



New Fuel Bladders for Improved Mobility

OE Watch Commentary: During the annual Victory Day parade in Moscow on 9 May, the Russian military will display models of its latest weapon systems. This impressive display of firepower is designed to both commemorate the heroic deeds of the Great Patriotic War (WW II) and to assure the nation that Russia is prepared to defend against any external aggression. While certainly imposing, most military experts understand that employing these weapon systems is largely predicated upon a robust and versatile system of logistics. The accompanying excerpted article from the pro-Kremlin source *Izvestiya*, describes a new fuel storage system which could improve Russian military mobility.

Where in the past the Russian military used metal tanks to store and pump fuel, the article describes the development of “special pliable reservoir-bladders” holding “600 cubic meters of fuel,” and which “can refuel 14 fighting vehicles simultaneously.” The fuel-bladder system “consists of 12 ‘cushions,’ each holding 50 cubic meters in volume.” The system is largely temperature resistant, “able to function in ambient outdoor air temperatures from -60 to +50 degrees C.” The system can be up and running in less than 72 hours and can be deployed in just about any terrain.

The article quotes a military expert who points out that this new fueling system does “not require bulky special equipment during transportation, and this makes them super-mobile.” The system does not require “lengthy preparatory procedures when installing,” and he also asserts that “it is easy to stop leaks in the new technological containers.” The Victory Day parade will highlight advances in the Russian military arsenal. Less visible, but perhaps equally important, are developments in logistics which allow these weapon systems to maneuver on the battlefield. **End OE Watch Commentary (Finch)**

“The Defense Ministry has begun procuring ‘field fuelers’ for supplying fuel to vehicles in field conditions.”

Source: Aleksandr Kruglov and Bogdan Stepovoy, “Минобороны решило хранить топливо в ‘мешках’ (The Defense Ministry Has Decided To Store Fuel in ‘Bladders’),” *Izvestiya*, 12 March 2018. <https://iz.ru/716543/aleksandr-kruglov-bogdan-stepovoi/minoborony-reshilo-khranit-toplivo-v-meshkakh>

The Defense Ministry has begun procuring “field fuelers” for supplying fuel to vehicles in field conditions. The special pliable reservoir-bladders can be transported empty in small containers. It takes no more than 20 hours to fully deploy such a depository. According to experts’ assessments, the innovation will make it possible to reduce expenditures on transporting fuel and will significantly increase the durability and mobility of storage facilities.

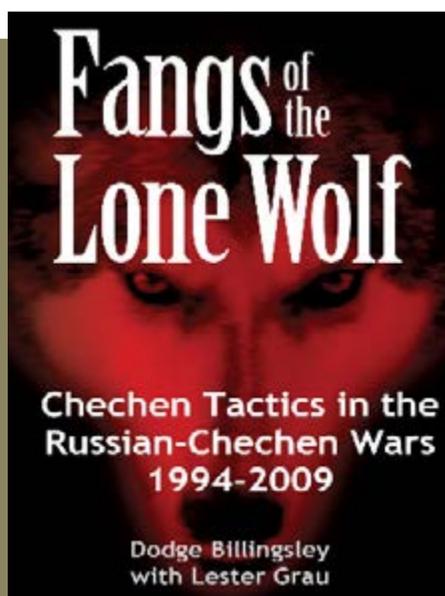
*The Defense Ministry has told *Izvestiya*: “The field fuel depot (PSG-600)” has undergone tests in the troops. Based on their results, a decision to adopt it as a supply source has been made.... The sum of the first contract for the PSG-600 field fuel depot’s delivery is more than 72 million rubles. This system can refuel 14 fighting vehicles simultaneously. A fully deployed depository holds 600 cubic meters of fuel. The pliable thermoplastic polyurethane reservoirs are able to function in ambient outdoor air temperatures from -60 to +50 degrees C.*

The field fuel depot consists of 12 “cushions,” each holding 50 cubic meters in volume. The field fueling system has a single automated control center, and all information relating to expenditure of fuel goes into its computer.

The time taken to fully deploy the PSG-600 is 20 hours. Assembling the depot requires only six people. Such mobile fueling systems may be rapidly deployed in field conditions and concealed within terrain irregularities. The flexible reservoir will be set up successfully on any ground -- on sand, stones, or boggy terrain and, in winter, directly on top of snow.

It is possible to begin filling the reservoirs already two days after the work of installing them begins. The PSG-600 makes it possible to take on fuel directly from railroad and motor vehicle tanks, oil tankers, and main pipelines.

*In conversation with *Izvestiya*, military expert Oleg Zheltonozhko described the concept of manufacturing field fueling systems from flexible and gasoline-resistant materials as promising. The new-style reservoir is far cheaper than its metal equivalent, he noted. “Such depots will lighten the rear services’ work during combat operations in difficult conditions,” Oleg Zheltonozhko said. “The polyurethane containers do not require bulky special equipment during transportation, and this makes them super-mobile. In the event of coming under fire, the storage facility can quickly be redeployed elsewhere. It can be relocated to a new place by several people. It is also of some importance that it is easy to stop leaks in the new technological containers.” The expert noted especially that, hitherto, it was impossible to proceed without lengthy preparatory procedures when installing a field fuels and lubricants station....*



Books on guerrilla war are seldom written from the tactical perspective and from the guerrilla’s perspective. *Fangs of the Lone Wolf*: is an exception. These are the stories of low-level guerrilla combat as told by the survivors. They cover fighting from the cities of Grozny and Argun to the villages of Bamut and Serzhen-yurt, and finally the hills, river valleys and mountains that make up so much of Chechnya. Dodge Billingsley, the primary author was embedded with Chechen guerrilla forces after the first war, so he knows the country, the culture, the key actors and the conflict. Yet, as a Western outsider, he is able to maintain perspective and objectivity. *Fangs of the Lone Wolf* provides a unique insight into what is becoming modern and future war.

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