



## ATP 7-100.1, Russian Tactics: Logistics

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This article is an excerpt from the recently published Army Techniques Publication (ATP), 7-100.1 Russian Tactics, and will distill critical concepts from the doctrinal publication into shorter, more digestible pieces. ATP 7-100.1 Russian Tactics is the U.S. Army doctrinal reference of how Russian ground force doctrine indicates Russian ground forces will approach conflict. This article will examine Russian Army logistics capabilities to army, supply and maintain the Army during combat operations. The material is drawn from Chapter 3: Ground Forces of the Russian Federation, Chapter 5: Strike, and Appendix H: Material Technical Support of ATP 7-100.1.<sup>1</sup>

Material Technical Support – (Material'no-tekhnicheskoye obespecheniye) (MTO) services and support units of the Ground Forces of the Russian Federation (SV) critically address supply issues for Russian forces. This overview contains general information on the basic capabilities of MTO technical support means. Capabilities and limitations describe the level of support provided by MTO forces and any limiting factors. The employment and integration section describes how the MTO supports combined arms actions.

***The MTO mission is to provide the means to supply forces in a timely manner with all necessary resources supporting reliable battlefield actions and the rapid restoration of weapons and military equipment.*** MTO maintains not only the units but also the infrastructure for storage, transport, and technical support. MTO also provides for soldier health, well-being, and readiness with transport, consumer services, and sanitary and veterinary services.

The Russian Ground Forces holds the bulk of supplies and transport services at the military district and army levels. This allows rapid shifts in priority of support as dictated by the flow and pace of defensive or offensive actions. This system directs the flow of support to the units that are critical for success of the commander's plan. MTO units move equipment, supplies, and services from warehouses and depots to designated points using ground transport, rail, pipelines, and in limited cases, air. In some cases, certain support functions can be shifted to contract support from commercial providers to free MTO units for direct support to maneuver units and subunits.

The military districts may have a single or multiple logistic complexes depending on the number of armies in the district. These complexes are a mix of Soviet-era warehouses and ammunition dumps and modernized mobilization and support facilities. The modernized facilities, labeled transshipment and logistic complexes (Perevalochno-Logisticheskie Kompleksy (PLK)), serve as transshipment and logistics



complexes in areas considered by the General Staff to be threatened by aggressor actions.

Each PLK contains pre-positioned brigade equipment sets that include heavy weapons ranging from tanks to wheeled vehicles. For each brigade set of equipment it also packages and stores 2.5 times the full combat ammunition loads. Deploying SV units will leave their normal equipment at home base, move by air transport and fall-in on the sets available to the PLK. Complicating this process is the fact that SV units do not have standardized equipment sets which may result in personnel being unfamiliar with the equipment set at the PLK.

***A limited high-speed road network requires Russia to rely heavily on rail and barge transport to move units and equipment forward from the PLKs or home installations.*** Also, with limited heavy-airlift capability, even the airborne troops rely on ground and rail transport to move heavy equipment such as tanks for air assault missions.

The importance of railway transport in the Russian military is emphasized by the fact that it fields railway Troops within the MTO, dedicated to operation and maintenance of military rail. These units, consist of ten brigades, at an approximate strength of 29,000 soldiers, as well as independent battalions which are allocated to each military district. Deployment of the SV during large-scale war relies on transport by rail of most personnel, equipment, and supporting supplies railway troops not only perform operation of the railway but also repair rail lines, perform bridge building and repair, and conduct concealment as part of rail-based logistics support.

***Units and subunits typically stock three to five days of supply on organic vehicles. Units that are not the priority may not receive support and rely on organic stocks or forage for required supplies.*** Forward positioned support units prioritize returning lightly injured soldiers to their units and lightly damaged equipment to battle readiness. Heavily damaged units are consolidated into smaller units or combined with other units to create combat-ready forces.

Provisioning of supplies such as ammunition; petroleum, oils, and lubricants; technical and nontechnical supplies; and rations are prioritized based on the assigned mission for a unit. A unit of fire is the supply label for the quantities of ammunition allocated to a unit and for petroleum, oils, and lubricants it is a refill.

A unit of fire varies by type weapon, as examples, for a combat rifle it is 400 rounds, mortars are 80 rounds, a tank main gun is 40 rounds, and an artillery howitzer is based on the caliber of the gun system. The standard unit of fire for artillery is 80 rounds for 120 mm systems, 60 rounds for 152 mm systems, and 20– 40 rounds for 203 mm and 240 mm systems. The unit of fire for multiple rocket launchers is three loads of rockets per system. Based on the assigned mission a unit may receive multiple units of fire to achieve the number of rounds necessary to calculated desired level of damage or destruction on a target.

A refill is the amount of petroleum, oil, and lubricants required for brigade vehicles to travel 500km. Each combined arms brigade stocks three to five days of supplies on weapons platforms and organic transport. Maneuver units are fueled by battle formations at designated fuel points while artillery and special vehicles such as radio-electromagnetic warfare are fueled at its designated positions. The combined arms reserve is also fueled at its battle position.

## CAPABILITIES AND LIMITATIONS

***Combined arms maneuver battalions have few organic support units, normally only a platoon that performs maintenance and transport. The SV relies heavily on the detached support companies from the MTO battalion.*** Support platoons with transport and maintenance capabilities move supplies forward to the maneuver units, conduct limited maintenance support, and evacuate damaged equipment.

Fuel points have from 10 to 20 filling points and can dispense 1,000 to 2,600 liters per minute. A fully prepared refueling point using fuel tanker trucks or bladders can fuel a motorized rifle company in 10 minutes, a battalion in 30 minutes, and a maneuver brigade in 2 to 2.5 hours. Transport of fuel forward is performed by pipeline, train tank car, or truck and trailer transport.

Food is prepared three times daily when conditions allow. If in march formation meals are issued at the beginning and during the second half of the 24-hour march day. Soldiers are issued dry rations for the interval between meals. If conditions do not permit preparation of and issue of hot meals, then combat field rations are issued per the direction of the senior commander.

## EMPLOYMENT AND INTEGRATION IN COMBINED ARMS

MTO support focuses on maintaining the combat readiness of fire and maneuver units and subunits. It collects required supplies from designated supply warehouses and delivers them to the forward deployed units. It also evacuates wounded or sick soldiers as well as damaged or faulty equipment to care or repair points respectively. It delivers food, water, ammunition, fuel, and maintenance support based on the timing and direction of the senior commander's plan.

The SV uses established norms to calculate the supplies and support required for both defensive and offensive actions. Combined arms units at the brigade level and above have organic MTO units that provide the level of supplies and support required by the senior commander's plan down to subordinate subunits.

***At the tactical level the SV typically relies on push logistics support to accomplish the senior commander's plan for offensive actions. If the higher echelon does not have the resources to transport supplies to subordinate subunits, then the subunits will pull the allocated supplies using organic transport vehicles. Units and subunits may also pull supplies from higher levels during a defense or preparing for offensive action.***

Each maneuver battalion receives support from an organic MTO platoon that is subordinate to a MTO company. The platoon moves with the battalion during defensive and offensive actions. The platoon evacuates damaged or inoperable vehicles, transports rations, supplies, and provides other soldier life support functions. During a defense the MTO companies move forward to the rear of the fire and maneuver battalions to decrease the amount of time required to provide logistics support.

A medical platoon is also organic to the maneuver battalion. It also moves with the maneuver battalions during offensive and defensive actions. The medical platoon moves to the combat area to treat and prepare soldiers for evacuation to medical facilities by helicopters or ground transport. The medical platoon is focused on returning lightly injured soldiers to their units as quickly as possible.

## LOGISTICS SUPPORT TO FIRES

The required levels of materiel and technical support for tactical-level fires is defined during the commander's planning process. By allocating the type and source of fires for the operation, the commander defines the resulting requirements for supplies and maintenance necessary to accomplish the fire missions. Using nomograms that define the quantities or tonnage of ammunition, transport, and other services based on the type of fires selected dictates the logistics support required for initial and subsequent missions.

These known quantities simplify the process for planning and supporting actions. Supply and resupply are push logistics based on the expenditure norms. Units receive initial ammunition allocations based on the planned volume and type of fire against a given target. Transport of resupply moves to the receiving unit based on the planned sequence of fires or as required to support the senior commander's plan. MTO units create ammunition caches at designated open or closed firing positions based on the commander's plan. This allows firing units to move to a firing point and have designated ammunition quantities on site and ready for use.

Russian logistics operations during the so-called "Special Military Operation" in Ukraine highlight the vulnerabilities and limitations inherent in the design of a highly centralized logistics architecture that is dependent on highly vulnerable fixed infrastructure such as rail and pipeline connections.<sup>2</sup> Russian MTO troops continue to struggle to fill all operational logistics requirements of the Russian Ground Forces in Ukraine; however, recent reforms such as transitioning from the battalion to the more traditional regiment, division, and combined arms army have aligned the MTO troops with the supported commander and realigned the maneuver, fires, and MTO structures.<sup>3</sup>



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## SOURCES

- 1 ATP 7-100.1 Russian Tactics. (2024) 2024. C.1 ed. Fort Leavenworth, KS: United States Army. [https://armypubs.army.mil/epubs/DR\\_pubs/DR\\_a/ARN40737-ATP\\_7-100.1-001-WEB-4.pdf](https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN40737-ATP_7-100.1-001-WEB-4.pdf).
- 2 Russian Logistics and Sustainment Failures in the Ukraine Conflict: Status as of January 1, 2023. 2023. RAND Corporation EBooks, January. <https://doi.org/10.7249/rra2033-1>.
- 3 Watling, Jack, and Nick Reynolds. 2024. "Russian Military Objectives and Capacity in Ukraine through 2024." Royal United Services Institute. February 13, 2024. <https://www.rusi.org/explore-our-research/publications/commentary/russian-military-objectives-and-capacity-ukraine-through-2024>.