

Monitoring study on some coastal parts of Sistan & Baluchestan provinces and obtained experiences during these measurements

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Introduction

Project of "Monitoring and modeling on some coastal parts of Sistan & Baluchestan and Bushehr provinces" is the first step of a national project, which has been undertaken by Coasts and Ports Engineering Dept. of Ports and Maritime Organization. The prominent issues, which were considered as the most important project goals were measurements of marine parameters along with hydrodynamic and sediment researches within studied provinces in order to complete marine-coastal data and present strategies for resolving existing problems in the provinces.

Marine measurements in Chabahar bay is considered as the first phase of the project which have been implemented in three studying areas. Field measurements in Nayband bay to Dayer port and from Dayer port to Bushehr bay have been considered as the next two phases.

In this article it is tried to study experiences gained from first phase of vast marine measurements regarding to anchoring system for equipment installation, equipment supervision, respecting safety tips and techniques for quality control of collected data in the studying area.

Project context

Marine measurements in Chabahar area has been started in June of 2006 with site mobilization and receiving purchased equipments after 30th of August of 2006, the measurements have been started pursuant to marine equipment installation (Fig# 1).

Most important services, presented during this project, are as follows:

- Wave and current measurement in seven stations for one year
- Tide measurement in 3 stations for one year
- Deep water wave measurement in one station for one year (wave buoy of P.M.O)
- Measurement of wind speed and direction in one station
- Coastal profiles measurement every 3 months during one year
- Undistributed sediment sampling
- Turbidity and suspended sediment measurement within the studied area using OBS and water sampling

In this respect, different modern equipments including, Acoustic Wave and Current Profiler (ADCP), metrological and wave buoys, tide gauge, echo sounder and geographical positioning equipment, were used.

Applied Equipments

Along with predicted marine measurements which have been already explained in project scope of work, different equipments are used. The most important ones are listed in table#1. Applied Acoustic Wave and Current Profiler equipment are from the Type of ADV which is made in Nortek Company of Norway (Including Aquadopp, AWAC, and Vector). These equipments are selected in 3 different models according to the area within which they are going to be used (deep water or onshore). Regarding to the fact that a great deal of marine operation revolves around wave and current measurements, in this article, it is attempted to study experiences that focused on these equipments.