	500/1,500
DB-3	440	7,000	3,500	3 MG	1,000/2,500
PE-2	540	8,800	1,200	4 MG	600/1,000

Table 7. Technical characteristics of Romanian and Soviet aircraft

⁴²BA-MA RL9/39, Aufklärungsflugzeuge, Jagdflugzeuge, Kampfflugzeuge, Wasserflugzeuge, 1942; Cornel I. Scafeș et al. *Armata Română 1941-1945* [The Romanian Army 1941-1945] (Bucharest: Editura RAI, 1996), 312-316; Boog, et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 313, 314.

⁴³V. B. Shavrov *Istoria konstruktii samoletov v SSSR* [The History of Aircraft Design in the USSR] (Moscow: Mashinostroenie, 1994), 1: 488, 496, 672-675; 2: 247, 486.

obsolescent by 1942. The presence of many aircraft types guaranteed a logistical nightmare. Like their counterparts from the Red Air Force, Romanian airmen underestimated the role of radio communications in the air war. Only German-built aircraft were fit with radio. Although close air support was one of the major missions of the Air Force, it lacked a proper ground assault aircraft.

General Antonescu indicated in his first talk with the German High Command that concern about the Air Force's efficiency was one of the reasons for the invitation of DHM.⁴⁴ However, the Germans assigned a lower priority to the training of the Romanian Air Force than of the army. DHM believed that the Romanian Air Force did not play "any role because of [its small] size".⁴⁵ Unlike Romanian infantry or armour personnel, Romanian pilots did not need to be taught the basics. Luftwaffe instructors could have considerably improved skills of Romanians by sharing their expertise in air combat tactics. However, OKW viewed the Deutsche Luftwaffenmission's (DLM) primary objective not to training Romanian pilots, but to protect German interests in Romania. It told the DLM that "first of all, the forces of the instructor units should defend the oil fields against air assaults and train the Romanian Air Force for this mission" and only then "if possible, to prepare it [the Romanian Air Force] also to cooperate with the army in the forthcoming operations".⁴⁶ On 18 June Hitler instructed Antonescu that "the primary responsibility of the Rumanian Air Force is the protection of Rumania and in particular the protection of the oil region. For the rest, Rumanian flying personnel will be employed in support of Rumanian army units".⁴⁷ Hence, pilots were trained primarily for defensive actions. As it happened, however, the main effort of the Romanian Air Force in 1941 became tactical support of the army's offensive campaign, for which pilots had to reckon mainly on their native air combat skills. The

⁴⁴BA-MA, RH 31-I/32, Abschrift, von Tippelskirch, Erste Besprechung mit General Antonescu [First Talk with General Antonescu], 16 September, 1940.

⁴⁵BA-MA, RH 31-I/94, Chief of DHM General Hauße, Gedanken über die mil. Probleme in Rumänien [Considerations about Romanian Military Problems], 11 January, 1942.

⁴⁶ADAP, Serie D, vol.11.1: Document No.84, p.124, 21 September 1940.

⁴⁷DGEP, Series D, 12: Document No.644, p.1049, 18 June 1941.

Luftwaffe was the perfect possible teacher for such operations, but it provided little help to Romania.

In the campaign against Russia, the Air Force was to act independently of the Luftwaffe but in coordination with the 4th Luftflotte.⁴⁸ GAL operated within the front of the Romanian 4th Army. Since the DLM was supposed to dominate the protection of Romanian territory, the Air Staff allotted only 9 fighter squadrons (8 of them equipped with obsolete fighters) to home defense. After the beginning of the Romanian Front's offensive, nearly all these aircraft were transferred to the Eastern Front, the obsolete fighters being attached to the 4th Army for protection of the reconnaissance aircraft, while the squadron of modern fighters (Hurricane) was later sent to GAL.

The Romanian Army started its offensive on 2 July, that is, ten days after the beginning of *Barbarossa*. Unlike the Army, GAL fought with all its strength from the first minutes of the war. Although the operational plans for the air offensive in case of war against Russia had been prepared by the Romanian Air Staff on 18 June,⁴⁹ the Air Force was ordered to get ready for the offensive only in the morning of 21 June, less than 24 hours before the start of hostilities.⁵⁰ Though the Soviet General Staff's order of alarm reached the field commanders too late and the Luftwaffe's strikes at dawn on 22 June on densely packed airfields were, as a rule, highly successful, the Odessa Military District was the exception. Its commander, General Iakov Cherevichenko, gave the alarm to all units at mid-night on his own initiative. When Romanian bombers appeared over the Soviet airfields, the Red aircraft had already partly dispersed, the barracks were empty and the pilots were on alert

⁴⁸BA-MA, RL 9/53, DLM, Weisungen für Vorbereitung des Aufmarsches "Barbarossa" [Directives for Conducting of Operation "Barbarossa"], 14 June, 1941.

⁴⁹Pentelescu, ed. *Gruparea Aeriană de Luptă. 22.06-16.10.1941*, Original Documents of Romanian Archives, 20. Ordin de operații Nr.1 pentru întrebuintarea Grupării Aeriene de Luptă la deschiderea ostilităților [Operational Order Nr.1 for GAL's Operations at the Beginning of the Hostilities], 18 June 1941.

⁵⁰M.Ap.N., File 1377/130, Statul Major al Aerului [Air Staff], Jurnal de operații, 21 June 1941.

in their fighters.⁵¹ Consequently, the initial Romanian attack was less successful than the Luftwaffe's strikes on other sections of the front. Moreover, during the first day of the war, the Romanian Air Force suffered the most severe daily losses in the entire campaign of 1941: 4% of GAL's aircraft were shot down.⁵²

It is not easy to assess the efficiency of the Romanian Air Force from existing evidence. Soviet sources, even contemporary ones, do not separate the German and Romanian air forces, referring to both simply as "the adversary". DHM reports duplicate Romanian ones without comment. The main historical sources - the Air Staff or GAL war diaries - have only a limited value, because of the pilots' notorious habit of grossly exaggerating their results. This flaw was common in the Romanian armed forces. DHM noted that "unreliable and partly overoptimistic reports often led to overrating of the Romanian forces"⁵³, and remarked, "if one summarizes all the kilometers of ground reportedly won day by day by each division at Odessa, one would discover that they must have found themselves in the Black Sea long before 16.10 [the date of the evacuation of Odessa]".⁵⁴ However, despite this tendency, the land forces analyzed their mistakes in a comprehensive and honest fashion immediately after or during the course of operations, which facilitated the eradication of flaws. The inquiries about the actions of the Armoured Division or about infantry failures during the battle of Odessa were full of devastating criticism.⁵⁵

⁵¹K.I. Derevianko, *Na trudnykh dorogakh voyny* [On the Tough Roads of War], 59; V. Sakharov, *95-ia strelkovaia divizia v boiakh za Moldaviu* [The 95th Rifle Division in the Battles for Moldova], *VIZ*, 1 (1970): 60.

⁵²M.Ap.N., File 803/1, Gruparea Aeriană de Luptă (GAL) [Air Combat Group], Jurnal de operații, 22 June 1941.

⁵³BA-MA, RH 31-I/98, Aufbau und Einsatz des rumänischen Heeres seit Bestehen der Deutschen Heeresmission, p.7, 18 January 1942.

⁵⁴BA-MA, RH 31-I/166, DHM, Beobachtungen aus dem Feldzug gegen Odessa, p.33, no date.

⁵⁵Such as BA-MA, FC 2327b N, p.556-578. Marele Cartier General, Cauzele care au împiedicat armata română să aibă o victorie rapidă și strălucită la Odesa și propuneri de principiu pentru înlăturarea acestor cauze [GHQ, Factors That Prevented the Romanian Army From Quick and Brilliant Victory at Odessa and Proposals for Elimination of the Flaws], 29 September 1941; or BA-MA, FC 2336 N, p.237-247. Marele Cartier General,

The Air Staff, as a rule, eschewed critical studies. Granted, the pilots of all air forces in the world exaggerated more than their army colleagues. The descriptions of events in the battle of Odessa by Romanian and Soviet land forces coincide fairly well, but not those of the three air forces that participated. Thus, on 22 September, Red and Romanian pilots both claimed smashing victories. Since it is easy to inflate victories but hard to conceal losses, the best way to determine the truth is to focus on the number of lost rather than shot down aircraft. The Red Air Force claimed to have destroyed 11 and damaged 10 enemy aircraft.⁵⁶ In fact, the Romanians lost only 4 aircraft on this day.⁵⁷ In turn, the Romanian Air Force claimed to have destroyed 18 Soviet aircraft,⁵⁸ whereas the 69th Fighter Regiment that provided 30 out of the 53⁵⁹ Soviet aircraft in the Odessa region this day reported a single loss.⁶⁰ To the credit of the Red Air Force, it claimed only two brilliant victories during the battle of Odessa,⁶¹ while, judging from Romanian reports, their Air Force smashed the enemy virtually every day (Table 8).

Particularly unreliable were the reports of the two fighter groups that were subordinated not to GAL but to the 4th Army HQ. Unlike GAL, these groups possessed only obsolete Polish-designed fighters PZL 11F that matched only the most antiquated Soviet models. Romanian pilots admit in their memoirs that "the proper place [for PZL 11] would

Secția Operațiilor, Nota, [GHQ's Operational Section, Memorandum], 22 October 1941.

⁵⁶TsAMO RF, Fund 288, Inventory 9900, File 26, p.164. 69th Fighter Regiment's War Diary, 22 September 1941.

⁵⁷M.Ap.N., File 1377/130, Statul Major al Aerului [Air Staff], Jurnal de operații, 22 September 1941.

⁵⁸Ibid.

⁵⁹Derevianko, *Na trudnykh dorogakh voyny*, 237.

⁶⁰TsAMO RF, Fund 288, Inventory 9900, File 26, p.164. 69th Fighter Regiment's War Diary, 22 September 1941.

⁶¹The other one on 9 August, when 9 Romanian aircraft were reported to have been shot down, although the Romanians had no losses. TsAMO RF, Fund 288, Inventory 9900, File 25, p.164. 69th Fighter Regiment's War Diary, 9 August 1941; M.Ap.N., File 1377/130, Statul Major al Aerului [Air Staff], Jurnal de operații, 9 August 1941.

DATE	NUMBER OF SOVIET AIRCRAFT REPORTEDLY DESTROYED ⁶²	OWN LOSSES
13.08.41	8	1
14.08.41	9	1
15.08.41	4	0
16.08.41	8	0
17.08.41	8	0
18.08.41	8	0
19.08.41	2	0
20.08.41	11	4
21.08.41	9	1
22.08.41	2	0
23.08.41	9	0
24.08.41	4	1
25.08.41	9	0
26.08.41	4	1
27.08.41	15	1
28.08.41	38	2
29.08.41	8	1
Total: 13.08.41- 29.08.41	156	13

Table 8. Romanian Air Force's victory claims and reports of own losses.⁶³

have been in a museum rather than in a combat squadron".⁶⁴ Curiously, judging from their reports, these fighter groups were far more efficient than their colleagues from GAL who flew modern aircraft. Thus, on 27 August the Air Staff claimed 15 Soviet aircraft destroyed

⁶²This number includes not only Soviet aircraft based at Odessa, but also those shot down during bomber raids on Romania and in the course of air support of Odessa's defenders from Crimean airports. However, by mid-August raids on Romania were rare. Soviet sources indicate that the losses of bombers from the Crimea were of the same scale that losses of the 69th Fighter Regiment based at Odessa.

⁶³M.Ap.N., File 1377/130, *Statul Major al Aerului* [Air Staff], *Jurnal de operații*, 13 - 29 August 1941.

⁶⁴Mircea Petru, Dimitru Radu, *Aviația română în lupta pe frontul de est și pe cerul patriei. Iunie 1941 - August 1944* [Romanian Aviation in the Battle on the Eastern Front and in the Sky of the Homeland] (New York: Lumea liberă, 1989), 15.

(10 shot down in air fights, 2 by anti-aircraft fire and 3 destroyed on the ground) and on the next day 38 Soviet aircraft (20 in air fights, 13 by anti-aircraft fire and 5 destroyed on the ground) at the price of three own losses. Pilots of these two groups claimed 82% of the Soviet aircraft destroyed in air fights.⁶⁵ This remarkable achievement was somehow overlooked by Romanian historians, who, as a rule, do not question the credibility of pilots' reports. At this time, the Soviet Air Force at Odessa had about 50-60 fighters, and the 69th Fighter Regiment that included about two thirds of the Soviet aircraft at Odessa region, reported only 2 aircraft lost during these two days.⁶⁶

In the period from 13 August to 16 October, the entire Romanian Air Force and anti-aircraft units claimed 315 enemy aircraft destroyed at the loss of 42 of their own aircraft. During this period, almost all modern Romanian aircraft were included in GAL. It claimed only 109 aircraft shot down, while pilots of obsolete fighters and anti-aircraft artillerists outside GAL claimed the remainder. Perhaps, it is these inflated claims which led the authors of Third Axis, Fourth Ally to the statement that "the quality of Romanian aircrew remained consistently higher than that of the Soviets".⁶⁷ They offer no evidence for the statement. An analysis resting not on victory claims but on own losses indicates that Romanian and Soviet fighter pilots were roughly equal in air combat. While the Air Staff reported brilliant victories, a German advisor remarked that "the attention of all the [Romanian] troops is drawn to the fact that the Romanian Air Force is obviously not prepared to face the enemy, as it is observed lately almost every day".⁶⁸

The Air Force's priorities changed along with the progress of ground operations. Only in the campaign of 1941 did the Romanian and Red air forces simultaneously conduct strategic air offensives against each other. The aim of the first Romanian strategic air

⁶⁵M.Ap.N., File 1377/130, Stanul Major al Aerului [Air Staff], Jurnal de operații, 27, 28 August 1941.

⁶⁶TsAMO RF, Fund 288, Inventory 9900, File 25, pp.403, 405. 69th Fighter Regiment's War Diary, 27, 28 August 1941.

⁶⁷Mark Axworthy, Cornel Scafeș, Cristian Crăciunoiu, Third Axis, Fourth Ally, 325.

⁶⁸BA-MA, RH 31-I/216, Werturteil [Evaluation], DVK report, no date, apparently, July - August 1941.

offensive was to fight for global Axis air superiority and to interdict traffic. Accordingly, its primary mission was to bombard Soviet airfields and railway centres in the Odessa Military District. The first strategic bomber offensive was to last for ten days from the beginning of *Barbarossa* until the start of the Romanian Front's attack on 2 July.

The efficiency of this offensive is hard to assess from existing evidence. Romanian pilots provided few details and estimated the results of bombardment invariably as "good" or "very good".⁶⁹ Still, the Romanian Air Force accomplished several successful strikes. Soviet sources confirm that 12 aircraft were destroyed on the first day of war at the Kishinev airfield alone, while a bomber raid on the rail centre of Razdelnaia effectively cut the communications with Odessa.⁷⁰ Moreover, air superiority was also won, although it is hard to evaluate the Romanian Air Force's contribution to the Axis victory.

However, this type of air war was counterproductive for the Romanian Air Force because no matter what damage it inflicted to the enemy, it suffered prohibitive losses. The Air Force would have been extinguished within 3–4 weeks had the casualty rate of the first day of the war (8 aircraft, i.e. 4% of GAL's strength) continued. Since air policy was defined within the general framework of strategic defence, the Air Staff had never considered the range of fighters as a crucial parameter. Fearing a Soviet surprise attack, the Air Staff had built all airfields 90–110 km from the border, and bombers sometimes had to fly 300 km to reach their targets. None of the Romanian fighters, except the single squadron of Hurricanes, could escort bombers that far.⁷¹ The heavy losses of the first day of war made the Air Staff abruptly cut the number of bomber sorties. In fact, the Air Force participated

⁶⁹M.Ap.N., File 803/1, Gruparea Aeriană de Luptă, Jurnal de operații.

⁷⁰Odessa Military District HQ's operational plans stressed the importance of air defence of Razdelnaia. Komandovanie Odesskogo Voennogo Okruga [HQ of Odessa Military District], "Zapiska po planu deistvii voisk Odesskogo voennogo okruga" [Memorandum on Operational Plans of the Odessa Military District Armed Forces], 20 June 1941, *YIZ*, 5 (1996): 12; Zakharov, *General'ny Shtab v predvoennye gody* [The General Staff in the Prewar Years], 278.

⁷¹Pentelescu, ed. *Gruparea Aeriană de Luptă. 22.06-16.10.1941*, Original Documents of Romanian Archives, Appendix 6. Schița cu terenurile de aviație puse inițial la dispoziția GAL [Map of GAL's Initial Airfields], no date.

wholeheartedly in the Axis strategic air offensive only in the first day, when GAL flew about 40% of the bomber sorties it launched from 22 June to 1 July;⁷² and after 22 June, the Air Force only raided targets that were close to the border with a few aircraft.

Another primary mission of the Air Force in the first days of the war was air defense against Soviet strategic bombing. Prewar Soviet operational plans presumed the Red Air Force would "systematically destroy oil reservoirs and oil refineries" in Romania.⁷³ Starting on 23 June, the Red Air Force performed, in the words of the Romanian Air Staff, "intensive and bold actions"⁷⁴ bombing Romanian ports and oil-fields. In the first month of war, the Red Air Force attacked Ploëști 10 times and Romanian ports on 51 occasions.⁷⁵ The strikes were poorly coordinated, and conducted not by masses of aircraft, but by single squadrons or even lonely aircraft that appeared throughout days and nights. Since the range of Soviet fighters was also insufficient for escort, obsolescent DB-3 and SB-2 bombers flew unescorted and became easy prey to German but also Romanian fighters. Frequent but inefficient air assaults continued to mid-July, and less intensive raids were carried out to October. The DLM's air defense of Romania was so efficient against this clumsy Soviet assault that on 2-4 July six of the nine Romanian fighter squadrons in Romania were sent to the Eastern Front.⁷⁶

When the Romanian Front offensive began, the Air Force switched the focus of its actions to cooperation with the 4th Army. Its primary mission became interdiction of traffic, sometimes far behind the front, and tactical reconnaissance. The Air Force raided

⁷²Calculated from M.Ap.N., File 803/1, Gruparea Aeriană de Luptă, Jurnal de operații, 22 June - 1 July 1941.

⁷³Komandovanie Odesskogo Voennogo Okruga [HQ of Odessa Military District], "Zapiska po planu deistvii voisk Odesskogo voennogo okruga" [Memorandum on Operational Plans of the Odessa Military District Armed Forces], 20 June 1941, in *VIZ*, 5 (1996): 12.

⁷⁴M.Ap.N., File 1377/130, Statul Major al Aerului [Air Staff], Jurnal de operații, 23 June 1941.

⁷⁵G. Vaneev, *Chernomorsy v Velikoi Otechestvennoi voine* [Black Sea Soldiers in the Great Patriotic War] (Moscow: MO SSSR, 1978), 22.

⁷⁶M.Ap.N., File 1377/130, Statul Major al Aerului [Air Staff], Jurnal de operații, 3, 4 July 1941.

bottlenecks at river crossings, communication centres and retreating Red Army columns.⁷⁷ According to Romanian sources, the Air Force accomplished several efficient ground attacks as well. The Commander of the 35th Infantry Division, ambushed by Soviet armour on 8 July, attributed the survival of his formation "mainly to the support of bombers" that delivered massive air strikes against the Soviet vanguards.⁷⁸

The Romanian Air Force was better fit for tactical missions than strategic bombing, and it was far more active in the campaign in Bessarabia. In the first nine days of the war after 22 June (23.06-01.07), GAL launched on average 13 bomber sorties a day (excluding days with bad weather), while during the campaign in Bessarabia (2.07-25.07), it flew 30 bomber sorties a day.⁷⁹ This higher activity also produced heavier losses than the Air Force suffered in the first ten days of war. By the end of the campaign in Bessarabia (28 July), the GAL's strength in operational bombers was 35% less than it had been initially. However, fighter losses were largely offset by IAR production and by the transfer of fighter squadrons from Romania, so that the number of operational fighters in GAL dropped only by 10%.⁸⁰

At Odessa, the nature of the Air Force's operations changed again. As long as the Romanian Air Force acted in cooperation with the 4th Luftflotte, Axis air superiority in Bessarabia and South Ukraine was unquestionable. After the Romanian Army surrounded Odessa, however, the 4th Luftflotte followed the quickly advancing German army, leaving GAL alone to fight for air supremacy against the remnants of the Soviet Air Force at Odessa. The major Soviet air unit in the battle of Odessa was the 69th Fighter Regiment. It consisted

⁷⁷Pentelescu, ed. Gruparea Aeriană de Luptă. 22.06-16.10.1941, Original Documents of Romanian Archives, Appendix 15. *Schița cu zonele vizate de aviația de luptă a GAL* [Pattern of GAL's Activity], 22 June - 27 July.

⁷⁸*Ibid.*, Appendix 16. *Schița reprezentând intervenția GAL în sprijinul div. 35 inf.* [Diagram of GAL's Air Support of 35th Infantry Division], 9 July 1941.

⁷⁹Calculated from M.Ap.N., File 803/1, *Gruparea Aeriană de Luptă, Jurnal de operații*, 23 June - 25 July 1941.

⁸⁰Calculated from Pentelescu, ed. Gruparea Aeriană de Luptă. 22.06-16.10.1941, Original Documents of Romanian Archives, Appendixes 5, 28. *Capacitatea operativă a GAL* [GAL's Operative Strength], 22 June, 28 July.

primarily of obsolescent I-16 that were inferior to most GAL fighters, but outclassed those attached to the 4th Army HQ, along with several obsolete I-15 and I-153 and a few modern MIG-3. Another Soviet air unit at Odessa was a reconnaissance squadron with 17 ancient flying boats. The Red Air Force had about 45-50 fighters at the beginning of the battle of Odessa. At the end of August, one more squadron of I-16, 10 modern IAK-1, a few I-15 fighters, and 5 modern IL-2 assault aircraft flew to Odessa.⁸¹ Although the 4th Army HQ claimed that the Red Air Force used American-made armoured fighters that were immune to machine-gun fire,⁸² that was only a rumour. The only Soviet bomber force at Odessa consisted of 10 SB-2 aircraft which were relocated to another region on 9 August, before the beginning of the battle. After 18 August, Soviet bombers raided Odessa from Crimean airports with 2-4 squadrons of obsolescent SB-2 and DB-3, or modern PE-2 dive bombers that were escorted only in the Odessa region by fighters based in the city (Table 9). The 4th Luftflotte also occasionally assigned a few squadrons (both bombers and fighters) to help the Romanians.

When the 4th Army started its offensive on Odessa, the balance of fighter forces in the region was roughly equal, because the Odessa defenders were often supported by raids of fighters based at Nikolaev and Ochakov. However, the advance of the 11th Army eastward soon cut this support and the Romanian Air Force acquired substantial numerical superiority in fighters, while in bombers its superiority was absolute within the region. In the middle of August, the Red Air Force faced a crisis when the 69th Regiment was depleted to 19 operational fighters.⁸³ By the end of August, however, two Soviet squadrons were flown to Odessa and the disparity of forces was reduced. From day to day, the arrival of Soviet bombers from the Crimea or Luftwaffe aircraft shifted the power balance.

⁸¹A fighter and a bomber squadron in the Red Air Force numbered 15 and 12 aircraft respectively, Zakharov, *General'ny Shtab v predvoennye gody*, 123.

⁸²M.Ap.N., Armata 4-a, File: 4/121, p.367. Rapoarte și note, 3 August 1941.

⁸³Vol'sky et al., *73 geroicheskikh dnia* [73 Heroic Days], 91. Apparently, many of inoperative aircraft suffered minor damages because on 22 September the 69th Regiment still had 30 aircraft, Derevianko, *Na rudnykh dorogakh voyny*, 237.

69th Fighter Regiment (Mainly I-16, and a few MIG-3, I-15, I-153);
56 aircraft by 1 August.

I—————I
1 August 15 October

A Squadron of 8th Naval Fighter Regiment (I-16); apparently, 15 aircraft.

I—————I
22 August 15 October

A Part of 46th Assault Squadron (IL-2); 5 aircraft.

I—————I
25 August 15 October

A Part of a Squadron of 32nd Naval Fighter Regiment (IAK-1); 10 aircraft.

I—————I
25 August 15 October

A Part of 94th Independent Squadron (a few I-15)

I—————I
End of August 15 October

70th Bomber Squadron (SB-2); 10 aircraft.

I—I
1-9 August

82nd Reconnaissance Squadron (MBR-2); 17 flying boats.

I—————I
1 August 25 August

OCCASIONAL PARTICIPATION

9th and 32nd Naval Fighter Regiments (Mainly I-16, a few IAK-1 and MIG-3)

I—————I
1-12 August

2nd and 40th Naval Bomber Regiments (75 SB-2, 65 DB-3, 12 PE-2)

I—————I
18 August 15 October

Table 9. Red Air Force at Odessa, 1 August - 15 October⁸⁴

⁸⁴TsAMO RF, Fund 288, Inventory 9900, File 26, p.164. 69th Fighter Regiment's War Diary; Voenno-Nauchnoe Upravlenie General'nogo Shtaba [Military-Scientific Office of the General Staff] *Sbornik*, [Collection of Military Historical Documents], 80, 81; Derevianko, *Na trudnykh dorogakh voyny*, 102, 237; A.P. Dorokhov, *Morskiye letchiki v oborone Odessy* [Naval Pilots in the Defence of Odessa] (Odessa: Maiak,

Apparently, neither side achieved clear-cut air supremacy. Curiously, both land forces claimed that the adversary enjoyed air superiority. Some Soviet sources stated that "the enemy dominated the air" throughout the battle,⁸⁵ while German and Romanian observers (except those from the Air Force itself) believed that the air superiority belonged to the Soviets. The Commander of the Armoured Division, for instance, noted on 12 August that "control of the air by the enemy's air force is absolute", and on 22 August he used this fact among the pretexts to demand the withdrawal of the Division's remnants from the Odessa front.⁸⁶ The HQ of the German troops at Odessa also reported on 12 September that "the Russian Air Force has absolute air superiority".⁸⁷

The Soviets had two major advantages in the battle for air supremacy. First, Romanian airfields were far of Odessa. Only three of GAL's fighter squadrons were within 60 km from Odessa, while all bombers and the rest of the fighters used airfields 120-130 km from the city.⁸⁸ Consequently, the Soviets could offset their numerical inferiority by an increased frequency of sorties. Second, apart from the skills of pilots and the quality of aircraft, the outcome of the fight for air superiority was defined by the ability to replace losses. "The second air force", as the Romanian Air and Navy Ministry called the aircraft industry,⁸⁹ could not cover battle attrition. In the 1941 campaign the industry delivered only

1982), 42, 83, 88, 96, 104; Vaneev, *Chernomortsy v Velikoi Otechestvennoi voine*, 28, 34, 46.

⁸⁵G.A. Karev, *Odessa – gorod-geroi* [Odessa, a Hero-City], (Moscow: MO SSSR, 1978), 69; K.V. Penzin, *Chernomorskii flot v oborone Odessy* [The Black Sea Fleet in Defence of Odessa] (Moscow: MO SSSR, 1956), 67, 90.

⁸⁶M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, p.153, 12 August 1941; 179v., 22 August 1941.

⁸⁷Forstmeier, *Odessa 1941*, 54.

⁸⁸Pentelescu, ed. *Gruparea Aeriană de Luptă. 22.06-16.10.1941*, Original Documents of Romanian Archives, Appendix 32, *Schiță cu desfășurarea aviației GAL în ultima fază* [Map of GAL Deployment in the Final Stage], no date.

⁸⁹Ministerul Aerului și Marinei, *Realizările*, 25.

32 new fighters and 12 bombers. The Germans offered no help.⁹⁰ The Soviets received even less reinforcements, but they had repair facilities in Odessa. The Romanian Air Force suffered from the same flaw as armour: it lacked efficient mobile repair shops and even factory repair was slow. Spare parts for the great variety of foreign models were quickly exhausted. Consequently, far more damaged Soviet aircraft returned to battle than Romanian ones. Romanian industry, meanwhile, could not produce some parts of the aircraft and less valuable aircraft had to be cannibalized to provide parts for newly- manufactured machines. Since Romania did not produce aircraft machine guns, these were stripped from obsolete or inoperative aircraft.⁹¹ The Romanian Air Force lost far more aircraft through such logistical and maintenance problems than through combat: only 41 GAL fighters were irretrievably lost in combat and accidents, while 78 damaged fighters were repairable but were not returned to battle in the 1941 campaign. The proportion of operational bombers and fighters in the total GAL strength declined from respectively 81 % and 86 % on 22 June to 69 % and 59 % on 28 July, and then to 45 % and 51 % on 2 September. By the end of the battle of Odessa, the proportion of operational fighters dropped to 30%.⁹² The number of bomber sorties steadily declined and after 22 September, when the army turned from assault to siege, bombers were practically grounded. The Red Air Force continued to deliver frequent 2-3 squadron bomber strikes until the day of evacuation.

Air reconnaissance was the major mission of the interwar Air Force, but at Odessa it was not performed well. The Romanians could not locate the Soviet airfield until the end

⁹⁰Pentelescu, ed. *Gruparea Aeriană de Luptă. 22.06-16.10.1941*, Original Documents of Romanian Archives, Appendix 51, *Graficul reprezentând situația numerică a avion. de rec. și vânător. din unitățile GAL* [A Diagram of Fighter and Reconnaissance Aircraft Strength in GAL Units], issued after the 1941 campaign; Appendix 52, *Graficul reprezentând situația numerică a avioanelor de bombardament din unitățile GAL* [A Diagram of Bomber Strength in GAL Units], issued after the 1941 campaign.

⁹¹Axworthy, *Third Axis. Fourth Ally*, 251, 269.

⁹²Calculated from Pentelescu, ed. *Gruparea Aeriană de Luptă. 22.06-16.10.1941*, Original Documents of Romanian Archives, Appendix 5, 28, 30; *Capacitatea operativă a GAL* [GAL's Operational Strength], 22 June, 28 July, 2 September 1941; Appendix 51, *Graficul reprezentând situația numerică a avion. de rec. și vânător. din unitățile GAL* [A Diagram of Fighter and Reconnaissance Aircraft Strength in GAL Units], issued after the 1941 campaign; Appendix 52, *Graficul reprezentând situația numerică a avioanelor de bombardament din unitățile GAL* [A Diagram of Bomber Strength in GAL Units], issued after the 1941 campaign.

of August,⁹³ and after Soviet aircraft were transferred to another airstrip in the middle of September, the Romanians did not find it until the end of the battle. Thus, the Air Force could not employ such efficient methods of fight for air superiority as strikes on the adversary's airfield. At the same time, the Soviets knew the locations of Romanian airstrips and attacked them. Air reconnaissance overlooked the concentration of Soviet forces for their major counterattack on 22 September,⁹⁴ which achieved complete surprise and broke two Romanian divisions, causing a change of Romanian tactics from assault to siege. The greatest bungle of air reconnaissance was the failure to find out whether the Soviets were evacuating Odessa or bringing reinforcements.⁹⁵

The responsibility for the failures of air reconnaissance should be shared between the Air Force and GHQ. On the one hand, the IAR 37/38/39, equipped with photocameras that were supposed to perform this mission, could operate safely only if air superiority had been gained. On the other hand, senior army commanders were inexperienced in cooperation with the Air Force and did not appreciate the benefits of air reconnaissance. DHM wondered why GHQ neglected to make a complete photo map of Soviet defences.⁹⁶ Romanian field commanders often did not know what positions lay behind their immediate objective and their units repeatedly run into strongholds that, according to DHM, could have been easily located by air reconnaissance.

Although air spotting was particularly useful in positional warfare, neither air force employed it effectively because of the failure to gain air superiority. German experts at Odessa considered efficient air spotting to be a prerequisite for a successful assault.⁹⁷ Romanians used air spotting from time to time, but it was often too risky for IAR 37/38/39

⁹³On 21 August they were still unaware of its location. BA-MA, RH 31-I/93, Conference between Chief of DLM Colonel Bassenge and DHM, 21 August 1941.

⁹⁴M.Ap.N., Armata 4-a, File: 4/122, p.64, 20 September 1941; p.71, 21 September 1941.

⁹⁵BA-MA, RH 31-I/38, DHM to 11th Army HQ, 14 October 1941.

⁹⁶BA-MA, RH 31-I/166, DHM, Beobachtungen aus dem Feldzug gegen Odessa, p.33, no date.

⁹⁷Forstmeier, Odessa 1941, 57.

to circle at the spot; besides, the training of air spotters left much to be desired. DHM noted that "Romanian air spotting has never been successful".⁹⁸ The Soviets performed even worse, in fact, not at all. The only Soviet aircraft intended for this role at Odessa were the obsolete flying boats that could operate exclusively at night and therefore were used only as night bombers.⁹⁹ Consequently, though some warships and coastal batteries had a range over of 30 km, their effective fire was limited to visual distance.

Given the structure and size of the Romanian Air Force at the end of the 1930s, close air support looked like one of its major missions. However, only regular combined-arms exercises could make air/ground cooperation efficient, and this was not done by the Romanian armed forces, as by most other armies. At Odessa, the Air Force was widely employed for close air support, as with both attacks of the Armoured Division on 11 and 18 August. Armoured Division HQ recorded that Romanian aircraft silenced a few Soviet batteries.¹⁰⁰ However, the Army and the Air Force rarely operated coherently. Comparative study of the 4th Army's and GAL's war diaries suggests that the Air Force performed better in independent ground assaults against Soviet counterattacks than in support of Romanian attacks. Granted, a lack of proper aircraft compromised the performance of the Air Force in close air support. It had neither dive bombers nor heavily armed and well-protected ground assault aircraft, although prewar Romanian military thinkers had appreciated the utility of such models - in 1939 they argued that aircraft armed with 25-37 mm guns would be efficient tank destroyers.¹⁰¹ But Romania could not build such aircraft and Germany declined their request to buy 50 Stukas in August 1939.¹⁰² Light bombers were numerous,

⁹⁸BA-MA, RH 31-I/166, DHM, Beobachtungen aus dem Feldzug gegen Odessa, p.11, no date.

⁹⁹Penzin, *Chernomorskii flot v oborone Odessy*, 67, 90; A.I. Dennenberg, *Divizion otkryvaet ogon'* [The Artillery Battalion Opens Fire] (Odessa: Maiak, 1986), 36, 73.

¹⁰⁰M.Ap.N., File 803/1, Gruparea Aeriană de Luptă, Jurnal de operații, 10, 11 August 1941; M.Ap.N., Divizia 1 Blindată, File: 549/2, Jurnal de operații, p.173, 18 August 1941.

¹⁰¹Ed. Dragomirescu, Aurelian I. Stan, *Avionul arma anti-car?* [Aircraft as an Anti-Tank Weapon?] (Timișoara: Tipografia Școalei de artilerie "Regele Carol I", 1939), 23.

¹⁰²Axworthy, *Third Axis. Fourth Ally*, 261.

but too vulnerable and underarmed for close air support, while medium bombers, useful in interdiction actions, were too inaccurate for ground attack. The Romanian bombers could not hit a point target, which was demonstrated by their failure to disable any of the four Soviet armoured trains that operated throughout the battle of Odessa until its last day. The armoured trains' raids along the Soviet lines of defence and across no man's land annoyed the 4th Army,¹⁰³ and the Air Force was ordered to destroy them as early as 18 August, but the trains were immune to the fighters' machine guns, while the bombers were unable to hit them.¹⁰⁴

The Red Air Force had only 5 IL-2 assault aircraft at Odessa, while bombers based in the Crimea were too far to be employed in close support and conducted only saturation bombardment. Consequently, both sides mainly used fighters for close air support. DHM believed that the Red Air Force performed this mission more efficiently than the Romanian one. It observed that "as soon as the enemy's air force appeared, it, as a rule, gained air superiority and by its bombs and machine guns kept Romanian infantry and artillery in their trenches, so that all Romanians' activities ceased".¹⁰⁵ The 4th Army also recorded "perfect cooperation of the adversary's infantry, artillery and air force" at the end of August.¹⁰⁶ Although Soviet fighters were outclassed by those of the GAL in dog fights, they were superior in ground attack, being armed as well as the best Romanian fighters with machine guns and cannon but also carrying bombs and air-to-ground missiles. Besides, the Soviet fighters were based close to the front and could meet requests for support almost instantly.

Romanian GHQ realized that Odessa could stand only as long as the Coastal Army

¹⁰³M.Ap.N., File 721-P.II.2.1654, Rapoarte și note informative [Reports and Communiques], Secția II, p.268, 16 August; p.408, 26 August; M.Ap.N., Armata 4-a, File: 4/122, p.54, 18 September 1941; p.100, 25 September; p.222, 10 October 1941.

¹⁰⁴M.Ap.N., File 1377/130, Statul Major al Aerului [Air Staff], Jurnal de operații, 18 August 1941; A.V. Efim'ev, A.N. Manzhosov, P.F. Sidorov, Bronepoezda v Velikoi Otechestvennoi voine [Armoured Trains in the Great Patriotic War], (Moscow: Transport, 1992), 43.

¹⁰⁵BA-MA, RH 31-I/166, DHM, Beobachtungen aus dem Feldzug gegen Odessa, p.13, no date.

¹⁰⁶M.Ap.N., File 721-P.II.2.1654, Rapoarte și note informative [Reports and Communiques], Secția II, p.268, 28 August 1941.

maintained supply lines across the Black Sea. Because of the decisive superiority of the Soviet fleet, the Romanian Navy could not intercept shipping. Therefore, the Air Force was the main means available to strike the Soviet Achilles' heel - port installations and sea communications. Naturally, most Soviet anti-aircraft artillery was concentrated in the port. The Romanian Air Force claimed that these defences were impressive, whereas Soviet sources maintain that the anti-aircraft artillery "was weak and crews were poorly trained".¹⁰⁷ But the port was vigorously defended by Soviet fighters as well, and was not an easy target. Although the Air Force attacked the port from 22 July,¹⁰⁸ aerial bombardment troubled the Coastal Army far less than did the shelling by Romanian long range artillery.¹⁰⁹ The Air Force never made a concerted effort to cut Soviet shipping or to drive away the Black Sea Fleet that often supported the defenders by fire, sometimes inflicting heavy losses.¹¹⁰ The Air Force was simply too small to effectively attack the port and naval ships or perform deep sweeps over the sea against merchant traffic. Besides, it had no proper aircraft, such as dive bombers, to attack sea targets and pilots had never been trained for such actions. Although Romania did have a naval air arm and one of its two naval squadrons included 7 Savoia S.55 torpedo bombers, these were so old and unreliable that the Air Staff kept them in Romania, using these aircraft only for reconnaissance.¹¹¹ Ironically, the Coastal Army was supported exclusively by the naval bomber force that prior to the war was trained to attack only ships or ports, not land targets.¹¹²

When GHQ found that the 4th Army could not break through to Odessa, it made the

¹⁰⁷General'nyi Shtab Krasnoi Armii [The General Staff of the Red Army], Obozona Odessa [The Defence of Odessa], 45.

¹⁰⁸Derevianko, Na trudnykh dorogakh voyny, 68.

¹⁰⁹Derevianko, Na trudnykh dorogakh voyny, 202.

¹¹⁰M.Ap.N., File 721-P.II.2.1654, Rapoarte și note informative [Reports and Communiques], Secția II, p.426, 2 September 1941; BA-MA, RH 31-I/38, DHM to 11th Army HQ, 31 August 1941.

¹¹¹Dușu, Retegan et al., Armata română în al doilea război mondial, 1: 94, 298.

¹¹²Derevianko, Na trudnykh dorogakh voyny, 68.

Air Force undertake its second strategic offensive of the 1941 campaign. The idea of this offensive was obviously inspired by some air power theories popular in the interwar years. On 2 September GHQ ordered the Air Force to bombard the city regularly, hoping to destroy ammunition depots, water sources, electrical stations, and to demoralize civilian population. The expectation was that this would undermine the defenders' combat capacity.¹¹³ It was also less costly to attack the city than the port because its anti-aircraft defences were weaker. However, the Air Force was too small to significantly damage industrial targets. Instead of the sustained massive strikes presumed by theorists of strategic bombardment, the Air Force had to limit its activity to daily raids by 1-2 bomber squadrons. These caused less destruction than the Luftwaffe's occasional but massive assaults. The Coastal Army recorded the severest bombardment of the city on 17-18 September, when several German bomber squadrons arrived for a few days to Odessa.¹¹⁴ Romanian bombers barely participated in this action.¹¹⁵ Although the bombardment of Odessa killed or wounded over 3,000 civilians,¹¹⁶ the civilian population's morale could hardly affect the combat capacity of the army of a totalitarian regime. To be fair, GHQ was far from unique in overrating the probable effect of city bombardment. Long before the Romanian Air Force started to attack Odessa, the Red Air Force launched senseless bombardments of Bucharest, suffering losses that did not justify the inflicted damage.

Not surprisingly, a request for Luftwaffe cooperation became a highlight of the German-Romanian discussions of the Odessa battle. Even when Romanian GHQ proudly rejected German assistance by land forces at the early stages of the assault, it asked for the

¹¹³M.Ap.N., File 1377/130, Statul Major al Aerului [Air Staff], Jurnal de operații, 2, 3 September 1941.

¹¹⁴TsAMO RF, Fund 288, Inventory 9900, File 32, p.164. Coastal Army War Diary, 17 September 1941.

¹¹⁵Romanian bombers flew only 15 sorties on 17 September, M.Ap.N., File 803/1, Gruparea Aeriană de Luptă (GAL) [Air Combat Group], Jurnal de operații, 17 September 1941.

¹¹⁶General'nyi Shtab Krasnoi Armii [The General Staff of the Red Army], Obozona Odessa [The Defence of Odessa], 45.

Luftwaffe's help.¹¹⁷ On 22 August DHM urgently requested that the 4th Luftflotte send one fighter and one bomber groups to Odessa.¹¹⁸ The request was repeated on 4 and 17 September.¹¹⁹ But the 4th Luftflotte was busy far in the east and only occasionally gave the Romanians a few squadrons that could not decidedly shift the balance. The major result of the requests of Romanian GHQ and DHM was the Luftwaffe's decision to take over the air defence of Romania, allowing the Air Staff to transfer its fighter squadrons from Romania to the Eastern Front.¹²⁰ The Luftwaffe undertook its first concerted effort to strike sea communications and to drive away the Black Sea Fleet only on 21-22 September, when three merchant and naval Soviet ships were sunk and two were damaged.¹²¹ On 24 September Romanian GHQ made massive support by the Luftwaffe a condition for the continuation of the assault. The DHM believed that this condition was justified, stressing that "the cooperation of Luftwaffe and even a temporary shift of its main effort towards the Black Sea coast is urgently required for the capture of Odessa".¹²² But substantial Luftwaffe assistance failed to materialize. Facing steady rebuff, the Romanians improvised a dive bomber from the IAR 80 fighter. A squadron of fighters that carried 225-kg bombs made its first dive bombing attack on 15 October, one day before the evacuation.¹²³ The next day a bomber squadron attempted to intercept the transports leaving Odessa. Although the Air Staff assured DHM that the Romanian Air Force "sunk many ships in the open sea", GAL admitted in its

¹¹⁷BA-MA, RH 31-I/93, Chief of the DLM Colonel Bassenge to DHM, 21 August 1941.

¹¹⁸BA-MA, RH 31-I/38, DHM to 11th Army HQ, 22 August 1941.

¹¹⁹BA-MA, RH 31-I/38, DHM, KTB, 4 September, 17 September 1941.

¹²⁰BA-MA, RH 31-I/38, Heersgruppe Süd Ia Nr.1803/41 geh. an Führungstaffel DHM, 30 August 1941.

¹²¹Derevianko, *Na trudnykh dorogakh voyny*, 249.

¹²²BA-MA, RH 31-I/93, DHM to OKH, 21 September 1941; BA-MA, RH 31-I/93, DHM to OKH, 1 October 1941; Forstmeier, *Odessa 1941*, 48.

¹²³M.Ap.N., File 803/1, Gruparea Aeriană de Luptă (GAL) [Air Combat Group], Jurnal de operații, 15 October 1941.

war diary that the attack was futile.¹²⁴ The frantic but belated efforts of the Luftwaffe to intercept the transports were barely more impressive: although the 4th Luftflotte claimed 6 vessels equalling 30,000 register tons,¹²⁵ the Red Army admitted the loss of only one empty transport - the last transport of the evacuation column (1,412 register tons), with the loss of two crew members.¹²⁶ By the end of the battle of Odessa, GAL had lost 50% of its initial operational fighter and 54% of its bomber strength. Particularly high was the attrition of foreign types. By 2 September, only 4 out of 31 Bf 109 and 3 out of 12 PZL 37 remained operational. Low serviceability of the foreign models led to "nativization" of the Air Force. The proportions of Romanian-built fighters and medium bombers in GAL increased respectively from 31% and 0% in the beginning of the campaign to 84% and 15% by its end.¹²⁷ After the battle of Odessa, the Romanian Air Force, except a few reconnaissance squadrons, withdrew from the Eastern Front until the autumn of 1942. Had Romania failed to build its own aircraft industry, its Air Force would have been extinguished in 1941 because German material help to the ally was limited to only two Bf 109 sold for inflated prices.¹²⁸ The gradual recovery of the Air Force was attained almost exclusively by the efforts of native industry. By January 1942, the Air Force restored 80% of its initial

¹²⁴BA-MA, RH 31-I/166, DHM, Beobachtungen aus dem Feldzug gegen Odessa, p.19, no date; M.Ap.N., File 803/1, Gruparea Aeriană de Luptă (GAL) [Air Combat Group], Jurnal de operații, 16 October 1941.

¹²⁵BA-MA, RH 31-I/42, OKW Information, 17 October 1941.

¹²⁶General'nyi Shtab Krasnoi Armii [The General Staff of the Red Army], *Oborona Odessy* [The Defence of Odessa], 39; Derevianko, *Na trudnykh dorogakh voyny*, 299; Forstmeier, *Odessa 1941*, 86.

¹²⁷Calculated from Pentelescu, ed. *Gruparea Aeriană de Luptă, 22.06-16.10.1941*, Original Documents of Romanian Archives, Appendixes 5, Capacitatea operativă a GAL [GAL's Operational Strength], 22 June; Appendix 51, Graficul reprezentând situația numerică a avion. de rec. și vânător. din unitățile GAL [A Diagram of Fighter and Reconnaissance Aircraft Strength in GAL Units], issued after the 1941 campaign; Appendix 52, Graficul reprezentând situația numerică a avioanelor de bombardament din unitățile GAL [A Diagram of Bomber Strength in GAL Units], issued after the 1941 campaign.

¹²⁸*Ibid.*

strength.¹²⁹

Conclusion

The lively interest of Romanian society in aviation made the Air Force a national favourite. Although interwar financial exigency hurt the Air Force, this was never to the same extent as the Army or the Navy. The government did its best to keep the Air Force afloat even in the toughest periods of economical depression. It was the only Romanian arm that relied more on native industry than on import. Given the underdeveloped state of Romania's economy, the achievements of the aircraft industry were impressive. It would have met the Air Force's needs in a war against the smaller neighbours, such as Hungary or Bulgaria, but it could not adequately supply the Air Force against the USSR. The backwardness of manufacturing facilities and the lack of necessary infrastructure prevented the aircraft industry from keeping pace with world air technology, while the small production capacity could not replace battle attrition in a total war.

The high prestige of the Air Force attracted the cream of the Romanian officer corps. Availability of modern equipment, decent funding, administrative autonomy, and a high standard of personnel enabled the Air Force to avoid the stagnation that overtook the army. The Air Ministry also made strenuous effort to improve the Air Force's efficiency on the eve of the war, backed by substantial finances. As a result of this dynamic and wise air policy, the Air Force grew considerably in numbers and quality. Romania entered the war with a well-organized, balanced and relatively modern Air Force. Unlike other Romanian arms, it had no deficit of trained personnel. The lack of a clearly articulated air doctrine, however, led to a failure to define Air Force priorities and to refine tactics. DLM barely improved the Air Force's tactical training because it paid little attention to the education of Romanian pilots, and when it did, it trained them mainly for defensive actions, while the bulk of the Romanian Air Force was eventually engaged in the offensive.

¹²⁹Calculated from *ibid.*; BA-MA, RH 31-I/98, Übersicht über die rum. Luftwaffe [Survey of the Romanian Air Force], p.15, 15 January 1942.

The requirements of coalition warfare made the Air Force undertake operations that had not been foreseen before the war. It performed most efficiently in home defence, interdiction actions in Bessarabia and, sometimes, in close air support. Failure to gain local air superiority at Odessa did not allow the Air Force to carry out efficient reconnaissance or air spotting. Had the Air Force been able to cut sea communications at Odessa, this alone would have destroyed the defence. But the Air Force was too small, it had no proper aircraft and its pilots were untrained for such a mission. Both strategic offensives failed for the same reason.

Since the Romanian aircraft industry could not replace battle attrition and the Germans abstained from helping their ally, the campaign consumed the Air Force. Only in 1941 did Romanian GHQ dedicate 91% of its aircraft to the common Axis war effort,¹³⁰ making pilots perform missions incompatible with the nature of a small air force. It learned the lessons of this experience. The Air Staff insisted later that "the Romanian Air Force cannot be used otherwise than in *direct* support or, from time to time, in *indirect support* of the land forces. (...) *Independent air operations* of the Romanian Air Force are not planned because it is too weak numerically to achieve results that can affect the course of the war".¹³¹

The Romanian Air Force could not be a salient factor in the actions on the Eastern Front because of its small size. Romania entered the war with 380 operational combat aircraft while Germany fielded 2,500; total strength of the Red Air Force was 22,000 aircraft.¹³² However, the Romanian Air Force played a far more prominent role on the Eastern Front than armour and, unlike the army, it inflicted the enemy losses comparable, or perhaps even exceeding, its own. That the Air Force of an underdeveloped country matched the quality of equipment and aircrew of "Stalin's falcons", who reaped all the benefits of a highly militarized society, was a remarkable achievement.

¹³⁰M.Ap.N., File 2463/16, Marele Stat Major, Secția 3 operații, no date.

¹³¹BA-MA, EC 2967 N, Statul Major al aerului, February 1944. Emphasis in the original.

¹³²N. M. Romanichev, "Krasnaia Armiia vseh sil'nei?" [Is the Red Army the Strongest on Earth?] in *VIZ*, 12 (1991), 2; Boog et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 4: 313.

CHAPTER FIVE: THE NAVY

The Romanian Navy's position in the armed forces' hierarchy depended on the role that the General Staff assigned to seapower in defence and by the balance of seapower within the naval operational theater. The General Staff anticipated that the Army and the Air Force would be involved in any war imposed on Romania, and that they could fight smaller adversaries, such as Hungary, on equal terms. The Navy, however, was confined to the Black Sea and the Danube. The General Staff considered the USSR to be the most probable adversary among the Black Sea states. Unfortunately, Russia's fleet was much stronger than all other Black Sea navies taken together. Although the Army and the Air Force would face similar numerical disparity against Russia, the Army Command claimed that good defensive positions in the Carpathians and three wide parallel rivers in the east offered it a reasonable chance to repel a superior enemy, while the Air Force's place of honour among the armed forces was secured by public sentiment. The Navy could not produce sound arguments as to how it would resist its most probable adversary, nor was it a national favourite. Romanian defence policy-makers estimated that if the Navy ever fought, it would be against heavy odds, while naval actions would play only a secondary role in Romania's defence. Not surprisingly, they treated the Navy as a minor arm. It entered World War II with a small fleet of mostly obsolete ships that were manned by poorly trained crews. The German High Command confined its operations against the USSR almost exclusively on land, hoping that the Red Navy would be automatically eliminated after land forces swiftly captured all Soviet ports. When the Blitzkrieg misfired, the tiny Romanian Navy found itself on its own facing a decidedly superior enemy.

Romanian naval strategy always included both nautical and riverine components. Prior to World War I, the General Staff assigned a higher priority to the protection of the Danube border than to the defence of the sea coast. The Romanian Navy, founded in 1860 as the Danube Flotilla, was baptized by fire during the war against the Ottoman Empire in

1877-1878.¹ By 1912, the Danube Flotilla had 4 modern monitors, 10 torpedo boats and some smaller vessels, while the sea force possessed a single ship. The Danube Flotilla had 500% more personnel than the sea detachment.² The Navy saw little action in World War I and afterwards it acquired a powerful potential enemy, the Soviet Black Sea Fleet. Meanwhile, the demilitarization of the Bosphorus and the Dardanelles that was stipulated by the 1922-1923 Lausanne Conference gave an impetus to Black Sea merchant shipping. These strategic changes and the expansion of the merchant fleet prompted Romania to shift its naval priorities from the Danube to the Black Sea.

Unlike their army colleagues, Romanian naval strategists could easily identify their primary threat. They agreed that Romania's "naval interests in case of war are confined to the Black Sea and to the Black Sea alone". Therefore, "the Russians are the adversary who should concern us most".³ Curiously, the arm that faced the least strategic uncertainty witnessed the most heated discussions about strategy and doctrine. Like naval thinkers in other countries, Romanian sailors clashed mainly over the prospects of surface fleets versus submarines and naval aviation. Since the Navy had virtually no combat experience, Romanian theoreticians based their arguments on the analysis of foreign navies' operations in World War I.

A "revolutionary" faction that included several influential senior officers such as Negru, Roșca and Koslinski as well as the former Navy Commander-in-Chief, Niculescu-Rizea, denied that Romania needed a large surface fleet. The "revolutionaries" argued that before planning any strategy, the Navy had to ask itself "can we with our very limited naval budget raise such a surface fleet that would match this adversary [the USSR]? (...) The Ministry of Finances gives us an answer to this question: no, we cannot". An inferior surface

¹Axworthy, *Third Axis, Fourth Ally*, 327.

²1107 vs. 226, Iskriksky, Glavnoe upravlenie General'nogo Shtaba [Head Office of the General Staff]. *Vooruzhennyya sily Rumynii* [Romanian Armed Forces], (St.Petersburg: Voennaia Tipografia, 1912), 144, 145.

³HIA, Radu Irimescu Collection, Box 4. Constantin Negru, Avion și submarin sau vas de suprafață [Aircraft and Submarine or Surface Ship], p.15, 4 January 1938.

fleet would never dare leave its harbours in wartime, as in the Great War "the German fleet that was still approaching in size the British fleet, unlike us and the Russian fleet in the Black Sea, (...) retreated to its naval bases and surrendered intact to the enemy. Our surface fleet will suffer the same fate". Since the Navy possessed no well-protected naval base, its wartime activity would be confined to hiding its ships "under the willows of [Danube] islands". The superior enemy fleet could be countered, however, by new non-conventional means of naval warfare. Romania "will be safer if these hundreds of millions that we intend to invest in a surface fleet, will be spent on submarines and naval air force". These submarines could be small because they would operate only within the Black Sea. Four such boats could be purchased at the price of one destroyer, twelve at the price of one cruiser. The experience of the Great War proved that only "a fleet of submarines allows a weak country to defend itself against a nation that is greatly superior in surface fleet", because submarines were cheap and the only warships able to operate effectively against a superior naval force. Meanwhile, the "revolutionaries" argued, during the Great War naval aviation had been only at the beginning of its development. Given the rapid progress of technology, air forces would soon acquire such striking power that they would drive surface ships off the sea. Air forces would play a particularly important role on inland seas where fleets could not operate without being detected by adversary's air reconnaissance. Aircraft were also more efficient weapons against the enemy's fleet than surface ships, because the weight of bombs carried by only 30 medium bombers was equal to the weight of one salvo of 10 battleships, and 1,000 medium bombers could be built at the price of one battleship.⁴ The range of modern bombers covered the entire area of the Black Sea. Once discovered, the fleet would be attacked by a mass of aircraft and inevitably destroyed. Comandor Negru, one of the few Romanian proponents of Douhetism, took an extremist position among the "revolutionary" faction, arguing that Romania needed no surface ships but one training vessel.⁵

⁴So in the original.

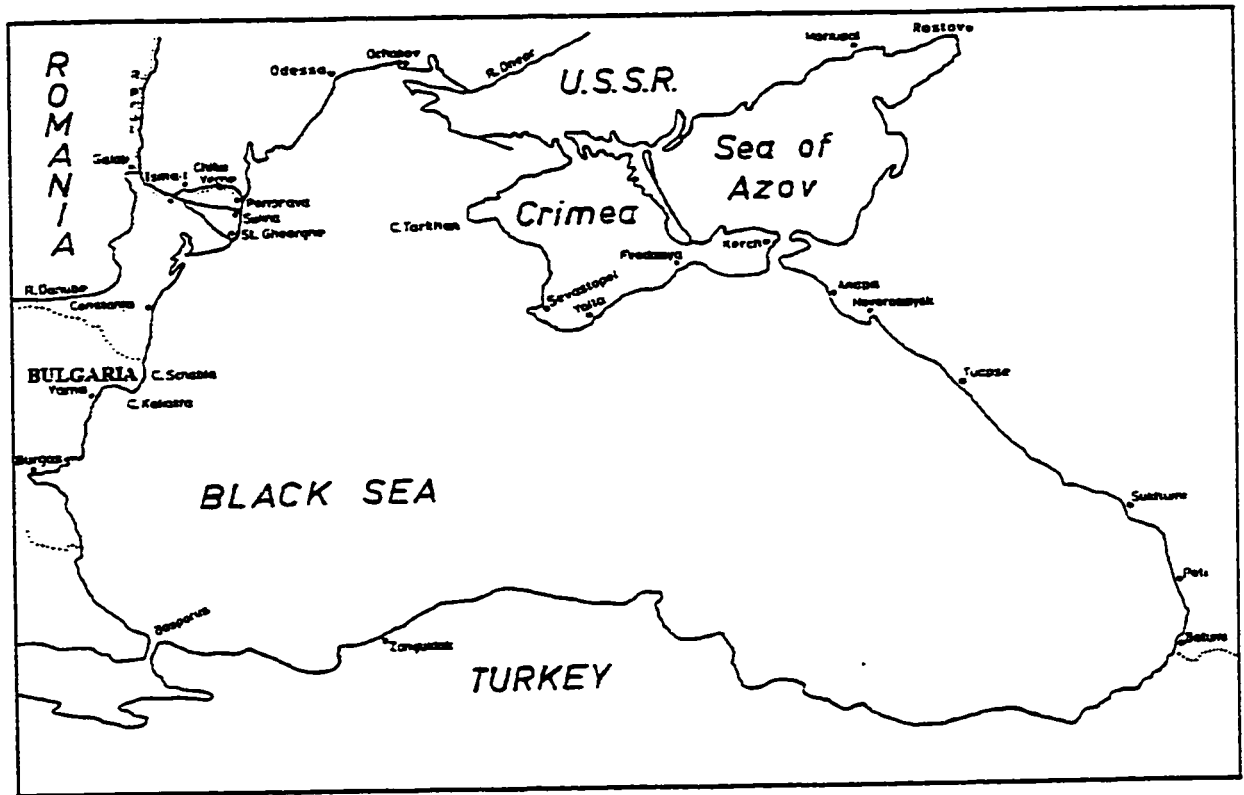
⁵HIA, Radu Irimescu Collection, Box 4. Constantin Negru, Avion și submarin sau vas de suprafață [Aircraft and Submarine or Surface Ship], 4 January 1938.

The larger "traditionalist" faction, headed by Navy Commander-in-Chief Ioan Bălănescu, argued that Romania needed a balanced fleet that would include all classes of ships up to cruisers, supplemented by aviation. The "traditionalists" envisaged two possible strategic situations in case of Soviet aggression against Romania. First, "a superb western naval force [the Allies] (...) will support us by battleships that would annihilate most of the adversary's fleet".⁶ In order to secure such help, Romania had to have a decent balanced fleet, because in this case "an alliance with us will be valued by those (...) with whom we have common interests".⁷ If, however, Romania fought alone, the Navy would have to pursue a strategy of active defence that presumed protection of its coast as well as "naval guerrilla warfare", by which Bălănescu meant "incessant harassment of the enemy (...) by limited offensives". The "traditionalists" believed that a weaker navy could split a superior blockading fleet "by maneuver along internal lines", lure it to minefields and to coastal batteries, create local superiority "exploiting surprise, [and combining] guns, torpedoes, mines, smoke-screens, air force and submarines", to destroy the blockading force piecemeal. Since submarines and air force made close blockade of ports impractical, the surface ships of an inferior navy could slip out of harbour.⁸ Given the short distance to enemy communications (about 100 miles between the Romanian port Sulina and Odessa and 175 miles between Sulina and Sevastopol, Map 5), fast ships could approach the enemy coast, strike by surprise and return within one night. Accordingly, the Navy needed fast surface ships - cruisers, destroyers and MTBs - as well as submarines for raids, escort vessels to protect convoys to the Straits, minesweepers and minelayers to defend the Romanian coast. The "traditionalists" argued that the Austro-Hungarian Navy had proven the viability of this

⁶I. Bălănescu, Principii de doctrină navală. Problema marinei noastre [Principles of Naval Doctrine. Problems of Our Navy] (Tipografia Marinei Regale, 1934), 38.

⁷HIA, Radu Irimescu Collection, Box 4. Expunere de motive pentru programul nostru naval [Explanations of Motives of our Naval Program], no date, apparently, between 1934 and 1936, pp. 2,3. The Dutch Navy used the same arguments in favour of Navy expansion, Aarnout H. N. Wennekers, "Dutch Strategic Policy in Southeast Asia Reconsidered, 1916-1933" (MA Thesis, University of Calgary, 1995), 100.

⁸I. Bălănescu, Principii de doctrină navală. Problema marinei noastre [Principles of Naval Doctrine. Problems of Our Navy], 9, 22, 24, 36, 37.



Map 5. The Black Sea

strategy in the Great War, when, although outnumbered, it defended the Adriatic coast, intercepted enemy traffic and sank several Allied cruisers. The "traditionalists" viewed naval aviation mainly as reconnaissance rather than as a striking force, because in the Great War its "performance in actions against surface ships was submediocre".⁹ They maintained that "in a naval battle, of course, more ships will be sunk by naval fire than by air force".¹⁰ Unlike the surface fleet, the air force could not secure undisputed command of the sea because it operated "bypassing" and therefore could "not conquer and occupy".¹¹ The "traditionalists" viewed the submarine not as a primary mean of naval war, but as a weapon suitable mainly for occasional raids on the adversary's communications. They could not be used in the north-west quarter of the Black Sea because of the shallow depth, and generally "on limited operational theaters, such as the Black Sea, actions of submarines will be seriously hindered because of the great density of anti-submarine ships".¹² Although submarines could effectively attack unescorted merchant vessels, they were so slow that interception of the enemy's warships would depend more on luck than on planned actions.¹³

Both factions stressed the value of the navy as a deterrent factor, pointing out that even a small fleet, well trained and provided with a proper doctrine and equipment, could "make the far superior enemy think ten times before unleashing armed conflict, because he will always keep in mind the consequences he would face".¹⁴ Their arguments about the

⁹HIA, Radu Irimescu Collection, Box 4. *Expunere de motive pentru programul nostru naval* [Explanations of Motives of our Naval Program], 8; Bălănescu, *Principii de doctrină navală. Problema marinei noastre* [Principles of Naval Doctrine. Problems of Our Navy], 26.

¹⁰HIA, Radu Irimescu Collection, Box 4. *Nota relativă la lucrarea Domnului Comandor C. Negru* [Memorandum Regarding the Study of Commodore C. Negru], no date, apparently, 1938

¹¹Bălănescu, *Principii de doctrină navală*. [Principles of Naval Doctrine], 26.

¹²HIA, Radu Irimescu Collection, Box 4. *Expunere de motive pentru programul nostru naval* [Explanations of Motives of our Naval Program], 8.

¹³HIA, Radu Irimescu Collection, Box 4. *Nota relativă la lucrarea Domnului Comandor C. Negru* [Memorandum in Relation to the Study of Commodore C. Negru], no date, apparently, 1938; Bălănescu, *Principii de doctrină navală*. [Principles of Naval Doctrine], 25.

¹⁴HIA, Radu Irimescu Collection, Box 4. *Constantin Negru, Avion și submarin sau vas de suprafață* [Aircraft and Submarine or Surface Ship], p.15.

possibility of a smaller naval force fighting a successful war against a superior fleet rested on a combination of two factors - the practical experience of the Central Powers in World War I, and a doctrine stemming from the ideas originated by the French *Jeune École*, that had also tried to come to grips with the problem of naval disparity.¹⁵ Both factions in the Romanian Navy agreed that "the offensive is an indispensable condition for victory".¹⁶ The offensive was to be confined mainly to raids against the enemy fleet and communications. The position of "the revolutionaries" was particularly close to that of *Jeune École's* followers, whose main objective was to achieve "a great deal with little, [to] win a great payoff while risking a small stake".¹⁷ Surprise attacks on warships were not intended to destroy the enemy fleet, a goal unattainable for a Romanian war against Russia, but rather to force caution on the adversary and make him keep away from the Romanian coast. Unlike most proponents of *Jeune École* or the German school, Romanian theoreticians did not believe that their Navy could effectively disrupt enemy sea traffic. They viewed attacks on communications as actions aiming mainly to "indirectly but considerably ease the operations of the land forces" and to tie down the enemy fleet disproportionately greater than the forces involved in *guerre-de-course*.¹⁸ The naval factions offered, however, completely different recipes to attain these goals.

Both conceptions were vulnerable to criticism. The "revolutionaries" expressed their ideas in too general terms, leaving many aspects of the proposed strategy vague or technically wrong. Regarding naval aviation, they favoured medium/heavy hydroplane bombers to perform high altitude flat trajectory attacks, but their argument about the efficiency of such attacks was limited to a simplistic comparison of weights of aerial bombs and naval shells and costs of bombers against warships. Prewar tests conducted in other

¹⁵Theodore Ropp, *The Development of a Modern Navy* (Annapolis: Naval Institute Press, 1987), 254-257.

¹⁶Bălănescu, *Principii de doctrină navală*. [Principles of Naval Doctrine], 9.

¹⁷Ropp, *Development of a Modern Navy*, 168.

¹⁸HIA, Radu Irimescu Collection, Box 4. *Expunere de motive pentru programul nostru naval* [Explanations of Motives of our Naval Program], 4.

countries as well as later attempts to attack ships by conventional bombers in World War II proved that the type of air force they advocated would not have worked. The "revolutionaries" ruled out combined Army/Navy operations, believing that the Romanian Navy would never be strong enough to provide substantial support to the Army. They did not note that the efficiency of a navy based on submarines and air force would be impeded in bad weather or at night. To their credit, however, the "revolutionaries" accurately assessed the potential value of submarine warfare and correctly foresaw the significance of airpower in battles for control over inland seas. Most important, they offered a compromise which, after some corrections, might have given the Navy a fair defensive and offensive capacity in the face of three fundamental but unfavourable factors: the government's reluctance to fund the Navy, the overwhelming superiority of the most probable adversary, and the time pressure caused by the escalation of international tensions. Other small navies facing similar problems considered similar solutions. For instance, in 1934 Dutch naval policy-makers, striving to find cost-efficient means to protect the Netherlands East-Indies against a greatly superior Japanese fleet, proposed to defend the colonies by a force made up of only naval aviation and submarines.¹⁹

The "traditionalists" refused to accept reality. They wished gradually to raise a fleet capable of all the classic missions that a navy was supposed to perform: defence of coast and communications, actions against the enemy's fleet and traffic, and support of the Army's flanks leaning on the coast. The "traditionalists" refused to establish priorities between these missions. Instead, the Navy was to be equally efficient in all the jobs, which was impossible in a war against Russia. Advocating a balanced fleet, the "traditionalists" based their arguments on the actions of the Austro-Hungarian Navy, but ignored the fact that Austrian submarines achieved a far better ratio between their losses and those inflicted on the enemy than "big gun" ships did and with even greater cost efficiency, though of course, this was eased by the paralyzing effect on enemy seapower created by the Austrian fleet-in-being. The proposed naval guerrilla warfare by surface ships would have been an extremely risky

¹⁹Wennekers, "Dutch Strategic Policy in Southeast Asia Reconsidered, 1916-1933", 131.

enterprise even in long winter nights and impossible in summer. Like many foreign theoreticians,²⁰ the "traditionalists" overrated the vulnerability of submarines, even though they were unaware of modern means of submarine detection, such as the asdic (no Black Sea state possessed asdic or other means of submarine detection even by June 1941). Actions on all inland seas in World War II demonstrated later that the "traditionalists'" assessment of the potential of naval airpower was totally wrong.

The major flaw of the "traditionalist" conception, however, was the assumption that the government might reverse its rearmament priorities in favour of the Navy. Like their German, Soviet or French colleagues, Romanian admirals yearned for a strong fleet no matter its value in the context of the national strategy or the power balance in the operational theater. But Romanian statesmen found no reason to increase the funding of an expensive arm that was not vital for security and that could hardly counter its major potential enemy. Since the General Staff considered Turkey the least probable adversary among the Black Sea states and accepted Soviet supremacy as a fact, it limited the naval budget to the level that would provide maritime superiority over Bulgaria. The Navy's proportion in military expenditures steadily dropped during the 1930s. In 1932 the Navy's budget was just 37% that of the Air Force, then 9.3% by 1934 and 7.8% by 1937.²¹ Although the Navy received three new ships in the 1930s, the rest of its vessels were obsolete and its fleet modest. The sea force consisted of four destroyers, three torpedo-boats, four gunboats and one submarine. The Danube Flotilla possessed seven monitors and a few smaller vessels.²² In mid-1930s the Navy General Inspectorate, dominated by the "traditionalists", submitted its proposal for a nine-year program that presumed great expansion and modernization of the fleet, and

²⁰In 1936 the First Sea Lord of the Admiralty, Admiral Chatfield believed, for instance, that the Royal Navy's anti-submarine measures were "80 per cent effective", Marc Milner, *North Atlantic Run* (Toronto: University of Toronto Press, 1985), 9. Chief of the Naval Staff of the Royal Canadian Navy, Commodore Nelles, believed that anti-submarine measures would make "losses of Submarines (...) very heavy and might compel the enemy to give up this form of attack", *ibid.*

²¹BA-MA, RH2 2803. Allgemeiner Haushalt des Rumän. Ministeriums für Landesverteidigung, [Overall Budget of Romanian Defence Ministry] 1932, 1933-1934, 1936-1937.

²²Axworthy, *Third Axis. Fourth Ally*, 327.

contained all classes of ships up to cruisers (Table 10).²³ If established, this would have given Romania one of the most respectable surface navies of any third-class seapower. Echoing British Admiral David Beatty, who claimed that any country's "authority (...) in the counsels of the world depends primarily on her naval strength",²⁴ Romanian sailors tried to persuade the government that the Navy "represents a primary tool of our politics".²⁵ Romanian statesmen treated these claims with a well-grounded skepticism. Although they did not formally reject the proposed program, in effect they refused to fund it by continuing to assign the lowest priority to naval rearmament and abstaining from substantial increase of the naval budget until 1939.²⁶

The naval program presumed that small ships and submarines would be built in Romania while bigger ships would be ordered abroad.²⁷ However, until the late 1930s, Romania had just a few private shipyards that produced only small civilian vessels. The Ministry of Air and Navy recognized that the development of a native shipbuilding industry made sense only if it could produce several sister-ships simultaneously. Otherwise, Romania would have had "not a fleet consisting of homogenous ships, but a series of prototypes".²⁸ As the example of Canada proved, civilian shipbuilding could be converted into a naval industry of fair capacity within 1-2 years, provided great investments, extensive infrastructure, technical expertise and skilled labour were at hand. Since none of these were available in Romania before 1941 or afterwards, there was no real basis for such a

²³HIA, Radu Irimescu Collection, Box 4. *Expunere de motive pentru programul nostru naval* [Explanations of Motives of our Naval Program], no date, apparently, between 1934 and 1936.

²⁴Cited in John Ferris, "The last decade of British maritime supremacy, 1919-1929", in Keith Neilson and Greg Kennedy, eds, *Far Flung Lines* (London: Frank Cass & Co. Ltd., 1997), 127.

²⁵HIA, Radu Irimescu Collection, Box 4. *Expunere de motive pentru programul nostru naval* [Explanations of Motives of our Naval Program], p.2.

²⁶Ministerul Aerului și Marinei, *Realizarile*, 19.

²⁷HIA, Radu Irimescu Collection, Box 4. C. Blaimayer, A.P. Brătulescu, *Memoriu* [Memorandum], 30 January 1937.

²⁸Ministerul Aerului și Marinei, *Realizarile*, 24.

Type of ship	Romanian Naval Program ²⁹ (mid-1930s) minimum /maximum	Romanian Navy (June 1941) ³⁰ Manufacturer/year	The Soviet Black Sea Fleet (June 1941) ³¹
Battleships	-	-	1
Cruisers	2/4	-	6
Destroyer Leaders	-	-	3
Destroyers	6/14	4 (Italy, 1917-18; 1928-29)	13
Gunboats	-	3 (France, 1916-17)	4
MTB	12	3 (Britain, 1939)	84
Torpedo-boats	6	3 (Austria-Hungary, 1912)	-
Submarines and submarine minelayers	11/17	1 (Italy, 1930)	47
Minelayers	1	5 ³²	2
A/S ships	12	- ³³	10
Minesweepers	8		15

Table 10. Balance of the naval forces in the Black Sea

development. In fact, Romania lacked even the first step towards a naval industry - basic maintenance facilities. For example, the Navy had no floating dock able to serve destroyers or submarines. These ships were sent for routine maintenance to Istanbul, but this service

²⁹HIA, Radu Irimescu Collection, Box 4. Expunere de motive pentru programul nostru naval [Explanations of Motives of our Naval Program], no date, apparently, between 1934 and 1936.

³⁰M.Ap.N., File 131, Statul Major al Marinei [Naval Staff], p.10a, 5 July 1941; Axworthy, *Third Axis, Fourth Ally*, 348-351; Iskritsky, Glavnoe upravlenie General'nogo Shtaba [Head Office of the General Staff], *Vooruzheniia sily Rumynii* [Romanian Armed Forces], 145; Duțu, Retegan, *Armata română în al doilea război mondial*, 1: 343, 344.

³¹S.E. Zakharov, ed., *Istoriia voenno-morskogo iskusstva* [History of Naval Art] (Moscow: MO SSSR, 1969), 253.

³²Only one minelayer was built as a special naval ship, while the rest were converted civilian vessels that operated as minelayers/minesweepers.

³³Anti-submarine warfare was performed by destroyers that carried 40 depth charges, by obsolete torpedo boats and by MTBs that carried 4-6 depth charges. None of the ships possessed asdic, direction finding antennae, radar or any other sophisticated equipment for submarine detection.

would have been unavailable in wartime.³⁴

The increase of the naval budget in 1939 led to some improvement of the shipyards. Romania built its first and only surface warship - a minelayer - and later in the war produced two submarines largely from imported parts. Although the attempt to build warships was hardly justified under current circumstances, other investments were reasonable. With better funding, the Navy standardized and modernized naval artillery and considerably improved repair facilities. Industry began to produce naval ammunition and contact mines.³⁵ Romania attempted to purchase some ships abroad but foreign shipyards, overloaded with orders of their own, provided just three British MTBs.³⁶ When Romania entered the war, the grandiose naval program proposed in the mid-1930s had produced only one minelayer built in Romania and the purchase of three MTBs. The Navy also converted four civilian vessels into minelayers. Thus, the brisk interwar discussion on strategy and doctrine had no practical impact on Romania's seapower.

By June 1941, the Navy consisted of the Sea Division, the Danube Flotilla, three battalions of marines, and several other small units. The Sea Division included coastal batteries, naval aviation and all seagoing ships - 4 destroyers, 3 torpedo-boats, 3 gunboats, 3 MTBs, 5 minelayers/minesweepers and 1 submarine. Romanian destroyers remained the largest Axis ships in the Black Sea throughout the war, but only 2 destroyers, 3 MTBs and 1 minelayer were modern; the rest of the surface ships were manufactured before or during World War I. The Italian-built submarine was in poor mechanical condition and displayed drawbacks common for Italian submarine design, such as slow speed on the surface and long diving time. Many of the Navy's torpedoes were of World War I vintage.³⁷ The Navy could rarely field even half of its strength, because most ships were old and spent long time under

³⁴HIA, Radu Irimescu Collection, Box 4. C. Blaimayer, A.P. Brătulescu, Memoriu [Memorandum], 30 January 1937; HIA, Radu Irimescu Collection, Box 4. Expunere de motive pentru programul nostru naval [Explanations of Motives of our Naval Program], 6.

³⁵Ministerul Aerului și Marinei, *Realizările*, 44.

³⁶Axworthy, *Third Axis. Fourth Ally*, 328.

³⁷Ministerul Aerului și Marinei, *Realizările*, 43.

repair. The Soviet Black Sea Fleet maintained an overwhelming numerical and qualitative superiority in all classes of ships (Table 10).

The Romanian naval air arm consisted of 20 obsolete Italian-designed flying boats: seven torpedo bombers, the rest reconnaissance hydroplanes.³⁸ All naval aircraft suffered from frequent mechanical failures. In comparison, by June 1941 the Soviet Black Sea force possessed 626 naval aircraft: 107 medium bombers, 37 torpedo bombers, 315 fighters and 167 reconnaissance aircraft.³⁹

Romanian coastal artillery was unimpressive until 1941, consisting of five obsolete 66-152 mm batteries around Constanța plus one 101 mm battery and one 76 mm section around Sulina.⁴⁰ However, the protection of Constanța was considerably improved after the Deutsche Kriegsmarinemission (DKM) established two modern 280 mm batteries manned by German crews near the port.⁴¹ The anti-aircraft defence of Constanța, initially weak, was reorganized by the DLM and became efficient enough to frustrate most of the Soviet air raids.

The Naval Staff reported directly to GHQ. By June 1941, the Romanian Navy numbered 14,180 men,⁴² just 25 % the strength of the Air Force. The prestige of the naval service was low. The number of naval cadets barely increased in 1935-1939,⁴³ and typically for the Romanian armed forces, naval training focussed on theoretical discussions at the

³⁸Dușu, Retegan, et al., Armata română în al doilea război mondial, 1: 94.

³⁹Zakharov, ed., Istoriia voenno-morskogo iskusstva [History of Naval Art], 253.

⁴⁰M.Ap.N., File 131, Statul Major al Marinei [Naval Staff], Jurnal de operații, p.10a, 5 July 1941; HIA, Radu Irimescu Collection, Box 4. Expunere de motive pentru programul nostru naval [Explanations of Motives of our Naval Program], 6.

⁴¹Dușu, Retegan, Armata română în al doilea război mondial, 1: 298.

⁴²Țipa Rotaru, Carol König, Alesandru Dușu, Romanian Army in World War II (Bucharest: Meridiane, 1995), 44. Other sources give figures of 13,760 men and 15,113 men, Florin Constantiniu, Ilie Schipor, Trecerea Nistrului (1941). O decizie controversată [Crossing the Dnestr (1941). A Controversial Decision] (Bucharest: Albatros, 1995), 79; Dușu, Retegan, Armata română în al doilea război mondial, 1: 99.

⁴³Ministerul Aerului și Marinei, Realizările, 74.

expense of practical exercise, mainly because of financial limitations.⁴⁴ As with other arms, irrational distribution of the budget aggravated the Navy's funding problems. Much of the funds were consumed by the salaries of personnel whose rank was artificially inflated. As Ion Antonescu remarked in 1940, "we have a Navy Minister, we created admirals and naval commanders without a fleet. At one time we had 10 admirals but did not have even three ships ready for action".⁴⁵ What remained of the naval budget after paying salaries was sufficient only to practice the most primitive of tactics that required minimum expenses. In particular, the scope of tactical training was defined by tough limits on fuel consumption - hence the Navy, as a rule, limited its maneuvers to shooting exercises in the proximity of ports. Not surprisingly, tactical and individual training was poor at all levels.

Granted, the Soviet Black Sea Fleet was barely more efficient. Soviet authors admit that "the tactical training of naval commanders was weak" largely because the categorical refusal of the People's Commissariat of the Navy "to tolerate accidents" resulted in a maximum simplification of exercises.⁴⁶ The Red Navy abstained from combined maneuvers of surface ships, submarines and air force. Submariners learned no other tactics but ambush on positions. The ships exercised shooting at land targets only in ideal weather conditions and always at the same spot with well-known registration points. The Red Navy never practiced landing operations and had no landing vessels. It gravely underestimated the mine factor in inland seas and failed to elaborate tactics of surmounting mine-infested areas.⁴⁷ The Black Sea Fleet excelled its Romanian counterpart in the number and quality of ships, but not in training.

⁴⁴HIA, Radu Irimescu Collection, Box 4. *Expunere de motive pentru programul nostru naval* [Explanations of Motives of our Naval Program], 7.

⁴⁵Duțu, Retegan, *Armata română în al doilea război mondial*, 1: 68.

⁴⁶Kuznetsov, "Voenno-Morskoi Flot nakamune Velikoi Otechestvennoi voiny" [The Navy on the Eve of the Great Patriotic War], *VIZ*, 9 (1965): 62, 63; V. Achkasov, "Voenno-Morskoi Flot v Velikoi Otechestvennoi voine" [The Navy in the Great Patriotic War], *VIZ*, 7 (1965): 31.

⁴⁷V. I. Achkasov, N. B. Pavlovich, *Sovetskoe voenno-morskoe iskusstvo v Velikoi Otechestvennoi voine* [Soviet Naval Art in the Great Patriotic War], (Moscow: MO SSSR, 1973), 18, 219.

Neither German nor Soviet strategists took the Romanian Navy seriously. DHM described the Romanian armed forces as "continental" and believed that the Navy, exactly as the Air Force, could not play "any role because of [its small] size".⁴⁸ Analyzing its opponents in March 1941, the Soviet General Staff carefully calculated the number of Romanian divisions, tanks and combat aircraft, but completely disregarded the Romanian Navy, considering only the Italian fleet as a potential adversary in the Black Sea.⁴⁹ In fact, both German and Soviet commentators were wrong.

In the first day of the war the Luftwaffe attempted to block the Soviet Black Sea Fleet at its main base of Sevastopol with magnetic and acoustic mines. The cargo capacity of medium bombers was limited to only two such mines.⁵⁰ German pilots hoped to exploit the surprise attack for precise launching of the mines. However, the Black Sea Fleet and its bases were put on alarm earlier than the army, at 1.15 a.m. on 22 June.⁵¹ The German bombers were met by heavy anti-aircraft fire and had to drop the mines from a high altitude. Few mines fell in the entrance to the port, not enough to block the Black Sea Fleet. An attempt to mine Odessa harbour on 14 September was equally unsuccessful.⁵² Hence, the Black Sea Fleet was free to operate.

Meanwhile, with the beginning of *Barbarossa*, the Romanian Sea Division was ordered to defend its coast and "if possible, to attack the enemy's communications".⁵³

⁴⁸BA-MA, RH 31-I/94, Chief of DHM General Hauffe, Gedanken über die mil. Probleme in Rumänien [Considerations about Romanian Military Problems], 11 January, 1942.

⁴⁹Timoshenko, S., B. Shaposhnikov. "Soobrazhenia ob osnovakh strategicheskogo razvertyvaniia Vooruzhennykh Sil SSSR na Zapade i na Vostoke na 1940 i 1941 gody" [Considerations about the Basics of Strategic Deployment of the Soviet Armed Forces in the West and in the East in 1940 and 1941] in E.I Ziukin *VIZ*, 12 (1991): 18, 19.

⁵⁰Penzin, *Chernomorskii flot v oborone Odessy* [The Black Sea Fleet in the Defence of Odessa], 33.

⁵¹Zakharov, ed., *Istoriia voenno-morskogo iskusstva* [History of Naval Art], 254.

⁵²Achkasov, Pavlovich, *Soverskoe voenno-morskoe iskusstvo* [Soviet Naval Art], 87.

⁵³M.Ap.N., File 131, Staml Major al Marinei [Naval Staff], Dara de seama asupra activităţii Marinei dela 22 Iunie la 8 Sept. 1941 [Report about the Navy's Activities from 22 June to 8 September 1941], p.58/1.

Although the decisive superiority of the Black Sea Fleet ruled out the latter mission in the first weeks of the war, the Navy succeeded in protecting the coast. The only Soviet naval attack on Romania in World War II ended with a spectacular failure. A week before the beginning of hostilities, DKM encouraged the Romanian Naval Staff to lay minefields a dozen miles off Constanța and Sulina. The Navy finished mining on 19 June.⁵⁴ Seven days later two Soviet destroyer leaders raided Constanța and fired 350 shells on the port and the oil reservoirs. The attack was countered by the precise fire of German coastal batteries, aided by two Romanian destroyers patrolling outside the harbour.⁵⁵ Romanian torpedo bombers missed their chance to take part because of mechanical failures. Zigzagging at top speed, the Soviet destroyer leaders entered the Romanian minefield. One struck a mine and sunk, while the second, damaged by shells, sailed away, leaving the survivors from the sunk ship to their fate. This was the only major encounter between Soviet and Axis' surface ships in the Black Sea in the war. The energy of the rebuff impressed the Soviet Naval Staff so much that it never dared to repeat the raids on Romania.

By 1940, the Romanian merchant fleet numbered only 17 government-owned and 14 private vessels.⁵⁶ Most of these ships were outside the Black Sea by the time Romania entered the war and were interned in foreign ports. This was not a vital loss, since merchant shipping played only a minor role in Romania's strategy. However, after the Blitzkrieg failed, the Axis' senior allies became far more concerned with the maintenance of Romania's sea communications than were the Romanians. Although Germany received Romanian oil mainly via the Danube, the oil for Italy was transported by sea. Soviet submarines attacked this important route. In the absence of other Axis' warships in the Black Sea, the Romanian Fleet was engaged in escort of convoys to the Straits from mid-August.⁵⁷ It is not easy to

⁵⁴Dușu, Retegan, *Armata română în al doilea război mondial*, 1: 98.

⁵⁵M.Ap.N., File 1401/132, Statul Major al Marinei [Naval Staff], Jurnal de operații, 26 June 1941; Zakharov, ed., *Istoriia voenno-morskogo iskusstva* [History of the Naval Art], 256.

⁵⁶Axworthy, *Third Axis. Fourth Ally*, 328.

⁵⁷DGFP, Series D, 13: Document No.210, p.324, 17 August 1941.

assess the efficiency of Romanian escorts in anti-submarine actions from the existing evidence, because Romanian sailors tended to exaggerate their successes no less than did the pilots. Romanian ships lacked the means for submarine detection, but according to their captains, almost each drop of depth charges resulted in the sinking of a submarine. On 8 July three Romanian escorts with about a dozen depth charges attacked two Soviet submarines and claimed to have sunk both.⁵⁸ Later, Romanian destroyers made similar claims.⁵⁹ Comparisons with the 1941-1942 record of the Royal Canadian Navy that possessed a similar level of training but better equipment, or even with the record of the Royal Navy, whose training and equipment were incomparably better than these of the Romanians, suggest that these reports cannot be taken seriously.⁶⁰ To be fair, Soviet sailors also inflated the score of their victories. Russian sources admit that a great disparity exists between the claims of the Soviet Navy and the losses confirmed by the Axis.⁶¹

DKM, in charge of the convoys to the Straits, realized that it could not rely on the few poorly armed Romanian escort vessels. In October DKM tasked the Romanian Navy to fence off the coastal route from the open sea with a long chain of mine barrages. These proved to be the most effective weapon of Romanian Navy. Soviet authors admit that "several" submarines were lost due to Romanian mines, but they do not specify the exact number. They also mention that in 1941-1942, Soviet submarines sunk a total of 19 ships in the Black Sea.⁶² Even if one assumes that the latter claim is correct, the ratio between submarines sunk by the Romanian Navy and merchant ships lost to submarines was indeed

⁵⁸M.Ap.N., File 1401/132, Stanul Major al Marinei [Naval Staff], Jurnal de operații, 8 July 1941; Scafes et al., *Armata Română*, 318, 319.

⁵⁹Axworthy, *Third Axis. Fourth Ally*, 334, 336.

⁶⁰Despite frantic efforts in 1942, RCN sunk no submarine, while the U-boats torpedoed 112 merchant ships in the coastal waters of Canada; Marc Milner, *The U-boat Hunters* (Toronto: University of Toronto Press, 1994), 17.

⁶¹Thus the Soviet Navy and the naval Air Force claimed to have sunk over 100 Axis vessels during the evacuation of the Crimea in 1944, while German sources admit the loss of only 57 ships, Achkasov, Pavlovich, *Sovetskoe voenno-morskoe iskusstvo* [Soviet Naval Art], 315.

⁶²*Ibid.*, 282, 287, 295.

far better than the Royal Navy attained on the North Atlantic Run in 1941-1942, though the circumstances and the enemy were also easier for the defender. Apparently, most if not all sunk submarines were lost on minefields near the Romanian coast. Three out of four Romanian warships sunk in 1941 (two MTBs and one minelayer) were also lost due to mines.⁶³

The Navy considered the theoretical possibility of actions against Soviet communications, but in practice Romanian ships did not dare to sail beyond the range of coastal batteries in the first month and a half of the war. However, after the Black Sea Fleet became tied down at Odessa, the Navy acquired some freedom of action. The Navy made a half-hearted attempt to interrupt the Soviet supply route between Sevastopol and Odessa. Two MTBs undertook several raids on Soviet communications in August-September, a force obviously too small to achieve spectacular results. After the Soviet Navy introduced convoy on 26 July, 91 % of all merchant ships sailed under protection.⁶⁴ The MTBs' captains usually reported that they did not meet the enemy. On 19 September they claimed, for a change, that they attacked a Soviet destroyer at a distance of 500 meters with four torpedoes, three of which missed and the fourth hit the target, but did not explode.⁶⁵ Soviet sources deny that any naval encounters took place and maintain that sea transportation were so intense at that time (272 ships in August) that a keen enemy would have had no problem in meeting the convoys.⁶⁶

The only Romanian vessel with a chance to threaten Soviet sea communications was the submarine. From 12 to 20 August and 3 to 19 September, it raided the Crimean coast

⁶³The remaining ship - a minelayer - was sunk by the air force, BA-MA, RH 31-I/9, Anlage 1 zu DHM 1a Nr.32/42g Kdos, Übersicht über die rumänische Kriegsmarine [Survey of the Romanian Navy], 18 January 1942; M.Ap.N., File 131, Statul Major al Marinei [Naval Staff], p.46a. Situația pierderilor sau avarilor suferite de navele și ambarcațiile Marinei Regale, [Report on Losses and Damages Suffered by the Royal Navy's Ships and Boats], 22 June - 13 August 1941.

⁶⁴Achkasov, Pavlovich, Soverskoe voenno-morskoe iskusstvo [Soviet Naval Art], 361, 362.

⁶⁵M.Ap.N., File 1401/132, Statul Major al Marinei [Naval Staff], Jurnal de operații, 19 September 1941.

⁶⁶Achkasov, Pavlovich, Soverskoe voenno-morskoe iskusstvo [Soviet Naval Art], 362; Penzin, Chernomorskii flot v oborone Odessy [The Black Sea Fleet in Defence of Odessa], 38.

but its captain frankly reported that he refrained from attacks because they appeared too risky.⁶⁷ In November 1941 the submarine sunk its only transport. However, the contribution of the submarine to the Axis effort was not limited to this victory. After a few Soviet aircraft had spotted an unknown submarine, the Soviet Naval Staff began to believe that several German U-boats had arrived in the Black Sea.⁶⁸ Escorts were ordered to form a wide anti-submarine screen around the merchantmen, but in this way they could not defend unarmed transports from the Luftwaffe attacks. Soviet sources admit that "the overestimation of submarine danger resulted in reduction of the merchant traffic's volume and did not allow [the escorts] to concentrate all means against the main danger at sea communications - the adversary's air force, which caused (...) unjustifiable losses from attacks of even single aircraft".⁶⁹ The indirect impact of the submarine's raids was more substantial than its single kill.

Romanian naval theorists were impressed by the adversary's combined operations on the Black Sea coast, noting that the Soviet Navy was "the core of land armies' defensive actions, an invaluable supporter that not only sometimes saved them from disaster but also created for them a lot of great opportunities".⁷⁰ In the course of the war, Romanian thinkers started increasingly to regard the support of an army as the primary mission of a Black Sea navy, ignoring the fact that the Romanian Navy could never afford the losses the Soviet Fleet suffered in combined operations. Like the prewar debates, these ideas made no impact on Romanian naval strategy that continued to depend on circumstantial acquisitions of ships and immediate tactical needs rather than conscious long-term policy. The Romanian Navy was busy extending mine barrages along the western sea coast and escorting convoys in the western part of the Black Sea throughout the rest of the war.

⁶⁷M.Ap.N., File 1401/132, Statul Major al Marinei [Naval Staff], Jurnal de operații, 12, 20 August, 3, 19 September 1941.

⁶⁸Achkasov, Pavlovich, *Sovetskoe voenno-morskoe iskusstvo* [Soviet Naval Art], 362.

⁶⁹Penzin, *Chernomorskii flot v oborone Odessy* [The Black Sea Fleet in the Defence of Odessa], 55.

⁷⁰Gheorghe Mocanu, *Strategia Mării Negre* [The Black Sea Strategy] (Bucharest: România militară, 1943), 23.

Although the Romanian Danube Flotilla was inferior to its Soviet counterpart in June 1941, it was tasked with a number of complex missions, including offensive ones. The larger part of the Flotilla based at Galați was to repel attempts by Soviet boats to sail up the Danube, while the smaller force at Tulcea was to prevent them from penetrating the Sulina Branch (Table 11, Map 6).

Type of Boat	Romania ⁷¹	USSR ⁷²
Monitors	7 (all built in 1904-1915)	5
Armoured gun boats	2	22
Patrol vedettes	4	15
Minesweepers	2	6
Armed barges	6	-

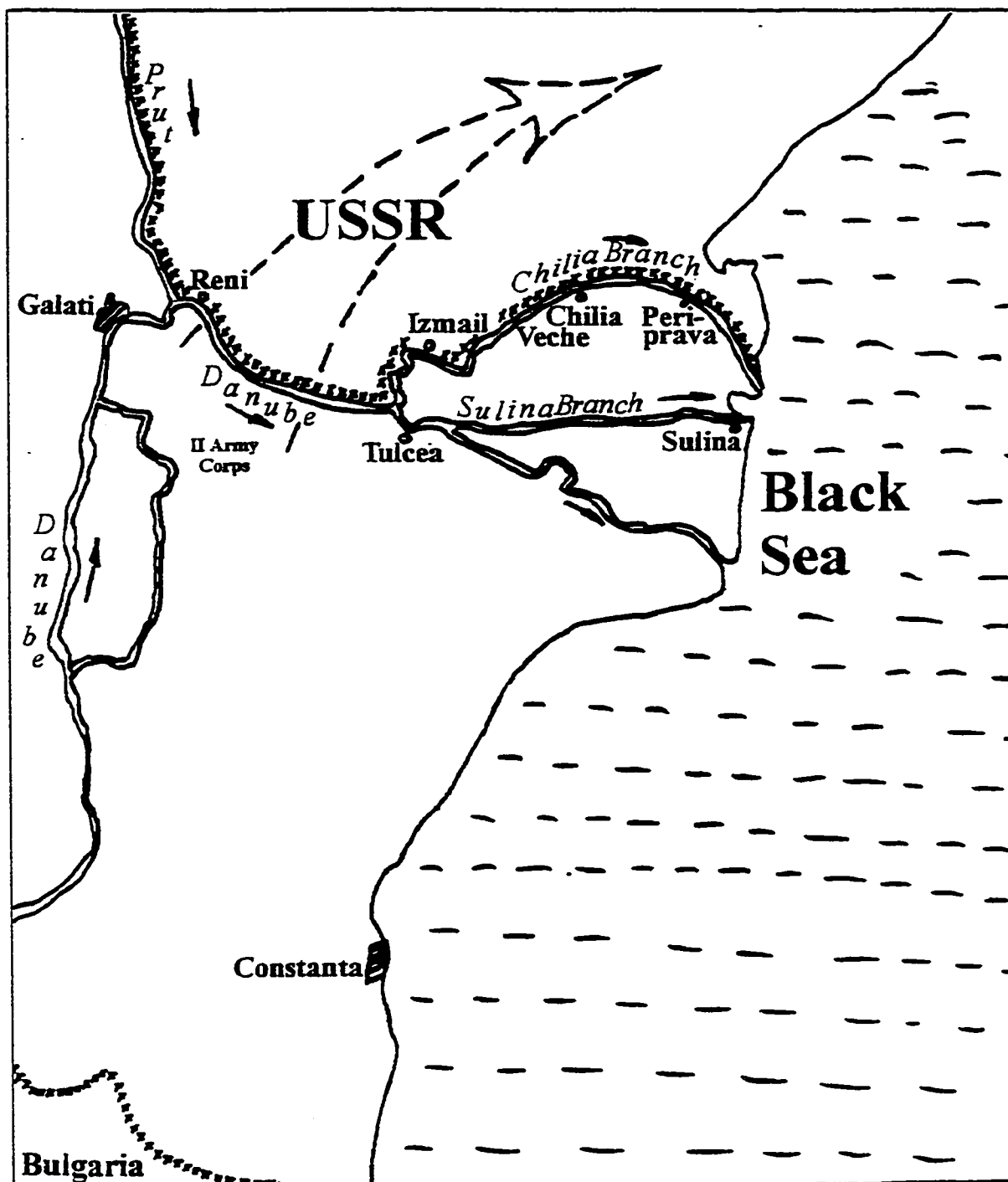
Table 11. Balance of the naval forces on the Danube

Both parts of the Romanian Flotilla, together with two marine battalions placed in the villages Chilia Veche and Periprava backed by the 10th Infantry Division based in the proximity of the Danube, were ordered to block the Soviet Flotilla's withdrawal down the Chilia Branch to the Black Sea and to destroy it. As soon as the Soviets started their retreat from the frontier and their Flotilla was neutralized, the Romanian boats were to bring the II Army Corps (9th and 10th Infantry Divisions and the 7th Cavalry Brigade) across the Danube. The II Army Corps would then swiftly advance north-east, cutting the adversary's retreat from the frontier and "destroying as much as possible of his forces before they crossed the Dneestr".⁷³

⁷¹M.Ap.N., File 131, Statul Major al Marinei [Naval Staff], p.10a, 5 July 1941.

⁷²TsAMO RF, Fund 288, Inventory 9900, File 9, p.6. Operational Section of Coastal Group's HQ to the Southern Front HQ, 19 July 1941; Komandovanie Odesskogo Voennogo Okruga [HQ of the Odessa Military District], "Zapiska po planu deistvii voisk Odesskogo voennogo okruga" [Memorandum on Operational Plans of the Odessa Military District Armed Forces], 20 June 1941, *VIZ*, 5 (1996): 7.

⁷³M.Ap.N., File 131, Statul Major al Marinei [Naval Staff], Dare de seama asupra activității Marinei [Report on the Navy's Actions], 22 June - 8 September 1941; BA-MA, FC 2326 N, p.304, II Army Corps HQ, Memoriu asupra Posibilităților trecerii Dunării din Dobrogea în Basarabia de Sud [Memorandum about Possibilities of Danube Crossing from Dobrudja to South Bessarabia], June 1941.



Map 6. The Lower Danube

In giving these orders for offensives on the Danube, both GHQ and the Naval Staff ignored many tactical and logistical factors. The balance of power at the Danube was defined not only by the ratio between boats, but also by the strength of field artillery on the banks, and by the availability of artillery and observation positions. The Soviet bank of the Danube was, as a rule, higher, while large parts of the Romanian bank were flooded. Soviet 152 mm batteries at Reni and Izmail could effectively control river traffic,⁷⁴ whereas the Romanians relied on vulnerable monitors and armed barges, or on mountain guns and mortars that could be easily transported. The Naval Staff neglected to specify how Romanian boats could block the Soviet Flotilla on the Danube and destroy it, if the only force between the major Soviet base of Izmail and the Black Sea were two marine battalions each with one battery of mountain guns in Chilia Veche and Periprava, and a few infantry platoons with mortars in other villages.⁷⁵ GHQ planned a swift strike across the Danube, but it gravely underestimated the difficulty of the river crossing and did little to secure this thrust. The II Army Corps had no armour and only a few dozen trucks,⁷⁶ yet it was supposed to swiftly pursue Red Army units over 200 km eastward and then "prevent the enemy from taking positions on the Dneestr, crossing it simultaneously with the adversary".⁷⁷ Even if the Soviets had shown little resistance, logistical problems probably would have frustrated this operation.

Initially, the Soviet Flotilla's missions were limited to defence: to intercept Romanian traffic on the Danube and to avert landings on the Soviet bank.⁷⁸ When Romanian monitors started shelling Reni and Izmail on 22 June, they could not withstand the fire of Soviet heavy artillery. Soviet guns and boats blocked the Romanian Flotilla at Galați and Tulcea. Romanian

⁷⁴TsAMO RF, Fund 288, Inventory 9900, File 9, p.6. Operational Section of Odessa Coastal Group's HQ to the Southern Front HQ, 19 July 1941.

⁷⁵Duțu, Retegan, *Armata română în al doilea război mondial*, 1: 97.

⁷⁶10th Infantry Division had 34 trucks in August, Șuța, *Infanteria română*, 2: 202.

⁷⁷BA-MA, FC 2326 N, p.304, II Army Corps HQ, *Memoriu asupra Posibilităților trecerii Dunării din Dobrogea în Basarabia de Sud* [Memorandum about Possibilities of Danube Crossing from Dobrudja to South Bessarabia], June 1941.

⁷⁸Komandovanie Odesskogo Voennogo Okruga [HQ of the Odessa Military District], "Zapiska" [Memorandum], 20 June 1941, *VIZ*, 5 (1996): 10.

land forces could not approach the Danube because of the flood and marshes along the bank. The Romanian Flotilla and field artillery concentrated around Galați and Tulcea, however, prevented Soviet boats from entering these areas. Both Danube Flotillas limited actions against each other to a brief artillery duel. Since the Romanian Air Force was engaged elsewhere, Soviet aircraft acquired unchallenged control over the Lower Danube.⁷⁹ The Romanian Flotilla could not leave its bases because it was defended only there by anti-aircraft artillery. The crews' daily activity was confined mainly to cutting fresh trees on the river banks to camouflage their boats. Although the Romanians laid several magnetic and contact mine barrages across the Danube on the night of 21/22 June, these did not affect Soviet traffic and were reported to be faulty.⁸⁰ The Soviet Flotilla and heavy artillery controlled the river all along the Soviet frontier, preventing a crossing of the Danube by the II Army Corps.

The Soviet Flotilla Staff realized that escape through the Chilia Branch might be necessary and could be hindered by Romanian units based at its right bank. In order to secure freedom of maneuver for the Flotilla, on 23 June the Red Army launched its only offensive on Axis territory in 1941. A few Soviet units landed on the Romanian bank and drove away virtually all small Romanian detachments on the Chilia Branch, leaving only two marine battalions on the Soviet Flotilla's way to escape. During the night of 25/26 June, a Soviet regiment supported by 4 armoured and 10 patrol boats, air force and field artillery crossed the Danube at Chilia Veche.⁸¹ It destroyed most of the marine battalion and captured the artillery battery. Here the Navy suffered its heaviest losses of a single day and a quarter of its total casualties in the war (430 men out of 1,749), mainly taken prisoner or drowned in

⁷⁹M.Ap.N., File 131, Statul Major al Marinei [Naval Staff], Dare de seama asupra activității Marinei [Report on the Navy's Actions], 22 June - 8 September 1941; BA-MA, FC 2326 N, p.304, II Army Corps HQ, Memoriu asupra Posibilităților trecerii Dunării din Dobrogea în Basarabia de Sud [Memorandum about Possibilities of Danube Crossing from Dobrudja to South Bessarabia], June 1941.

⁸⁰M.Ap.N., File 1401/132, Statul Major al Marinei [Naval Staff], Jurnal de operații, 22 June 1941; Duțu, Retegan, Armata română în al doilea război mondial, 1: 295.

⁸¹M.Ap.N., File 1401/132, Statul Major al Marinei [Naval Staff], Jurnal de operații, 24, 26 June 1941; Vaneev, Chernomortsy v Velikoi Otechestvennoi voine [Black Sea Soldiers in the Great Patriotic War], 18.

attempts to escape.⁸² The Red Army occupied 75 km of the Romanian bank and kept it until 18 July. The Soviets also attempted to destroy the other marine battalion at Periprava, but this time the marines stood fast. After their artillery sank a few Soviet boats, the landing was aborted. No further significant actions occurred on the Danube until the general retreat of the Red Army from the frontier.⁸³ The authors of the Third Axis, Fourth Ally claim that the Soviet Flotilla lost four gun boats during its escape that allegedly took place on 11/12 July,⁸⁴ an argument erroneous in all points of fact. The Flotilla actually retreated a week later, on the night of 18/19 July. Although the Romanian battery at Periprava engaged the bypassing Flotilla, the Navy's war diary recorded that none of the Soviet boats was sunk.⁸⁵ The HQ of the II Army Corps, supposed immediately to strike across the Danube when the Soviets started to retreat, calculated that one infantry division needed four days to cross the river with the available means and did not intervene in the Red Army's withdrawal.⁸⁶

The Romanian Danube Flotilla barely took part in the Danube campaign. Although the Flotilla and Romanian field artillerists claimed to have destroyed 8 Soviet boats (6 of them armoured),⁸⁷ Russian sources indicate that the Soviet Danube Flotilla lost only 2 armoured boats.⁸⁸ They do not specify, however, how many of the 15 unarmoured patrol boats survived. At the Danube, the Romanian Navy lost a minelayer, four armed barges and

⁸²M.Ap.N., File 131, Statul Major al Marinei [Naval Staff], p.46a. Situația pierderilor Marinei în I-a lună de războiu [Report on the Navy's Ships Losses in the 1-st Month of War], 21 June - 21 July 1941; Rotaru, König, Dușu, Romanian Army in World War II, 100.

⁸³Derevianko, Na trudnykh dorogakh voyny [On Tough Roads of War], 66.

⁸⁴Axworthy, Scafeș, Crăciunoiu, Third Axis, Fourth Ally, 331.

⁸⁵M.Ap.N., File 1401/132, Statul Major al Marinei [Naval Staff], Jurnal de operații, 19 July 1941.

⁸⁶BA-MA, FC 2326 N, p.304, II Army Corps HQ, Memoriu asupra Posibilităților trecerii Dunării din Dobrogea în Basarabia de Sud [Memorandum about Possibilities of Danube Crossing from Dobrudja to South Bessarabia], June 1941.

⁸⁷M.Ap.N., File 131, Statul Major al Marinei [Naval Staff], Dare de seama asupra activității Marinei [Report on the Navy's Actions], 22 June - 8 September 1941.

⁸⁸Komandovanie Odesskogo Voennogo Okruga [HQ of the Odessa Military District], "Zapiska", 20 June 1941, VIZ, 5 (1996): 7; TsAMO RF, Fund 288, Inventory 9900, File 9, p.6. Operational Section of Coastal Group's HQ to the Southern Front HQ, 19 July 1941.

many civilian river vessels requisitioned by the Navy to the Red Air Force.⁸⁹ The failure of the Romanian Flotilla to fulfill its toughest assignment - to trap the Soviet boats and gain control over the Danube - testified not so much to its efficiency as to the poor quality of operational planning by both the General and Naval Staffs, which charged the Flotilla and the II Army Corps with missions far beyond their capacities.

Conclusion

Considering the power balance within the Black Sea and believing that naval operations were of little significance, successive interwar Romanian governments treated the Navy as the least valuable arm and funded it accordingly. Despite continuous neglect, the Navy avoided intellectual stagnation. On the contrary, it witnessed a lively discussion on strategy, one as sophisticated as that displayed in any other navy. These debates had, however, little impact, because by the time the government increased the naval budget, it was too late to follow either of the proposed strategies.

Obsolete equipment, poor training, and, most of all, the overwhelming numerical superiority of the adversary confined the Navy mainly to defensive actions that did not demand great tactical finesse. Nevertheless, the Navy's role in Axis operations was more substantial than either the German or the Soviet General Staff had foreseen. After the German High Command failed to eliminate the Black Sea Fleet as planned, it found that the Romanian Navy was the only force available to defend the oil route and the convoys supplying Axis armies across the Black Sea. At the same time, contrary to the expectations of the Soviet General Staff, the Red Navy was prevented from indisputable command of the Black Sea by the Luftwaffe, and by its own incompetence. The Romanian Navy succeeded in exploiting the specific conditions of the narrow naval theater using its meager means with praiseworthy efficiency. Doggedly extending mine barrages along the western sea shore, the Navy kept the Soviet Black Sea Fleet away from convoys and its own coast. Although the effectiveness of

⁸⁹M.Ap.N., File 131, Statul Major al Marinei [Naval Staff], p.46a. Situația pierderilor sau avarilor suferite de navele și ambarcațiunile Marinei Regale [Report on Losses and Damages Suffered by the Royal Navy's Ships and Boats], 22 June -13 August 1941.

Romanian escorts in anti-submarine actions remains questionable, the escorts certainly impeded Soviet submarines by their mere presence, if not by precise attacks. Although the Navy failed to implement the complex tactics of naval guerrilla raids presumed by doctrine, it nevertheless inflicted heavier naval losses on the adversary than it suffered in the first year of the war. It also made a modest contribution to the major effort of the Romanian Army by indirectly hindering the flow of supplies to besieged Odessa. It is not easy to reach a definitive conclusion about the operational art of the Naval Staff. While the tasks assigned to the Sea Division corresponded to its capacity and were often successful, the plans for operations on the Danube lacked a basis in reality. Not surprisingly, the Danube Flotilla fulfilled only a part of its defensive mission and failed to carry out any offensives.

A contemporary naval publicist pointed out that "the capture of Odessa was (...) the most important operation of the Romanian armed forces ever", and maintained that "Romanian military history did not provide a more conclusive and more colorful example illustrating what the absence of our fleet could mean when the adversary had one".⁹⁰ The author ignored the fact that a naval force strong enough to decidedly affect the battle of Odessa could have been raised only through disproportional cuts to other arms more vital for Romania's security and heavily engaged throughout the war. In the battle of Sevastopol, the Luftwaffe proved that the ring around a besieged port could be effectively sealed by aircraft that were a considerably cheaper and more universal weapon than warships. Although the Romanian Navy played an important role during the supply and consequent evacuation of the Crimea in April - May 1944,⁹¹ it still remained, as a rule, on the periphery of the war effort. Operations of the Romanian armed forces on the Axis side and, moreover, on the side of the Allies proved beyond doubt that Romanian interwar defence policy-makers were correct in placing the Navy at the bottom of their list of defence priorities, keeping at the same time a naval capacity adequate to protect the coast so long as Romania was allied with a great power, which was one out of the two scenarios naval strategists foresaw. The Navy remained

⁹⁰Mocanu, *Strategia Mării Negre* [The Black Sea Strategy] 25, 26.

⁹¹According to Romanian sources, the Navy evacuated 38,168 Axis soldiers from the Crimea; Axworthy, *Third Axis, Fourth Ally*, 344.

poorly trained and equipped, yet it achieved its major objective - it kept the enemy at bay, until a decision was reached on the vital front, the land campaign.

CHAPTER SIX: CONCLUSION

During the interwar years, Romanian armed forces passed through three distinctive phases of development, marked by profound changes of defence policy. The lengthy period of neglect (1920-1934) was followed by rearmament (1935 - the summer of 1940), which after September 1940 was supplemented by military reforms, sweeping in intention but limited in reality.

The Romanian Army's record in World War I was far from glorious. After the war, Romania found itself in a strategic situation that was much grimmer than it had been before. Logic suggested, therefore, that in order to survive, Romania must radically improve the quality of its armed forces. This could have been done only at the price of excessive militarization of the economy and the entire society, which would have inevitably exposed the nation to prolonged hardships. However, the Romanian public was unprepared to endure further privations after the devastating war. Most politicians viewed the army as a burden that hindered the stabilization of the state budget and the revival of the economy. The funding of the armed forces was severely and consistently cut to a level that secured their stagnation. The army's capacity was further impaired by mistakes in military policy, by the low prestige of military service, and by structural problems, such as the backwardness of industry.

By 1935, the land forces remained armed with obsolete equipment of so great a variety that logistical problems threatened to paralyze them within several weeks of war. The officer corps was artificially inflated; most of the senior officers were conservatives who continued to think in terms of World War I, while junior officers struggled to survive until the next salary and paid little attention to their direct duties. The efficiency of the regular infantry was poor; mountain, frontier guard and cavalry troops were better trained but equipped even worse than conventional infantry; artillery was the most efficient arm among the land forces, but even gunners were barely aware of modern tactics. Romanian armour lacked any military value. Although the Air Force attracted the best officers and maintained fair training of the pilots, it possessed few aircraft of a great variety, most of them obsolete, that made it inefficient as well. The Navy could not produce sound arguments to justify its

existence; hence, it was funded worse than the other arms and was in a deplorable state. The fortunes of the armed forces reached their nadir during the Great Depression.

By the mid-1930s, the government realized that the Versailles system was not as stable as it had appeared and launched a rearmament program. However, the lengthy stagnation deprived the Army of the intellectual foundation and practical experience on which to base effective military reforms, while the increase of the military budget alone failed to markedly improve the Army's potential. In the land forces, rearmament was confined mainly to the modernization and standardization of equipment. Although the Army considerably upgraded its weaponry, a large proportion of its equipment remained obsolete, it had few motor vehicles, and it lacked entire classes of weapons such as anti-tank or anti-aircraft guns. The Army failed to test the validity of its doctrine in maneuvers and introduced no changes in its training methods. The consequences of prolonged neglect were particularly sore in arms that demanded a high level of professionalism. Although armour received modern tanks, it was forced to follow a doctrine that precluded its efficient employment; its equipment did not fit this doctrine and the training of armour personnel allowed it little else than to participate in parades. The Air Force benefitted from the rearmament program more than other arms. The Air Staff succeeded in greatly expanding the pool of pilots, while preserving at the same time a high standard of basic training. The Air Force's Command was reorganized in accordance with advanced air theories. The Air Force's major problem had been the lack of equipment, hence, after the aircraft park had been modernized, it became the most efficient of Romania's military arms. The Navy was practically excluded from the rearmament program until 1939, although its equipment and repair facilities were somewhat improved. The Romanian defence industry substantially grew during 1935-1940, yet it could have adequately supported the armed forces only in a small-scale conflict.

After the defeat of France, Romania found itself politically isolated and surrounded by enemies determined to use the occasion to recover lost lands. Although the capacity of the armed forces had risen since 1935, they could not have resisted a Soviet invasion. Romania had a good chance to beat off the Hungarian or the Bulgarian armies, and it was not fear of these neighbours but the concern that a local conflict would provoke intervention

by the great powers, that made the Romanian government concede to these two countries as much land as it surrendered to the USSR. Well-grounded anxiety about further territorial claims rather than aspiration for revenge drove Romania into the Axis camp.

The new Romanian government realized that only urgent and sweeping reforms could turn the army into an efficient force. It did not lack the resolution to carry them out, but it had only a vague idea about what their essence had to be. The German High Command used the Romanian request for assistance to pursue its own aims, immediate and narrowly defined, rather than to make a strenuous effort to modernize of the Romanian armed forces. This was a serious error, given the degree to which Germany would come to rely on Romania over the next years. Considering that Romanian armour could make the most valuable contribution to the Eastern campaign, the German High Command ordered DHM to invest maximum effort in this arm. The German instructors succeeded in upgrading personnel training from poor to mediocre - a considerable achievement taking into account the small amount of time they had at their disposal. By June 1941, armour had turned from an expensive toy into a formation organized in accordance with advanced armour doctrine that, however, had never attempted to operate as an all-arms body or to practice cross-country marches with any of its units.

The instructors applied less effort to the rest of the armed forces. Most Romanian formations remained unaffected by the training program. The instructors worked with only three infantry divisions and after the beginning of *Barbarossa* with yet another two. The Army's overall skill was barely improved by DHM. Thus, the 5th Infantry Division that had been trained by the Germans performed poorly on the Eastern Front, while the 7th, 14th Infantry, Guard and Frontier Guard divisions as well as the 2nd Mountain Brigade fought at least as well or better than two other divisions trained by DHM.¹ After the ignominious collapse of France, the doctrine that the Romanian Army claimed to follow was discredited and formally abandoned in favour of a mobile one, but in practice commanders continued

¹BA-MA, RH 31-I/98, Anlage 3 zu DHM, Ia, Nr.318/42. Aufbau und Einsatz des rumänischen Heeres seit Bestehen der DHM, 12 May 1942.

to cling to the former tactics. Being disorientated by German secrecy, Romanian GHQ failed to prepare the Army for a strategic offensive either in the tactical or logistical aspects. In terms of equipment, the political reorientation resulted in the supply of the Army with anti-aircraft guns and with inefficient second-hand Polish anti-tank guns, but with little else.

Following the orders of the German High Command, Luftwaffe instructors taught Romanian pilots mainly air defence tactics, were of limited help to an air force engaged later in offensive operations with the bulk of its aircraft. Although the Air Force remained the most efficient Romanian arm, the chance to markedly improve its tactical skill was missed. Since the German High Command considered the Romanian Navy of no use in the campaign against Russia, DKM confined its activities to the improvement of coastal defences. It started training the Navy only after the beginning of the hostilities. The Navy entered the war basically in the same condition as it had been in the mid-1930s.

The common perception of the Romanian armed forces in the west derives largely from the memoirs of Erich von Manstein that used to be one of the few available primary sources on the Romanians on the Eastern Front. Manstein made his assessment of the Romanian Army, comparing it with the Wehrmacht. Not surprisingly, he found "a noticeable contrast in their fighting qualities".² He stated that the Romanian Army was impaired most of all by unstable morale, deficient equipment and poor training. Although this statement contains much truth, it cannot be applied universally.

Scornful but superficial references to the Romanian Army's morale became the historians' custom.³ Few of them, however, made the effort to compare the morale of the Romanian Army with that of any other non-totalitarian army under the same conditions.⁴ The

²Manstein, Lost Victories , 206.

³N. I. Lebedev, ed. Istoria Rumynii [History of Romania] (Moscow: Nauka, 1971), 347; I. I. Azarov, Osazhdennaia Odessa [Besieged Odessa] (Moscow: Voenizdat, 1966), 84, 85; Institut Istorii Partii pri TsK Kompartii Ukrainy [Institute of Party History, the Central Committee of the Ukrainian Communist Party], Ukrainskaia SSR v Velikoi Otechestvennoi voine Sovetskogo Soiuza [Ukraine in the Great Patriotic War of the Soviet Union] (Kiev: Politicheskaiia literatura, 1975), 237.

⁴The Romanian army remained non-totalitarian in its character despite the establishment of the dictatorship in September 1940.

4th Romanian Army alone suffered more total casualties in four and a half months of combat than the entire Canadian armed forces throughout the whole war (119,833 vs. 105,551).⁵ The 1st Canadian Division, for instance, became, in the words of its intelligence officer, "pretty shaken" after it had fought in December 1943 - February 1944 what was considered in Italy to be a frustrating battle: 23.7% of its total losses were psychiatric casualties.⁶ By the beginning of September 1941, however, each Romanian infantry division at Odessa had endured far heavier losses, and the 21st Infantry Division four times as heavy as the 1st Canadian Division suffered in Italy for the same period (2.5 months),⁷ excluding psychiatric casualties which no army on the Eastern Front could afford to take into account. Romanian losses were high even by the standards of the Eastern Front: the 4th Army suffered over four times as many casualties at Odessa as the German component of the 11th Army during its final assault on Sevastopol.⁸ Not surprisingly, the spirit of Romanian troops at Odessa was broken. The collapse of the 4th Army's morale by the beginning of September was thus not so much a cause as it was a consequence of its inability to take the city despite extraordinarily heavy losses. The morale of Romanian soldiers, however, was far from uniform. The 3rd Army was not involved in frustrating battles and its formations preserved a greater cohesion. German observers consistently praised armour personnel for their courage. The Air Force's morale remained stable throughout 1941, despite heavy losses. The Navy had few direct engagements with the enemy and its morale did not affect the outcome

⁵BA-MA, RH 31-I/166, DHM, *Beobachtungen aus dem Feldzug gegen Odessa*, no date; I.C.B. Dear, *The Oxford Companion to World War II* (Oxford: OUP, 1995), 185. Notably, the population of Canada and Romania was roughly equal: 11.9 and 13.5 million men correspondingly, *ibid.*, 182; Duțu, *Romania in World War II*, 15.

⁶Terry Copp, Bill McAndrew, *Battle Exhaustion* (Montreal & Kingston: McGill-Queen's University Press, 1990), 56-58.

⁷9,565 vs. 2,441, *ibid.*; BA-MA, RH 31-I/93, *Grosses Rum. H.Qu. Zusammenstellung der Verluste der Rum. Armee* [List of Losses of Romanian Army], 22 June - 8 September 1941.

⁸BA-MA, RH 31-I/166, DHM, *Beobachtungen aus dem Feldzug gegen Odessa*, no date; Alesandru Duțu, "The Romanian Troops in the Siege of Sevastopol (October 1941 - July 1942)", *International Review of Military History*, 77 (1992), 161.

of naval actions. The failure of the MTBs and the submarine to attack Soviet communications testify not so much to low morale, as some Soviet authors claim,⁹ as to the fact that the assigned missions clearly exceed the capacity of the allotted forces.

Much of the Romanian Army's equipment was inferior and its divisions had fewer artillery, mortars, machine guns, or motor transport per unit than the adversary. However, the numerical superiority that the Romanian Army often enjoyed compensated for these deficiencies.¹⁰ As a rule, each Soviet regiment at Odessa faced one Romanian division, and Romanian artillery considerably outnumbered the artillery of the Coastal Army. Romanian armour matched the Soviet tanks that operated against the 4th Army, while the Coastal Army had initially no operational tanks, although at least 17 light tanks and 12 tankettes were later fixed, 15 new light tanks were delivered and 50 tankettes were improvised out of agricultural tractors.¹¹ Thus, the total number of Soviet tanks, including the jury-rigged ones that operated at Odessa, was roughly equal to the number of Romanian tanks that had arrived at the city, while their average quality was lower. The Romanian Air Force was superior to its adversary in numbers and often in the quality of aircraft at Odessa. Granted, Romanian armour and Air Force suffered excessive battle and breakdown attrition because of poor repair facilities. But out of all Romanian arms, only the Navy was decidedly outclassed and outnumbered in 1941.

The tactical leadership and training of the Romanian Army were, however, considerably inferior to those of its adversary. The grave problems that the Army experienced in 1941 and its heavy losses cannot be explained by the argument that it was

⁹Penzin, Chernomorskii flot v oborone Odessy [The Black Sea Fleet in the Defence of Odessa], 37-38.

¹⁰Some western historians tend to exaggerate the strength of the Soviet forces that opposed the Romanians. For instance, the authors of Third Axis, Fourth Ally claim that the Romanians were facing the Soviet 12th Army allegedly located in Northern Bukovina, p.45. In fact, this army stayed far in the north and had no contact whatsoever with Romanian formations.

¹¹TsAMO RF, Fund 228, Inventory 9900, File 32, p.289, Zametka ob organizatsii i deistvii tankobogo b-na Primorskoi Armii [Note about Organization and Actions of the Coastal Army's Tank Battalion]; General'nyi Shtab Krasnoi Armii [The General Staff of the Red Army], Oborona Odessy [The Defence of Odessa], 66; Azarov, Osazhdennaiia Odessa [Besieged Odessa], 81.

involved in an unexpected type of warfare. After all, the mobile phase of the 1941 campaign was the easiest for the 4th Army, because the main burden of the offensive was carried out by the German 11th Army. Romanian land forces waged their toughest battles at the Prut bridgeheads and at Odessa, when they were left alone facing the enemy. In both cases, they were engaged in positional battles, exactly the type which was envisaged by their interwar doctrine and for which they were supposed to be trained. Yet they could not achieve spectacular results despite substantial numerical and material superiority. The doctrine that the Romanian land forces actually followed obviously did not correspond to the demands of modern warfare, but this doctrine could still have worked in positional battles, had the tactical skills of commanders and the individual training of troops enabled them to apply it. The unimpressive performance of the 4th Army in its major battles was caused not so much by shortage of equipment, low morale or wrong doctrine, as by inadequate leadership and training.

Although the individual training of Romanian armour personnel was mediocre, its commanders often displayed praiseworthy initiative and determination. The Armoured Division was the only Army formation that followed advanced tactics; its HQ realized the Division's limitations and employed it rationally as long as it was in charge of the formation. During the campaign in Bessarabia, the Division's main problems were caused by deficiencies of equipment and by the natural growing pains of a young arm. After the Division arrived at Odessa, it was wrecked by superior commanders. The Air Force's efficiency matched that of its opponent. Its capacity was restricted mainly by its small size and also by the low serviceability of the great variety of foreign-made aircraft. The Air Force could have been more successful had GHQ understood its capacity. Instead, it charged the Air Force with some missions that were beyond its reach, while others, which it could perform, were not fully exploited. The Navy faced an enemy that was just as poorly trained but far better equipped. The naval doctrine presumed bold actions that were incompatible with the Navy's equipment and training. To the credit of the Naval Staff, it tasked the nautical (although not the riverine) component of the Navy with missions that corresponded to its strength, and that allowed this generally inefficient arm not only to achieve its main

goals but also to inflict the enemy losses heavier than those it suffered.

Because of the mediocre capacity of the Romanian armed forces, their effectiveness crucially depended on the mode of their employment. The 3rd Army was operationally subordinated to the 11th Army HQ and was always sandwiched between German divisions. It performed more effectively than the 4th Army that acted independently under the leadership of Romanian GHQ. In July the 3rd Army breached the well-fortified "Stalin Line", and in September it contained the Soviet counteroffensive on the left flank of the 11th Army, suffering sustainable losses in the process. OKH assessed the relative efficiency of the Romanian army more objectively than Romanian GHQ. However, after OKH found that the German forces on the southern flank of the front were insufficient to crush Soviet resistance, it requested that Romanian formations carry out missions much more complicated than those they were initially assigned, and General Antonescu complied with enthusiasm. As a result, most of the Romanian armed forces were charged with tasks that exceeded their capacity. Ironically, the poorly trained and ill-equipped Navy achieved its objectives more successfully than the Air Force that was far more efficient just because these objectives were more reasonable.

The 1941 campaign demonstrated that the Romanian Army was effective only if it was engaged in accordance with OKH's initial intentions: with the best divisions, the armour and the Air Force used as front-line formations on secondary directions, with the rest treated as an auxiliary second-echelon force. The best Romanian formations fought well under German operational command and in coordination with German divisions that diverted the major effort of the opponent and provided assistance in crucial moments. The capacity of the Romanian forces was insufficient to serve as operationally independent army-strong bodies even on secondary directions, and even if they enjoyed considerable numerical superiority over the adversary. The consequent campaigns on the Eastern Front revealed the same pattern: properly employed, the Romanian Army was a valuable auxiliary force, but if it was left to fight the Red Army on its own, it turned into cannon fodder. In the Crimea, the Romanian Mountain Corps, thrown alone against the Soviet landing at Feodosia was

overwhelmed, in the words of Manstein, by "a handful of Soviet tanks".¹² Yet exactly the same corps incorporated with the 11th Army and engaged on a secondary direction during the assault on Sevastopol, not only effectively pinned down the opposing Soviet forces which was its initial task, but also captured one of the major dominating heights, the Sugar Loaf. Only after the disaster of Stalingrad, for which the Romanians can scarcely be blamed, did most of the Romanian divisions turn into a liability and lose their value even as an auxiliary force, although on several occasions some Romanian formations still fought well, as they did in the Crimea in 1943-1944.

Nowadays, many historians, particularly in North America and Germany, are busy exposing the mistakes of their countries' armed forces. This genre became fashionable and quite often the search for flaws becomes an end in itself.¹³ The tendency to hunt the so-called "historical myths" at any price leads to unjustifiable emphases, obscuring the place of certain issues in their historical context and generating new myths.

The Romanian armed forces suffered from a host of problems in World War II. Since the major objective of this thesis is to reveal their roots, it inevitably concentrates on flaws rather than virtues. The issue of the Romanian armed forces' efficiency should not be confused, however, with that of their role in the war. This force of mediocre quality had real significance on the Eastern Front. Soviet historians regarded the stubborn defence of Odessa as a great success, pointing out that the Coastal Army pinned down enemy forces disproportionately greater than its own.¹⁴ In fact, the question of who, actually, pinned down whom is not so straightforward. Over one-third of the Romanian formations that fought at Odessa were brought from Romania only after GHQ found that the available forces were

¹²Manstein, *Lost Victories*, 227.

¹³For example, the recent works of Canadian historians on the Royal Canadian Navy such as M. Milner's *North Atlantic Run*, or D. Zimmerman's *The Great Naval Battle of Ottawa* (Toronto: University of Toronto Press, 1989) concentrate mainly on its inefficiency in relation to the Royal Navy. As a result, rather secondary matter of the RCN's performance completely overshadows the primary issue - its contribution to the Allies' war effort that was, arguably, more substantial than that made by any other Canadian arm.

¹⁴Pospelov, ed., *Istoriia*, 2: 118.

insufficient to conquer the city. In his reply to Hitler's inquiry on 17 August, Antonescu refused to specify how many of the 4th Army's divisions might be employed in the campaign farther to the east.¹⁵ It is plausible that many if not most of the formations that the Coastal Army fought at Odessa either would have stayed in Romania, had the battle of Odessa not occurred, or would not have marched eastward anyway. Meanwhile, the Soviet divisions holding Odessa were evacuated too late to prevent the German 11th Army from breaking into the Crimea. Possession of the Crimean peninsula had far greater strategic importance for the Red Army than maintenance of the Odessa bridgehead. Arguably, the Axis benefitted more from keeping a part of the Soviet forces away from the Crimea, even by cost-inefficient means, than they would if Odessa had been captured earlier; but as a result, the 11th Army had faced twice as many divisions dug in at the 8 kilometers-wide neck of the Crimean peninsula.

The mobile operations on the Eastern Front on the one hand and the battle at Sevastopol, as well as the futile assault by a German regiment at Odessa on the other, demonstrated that in 1941 the Wehrmacht was far more efficient than the Red Army in mobile warfare, but not so much in positional battles. Fighting at Odessa, at Sevastopol and protecting the flanks of German spearheads, the Romanian Army tied down large Soviet forces, releasing at the same time many German troops from wasting their potential on such tasks and providing them with the opportunity to carry out jobs in which they were most efficient. This indirect contribution to the Axis cause lacked particular glamour but it enabled the Wehrmacht to achieve several spectacular victories.

The Romanian Armoured Division was the only Axis armoured formation in the southern quarter of the front between the Baltic and the Black seas. It made no profound impact on the course of the campaign, but it still captured Kishinev, which was one of the most prestigious victories won by Romanian land forces. The Air Force effectively prevented its Soviet counterpart from gaining local air superiority during the campaign in Bessarabia and at Odessa. Finally, no other force could defend the Romanian coast and protect Axis'

¹⁵DGFP, Series D, 13: Document No.210, p.324, 17 August 1941.

sea communications but the Romanian Navy, and it effectively fulfilled these missions.

The Romanian Army fought tougher battles and dedicated more soldiers to the Eastern campaign than any other German ally. Only Finland allotted a comparable but still smaller force to the Eastern Front for the same period of time.¹⁶ However, the northern front was, as a rule, inactive. Although the quality of the Finnish forces was excellent and they managed to capture a large piece of Soviet territory, these were mainly unpopulated marshes. The Finns deliberately refused to launch costly attacks or to assault areas vital to the USSR, such as the Murmansk railway or Leningrad. Conversely, the Romanian Army strained every nerve to assault the seventh largest city and the second largest port of the Soviet Union for over two months and eventually entered it. OKH valued the Romanian Army higher than the 8th Italian Army that fought on the Eastern Front. In 1942 it concluded that "the Romanian Army achieved in the Eastern campaign more than one could have expected"¹⁷ Even General Manstein, that stern critic of Romanian failings, admitted in retrospect that Romanians "were still our best allies".¹⁸ The communist regimes in Romania and Russia attempted to erase the traces of the major Romanian war from the written history and temporarily succeeded. This thesis aims to contribute to filling this historical vacuum.

¹⁶D. Glantz and J. House claim that Finland fielded half a million men on the Eastern Front, Glantz, House, When Titans Clashed, 301. This cannot be true since the entire population of Finland equalled only 3.7 million people in 1940, B. A. Vvedenskii, ed., Bol'shaia Sovetskaia Entsiklopediia [Great Soviet Encyclopedia], (Moscow: BSE, 1956), 45: 177.

¹⁷BA-MA, RH 31-I/80, Handbuch für den deutschen Ausbilder in Rumänien [Textbook for German Instructor in Romania], 1942.

¹⁸Manstein, Lost Victories, 311.

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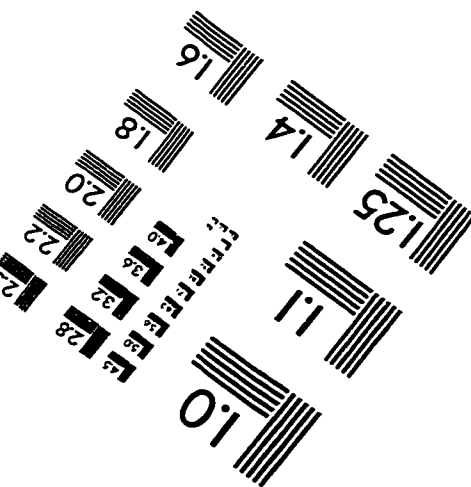
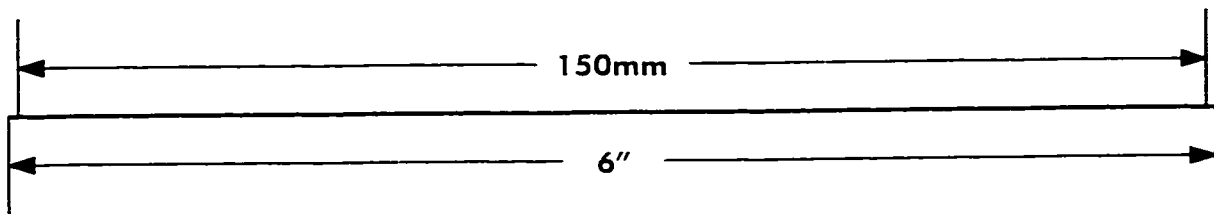
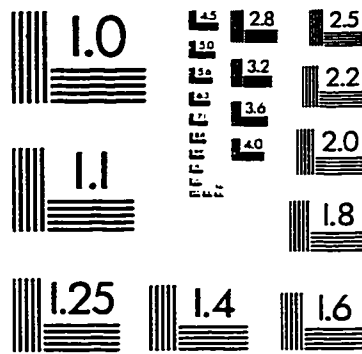
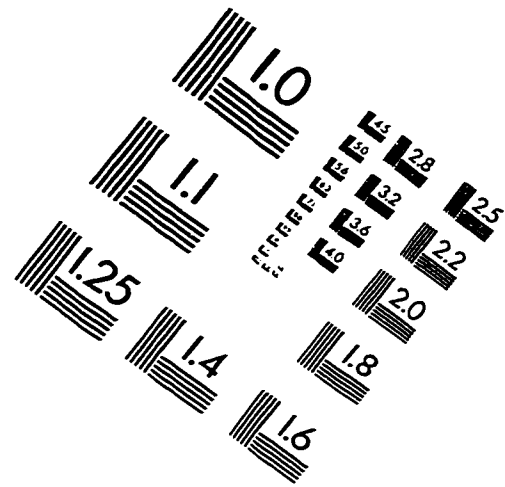
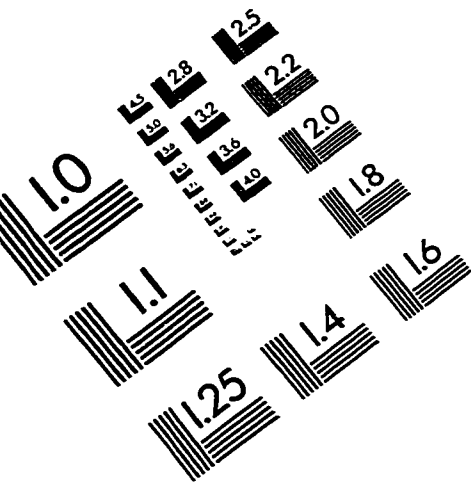
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