ACOUSTICS2008/394 Parametric sonars in searching of buried objects

Eugeniusz Kozaczka Univ., Narutowicza 11/12, 80-952 Gdansk, Poland

The subject of this paper is the description of usage of the parametric sonar for searching of the objects that are on the surface of the seabed or very close to it. Searching of underwater objects, especially these ones buried in the seabed has a very practical meaning. Presently more often mass destruction weapon is placed in the very difficult way to find it. Moreover searching of the objects of the archaeological character at sea requires usage of devices those have possibility of penetration of sediment which covers the searched object. In this case the most useful of acoustic means are parametric sonars that due to their specific features are good tools for underwater searching. The principle of detection of buried objects is similar to detection in the case of usage of the classical sonars. The dispersion of the sound field enables to track the object and sometimes enables to define the shape of the searched object. The measurement equipment can be connected to the Global Positioning System (GPS) and complementary equipment that is necessary in such kind of investigations. There will be presented experimental results that were obtained during the trials in the Gdansk Bay. Also will be shown the typical images for chosen objects.