

ABSTRACT

The invention relates to a method for improving the time coverage of a beamforming sonar (1) configured to be mounted on a carrier in an area to be imaged in order to characterize at least one target, the method comprising the steps of:

- providing imaging, by coherent synthetic antenna aperture processing, of a seabed of the area, along a lateral line of sight (8) which is substantially perpendicular to the direction of movement (10) of the carrier;
- providing an early assessment of the seabed, along a line of sight (9) that is off-boresight with respect to the lateral line of sight (8);
- selecting a command from among:
 - reducing the speed of the carrier (24) below a threshold value ($V_{\max\text{SAS}}$) that is specific to the coherent synthetic antenna aperture processing, on the basis of the early assessment of the seabed, in order to maintain the coherent synthetic antenna aperture processing, or
 - switching from coherent processing to antenna processing that is insensitive to the speed of the carrier, without reducing the speed below the threshold value ($V_{\max\text{SAS}}$) that is specific to the coherent synthetic antenna aperture processing.

Figure for the abstract: Fig. 4