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TECHNOLOGY OF TECHNOLOGY OF THE ROV USING FOR COMPREHENSIVE RESEARCH OF DEEP-SEA ECOSYSTEMS

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**ABSTRACT**

The paper is devoted to the technology of the working-class remotely operated underwater vehicle (ROV) “Comanche 18” usage. This technology provides efficiently performing of deep-sea research operations in extreme conditions of strong bottom currents and complex topography of seamounts. Features of the underwater operations planning, ROV operating and and interactions with control center on the carrier vessel are presented. Created sampling tools are described that provide high-quality collection of scientific material. The developed software designed for intellectual and informational support of ROV operators activities of is also described.

The paper describes the results of comprehensive research of marine ecosystems of mountains of the Emperor Chain (northern part of the Pacific Ocean). These studies were carried out with the help of the ROV “Comanche 18” in the deep-sea research expedition of the National Research Center for Marine Biology in the Pacific Ocean in 2019.

**Key words:** remotely operated underwater vehicle, deep-sea research, sea expedition, monitoring of marine, bottom ecosystems, underwater operations, navigation, system, software.

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