INGÉNIEUR GÉNÉRAL MICHEL LE GOUIC (1953-2013) By IGA Bruno Frachon, Director General of SHOM

BIOGRAPHY

Michel Le Gouic was born in Andernach (Germany) in 1953. Attending the 1973 class at the *Ecole polytechnique*, he embarked on the career of hydrographic engineer in 1976, following courses at the *Ecole nationale supérieure de techniques avancées (ENSTA)* – (National Graduate Engineering Institute).

Joining the Atlantic Hydrographic Mission in August 1978, he began his career at a time when important developments in the fields of electrical radiolocation and the computerization of data processing were having an impact on the way hydrographic survey work was conducted.

He was then appointed in June 1981 to the "Geodesy-Geophysics" section of EPSHOM, the main unit of SHOM in Brest. He was specifically responsible for the development of the applications of satellite remote sensing, and, based on the launching of the earth observation satellite programme "Spot", he undertook pioneering work in the domain of nautical charting. He also initiated the first hydrographic operations at SHOM of multibeam echosounders on the continental slope. During this period he also successfully completed in-depth work on the calibration of LORAN-C in the North Atlantic.

In December 1988, he went to French Polynesia to the Pacific Oceanographic Mission; he took over as Director of this survey unit in April 1990. Over nineteen months of intense activity, he conducted hydrographic surveys and geodetic works in the archipelagos of the Marquesas, Tuamotu, the Austral Islands and Society Island. In terms of methodology, he developed and implemented the concept of spatio- preparation (identification and positioning of special details visible on the satellite image), allowing the practical application of satellite remote sensing, which resulted in the publication in 1990 of the first nautical charts using bathymetric data derived from satellite observations. He also prepared the way for the use of GPS in geodetic and bathymetric works. Finally, using the geophysical inversions of height data from the Seasat satellite he was able to detect uncharted submarine mountains during sea surveys.

Upon his return from French Polynesia in August 1990, Michel Le Gouic was appointed to the directorate of SHOM in Paris to the "General Studies" office, where, after a few months, he became the Head of the office. This was a period of major change for SHOM, with notably the development of the electronic navigational chart, in all its technical, legal, international aspects in which he played a major part. In particular he played an active role in the definition of the International Hydrographic Organization's principles governing the Worldwide Electronic Navigational Chart (ENC) Data Base.

Director of the Mediterranean Oceanographic Mission in 1994, Michel Le Gouic joined EPSHOM in Brest in 1996, to take over as Head of the Centre of Hydrography. In December 1997, he became Deputy Director of EPSHOM. Apart from his administrative activities, he worked with determination to maintain a technical and human harmony between more and more varied activities, grouping them together around digital technologies.

In 2000, he returned to the position of Head of the "General Studies" office in SHOM. The technical and legal developments regarding nautical cartography (SOLAS Convention) led to rethinking international cooperation in hydrography, and Michel Le Gouic worked with both enthusiasm and imagination on cooperation with West African countries, contributing to an evaluation of the capacity of 16 African countries, and, at the same time, to opening the way to the modernization of technical assistance between members of the IHO. Moreover, his trustworthy relationship with his counter-parts in partner organizations played an essential role in the creation of the public interest group, Mercator-Ocean, a forerunner to the "operational oceanography" component of the European Global Monitoring for Environment and Security system.

In 2005, Michel Le Gouic was appointed as Deputy Director of SHOM, and, in this position, he played a key role in the transformation of the hydrographic service into a public establishment. He supervised for SHOM the preparation work and follow up of the transition and piloted the preparation of the first contract of objectives and performance of the new public establishment. His vast experience of SHOM and its staff was a determining factor in the creation of the EPA (Public establishment of an administrative nature) in the best conditions. Retired in 2010, Michel Le Gouic continued to work with passion for international cooperation in hydrography and succeeded in particular with finalizing IHO membership for Cameroon.

Ingénieur général de l'armement Le Gouic excelled in the handling of complex issues with multiple facets, and had an extremely clear overall vision of hydrography and its various stakes in a world open to "maritimisation". He was not interested in being in the lime light but was a man of convictions, who liked to guide young hydrographers along the technical ways towards a promising future by leaving them the freedom to innovate. With discretion he attached a great deal of importance to human relations, both in the professional context or when confronted with different cultures that he naturally encountered through his work as a Hydrographer.