BY AN OLD HYDROGRAPHER

Charles-FranÃ§ois Beautemps BeauprÃ© and French Coastal Surveying

In 2003 France's new surveying ship Beautemps-Beaupré deployed into the Indian Ocean in the wake of the man whose fame it justly commemorates. Charles-François Beautemps-Beaupré refined a methodology for coastal hydrography during the voyage of circumnavigation of D'Entrecasteaux. Subsequently, the great 'ingénieur hydrographe' conducted the first systematic survey of French coastal waters.

The careers of Charles-François Beautemps-Beaupré and Francis Beaufort illustrate the different development of public sector hydrography in France and the United Kingdom. Beaufort belonged to the cadre of naval officers who built up surveying expertise either during the voyages of James Cook and his disciples or by working alongside army engineer surveyors. They proved themselves indispensable during the inshore campaigns of the Royal Navy during the wars with Revolutionary and Napoleonic France, and were formed into the specialisation which still retains responsibility for UK military hydrography today.

Although a few French naval officers took part in survey operations around Corsica at the outbreak of war in 1793, the close blockade maintained by the Royal Navy constrained further activity. After the restoration it looked at one time as if an officer specialisation might be launched, but, in no small measure due to the achievements of Beautemps-Beaupré, the hydrographic task had effectively passed into other hands.

Beautemps-Beaupré was born in Marne, far away from the sea. However, in 1776, an influential visitor called at his home. Jean-Nicholas Buache was his cousin. He was a prominent geographer, and the specialist head of the Dépôt Général des Cartes et Plans, where charts and publications for the French Navy were compiled and published. The young boy of 10 caught Buache's attention, and he took him back with him to Paris to begin his apprenticeship. 9 years later Beautemps-Beaupré prepared the charts for Lapérouse's exploring voyage into the Pacific. He completed his work in only 6 weeks. From this point on, he was determined to get afloat.

In 1791 he was selected as the ingénieur hydrographe to accompany D'Entrecasteaux in his expedition to seek traces of the missing Lapérouse. He quickly gained respect for his application and hard work, grasping every opportunity to amass information. His routine of running survey, long days of boat surveys of anchorages and approaches, and even longer evenings at the chart table, will be familiar to the generations of surveyors who have followed in his footsteps. Fair sheets and other data were produced in real time, rather than being drawn up later on return to France. During this time he developed the rigorous techniques which earned him the title 'the father of modern hydrography'. Notable amongst these was the substitution of the reflecting circle for the compass. Eventually this methodology would benefit metropolitan France.

For the time being, however, he would refine his technique in support of Napoleon's campaigns further afield in Europe. In 1799 he began work in the testing waters between Antwerp and Flushing, extending round into the N Sea during the period of planning for the invasion of England. After 1805 he was moved to the Adriatic, before returning to the Scheldt and N coast of Germany in 1810. He operated under the close direction of DecrÅ½s, the Minister of the Marine, and was allotted special funding for his work, some of which was highly classified. To guard against the eventuality of capture by marauding British warships, soundings on the fair sheets were adjusted by an amount known only to Beautemps-BeauprÅ½ and DecrÅ½s. During these surveys Beautemps-Beaupré employed up to 15 other ingÅ½nieurs hydrographes. This reflects the firm intention of building up the corps which was formally established by a Royal Ordinance of 6 June 1814.

With the restoration, and peace in Europe, came the opportunity for Beautemps-Beaupré to deploy the new corps in home waters. By the time of his retirement in 1844, the fundamentals of 'modern' hydrographic practice were in place, with particular French methodologies which are discernible today. He worked from practical vessels of opportunity, usually manned by seamen with intimate knowledge of the survey area. He had to gain the respect and trust of the mariners under his orders. This is a talent which the engineers of the French Hydrographic Service have preserved in the centuries which have followed in their close teamwork with the naval personnel of the fine surveying ships of the French fleet.

Further Reading

A La Mer Comme Au Ciel: Beautemps-Beaupré et la naissance de l'hydrographie moderne (1700-1850), By Olivier Chapuis, Presses de l'université de Paris-Sorbonne, 1999, ISBN 2-84050-157-0