

INTERVIEW WITH CHARLES MARTIN, MARTIN MID EAST LLC, UAE

Surveying and Dredging in the Middle East

Charles Martin was born in Cape Town and schooled at Bishops, where he played moderate rugby, bad cricket and was a reluctant member of the choir for a few years. After a year compulsory internment in the South African Navy, he obtained a Civil Engineering Diploma and commenced his professional career by blasting away a large portion of Ben Schoeman Dock for Christiani Ham. He worked for Ham Dredging for eight years and National Marine Dredging Company in Abu Dhabi for twelve years before starting his own company in the United Arab Emirates (UAE).

What is the history behind Martin Mid East?

We started Martin Mid East LLC (MME) ten years ago and it is now registered in Abu Dhabi and Dubai as a local company, with a brass plaque company somewhere in the Bahamas. The LLC is the local equivalent of Ltd. Initially we catered for survey services required by the dredging industry and their clients and consultants. Over the years we have expanded our skills and equipment to undertake oceanographic, geophysical, geotechnical and environmental surveys. MME now employs 35 surveyors and support personnel, and owns and operates ten survey vessels, three jackups and a small hi-tech cutter suction dredger. We are pushing hard to expand our role in the offshore survey industry.

Further information on our capabilities and equipment is available on our web-site www.martinmideast.com.

Can you highlight present MME contract projects?

We currently have survey projects in Libya, Djibouti, Oman, UAE and Doha. In the last year we have additionally been in and out of Yemen, Kuwait, Bahrain, Iran and Iraq on a number of occasions.

Our prestigious projects of the year have been our involvement with the Dubai Palm Island developments and our multibeam survey in Iraq has been an important part of the Rebuilding Programme in the country.

We have just been awarded a project to undertake a challenging pipeline route survey in nearly impossible tidal-swamp conditions. This requires shallow water sub-bottom profiling and the drilling of eighty "marine" boreholes in a terrain suited to neither "fish nor fowl". To achieve this, we commenced the construction of a submersible amphibious tracked crawler (SATV) at tender stage in anticipation of a successful bid and are now looking forward to commissioning this machine.

All of these projects have required MME staff to develop new equipment and new software and data processing systems. Many MME projects are now well founded for GIS integration and applications.

What is your involvement in such projects?

We have been involved in the Palm Island projects from their inception and are one of the first of the official Design Consultants.

I had the personal privilege of laying the first stone for the Jumeirah Palm. This was not as ceremonious as it implies. I was called after working hours and told that a barge-load of rock from Iran was arriving at sunrise and would I please drop a marker buoy. Not wanting to disturb my staff, I presented myself at the appointed hour and the small rock that was tethered to the marker buoy I dropped was the first of tens of millions to follow!

Subsequently, we have undertaken an oceanographic and environmental investigation, completed over one hundred marine boreholes, sailed 2,000km of sub-bottom profiling to identify sand reserves and surveyed 200sq km of full coverage multibeam bathymetry on the Palm projects.

MME's Iraq commitment was to undertake 100 per cent multibeam coverage of a 400m wide navigation channel from the Shatt Al Arab Outer Bank to Umm Qasr and, as a frightening add-on, 20km further up the estuary. Besides the problems of mines, piracy and uncharted wrecks, our major challenge was tidal reduction. An increasing tide from the Gulf reaches a range of 4m at Umm Qasr, and numerous tidal stations covering the 80km channel needed to be considered.

For security reasons we were not comfortable about going ashore and installing autonomous tide gauges, so we opted to install a dual frequency PPK GPS System on our vessel with the reference station in Kuwait.

The traditional method for establishing a datum in an estuary is based on the assumption that when the tide falls to datum at the standard port in the estuary (in this case Umm Qasr) it falls to datum as it passes throughout the estuary. MME installed autonomous tide gauges at Umm Qasr and the Shatt Al Arab Outer Bank to enable us to correlate the values of each low tide as measured by our gauge at Umm Qasr with the same low tide value measured by the GPS on the vessel. This correlation could then be used to establish chart datum at the location of the vessel at the time of vessel low tide and register GPS measured heights to chart datum for bathymetric reductions in this

area. We finally settled on twenty tidal stations to cover the 80km survey. As with the Palm Island survey, MME used a Reson Seabat 8125 multibeam echo sounder, and were fortunate to map several wrecks without hitting them.

What services do you offer your clients?

MME attempts to offer turnkey marine site investigations to its clients in the belief that they would prefer to have one butt to kick, as opposed to a whole delegation of them when things go wrong, or one decision-maker to talk to on happier occasions. We offer an immediate response, handshake agreements and mostly unbeatable mobilisation and execution timeframes. We provide single and multi-beam bathymetry, RTK-PPK topographic mapping, side scan sonar, sub-bottom profiling and magnetometer/pulse-induction surveys, environmental/ecological surveys plus land and marine geotechnical investigations, that include rotary and cable percussion boring, drop, vibro and piston coring.

Do you find some projects more challenging than others and, if so, how do you respond to these?

Actually, I believe the MME staff's greatest skill is its ability to rise to the client time, location and technical challenges and enjoy the successful conclusion, or benefit from the harrowing experience. From these efforts MME becomes better equipped for the next one. For example, several years ago we were invited by the Dubai Municipality to undertake a 100 per cent coverage, geo-referenced underwater video of 20sq km of coral reef offshore Jebel Ali. Four internationals and ourselves received the documents and we were the only ones who submitted a bid - wish I had known that in advance! We equipped one of our survey vessels with side booms and six underwater video cameras with wide-angle lenses and lighting, such that their field of vision overlapped on the seabed. This enabled us to undertake a 24m wide video swath at 6 knots. Geo-referencing of all the recorders was by registering the DGPS position on their audio track by voicing a GPS event number at regular intervals and then correlating each frame with time. Accordingly, any coral head can be identified and provided with a precise position, allowing for mapping and subsequent follow-up condition monitoring.

Your company name is Martin Mid East. Does this name reflect the Mid East being the operating area, with no activities elsewhere in the world?

Actually, the name embarrasses me, as it's far too grand. My father started a civil engineering contracting company in Cape Town after the Second World War with his partner Vic East and called it Martin and East. Poor Vic passed away but the company remains under family control to this day. When I started our company in the UAE ten years ago track record was everything, so Martin Mid East was chosen as a name which was close enough to Martin and East, with its forty year track record and five hundred strong personnel, to provide the necessary apron-string credibility. As such, the name does not restrict our geographic limits, which are currently Arabian Sea, Red Sea, Mediterranean, Indian Ocean and Caspian.

Do you operate your own fleet of dredgers and survey-ships, or do you contract them?

Our dredging is really a rather unprofitable hobby as opposed to serious business. MME core business is surveys and assessments and our sole 12" dia cutter suction dredger was designed and built in-house to complement our desire to offer marine site turnkey solutions. It is mostly only offered to clients where the survey aspect of the project equals the dredging effort, such as beach construction projects or navigational waterway high spot removal where the revenue from multibeam sweeping is similar to the dredging revenue. We mostly own our survey equipment and vessels, which consist of about ten survey boats varying in size from 4 to 25m. The 4m water jet semi-rigid inflatable allows us to undertake single-beam bathymetric survey in as little as 10cm of water at 23km/hour, whilst our modified tug is a seagoing multi-task vessel. We bought this in Cape Town a few years back and our delivery crew, presumably looking for a Guinness Book record, took two years to sail it to Dubai! Since she has been under our control in the UAE, we have fitted her out with a Seabat 8125 bow mount, C-Max 800 side scan sonar with remote control winch, sub-bottom profiler mounts for Boomer/Pinger/Sparker, stern A-frame for drop or vibro coring, a heave compensated stern platform for a rotary coring rig and a 10 ton winch with 1,200m of 70mm dia soft tow for handling our jackups or offshore towing operations. MME have designed and built three jack-ups to undertake geotechnical investigations in 1 to 20m of water. This keeps us quite busy and we are considering constructing one able to jack-up in 35m of water.

According to their webpage, Van Oord ACZ is also involved in the Palm Island project. Are you co-operating?

Van Oord ACZ in association with Ballast Nedam Dredging are the main dredging contractors on the Palm Jumeirah Project. As discussed earlier, we are one of the nominated Design Consultants on this project and in this capacity we have undertaken QC and measurement checks on their work on behalf of our client. We are not involved in any dredging operations with Van Oord and Associates but have been commissioned by them to undertake sixteen marine boreholes in 10 to 15m of water to determine dredgeability of the seabed. We have undertaken forty vibro cores and hundreds of kilometres of sub-bottom profiling to locate the eighty million cubic meters of sand required by their trailer dredgers to complete the island. It is, however, our expectation and hope that after island completion and their departure we will monitor the shape of the island and restore the condition of the beaches using our own survey and dredging abilities.

How do you value the business chances for hydrographic companies in the Middle East?

My response here is bound to be somewhat biased. It's taken us ten hard years with the advantage of a previous twelve year local background to establish this company and bring MME to its current position with an established repeat trade data base of several hundred satisfied clients. We have been extremely satisfied with a number of strategic alliances we have set up in the last six-months. These alliances/discussions include important players such as RESON, De Beers Marine, ATHENA SA and SEAWORKS / BTW Surveys. With the multi-tasking equipment, software and wealth of personnel offered by these companies MME expects to be able to drill marine boreholes in 100m of water from a DP Vessel (untried as yet), undertake pipeline patrol or pipeline route surveys using Autonomous Underwater Vehicles (AUV), such as De Beers M600 or their Remote Operated Underwater Towed Vehicle (ROTV) - Focus 400 and deploy ROVs (owned by SEAWORKS) for pipeline inspection surveys supported by DP Vessels. In conclusion, I believe that there is sufficient survey work to sustain existing operations but a new player would struggle - but I refer you

back to my opening comment here.

Do you have any message for our readers or is there anything else you would like to mention?

Well - if any of your readers are looking for a challenging and exciting position requiring entrepreneurial skills in this fine, sunny country - I am looking for a replacement in five years timeâ€¦

<https://www.hydro-international.com/content/article/surveying-and-dredging-in-the-middle-east>
