

«DEER DO NOT FLY, DO NOT NEIGH, AND DO NOT MOAN»

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ABSTRACT

This date is special for Russians. More than 75 years ago, in June of 1941 the Great Patriotic War began, which remains in the memory of many generations of Russian citizens. The author introduces the heroic pages of the war years in the

polar region and Karelia, where in harsh Arctic conditions and environment of fighting for every inch of front-line ground railmen, water transport workers, dockers helped to survive our soldiers and sailors, population in the fight against the enemy.

<u>Keywords</u>: transport communications, history, World War II, polar region, Karelia, belt road, front, railway, port, water transport.

Background. In the difficult conditions of the Arctic zone, having nature, climate and lack of good roads at the same time as an ally, and involuntary «enemy», railmen, dockers and all other transport employees of the Soviet polar region and Karelia fought heroically, bravely at combat and labor fronts of the Great Patriotic War. Depending on the location of transport communications in one time or another – before, on, behind the line of the fighting – tasks and the nature of work varied. The fight went at all fronts and in different ways.

Objective. The objective of the author is to demonstrate some important pages in the history of Russian polar region and Karelia in terms of their participation in the Great Patriotic War 1941–1945.

Methods. The author uses general scientific methods, historical-retrospective method, comparative analysis, scientific description.

Results.

Belt road - symbol and support

The core of all transport communications of Karelia and the polar region were Murmansk commercial port, railway junction and Kirov railway. Accordingly, Berlin formed its attitude to the area of action and, although the German military command understood the strategic importance of Murmansk and Kirov railway differently. In addition to the «Barbarossa» plan the goal was to tear the USSR from its sea transport linkages, from the Arctic, to make Murmansk a support for the advance of German troops and the front through the Northern Sea Route to the Urals, Siberia and the Far East (12–14, 18, 38–40, 51, 52). According to the strategic plans of «Blue polar fox» and «Black and brown fox» in the shortest possible time Murmansk and Kandalaksha naval base of the Northern Fleet were to be captured, the functioning of Kirov railway should be stopped [5, 8, 10, 29, 51, 53].

German military historians have seen in the capture of Murmansk means to enter into an alliance of Germany with England and the United States against the Soviet Union, breaking the allied relations with the Soviet Union. Soldier mass saw «Maldives» in Murmansk, a key to the entire polar region [3, 1]. General Staff had planned to capture ice-free port, «the second of the Dardanelles», Kirovrailway, the Kola Peninsula and Karelia [50, p. 1]. The German command considered as a favorable factor of blitzkrieg destruction of transport communications of the polar region. The hope was the general weakness of the country's transport system, particularly inability of the railway network to cope with mass transportation in a large-scale war [48, p. 2].

Initially (1941) Kandalaksha direction was the most important operational area of the Northwest theater of war. From the border of Finland to Kandalaksha distance is the shortest. After capturing the area and cutting Kirov railway, the enemy would have got a hold of Murmansk – the country's gateway to the Arctic and the world's ocean. However, German troops could not break through to the Kandalaksha Gulf through the railway station Louhi, seize Murmansk and Kandalaksha. In 1941–1944, in the northern section of the Kirov mainline the enemy was stopped 50–60 kilometers west of Murmansk, 75–90 km from Kandalaksha [37, p. 1; 46, p. 90]. Defenders of the polar region managed to defend the major part of the Kola Peninsula, to ensure

freedom of action for the Northern Fleet in the Barents Sea, the ships sailing along the Northern Sea Route, the opportunity for the northern convoys and operation of a steel mainline on the northern portion of it. The Germans were not allowed to get to the Kandalaksha Gulf [50, p. 3; 48, p. 2–3; 51, p. 1–10].

In the southern section of the mainline in 1941 the Finns seized the railway station Loimola, the road from Lodeynoye field to Moselskaya and threatened to isolate Murmansk from the country. Only in 1944 the site was set free and on July 16 along the track moved the first through-train Murmansk–Leningrad [18, p. 158–159]. Thus road for goods was reduced by 556 km in comparison with the Vologda route Soroka–Obozerskaya–Vologda–Leningrad [49, p. 158–159].

In 1941–1944, Murmansk commercial port, railway junction and Kirov mainline were united into a belt road (front-line) system. Its protection against the enemy was the main task of the Karelian Front Command. January 1, 1942 in the New Year's greetings to the soldiers of the North Karelian Front Military Council had emphasized the importance of Murmansk railway junction, ensuring smooth operation of the railway, the need to counter all the efforts of the enemy [4].

Military-strategic and operational objectives of Kirov mainline originally were:

- Organizational restructuring of railway management on a war footing.
- 2. Changes in the structure and increase in the number of rail units.
- 3. Evacuation of the population, enterprises and property of the railway.
- 4. Ensuring protection, technical protection of transport communications, carrying out protective works.
- 5. Construction of a newbranch (Soroka–Obozerskaya) bypassing the occupied southern section of the road.
- 6. The conduct of military operations in the occupied southern section.
- 7. Increased capacity and carrying capacity of the mainline
- 8. The participation of railway workers in mobilization, labor front, creating war economy, development of movement for an increase in the defense fund, donation.

The organizational restructuring of management of the railway on a war footing started since the early days of the war. The remoteness of the polar region and Karelia, poor communication, concentration of the central authorities on the global issues of defense of the country have led to a greater autonomy in the management of Murmansk region and the Karelia-Finnish SSR. The role of the party and the organs of emergency management of Murmansk, Kandalaksha and Petrozavodsk defense committees (since September 1942) increased dramatically. A single centralized system of party and military leadership was formed. For immediate, primary measures (evacuation, mobilization, labor front, military, agriculture, Lend-Lease, buildup of Defence Fund) paramilitary organization «Oboronstroy» was established [50, p. 2]. Its influence extended to the activities of the mainline [46, p. 10; 51, p. 4].

Along with «Oboronstroy» in Murmansk and Kandalaksha regional and city committees of defense emerged. They made great efforts to mobilize human and material resources to help the front. All their activities were consistent with the Party and the Soviet leadership of Murmansk region and Karelia. Together they went to the scene and carried out a complex of organizational, political, ideological, economic, military events, but above all mobilization of reservists of the first stage in the ranks of the army and navy [49, p. 1; 51, p. 4, 64].

Meanwhile, management of the mainline itself suffered from double management of rail troops from the People's Commissariat of Defense (PCD) and the People's Commissariat of Railways (PCR). Duality was supplemented by the weakness of railway troops. Rail units as part of the Karelian front were small, poorly equipped with tools, lifting pile driving machinery, trucks and tractors. There was an acute lack of restorative materials. All this did not provide the main – high pace of work. Restoring the main line lagged behind the growing needs of troops, affected negatively on delivery of all necessary to the front. It was necessary to immediately rebuild process control [35].

January 3, 1942 SDC (State Defense Committee) decided to unite all the forces and means intended to restore the railway and transfer them to the PCR. Railway troops stationed in PCD were also reassigned to Commissariat of Railways. The number of military personnel increased significantly. Combined military leadership was banned to use railway units not for intended purpose.

The People's Commissariat of Railways organized Central administration of military recovery operations (CAMRO), which headed all railway troops and special units of PCR. For direct management of them in CAMRO was formed railway troops administration with their staffs. At the Karelian front it was considered necessary to have Administration of military recovery and barrier work (AMRBW) and military base of restorative materials was organized. Creating AMRBW, uniting under its command all the construction and restoration forces and means. definition of their responsibility for the state of the front of communications gave this kind of activity a large scale, reinforced railway troops with highly qualified specialists, improved greatly the supply of current units on the front portion with reconstructive materials, equipment and machinery. They allowed a wider use of technical means of the PCR, to place on its enterprises orders for manufacturing necessary tools and materials [48, p. 1-3].

In the polar region, even quite real and visible advantages of adjustment of rail troops management were still relative. Still, it was managed to reduce significantly the total damage caused by the German–Finnish troops, especially their aviation to Kirov railroad. The huge space, on which battle took place, the need for mass transportation, including for major strategic operations in all areas turned Kirov railway into a military factor of paramount importance. It accounted for up to 80–90% of cargo turnover of the polar region and Karelia primarily military transportation. Major operations without aid of transport would have hardly been successful.

Centralizing management turned into centralization of transportation. In the desert polar region and Karelia it had a special significance. Kirov railway and Murmansk railway junction served army and navy strictly for military operations needs. Since physical and geographical specificity of the region merged with the feature of the operation of transport communications.

Deer-Ski transportation

One of the pages in the history of transport communications of the war years is associated with the appearance in front-line areas of the polar region and Karelia of guerrilla forces that since July-August 1941 [7, 16, 17] interacted with regular army units, making raids on the enemy's rear.

Participation of guerrillas is usually assessed in terms of the damage to the enemy. From this point of view, of course, we have something to be proud of. For example, only during the summer operations in 1942 guerrillas, among other things, organized seven wrecks of military

trains, blew up 18 railway and road bridges [49]. Over 38 months of war in the territories of the region they undermined 31 troop trains, 151 bridges, more than 10 km railway track, 236 cars, seven aircrafts, ten tanks and armored vehicles [49, p. 49]. But in this context, it is more interesting to highlight something else.

During the training exercise, and fighting guerrillas have mastered a particular form of transport for the Republic of Karelia and the polar region – deer sleds [6, 19, 41]. Deertransport units of the 14th Army were organized in the winter of 1941. They included Sami, Nenets, Komi and Russian. Deer vehicles were used in cross-country to send the wounded, to deliver military cargo, to transfer intelligence men behind enemy lines, to get motors with wrecked aircraft and their crews, to support communications with the border guards, conveying mail and reconnaissance on the ground.

In 1941–1944, deer transport took from the vanward 10 thous. men, delivered to the front in the lack of good roads 17 thous. tons of ammunition and military goods. They evacuated from the tundra over 160 wrecked aircraft, ferried to the far rear of the enemy to 8 thous. soldiers and partisans [58, p. 1].

In arctic conditions this unique transport was often the only one. Crawler tractors and cars stuck in the muddy roads, huge snowdrifts, in extreme cold and headwinds. But not the deer. On the sled on the poor road it was ease to penetrate into the enemy's rear. Reindeer food is unpretentious, deer does not require special care, gets its own food (silver moss, grass, leaves), never breaks silence – even the wounded, it did not make a sound. Moreover, it is very tough. Deer are able to overcome to 80 km per day in forced march.

During the war the herders-lovozertsy formed seven transports, gave the army and the front 5900 transport deer, 1700 sets of sleds for them, 1119 sledges [58, p. 2].

Formation of reindeer transport went on, however, with a long delay and in extreme haste. Only on 20.11.1941 a decree of the National Defense Commission was issued on mobilization from the national economy of Arkhangelsk region, Komi ASSR, Yamalo-Nenets Autonomous District: mushers – 1400 people, 10 thousand heads of deer, sledge 500 pcs.; on their arrival in Arkhangelsk until 01.01.1942 [58, p. 3].

Deer walked loaded from Pechora to Arkhangelsk and Murmansk on their own, along Kirov railway 2600 km. En route 222 deer fell from exhaustion, 710 were casted out for killing. Of the 4552 animals only 3600 reached an animal-breeding farm near Petrozavodsk. The total number of deer in the 14th Army during the war reached 5 thous. heads, somewhat less than it was in the 19th Army [58, p. 4].

In late 1941, the front of Murmansk and Kandalaksha directions stabilized. In defense gap to the rear of the enemy troops went skiing units and fighters on reindeer, reconnaissance groups, guerrilla groups and military units.

In March 1942, the 14th Army of the Karelian front received 12 deer-ski battalions, three of them were at the disposal of the 10th Army. Of the remaining nine battalions two teams were formed. On March 19 they both came to the front and took up defensive positions in the open left flank of the 14th Army on the 7-kilometer stretch of lake Nozhyavr to Lebyazhia River.

Hitler's command, learning about the creation of deer units sent aircraft to destroy reindeer herds moving for formation, sent special forces of subverters for their destruction [58, p. 4].

About real-life of fighters of deer-ski transport the investigator says: «The living conditions of the personnel of the brigades were extreme. The men huddled in snow pits covered with branches and ground sheets. Firewood was absent, raw branches of bush did not burn. Warm clothing and footwear was not enough. Food and ammunition were hauled intermittently. Many soldiers fell ill. Deaths of deer increased. Up to half of the military personnel daily was directed at clearing roads in the arrangement of the 10th Guards Division. This greatly exhausted fighters physically and mentally» [58, p. 5].





Yet combat missions were carried out. Deer-ski troops penetrated deep into the enemy rear, reached Revoniemi. It turned out to be difficult to organize and use methods of transportation. The material part of the air force, artillery and mortars were transported on special sledges, skis, towed behind the deer. Deer-ski battalions turned the polar night and the poor roads into their allies. They were engaged in transport operations, participated in the exploration, offensives, large raids behind enemy lines. A special place in transportation was taken by evacuation of the wounded, delivery of urgent mail, aviation assistance, participation in naval operations, crossing the rivers and bays.

Deer-ski units showed incredible resistance in the tragic Murmansk offensive in April-May 1942. In the extremely difficult conditions in the fighting army units received assistance from the hardy, cross country deer-ski units. On 3–11 May in frost, storm ice-crust was formed, impenetrable with hoof. Hungry deer stood. Herders climbed the rocks to collect moss for animals. They crumbled snow with ax to give the animals to drink. With great difficulty, they managed to get oats from Polyarniy. Deer-ski transport saved many dying, freezing soldiers and sailors of the 14th Army, the 152th Division and the 12th Brigade of amphibious assault [58, p. 8].

On 06.09–06.11.1944 the 3rd deer-ski brigade as a part of the 14th Army participated in the battles for Petsamo, Nickel, Rudniki, Kirkenes, for liberation of the Soviet polar region and Northern Norway.

In the rear deer-ski troops attacked German garrisons, strongpoints, mined roads. It was a difficult hike. «Fatigue was immense, monstrous fatigue...» [229, p. 9]. The effectiveness of a unique transport was nevertheless high. Herders drove through the mountains and swamps. Reindeer put in harness swam across rivers and lakes, bays without a sound. «The deer do not bark, do not howl, do not neigh, do not groan. Deer helped to survive and protect their homeland» [9, 1]. Nature, transport and people were unique as it was recognized later by the former commander of the Karelian Front, Marshal K. A. Meretskov [58, p. 9].

The most important part of the activities of management of Murmansk region and Karelia was evacuation of civilians from the war zone. From the region a large proportion of the population (115 thous. people) and large enterprises was evacuated almost immediately. The evacuation began at the end of June 1941 along Kirov railway, later - by ships to Arkhangelsk. Children, women who were not related to production, stocks of building materials and equipment of «Severonikel» plant, aggregates of Tulomskye and Nickel hydro stations were evacuated. Total outside the region were sent more than 8 thous. cars and more than 100 vessels [53, p. 4]. As of August 1, 1943 in the region there were only 824 enterprises (including collective and state farms, organizations and institutions), which employed 43,2 thous. people [46, p. 10; 51, p. 5; 53, p. 3]. Of 33 thous. people living in Monchegorsk in late June 28 thousand left the city [15, 36, 42, 43].

Caught in the frontline zone plant «Severonikel» was moved to Norilsk and partly on «Yuzhuralnikel». To Norilsk was evacuated almost all engineering and operating structure of the Kola plant. Operatively (almost urgently) 1086 cars and 886 cars of equipment materials were taken out. In the first days of July 1941 a «special purpose group» of 12 engineers and technicians and 13 workers was created quickly. They had to prepare for liquidation the basic objects and the remaining equipment in case of a direct threat of plant capture by the enemy. In the grounds of chimneys chambers for explosives were made.

In early 1942, the enemy attack was stopped. Murmansk capture failed. Ural factories were unable to meet the demands of the front in nickel. On May 18 State Defense Committee of the USSR decided to restore the plant «Severonikel». It began re-evacuation phase. Steelworkers, miners, designers, mechanics, electricians began to return. At the end of the month the first batch of young workers arrived from Ryazan, Yaroslavl and Kirov regions.

With the launch of reconstruction work raids by enemy aircraft became more frequent. Anti-aircraft artillery

battalion and squadron at the temporary airport began to defend Monchegorsk, the system of air defense of anti-aircraft batteries was also involved. Because of the bombing on Kirov railway line not all trains with equipment arrived in Monchegorsk, Tracks were damaged and also two stations Kumuzhia and Zheleznaya (15 km of the branch to Olenia).

The military situation and the proximity of the front to Kandalaksha forced to evacuate far inland strategically important enterprises, children, elderly people and women, not directly related to production. Men and equipment were sent by rail and by sea. Very large burden was placed on the seaport and railway junction Kandalaksha. Clear operational work of dockers and railway workers ensured the success of the operation for removal of goods and people. During this time, none of aircrafts, boats, cars with people and material assets suffered from enemy. In a short time the evacuation of the city and region with 5416 cars with production equipment and materials of «Apatit» plant and other enterprises took place.

Evacuation and re-evacuation

In Karelia, thanks to efficient organization, evacuation, although it was widespread, occurred without panic and confusion, and in a real front-line conditions. Enemy aircrafts fired train on Kirov railway, ships and barges on the Onega, Lake of Ladoga and other lakes, highways, on which population was evacuated. September 27, 1941 on Onega Lake enemy artillery attacked by fire the steamer «Kingisepp» and a barge with women and children. Few had a chance to escape. Of 536 thous. evacuated about 90-100 thousand lived during the war in the neighboring regions -Republic of Komi, Arkhangelsk and Vologda regions. More than 400 thousand, people were sent to Chelyabinsk region, Bashkir, Chuvash, Udmurt, Tatar Autonomous Republics and other regions of the Soviet Union. In the new places they had to wage a fierce struggle for survival, work selflessly to help the front.

During evacuation it was managed to promptly remove the equipment and property of 293 industrial enterprises of Karelia (without the White Sea-Baltic Plant), including Onega plant, Petrozavodsk ski and mice factory, Kondopoga and Senezhsky pulp and paper mills, the majority of enterprises of wood and wood-processing industry. Removed to the east, they were installed in a short time in new places, and began manufacturing products for the needs of national defense. So, the first trains with Onega plant equipment arrived in Krasnoyarskin August 1941, and in October already onezhtsy sent to the front first batch of shells, in December, the volume of total production was 1,5 times higher the magnitude of peacetime production. Equipment of 36 enterprises working until the last moment for the needs of the Karelian Front, had to be destroyed on the spot.

Most of the difficulty represented evacuation of collective and state farms, livestock, farm machinery. Cattle was to be moved with grazing for hundreds of kilometers. The possibility of using Kirov railway and water transport for agricultural goods were exhausted. Partially evacuated and handed over to the state: about 60 thous. heads (from 75.5 thousand) cattle, 20 thous. (from 25,6 thous.) pigs, 40 thous. (from 54 thous.) sheep, 35 thous. (from 45, 5 thous.) horses. As for food 21877 tons of flour and grain, 1100 tons of cereals and other products worth about 29 million rubles were transported by rail [28].

Most of the work on population and goods evacuation was done by water transport workers and railmen of Karelia. Water transport workers in summer of 1941 moved to the rear parts of the country more than 200 thous. tons of valuable cargo and 250 thous. people. Railway workers in July and November of that year sent 8076 cars with industrial equipment.

However, the difficult situation in some places resulted in confusion and spontaneous action. So, management of Kalevalsky area, fearing Ukhta capture by the enemy, at the first approach of the enemy forces hastily destroyed the food, supplies of non-ferrous metals and archival materials of state institutions. Ukhta was defended. In the area of Povenets bay of Onega Lake due to the frosts convoy of 19

ships with industrial equipment, goods, archive stuck. Raiding units and planes were sent to destroy these goods. Part of the property was burned, and some fell into the hands of the enemy.

To the rear parts of the country were evacuated institutions of science and culture. The state and party organs of the republic were sent from Petrozavodsk to Medvezhyegorsk and then to Belomorsk [49, p. 2]. Management of Kirov railway was transferred from Belomorsk to Kem.

After liberation of the territory of the Republic of Karelia in the process of re-evacuation more than 500 thous. people from almost 700 thous. pre-war population returned. Once again, a huge burden fell on rail and water transport. In September-November 1944, more than 50 thousand completely exhausted people were re-evacuated. The government rushed to assist them (allowance of 1000 rubles per family, temporary relief from cash taxes and compulsory deliveries of agricultural products to the state, assistance for those in need of footwear, textiles, etc.). From Leningrad to Petrozavodsk arrived the first car with teaching aids for schools in the city and the liberated areas of the republic [49, p. 2].

For country, people, victory

On defense of transport communications, towns and villages of the polar region and Karelia battle front merged with the labor front, where the railway men played a huge role. Not less than 33 thousand inhabitants of Murmansk, Arkhangelsk, Vologda and Karelia were mobilized to military construction. The participants of the labor front on the outskirts of Murmansk and Kandalaksha created several defensive lines. With the participation of the civilian population large-scale construction of trenches, gaps, bomb shelters was carried out [49, p. 4].

Murmansk port workers interacted with railway men. They took part in construction of long-term fortifications, erected 122 strengthening for 3700 people. According to labor mobilization during the summer (1941) enemy offensive on Murmansk citizens were building defensive facilities on the western shore of the Kola Bay. In other water bodies 1068 specialists were removed, 600 of Murmansk port workers went to the front, to people's volunteer army – 250. As a result, only 700 people remained working there. They guarded military cargo, port, railway junction, air defense system. They worked around the clock. They ate with soldiers. Dockers eliminated damage to access roads, built a section of Kirov railway from wood piers to the north, in the direction to Rosta [11, 44, 46, 47].

Transport communications (water, land and sea) took a leading position in «war economy» of the polar region. They were mobilized to fight not only for the survival of the home front, but also for strengthening of the army [55, p. 7–8; 54, 57]. In January 1942, through Murmansk went cargo flow of lend-lease. Unloading of the allied convoys was carried out at the port and railway junction around the clock, despite air raids of the enemy. All labor forces of the polar region, Karelia and a number of regions have been involved [25, 30, 31–34, 46, p. 10; 51, p. 5–62].

An important contribution was made by employees of Kirov railway. They ensured uninterrupted delivery of arriving on the lend-lease cargoes to their destination. The staff of Murmansk train depot built an armored train «Murmanets», which then took part in combat operations of Soviet troops [51, p. 6]. At a special position in the first days of the war were Kem railway men, who defended the bypass track (Soroka-Obozerskaya) - the main type of transport link of the polar region to central regions of the country (1941-1943). Railway men disrupted enemy aspiration to paralyze the work of the «road of life». Steam locomotives left depots only at night. The trains were moving without lights. With exceptional courage and skill locomotive crews took trains out from under bombing, delivered goods to their destination just in time. Regardless of time of at least 10–12 hours, all the railway men worked a day [20, 21, 27, 50, p. 2].

Work of Kandalaksha electric locomotive depot was completely rebuilt on a war footing. Railway men restored quickly destroyed by enemy aircraft railway junction, station facilities, tracks, bridges, repaired locomotives and cars, ensured smooth transportation of defense goods, including military vehicles, equipment and food. Besides repairing locomotives manufacture of fuses for antitank mines, individual nodes for mortar rounds, parts for crawler machines was established in depot [37, p. 4].

The slogan «All for the front, everything for victory!» has found its embodiment also in fundraising for the defense fund, which went for construction of tanks, aircraft and other military equipment. The residents of Murmansk region have handed over 15 kg of gold, 23.5 kg of silver, have invested more than 65 million rubles. In 1941, 2.8 million rubles were credited on establishment of the squadron «Komsomolets of the Arctic».

The railway men built at their own expense a squadron «Soviet Murman». More than 60 thousand gifts were collected and sent to the front for soldiers of the Red Army. School buildings in the settlements were converted into hospitals. Timur teams established patronage over the wounded in the hospitals, the bereaved families of soldiers. All this was done in front-line conditions, under constant attacks by enemy aircraft, saboteurs [45, p. 8; 46, p. 10].

At the initiative of dispatchers of Kandalaksha railway junction 4 million rubles were collected for construction of aircrafts and 1 million 134 thousand rubles on state loan bonds. Many physicians participated in donorship. During the war, the points of blood transfusion Murmansk region received 72470 donors. They provided with blood wounded soldiers of the Karelian and partially Leningrad front.

Railway men of Kirov railroad transferred 1140 thousand rubles in early 1943 to build planes, tanks and armored trains. Tank column «Railroader of Kirov mainline» was built using these funds. Tanks were placed at the disposal of Colonel-General Katukov (future marshal of armored troops). During the war the inhabitants of Karelia have subscribed to government loans, contributed to the construction of tanks and aircraft more than 126 million rubles of personal savings. Tank columns «Karelian farmer», «Railroader of Kirov mainline», combat aircraft «Karelian-Finnish donor», «Karelian pioneer» and others built on the money of the working people of the republic, fought on different fronts of the Great Patriotic War [22, 23, 38–40, 561]

Implementation of tasks of SDC depended largely on the state of air transport communications that came to the forefront of the fighting in 1942. In the context of the frontal area of the city, the settlements, Kirov railway and lake pier subjected to constant air strikes. Since the summer of that year Murmansk was badly bombed, on some days the Germans produced 15–18 attacks. Only on 18 June their aircraft dropped 12 thous. bombs. The fire destroyed more than 600 wooden buildings in the city.

Total from 1941 to 1944 in Murmansk occured 792 air attacks of the German Air Force [46, p. 3; 51, p. 3]. Luftwaffe dropped about 7 thousand high-explosive and 200 thousand incendiary bombs. In the city were destroyed and burned more than 1500 homes (3/4 of the total housing stock), 437 industrial and office buildings. The German air force regularly struck at Kirov railway. During the military operations in the polar region at every kilometer of railway mainline fascists dropped an average of 120 bombs. No wonder the German publicists called Murmansk «northern Stalingrad». Both cities are comparable in intensity of airstrikes and number of destruction. With the help of Air Defense Forces above Murmansk and the Kirov railroad 185 enemy aircraft were shot down in 1941–1943.

Despite constant bombing and shelling, Murmansk dockers and railway men of the mainline provided a continuous connection to the mainland. Along Kirov railway trains were moving around the clock [45, p. 8]. From the first days of the war Kandalaksha subjected to targeted air raids. City and especially the railway junction were attacked some days up to 15 times. For eighteen months the Nazis bombed 666 times a railway junction, but were not able to bring it out of operation [37, p. 3]. During the time of war





on Kirov railway 2800 enemy air raids were committed. Over 90 thous. bombs were dropped, 1126 railway buildings were destroyed, more than 500 locomotives, 4950 cars were damaged. Thanks to the selfless work of railway troops and mainline workers from Murmansk were sent far inland 1246 thous. tons of military equipment and military supplies, equipment and supplies received from Allies on Lend-Lease [35, p. 2]. Kirov railway functioned even in truncated form – after a temporary loss of its southern section and construction of a belt road line (Soroka–Obozerskaya).

Railway troops of the Karelian Front throughout the war engaged in technical protection of areas of Kirov railway. There were three track and two operating company commands of Railway Battalion. During Petsamo-Kirkenes operation (7.10–1.11.1944) the number of track battalions increased to four of the total number of 3631 people.

The northern section of the belt road from station Murmansk to station Kandalaksha length of 297 km was served by electric traction, and from station Kandalaksha to station Volkhovstroy - steam traction. In 1941-1942, the majority of air strikes were in areas with electric traction, and from 1943 - with steam traction (89%). Airstrikes were made irregularly (in 1941 - 475, 1942 - 1081, 1943 - 481, 1944 - 159) [48, 2]. In April 1943, of 524 bombs dropped by the enemy 89 were time bombs. At the beginning their elimination and neutralization caused delays of trains. Soon protection team uncovered «secrets» of Finnish and German fuses and neutralized bomb, not interrupting movement of trains. Particular attention was paid to technical exploration. It discovered the scene of fall of time bombs. In areas with intensive air raids arrived miners team of 2-3 people, equipped with necessary facilities for destruction of «gifts from heaven».

To combat enemy aircraft at major stations (Murmansk, Olenia, Imandra, Apatity, Kandalaksha, the Arctic Circle, Kem and other) district local defense units were established and antiaircraft weapons were put. Emergency trains went to the line with anti-aircraft cover or supported by fighter aircraft. Dealing with the consequences of enemy raids was made by emergency trains, track and bridge short exercise, communication short exercise, water supply and restoration of the contact network. To return to operation of major international facilities railway battalions were involved. They participated, for example, in reconstruction of the port of Murmansk, together with special units of PCR ensured smooth operation of Kirov railway. Behind all this stood courage, cold-bloodeness, courage and resourcefulness of port and railroad workers [24, 26, 48, 2, 3].

Conclusions. Transport communications and, above all people, serving them, became a steel support for unity of the front and rear, a solid foundation of victory.

REFERENCES

- 1. The combat activity of submarines of the Navy of the USSR in the Great Patriotic War 1941–1945 [*Boevaja dejatel'nost' podvodnyh lodok VMF SSSR v Velikoj otechestvennoj vojne 1941–1945*]. Vol. 1. Moscow, 1969.
- 2. In the battles for the Soviet polar region [*V bojah za Sovetskoe Zapoljar'e*]. Compiled by Krasnobaev, A. I., Zagrebin, V. P. Murmansk, Knizhnoe izdatelstvo, 1982, 271 p.
- 3. Marines in the fighting: Coll. of memories of soldiers of the 12th separate Red Banner Pechenga Marine Brigade of the Northern Fleet [*V bojah morskaja pehota: Sb. vospominanij voinov 12-j otdel'noj Krasnoznamennoj Pechengskoj brigady morskoj pehoty Severnogo flota*] / Comp. by S. I. Polyakov, V. P. Zagrebin. Murmansk, 1984, 70 p.
- 4. Elkin, G. N. Murmansk commercial Seaport: Historical background. 1915–1980. [*Murmanskij morskoj torgovyj port: Istoricheskij ocherk. 1915–1980*]. Murmansk. 2005, 123 p.

- 5. Railmen in the Great Patriotic War 1941–1945 [Zheleznodorozhniki v Velikoj otechestvennoj vojne 1941–1945]. Ed. by N. S. Konarev. Moscow, 1987, 591 p.
- 6. Zhurin, L. In the battle skiing and on reindeer sledges [V boj na lyzhah i olen'ih uprjazhkah]. Murmanskij vestnik, 1997, October 24.
- 7. For native Karelia. Partisans and underground fighters. The memories and documents. [Za rodnuju Kareliju. Partizany i podpol'shhiki. Vospominanija i dokumenty]. Petrozavodsk, 1990, 328 p.
- 8. Kabanov, P. A. Steel hauls [Stal'nye peregony]. Moscow, 1973, 326 p.
- 9. Karelia in the Great Patriotic War. The liberation from occupation and the revival of a peaceful life. 1941–1945. [Karelija v Velikoj otechestvennoj vojne. Osvobozhdenie ot okkupacii i vozrozhdenie mirnoj zhizni. 1941–1945]. Petrozavodsk, 2010, 510 p.
- 10. Kovalev, I. V. Transport in the decisive operations of the Great Patriotic War [*Transport v reshajushhih operacijah Velikoj otechestvennoj vojny*]. Moscow, 1969, 321 p.
- 11. Krasnov, V. N., Krasnov, I. V. Lend-Lease to the USSR [*Lend-liz dlja SSSR*]. Moscow, 2008, 246 p.
- 12. Kumanev, G. A. Soviet railway workers during the Great Patriotic War 1941–1945 [Sovetskie zheleznodorozhniki v gody Velikoj otechestvennoj vojny 1941–1945], Moscow, 1963, 208 p.
- 13. Kumanev, G. A. In the service of the front and rear. Railway Transport of the USSR on the eve and during 1939–1941 [*Na sluzhbe fronta i tyla. Zheleznodorozhnyj transport SSSR nakanune i v gody 1939–1941*]. Moscow,1976, 454 p.
- 14. Kumanev, G. A. The war and rail transport in the Soviet Union in 1941–1945 [Vojna i Zheleznodorozhnyj transport SSSR v 1941–1945 gg.]. Moscow, 1988, 388 p.
- 15. Kumanev, G. A. War and evacuation in the Soviet Union, 1941–1942 [*Vojna i evakuacija v SSSR*, 1941–1942]. *Novaja i novejshaja istorija*, 2006, Iss. 6, pp. 7–27.
- 16. Kupriyanov, G. N. Behind the line of the Karelian Front [*Za liniej Karel'skogo fronta*]. Petrozavodsk, 1982, 272 p.
- 17. Kupriyanov, G. N. In the name of the great victory. Memories [*Vo imja velikoj pobedy. Vospominanija*]. Petrozavodsk, 1985, 270 p.
- 18. The mainline of October [Magistral' imeni Oktjabrja]. Moscow, 1990, 344 p.
- 19. Mikhnyak, T. Sledding through Murman [Na uprjazhkah cherez Murman]. Lovozerskaja Pravda, 1994, May 23.
- 20. Morozov, V. M. The interaction of armored trains and infantry in the defense [*Vzaimodejstvie bronepoezdov i pehoty v oborone*]. *Zhurnal avtotransportnyh vojsk*, 1942, Iss. 6, pp. 38–42.
- 21. At the shooting range. From the experience of fighting of armored trains of internal troops [Na ognevyh rubezhah. Iz opyta boevyh dejstvij bronepoezdov vnutrennih vojsk]. Comp. V. F. Nekrasov. Moscow, 1986, 160 p.
- 22. Obraztsov, V. N. Rail transport in the days of the Great Patriotic War [Zheleznodorozhnyj transport v dni Velikoj otechestvennoj vojny]. Moscow, 1943, 62 p.
- 23. October frontline. Memories of railway men about the work of October mainline during the Great Patriotic War 1941–1945 [Oktjabr'skaja frontovaja. Vospominanija zheleznodorozhnikov o rabote Oktjabr'skoj magistrali v gody Velikoj otechestvennoj vojny 1941–1945]. Leningrad, 1970, 431 p.
- 24. In the memory of the fallen. The Great Patriotic War [*Pamjati pavshih. Velikaja otechestvennaja vojna*]. Moscow, 1995, 114 p.
- 25. Papanin, I. D. Ice and fire [Led i plamja]. Moscow, 1977, 416 p.

- 26. Pervushin, V. G. Human losses in the Great Patriotic War [*Ljudskie poteri v Velikoj otechestvennoj vojne*]. *Voprosy istorii*, 2004, Iss. 7, 116 p.
- 27. Potseluev, V. A. Armored trains of railways [Bronepoezda zheleznyh dorog]. Moscow, 1982, 112 p.
- 28. Razumova, P. A. Topic of evacuation in biographical stories of old residents of Petrozavodsk [*Tema evakuacii v biograficheskih rasskazah starozhilov Petrozavodska*]. *Uchenye zapiski Petrozavodskogo gos. un-ta*, 2012, Iss. 3, pp. 7–12.
- 29. Romanov, B. S. Piers of courage. Essay on the history [*Prichaly muzhestva. Ocherki istorii*]. Murmansk, Murmansk merchant port publ., 1977, 256 p.
- 30. Northern convoys. Research. Memories. Documentation. Iss. 2 [Severnye konvoi. Issledovanija. Vospominanija. Dokumenty]. Pomor international pedagogical university named after M. Lomonosov. Moscow, Nauka publ., 1992, 256 p.; Northern convoys. Research. Memories. Documentation. Iss. 3 [Severnye konvoi. Issledovanija. Vospominanija. Dokumenty]. Arkhangelsk, 2000, 364 p.
- 31. Northern convoys. Research. Memories. Documentation. Iss. 1 [Severnye konvoi. Issledovanija. Vospominanija. Dokumenty]. Russian academy of sciences, Geographical society of the USSR, Arkhangelsk branch, Arkhangelsk, 1991, 174 p.
- 32. Smirnov, S. A. Murmansk region during the Great Patriotic War [Murmanskaja oblast' v gody Velikoj otechestvennoj vojny]. Murmansk, 1959, 120 p.
- 33. The Allies in the war of 1941–1945 [Sojuzniki v vojne 1941–1945 gg.]. Moscow, 1995, 451 p.
- 34. Suprun, M. N. Lend-Lease and Northern convoys. 1941–1945 [*Lend-liz i Severnye konvoi. 1941–1945*]. Moscow, 1997, 364 p.
- 35. Terekhin, K.I., Taralov, A.S., Tomashevskiy, A. A. Warriors of steel mainlines [Voiny stal'nyh magistralej]. Moscow, 1969, 312 p.
- 36. The rear of the Soviet armed forces in the Great Patriotic War [*Tyl sovetskih vooruzhennyh sil v Velikoj otechestvennoj vojne*]. Moscow,1977, 165 p.
- 37. Fedorov, P. V. Controversial issues in the history of Murmansk 1917–1997: Concept. Judgments. Hypotheses [Spornye voprosy v istorii Murmanska 1917–1997: Koncepcii. Suzhdenija. Gipotezy]. Murmansk, 1998, 126 p.
- 38. Khabarov, V. A. Mainline [*Magistral'*]. Murmansk, 1986, 160 p.
- 39. Kharitonov, S. F. The story of the Great Northern Road [Rasskaz o velikom severnom puti]. Petrozavodsk, 1984, 144 p.
- 40. Kharitonov, S. F., Zvyagin, Yu. I. Murmansk. Kirov. October [*Murmanskaja*. *Kirovskaja*. *Oktjabr'skaja*]. Petrozavodsk, 1996, 158 p.
- 41. Sherstobitov, S. P. Deer transport at the front [*Na fronte olenij transport*]. In: The battles for the Soviet polar region. Murmansk, 1982, 272 p.
- 42. Echelon after echelon [Eshelon za eshelonom]. Ed. by A. S. Klemin. Moscow, 1981, 248 p.
- 43. Yudkov, S. Across the tundra, by rail [Po tundre, po zheleznoj doroge]. Murmanskij vestnik, 2012, September 22.
- 44. Cities-Heroes. Murmansk [Goroda-geroi. Murmansk]. [Electronic resource]: http://ordenrf.ru/geroy-murmansk.php. Last accessed 18.11.2015.
- 45. History. Battle for the polar region. Soviet troops in the liberation of Norway [*Istorija*. *Bitva za Zaploljar'e*. *Sovetskaja vojska v osvobozhdenii Norvegii*]. [Electronic

- resource]: http://www.perunica.ru/istoria/5855-bitva-za-zapolyarecovetskie-voyska-v-osvobozhdenie-norvegii. html. Last accessed 18.11.2015.
- 46. History of Murman // Kola encyclopedia [*Istorija Murmana* // *Kol'skaja enciklopedija*]. [Electronic resource]: http://ke.culture.gov-murman.ru/murmanskaya_oblast/5239/#100398. Last accessed 18.11.2015.
- 47. Kiselev, A. Feat of dockers and railway workers [Podvig portovikov i zheleznodorozhnikov]. [Electronic resource]: militera.leb.ru/h/ kiselev_aa/07.html. Last accessed 18.11.2015.
- 48. Kryukov, N. I. On the fronts of the Great Patriotic War. Book 3 [Na frontah Velikoj otechestvennoj vojny. Kn. 3]. [Electronic resource]: wap.yugmd/forum24 ru./?1-18-0-0000003-000-0-0-1236077489. Last accessed 18.11.2015.
- 49. Makurov, V. G. Karelia in the Great Patriotic War of 1941–1945. Historical essay [Karelija v Velikoj otechestvennoj vojne 1941–1945. Istoricheskij ocherk]. [Electronic resource]: http://monuments.karelia.ru/obekty-kul-turnogo-nasledija/kniga-velikaja-otechestvennaja-vojna-v-karelii-pamjatniki-i-pamjatnyemesta/karelija-v-velikoj-otechestvennoj-vojne-1941–1945-gg-istoricheskij-ocherk/. Last accessed 18.11.2015.
- 50. Little Kem in the great war [Malen'kaja Kem' v bol'shoj vojne]. [Electronic resource]: http://kemlibrary. karelija.ru/biblioteka_chitateljam/n_site 56/n-site 69. Last accessed 18.11.2015.
- 51. Murmansk 1941–1945 [Electronic resource]: http://www.gameru.net/forum/index/php?showfopic =35051. Last accessed 18.11.2015.
- 52. Murmansk Railway [Murmanskaja zheleznaja doroga]. [Electronic resource]: lexicon.dobrohot.org/index.php/Мурманская железная дорога. Last accessed 18.11.2015.
- 53. Murmansk region in the Great Patriotic War 1941–1945 [*Murmanskaja oblast' v Velikoj otechestvennoj vojne 1941–1945*]. [Electronic resource]: http://goda 1941–1945.narod.ru/napravlenie.html. Last accessed 18.11.2015.
- 54. Nikolaeva, A. S., Khramtsov, M. S. Ice routes. White Sea convoy in the fall and winter of 1941–1942 [Ledovymi trassami. Belomorskij konvoj osen'ju-zimoj 1941–1942 gg.]. [Electronic resource]: http://www.polarpost.ru/Library/Nikolaeva-trassami/main-nikolaeva-trassi.html. Last accessed 18.11.2015.
- 55. Polyarniy in the Great Patriotic War [*Poljarnyj v Velikoj otechestvennoj vojne*]. [Electronic resource]: http://srgvs.ru/poljarnyy-v-vov. Last accessed 18.11.2015.
- 56. 73rd autonomous armored train [73-j otdel'nyj bronevoj poezd]. [Electronic resource]: http://armyman.info/bronetehnika/bronepoezda/21353—73-y-otdelnyy-bronepoezd.html. Last accessed 18.11.2015.
- 57. Soviet Arctic routes in the Lend-Lease program during the first period of the Great Patriotic War (June 1941-November 1942) [Sovetskie arkticheskie puti v programme lend-liza v pervyj period Velikoj otechestvennoj vojny (ijun' 1941-nojabr' 1942 gg.)]. Arktika: ekologija i ekonomika, 2013, Iss. 3.
- 58. Sokolova, M. The unique division. Deer-transport battalions during the Great Patriotic War in the polar region. 2010 [Unikal'noe podrazdelenie. Olenetransportnye batal'ony v gody Velikoj otechestvennoj vojny v Zapoljar'e]. [Electronic resource]: http://urokiistorii.ru/2010/12/pobeda-9. Last accessed 18.11.2015.

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