

SOUTH AFRICAN HYDROGRAPHIC OFFICE HISTORY AND ORGANIZATION

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Although a South African Naval Hydrographic Surveying Service commenced operations in 1924, and has been in operation continually ever since, except during the Second World War (1939-1947), it was not until 1955 that a Hydrographic Office was established ashore in South Africa.

Prior to the establishment of the Hydrographic Office, all surveying data obtained by the Surveying Section were forwarded to the British Hydrographic Department for their use and for safekeeping. The Officer in Charge of the Surveying Service, who was also the commanding officer of the surveying ship, had to deal with all correspondence concerning hydrographic survey matters, and after the Union of South Africa joined the International Hydrographic Bureau, this included all correspondence to and from the IHB.

South Africa joined the IHB in August 1951, and from that date the amount of additional clerical work which had to be dealt with by the commanding officer of the surveying ship greatly increased in volume.

The commanding officer was a Royal Naval Surveying Officer, who had been seconded to the South African Navy in 1948, in order to resuscitate the South African Surveying Service, and train surveying assistants and recorders. When he retired from the Royal Navy in 1954, he joined the South African Navy, with the express purpose of establishing a South African Hydrographic Office, as the increased amount of staff work had made it necessary to have an office ashore to deal with the extraneous affairs of the S.A. Naval Hydrographic Surveying Service.

It was only natural that in addition to dealing with such matters, the activities of the proposed Hydrographic Office should also include the production of charts of the South African coast, to supplement those published by the British Admiralty, and that all data obtained by the surveying ship should therefore be forwarded to this new office to be used in compiling the charts, and for subsequent safekeeping.

Thus in January of 1955 the South African Hydrographic Office was established at Cape Town, suitable offices being obtained at the Trigonometrical Survey Office at Mowbray.

A world-wide coverage of British Admiralty charts together with associated publications were obtained. Photostat copies of all fair charts of surveys carried out by the South African Surveying Service since its inception in 1924 were provided by the Admiralty, so that all records of recent surveys on the South African Coast could be available for compilation and reference purposes.

The staff at the Hydrographic Office at its commencement consisted of Commander R.T. Tripp as Staff Officer, Hydrographic Survey, one clerk and one draughtsman. Arrangements were made for the cooperation of the Cartographic Branch of the Trigonometrical Survey Office, situated in Pretoria, to carry out the fair drawing of the charts to be produced, using the compilation drawings drawn by the draughtsman at the Hydrographic Office, as their basic material.

The services of the Government Printer at Pretoria were acquired to print the charts, using the photo-litho method of reproduction onto zinc plates from which the charts are printed on a rotary offset printing press.

When the South African Navy took over the Royal Naval Dockyard at Simonstown in April 1957, the Chart Depot became a responsibility of the Hydrographic Office. At the same time the staff at the Office was increased to cope with the additional work created by the expansion of the activities of the department, and so that a full-scale tidal observation and analysis programme could be undertaken.

Thus in April 1957 the S.A. Hydrographic Office was reorganized as follows :

The Officer in Charge (who had by now been given the title of Hydrographer, S.A. Navy), assisted by two technical assistants, whose duties are (a) Assistant to the Hydrographer, Curator of the Archives, and Computer, and (b) Tidal Officer responsible for the installation and maintenance of the tide gauges around the South African Coast, numbering eleven, together with the analyses of the data obtained therefrom;

A senior draughtsman assisted by a junior draughtsman whose duty is to draw the compilation drawings for the proposed charts;

One typist;

The Cartographic Branch of the Trigonometrical Survey Office where three cartographers are employed on a part-time basis in drawing the fair drawings used in the production of the published chart;

The Government Printers Works at Pretoria at which the charts are produced;

The Chart Depot at Simonstown at which a staff of five are employed : the Superintendent, two Chart Correctors, and two Chart Depot Assistants.

All the personnel employed in the Hydrographic Office Organization, with the exception of the Hydrographer and the two draughtsmen, are civilians.

The South African Hydrographic Office is responsible for the surveying of the South African Coast from the Cunene River, which forms the border between Angola and South West Africa, and Ouro Point on the border between Zululand and the Portuguese East African territory, a distance of approximately 2 000 miles.

The policy of the S.A. Hydrographic Office is to complete the surveying of the South African coast by modern methods; approximately 50 % remains to be carried out. To cope with this task, a newly-commissioned Surveying Vessel — the S.A.S. *Natal* — originally a Loch-class frigate, which has been fitted with Two-range Decca, replaced the ex-corvette *Protea*. She carries a survey staff of a Charge Surveyor in Command, one 2nd class, one 3rd class and two 4th class surveying assistants.

Being a small hydrographic establishment, the publication of coastal sheets on a scale of 1/150 000 covering the coast from Orange River Mouth

to Table Bay, together with large-scale charts of the various fishing harbours and of Simon's Bay, will occupy the attentions of the department until 1962. The eleven tide gauges which have been or are being installed around the South African Coast, are being used to obtain more accurate data for the analysis of the constants at the ports, in order that more reliable predictions may be obtained for the smaller harbours. They will also afford a check on the mean sea level required by the Geodetic Survey.

As soon as facilities exist, the S.A. Hydrographic Office will undertake the publication of South African Notices to Mariners, which at present are the responsibility of the South African Railways (*).

It will be of interest to the States Members to know that South African charts are bilingual, two languages, English and Afrikaans, being used in South Africa. As far as is practicable all the wording on the charts is in both languages. This of course increases the amount of work involved both in the compilation stage and in the fair drawing, and creates considerable difficulties in siting the title, tidal information and descriptive wording in order to avoid the loss of essential detail on the chart. In order that there will be no confusion with abbreviations, a South African symbols and abbreviations chart (S.A. 6) in both languages will shortly be published.

A strong liaison is maintained with the Trigonometrical Survey Office who supply the triangulation data of all coordinated points within the Union of South Africa which are used as the framework for the triangulation necessary for the hydrographic surveys. They also compile the topographical detail for the charts, using air photographs, which are taken by a special photographic section of the South African Air Force.

Liaison is also maintained with the interested departments of the University of Cape Town (Surveying, Geology, Zoology and Electrical) as well as the Fishery Survey Department, and the Oceanographic Section of the Council for Scientific and Industrial Research.

Even though the survey data and results of the surveys are now forwarded direct to the S.A. Hydrographic Office by the surveying ship, these documents are still lent to the British Hydrographic Department for use in keeping their charts of the South African coast up to date.

Since its inception in January 1955, the South African Hydrographic Office has produced five charts :

S.A. 1	Bouvet Oya	1/48 700
S.A. 2	Hoedjiesbaai	1/14 400
S.A. 3	Bird Island Passage	1/36 000
S.A. 7	Port Nolloth	1/7 500
S.A. 8	Alexander Bay	1/7 500

In 1958 it is anticipated that the following charts will be published :

S.A. 6	Symbols and Abbreviations (in both languages)	
S.A. 9	Orange River to Port Nolloth	1/150 000
S.A. 23	Gough Island	1/50 000

(*) IHB Note : The first issue took place on 1 March 1958 (see Bulletin VII, July 1958).



FIGURE 1

Commander J. K. MALLORY, S.A.N. Hydrographer and his staff.

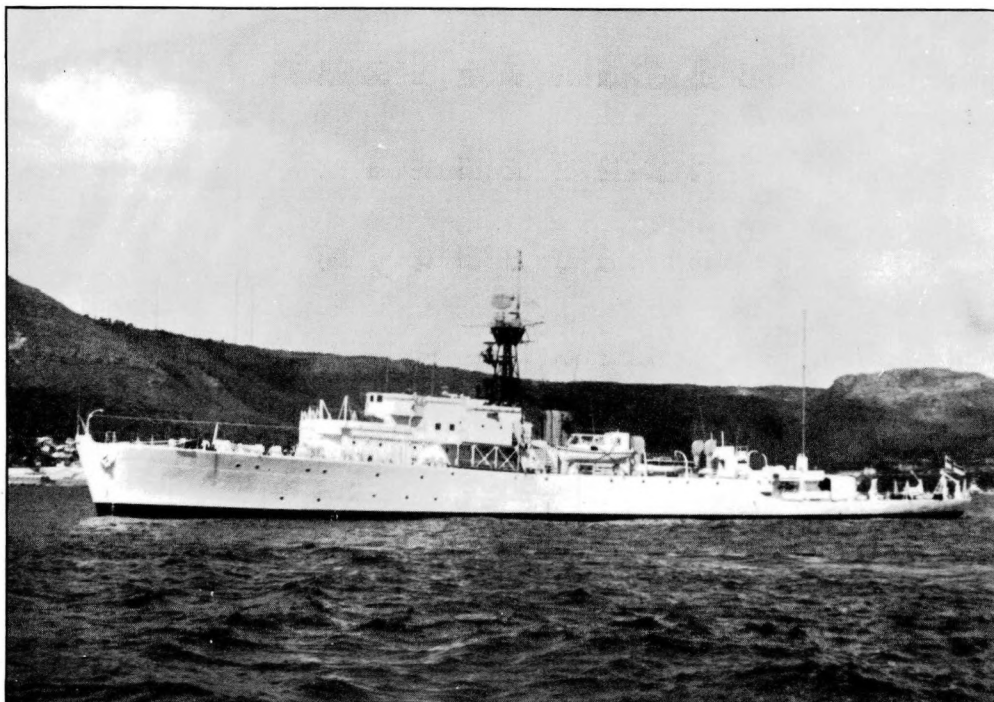


Fig. 2. — S.A.S. *Natal*, the recently commissioned South African Surveying Ship



Fig. 3. — S.A.S. *Protea*, the S.A. Surveying Ship, which operated from 1950 to 1956 and has now been laid up