



協助加強船隻航行監察服務

Assisting in Strengthening Vessel Traffic Services

為應付港口的急速發展及不斷增加的海上交通流量，並加強海上交通管理和提升港口安全，海事處委託機電署為其船隻航行監察服務系統(航監系統)進行更換及升級工程。是次工程把馬灣海上交通控制站的功能全面提升，使其成為與船隻航行監察中心(航監中心)同步運作及互補的後備中心。這個能支援並聯操作的後備中心設備完善，系統性能亦可媲美位於港澳客運碼頭的航監中心。

新的馬灣航監中心的系統設計極具彈性，不但可以作為後備航監中心，於緊急情況時維持海事處的日常航監運作，而且能配合海事處的未來發展，讓海事處人員可同時在馬灣和上環兩個航監中心內工作。我們成功突破地域界限，以微波和全數碼化通訊系統把馬灣和上環的航監系統無縫地連接起來，提供近雲端式環境，讓航監系統實時存取資料和同步運作，使兩個航監中心得以實現並聯操作。

第三代航監系統採用最先進的監察及通訊科技系統和技術，包括固態數碼雷達、高速數據及影像處理系統、以網際規約為本的甚高頻無線電通訊系統等，有效提高航監系統的整體效率、可靠性和靈活性，當中提升馬灣海上交通控制站的後備航監中心設計，更是整個工程項目的亮點之一。

設計大型的航監系統是我們的專長。客戶如有任何查詢，歡迎致電 3757 6027 與高級工程師彭國強先生聯絡。

馬灣海上交通控制站的新系統於今年2月完成安裝，標誌着第三代航監系統的升級工作全部完成。
The successful installation of the new system at the Ma Wan Marine Traffic Control Station in February this year marked the full completion of the upgrading work of the third generation VTS System.

作為後備中心，馬灣海上交通控制站的設施和性能可媲美上環的航監中心。
The facilities and performance of the Ma Wan Marine Traffic Control Station, as a backup centre, are on a par with those of the VTC in Sheung Wan.

In order to cope with the rapid development of the port and the increasing volume of marine traffic, as well as to enhance control of marine traffic and safety in port, the EMSD was entrusted by the Marine Department (MD) to replace and upgrade the Vessel Traffic Services (VTS) System. In this project, the functions of the Ma Wan Marine Traffic Control Station were fully upgraded to make it a backup centre which operates in parallel with the Vessel Traffic Centre (VTC) and complements its functions. This well-equipped backup centre supports parallel operation and its system performance is also on a par with that of the VTC at the Hong Kong-Macau Ferry Terminal.

With a highly flexible system design, the new VTC in Ma Wan not only serves as a backup VTC to maintain daily operation of the MD in the event of emergency, but also allows the staff of the MD to work simultaneously at the VTCs in Ma Wan and Sheung Wan, so as to tie in with the future development of the MD. We have overcome the geographical constraints and

seamlessly connected the VTS Systems in Ma Wan and Sheung Wan by using microwave and full digital communication systems, thus providing a near-cloud-based environment for real-time data access and simultaneous operation of the VTS Systems and enabling parallel operation of the two VTCs.

The third generation VTS System adopts the most advanced monitoring and communication systems and technologies, including solid-state digital radars, high-speed data and image processing systems, Internet Protocol-based very high frequency radio communication systems, etc., which effectively enhance the overall efficiency, reliability and flexibility of the VTS System. Upgrading the Ma Wan Marine Traffic Control Station as the backup VTC is one of the highlights of the project.

Designing large-scale VTS Systems is our specialty. For any enquiry, you are welcome to contact Mr. Pang Kwok-keung, Senior Engineer, at 3757 6027.

