



## Russian Pipeline Troops: Sustaining the Fight Across the Land and From the Sea

**OE Watch Commentary:** The Pipeline Troops are a special branch of the Russian Armed Forces' Material Technical Support Troops. They are intended to deploy and maintain fuel pipelines for the Ground Forces, Navy, and Aerospace Troops during combat activities. Field pipelines can be constructed easily and quickly (in good conditions), and moved when needed. In addition, they can transport fuel and water at much lower cost than other means of transportation in field environments or support fuel distribution from national stores to military district fuel depots and airfields.

Interest in military pipelines and bulk fuel distribution stemmed from the motorization and mechanization of the Soviet Armed Forces that began in the 1930s. The Soviets also successfully used military pipelines to support several operations during the Great Patriotic War (WWII). The domestic and foreign use of military pipelines was studied extensively, leading to new pipeline performance and design specifications. These new requirements led to the development of new (larger) Portable Trunk Pipelines (PMP). From the onset, the pipeline units were intended to integrate with the civilian pipeline infrastructure, as one of the battalion's first tasks was to conduct trials with Soviet Ministry of Oil Industry to test connection feasibility for joining military and civilian pipelines.

Throughout the 1970s and 1980s, new second-generation PMPs were fielded and used pressurized, steel pipes, which could be deployed faster with fewer personnel than previous systems. With modern pipe laying machines, assembly of the pipeline is fully automated. Pipelines were essential during the Soviet-Afghan War. Two pipeline systems, totaling over 1,200km, were built, one in the east (Hairatan-Bagram), and the other in the west (Turagundi-Shindand) that connected thirteen fuel depots and nine intermediate reservoirs. The 40th Army received 5.4 million tons via three pipelines, accounting for 80 percent of its fuel supply throughout the campaign.

By the time of the collapse of the Soviet Union, the Red Army had 24 pipeline brigades, six separate pipeline battalions, three separate pipeline companies, and eight separate pipeline platoons, totaling over 5,000 personnel. The Russian Federation has disbanded or downsized the pipeline brigades, and now uses separate pipeline battalions as the primary means of military pipeline support. (In terms of command and control, these separate pipeline battalions are part of the MTO brigades found in Army Groups.) The pipeline battalion consists of several pipeline companies, and can lay pipe at a rate of 60-80 km a day. A pipeline company can install and operate pumping stations, and for the operation and defense of their segment of the pipeline, to include patrolling, emergency services and maintenance. The company can lay the pipeline in the event that the automated pipe laying is not possible. When pipeline operations are no longer needed, the company's personnel dismantle the pipeline, and uninstall pumping stations.

Aside from military operations, the Pipeline Troops may also provide pipe laying and support of: strategic industries, operations in extreme climates, and operations to support natural and man-made disaster relief. The Pipeline Troops laid more than 240km of pipeline to support firefighting efforts to quell peat fires in the summer of 2010 that occurred in the Nizhny Novgorod, Vladimir, and Moscow regions. Perhaps the most recent and high-profile activities of the Pipeline Troops occurred after Russia's annexation of Crimea. After Ukraine cut water supplies, a pipeline battalion was deployed to Crimea and laid 52 separate pipelines, totaling 497km, to provide water for the civilian population.

The Pipeline Troops currently use first and second generation PMPs to support operations, and have begun to develop third generation PMPs. Current development efforts are focused upon increasing reliability to levels similar to stationary pipelines, resilience, and life-expectancy of equipment. The accompanying excerpted press releases from the *Russian Ministry of Defense*, discuss how Russia is employing tactical pipelines to support maneuver. Typically, these tactical pipelines would connect existing civilian pipe infrastructure to field distribution units, but the 6 September 2018 press release explains how tactical pipelines could be connected to tankers at sea to support ground operations. The Pipeline Troops will continue to be an essential Russian sustainment asset that can also support civil authorities in times of crisis. **End OE Watch Commentary (Bartles)**



TUM-150V Pipe Laying Machine.

Source: (left): Russian Ministry of Defense, [https://function.mil.ru/images/military/military/photo/SHI-DSC\\_9009%5B1%5D.jpg](https://function.mil.ru/images/military/military/photo/SHI-DSC_9009%5B1%5D.jpg), CC 4.0. (right): By I, ShinePhantom, CC BY-SA 3.0, <https://upload.wikimedia.org/wikipedia/commons/f/fa/TUM-150V-4265.JPG>.

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## Continued: Russian Pipeline Troops: Sustaining the Fight Across the Land and From the Sea

*“The main purpose of this exercise was for servicemen to rehearse the practical skills of deploying and pumping fuel through a PMTP-100 pipeline under complex terrain conditions.”*

**Source:** “Трубопроводный батальон ЮВО в рамках учения обеспечил подачу топлива войскам через реку в Волгоградской области (Southern Military District Pipeline Battalion Ensures Fuel Supply to Troops Across River in Volgograd Oblast During Exercise),” *Ministry of Defense of the Russian Federation*, 21 August 2018. [https://function.mil.ru/news\\_page/country/more.htm?id=12191866@egNews](https://function.mil.ru/news_page/country/more.htm?id=12191866@egNews)

*The Southern Military District’s Separate Pipeline Battalion provided troops with fuel over a floating bridge across the Karpovka River within the framework of a tactical special exercise on the Prudboy Range in Volgograd Oblast. According to the plan of the exercise, the pipeline battalion delivered fuels and lubricants to motorized rifle subunits more than 5 km distant from the refueling points...*

*The main purpose of this exercise was for servicemen to rehearse the practical skills of deploying and pumping fuel through a PMTP-100 pipeline under complex terrain conditions. This pipeline makes it possible to deliver more than 1,200 tons of fuel a day so as to refuel up to 10 ATs-5.5 troop refueling units an hour. In all, approximately 150 servicemen are involved in the exercise, and more than 50 items of military and special hardware have been mobilized, including a PSG-160 mobile fuel station and a PNU mobile pumping plant.*

**Source:** “Около 30 новейших бронетранспортеров Каспийской флотилии в ходе планового учения впервые обеспечили высадку морского десанта (About 30 Brand-New Armored Personnel Carriers of the Caspian Flotilla for First Time Support Amphibious Assault Landing During Routine Exercise),” *Ministry of Defense of the Russian Federation*, 6 September 2018. [https://function.mil.ru/news\\_page/country/more.htm?id=12194422@egNews](https://function.mil.ru/news_page/country/more.htm?id=12194422@egNews)

*About 30 brand-new BTR-82A armored personnel carriers of a Caspian Flotilla naval infantry subunit supported an amphibious assault landing during a routine bilateral company-level exercise.*

*Six Serna and Dyugon amphibious assault craft of the Caspian Flotilla delivered a company tactical group of naval infantry to capture a sector of coastline...*

*Within a very short time places for amassing, storing, and issuing supplies were established on the shore. A fuel depot deployed by the water’s edge organized the intake of fuel from a tanker via a flexible pipeline 400 meters long. The tanker ship VTN-57 provided the fuel and logistics support for the amphibious assault force, feeding fuel to the onshore depot via special sleeves. The fuel supplied amounted to more than 400 tons...*

*Taking part in the joint bilateral tactical exercise of the Caspian Flotilla and a motorized rifle brigade of the Southern Military District 58th Combined-Arms Army were more than 1,000 troops and about 400 items of military and specialized hardware were involved. The brand-new BTR-82A modification armored personnel carriers entered service with the Caspian Flotilla in 2018.*



Russian Pipeline Troops.

Source: Russian Defense Ministry, <http://mil.ru/images/military/military/photo/0605%281%29.jpg>, CC 4.0.