

Methodology for Training in the Use of Radiotelephone Procedures in the Navy

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ABSTRACT: Learning the radiotelephone procedures and rules for naval operations in allied and coalition format is a challenge for the training of communications specialists. This paper proposes a training methodology developed on the basis of an adaptation of the approach described in Allied Communications Publication – ACP 125 Communication Instructions Radiotelephone Procedures. An experience acquired after many years of studying the document with cadets from the Bulgarian Naval Academy is shared. The paper identifies the main paragraphs subject to adaptation, lists the added examples and explanations, and points out some specific features during the practical play through of scenarios in simulation environment.

1 INTRODUCTION

The accession of the Republic of Bulgaria to the North Atlantic Treaty Organisation made the Navy face the necessity to adapt its command and control system to the new realities in the sphere of security and defence. The communications and information system can be pointed out as one of the priorities in this aspect, in particular its construction and development in the context of the present-day requirements. According to the definition in the regulating documents, it is a unified, integrated organizational and technical complex of equipment, methods, procedures, services and personnel, organised in support of command and control (Доктрина за комуникационно-информационната система на Въръжените сили на Република България, 2012; Allied Joint Doctrine for Communication and Information Systems, 2005). It is well known that procedures play a key role in the successful functioning of the system, and particularly the radiotelephone procedures – for the completion of tasks by tactical units. This paper discusses a methodology which facilitates the training of

operators in the use of voice procedures and rules adopted in the Alliance.

2 METHODOLOGY FOR TRAINING IN THE USE OF RADIOTELEPHONE PROCEDURES IN THE NAVY

It is well known that in its most general sense the term methodology refers to an algorithm or procedure for the performance of a certain action in order to achieve a particular result. Methodology in the context of educational work can be viewed as a set of techniques, forms and means for training, the application of which enables a higher degree of acquisition of the learning material (Коджаспирова & Коджаспиров, 2005).

The methodology of training in a certain matter must include a learning objective and a practical objective, as well as means and methods of achieving them.

The methodology proposed in this paper has been designed in accordance with the curricula at the Bulgarian Naval Academy and is intended for the training of military cadets. It has been developed on the basis of an adaptation of the approach used for presenting the radiotelephone procedures and rules in the Allied Communications Publication ACP 125. The aim of the methodology is to enable the acquisition of learning the basic procedures and rules and to facilitate their application in the radio nets of the Navy, both during combined operations in allied or coalition format and in national exercises. The facilities required to achieve this goal include a student textbook, classrooms and specialised simulators used within theoretical and practical lessons.

The aim of ACP-125 is to prescribe the voice procedure for use by the armed forces of Allied nations on tactical voice nets (*Communication Instructions Radiotelephone procedures*, 2001). It is beyond any doubt that, in view of the detailed instructions and the description of the operating rules in the publication, this aim is successfully achieved. However, our systematically conducted observations, in the course of almost 10 years, of the process of studying the document at the Bulgarian Naval Academy, has led to the conclusion that certain parts need to be explained in the native language of the trainees, in combination with easy-to-understand examples. The methodology discussed here includes the adaptation of the following main paragraphs from ACP-125:

- 1 Pronunciation of letters;
- 2 Pronunciation of figures;
- 3 Rules for spelling;
- 4 Rules for figures;
- 5 Messages;
- 6 Message format;
- 7 Procedure words;
- 8 Establishing communications;
- 9 Radio check, signal strength and readability;
- 10 Transmitting a message;
- 11 Relay;
- 12 Repetitions;
- 13 Corrections;
- 14 Cancelling messages;
- 15 Read back;
- 16 Verifications;
- 17 Delayed executive method;
- 18 Immediate executive method.

It can be seen that the selected sequencing the study of the essential part, namely the voice procedures and rules, is preceded by acquainting the trainees with the rules for pronunciation and spelling of letters and numbers, as well as with the different types of messages and their main components. Special attention is paid to procedure words, particularly to understanding and applying them correctly. As new elements in the proposed methodology, apart from the explanations in the native language of the trainees and the easy-to-understand examples mentioned above, there are specifically designed materials. Their purpose is to support the practical work in a simulated environment. A significant part of these materials is aimed at facilitating the acquisition of the delayed executive method. The reason for this emphasis is the relatively frequent use of the

executive method for information exchange between ships on a tactical level, which is the level for which the cadets of the Bulgarian Naval Academy are being trained. The design of the supplementary materials to go with the presented methodology is based on the lessons learned from the annual exercise of the Bulgarian Navy with international participation, Breeze. Thus, as part of the training process, before reaching the practical classes, the cadets are informed about the contents of some basic documents for the exercise. For example, from the exercise plan (Explan) they learn about the participating units and serialized schedule of events, and from the communications plan – the scheme of the radio communication, main tactical nets, voice authentication procedures, distress and safety frequency plan, and microphone call signs. In view of the fact that on this stage of their training at the Bulgarian Naval Academy some of the cadets have already participated in the Breeze exercise, the additional information provided to them evokes a really rich situational picture. This enables them to be confident to work within naval tactical groups in the simulation systems. In these conditions they play through tactical maneuvering, merchant traffic monitoring exercise, screen exercise, search and rescue, naval communication exercises, floating target firing practice, etc. In this way the cadets receive an opportunity to apply the radiotelephone procedures and rules in an environment which facilitates the consolidation of practical habits. Furthermore, as mentioned above, a significant part of the voice procedures is directed at the practice of delayed executive method. To this end the trainees exchange tactical signals related by time and intent with the conducted operation, which additionally reinforces the sense of realism and enhances the effectiveness of the discussed methodology.

3 CONCLUSIONS

This paper presents a methodology in training in the use of radiotelephone procedures designed on the basis of an adaptation of the Allied Communications Publication ACP-125 *Communication Instructions Radiotelephone procedures*. Its development has utilised the conclusions made in result of many years of observing the process of training in communications and information support to the benefit of the enhancement of the accessibility of the learning material. The proposed explanations and the integrated supplementation facilitate the training effectiveness and are an important stepping stone for the development of practical work habits. The developed methodology is closely related to practice and is currently being used at the Bulgarian Naval Academy with success. This fact is an evidence for its adequacy and expediency.

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