

ABSTRACTS

Key words: network-centric warfare, integrated information and control space, combat command units, information technologies, information resources

Maksimov N. M.

The essential guidelines in creation of the Russian Navy integrated information and control space as a basis for the Russian Fleet network-centric control system

Practical issues for the Russian Navy's integrated information and control space creation are viewed in the paper.

Key words: vacuum diffusion, composites (material), reinforcing glass fibre, degasification process, hull

Biryukova M. N., Vedenetskiy A. V., Sofronov A. Yu.

New technologies of the Sredne-Nevisky Shipyard

The Sredne-Nevisky Shipyard was among the first in Russia to build fiberglass plastic ships for the Russian Navy and export needs. Technologies of shipyard composite production were extensively and thoroughly updated in the nineties. Great experience of composite shipbuilding was implemented as a new unique technology, intended for forming by the vacuum infusion procedure monolithic composite hulls, the largest in the world, with the length about 62 meters.

Key words: submarine, integrated combat control system, distributed computer system, radar and sonar means to present picture of (tactical) situation

Mashoshin A. I.

Building of the integrated combat control systems — the way to enhance combat invulnerability and performance of submarines

The issues of making of an integrated combat control system (ICCS) which enables to increase quality and efficiency of submarine and its weapon control, to decrease needed personnel, to improve reliability, to reduce hardware component and spare, to abate development and production expenses are presented in the work. The results of the ICCS creation will be the most complete, if the ICCS integrates all hardware and combines it in a computer-aided combat control contour meant for all officers participating in ship's control. These facts are stated in the paper.

Key words: internal waterways, Automated control system of technical and auxiliary fleets, River Information Services (RIS), safety of navigation

Petrieva O. V., Rudy'kh S.V., Sikarev I. A.

The block diagram of an automated control system of technical and auxiliary fleets on internal waterways of Russian Federation

The purpose of article is structural and logical synthesis of structure of the automated control systems of technical and auxiliary fleets on internal waterways.

Key words: radar, phased array, low skimming targets

Guskov Yu. N., Loginov S. N., Moibenko V. I.

Sea-based radar for low skimming target detection

The version of a radar structure, which is efficiently detects low skimming targets is proposed. The radar consists of two phased arrays (PHAR), which are mounted on different heights and destined to transmit and receive signals.

Key words: radio transmitter, power amplifier, signal spectrum, microprocessor

Balakhonov A. N., Katanovich A. A., Muravchenko V. L.

The outlook for new technologies application in the Russian Navy's radio transmitting aids of communication

An alternative structure of a shortwave transmitter is proposed. A microprocessor is used both for transmitter control and for forming of signal with the different emission classes directly at the final stage of amplification. Preamplification circuit unification and signal forming, lack of RF harmonics, shortening time of frequency tuning are the received positive results.

Key words: control and correction station, satellite radio navigating system, radio range, differential subsystem

Andryushechkin Y. N., Karetnikov V. V., Rudy'kh S. V.

Features of the transfer of correcting information in the local differential subsystems

In article questions of the analysis of amendments transferred in sea local differential subsystems are considered.

Key words: monitoring, information situation, networking warfare, combat ship stability

Yemelin V. I., Stepanchenko S. N.

Information situation monitoring for providing the ship combat stability and ship control in real time in the course of network-centric warfare

In the frame of stated requirements on network-centric warfare the main directions of information technology developments in the field of passive location are considered in the paper.

Key words: military electronics, radio communication, radar location, radar, academician Berg A.I..

S. Yu. Ivanov

70-th anniversary of military electronics and the 120-th anniversary of academician A.I.Berg, the science creator

The paper is dedicated to the outstanding contribution to the Russian electronics development and creation, which was made by academician A.I.Berg. The main periods of his scientific activity, the pathways of marine electronics evolution are presented in the work.

Key words: the Baltic fleet, people's commissar of the Russian Navy, submarine, commander of submarine, depth bombs, enemy convoy, combat operations, attack, torpedo

Smolenkov A. M., Shum N. S.

On the 100-th anniversary of A. I. Marinesco

The paper is dedicated to the 100-th anniversary of A. I. Marinesco. The most significant periods of his life, active service Marinesco A.I in the Navy, the commander of the Baltic Fleet's legendary submarine «C-13», Hero of the Soviet Union are given in the paper.

Key words: radar, radio intelligence, foreign states'experience, integrated (united) information and control space

Baishev V. M., Ivanov S. Yu., Popov V. A.

Active and passive radio aids, used in the system observing the situation in the interests of a ship group

An analysis and estimation of the foreign states' radar and radio intelligence station capabilities when they are used in combination in order to generate situational data in the frame of the integrated information and control space are performed in the work.