Red Sea Survey Results

The Kingdom of Saudi Arabia General Commission for Survey (GCS) and Fugro have collaborated to survey the Red Sea Coast, north of the city of Jeddah (Shib Nazar to Shib Al-Kabir), in a merged Airborne Lidar Bathymetry (ALB) and Multi Beam Echo Sounder (MBES) survey for use in national charting. Field work elements of the survey were completed in just over three months and were predominantly conducted to IHO S44 Order 1a, 1b and Order 2 in depths of up to 650m.

The survey area extended over 4000sq kms of complex and shallow reef areas and coastal margins as well as the deep waters of the Red Sea rift area.

While processing of the data will be completed by Fugro in the newly established GCS Data Processing Centre in Riyadh, preliminary work has already established 140 hydrographic notes indicating charting irregularity signification to the safety of navigation. It has successfully demonstrated again the advantages of the rapid and safe data acquisition by Lidar using a Shoals-1000T and how it's integration with MBES vessel surveys increases the efficiency and rate of data collection for the survey campaign.

The newly established GCS have been given responsibility for the administration of Maritime Charting and Terrestrial Mapping in the Kingdom of Saudi Arabia. GCS staff working with Fugro, played a key role in the planning and management of the survey. Fugro Lidar Bathymetry technologies were used for data acquisition in areas of navigational hazards and/or shallow waters where crew and vessel safety were potential concerns. This allowed the MBES systems with higher density data to be used to full effect in a complex marine environment.