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## River Flotillas in Support of Defensive Ground Operations: The Soviet Experience

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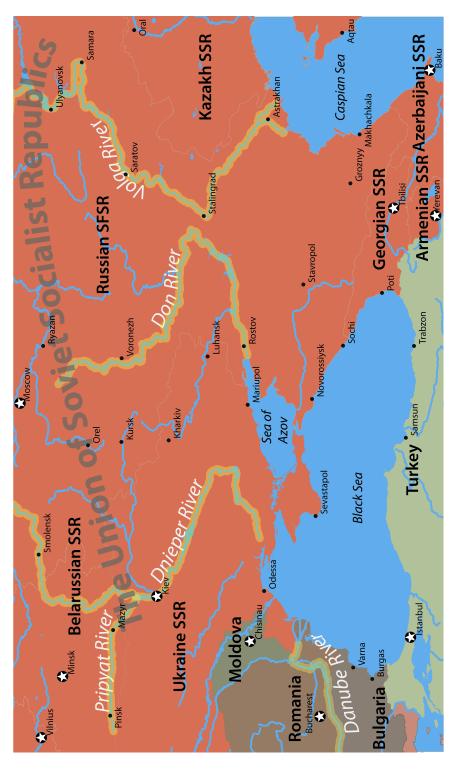
Foreign Military Studies Office

#### **ABSTRACT**

In the history of warfare, ground and naval forces frequently have to cooperate. There are usually problems putting these two forces together since their missions, equipment, training, communications and mutual unfamiliarity get in the way. These problems are common during transport of ground force equipment and personnel aboard naval vessels, exacerbated during amphibious landings and assaults and very difficult when operating together along major rivers. This article analyzes the Soviet history of defensive river flotilla combat during the first period of the Great Patriotic War (World War II against Germany). It outlines missions, the operational environment, lessons learned, the command and control problems experienced between naval and ground forces and the challenges of conducting such operations.

#### Introduction

There are three types of navies—blue water, green water, and brown water. Blue-water navies project power across oceans. Green-water navies defend shores and coastlines. Brown-water navies function on rivers, canals, and inland waterways. Armies interact with blue-water navies for long-range transportation off orces and equipment and with green-water navies for coast defense (coast artillery, air defense, shore defense, and counter-attack). Armies interact closely with brown-water navies as they attempt to control the important inland waterways. Large rivers dominate Europe, and control or crossing these rivers has been a prime concern of ground commanders even before Roman legions controlled the Rhine and Danube to hold the Germanic tribes at bay. Armies are more accustomed to solving the problem of crossing rivers rather than controlling stretches or the entirety of the river. Yet control of the river is often more decisive to a campaign than a crossing. Rivers are lines of communication, logistics, and trade, as well as barriers to



Rivers of the Western Soviet Union.

advancing or retreating forces. In Russia, the Volga, Vistula, Danube, Dnieper, Oder, and Amur Rivers form operational/strategic barriers. Russian river flotillas, as a military tool, date back at least to 1723. During World War II, control or crossings of large rivers were crucial to major Soviet campaigns against the Germans and Japanese. Cities are located on rivers, and the battles for Kiev, Stalingrad, Belgrade, Budapest, Bratislava, Vienna, Warsaw, Berlin, and Harbin featured the forced crossing of arge rivers — the Volga, Dnieper, Volga, Vistula, Oder, Spree, Amur, and Sungari.1

The Soviet ground commanders were supported in their efforts by the Soviet naval river and lake flotillas, which were established to control and to patrol rivers, canals, reservoirs, large lakes, and inland seas; transport ground forces along and across waterways; conduct anti-mining operations; provide fire support; and provide air defense coverage for water traffic and crossing sites. River flotillas played a crucial role in the support of ground operations during World War II. At the beginning of the war, the Amur, Danube, and Pinsk Flotillas were established and well equipped and trained. They were a significant part of the Soviet Navy and contained a significant number of modern artillery ships and cutters as well as mobile and stationary coast artillery batteries. During World War II, the Soviet Navy operated on 44 rivers and lakes plus the inland Caspian Sea. The Soviet Navy retained or constituted the Caspian and Azov Sea Flotillas; the Amur, Dnieper, Danube, Northern and Western Dvina, and Volga river flotillas; the Ladoga, Onezh, and Chud [Peipus] lake flotillas; and the Lake Ilmen and Volkhov River Flotilla.<sup>3</sup>

### **Vessels**

The river flotillas consisted of purpose-built naval vessels and civilian river vessels drafted into military service and modified for riverine combat.

Monitors [монитор] (Figure 1) were purpose-built, armored, low-board, shallow-draft vessels designed to attack enemy fortifications, forces, or water craft in coast or river defense. The Soviet Navy had 20 river monitors in 1941. There were several types, but typical was a vessel with a displacement of 130-150 metric tons, 140-200 horsepower engine, capable of 14 knots per hour (26 kilometers), armed with two 122 mm howitzers, two

<sup>&</sup>lt;sup>1</sup>l. l. Loktionov,Волжская Флотилия в Великой Отечественной Вой**नि**ehe Volga Flotilla in the Great Patriotic War] (Voyenizdat, Moscow, 1974), p. 3. The author thanks Chuck Bartles of the Foreign Military Studies Office for his help with the maps for this article.

<sup>&</sup>lt;sup>3</sup>N. P. Vyunenko and R. H. MordvinoВоенные флотилии в Великой Отечественной Вой**!М**ilitary Flotillas in the Great Patriotic War] (Voyenizdat, Moscow, 1957), pp9.3



Figure 1. River monitor photograph.

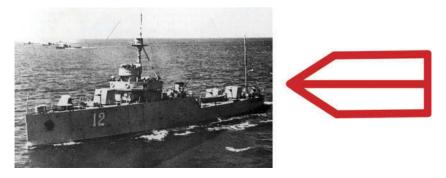


Figure 2. Artillery ship photograph and map symbol.

40 mm cannon and three machine guns or three 76 mm cannon and four machine guns<sup>4</sup>

Artillery ships [канонерская лодка (Figure 2) had a similar mission to the monitors. They attacked enemy shore regions and small ships and cutters. They supported ground forces and assault landings. They were stationed on lakes and rivers and were purpose built or were converted from civilian vessels. They displaced up to 1,200 metric tons, with a maximum speed of 15-28 kph and carried one-four artillery pieces ranging from 47–102 mm (basically whatever was available), plus antiaircraft and regular machine guns. The crew could be as many as 60.

Armored cutters BKA1124 [Бронекатед (Figure 3) were purpose-built, armored, shallow-draft naval vessels designed for fire support of ground troops and combat with various enemy vessels on rivers and coast defense.

<sup>&</sup>lt;sup>4</sup>Soviet Ministry of DefenséMонито́р, Военноморской СловафМilitary-Naval Dictionary] (Voyenizdat, Moscow, 1990), р. 254, and Russian Ministry of Defension он Военная Энциклопеди Military Encyclopedia], Vol. 5 (Voyenizdat, Moscow, 2001), pp. 24213. The Amur River Flotilla had seven larger monitors that displaced 946 metric tons, with a speed of 20 kph and armaments of two 152 mm howitzers and four 120 mm cannon.

<sup>&</sup>lt;sup>5</sup>Soviet Ministry of DefenseҚанонерская лодқаВоеннөморской СловарМilitary-Naval Dictionary] (Voyenizdat, Moscow, 1990), p. 172, and Russian Ministry of Defentanhonepская лодкаВоенная Энциклопедиміlitary Encyclopedia], Vol. 3 (Voyenizdat, Moscow, 1995), p. 470. Another translatio/кабионерская лодкаіз 'gunboat, but the author used artillery ship since gunboat has a connotation of a PT boat for the American audience. The armored cruiser is closer to the American PT boat.

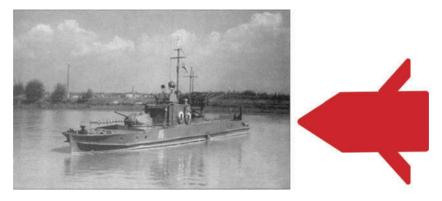


Figure 3. Armored cutter photograph and map symbol.

Typical armament was two 76100 mm guns (tank turrets from the T-28 medium and T-35 heavy tanks) or the Katyusha multiple rocket launcher rails (for 82 mm or 132 mm rockets) and two 12.7 mm heavy machine guns. They were fast (33-46 kph), well armored, and widely used in riverine operations. They drew 0.8 meters of draft.

'Floating batteries' (Figure 4) were usually four or more guns (up to 150 mm) that were emplaced on barges or pontoon boats. They were not standardized and could be a regulation nine-gun battery deployed on three towed or self-powered platforms or a collection of available guns, howitzers, and mortars secured to a collection of available floating platforms.

'Cutter trawlers' (Figure 5) fished for underwater and floating mines using a trailing sweep designed to catch and detonate them. Contact mines were relatively easy to detonate, but noncontact mines (acoustic and mag-

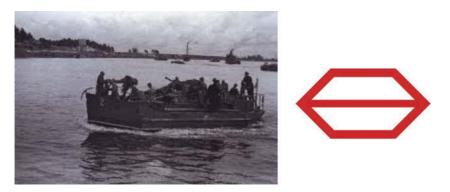


Figure 4. Floating battery photograph and map symbol.

<sup>&</sup>lt;sup>6</sup>Soviet Ministry of Defense,́Бронекате́р Военнеморской Словар[Military-Naval Dictionary] (Voyenizdat, Moscow, 1990), pp. 6061.

<sup>&</sup>lt;sup>7</sup>Russian General Staff;Плавучая батере́я[Swimming Battery]Военная Энциклопеди**[M**ilitary Encyclopedia], Vol. 6 (Voyenizdat, Moscow, 2002), p. 398.



Figure 5. Soviet minesweeper and map symbol.



Figure 6. Map symbol for vessel.

netic) provided a more difficult task in disposal. Many mine trawlers were converted fishing boats rigged to haul sweeps instead of nets. Mine trawlers were a major component of Soviet naval flotilla success.

Auxiliary vessels (Figure 6) supported the flotilla as supply vessels, tugs, troop transports, and landing craft, repair and recovery vessels, and communications ships/headquarters. Depending on the stage of the war, some flotillas had their own aviation squadron and shore-based artillery. A naval infantry company or battalion was part of each flotilla.

Soviet river flotillas played a crucial role in supporting ground force operations and providing security to river transport. During World War II, river transport moved 10 percent of the supplies and equipment of the ground forces, transporting approximately 200 million tons of cargo.

When Germany invaded the Soviet Union, the Soviets conducted stubborn retreats, trying to retain key cities, industry, and transport. River transport has always been important to the Russian and Soviet economy. Rivers provided both barriers against the invader and mobility corridors for the defending Soviet forces. The actions of the Danube, Pinsk, and Volga Flotillas during this period are instructive (see Figure 7). The Volga Flotilla's actions during the Stalingrad campaign are particularly instructive in determining the lessons of army-navy coordination and cooperation in joint defensive riverine operations.

<sup>&</sup>lt;sup>8</sup>Russian General Staff,'Флот речной [River Fleet], Военная Энциклопеди**[**Military Encyclopedia], Vol. 8 (Voyenizdat, Moscow, 2004), p. 260.

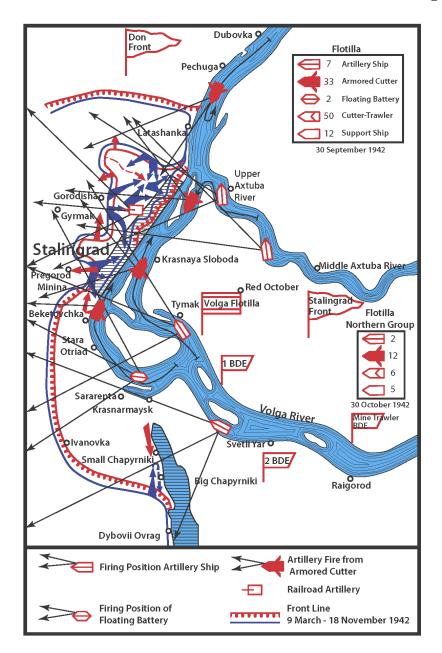


Figure 7. Fire support of ground forces artillery of the Volga Flotilla at Stalingrad 28 August -18 November1942.

## Soviet flotillas during defensive operations

The Pinsk Flotilla was originally founded in February 1916 during World War I. Its mission was to conduct security and reconnaissance, conduct river mining, and guard bridges. In November 1916, the flotilla was moved and reconstituted as the Danube River Flotilla. The flotilla disappeared during the Russian Revolution, and its remnants were seized by Austro-Hungarian

forces. In June 1940, the Pinsk Flotilla was again in service. It covered the Pripet River and on into the Dnieper River down to Kiev. It had 27 ships, an aviation squadron, and a company of Naval Infantry. When Germany and the Soviet Union invaded Poland in 1939, the Polish Pinsk River Flotilla scuttled its ships. Many of these were raised and became part of the Soviet Pinsk Flotilla. The Soviet Pinsk Flotilla was part of the Baltic Military Fleet and commanded by a Counter-Admiral [General Major]. It was subordinate to the Army Commander of the Western District. After Germany invaded the Soviet Union on 23 June 1941, the Pinsk Flotilla was reinforced with an additional 18 ships and cutters.

The Pinsk Flotilla was immediately involved in a defensive fight against German Army Group Center and German Army Group South. The flotilla supported both the Soviet West and Southwest Fronts. In order to provide better support, the flotilla was soon split into three detachments. The Pripet Detachment was assigned to the Western Front supporting the 4th and 5th Armies. The Dnieper Detachment was assigned to the Southwest Front in support of the 26th and 38th Armies. The Berezinski Detachment was assigned to the 21st Army. The detachments had monitors, artillery ships, armored cutters, and other ships and support units.

During the initial period of the war, the Pinsk Flotilla maintained effective coordination with the forces of the West and South-West Fronts along the riverine portions of operational axes. Although the flotilla detachments provided tactical support, their actions fulfilled operational missions as they covered the adjoining flanks of the Southwest and Western Fronts, defended the Front crossings of the Dnieper River north and south of Kiev, and contributed to the retention of the 37th Arm's operational bridgehead at Kiev on the right bank of the Dnieper River. In August-September 1941, the flotilla aided in the evacuation of the bridgehead and participated in the defense of Kiev. At the end of their mission, the sailors of the flotilla blew up their craft and joined the soldiers fighting within the German encirclement. The flotilla ceased to exist on 6 October 19412.

The Danube Flotilla was originally formed in 1771 in support of Russian ground forces engaged in the Russo-Turkish War of 17681774. It was disbanded and reformed several times in consonance with Russian-Turkish relations. It fought in five Russo-Turkish Wars. It was an extension of the

<sup>&</sup>lt;sup>9</sup>/Пинская Военная Флотили́я[Pinsk Military Flotilla],Военная Энциклопеди<mark>і</mark>мilitary Encyclopedia], Vol. 6 (Voyenizdat, Moscow, 2002), p. 388.

<sup>&</sup>lt;sup>10</sup>A. Usinkov, 'Некоторые вопросы взаимодействия речных военных флотилий с сухопутными войсками [Several Questions Concerning the Cooperation of Military River Flotillas With Ground Foßoes]но исторический журна [Military-Historical Journal], June (1981), pp.-356.

<sup>&</sup>lt;sup>11</sup>lbid., p. 36. The right bank of a river refers to an observer looking down river with the right bank on his right side and the left bank on his left side. Since the Dnieper flows generally north to south, the right bank of this river is the western side.

<sup>&</sup>lt;sup>12</sup>Pinsk Military Flotilla.

Russian Black Sea Fleet and was used to support Bulgarian and Serbian interests in the 19th century. During World War I, it fought in support of Serbian and Romanian forces. After the Russian Revolution, the flotilla retreated to the port cities of Odessa, Nikolaev, and Kherson, where it was seized by Austro-Hungarian forces. The Soviets reconstituted the Danube Flotilla in July 1940 as part of the Black Sea Fleet. It drew its resources from the Dnieper River Flotilla and the Black Sea Fleet. It had five monitors, 22 armored cutters, seven mine-trawlers, 30 patrol cutters, six hydroplanes, an aviation detachment, an antiaircraft battalion, six batteries of Coast Artillery and a Naval Infantry company. In addition, 30 patrol craft of the NKVD (Secret Police) border patrol were attached to the flotilia.

When Germany invaded the Soviet Union, the flotilla was supporting the 14th Rifle Corps of the 9th Independent Army of the Southern Front. It patrolled the northern mouth of the Danube River, which formed the boundary between the Soviet Union and German's ally, Romania. The flotilla's main task was maintaining a patrol screen 3001,000 meters from the Romanian River Division. The division had seven monitors, several patrol cutters, three floating 152 mm artillery batteries, and some 70 selfpropelled barges. There were several fortified shore batteries emplaced along the river. Seven German artillery ships were co-located with the Romanian riverine fleet. In April 1941, Germany occupied Yugoslavia and incorporated Yugoslaviás four monitors into its Danube fleet. German officers were assigned to the Romanian vessels as advisers. The correlation off orces and means was clearly in the Romanian/German favor, particularly when it came to monitors, shore artillery, and artillery throw weight.

The Danube Flotilla's zone of operations stretched 120 kilometers from the river mouth. It had no rear support base, since the Soviet river ports were about 1,000 meters from the Romanian shore. The battle for the Danube began simultaneously with the German invasion of the Soviet Union. Artillery salvos fell on the Ismail port and surroundings.

The flotilla was forced to maneuver under the initial German artillery attack but soon began a counter-battery effort. The Romanian/German fleet attempted to force its way out of the the Danube onto the Black Sea, but Soviet monitors, armored cutters, and Coast Artillery batteries thwarted this effort, firing 1,600 rounds against an estimated 20 attempted enemy assault landings. This stopped enemy landing attempts for several days. The High Command determined that the flotilla would be most successful when combined with ground forces, and the Flotilla commander was ordered to establish telephone communications with the 14th Army Corps Commander

<sup>&</sup>lt;sup>13</sup>Russian General Staff,'Дунайская Военная Флотйлли́я[Danube Military Flotilla]Военная Энциклопедия [Military Encyclopedia], Vol. 3 (Voyenizdat, Moscow, 2004), pp.-139. The NKVD was the predecessor to the KGB, armed uniformed units of the secret police.

<sup>&</sup>lt;sup>14</sup>N. P. Vyunenko and R. H. Mordvinov, pp. 1-21526.

and then sail to Bolgrad (north of Ismail in the Ukrainian SSR) to receive his orders about conducting a landing to seize a beachhead on the enemy shore. 15

The Romanian allies on the Satu Nou Peninsula were across the Danube opposite the Soviet city of Ismail. The Romanians were shelling Ismail. On 25 June 1941 (two days after the German invasion), the flotilla artillery ships and Coast Artillery batteries pummeled the Satu Nou firing positions, while armored cutters conducted an assault landing using a company of the 79th Border Guards. The armored cutters reinforced this by transporting a rifle battalion of the 14th Army Corps. The next day, the flotilla ferried over the rest of the rifle regiment. The assault, supported by naval artillery, drove 70 kilometers deep through enemy positions on the peninsula. The ground forces were able to hold this position for 20 days. The Soviets conducted three other successful landings, killing an estimated 250 Romanians and capturing 750 officers and soldiers along with eight 76 mm guns, 30 machine guns, and over 1,000 rifles.<sup>17</sup>

Soviet position after position fell as the Danube Flotilla slowly retreated, mining the waters as it went. Soviet ground forces were being pushed back, and several times the flotilla counter-attacked enemy assault landings along the Danube. The Supreme Command decided to evacuate Bessarabia and ordered the Danube Flotilla to load its naval stores, break out to the sea, and sail to Odessa after evacuating units of the Soviet Army that were defending strongpoints on the river while providing covering fire for adjacent retreating Soviet Army units. The withdrawal began at night, covered by armored cutters. On 17 July, the flotilla sailed for Odessa while mining the lower reaches of the Danube. Monitors provided covering fire. Ships and naval aviation from the Black Sea fleet covered their withdrawal. The flotilla set sail for Odessa on 19 July and arrived on the morning of the 20th.

The flotilla subsequently fought on the Danube, Bug, and Dnieper rivers and around the Kerch Peninsula. The steady German advance forced the flotilla back, and in September 1941, it sailed out of its base in Sevastopol and was incorporated into the Azov Sea Flotilla. It would be resurrected in April 1944 and conduct one of the most successful riverine offensive campaigns in history.<sup>19</sup>

The Volga Flotilla was formed in 1918 by the Revolutionary Workers and Peasants Red Army and fought in the Russian Civil War. There had been Cossack Volga Flotillas as early as the 15th century. The flotilla was combined with the Astrakhan and Caspian Sea flotillas before it was disbanded in

<sup>&</sup>lt;sup>15</sup>A. Uskinov, p. 34.

<sup>&</sup>lt;sup>16</sup>lbid., p. 35.

<sup>&</sup>lt;sup>17</sup>N. P. Vyunenko and R. H. Mordvinov, pp. 1-21728.

<sup>&</sup>lt;sup>18</sup>lbid., pp. 128-132.

<sup>&</sup>lt;sup>19</sup>Danube Military Flotilla, p. 139.

July 1919. It was reconstituted in October 1941 in response to the German invasion. The Soviet Navy formed the flotilla incorporating a ship training detachment and industrial cutters and mobilized river craft. It was based out of Ulyanovsk. By July 1942, it had seven gunboats, 14 armored cutters, 33 minesweepers, two floating antiaircraft batteries, a railroad battery, and two battalions of naval infantry. River transport vessels were separate from the flotilla but were protected by the flotilla. On 22 July 1942, the flotilla was divided into three brigades, with the first brigade in the region of Saratov, the second south of Stalingrad near Krasnoarmeisk, and the third at Stalingrad. The headquarters was moved to Stalingrad with supply and maintenance bases at Kamishin and Vladimirovka.<sup>21</sup>

The Volga River is the longest river in Europe and the largest in terms of water discharge. Eleven of the 20 largest cities in Russia are within its drainage basin. The Volga begins in the Valdai Hills north of Moscow and eventually flows into the Caspian Sea at Astrakhan. It was a major trade route supplying the Western Soviet Union. During World War II, it was the primary bulk cargo transit route for fuel from the Azerbaijan oil fields, and Lend-Lease supplies pushed through Persia to the Caspian Sea or onto Soviet railroads. Over 8 million tons of Lend-Lease supplies and even more fuel reportedly moved north along this rail and waterway route. Protecting this route was a major task for the flotilla. The German advance on Stalingrad threatened to cut this major transit route. Crossing and controlling the Volga at Stalingrad, which at some points is 1,000 meters wide, was no easy task for attacker or defender.

On 24 July 1942, the flotilla was subordinated to the Stalingrad Front. The Front issued the following orders to the flotilla: (a) be prepared to support the actions of the ground forces defending the Stalingrad river bend; (b) maintain communications along the Volga River from Kamishin to Astrakhan; (c) prevent the crossing of the Volga River by the enemy; (d) firmly protect the flotilla bases and support the prevention of enemy interference with the uninterrupted operation of the river ports of Saratov, Kamishin, Stalingrad, and Astrakhan; and (e) support the transport off orces and supplies at the constricted crossing sites across the Volga River. The flotilla incorporated these elements in its 29 July plan to support the operational mission that was approved by the Stalingrad Front Headquarters. The flotilla dispatched a liaison officer to the Front headquarters.

In July, the Luftwaffe began a heavy effort against the Stalingrad port and the Volga transport vessels by bombing and dropping electromagnetic mines into the river channels. The Front headquarters assigned the responsibility

<sup>&</sup>lt;sup>20</sup>Russian General Staff,Волжская Военная Флотилли**(**Volga Military Flotilla)Военная Энциклопеди**(M**ilitary Encyclopedia], Vol. 3 (Moscow: Voyenizdat, 1994), p. 260.

<sup>&</sup>lt;sup>21</sup>A. Usinkov, p. 36.

<sup>&</sup>lt;sup>22</sup>lbid. For a map of the river, se<del>Eigure 9</del>

for mine detection and destruction to the flotilla. With this came authorization for the flotilla to open and close channels and to determine the routes and tempo of river traffic. The Volga River was deemed a strategic route, as all sorts of military and civilian goods moved on it—most importantly the fuel from the refineries at Baku<sup>23</sup>

On 6 August 1942, the flotilla was assigned the following missions in support of units of the 64th Army: (a) assist the 15th Guards Infantry Division in defending the left section of the southern sector of the defense and do not permit an enemy breakthrough to the north in the Raigorod region; (b) in the event of an enemy breakthrough to the Volga River through the southern defenses, do not permit him to cross to the eastern bank of the river; and (c) continue to increase the effort to clear the mines from the river channels in order to support normal river traffic.4 This mission was assigned to the 1st and 2nd Brigades of the flotiffa.

On 23 August, the German 6th Army broke through to the Volga to the north of Stalingrad in the area between Latashanka and the river market, splitting the Fronts forward defenses and interrupting river traffic. A combined force of a tank brigade, several antitank artillery regiments, factory workers' battalions, a militia detachment, regiments of the 10th NKVD Division, and a battalion of Naval Infantry from the flotilla was directed to destroy the enemy grouping in the Sukhaya Mechetka gully. A northern flotilla group of ships was formed to support it. This group consisted of artillery ships Chapaevand Usiskin and armored cutters№ 14, 23, 34, 51, and 54. Despite their efforts, the Germans retained their foothold on the Volga.

The shipborne flotilla headquarters displaced to Saratov, and the flotilla land headquarters displaced to Krasnoy Sloboda on the eastern bank opposite Stalingrad. The staffship Tura anchored in an outlet and was well camouflaged. The ship was able to support communications with the Front headquarters and flotilla vessels.6

## Artillery support

This naval force systematically supported the ground force with artillery fire. Figure 7 depicts the general fire support coverage provided by the flotilla from 28 August to 18 November 1942. Artillery ships and floating batteries usually conducted indirect fires and relied on intervening land mass and the river banks to prevent immediate identification and counter-battery fire. The artillery ships would occupy their firing positions at night, and their fires

<sup>&</sup>lt;sup>23</sup>lbid.

<sup>&</sup>lt;sup>24</sup>lbid., p. 37.

<sup>&</sup>lt;sup>25</sup>l. l. Loktionov, p. 50.

<sup>&</sup>lt;sup>26</sup>l. l. Lokotinov, p. 51.

<sup>&</sup>lt;sup>27</sup>Figure 7from I. I. Loktionov, p. 53.

were integrated into the Stalingrad Front firing plan. Army forward observation posts called in artillery adjustments. Often they fired missions that were 18-20 kilometers away. The armored cutters stayed in the safer waters of the upper Volga or Akhtuba River and moved closer to the enemy positions at night, although direct fire missions were often limited by the high banks of the terrain. The armored cutters mounting the multiple rocket rails were particularly effective in their night-time artillery raids. During the flotilla's direct fire support phase, the flotilla is credited with killing hundreds of Germans, destroying dozens of tanks and self-propelled artillery pieces, and suppressing the fires of over 30 enemy artillery and mortar batteries. The armored cutters drew special praise for their daring attacks on the enemy flanks, and the Volga Flotilla was the first to employ multiple rocket launchers on armored cutters in combat?

An improbable member of the flotilla was the 680th Coast Artillery railroad battery, whose guns were mounted on railroad cars. This battery was a particularly interesting addition to urban combat. The most likely railroad gun assigned to this battery was the 130 mm/50 B13 Pattern 1936 (TM-2-12 Railway Gun). Its barrel length is 21 feet 7 inches, and the weight of a round is 986 pounds. Each gun had an 11-man crew. It fires out to a range of 25 kilometers.<sup>30</sup> There were three of these located near the famous Stalingrad Tractor Factory during the fighting. Due to the barrel-life of these weapons (1,100 rounds) and the ammunition on hand (1,197 projectiles), these weapons were only used to engage targets outside the range of conventional field artillery. Due to these considerations, control over the battery fires passed to the 62nd Army Artillery Commander on 7 September. From 13 to 26 September, this battery conducted 30 fire missions. On 15 September, a concentration of some 50 German tanks and 300 vehicles came under a railroad gun battery salvo in which each gun fired 28 rounds and destroyed dozens of the vehicles. On 23 September, the battery similarly engaged an enemy grouping estimated to be 1,000 vehicles. On 26 September, the battery engaged another concentration of tanks.

The initial German attempt to take Stalingrad from the march failed, and the Germans heavily reinforced their next effort. On 13 September 1942, the German 6th Army began its concentrated assault on Stalingrad. Fire support of the defenders became the primary mission of the flotilla. Fire planning and operational control for flotilla fires passed to the Front Artillery Commander. Artillery ammunition stores were diminishing rapidly. Working with the artillery commanders of the 62nd, 64th, 57th and 66th Armies, the flotilla was assigned fire missions against critical targets that were on the river bank,

<sup>&</sup>lt;sup>28</sup>N. P. Vyunenko and R. H. Mordvinov, p. 18.

<sup>&</sup>lt;sup>29</sup>lbid., pp. 51-56. Coast Artillery was part of the Soviet Navy, so attachment to the flotilla made some sense.

<sup>&</sup>lt;sup>30</sup>http://en.wikipedia.org/wiki/130\_mm/50\_B13\_Pattern\_1**9ac**cessed 29 January 2015).

<sup>&</sup>lt;sup>31</sup>I. I. Lokotinov, pp. 56 and 66.

while ground-based artillery engaged longer-range targets with indirect fire. Operational control offl otilla fires belonged to the artillery commanders of the Front and three armies. Artillery ships and floating batteries fired their 100 mm guns and 152 mm gun-howitzers from their masked firing positions at the direction of artillery observers located with the forward defending divisions. Armored cutters directed their 76 mm guns and multiple rocket launcher strikes at the enemy flanks. The 680th Coast Artillery railroad batter continued its long-range naval gun support. From 13 to 26 September, the flotilla was engaged in artillery support of the bitter fighting that boiled around the 'Red October' and 'Barricades' factories. On 14 October, after a particularly intensive artillery barrage, the Germans captured theRed October tractor factory. The armored transport engines for the three railroad naval guns were destroyed, and the 680th Coast Artillery Railroad Battery lost its mobility. The battery personnel retreated to the Volga along with regiments of the 112th Infantry Division. The battery personnel then crossed the Volga to Rabbit Island. The battery had lost 43 of ts 134 personnel and its three railroad guns. This was the battery last action.<sup>33</sup>

The artillery ships and floating batteries were targets of German counterbattery fire throughout the months offi ghting. On 31 October, all the artillery ships, except for Chapaev and Usiskin, which were trapped in the northern waters of the Volga, sailed south to Astrakhan for repair, refitting, and winterization. The two remaining artillery ships, 15 armored cutters, and four trawlers remained on station to continue to provide artillery support.

## Crossing operations

Artillery support was not the only mission given to the Volga River Flotilla. The Red Army was dug in within the city and outskirts of Stalingrad, fighting desperately to prevent the Germans from cutting offriver traffic and crossing the Volga. Transporting units, supplies, and equipment across the Volga into Stalingrad and evacuating the wounded and civilians was a major challenge. The Front Engineer was responsible for the effort. Attempts to maintain a 1,500-meter pontoon bridge across the Volga south of Stalingrad exceeded the Stalingrad Fronts engineering assets and provided a difficult challenge to maintain and defend it — especially since the Luftwaffe maintained air superiority in the region. Highly maneuverable, powered vessels had the best chance of quickly and secretly crossing the river. Civilian river craft and the Volga River Flotilla were pressed into this effort. The trawlers and armored cutters of the Volga River Flotilla began ferrying in July. The Front Engineer, the Flotilla Commander, and the Peoples Commissariat of the

<sup>&</sup>lt;sup>32</sup>lbid., p. 60.

<sup>&</sup>lt;sup>33</sup>lbid., p. 73.

River Fleets of the USSR developed the overall crossing plan, which went into effect on 2 September. Five crossing sites, with dedicated vessels, had the capacity of handling up to 55,000 personnel every 24 hours. These sites were not all dedicated to the defenders of Stalingrad but also to the Red Army units defending the regions north and south of the city. The Volga Flotilla was assigned to the two crossing sites directly supporting the fight within Stalingrad. From 23 August to 13 September 1942, the mine trawlers and armored cutters of the flotilla transported over 7,000 soldiers; a thousand tons of ammunition, fuel and, food; 404 vehicles; and 385 horses, while evacuating 7,700 wounded and 1,500 civilians.

During the two weeks after the Germans broke through to the Volga to the north of Stalingrad, the flotilla reinforced the 62nd Army by transporting three rifle divisions, one tank brigade, and two rifle brigades. During those two weeks, the flotilla carried over 9,000 soldiers, 360 tons of ammunition and food, and hundreds of vehicles. They evacuated 4,600 wounded. Most of these crossings came under German fire. Figure 8 shows the armored cutter symbols designating the ferrying operations. The personnel and cargo destined for south Stalingrad embarked at the Tymak docks, while north Stalingrad was supported from a site near the Northern Group of the Flotilla's headquarters on the Upper Axtuba River. The ferrying craft followed a circuitous approach using the masking features of river islands for partial protection before they raced for the far bank. The commander of the flotillas' Separate Trawler Brigade directed the flotilla ferrying operations. On 24 September, the Stalingrad Front placed nine trawlers and four support ships of the flotilla under the control of the 62nd Army Engineers for direct support of the central crossing into central and northern Stalingrad.

The Germans countered the crossings with mines, aerial attacks, and artillery strikes. Consequently, the ferrying was accomplished at night. However, the Germans discovered that the ferrying operations in the central section landed in Kuperosnoye section of the city. The wounded were also assembled there for transport to safety. The Germans began shelling this region heavily at night as well as conducting night bombing on this concentration area. The flotilla coordinated with the Front Artillery Commander, who assigned a mortar regiment to cover the crossing operation in this sector. From 27 September to 13 October, the flotilla ferried 11,000 soldiers and over 600 tons of ammunition across the Volga and returned with 6,797 wounded as well as civilians.<sup>7</sup>

From 14 October to 31 October, over 30 armored cutters and mine trawlers, plus 30 support ships of the flotilla, ferried 15,868 combatants and

<sup>&</sup>lt;sup>34</sup>lbid., pp. 76-77.

<sup>&</sup>lt;sup>35</sup>lbid., p. 79.

<sup>&</sup>lt;sup>36</sup>Figure 8from I. I. Lokotinov, p. 81.

<sup>&</sup>lt;sup>37</sup>l. l. Lokotinov, pp. 8<del>2</del>83.

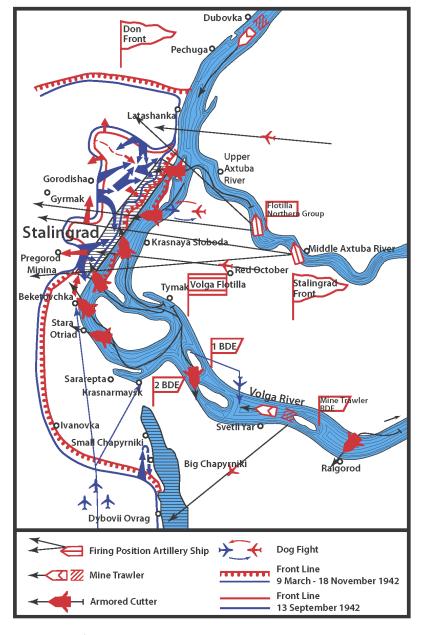


Figure 8. Ferrying of troops and equipment by the Volga Flotilla at Stalingrad 17–18ly November1942.

561 tons of ammunition, food, and military cargo. They evacuated 12,068 wounded and civilians. During this time, the flotilla lost five trawlers and an armored cutter. During the first half of November, the Germans increased their attacks. The bitter fight for the Red October and 'Barricades' factories continued. The vessels of the flotilla were the sole transport to supply the needs of the 62nd Army across the Volga. The Stalingrad Front Command

was worried about their ability to provide the necessary supplies prior to the onset of the river freezing ove?.8

The flotilla pushed on, moving men and material into the embattled city. By 10 November, only the armored cutters could make the crossing due to the heaving icing. During the first 18 days of November, the flotilla moved 21,225 combatants and 717 tons of ammunition and supplies across the Volga while evacuating about 12,000 wounded. During the 17 July to 18 November 1942 period, the Volga River Flotilla made over 35,000 crossings; transported 62,225 combatants; over 15,000 tons of ammunition and other supplies; approximately 500 vehicles, and hundreds of horses and carts across the Volga. They evacuated 44,790 wounded and women, children, and elderly civilians.<sup>39</sup> Marshal of the Soviet Union Chuikov, who was then the commander of the 62nd Army, wrote: About the role of the sailors of the flotilla. in the shortest possible words: without them, it is possible that the 62nd Army would have perished without ammunition, without food and without fulfilling its mission'.40

## Assault landing

On 31 October, the northern group of vessels conducted an assault landing into the German position at Latashanka on the banks of the Volga. The plan was to land two reinforced battalions of the 300th Rifle Division to seize the German position on the Volga and link up with Red Army forces at the river market. The artillery preparation was conducted by the flotilla. At 0130 hours, four armored cutters carrying a company of submachine gunners sailed for the western bank. The rest of the battalion followed. The artillery preparation failed to suppress the German shore defenses. The initial wave died under the German defensive fires. The rest of the force was unable to land. Attempts over the next two days met a similar fate. The flotilla lost two armored cutters. Another cutter was lost the next day in a repeated attempt, when it was stranded on a sandbat.

The Germans broke through to the Volga on 23 August. The flotilla attempt to retake the salient occurred over two months later. The Germans had ample opportunity to prepare robust shore defenses. This was the only point where the Soviet could make an amphibious landing. Amphibious raids are difficult and require complete surprise or a robust artillery preparation. The late-night assault lacked the element of surprise due to the flotisla artillery preparation. The artillery preparation was inadequate and was initially unsupported by army and front artillery. There is no record on what

<sup>&</sup>lt;sup>38</sup>lbid., p. 87.

<sup>&</sup>lt;sup>39</sup>lbid., p. 90.

<sup>&</sup>lt;sup>40</sup>V. I. Chuikov,Начало пути [The beginning of the paths], Vol. 2 (Voyenizdat, Moscow, 1962), p. 182.

<sup>&</sup>lt;sup>41</sup>I. I. Lokotinov, pp. 9<del>0</del>93.

training the soldiers in the assault force received before boarding the vessels, but naval infantry would certainly have been more comfortable and aware of their surroundings during the assault. Post-war Soviet analysis of the raid credits the German defenses with two dug-in battalions and 25 tanks.

#### The Soviet counter-offensive

On 19 November, the Southwest Front launched an offensive from the north, broke through German defenses, and advanced 25 kilometers behind the German forces in Stalingrad. Later the same day, the Don Front, which was adjacent to the Southwest Front, also attacked from the north. On the 20th, the Stalingrad front began its counter-offensive, sweeping behind the Germans defending Stalingrad and in the course off our and a half days, completed a double pincer envelopment, cutting offthe German 6th Army and 4th Panzer Army. Twenty-two divisions and 160 other regimental-sized Axis units were now trapped inside the Soviet encirclement. By 30 November, the Soviets had formed an outer and inner encirclement of the trapped force. Breaking in or breaking out became impossible. The buildup off orces on the flanks for this encirclement was possible through the massive ferrying operation of the river transport units to the north and south of Stalingrad. These same vessels kept the men and material flowing into the encirclement. The buildup for the counter-offensive involved transporting 260,000 combatants; 35,000 tons of military stores; and 280,700 tons of gasoline and oil to the Stalingrad Front and a like amount to the Southwest and Don Fronts. The Soviets now had the Strategic initiative. The Sixth Army was doomed but would fight on until 2 February before surrender.

The flotilla began the Stalingrad campaign with 33 armored cutters. Initially, the flotilla managed to keep 2528 of these functioning daily. The flotilla lost five armored cutters to enemy fire during the campaign. Many of the other cutters were past their prime and were breaking down. On 31 October 1942, the flotilla at Stalingrad was down to two artillery ships, 15 armored cutters, and four mine trawlers. The Germans were still in Stalingrad, and the Volga Flotilla continued to provide fire support and ferry men and material and wounded across the Volga. The remaining artillery ships were hampered by the ice, and the armored cutters played a vital role in ferrying and fire support. The Volga iced over slowly in December 1942, and the remaining armored cutters functioned well, maneuvering through the floating ice. The Soviet Navy formed a special task force of officers to deploy up north to Ulyanovsk (an industrial area) to supervise

<sup>&</sup>lt;sup>42</sup>lbid., p. 91.

<sup>&</sup>lt;sup>43</sup>The best history on the Stalingrad Campaigntline Stalingrad Trilog(n) five volumes) by David M. Glantz with Jonathan M. House (University Press of Kansas, Lawrence, KS, 20095).

<sup>&</sup>lt;sup>44</sup>l. l. Lokotinov, p. 106.



the repair of ships and the construction of a third attack brigade for the 1943 Campaign.45

## River control and convoy escort

Once the Stalingrad pocket collapsed and the German 6th Army surrendered, the Germans no longer had the ability to interdict traffic directly on this strategic line of communications. The direct combat role of the Volga River flotilla significantly diminished, but it still had a vital role to play. The German Luftwaffe could still range over the river, attacking ships and dropping mines. Men and material had to cross the river, convoys had to be protected, antiaircraft defense had to be upgraded. Material had to move up river despite the floating ice; vessels and weapons had to be repaired. Once deep winter set in, the flotilla moved its headquarters and bases down to the Caspian Sea and lower Volga for winter quarters. The crews trained in preparation for mine-clearing operations when the ice broke. On 5 April 1943, the trawlers went back into action detecting and neutralizing mines. On 14 April, after the trawlers reached Stalingrad, river traffic resumed on the Volgation

Figure 9 shows the plan for integration and coordination of the Volga Flotilla with territorial anti-aircraft defenses as well as anti-aircraft regiments for 1943.<sup>47</sup> The Volga and the Caspian Sea Flotillas have distinct boundaries, and the Volga Flotilla has divided their sector into nine military sectors up to Kuibishev. Each sector has a headquarters to manage traffic. The Volga Flotilla re-established its headquarters south of Stalingrad, while the brigades headquartered at Saratov, Kamishin, Stalingrad, and Cherniy Yar. Their vessels did not have to provide escort over the entire length of the Volga, rather for the military sectors for which they were responsible. Mine trawlers and armored cutters, which mounted antiaircraft machine guns, supplemented air protection for the transport vessels moving cargo up and down the Volga. During the second half of April, the Soviets moved 467,000 tons of oil, diesel, and gasoline up the Volga. The flotilla daily protected 130 convoys and dozens of individual vessels with over 100 vessels. The transport vessels were equipped with antiaircraft machine guns, and the escort vessels were responsible for coordinating their fires. When the transport vessels were moored, this responsibility passed to the local antiaircraft post. Some of the antiaircraft units were located on the shores, and some were on floating batteries.48

<sup>&</sup>lt;sup>45</sup>lbid., p. 110.

<sup>&</sup>lt;sup>46</sup>lbid., p. 131.

<sup>&</sup>lt;sup>47</sup>Figure 9from I. I. Lokotinov, p. 125.

<sup>&</sup>lt;sup>48</sup>l. l. Lokotinov, pp. 13<del>2</del>133.

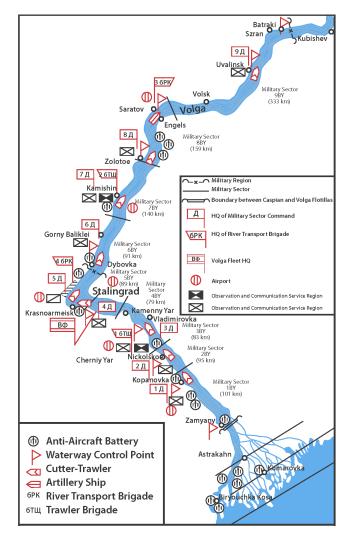


Figure 9. Organization and coordination of the Volga Flotilla with territorial and anti-aircraft defenses and anti-aircraft regiments on the lower Volga to protect river traffic during the 1943 campaign.

The Germans reacted quickly to the breakup of the ice and the resumption of river traffic. During April, the Luftwaffe conducted an aerial reconnaissance of the extent of river ice and the open channels and then began aerial attacks against the Volga between Kamyshin and Cherniy Yar, the area of the most intense river traffic. From 28 April to 15 May, the Luftwaffe dropped 161 river mines (131 still remained in the river from 1942). The Luftwaffe also conducted systematic attacks against the convoys and mounted bombing attacks against Saratov, where the largest reserves off uel were located. The 27 mine trawlers were able to locate 57 of the mines and destroy them, but there were not enough trawlers to find them all. In order to prevent the loss off uel

and other cargo, the trawlers concentrated on main river channels and provided escort through the most dangerous stretches. Despite their efforts, three fuel barges were sunk by German mines between 29 April and 15 May. The Katuyn barge alone was carrying 9,600 tons of aviation fuel.

The primary mission of the Volga Flotilla now was to provide safe passage, particularly for petroleum and petroleum products on the lower Volga through anti-mine and anti-aircraft defense. In May 1943, the Volga Flotilla became responsible for the safe passage of petroleum and petroleum products from Astrakhan all the war to Saratov. Trawler crews increased in size, and the transport vessels were re-equipped and upgraded. No longer having a position on the Volga River, the Germans increased their aviation offensive against river traffic. From 15-31 May, the Luftwaffe dropped 204 magnetic or acoustic mines in the Cherniy Yar to Kamishin stretch of the Volga. This represented half of the Luftwaffe mining efforts of the Volga for all of 1943. Aerial attacks on shipping also increased. On 15 May, 65 Luftwaffe aircraft bombed Saratov.

The Soviet westward advance drove the Germans back and made it more difficult for the Luftwaffe to strike at the Volga River traffic. The amount of cargo carried on the Volga increased dramatically. The Volga River Flotilla continued to provide mine trawling, air defense, and convoy escort to this vital petroleum lifeline of the embattled Soviet Stateigure 10 shows a stretch of river, not necessarily connected to the actual map, depicting the organization and control of convoys. The convoys in sector one were under the operational control of the military sector commander. Armored cutters patrolled independently and provided supplemental air defense. The area was not under immediate enemy threat. The convoys in sector two were interspersed with naval flotilla patrol boats provided by the flotilla brigade with responsibility for that sector. The threat was higher, but flotilla patrol craft were not within every convoy. Sector three was supported, as needed, by craft of the Volga River Flotilla's operational reserve. The convoys in Sector four were supported, when needed, by the operational reserves of the military sector commanders. The map shows areas where mines had been spotted or suspected of being deposited by the river currents. These areas were avoided until they could be dealt with.

By November 1943, the Volga River was secure against Luftwaffe mining and aerial attacks. The flotilla was no longer needed, but its personnel and equipment were and were being shipped to the Dnieper River Flotilla, the Azov Sea Flotilla, and the Onezh Lake Flotilla. Since the Volga flows into the

<sup>&</sup>lt;sup>49</sup>lbid., pp. 133-134.

<sup>&</sup>lt;sup>50</sup>lbid., pp. 135-137.

<sup>&</sup>lt;sup>51</sup>lbid., pp. 148-149.

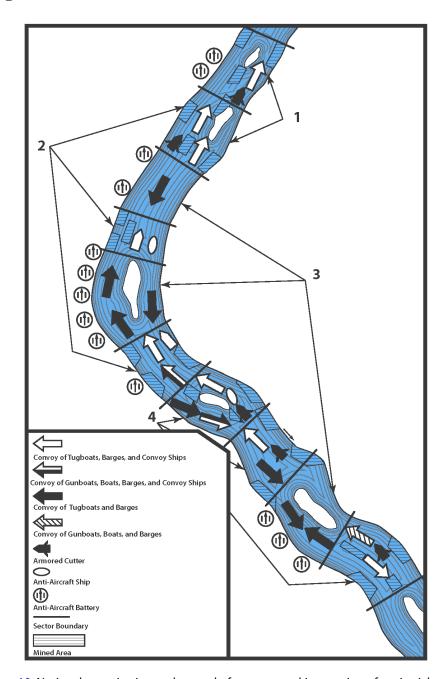


Figure 10. Notional organization and control of convoys and integration of territorial anti-aircraft defenseson the Volga River in 1943.

land-locked Caspian Sea, and since the Volga-Don Canal was not completed until 1952, it was difficult to move the flotilla vessels to the scene of the fighting. Smaller vessels were moved by rail, and larger ones were disassembled for transport and reassembly. On 30 July 1944, the Volga River



Flotilla no longer existed. The defensive actions of the Soviet river flotillas were over. Ahead were the flotilla victories on the Dnieper, Vistula, Oder, Danube, Bug, and Spree Rivers and on the Far Eastern Amur.

#### Lessons learned from Soviet river flotillas in the defense

- (1) It is difficult to retain on-board naval infantry once the ground combat becomes serious. Once the flotil's mission becomes artillery support and river crossing, the naval infantry is assigned a section of the ground combat plan. The Pinsk Flotilla lost its naval infantry to urban combat in Kiev. The Danube Flotilla managed to retain its Naval Infantry company when the flotilla began a long withdrawal across the Black Sea. The Volga Flotilla lost its Naval Infantry battalions in the urban fight shortly after joining the Stalingrad Front. The immediate need for ground power trumps the future need for flexibility and the ability to conduct an independent joint strike. Further, naval infantry (and marines) are trained and equipped for short-duration, high-intensity assaults and raids— not for longduration, heavy-duty combat. The Pinsk and Volga Flotilla Naval Infantry were engaged in long-duration, heavy-duty combat with little hope of relief.
- (2) Support by fire is a common mission for river flotillas. The Pinsk, Danube, and Volga Flotillas were all connected to the ground forces target detection and fire direction net. Artillery ships and floating batteries normally moved into position at night and fired missions from concealed positions during the day. Armored cutters normally mounted shorter-range artillery and had to move into exposed portions of the river to fire. Therefore, the armored cutters were used for fire support primarily at night. On occasion, the flotillas provided the primary fire support, particularly during assault landings. Control of the fire missions of the Coast Artillery units that were part of a flotilla could be passed to a ground force commander as part of the larger artillery plan. Ammunition resupply of common artillery projectiles came from ground force stocks, but resupply of projectiles for unique naval artillery pieces came from naval stocks and presented challenges to the supply process. The Volga Flotilla artillery was integrated fully into the Front and Army Artillery Groups for the conduct of massed artillery strikes. They used the same maps, firing data, communications channels, and forward observers as the ground forces.

<sup>&</sup>lt;sup>52</sup>N. P. Vyunenko and R. H. Mordvinov, pp. –189.

- (3) Ferrying operations and much of the flotilla artillery support were conducted at night when enemy fire was constrained by visibility. Smoke was used extensively by the Soviets to mask their vessels and shore batteries from enemy artillery and aviation. In contemporary times, an electronic mask would necessarily complement the visual masking.
- (4) River flotillas were not equipped for ferrying personnel and material beyond the requirements of the flotilla itself. Their supply vessels were unarmored and unsuited for ferrying under fire. Due to the absence of suitable armored supply vessels, the mine trawlers and armored cutters were pressed into service. This meant that fewer mine trawlers were available to locate and remove the floating mines dropped by the Luftwaffe, and fewer armored cutters were available to support the ground forces by fire. The Pinsk, Danube, and Volga Flotillas were all employed to ferry men and material. On the Volga, north and south of Stalingrad, the Red Army controlled both banks of the Volga, so the danger to ferrying operations were floating mines and aerial attack. However, most of the Germán aerial attack mission was directed into the Stalingrad fight. North and south of Stalingrad, civilian commercial vessels were pressed into service to ferry across the men and material that would eventually constitute two large pincers that would cut offthe German Sixth Army inside Stalingrad and starve it into surrender. The armored combat vessels of the flotilla were used where the fighting was hardest. The northern and southern ferrying effort was crucial, as it led to operational success, whereas the ferrying in the Stalingrad region was tactical, holding the city and focusing the German attention while the enveloping forces were moved into position.
- (5) The Danube Flotilla conducted four successful amphibious raids. The Volga Flotilla conducted one disastrous raid. The Danube Flotilla enemy was not well dug in, and the on-board artillery was sufficient for the raids. The Volga Flotilla was under-gunned for an independent fight with a dug-in, combat-hardened enemy. The artillery ships and floating batteries made a tremendous contribution to the Stalingrad fight. Still, most of the artillery ships in the Volga Flotilla were built between 1871 and 1912 and mounted 100 mm naval guns with dated fire control instruments, but the nature of the war demanded 130 mm and 152 mm guns and howitzers and upgraded fire control systems. The armored cutters were prized members of the flotilla. They moved quickly and were highly maneuverable. They were armed with a 76 mm tank turret and some heavy machine guns and were excellent in the direct fire role. They could also add to higher-angle artillery support, but the throw weight of the projectile



- was not ideal for urban combat. Mounting multiple rocket launcher rails on some armored cutters greatly enhanced their ability to provide fire support.<sup>53</sup>
- (6) German aerial strafing and bombing attacks were a threat to the Pinsk, Danube, and Volga Flotillas. All vessels had anti-aircraft machine guns, but the armored cutters were particularly adroit in this role and much in demand as escort vessels. Aerial mining of the river was a particular problem for the Volga Flotilla. The Luftwaffe dropped floating mines up river where they would play havoc with river traffic. The mine trawler brigade of the flotilla would search for mines and neutralize them, escort other shipping through mineinfested waters, and play a major role in ferrying men and material across the Volga.
- (7) Maintenance was a problem for flotillas engaged in a long-term fight. The flotillas had their own maintenance ships that repaired the vessels, but extended combat meant that many of these vessels were severely damaged, past their service expectancy and in need of replacement or major overhaul and rebuild. The Volga flotilla was able to withdraw most of ts artillery ships and supply ships to the ship docks and facilities near the Caspian Sea, but the need to support the embattled Stalingrad defenders meant that many vessels remained in the struggle long after they should have been withdrawn.
- (8) Winter icing of rivers provides distinct problems to river flotillas. The Volga Flotilla armored cutters played a key role in navigating through floating ice, but other ships, with thinner hulls, had to withdraw to the warmer southern waters near the Caspian Sea. Supply became difficult once where the Volga iced over but was not always thick enough to support truck traffic.
- (9) The defensive flotilla battles took place on ethnic Russian territory, and there was no problem with residual guerrilla forces as the Soviets would later face in Ukraine, the Baltic States, and Eastern Europe. Dealing with irregular forces along rivers remains a thorny issue for riverine flotillas.
- (10) The Red Army rewrote its Field Regulations in 1943. This was an important document, since it incorporated the combat experiences of the Red Army since the 1941 Germany invasion. The regulation noted that

The condition of army success during joint actions with a river flotilla depends on uninterrupted and close communications between their commanders. The best example of communications is achieved during the positioning of command posts.

<sup>&</sup>lt;sup>53</sup>l. l. Lokotinov, pp. 9799.



During the positioning of the separate command posts, it is mandatory to exchange liaison officers between the headquarters.

The regulations outlined when the river flotilla would fulfill the following missions:

'while assisting the ground forces in maneuver and fire during their actions along a water course, during its defense and when conducting a forced river crossing;

independently and in coordination with a ground force breakthrough along a river during an envelopment or outflanking the shoreline enemy flanks:

covering the flanks of our forces against an enemy envelopment or outflanking action along a river and against an enemy-held bank; defending the rear area against a raid by enemy river forces; raiding (or an incursion) on the enemy river bank positions and his rear

securing the river waterway<sup>55</sup>

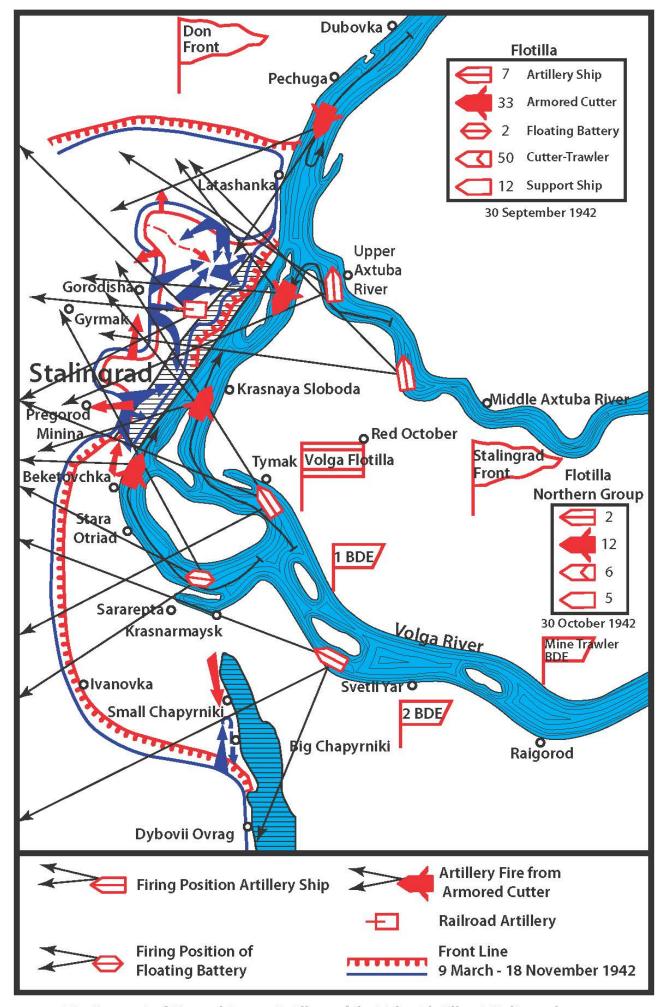
#### Notes on contributor

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<sup>&</sup>lt;sup>54</sup>Полевой устав Красной Арми**/F**iield Regulations of the Red Army] (Military Press of the Pe**'s如**emmissariat of Defense, Moscow, 1943), p. 898 as cited in A. Usinkov, p. 38.

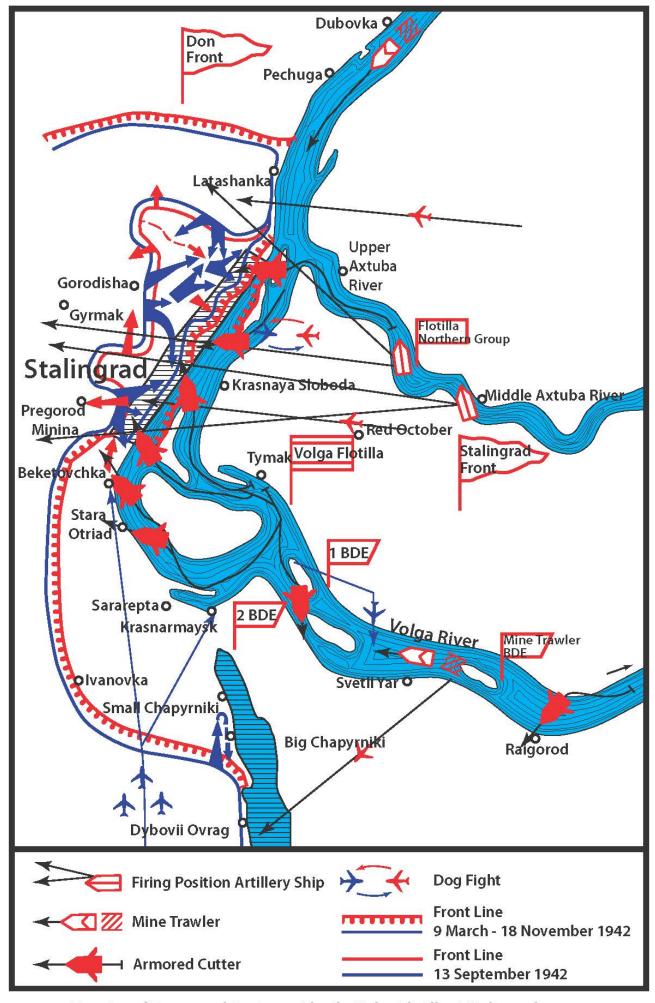
<sup>&</sup>lt;sup>55</sup>lbid., p. 900.





Fire Support of Ground Forces Artillery of the Volga Flotilla at Stalingrad

23 August - 11 November 1942



Ferrying of Troops and Equipment by the Volga Flotilla at Stalingrad
17 July - 18 November 1942

