

## **REPORT BY THE PRESIDENT OF THE DIRECTING COMMITTEE 1977-1982**

by Rear Admiral G.S. RITCHIE (\*)

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I am pursuing the same course of action in presenting the President's Report to the XIIth International Hydrographic Conference as I adopted at the XIth Conference.

My Report is published in the *International Hydrographic Review* for January 1982, and, whilst reprints will be available at the Opening Ceremony, I intend only to give a brief resumé of this Report when I address the Conference on that occasion.

Two members of the Directing Committee, Rear Admiral KAPOOR and myself, were re-elected at the XIth Conference, so that there was a certain continuity in 1977, and I intend, therefore, to refer briefly to the period between the ending of that Conference and the take-over by the new Directing Committee on 1 September 1977.

The introduction for the first time of *précis*-writing at the XIth Conference, together with the establishment of in-house printing in 1974, enabled the Bureau to prepare, print and publish the *Report of Proceedings* within three months of the close of the Conference, and before the take-over by the newly-elected Directing Committee, which was able to start with a clean slate, so to speak. We intend following the same procedure after the close of the XIIth Conference.

When the new Directing Committee took over on 1 September 1977 each Director assumed particular responsibilities for the different branches of the work, the more important of which were assigned as follows.

As President I continued in charge of the administration and finance, and to perform the various duties concerned with the representation of the Bureau which fall to the President. I took over from Rear Admiral KAPOOR the responsibility for the *I.H. Yearbook* and the monthly *Bulletin*.

Rear Admiral KAPOOR assumed the responsibility for charts and all Bureau Special Publications with the exception of SP 39; he was assigned as the Bureau

(\*) International Hydrographic Bureau, B.P. 345, 7, av. Kennedy, MC Monaco.

member of the Chart Specifications Committee which had been established at the Conference; he continued to serve as the Bureau member on the IOC-IHO GEBCO Guiding Committee; he remained responsible for technical assistance to developing countries; and represented the IHO at meetings of the Law of the Sea Conference whenever this was deemed necessary. Meanwhile he has remained the Bureau's expert on all legal and statutory matters.

Captain AYRES assumed responsibility for the I.H. Review and SP 39, geodesy, remote sensing, nautical documents and surveying and oceanographic equipment, the latter involving him in the organisation of the commercial exhibition for the forthcoming Conference which is expected to be the most extensive one yet mounted. He became Acting Chairman of the IHO Commission on the Promulgation of Radio Navigational Warnings after the tragic death of Commander NESBITT (UK) in July 1979. He has represented the IHO at the IMCO Assembly, and regularly on the Maritime Safety Committee and its two Sub-Committees on Radio Communications and Safety of Navigation covering such matters as radio navigational warnings, SOLAS, COL-REGS and ships' routing.

I am happy to report that there has been no need to change any of the Directors' responsibilities during our term of office, for I believe that continuity in these matters enables the Directors and Bureau Staff to progress the work expeditiously. Our many international contacts also find it highly advantageous to deal with the same Director on any specific subject over a period of five years; excellent working relationships have invariably resulted.

It is of course necessary for the three Directors to keep in close touch with each other's business, and to reach agreement on all major matters concerned with the work of the Bureau, expenditure and the Staff. For this purpose we have held Directors' Committee Meetings at approximately two-monthly intervals, all decisions reached at such meetings being permanently recorded and the minutes circulated within the Bureau.

Travelling to conferences and international meetings has become an increasingly important part of the Directors' work, and, despite its high cost, cannot be avoided if the Organization is to play its appointed international role. Whenever convenient on these journeys we have visited the hydrographic establishments of our Member States. Such visits have provided useful opportunities to exchange views with Hydrographers and their Staffs, enabling us to bring greater understanding to our work of serving Member States when we return to Monaco.

I have found general satisfaction with the Bureau's work during these visits, and also a growing feeling that it would be generally appreciated if the Bureau was to give more positive leadership to Member States, bearing in mind that no Member State is compelled to accept IHO decisions.

It would be tedious to deal here with each of the many tasks we have tried to achieve during our term of office – such details may be found in "The Work of the Bureau May 1977 to December 1981" which will be tabled at the Conference.

However, there are some important projects where I believe major progress has been achieved and to these I will now briefly refer.

During the first 50 years of the Bureau's life only 28 % of all symbols used on charts had been agreed upon by Member States. However, the work of the North Sea International Chart Commission during the years 1972-1977 soon demonstrated that no real progress could be made without a full set of chart specifications.

The NSICC Report tabled at the XIth Conference included excerpts from just such a set of specifications drawn up for INT charts. The XIth Conference, recognising the value of this work, established the Chart Specifications Committee to adapt and extend these INT charts specifications to cover all navigational charts.

The CSC has achieved remarkable progress, with the result that the Bureau has been able to print and distribute to Member States the full range of Chart Specifications of the IHO in six sections.

These Specifications are already being used by a number of Member States. It is our hope that the Chart Specifications will receive the approval of the XIIth Conference for adoption, and that subsequently they will be kept constantly under review by the CSC, thereby achieving the greatest possible uniformity in nautical charts which is one of the main objectives of the International Hydrographic Organization.

At this stage I must give high praise to the United Kingdom Hydrographer for the major role his Department has played in compiling these detailed specifications, together with the Regulations for INT charts. Under Mr. D.W. NEWSON's enlightened guidance, two or three members of his staff have been almost constantly employed over the last 5 years in preparing these very extensive and detailed lists for the CSC.

The period under review has seen the virtual completion of the scheme of INT charts on the small scales with the producer nations having published all but one or two of the charts schemed on 1/10 M and 1/3.5 M. A number of printer nations have taken advantage of this achievement, whilst others have announced the availability of specific INT charts in their catalogues. The issue by the Bureau of an INT chart catalogue in 1981 marks the virtual completion of the first step, the next being a general move into the medium and large scales. This will be greatly facilitated by the adoption by the Conference of the complete set of IHO Specifications and the Regulations of the IHO for INT Charts. It then remains to agree upon schemes of INT charts of appropriate scales and limits, which might best be prepared by regional groupings of Member States.

The XIth Conference examined a plan for the establishment of a world-wide radio navigational warning system which had been prepared by an IHO Commission in collaboration with the IMCO Sub-Committee on Radiocommunications. The plan was adopted by the Conference which resolved that the Commission should review and update the Plan in cooperation with IMCO, and that it should work to extend the Plan to cover aspects such as improving ways and means of exchanging information between Co-ordinators, and to encourage wider participation of coastal states.

This work has progressed extremely well and by 1 April 1980 all sixteen NAVAREAS were operating, whilst the Coordinators have developed efficient

means for exchanging information. A number of modifications have been agreed jointly by IHO and IMCO and have been formally adopted at the latter's Assemblies in 1977 and 1979. The World Wide Navigational Warning Service (WWNWS) is now fulfilling a major need of the international mariner.

The IHO Commission has been making considerable efforts by questionnaires and other means to receive information from the users at sea as to the effectiveness of the system, and improvements are being thus brought about.

The rapid development of this important world wide system, which gives to seamen timely warning of dangers and important changes to charted information, demonstrates a remarkable ability of our Member States to work together on a world-wide basis. This augurs well for the cooperation which will be similarly required to establish medium and large scale INT charts and the means whereby they may be kept corrected, as well as to progress possible regional services for the dissemination of coastal warnings by direct printing broadcasts.

In the pursuance of our endeavours to promote the adoption of reliable and efficient methods of carrying out hydrographic surveys we have made several advances.

During the last three years the Bureau, with the assistance of the majority of the Member States, has begun to build up a valuable information file which includes the surveying instrumentation in use by each Member State. This internal information system greatly facilitates the dissemination of technical information which is an important aim of our Organization.

A close look at SP 39 - *Precise Positioning Systems for Hydrographic Surveying* - was taken in 1973 when it was decided to publish a number of sections each covering a single system in a uniform manner to assist hydrographers in the selection of the system most suited to their individual requirement. With the assistance of manufacturers this new approach was beginning to get under way by the time of the XIth Conference, and has speeded up over the period under review. By the time of the Conference the Bureau will have published sections on Hi-Fix 6, Raydist-76, Mini-Ranger, Trisponder, Syledis, MRD-1, Trident III, Artemis and Argo.

Realising the considerable reliance that was being placed on SP 44 - *Accuracy Standards recommended for hydrographic surveys* - and recognising that this publication was over 12 years old, the Bureau decided, in view of the many changes which had taken place both in merchant ship draughts and surveying techniques, that the publication should be reviewed and brought up to date.

An ad hoc working group was formed in 1980 of eleven volunteering Member States with the Bureau as convenor. Resulting from this work it is confidently anticipated that a final draft, which will incorporate the "Classification Criteria for Deep Ocean Soundings", will be available before the XIIth Conference.

The XIth Conference directed the Bureau to approach FIG with the object of establishing an International Advisory Board composed of a small number of persons of known competence, half of whom were to be nominated by IHO and half by FIG, to review, publish and keep up to date the Standards of Competence which had been tabled at the Conference. The Board was also to review

submitted syllabi with a view to providing certificates of recognition to those educational establishments whose courses met the recommended standards.

The Advisory Board held its first session in February 1978 when Rear Admiral KAPOOR was elected Chairman. By the time of the Conference the Board will have held five sessions and will have awarded about half a dozen certificates of recognition to educational establishments in different parts of the world.

It is hoped that the impact of these certificated establishments will have a beneficial effect upon the training of hydrographic personnel in developing countries which have not yet established hydrographic services, the necessity for which becomes more urgent as the Law of the Sea Conference nears a conclusion which is likely to apportion extensive Exclusive Economic Zones to all coastal states.

At the Xth Conference a new chapter of Budget Expenditure was established with a nominal sum of 10 gold francs, the object being to provide funds for new or extended activities by the Bureau such as the tendering of guidance and advice upon request to countries engaged in setting up a hydrographic service.

Such requests have been received during the last five years, but not all have been met. Under the current financial restraints it has not been possible to activate the special chapter which would have been needed to provide funds for the additional travel expenditure required to send a member of the Bureau to the country concerned for even the brief period which is considered necessary before useful advice may be given.

The XIth Conference resolved that, in view of the intensive use being made of SP23 - *Limits of Oceans and Seas* - the Bureau should undertake a revision of this publication.

By September 1978 eight Member States had nominated a member of a Working Group and the Bureau, as convenor, initiated action to progress the work on a regional basis, each member of the group consulting hydrographic offices within their respective areas. Many complex issues must arise in such a study, nevertheless excellent progress is being made with the updating of the information necessary to provide a revised edition of SP23.

It may be appropriate here to mention that, when setting up working groups, the Bureau has been increasingly assuming the role of convenor, rather than relying upon an elected chairman. One of the Directors, being at the centre as it were, and having no responsibilities other than those connected with IHO affairs, is able to maintain the momentum, as well as provide administrative support to the members of a working group.

The joint IOC-IHO GEBCO Guiding Committee, which was established in 1974, has continued to make outstanding progress under the vigorous leadership of its Chairman, Professor Eric SIMPSON. Virtually every eminent geomorphologist presently concerned with the ocean floor has contributed, with no monetary reward, to the scientific compilation of the sheets.

It is now confidently expected that the completed 5th Edition of eighteen 1/10 million GEBCO charts will be on display at the Conference and available for purchase world-wide. In view of the tremendous mass of bathymetric data contained on the IHO 1/1 M plotting sheets, plus more made available by many

oceanographic establishments to the compilers, the completion of this excellent edition within a period of eight years is a remarkable achievement, and comes at a time when ocean bathymetry is becoming of increasing importance day by day.

In congratulating the Guiding Committee and its many voluntary scientific helpers we must not forget the major contribution of the Canadian Hydrographic Service in printing and publishing the entire 5th Edition.

Geographical names and ocean floor nomenclature always seem to raise contentious issues whenever they are discussed. It is, therefore, very satisfactory to be able to report that the GEBCO Sub-Committee on Geographical Names, with Mr. G.W. EWING of Canada as Chairman and Rear Admiral KAPOOR as Secretary, have, after many meetings, reached complete agreement with the U.N. Group of Experts on Geographical Names, of which Dr. Richard RANDALL of the USA is Convenor, on guidelines and a terminology list for naming ocean bottom features. These documents have been circulated to all Member States of the IHO and IOC and it is our confident hope that adherence to these principles will bring about international standardization in this important field of hydrography.

Our association with IALA has been extremely close during the period under review. In particular, the Bureau has been able to play a useful part at a number of IALA meetings concerned with the introduction of the new IALA buoyage system, where it has been our aim to ensure that the new buoyage is introduced in a planned progressive manner, giving ample warning to national Hydrographers who have been faced, in many cases, with major tasks in introducing the buoyage changes onto their charts in a timely manner.

The Membership of our Organization has again increased steadily, if slowly, and it was a great day when on 22 September 1981 we were able to announce that the Eastern Republic of Uruguay had become a Member State of the Organization. This brought the total number of Member States of the IHO to fifty.

The establishment of the Mediterranean and Black Seas Hydrographic Commission in 1978 was an important step forward, whilst the comprehensive statutes which were adopted provide an excellent document for further regional commissions to use as a model when they come into being.

Concerning Finance, I have to report that several very wise decisions made by the XIth I.H. Conference have considerably simplified the day to day financial administration of the Bureau over the last 4 years. I refer to the change from the gold franc to the SDR as the IHO currency; the penalties introduced for delayed payment of contributions; and the acceptance of a fixed annual increase of 10% in contributions to meet inflation which was introduced into the Five Year Budget 1977-81.

Nevertheless, since 1978 the annual cost of living increases which have been declared by the Governments of France and Monaco, and which have to be applied to Bureau salaries, have been in excess of 10%, cumulating in 1981 with 14%.

Directors' and Staff salaries amount to over 80% of the Bureau's Budget and we should not have been able to surmount the increasing cost of living had we not made further reductions in Staff numbers. During the last nine years the

Staff of the Bureau has been reduced from 19 to 15. There are few, if any, other international organizations which have, over this same period, reduced their permanent Staff numbers by 20% and yet remained capable of dealing with increasing tasks and responsibilities.

This has been achieved by a studied redistribution of the workload among the Staff, the abandonment of work which is useful but not essential, and above all the willingness of an increasingly capable Staff to work efficiently together.

However, we have reached the level of Staff numbers below which we cannot go further without seriously curtailing the essential work of the Directors and their Professional Assistants.

With Staff cuts no longer possible as a means of meeting inflation, and with a very real likelihood of the cost of living increases escalating more rapidly in the near future, the Conference will be asked to consider a 5-Year Budget (1983-87) tabled by the Bureau which will include at least a 12% annual increase in contributions to meet inflation and the very considerable increase in travel and subsistence costs which are inevitable.

On Friday, 20th April 1979, the fiftieth anniversary of the laying of the foundation stone of the Bureau building, His Serene Highness Prince Rainier III unveiled a commemorative bronze plaque on the pillar above the foundation stone. To mark the fiftieth anniversary of the occupancy of the Bureau building in 1930 Monaco issued an impressive commemorative stamp, featuring the Bureau with a surveying ship moored at the quay.

On 10th August 1978 the Headquarters Agreement between the IHO and the Government of Monaco was signed. Article 3.II of this Agreement grants to the IHO free of charge for a period of 99 years the Bureau building. Although the Government of Monaco will generously continue to bear the expense of heating, lighting, the water supply and the external maintenance of the building, the IHO now is responsible for the upkeep of the interior, a new responsibility which will have to be taken into account when formulating future budgets.

Our relations with the Government of Monaco and the Municipality have remained cordial and close, whilst the personal interest of H.S.H. Prince Rainier in the work of the IHO, very evident during his visits to the Bureau, has been a source of great encouragement to the Directing Committee and the Staff.

On this occasion, when I am nearing the end of a period of 10 years as President of the Directing Committee, I wish to record that I consider it to have been a very great privilege to remain so long in a position to serve our great international hydrographic family which works so closely together to promote greater safety at sea, ignoring political differences in the universal pursuit of our aims.

**BOOK REVIEW**  
(Extract from "CCRS Newsletter")

**Congo**

Michael Crichton, Knopf  
348 pages, \$13.95 (ISBN 0-394-51392-4)

"Ten thousand miles away, in the cold, windowless main data room of Earth Resources Technology Services, Inc., of Houston, Karen Ross sat hunched over a mug of coffee in front of a computer terminal, reviewing the latest Landsat images from Africa. Ross was the ERTS Congo Project Supervisor, and as she manipulated the satellite images in artificial contrast colours, blue and purple and green, she glanced at her watch impatiently. She was waiting for the next field transmission from Africa".

A dream of the Chairman of the CCRS Management Committee? No, it's the opening paragraph of Chapter 1 from a new thriller by Michael Crichton (author of "The Andromeda Strain" and "Terminal Man"). After all the articles in the scientific literature, Landsat has finally reached the pages of legitimate fiction!

"Congo" is the story of a race between ERTS and a Euro-Japanese consortium to find a valuable source of industrial diamonds. Image enhancement to find that lost city of Zinj, and the monitoring role of Landsat are important elements in this fast-moving tale. The purists will be disappointed with some of the inaccuracies regarding Landsat's capabilities; but with its satellite communications, killer hippos, a gorilla called Amy (capable of communicating in sign language), and much more, it makes for a good weekend's reading. In hardback, costing less than a Landsatcolour composite, you can't go wrong!

wrong.

Dr. Phil HOWARTH

Extract from the *Remote Sensing, Society Newsletter*  
No. 29, June 1981, Reading, Berks., U.K.