

ocean exploration, the national centre of scientific research and the French national committee of Geodesy and Geophysics (CNFGG), which he presided.

Before being appointed director of the Navy's oceanographic service, Eyriès was included in the management of the hydrographic and oceanographic service: he was head of the *bureau établissements et missions*, which organises and controls all the service's activities at sea and on land.

On 5 October 1981, Marc Eyriès ceased his activities as managing director of the Navy's hydrographic and oceanographic service which had been his position since 1 February 1976. It was the end of an impressive career which brought him world fame in the hydrographic and oceanographic field.

He was Commander of Legion of Honour, Commander of the National Order of Merit, decorated with the Medal of the War Cross 1939-1945 with Palm, officer in the Order of Academic Palms, Naval Merit Officer and Chevalier of the Anjouan Star Order and of the Black Star Order. His scientific and technical research allowed him to be awarded the Plumey Prize of the *Académie des Sciences* in 1964 and the *Grande Médaille d'or of the Ordre des Géomètres* in 1978.

We, present and retired hydrographers, are all sad today that Marc Eyriès died and we deeply sympathise with the grief his family and friends must all feel.

L'ingénieur général de l'armement Yves Desnoës, Director of the French Navy's hydrographic and oceanographic service

Obituary

Norman Gerald Gray (1906-2005) Canadian Dominion Hydrographer

It will be the rare few that will mark the passing of a major contributor to hydrography in Canada. It is not because that he was unliked, or egotistical but rather he outlived his contemporaries and even outlasted the next generation of Canadian Hydrographic Service staff. Norman Gerald Gray lived into his 100th year keeping a clear mind until the last six months or so.

'Norm' as he was usually called, was born in Yarmouth, Nova Scotia into a family of seafarers and boat-builders. He obtained a B.Sc. in mining engineering from Nova Scotia Technical College in 1929. By then, he had had four seasons with the Topographic Survey of the Canadian government and had already passed the preliminary examinations to become a Dominion Land Surveyor.

Soon the Depression hit and jobs were hard to come by, but Norm was able to get short assignments with mining companies in Newfoundland (not yet part of Canada) and Quebec. Times being tough, he was fortunate to get a junior hydrographer position with the Canadian Hydrographic Service in 1930. His career there lasted 37 years. His first survey was on the old steamer *Bayfield (2)* as she investigated a recently reported pinnacle rock in the middle of deepest section of Lake Superior almost beyond sight of land. The rock, a danger to navigation, is now known as Superior Shoal.

By 1939, he was senior assistant on the steamer *Cartier* working in the Cape Breton area of Nova Scotia. He became hydrographer-in-charge of a

shore-based field party on the Gaspé Coast in 1941 (the Navy had commandeered all the Atlantic Coast hydrographic ships). In 1944, he made a detailed hydrographic survey across Northumberland Strait for a possible causeway to join Prince Edward Island with the mainland, a dream that did not come true until the completion of the 13-kilometre long Confederation Bridge in 1997. In 1948, after outfitting the new *Cartier (2)* (a converted, wooden hulled, mine-sweeper) in Georgian Bay, he was her first Hydrographer-in-Charge. He is the only hydrographer of his day who served in all pre-war ships on the East Coast: *Acadia*, *Bayfield* and *Cartier*.

He has left his survey markers from the Atlantic seaboard to the shores of Lake Winnipeg. He is also believed to be the last hydrographer to use a four-oared sailing gig for inshore sounding on Canada's coasts when he worked in the Magdalen Islands (Îles de la Madeleine) in the early 1930s. His last field season was in 1951 as Hydrographer-in-Charge of the *Kapusking* (a converted frigate), working in Newfoundland and the Strait of Canso.

In 1951, Norm was assigned to assist with post-war ship replacement programme and in 1953, he became Marine Superintendent. His outstanding achievement was the management of the design

and construction of CSS *Baffin*, Canada's first hydrographic-oceanographic ship capable of working in the Arctic. Almost 50 years later, *Baffin* still holds the record as the largest hydrographic ship in the CHS, although she was sold out of government service several years ago.

In 1957, Mr Gray was appointed Dominion Hydrographer, a post that he held for a decade. He was head of the Canadian delegation to the International Hydrographic Bureau Conferences in 1957, 1962 and 1967 and brought honour to Canada by being elected vice-president of the 1967 conference. The leather-bound copy of the 1967 Conference proceedings that he had been presented upon his retirement was recently returned to CHS when their house had to be sold.

In the last ten years as Dominion Hydrographer, he travelled widely; from Istanbul, where he was given a copy of Piri Reis' 1513 map of the Atlantic, to Hawaii and from the Caribbean to the Arctic Ocean.

He died 27 September 2005 with his son Geoff at his side. Norm and his wife, Marjorie, have lived in their small Ottawa house or on their farm 100km from Ottawa until about six months ago, when their health took a turn for the worse. Norm is survived by his wife, son and two grandchildren.

David H. Gray