

Description

Caissons dams of vertical wall are basic port infrastructures for coast defense and berthing of vessels. The increase in the size of the ships and port drafts and the restrictions in materials supply are enhancing that vertical wall dam is displacing slope dams in Spain; even in Cantabric Sea with harder weather conditions. However, the high reflectivity of conventional caissons may produce, in the case of defense dams, environmental and navigational problems in the vicinity of the infrastructure and boosting, in the case of docks, multireflection phenomena causing internal agitation within the port area.

Objectives and improvements

Main objective of CADIMA Project is the development of objective directives for the design and adaptation of conventional caissons in the production of anti-reflective caissons, for their use in the construction of defense dams and low reflectivity docks. It deals with a deeper knowledge of the technology developed in project MUCAR, studying its adaptation for the implementation in dams.

Results

The technology was validated for its application in defense dams by means of large scale tests carried out at CEDEX, the Centre for Studies and Experimentation of Civil Works. The benefits of the technology were quantified in defense conditions both in Mediterranean Sea and Atlantic Ocean and it was analyzed the absorption capacity of the specific design for resonance at port basin.



This project has been co-funded by FEDER and Science and Innovation Ministry.





UNIÓN EUROPEA Fondo Europeo de Desarrollo Regional

Una manera de hacer Europa

rovermaritime.com





Figure 1. Scheme of CYES-A caisson tested in plant with 2 circuits of 4 cells, 2 circuits of 9/2 cells and 2 circuits of 1 cell



Figure 2: Large scale tests

rovermaritime.com