

THE CONCEPT OF CAPABILITY DEVELOPMENT COMMAND, CONTROL AND RECONNAISSANCE OF AIR FORCE

*Milan SOPÓCI**, *Marek WALANCIK***

* Armed Forces Academy of general M. R. Štefánik in Liptovský Mikuláš
(milan.sopoci@aos.sk), ** Academy of Business in Dabrowa Górnicza
(mwalancik@wsb.edu.pl)

DOI: 10.19062/2247-3173.2016.18.1.8

Abstract: *The article deals with present conception of command, control and reconnaissance of Air Forces Slovak republic (AF SR). On one hand shows present state and on the other hand it shows trend for future years according rules and requirements NATO. The article pointed to that for all changes it need to change organizational structure and large defence sources for modernization weapons systems and armament.*

Key words: *Air Forces, command, control, reconnaissance, modernization, armament,*

1. INTRODUCTION

The submission of Concept development capabilities command, control and reconnaissance Air Force emerged from the conclusions of the expert group's Strategic Defence Review, the Ministry of Defence for the needs of elaboration of the Development Plan OS SR until the Year 2024th.

The aim of the concept of development capability command, control and reconnaissance Air Force is to analyze the current situation and proposal for further procedure development command, control and reconnaissance Air Force of the Armed

Forces of the Slovak Republic. It should provide the basic framework for the development of requirements for complex and interrelated development of all aspects of operational capabilities (area doctrines, organizational structures, training, arming, preparing leaders, staff development, infrastructure and interoperability). Further developing the command, control and reconnaissance Air Force of the Armed Forces of the Slovak Republic should ensure the elimination of negative trends and achieve the necessary operational capabilities for the smooth execution of the tasks under the relevant general statutes, the

Defence Strategy, from Slovakia's membership in NATO, EU and to ensure the fulfillment of commitments under international agreements of the Slovak Republic. Further developing the command, control and reconnaissance Air Force, the Armed Forces of the Slovak Republic should ensure the elimination of negative trends and achieve operational capabilities necessary for the smooth execution of the tasks of protection and defense of airspace, national and international crisis management.

2. CURRENT STATUS OF COMMAND, CONTROL AND RECONNAISSANCE IN THE AIR FORCE(1).

Command, control, radar and radio survey of the Air Force is ensured by forces and means of the brigade command, control and reconnaissance (bvrps Zvolen), which is equipped with LETVIS, 3D medium range radars (P-37, ST-68 MSK), radar rangefinder short range (RL-4AM), radar altimeter (PRV-16) and the system of radio-technical means RATES (KRTP-81E, KRTP-86E). Last year, elements of command, control and reconnaissance provide airy sovereignty of the Slovak Republic within NATINADS, assigned forces and means operating center (OPCEN) and companies of radar recco of brigade command, control and reconnaissance (bvrps) in continuous mode. In the area of responsibility of the air force was captured by emergency means, tracking and locking 407,442 air objects (which is an average of 60 per hour). After evaluation of air objects and allocated to that identity was radar information send as a complete picture of air situation (RAP - Recognized Air Picture) on the CAOC Uedem in Germany. Air navigators (RRBP) of central point of guidance (CMN) made 1439 guidances for air objects.

BVRP organizational structure comprises:

- Operations Centre
- Recco radar batalion
- command support company

3. IMPLEMENTATION OF TRAINING

Bvrps staff training is mainly focused on the changing workplace of declared forces for SACEUR as well as other units providing emergency system Air Force. The staff is trained according to national criteria at the level required prerequisite for further increasing the level of training in preparation for the evaluation TACEVAL. The performance of tasks is affected by both a lack of fullness units at the expense of overtime and on the other hand, the limited amount of flight hours of fighter aircraft. Further increasing the number of trained personnel is dependent on personal repletion units and the allocation of financial resources earmarked for training. OPCEN is the main control unit NATINADS and Emergency system of Air Forces. Its staff is dedicated to the management of forces and means within NATINADS. At present OPCEN 84.5% manning of these critical expertise. Of this number it is to ensure shift operation intended 85%. Continuous service is ensured in 24 hour shifts. Current state of training of personnel is at 97% according to national criteria. The main components include OPCEN CRC, CMN and StrROP. Achieving NATO FOC is conditional upon retraining personnel for training and training centers NATO.

CRC since 2006 is declared unit under the command of SACEUR. CRC exercise command and control forces and means in carrying out defense of the airspace of the Slovak Republic within NATINADS. Its staff performs continuous monitoring and evaluation of airborne objects within the airspace SR / NATO within range radars . The service is carried out in continuous mode. Current state of training of personnel at the level is 92%. according to national criteria. Achieving NATO FOC is conditional upon retraining personnel in training centers NATO. CMN serves to ensure the continued provision of air traffic control services. Its staff performs continuous management of air traffic in the allocated area of responsibility and ensures the fulfillment of tasks of combat use of fighter aircraft the Air Forces and NATO in the airspace of the Slovak Republic.

Current state of training of personnel is at 59% according to national criteria. Achieving NATO FOC is conditional upon retraining personnel in training centers NATO.

Centre for control of operations serves as a command post of commander of the Air Force to perform tasks in a state of safety and during the combat readiness. It is a tool commander in solution of crisis situations and duties of National Crisis Management. Manages and coordinates the activities Air patrol and rescue service and participates in cooperation with other components of the integrated rescue system SR. . Currently, 96% of manning of expertise. Current state of training of personnel is at 96%. The main task of the recco radiolocation batalion is to provide command and control to six radar recco companies and two companies of radiotechnical reconnaissance in performing continuous radar and radio recco of airspace SR / NATO within range of their technical means. The main task of these units is to implement a continuous survey RL Airspace SR / NATO emergency changes (identifying, monitoring and evaluation of airborne objects), maintenance, repair and adjustment of radar systems.

4. WEAPONS

Currently, the basic command and control system of the Air Force SR is system LETVIS. This system is its primary purpose designed for the collection, processing and distribution of information on airborne objects, completed to the functionality of planning and management of combat operations of active means.

Radar reconnaissance

The armament of the brigade command, control and recco is the six pieces of three-dimensional (3D) radar medium-range P-37MSK and two pieces of ST-68 MSK, 4 pieces of two-dimensional (2D) radar short range RL-4AM and 3 radar altimeter PRV-16 . The current technique, except RL-4AM is of Russian origin. All the equipment is built based on outdated elements base, which always makes it difficult to procure spare parts for its operation and maintenance. SR as a member state of the EU and NATO has a common border with Ukraine, is therefore a priority coverage eastern borders (Schengen border) focal radiolocation field for small and medium altitudes (below 3,000 meters). This tasks can not comply with the current technology.

Radio-reconnaissance

The armament of the brigade command, control and survey are two sets of radio-recco KRTP-81E and KRTP-86E. They are mobile radio-technical reconnaissance means designed to analyze radio-signals, identification and tracking air and ground targets. Technical life KRTP- 81E-up in 2016 and KRTP-86E in 2019.

5. TARGET STATE COMMAND, CONTROL AND RECONNAISSANCE IN THE AIR FORCE (2,3).

Organizational structure.

Wing command, control and survey will formed, which is to provide command and control of forces and means earmarked to the standby system of Air Forces SR, that perform continuous radar survey of the airspace of the Slovak Republic in the integrated air defense system of NATO - NATINADS.

In addition to the tasks of command, control and reconnaissance within a NATINADS Wing command, control and reconnaissance ensure:

- Support and ensuring the Air Force Command,

AIR FORCE AND AEROSPACE ENGINEERING

- Radio-technical reconnaissance (ELINT) to support news alert system (SVS) ,
- Intelligence support for the General Staff of the Slovak Armed Forces, military SIGINT center and ISTAR,
- Meteorological support OS SR.

The primary role of personnel management is to ensure the continuous staffing the professional soldiers with the required skills and expertise in the ranks to achieve the desired state(4).

This is directly for:

- To provide new, efficient replenishment system and training of key personnel,
- Ensure better links between education at school and training facility in NATO,
- Create the conditions for continuous career growth and stabilization of the staff.

Training

Staff training will be carried out after the purchase of new vehicles from 2016 to 2020 (2017-2021). Suppliers of equipment shall be provided under a contract for purchase of equipment and execution of operator training instructors manufacturer of military education to the highest level of operation and maintenance in conformity with the technical documentation in the Slovak Republic. The number and duration of training is also part of the contract. The Training Supervisor shall issue a certificate of competency to train additional staff. Further training new personnel will be carried out by personnel holding a certificate own forces and means.

Within the deadlines specified by the SHAPE / HQ Allied Air Command Ramstein achieve and maintain the required level of training to implement the CRC certification TACEVAL. To achieve adequate NATO staff qualifications CRC and CMN is necessary to ensure that they are sending to the foreign professional training attested by valid certification NATO.

Weapons

Command and Control System It will be necessary to complete the enlargement process classified (classified) part of the network system LETVIS in recco radar companies.

Radar and radio survey

Tips and amount of resources radar and radio survey needed for variation amendment, based on a study of the current radar coverage of the Slovak territory and analysis of current status of radar and radio equipment, the figure 1

Elements of reconnaissance

In accordance with the above documents, strategic defense review and program plan armaments needed replacement of 6 pieces P-37MSK for 3D medium range from 2016 and 4 pieces RL-4AM for 3D small range since 2017.

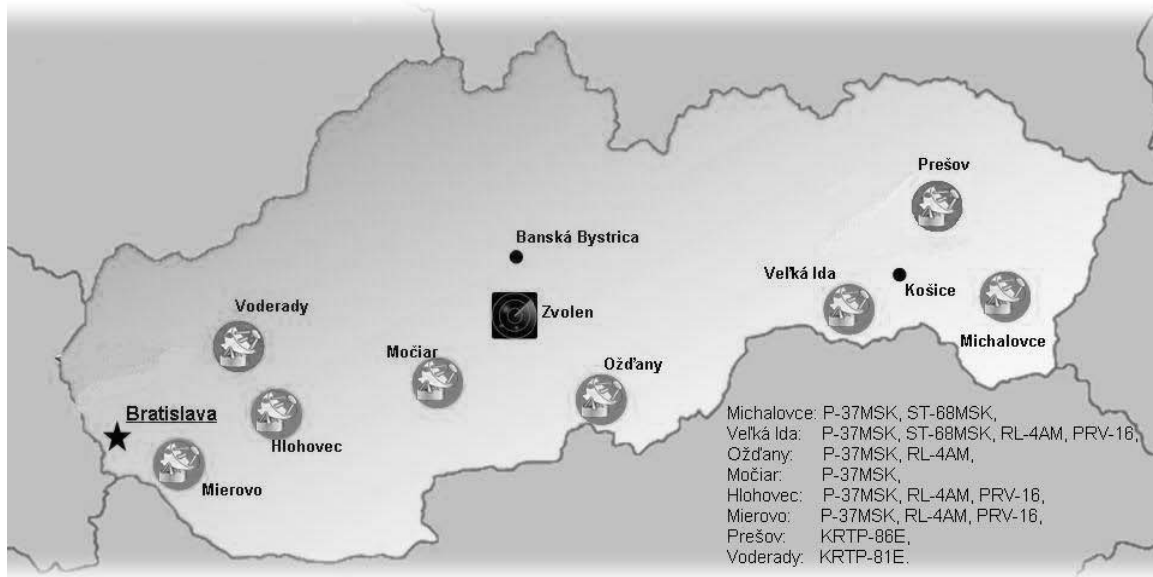


FIG.1. Reconnaissance system of Slovak Air Forces

As part of the purchase will also address the need to purchase a special work for repairs that takes into account the technologies used and the above prophylactic work, including the creation of adequate storage facilities for the storage of special components . In accordance with these documents it requires the purchase of 2 pieces of new mobile radio-technical reconnaissance means in the years 2016 and 2018 as a replacement for KRTP-81E and KRTP-86E.

CONCLUSIONS

Development capabilities command, control and reconnaissance Air Force of the Armed Forces of the Slovak Republic should ensure the elimination of negative trends, both in terms of available financial and material resources, as well as in training for staff to achieve and maintain the necessary operational capabilities for the smooth execution of the tasks of defense a national crisis management. To develop competency command, control and research will be needed by 2024 to implement a series of gradual measures consisting:

- The preparation of CRC and realization evaluation of TACEVAL,
- Ensuring the resources for infrastructure maintenance,
- Variations in the implementation of radar and radio equipment.

To procure new radar technology and key security technologies is necessary to ensure the maintenance of existing operational capabilities and regular:

- Supplementing staff,
- Training and education of personnel
- Providing resources for the maintenance of safety equipment,
- Ensuring the resources for infrastructure maintenance.

REFERENCES

- [1] *Evaluation of AF SR* , NADC team, Zvolen 2003.
- [2] *Long-term plan of the structure and development of the Slovak Armed with a planning perspective to 2024*, MOD SR, Bratislava, 2014
- [3] *Conception of command, control and reconnaissance of Air Forces Slovak Republic*, MOD Bratislava 2014
- [4] Sopóci, M. – Walancik, M.: *Conception of competences development of Air Defence of Armed Forces. In. AFASES international conference*, AFA Brašov 2015, ISSN 2247-3173.