**IHB File No. S1/1100**

**ISSUE OF THE IHO STRATEGIC PLAN AND INTER-SESSIONAL WORK PROGRAMME**
**(dated April 2000)**

Dear Sir,

The draft Strategic Plan and Inter-sessional Work Programme presented to the 2nd Extraordinary Conference in March 2000 were approved by the Conference subject to the inclusion of some changes proposed during the Conference.

These changes have now been incorporated into the documents, and the approved documents are attached to this Circular Letter.

The delay in preparing the revised documents is regretted.

On behalf of the Directing Committee
Yours sincerely,

Commodore John LEECH
Director

Attachments:    IHO Strategic Plan
                IHO Work Programme

**INTERNATIONAL HYDROGRAPHIC ORGANIZATION**

**STRATEGIC PLAN**

**April 2000**

**Note:   This document was approved by the Member States of the IHO in March 2000**

# INTERNATIONAL HYDROGRAPHIC ORGANIZATION

## STRATEGIC PLAN

### Background

The International Hydrographic Organization is an inter-governmental organization whose members are the governments of maritime states. Established in 1921, the Organization provides a forum for the improvement of services to marine navigation through the discussion and resolution of hydrographic issues at the international level. It assists member governments to deliver these services in the most cost effective way through their national hydrographic offices. The IHO is governed by an international convention which has been ratified by 67 Member States [1999].

### Definition

Hydrography is defined as;

> "That branch of applied science which deals with the measurement and description of the physical features of the navigable portion of the Earth's surface and adjoining coastal areas, with special reference to their use for the purpose of navigation".

The hydrographic services provided by the IHO Member States have two principal elements, acquisition of information, and provision of information services. They serve two principal groups of users, navigators, and users of Geographic Information Systems [GIS].

### Rationale

National hydrographic offices provide services to assist the safe and efficient navigation of ships, as well as hydrographic data essential for the sustainable use of the marine environment. The principal service is the provision of nautical information, including nautical charts, notices to mariners, sailing directions, data for integrated navigation systems and other products and services.

The provision of accurate and up to date charts offers significant economic and commercial benefits through facilitation of maritime trade and other marine activities. It also helps to prevent accidents which may result in the loss of life and property and in pollution of the marine environment.

Because navigation as well as marine administration and sciences are international activities, it is necessary to have a means of co-ordinating the work of national agencies and of standardizing products and services, in order to provide an effective world-wide service. This is the rationale for the IHO.

### Mission

The mission of the IHO is to facilitate the provision of adequate and timely hydrographic information for world-wide marine navigation and other purposes, through the co-ordination of the endeavours of national hydrographic offices.

## Objectives

The Objectives of the IHO are set down in Article II of the Convention.   It is the object of the Organization to bring about :

[a] The co-ordination of the activities of national hydrographic offices ;

[b] The greatest possible uniformity in nautical charts and documents ;

[c] The adoption of reliable and efficient methods of carrying out and exploiting hydrographic surveys ;

[d] The development of the sciences in the field of hydrography and the techniques employed in descriptive oceanography.   [see note]

Note:   The text of item [d] above is taken to include many contemporary scientific  and  GIS applications in the coastal zone and in offshore waters.

## Benefits

The main beneficiary of the work of the IHO is the mariner, who receives a coherent, standardized and well co-ordinated service for safe and cost-effective navigation.

The Governments of Member States also receive important benefits from IHO participation, because an efficient world wide nautical service improves the safety of shipping and reduces the risks of casualties and environmental damage.   Additionally, co-operative development of standards, procedures and products reduces unnecessary duplication of national efforts.   The IHO also provides technical advice and assistance to help Governments to improve the services provided by their national hydrographic offices.

Additionally, Governments benefit from the work of the IHO in developing the application of hydrographic data to other national tasks.   There is a growing demand for hydrographic data for purposes other than navigation, especially for fishing, offshore industry, coastal protection, harbour construction, and  marine scientific research.   Applications include decisions on national maritime boundaries, coastal zone management, modeling of marine areas, study of habitats, assessment of the state of the marine environment, and exercise of national rights in maritime zones.

The benefits of hydrographic work are recognized in a number of international instruments, notably the Convention on Safety of Life at Sea (SOLAS),  the United Nations Convention on the Law of the Sea (UNCLOS), and the United Nations Convention on the Environment and Development (UNCED).

## Strategic Issues

The main strategic issues currently facing the IHO and its member hydrographic offices are:

Transition to the digital era,
- Successful transition to provision of digital services, including production, distribution and updating

Achievement of an adequate global hydrographic data coverage,

- Ensuring that good quality hydrographic data is available throughout the world where needed

Responding to the external environment,
- Providing an appropriate and timely response to developments in government policy, technology, distribution, etc

Achievement of adequate funding,
- Ensuring that sufficient funding is available for the provision of required services

Capacity building,
- Building effective national organizations, with appropriate numbers of skilled staff and equipment [with special reference to the developing world]

Providing services other than for navigation,
- Ensuring that the national hydrographic data are available for GIS applications to satisfy the needs of scientists, administrators and other institutions with interests in marine issues, and that the data are fully and conveniently available to them.

## Goals of the IHO

The goals of the IHO reflect the objectives of the Organization and the need to address the strategic issues facing the Members. The current goals are:

1. To help the Member States to fulfil their present roles and to anticipate future demands as effectively and efficiently as possible, particularly by:

   - Acting as a focal point and forum on all matters relating to best practice in hydrography and management;
   - Fostering exchange and co-operation between HO s;
   - Stimulating new developments for hydrographic services;
   - Developing and disseminating minimum standards;
   - Encouraging regional co-operation.

2. To achieve global coverage of effective hydrographic services, through:

   - Assessing adequacy of current coverage, prioritizing areas of concern, and encouraging work to improve the situation;
   - Encouraging the establishment of new HOs, and striving to raise the capabilities of all HOs;
   - Expanding membership of IHO.

3. To raise global awareness of the importance of hydrography, through:

   - Ensuring that the roles and responsibilities of national HO s are properly understood;
   - Promoting the benefits of the work of national HO s;
   - Providing support for funding initiatives, especially for developing nations.

4. To maintain an efficient and effective Organization through appropriate corporate management and development.

<center>**Programmes**</center>

In order to meet its current goals,  the IHO  manages five principal programmes:

## 1. Co-operation between Member States and with International Organizations

This programme addresses the requirement of  Goals Nos 1 and 2  through coordinated activities at the regional or worldwide level, via:

- Creation and operation of the regional hydrographic commissions, and other relevant subsidiary bodies of the IHO;
- Representation of IHO interests at  relevant international organizations;
- Intensification of co-operation between the hydrographic services of Member States;
- Co-operation between IHO and non-member states;
- Encouraging all maritime nations to become Member States.

## 2. Capacity Building

This programme addresses principally the requirements of Goals Nos. 1, 2, and 3 either through the development of hydrographic capabilities in nations where such development is needed,  or  through assistance in some specific fields to nations with an already established hydrographic capability,  via:

- Advisory assessments to identify requirements and shortcomings;
- Promotion and co-ordination of technical co-operation and training from developed nations;
- Promotion and co-ordination of funding and other assistance from international aid agencies;
- Raising political awareness of the requirements for and benefits of hydrographic services;
- Encouraging the establishment of new Hydrographic Offices.

## 3. Techniques and Standards Co-ordination and Support

This programme addresses the requirement of  Goals Nos.1 and 2 through the following activities:

- Acting as a focal point and forum for the interchange of information on all matters relating to pertinent current and emerging technologies and operational techniques and their application to hydrography;
- Stimulating new developments for provision of hydrographic services, especially digital services;
- Developing appropriate standards, through  technical subsidiary bodies;
- Disseminating all information relating to the above in the working languages of the Organization.

These activities are generally divided into seven specialities;  cartography and hydrographic information services, hydrographic surveying, navigation, training, GIS applications and services,  publications management, and translation services.

## 4.    Public Relations and General Management Support

This programme addresses the requirements of  Goals Nos.1, 2 and 3 by:

- Raising public awareness of the importance of hydrography, and  ensuring that the  need for and responsibilities of hydrographic offices are properly understood [public relations support];
- Ensuring the availability of information about the work of the Organization and its Members;
- Exchanging "benchmarking" information  in regard to methods and resources employed for the achievement of objectives, to assist Member States to achieve the best results [see note];
- Exchanging information about  relevant developments in the non-government sector;
- Exchanging information on the development and application of hydrographic services in support of science, coastal zone management etc, possibly within the framework of a national spatial data infrastructure.

Note:    Benchmarking is defined as "a continuous, systematic process for evaluating the products, services and work processes of organizations that are recognised as representing best practices for the purpose of organisational improvement ".

## 5.    Corporate  Affairs

This programme addresses the requirements of Goal No. 4, and  provides "housekeeping" services for the IHO, under five main headings:

- Corporate Development for the Organization, including strategic planning, structural change, etc;
- I.H.Bureau Administration, including financial management, staff management, property services, secretarial services, printing services, information technology , travel etc;
- I.H. Conferences and other meetings; Relations with Host Government; IHO Membership Administration:

Further information about these five programmes is set out in the document  " Work Programme of the IHO, 2000–2004".

**Attachment:**    Schematic Diagram.

# IHO STRATEGIC PLAN - SCHEMATIC

| Objectives of the IHO | | | |
|---|---|---|---|
| a. Co-ordinate work of NHOs<br>b. Uniformity in Charts | ⇩ | c. Efficient methods for surveys<br>d. Development of sciences | |

| Strategic issues | | | |
|---|---|---|---|
| 1. Transition to digital era<br>2. Global data coverage<br>3. Manage external environment<br>⇩ | | 4. Adequate funding<br>5. Capacity building<br>6. Services not for navigation | |

**Goals**

| | 1<br>Assist<br>Member States<br>⇩ | 2<br>Global<br>Coverage<br>⇩ | 3<br>Public<br>Relations<br>⇩ | 4<br>Effective Organization<br>⇩ |
|---|---|---|---|---|
| **Activities** | | | | |
| | 1.1 Act as a focal point<br>1.2 Foster exchange and cooperation<br>1.3 Stimulate new develop- ments<br>1.4 Develop and disseminate standards<br>1.5 Inform on the private sector, academia and partnership | 2.1 Assess the adequacy of current coverage<br>2.2. Develop HOs<br>2.3 Encourage IHO membership | 3.1 Raise awareness of the importance of hydrography<br>3.2 Explain need and responsibilities of Hos<br>3.3 Promote the need and the benefit of HOs' work<br>3.4. Provide support for funding | |

**Structures / Expertise**

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Member States** | X | X | X | |
| **Hos** | X | X | X | |
| **RHC** | X | X | X | |
| **IHC** | X | X | | X |
| **IHB** | X | X | X | X |
| **Other IHO Bodies** | X | X | X | X |

**Programmes**

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 1. International Co-operation | X | X | - | - |
| 2. Capacity Building | X | X | X | - |
| 3. Techniques and Standards | X | X | - | - |
| 4. P. R. and Management | X | X | X | - |
| 5. Corporate Affairs | - | - | - | X |

**INTERNATIONAL HYDROGRAPHIC ORGANIZATION**


**WORK PROGRAMME OF THE IHO FOR THE PERIOD 2000 – 2004\***


**April 2000**


[* This plan covers five years, and is updated annually.]

**Note:   This document was approved by the IHO Member States in March 2000**

**IHO WORK PROGRAMME**
**2000 - 2004**

**Programme 1**

**Co-operation between Member States and with International Organizations**

[HP] = High Priority
[MP] = Medium Priority
[LP] = Low Priority

**Element 1. 1 - Co-operation between Member States**

The aim of this element is to continue the development of international navigation services through:

**Ongoing Tasks**

**Task 1. 1. 1**. The work of the regional hydrographic commissions, especially the agreement of the schemes of international charts, and the increase in the number of INT charts published **[HP]**

**Task 1. 1. 2.** Encouraging Member States participation in IHO subsidiary bodies **[HP]**.

**Task 1. 1. 3** Encouraging bi-lateral co-operation based on agreements between NHOs, which provide for a balanced exchange, whether by means of products, services or copyright compensation **[MP]**

**Project Tasks 2000**

**Task 1. 1. 4**. Investigating the possibilities of establishing regional hydrographic commissions where none exist, especially in regions of NAVAREA VIII, NAVAREA IX, and INT C1 **[HP]**.

**Element 1. 2 - Co-operation with International Organizations**

The aim of this element is to continue the collaboration with other international organizations, including IMO, IOC, IALA, ICA, IEC, ISO, FIG, and WMO, working particularly through:

- The IMO sub-committee on safety of navigation, the IHO/IMO Harmonising group on ECDIS, and other bodies of the IMO.
- The GEBCO programme, and the IOC programmes for Ocean mapping,
- Joint initiatives with IALA and IAPH regarding development of navigation infrastructure.

**Ongoing Tasks**

**Task 1. 2. 1** Continuous interaction with other International Organizations in pursuit of the objectives of and the strategic issues facing the IHO [HP].

**Project Tasks**

**Task 1. 2. 2**   Formalise relationships with IOC, IALA, ICA and IEC through signature of Memoranda of Understanding [MP].

**Task 1. 2. 3**   Support the inclusion, in the revised SOLAS V, of a regulation concerning government responsibility for the provision of hydrographic services **[HP]**


**Element 1. 3  -  Co-operation with non-Member States**

**Task 1. 3. 1**   Establishment and development of relations with non-member states, particularly through R H Cs **[HP]**

**List of Key Targets [KT]**

KT 1.1   Initiate formation of an RHC for NAVAREA VIII, with a view to hold first meeting by end 2000
KT 1.2   Initiate formation of an RHC for NAVAREA IX, with a view to hold first meeting by end 2001
KT 1.3   Initiate formation an RHC for INT charting region C1, with a view to hold first meeting by end 2000
KT 1.4   INT Chart Regional Co-ordinators to publish production plans for INT charts by end 2001
KT 1.5   Revise the Memorandum of Understanding with IOC by end 2000
KT 1.6   Establish Memorandum of Understanding with IALA by end 2000

## Programme 2

## Capacity Building

### Element 2. 1  - Technical Co-Operation

### Ongoing Tasks

**Task 2.1.1**     Assess continuously the hydrographic surveying, nautical charting and nautical information status of nations and regions where hydrography is developing and provide guidelines for the development of local hydrographic capabilities. This includes visits to member and non-member states, especially in the Middle East, Eastern Europe, Central America and Africa, in order to identify requirements, to encourage development, and discuss the possibilities for technical and financial assistance and training. **[HP]**

**Task 2.1.2**     Encourage the coordinated provision of technical and finance assistance to hydrographic development projects by establishing close relationships with national agencies and relevant international organizations which may provide funding or other support. **[HP]**

**Task 2.1.3**     Encourage and follow the development of bilateral or multi-lateral arrangements between countries having well established Hydrographic Offices, and hydrographic survey organizations, and those desiring to establish or expand their hydrographic capabilities.**[MP]**

**Task 2. 1. 4**     Coordinate technical co-operation projects through the FIG/IHO Technical Assistance and Co-operation Co-ordination Working Group [TACC]. **[MP]**

**Task 2. 1. 5**     Maintain and update an IHO data base of Technical Co-operation Projects. **[MP]**

**Task 2. 1. 6**     Co-operate with the IMO Technical Co-operation division on technical co-operation matters. **[MP]**

**Task 2. 1. 7**     Encourage development of capacity for ENC production worldwide.   **[HP]**

### Project Tasks for year 2000

**Task 2. 1. 8**     MEDA Project 7 (with EC and IMA Trieste). **[HP]**

**Task 2. 1. 9**     Project for Safety of Navigation Services on Lake Victoria (with IMO and IALA). **[MP]**

**Task 2. 1. 10**     Conference on regional Co-operation in Hydrography, Aids to Navigation and Safety to Navigation in Western and Central Africa (with IMO, IALA, IAPH and others). **[HP]**

**Task 2. 1. 11**     First formal meeting of RHC for eastern part of NAVAREA IX (with ROPME). **[MP]**

**Task 2. 1. 12**     Technical Co-operation for the Development of Hydrography and Aids to Navigation in the Black Sea (with EC and countries involved). **[MP]**

**Task 2. 1. 13**     Study Team for development of hydrographic capabilities in the Caribbean area. **[MP]**

**Task 2. 1. 14**    Schedule visits of Technical Cooperation to the following countries and organizations:

**Central /South America and Caribbean -**  Guatemala, Honduras, Panama and Dominican Republic. **[MP]**

**Europe -** Russia, Baltic and Black Sea countries. **[MP]**

**Asia -** China , Myanmar, Vietnam, DPR Korea. **[MP]**

**Organizations -**  World Bank, UNDP. **[MP]**

## Element 2. 2  -  Membership

### Ongoing Tasks

**Task 2. 2. 1**    Encourage entry of new member states, especially those states which sent observers to the XV Conference, with a focus on Africa, Central America, Eastern Europe, and the Middle East. **[HP]**

**Task 2. 2. 2**    Take measures to avoid suspension of Member States, and to restore the rights of suspended Members. **[MP]**

## Element 2. 3  - Financial Assistance

### Ongoing Tasks

**Task 2. 3. 1**    Continue efforts to identify aid agencies which are potential sources of funds, and actively seek their assistance in progressing requirements identified under element 2.1. This will involve contact with international and regional organizations such as the United Nations, World Bank, European Commission, and member states supportive of such bilateral projects. **[MP]**

**Task 2. 3. 2**    Improve the expertise within the Organization in drafting proposals for aid projects [collect information about requirements for drafting proposals for aid projects, in order to assist developing Member States to obtain funding, and maintain a list of consultants practicing in this field]. **[MP]**

**Task 2. 3. 3**    Research the formation of an inter-agency group to promote funding of hydrographic projects and capacity building in developing countries. **[MP]**

## Element 2. 4  - Regional Co-operation

### Ongoing Tasks

**Task 2. 4. 1**    Develop  bilateral and multi-lateral projects between hydrographic offices.  **[MP]**

**List of Key Targets [KT]**

KT 2.1  Increase the number of Member States to 70 by 2002

KT 2.2  Complete TACC database with inclusion of procedures for technical assistance, by end 2000.

KT 2.3  Establish contacts with international funding agencies in 2000.

KT 2.4  Establish RHC for the ROPME Sea Area by end 2000.

KT 2.5  Progress MEDA project in 2000

KT 2.6  Arrange Conference for West and Central Africa in 2001.

KT 2.7  Complete Study Team visit to Caribbean in 2000.

**Note**: It is intended to conduct activities in this programme at a higher tempo than in previous years, as recommended by the SPWG.

# Programme 3

## Techniques and Standards Support

The principal work of this programme will be divided into seven elements, Cartography and Hydrographic Information Services, Hydrographic Surveying, Training, Data for GIS Applications, Maritime Safety Information, Publications Management and Translation Services.

## Element 3. 1  - Cartography and Hydrographic Information Services

The principal tasks for this element will be

## Ongoing Tasks

**Task 3. 1. 1**   Continuation of the co-operative work on development of ECDIS services, particularly:

    3.1.1.1   On-going refinement and expansion of specifications and standards through the CHRIS and its working groups, with links to the CSC and ISO, with current emphasis on;

| | |
|---|---|
| W/G on Technical Standards etc [TSMAD] | } |
| New edition of S-57 [Ed 3.1] | }  **[HP]** |
| W/G on Updating of ENC | } |

| | |
|---|---|
| W/G on Colours and Symbols Maintenance | } |
| W/G on Maritime Information Objects | } |
| W/G on Data quality | } |
| W/G on Standardisation of Nautical Publications | }  **[MP]** |
| W/G on Technology Assessment | } |
| New edition of S-52 | } |

    3.1.1.2   Support and encouragement for the production and distribution of ENC data sets  through the WEND Committee, the Northern Europe RENC, and other emerging vehicles such as the SHARED concept in South East Asia/Australasia and initiatives in the Caribbean **[HP]**.

    3.1.1.3   Involvement in the regulatory aspects of ECDIS through the IMO/IHO HGE, notably matters concerning ECDIS, RCDS, and ECS **[HP]**.

    3.1.1.4   Intensify the contacts with the international bodies representing private industry [umbrella organizations],  to reduce potential  conflicts and to maximise quality and availability of adequate digital nautical products, by inviting their participation in appropriate IHO forums **[HP]**.

    3.1.1.5   Participation in the testing and certification aspects of ECDIS through the IEC/TC80 **[HP].**

**Task 3. 1. 2**   Continuation of participation in the development of standards for cartography and geographic information in association with groups such as DGIWG, ICA and ISO, in order to ensure that the interests of IHO members receive attention in the formulation of standards.   Of particular current interest is the work of:

IEC/TC 80 [ECDIS] **[HP]**
ISO TC 211 Working Group 5 **[HP]**
European Union TENT-T Project  **[MP]**

**Task 3. 1. 3**    Continuation of the development of the international [paper] chart series through the work of the Chart Standardisation Committee,  the Regional Hydrographic Commissions and the coordinators of INT Charting Areas [see also programme 1], particularly;

   3.1.3.1    Development of new symbology for ship routeing, including archepelagic sea lanes, vessel traffic services, environmentally sensitive areas, etc **[HP]**

   3.1.3.2    Progress of the work of the Committee for the Standardisation of Nautical Publications, particularly the development of standard formats for Notices to Mariners, and for Sailing Directions and other nautical publications **[MP]**.

   3.1.3.3    Resolution of issues concerning the extension of the INT chart scheme to include large scale charts **[MP]**

   3.1.3.4    Development of policy on the integration of and transition between analogue and digital products **[MP]**

   3.1.3.5    Consult with Member States on the need to establish specific standards for cartography in navigable rivers and inland waterways (see also 3.2.11) **[MP]**.

**Task 3. 1. 4**    Provide advice and technical assistance to Member States on request, especially advice on cartographic systems and processes, and advice on the construction of national chart schemes **[MP]**.

**Task 3. 1. 5**    Provide advice on the content of courses in cartography and spatial data management **[MP]**.

**Task 3. 1. 6**    Provide advice and technical assistance to users of IHO standards, whether from Member States or Industry  **[MP]**

**Task 3. 1. 7**    Revise, develop, and maintain the following publications:

S-52, S-57 **[HP]**
M-4, M-11, S-23, **[MP]**
S-59 **[LP]**

**Task 3. 1. 8**    Produce graphics for the digital versions of  publications M-4, M-11 **[HP]**

**Element 3. 2 -  Hydrographic  Surveying**

The principal tasks for this element are:

**Ongoing Tasks**

**Task 3. 2. 1**    Through the S-44 Working Group, continue the development of  specifications and standards for the execution of hydrographic surveys and related activities such as tidal observations, through the existing working groups **[MP]**.

**Task 3. 2. 2**    Monitor and inform member states concerning the utilisation of available new technology such as multibeam sonars, with special emphasis on complex aspects such as data processing and data visualisation **[MP]**.

**Task 3. 2. 3**    Monitor and inform member states on emerging technologies which may improve the cost effectiveness of data aquisition, with particular reference to remote sensing techniques **[MP]**.

**Task 3. 2. 4**    Monitor and inform member states on developments in geodesy and datum refinement **[LP]**.

**Task 3. 2. 5**    Through the Tidal Working Group, monitor and inform Member States about developments in tidal observations, especially the space based research programmes relating to tidal constituents [Topex Poseidon, ERS, GFO, Jason etc] **[MP]**.

**Task 3. 2. 6**    Respond to requests for advice from relevant international organizations and Member States on the Hydrographic aspects of the UN Convention on the Law of the Sea **[MP]**.

**Task 3. 2. 7**    Revise, develop and maintain the following publications :     S-32,S-60 **[HP]**
                                                                            S-44, S-50,
                                                                            S-51, S-55 **[LP]**

**Project Tasks for the years 2001 and beyond**

**Task 3. 2. 8**    Prepare, for the approval of member states,  a project to compile an IHO manual of hydrographic surveying **[MP]**.

**Task 3. 2. 9**    Development of the WEB version of the IHO Hydrographic Dictionary [Project DHYDRO] **[HP]** .

**Task 3. 2. 10**    Development of a S-57 profile for a standard exchange format for hydrographic data **[MP]**.

**Task 3. 2. 11**    Consult Member States on the need to establish standards for surveying in navigable rivers and inland waterways, to address special subjects such as hydrometric levels, survey techniques, depiction of coasts, shifting channels etc, and prepare recommendations for the XVI Conference (see also 3.1.3.5) **[MP].**

**Task 3. 2. 12**    Investigate, through the Tidal Committee, the need to continue the IHO Tidal Constituent Data Bank  **[LP].**

**Element 3. 3  - Training and Education**

The principal tasks for this element are :

**Ongoing Tasks**

**Task 3. 3. 1**    Continue to improve the level of international hydrographic competence and to provide guidance to the international hydrographic community about hydrographic education through the Joint FIG/IHO International Advisory Board on Standards of Competence for Hydrographic Surveyors **[MP]**.

**Task 3. 3. 2**    Continue the co-operative effort with FIG for the development of standards of competence for hydrographic surveyors, and for the recognition of courses, and review and maintain the Standards to take account of emerging new technologies and methods **[HP]**.

**Task 3. 3. 3**    Encourage the world wide establishment of courses in hydrography, cartography, spatial data management, and contract and project management, advising on their submission for recognition from the International Advisory Board, in order to increase the number of international courses conforming to agreed standards **[HP]**.

**Task 3. 3. 4**    Assist Member States in their dealings with academia, in order to best harness the training and education capabilities available at universities and other institutions **[LP]**.

**Project Tasks for the years 2001 and beyond**

**Task 3. 3. 5**    Complete by the year 2001 the development of the following items of the Standards for Hydrographers :    (Organizations involved :IHB and FIG/IHO Advisory Board)   **[HP]**

- Nautical background required for courses in hydrography.
- Guidelines for practical nautical experience, as course pre-requisite.
- Levels of knowledge for essential matters.
- Optional units

**Task 3. 3. 6**    Initiate co-operation with international organizations such as ICA and IMA Trieste for the development of Standards of Competence for Nautical Cartographers **[MP]**.

**Task 3. 3. 7**    Initiate actions with international funding agencies for the promotion of hydrographic training and education in developing countries **[MP]**.

**Task 3. 3. 8**    Research the need for specialised courses in cartography and surveying for inland waterways **[LP].**

**Task 3. 3. 9**    Revise, develop and maintain the following publications :

M-5, M-6 [new publication] and S-47 **[HP]**.

**Element 3. 4  - Data for GIS and other Applications**

The principal tasks under this heading are :

**Ongoing Tasks**

**Task 3. 4. 1**     To assist member states to optimise and extend the use of their hydrographic data sets for purposes other than navigation through;

    3.4.1.1 Monitoring of developments around the world, especially those connected with coastal zone data management and the development of national, regional and global spatial data infrastructures **[HP]**.

    3.4.1.2 Exchange of information about effective practices, popular services and products, media for distribution, pricing, customer profiles, market research etc **[HP]**.

    3.4.1.3 Development of generic product and service specifications **[HP]**.

    3.4.1.4 Encouraging the holding of workshops, conferences and training on the above subjects **[MP]**.

    3.4.1.5 Engagement in the process of development of the interpretation of the law of the sea through the ABLOS group.   **[HP]**

**Task 3. 4. 2**     Continuation of participation in the development of standards for cartography and geographic information, and the alignment of IHO standards with more general standards for spatial data, through  the work of:

> ISO TC 211 Working Group 5 **[HP]**
> European Union TENT-T Project **[MP]**
> Global Spatial Data Infrastructure **[MP]**
> ICA Commission on Spatial Data Standards **[MP]**

**Task 3. 4. 3**     To continue to contribute to the development of  world-wide ocean and shallow water mapping through:

    3.4.3.1 Encouraging member states to contribute data for international ocean mapping  **[MP]**.

    3.4.3.2 Continuing development of the digital data centre at Boulder, Colorado **[MP]**.

    3.4.3.3 Re-affirming the role of Hydrographic Offices in collecting and managing digital bathymetric data for GEBCO and ocean mapping projects **[HP].**

    3.4.3.4 Participating in the definition and development of GEBCO and IOC products and projects **[HP]**.

    3.4.3.5 Participation in the IOC sponsored regional international bathymetric chart **[LP]**

    3.4.3.6 Co-operating with IOC and the United Nations in monitoring the naming of undersea features in international waters **[LP]**

    3.4.3.7 Providing an information service for Oceanographic matters **[LP]**

**Task 3. 4. 4**     Revise, develop and maintain the following publications ; B-2, B-4, B-6, B-7, and B-8 **[MP]**

**Element 3. 5  - Maritime Safety Information**

The principal tasks will be:

**Ongoing Tasks**

**Task 3. 5. 1**   The work of the NAVAREA co-ordinators and the Committee for the Promulgation of Radio Navigation Warnings [CPRNW], especially in regard to the imminent implementation of GMDSS **[HP]**.

**Task 3. 5. 2**   Co-operation with IMO and WMO on improving the global standards for disseminating Maritime Safety Information [MSI]  **[HP]**.

**Task 3. 5. 3**   Delivery of training courses relating to the promulgation of MSI **[HP].**

## Project Tasks for the years 2001 and beyond

**Task 3. 5. 4**   Revise, develop and maintain the following publications :        M-12 **[MP]**
                                                                                  S-53  **[LP]**

## Element 3. 6  - Editorial and Publications Management

The principal tasks of this element will be to:

## Ongoing Tasks

**Task 3. 6. 1**   Organise the production and distribution of the IHO publications in adopted languages, digital and hard copy   **[HP]**.

**Task 3. 6. 2**   Provide other information to Member States through the issue of Circular Letters **[HP]**

**Task 3. 6. 3**   Operate and maintain the in-house printing facilities and contract printing in support of the activities of this element **[HP]**

**Task 3. 6. 4**   Provide a service for the sale of publications to interested users **[MP]**.

**Task 3. 6. 5**   Maintain at the IHB a library with an appropriate collection/compendium of technical books and journals for reference and research **[MP/LP]**.

## Project Tasks for 2000

**Task 3. 6. 6**   Manage the transition of the IHB Publications Programme to a digital service. **[HP]**.

**Task 3. 6. 7**   Research the feasibility and advantages of establishing a digital hydrographic library **[LP]**.

**Task 3. 6. 8**   Maintain Publication P-4 **[LP]**

## Element 3.7  - Translation Services

The principal tasks for this element will be to:

**Ongoing Tasks**

**Task 3. 7. 1**    Provide translation services into the official and working languages of the Organization, for publications, circular letters and other documents handled at the Bureau **[HP]**.

**Task 3. 7. 2**    Provide interpretation services when required **[MP]**.


**List of Key Targets [KT]**

KT 3.1  Complete the regulatory aspects of ENC/RNC by end 2000.
KT 3.2  Co-ordinate and publish regional ENC production and service plans, commencing with Europe in 2000, followed by North America, South East Asia and the Caribbean by 2001, South West Pacific and South America by 2002.
KT 3.3  Ensure that the target dates of committee and working group work plans are adhered to.
KT 3.4  Develop a co-operation agreement with DGIWG and ISO/TC 2111 by end 2000.
KT 3.5  Prepare a report on proposed IHO Manual of Hydrographic Surveying by end 2000
KT 3.6  Complete "Standards of Competence for Nautical Cartographers" and submit to Member States by end 2001.
KT 3.7  Complete the revision of the GEBCO Guidelines by end 2000.
KT 3.8  Publish new edition of listed publications by the following dates;

| | |
|---|---|
| M-4 | Digital form E,F,S by mid-2000 |
| M-5 | E, F, S by end 2000 |
| M-6 | E, F, S, by March 2000 |
| M-11 | Sections J, M, C1 and C2 by mid-2000 [update other sections] |
| M-12 | E, F, S by mid-2000 |
| S-23 | End 2001 |
| S-59 | Digital form by mid-2000 |
| B-2 | Digital form by end 2000 |
| B-4 | Digital Form by mid –2000 |
| B-6 | E/F and E/S, digital, by end 2000 |
| B-8 | Digital, end 2000 |
| S-57 | Edition 3.1 by end 2000 |

## Programme 4

## Public Relations and General Management Support

The principal work of this programme will be:

## Element 4. 1 -  Public Information

The aim of this element is to raise awareness of the importance of hydrography, and to ensure that the need for and responsibilities of hydrographic offices are properly understood, particularly in government and in the user community, through:

## Ongoing Tasks

**Task 4. 1. 1**     Establish a collection of public information material already in use  by  member states **[MP]**.

**Task 4. 1. 2**     Provide briefings to senior decision makers on request and during visits to Member and Non-Member States **[HP]**.

**Task 4. 1. 3**     Take opportunities to deliver papers on this subject at appropriate conferences and seminars **[MP]**.

**Task 4. 1. 4**     Issue press releases during all major IHO meetings **[MP]**.

**Task 4. 1. 5**     Maintain an informative and up to date web-site **[HP]**.

**Task 4. 1. 6**     Publish appropriate public information material for use by member states,    including IHO publications:

> M-2 [National Maritime Policies and Hydrographic Services], P-7 **[HP]**.
> P-1, P-3, P-5, P-6, M-1, and M-3 **[MP]**.

## Project Tasks for 2000

**Task 4. 1. 7**     Establish a Public Relations Strategy and Implementation Plan, using external expertise if necessary **[HP]**.

## Project Tasks for the years beyond 2001

**Task 4. 1. 8**     Establish a compendium of legal cases related to charting and nautical accidents **[LP]**.

**Task 4. 1. 9**     Develop an information paper/ web entry for promoting hydrography as an interesting career which is recognised by educational institutions **[LP].**

## Element 4. 2  -  Management  Information

The aim of this element is to assist member states to maintain an appropriate level of budgetary support, and to strive for best practice in use of resources and service delivery, through the tasks of element 4.1 above, and through:

## Ongoing Tasks

**Task 4. 2. 1**   Monitor and inform Member States about contemporary management issues and new initiatives in optimising the use of resources, for example initiatives in re-structuring, re-training, outsourcing, partnering with industry, privatization etc **[MP]**.

**Task 4. 2. 2**   Monitor and inform Member States about appropriate comparative information concerning responsibilities and resources employed, in order to provide a "benchmarking" service  to identify "best practice" **[HP]**.

**Task 4. 2. 3**   Monitor and inform Member States concerning dealings with academia and industry, in order to best harness the research and  development capabilities available in these sectors **[MP]**.

**Task 4. 2. 4**   Monitor and inform Member States about developments in quality management, and encourage quality management accreditation , to strengthen the position of hydrographic offices as quality service providers **[MP]**.

## Project Tasks for 2000

**Task 4. 2. 5**   Complete research for the Benchmarking Service, to commence in 2001 **[HP]**.  [see note below].

**Note:**  Benchmarking is defined as "a continuous, systematic process for evaluating the products, services and work processes of organizations that are recognised as representing best practices for the purpose of organisational improvement ".

**Task 4. 2. 6**   Undertake research into quality management accreditation **[MP].**

## List of Key Targets [KT]

KT 4.1   Propose a draft public relations strategy to Member States by end 2000, and publish an agreed Implementation Plan by 2001.
KT 4.2   Member States to conduct an annual review of their supply of up-to-date public information material to the IHB collection.
KT 4.3   Review monthly the quality, relevance, accuracy, and comprehensiveness of the information on the web site.
KT 4.4   Send questionnaire to Member States seeking information for the new benchmarking service by end 2000.
KT 4.5   Respond to Member States' questions on issues arising within two months.
KT 4.6   Develop and implement the Guidelines and Procedures for the IHO WEB site by 2000
KT 4.7   Publish M-2 "National Maritime Policies and Hydrographic Services" by end 2000

## Programme 5

### Corporate Affairs

The principal work of this programme will be:

### Element 5. 1  - IHO Corporate Development

This element is established to manage appropriate development of the IHO, in order to ensure that it is able effectively to address the tasks set by Member States.

### Ongoing Tasks

**Task 5.1. 1**     To conduct an annual update of the IHO inter-sessional Work Programme **[HP].**

**Task 5. 1. 2**    To research opportunities for the exchange of staff between HOs and IHB. [Decision 3, XVth IH Conference] **[LP]**.

**Task 5. 1. 3**    To improve communications within the Organization, particularly encouraging the use of digital media  [eg  e-mail, digital publications etc] **[MP]**.

### Project Tasks for 2000

**Task 5. 1. 4**    To research proposals and to report to the XVI Conference concerning the further re-structuring of the Organization so that it can better respond to the requirements of Member States and the objectives articulated in the Strategic Plan, and to improve cost-effectiveness.   Some matters to be researched include:

Programme for future IH Conferences

Language Policy for the Organisation

Policy for NGO participation in the work of the IHO

Means for improving Member States' participation in IHO business

Continuing review of Management Structure and Business Processes of the IHO

Reduction of the costs of IHO, and introduction of a zero nominal growth budget

Review of Strategic Plan & Work Programme.     All these matters are  **[HP]**

**Task 5. 1. 5**    To undertake a study on the voting procedures contained in the IHO basic documents in order to eliminate inconsistencies, and subsequently to revise those documents. [Decision 61, XV Conference] **[MP]**.

**Task 5. 1. 6**    To propose revisions to the Terms of Reference of subsidiary bodies of the IHO **[LP]**.

**Task  5. 1. 7**    To encourage Member States to decide on the ratification of the amendments to the Convention proposed in 1987 and 1997.  **[MP]**

## Element 5. 2  - IHO Administration

This element satisfies the requirements for the administration of the IHO Secretariat through a number of cost centres:

## Ongoing Tasks

**Task 5. 2. 1    IHO Financial Management**

5.2.1.1  Financial Planning , budgets,  financial administration .          }
5.2.1.2  Manage member states' contributions, and monitor timely
     payment                                                                                         }
5.2.1.3  Manage investment of IHO funds                                                }  **[Routine]**
5.2.1.4  Book keeping, accounting and financial reporting                    }
5.2.1.5  IHB Shop and miscellaneous activities                                     }

**Task 5. 2. 2    IHB Personnel Management**

5.2.2.1  Personnel administration                                                          }
5.2.2.2  Staff  development                                                                   }  **[Routine]**
5.2.2.3  Manage retirement funds, medical insurances etc                   }
     .

**Task 5. 2. 3    IHB Secretariat  Administration**

5.2.3.1  Registry and Reception Service                                               }
5.2.3.2  Postage, telephones, customs etc                                            } **[Routine]**
5.2.3.3  Hotel reservations and other services to representatives       }
     of M.S. in Monaco.                                                                }

**Task 5. 2. 4    IHB Travel Administration**

5.2.4.1  Arrange travel for IHB staff                                 **[Routine]**

## Project Tasks for 2000

**Task 5. 2. 5    Projects regarding financial management issues**
     Undertake projects regarding financial management issues as proposed by the Directing
     Committee, the Finance Committee and the Auditor.

5.2.5.1  Prepare first Budget and Annual Report using analytical accounting techniques **[MP]**
5.2.5.2  Convert accounting principles from "cash accounting" to "accrual accounting" **[HP]**
5.2.5.3  Prepare for the introduction of a zero growth budget for the period 2003 -2007 **[HP]**
5.2.5.4  Complete proposals for incentives for prompt payment of contributions **[MP]**
5.2.5.5  Review the structure and application of membership contributions to reduce the financial
     burden to small nations **[MP]**
5.2.5.6  Prepare for the introduction of the Euro **[LP]**

**Task 5. 2. 6    Projects regarding staff issues**
     Undertake  projects regarding staff issues, as proposed by DC, FC, Auditor

5.2.6.1  study of new salary structures **[HP]**.
5.2.6.2  study of alternative social security arrangements **[HP]**.
5.2.6.3  study of staff assessment procedures **[MP]**
     5.2.6.4   produce the draft Statutes of the Staff  (different from the Staff Regulations) **[LP]**

**Element 5. 3  - Property and Information Technology**

**Ongoing Tasks**

**Task 5. 3. 1     IHB Property Administration**
    5.3.1.1  Building repairs and maintenance       }
    5.3.1.2  Occupational Health and Safety       }
    5.3.1.3  Office equipment and furnishings       }  **Routine**
    5.3.1.4  IHB purchasing function       }
    5.3.1.5  Intersessional Receptions, Conferences and Meetings at IHB  }

**Task 5. 3. 2     IHB Information Technology**
    5.3.2.1  Manage the IHB Web-site  **[Routine]**
    5.3.2.2  Manage the maintenance and enhancement of the IT facilities i.a.w. the IT Master Plan **[per plan]**
    5.3.3.3  Administer the IHB Local Area Network **[Routine]**
    5.3.3.4  Provide IT training for IHB staff  **[Routine]**

**Element 5. 4** - **Host Government Affairs**

**Task 5. 4. 1**    Implement the Host Agreement **[Routine]**

**Task 5. 4. 2**    Maintain good relations and personal contacts  with the Monaco Government at all levels, including visits, briefings etc **[HP]**

**Element 5. 5     IHO Membership Administration**

**Task 5. 5. 1**    Manage all aspects of applications for membership and accessions to the Convention **(Routine].**

**Element 5. 6  -  IHO Conferences**

**Task 5. 6. 1**    Organise XVI IH Conference and Exhibition  **[Routine]**

**List of Key Targets [KT]**

KT 5.1    Submit IHO Strategic Plan to Member States for approval in 2000
KT 5.2    Submit proposals for further re-structure to Member States for approval in 2002
KT 5.3    Submit proposals for a zero growth budget to MS for consideration in 2002.
KT 5.4    Submit results of a study of voting procedures to Member States by the end of 2000
KT 5.5    Administer the IHB Budget agreed by each conference within approved limits; and report on the past financial year to the Finance Committee by 1$^{st}$ April, and to the Member States by 30$^{th}$ June.
KT 5.6    Carry out studies and submit results to Member States by the dates shown;
    Alternative social security regime        by end 2000
    New salary structure for staff        by end 2001
    Staff development and appraisal        by end 2001
KT 5.7    Implement the agreed IT Master Plan
KT 5.8    Develop an Occupational Health and Safety Plan for the IHB by end 2000
KT 5.9    Respond to requests from Nations wishing to become Member States within six months.

KT 5.10   Prepare a discussion paper on incentive schemes for payment of annual membership contributions and   submit it to the Finance Committee by end-2000.

KT 5.11   Review the structure and application of membership contributions to reduce the financial burden to small nations, by end 2001.

# IHO WORK PROGRAMME
## SCHEMATIC

| **Programmes** | | | | |
|---|---|---|---|---|
| 1<br><br>International Co-operation<br>⇩ | 2<br><br>Capacity Building<br>⇩ | 3<br><br>Techniques And Standards<br>⇩ | 4<br><br>P.R. and Management<br>⇩ | 5<br><br>Corporate Affairs<br>⇩ |

**Programme Elements**

| | | | | |
|---|---|---|---|---|
| 1.1 International Co-operation<br><br>1.2 International Organizations<br><br>1.3 Non-Member States | 2.1 Technical Assistance<br><br>2.2 Membership Development<br><br>2.3 Financial Assistance<br><br>2.4 Government Information<br><br>2.5 Regional Co-operation | 3.1 Cartography & Information Services<br><br>3.2 Hydrographic Surveying<br><br>3.3 Training and Education<br><br>3.4 GIS Application<br><br>3.5 Maritime Safety Information<br><br>3.6 Editorial & Publications<br><br>3.7 Translation | 4.1 Public Information<br><br>4.2 Management Information | 5.1 Corporate Development<br><br>5.2 IHO Administration<br><br>5.3 Property & I.T.<br><br>5.4 Host Government<br><br>5.5 Membership Administration<br><br>5.6 Ordinary IH Conferences |

**Key targets**

| Permanent | Permanent | Permanent | Permanent | Permanent |
|---|---|---|---|---|
| 2000<br>2001 | 2000<br>2001<br>2002 | 2000<br>2001<br>2002 | 2000<br>2001 | 2000<br>2001<br>2002 |

**IHO WORK PROGRAMME**

**RESOURCE ALLOCATION**

The attached tables summarise IHB resource allocation, according to staff time and funds employed.

Additionally, Member States' non-monetary  contributions to the work of IHO, for example through participation in the work of subsidiary bodies, can be gauged from the IHO Annual Report 1999, Sections 2.3 and 2.4

Attachment:     Summary Resource Tables

Notes:

1.      This table has been prepared from the best information available in 1998.   From 2000 it will be possible to produce more accurate information, based upon data from the analytical accounting software purchased in 1999.

2.      <u>Cross Reference to Budget Chapters and lines</u>

        (1)  IHB o/h = II a, e, h, i, j, q, III, V
        (2)  Publications = II m, n, o, p, IV

# IHO WORK PROGRAMME

## SUMMARY OF IHB RESOURCE ALLOCATION

**Table 1: Staff Weeks**

|  | Programme 1 | Programme 2 | Programme 3 | Programme 4 | Programme 5 | TOTAL | % |
|---|---|---|---|---|---|---|---|
| Directors | 23 | 34 | 33 | 23 | 28 | **141** | *14* |
| PA's | 16 | 15 | 118 | 15 | 71 | **235** | *24* |
| Cat. B/C | 9 | 9 | 350 | 68 | 177 | **613** | 62 |
| TOTAL | **48** | **58** | **501** | **106** | **276** | *989* | 100 |
| % | *5* | *6* | *50* | *11* | *28* | *100* |  |

**Table 2:    French  Francs ('000s)**

|  | Programme 1 | Programme 2 | Programme 3 | Programme 4 | Programme 5 | TOTAL | % |
|---|---|---|---|---|---|---|---|
| Staff:    Dir | 437 | 645 | 626 | 437 | 531 | **2676** | *19* |
| **PA's** | 216 | 202 | 1588 | 202 | 955 | **3163** | *23* |
| **Cat. B/C** | 73 | 73 | 2850 | 554 | 1441 | **4991** | *36* |
| **Consultants** |  |  | 25 | 75 | 25 | **125** | *1* |
| *All Staff* | *726* | *920* | *5089* | *1268* | *2952* | *10955* | **79** |
| IHB o/h    (1) |  |  | 52 |  | 703 | **755** | *5* |
| Post/ Tel.(**cd**) |  |  |  |  | 499 | **499** | *3* |
| Travel    (**fgk**) | 180 | 330 | 292 |  |  | **802** | *6* |
| Publications (2) |  |  | 461 | 35 |  | **496** | *3* |
| P.R.      (**l**) |  |  |  | 85 |  | **85** | *1* |
| I.H. Conf. |  |  |  |  | 400 | **400** | *3* |
| TOTAL | **906** | **1250** | **5894** | **1388** | **4554** | *13992* | 100 |
| % | *6* | *9* | *42* | *10* | *33* | *100* |  |