

CREATION OF CBRN RECONNAISSANCE VEHICLE

Diadchenko V., Maliovanyi S., Linyvtsev O., Tur J.

Military Institute of Armored Forces of National Technical University "Kharkiv Polytechnic Institute", Kharkiv

In 2020, the Ministry of Defense of Ukraine decided to create a new domestic CBRN reconnaissance vehicle. A special CBRN reconnaissance vehicle will carry out radiological, chemical and non-specific biological (bacteriological) reconnaissance, conduct radiological and chemical surveillance, radiation and chemical control, sampling for analysis and transmission or reconnaissance data by short-wave (HF) and ultra-short-wave (VHF) radio stations to the automated command and control system. The priority direction of improving the special CBRN Reconnaissance vehicle is the creation of a universal modular set of equipment that ensures the collection, processing and transmission of data on the CBRN situation in real time.

To accomplish this task, the authors worked off the operational and tactical requirements (OTR) for a promising CBRN reconnaissance vehicle.

OTR is an ordered set of qualitative and quantitative indicators of operational characteristics that determine the purpose of a vehicle, its combat missions, objects of action, conditions of combat use and the level of efficacy that it must have in order to perform combat missions by subunits in the expected (predicted) conditions of the operation. OTR is the basis for the development of tactical and technical specifications to perform the corresponding research and development work (R&D), which, in turn, is the initial technical document and is approved by the customer of the R&D and establishes a set of tactical and technical requirements for the prototype of the CBRN reconnaissance vehicle, that is created, as well as the requirements for the content, volume and timing of R&D.

In accordance with the requirements of the guiding documents, the customer of the development of promising weapons and military equipment for the needs of the Armed Forces of Ukraine is the Commander-in-Chief of the Armed Forces of Ukraine.

This year, on the basis of the OTR developed by the authors, it is planned to open an R&D project to create a prototype of a special CBRN reconnaissance vehicle on a domestic chassis within the framework of the State Defense Order.

The following options can be considered as a base chassis:

- tactical combat wheeled vehicle "Dozor-B", that has wheel arrangement 4×4;
- armored combat wheeled vehicle "Kazak-2M1" 4×4;
- multifunctional tactical armored vehicle "Bars 8" 4×4.

The development of a domestic special CBRN reconnaissance vehicle taking into account NATO standards, the improvement of weapons and military equipment of the CBRN defense troops of the Armed Forces to the level of NATO member countries and the processes of implementing the provisions of international legislation in the field of CBRN defense into national legislation are important prerequisites for membership in the international cooperative security system.