

BY THE SENIOR HYDROGRAPHER AND TIDAL ANALYST OF THE UNITED ARAB EMIRATES

'As it Is'

The Military Survey Department of the Armed Forces is the sole federal mapping agency and entity in the United Arab Emirates (UAE). It is responsible for co-ordinating, processing and disseminating up-to-date topographic, aeronautical and nautical information for various applications over the whole UAE territory.

The Military Survey Department (MSD) was initially established in 1974 to serve the different military departments in their geospatial data activities and applications. However, it gradually assumed the role of the mapping agency and entity for the country, i.e. the only authority in the UAE producing and publishing maps for the whole UAE territory. In this capacity, MSD provides government, semi-government and private sectors with the latest maps (hard/soft copy, different scales and different formats), aerial photographs (ortho), geodetic control data, GIS data and technical advice. In view of current international trends in geospatial data activities, MSD is now shifting its focus to become a spatial data provider.

Recently, MSD has clearly realised the necessity of providing comprehensive knowledge and understanding of UAE maritime waters (the UAE, in common with other maritime nations, places a heavy reliance on maritime trade for its economic growth and wellbeing) to support safe navigation of shipping and to safeguard life at sea. In this regard it provides various hydrographic products and services for maritime or related users, whether military or civilian, to conduct their own business at sea safely and effectively within UAE waters. The MSD is already knowledgeable in areas such as land topography, photogrammetry, aerial surveys, GIS, etc. The UAE has its longest coastline along the Arabian Gulf, approximately 1,600km, including more than two hundred islands and shoals, and 123km along the Gulf of Oman.

Yet MSD does not emphasise hydrographic survey as an end in itself, but intends to achieve the hydrographic expertise needed, either to conduct comprehensive surveys with its own resources or to specify and validate surveys performed by contractors. A high-level decision has therefore been taken, a plan set up and budget allocated to conduct a national hydrographic project serving most maritime authorities and covering the whole territorial waters of the UAE (12nm from the mainland). This aims not only to produce nautical charts but also to expand establishment and implementation of a Marine National Spatial Data Infrastructure (MNSDI) for the multiple purposes of satisfying the needs of the wide spectrum of the geospatial data user community.

The NSDI is thus completing a seamless DTM and hydrographic database from Airborne Laser (Lidar) and MBES. Other layers of information: topographical data, orthophotography, environmental & land-use data, will be made available to the public via a metadata Web portal. MSD was advised to proceed by two main steps. Firstly, by exerting full control over the contractors tasked with performing surveys or providing systems. Secondly by improving MSD hydrographic capacity to meet the objectives of hydrography, cartography and maritime safety obligations and recommendations described in the UN Convention on the Law of the Sea, Safety of Life at Sea (not yet signed) and other international instruments.

Finally, the UAE has since the 1970s, under the umbrella of the Ministry of Communication, been a member of IHO. It has the largest in/out tonnage in the Middle East.

For more information on the MSD see also our website www.uaesurvey.ae.