

REQUIREMENTS FOR THE CREATION OF BATTLE SUIT OF "SOLDIER OF THE FUTURE" THE ARMED FORCES OF UKRAINE FOR THE NATO STANDARDS

Oborniev S., Liubas A.

Hetman Petro Sahaidachnyi National Army Academy, Lviv

The individual protective equipment of a fighter has been used for more than one thousand years and in its history has been changed in accordance with the change of weapon which is used in military conflicts, and at the present time it is necessary to take into account the methods and forms of conducting of operations, in which the main task is to save the life of a warrior. One of the important directions of rearmament of forces is the provision of modern means of navigation. The only one in Ukraine, the developer and manufacturer of devices of satellite navigation for aviation, sea and land objects, special equipment for use in the military, rail transport for severe operating conditions, is the State Enterprise "Orizon Navigation". The enterprise has organized a closed production process. Self-developed structural circuits and circuit layout, which are made for order at enterprises in the US, UK, Germany in a given performance. Further assembly of devices takes place directly at the enterprise. The company has already developed and adjusted production of more than 50 models of user units of satellite navigation data.

As you know, the feature of production created on the domestic enterprise is the ability to work on two satellite navigation systems – GPS (USA) and GLONASS (RF), and the latest models – also after the European system EGNOS. In prospect, the possibility of use of these devices with systems such as GALILEO (EU) and COMPASS (China), as well as WAAS (USA) and MSAS (Japan) are considered.

Today, for the Ukrainian Army, the question of creation of gear of "soldier of the future" remains rather relevant. So, the enterprise has already developed devices for land moving objects, as well as devices for personal use. First of all, this is about a product of the CH-3003M. For several years, these devices in various modifications are delivered to enterprises in Kyiv and Kharkiv; there are prospects for expanding the market. It is important that delivery of these devices is executed in the interests of the Ukrainian Army.

At the same time, specialists of the State Enterprise "Orizon Navigation" are working out the possibility of creation a modern portable computer connected to the navigation receiver for field operation in a format of an electronic tablet computer. A mock-up specimen of such

device is initially produced at the enterprise. According to experts, such form with its capabilities and compactness will be in demand in the future. In it will be used powerful calculators, advanced displays and new types of interfaces, including wireless.

In addition, today the company has been testing and introducing electronic cartography. The technology of converting and downloading electronic cards into the navigation device is developed. Vector maps that allow you to zoom in on a picture without losing the quality of the displayed data. Also, work is carried out on the combination of devices of satellite navigation with organic equipment of radio communication- digital and analog. And this is a very important direction of work. It's not a secret that most of the radio stations in the Ukrainian Army are analog.

In order to neutralize this situation and minimize the risks, modems are included in the kits of the serial equipment of the enterprise. All these developments are the basis of the equipment of the "soldier of the future".

IMPROVEMENT OF THE EFFICIENCY OF DETECTING OF NARROW-APERTURE LIGHT RADIATION USING OPTICAL- FIBER FABRIC

Vankevych P., Stadnyk V.

National University named after Ivan Franko, Lviv

Battle operations, special-purpose operations, often have to be carried out at night, accounting for partial secretiveness. One of the main dangers for the personnel is the presence of a panoramic observer or a sniper of the enemy. Behavior of the sniper depends on his task and usually specializes in choosing of the "target" and expecting of its 100% damage. At night, for personnel, such a combat unit of the enemy is especially dangerous because at close distances the risk of defeating of the "target" increases. A detailed analysis of the tactical behavior of the unit in a similar situation allows one to provide the theoretical basis for the development of a system of active protection of soldiers from the fire damage.

Under active protection of troops against fire damage, we will understand the active actions of the latter with respect to the alarms or dangers coming from special information systems. Sensory information system is provided to every serviceman and its sensitive elements can be placed on elements of combat equipment such as helmets, clothes and body armor.