



Ontomap–V2

Destination

The Ontomap–V2 shipborne hydroacoustic calculation special software package provides the acoustic calculations (modeling) of the acoustic field for two-dimensional heterogeneous medium, supports the estimate of anisotropic dynamic sea noise and reverberation, the estimate of sonar range and tactical situation control based on sonar data.

Missions:

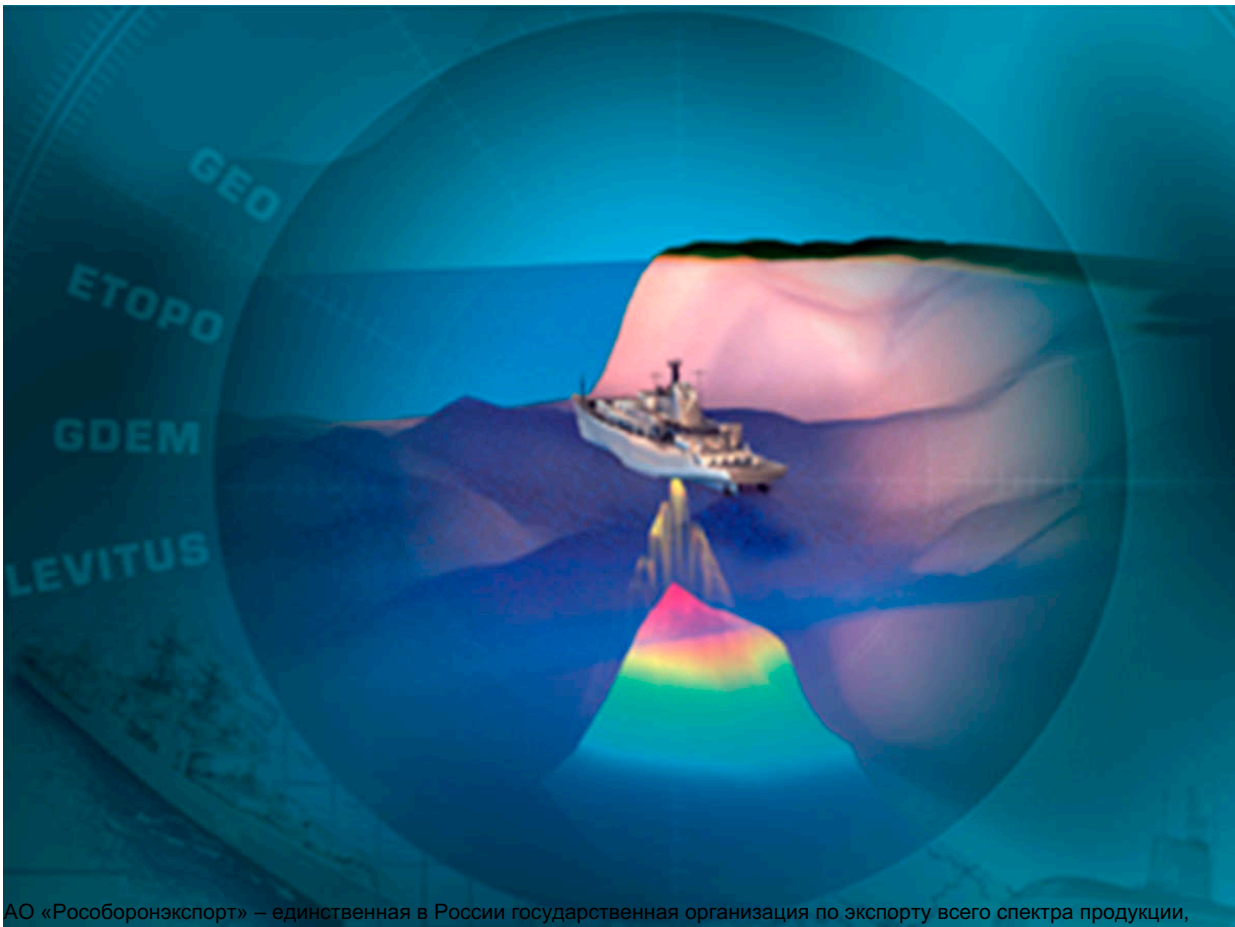
- determination of operational range and surveillance zone outlines for sonar systems featuring different types of arrays in any frequency band;
- optimisation of ASW hunt-and-kill naval groups' search orders arrangement and operating modes of sonar systems, as well as surface ships detection by submarines;
- optimisation of manoeuvres performed by ships and submarines when tracking surface and underwater targets;
- optimisation of spatial position and operational modes of fixed sonar systems;
- monitoring of underwater tactical situation, implementation of tactical calculations, data output and display to provide search operation control.

Computation of the parameters of the hydroacoustic field and simulation of its status are provided by the software system on the basis of the model of the 2D heterogeneous water environment, where appreciated are the variability of the vertical distributions of the sound speed in depth and in distance, bottom configuration as well as its seismic and geo-acoustic characteristics.

To ensure accuracy and operativeness of the computations software system computes the acoustic field of the signal in the “distance-depth” coordinates in the direction of the selected route of the acoustic energy propagation by the wave and ray methods:

- for the low frequencies and large distances, use is made of the wave method based on solving the pseudodifferential parabolic equation. Thereat, the field intensity at each point of the space is represented in the form of modes sum.
- for the high frequencies and short distances, use is made of the method of the ray approximation. Thereat, the field intensity at each point of the space is represented in the form of a sum of rays.

Main characteristics:



АО «Рособоронэкспорт» – единственная в России государственная организация по экспорту всего спектра продукции, услуг и технологий военного и двойного назначения. Входит в Госкорпорацию Ростех. «Рособоронэкспорт» образован 4 ноября 2000 года и является одним из лидеров мирового рынка вооружений. На долю компании приходится более 85% экспорта российских вооружения и военной техники. «Рособоронэкспорт» взаимодействует с более чем 700 предприятиями и организациями оборонно-промышленного комплекса России. География военно-технического сотрудничества России – более 70 стран.

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