



IHB File No. S1/3023 & CBSC-1

**CIRCULAR LETTER 73/2014**  
**10 November 2014**

**CATEGORY "B" MARINE GEOSPATIAL INFORMATION PROGRAMME**  
**SPONSORED BY THE REPUBLIC OF KOREA**

**CALL FOR APPLICATIONS**

Reference: IHO CL38/2011 dated 30 June – *Memorandum of Understanding (MoU) between the Republic of Korea and IHO on Support of the IHO Capacity Building Programme*

Dear Hydrographer,

1. The Republic of Korea (ROK) supports the IHO Capacity Building (CB) Programme by providing funds under the terms of a Memorandum of Understanding signed in 2011 and indicated in the Reference. Funding provided by the ROK is available for up to five participants to attend Phase 1 of a "Marine Geospatial Information Programme" which will take place at the Korea Hydrographic and Oceanographic Administration (KHOA), Busan, ROK, from 2 March to 10 April 2015. The three-phase Programme is recognized at the Category B level by the International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) in accordance with IHO Publication S-8 - *Standards of Competence for Nautical Cartographers*. In order to qualify for a certificate recognising the completion of a Category B accredited course in nautical cartography, the selected students must also complete the two subsequent phases of the Programme that will be offered in 2016 and 2017. Further details of the course are provided in Annex.
2. This training was approved by the Capacity Building Sub-Committee and is activity P-27 in the 2015 CB Work Programme. Funding support will cover a return airfare, hotel accommodation, meals and training materials. The funding does not include pocket money for the trainees or allowances for family members. Medical and life insurance is not covered and should therefore be arranged by the submitting organizations or the selected students.
3. IHO Member States are invited to consider nominating ONE suitable candidate who will benefit from this training (Phase 1) and the follow-on training (Phase 2 in 2016 and Phase 3 in 2017) and will thereby assist the nominating country in developing its hydrographic capabilities.
4. It is essential that candidates are employed by a national hydrographic office, a maritime authority or a related national agency in the nominating country. The nomination must include a statement specifying that the candidate is, or will be, involved in the provision of hydrographic services and that, once the training has been successfully completed, the candidate will continue to work in this field.
5. The authority nominating a candidate should carefully select the nominee and ensure that opportunities will be in place for the nominee to transfer the learning undertaken during training in a structured manner for the benefit of his or her parent organization. This will ensure that the individual and the sponsoring organization gain full benefit.
6. **Nominated candidates MUST meet the following criteria:**
  - a. Have a high school diploma plus two years of additional education from a technical college, institute or university. The additional education must be focused on GIS, geography, mathematics and computer science.

- b. Have a very good standard of English, both written and spoken, with reasonable technical English (Candidates' English skills will be assessed during a telephone or teleconference interview before final selection).
  - c. Submit an application that includes their education, work experience and exposure to hydrography and cartography.
7. Applications should be submitted in accordance with Capacity Building Procedure 7, available in the IHO website at: [www.iho.int](http://www.iho.int) → Capacity Building → CB Procedures (available in PDF, with a template in MSWord).
8. A Selection Panel, comprising representatives from the IHB Directing Committee and KHOA, will select the candidates for the course. The successful candidates and their parent organizations will be informed of the selection by mid-January 2015. Successful candidates will be selected individually based on their merits. Once selected, candidates cannot be changed by their national authorities. Selected candidates will receive detailed logistic information directly from the KHOA Project Leader.
9. Applications should be submitted no later than **05 January 2015** to the following address:

International Hydrographic Bureau  
Fax: +377 93 10 81 40  
e-mail: [info@iho.int](mailto:info@iho.int) with copy to [pok@iho.int](mailto:pok@iho.int)

10. Applicants and nominating authorities should carefully consider the short timescale involved between selection and commencement of the course. This may impact on the ability of some personnel to obtain the necessary visas and to make all personal domestic and administrative arrangements. Selected candidates will be expected to report to KHOA to commence the training on 1 March 2015.

On behalf of the Directing Committee

Yours sincerely,



Mustafa IPTES  
Director

Annex: Summary of the Marine Geospatial Information Programme

**SUMMARY OF THE MARINE GEOSPATIAL INFORMATION PROGRAMME  
TRAINING RESEARCH AND DEVELOPMENT CENTER (TRDC)  
CONDUCTED IN BUSAN, REPUBLIC OF KOREA**

The Marine Geospatial Information Programme consists of four Modules and one Specialism. The Programme will be delivered in a 3-year cycle:

Phase	Year	Modules (Units)
1	2015	Modules 1 and 2a (Units 1-5)
2	2016	Modules 2a (revision) and 2b (Units 6-9)
3	2017	Modules 3 and 4, and Specialism 1

A certificate recognising the successful completion of a Category B accredited course in nautical cartography will be awarded to the students that successfully complete the three phases of the programme.

**PHASE 1 - 2015**

**Module 1** represents the foundation module of the program; it introduces students to the basics of marine data processing, chart work and cartography, building the foundation for Module 2.

**Module 2, Part A**, includes extensive practical exercises, assignments, hands-on instruction and continuous testing of newly acquired skills.

<b>Module 1 - Foundations of Marine Geospatial Information</b>	
Unit 1	Introduction to Charts and ENC's
Unit 2	Chart Compilation Concepts
Unit 3	ENC Data Concepts
Unit 4	Product Maintenance – Ways of Updating
<b>Module 2 Part a - Marine Data Assessment, Compilation and Production</b>	
Unit 1	Chart Design and Planning (Chart Scheming)
Unit 2	Compiling Topography & Coastline
Unit 3	Compiling Bathymetry, including contouring
Unit 4	Compilation of other features
Unit 5	Product Finishing – ENC's and Paper Charts

## **PHASE 2 - 2016**

**Module 2, Part A (revision) and Part B**, includes extensive practical exercises, assignments, hands-on instruction and continuous testing of newly acquired skills.

<b>Module 2 Part A (revision) and Part B - Marine Data Assessment, Compilation and Production</b>	
Revision	Module 2a, units 1-5 from phase 1 (2015)
Unit 6	Evaluating Bathymetry (Advanced)
Unit 7	QC & Workflow
Unit 8	Complex Compilation
Unit 9	Product Finishing: Raster Charts & Printing

## **PHASE 3 - 2017**

**Module 3** contains the legal and scientific elements of the program, including geology, oceanography and maritime law.

**Module 4** represents a self-contained course on Marine Spatial Data Infrastructures (MSDI), including the wider uses of hydrographic data with practical assessments to ensure comprehension.

**Specialism 1** (Remote Sensing for Hydrographers) is based on the practical use of satellite and aerial imagery for chart compilation and cartography.

<b>Module 3 Marine Environment &amp; Context</b>	
Unit 1	Marine Geology
Unit 2	Oceanography
Unit 3	Maritime Law
<b>Module 4 - Marine Spatial Data Infrastructures</b>	
Unit 1	Marine Data Products & Services
Unit 2	Marine Spatial Data Infrastructures
Unit 3	MSDI Applications
Unit 4	Marine Information Objects
<b>Specialism 1 Remote Sensing for Hydrographers</b>	
Unit 1	Photogrammetry Concepts and Techniques
Unit 2	Remote Sensing
Unit 3	Imagery Interpretation