REVEALING OIL POLLUTION SPOTS ON SHELF ZONE WITH HELP OF SPACE SURVEY (ON THE EXAMPLE OF OIL STONES WATER AREA, CASPIAN SEA)

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The article considers the Earth's remote sensing methods, used for revealing and mapping oil pollutions. The research is aimed at solving the tasks of aerospace monitoring of oil fields and oil pollutions in shelf water areas in the interests of the republic of Azerbaijan.

For revealing pollution spots on shelf zone (in water area of oil stones, Caspian sea) were used multi zone space shots of the oil deposit, obtained from the satellite Sentinel 2A-MSI-MultiRes-UTM39N 05-06-2017 7:26:21, and radar location shots from the satellite Sentinel 1A-IW 05-06-2017 17:08:46 of European Space Agency as part of the project, aimed at creation of autonomous multilevel observation system for ecological condition on Earth, and also some extra data of the region under survey. In the processing of data was performed automatic classification of the main technogenic impacts of the offshore process facilities on the naval environment with the use of the method of main components and its modification. For the survey were used the systems of Earth's remote sensing ERDAS Imagine 6.7 and SNAP Desktop (Sentinel Application Platformver. 6.0). the results of the performed survey confirmed the capability and efficiency of use of cooperative processing of multi zone and radar location shots of the same territory with use of extra data to reveal oil spils.

Key words: image fusion, multi zone space shots, radar location shots, image classification, remote sensing, oil pollution monitoring, digital photogrammetric system.

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