



# Building Hydrographic Capacity On-Line and On-Site S-5B and S-8B

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MACHC  
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# Overview

- Motivation
- Global S-5B/S-8B – Design considerations
- IIC Academy / Deakin University
- Participants
- Practicals & Final Field Project
- Future



# Motivation

## Institutional

- Demand for personnel has exceeded supply
- Loss of trained personnel to other markets
- Increased contracting out by HO's to Industry
- Employee retention / career path / marketability
- Hydrographic Certification

## Individual

- Cost of training travel, accommodations.
- Pressure of life / work / education balance
- Career growth, Hydrographic Certification, CPD
- Connected globally



# Hydrographic Certification (Level 0, 1 and 2)

7.1 It is recommended that an ACLS Certified Hydrographer (CH or CHTech) or equivalent Certification recognized by the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC), be employed as part of the onsite team, for the duration of a project. These certifications will constitute part of the technical rating criteria of this RFSA.

**Canadian Hydrographic Service**

## **UKHO Hydrographic Survey Specifications**

### Charge Surveyor

“The Charge Surveyor must be accredited to HPAS Level 1 or 0 (or equivalent) and/or degree level hydrographic surveying qualification from an IBSC Category A recognised course ....

## **Australian HydroScheme Industry Partner Program - Statement of Requirement:**

### ***3.2 Surveyor in Charge (SIC)***

*The Contractor shall identify the SIC in their Survey Management Plan (SMP). The SIC is to be an AHSCP certified Level 1 Surveyor (CPHS1) and in date for Continual Professional Development (CPD) as per the list of certified Surveyors on the SSSI website. The SIC will be responsible for:*



# IBSC Recognized Programs

- 3-year time frame for completion
- Global Delivery (anywhere, anytime)
- Partnering with local institutions

N° 193

FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC)



**Certificate of Recognition**  
**IIC Technologies Academy (India)**

The FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers, having reviewed the Programme "Hydrographic Surveying Programme (Global Delivery)" against the Standards of Competence for Category "B" Hydrographic Surveyors, S-5B, Edition 1.0.1, and being satisfied that it meets the requirements prescribed for a Category "B" programme hereby awards this certificate of recognition for a period of six (6) years.

Signed at Monaco  
  
Ron Furness  
Chair of the Board  
This day the 5 April 2019

**S-5B**

N° 210

FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC)



**Certificate of Recognition**  
**IIC Technologies Academy (India)**

The FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers, having reviewed the Programme "Marine Geospatial Information (Portable Delivery)" against the Standards of Competence for Category "B" Nautical Cartographers, S-8B, Edition 1.0.0, and being satisfied that it meets the requirements prescribed for a Category "B" programme hereby awards this certificate of recognition for a period of six (6) years.

Signed at Monaco  
  
Ron Furness  
Chair of the Board  
This day the 29 October 2020

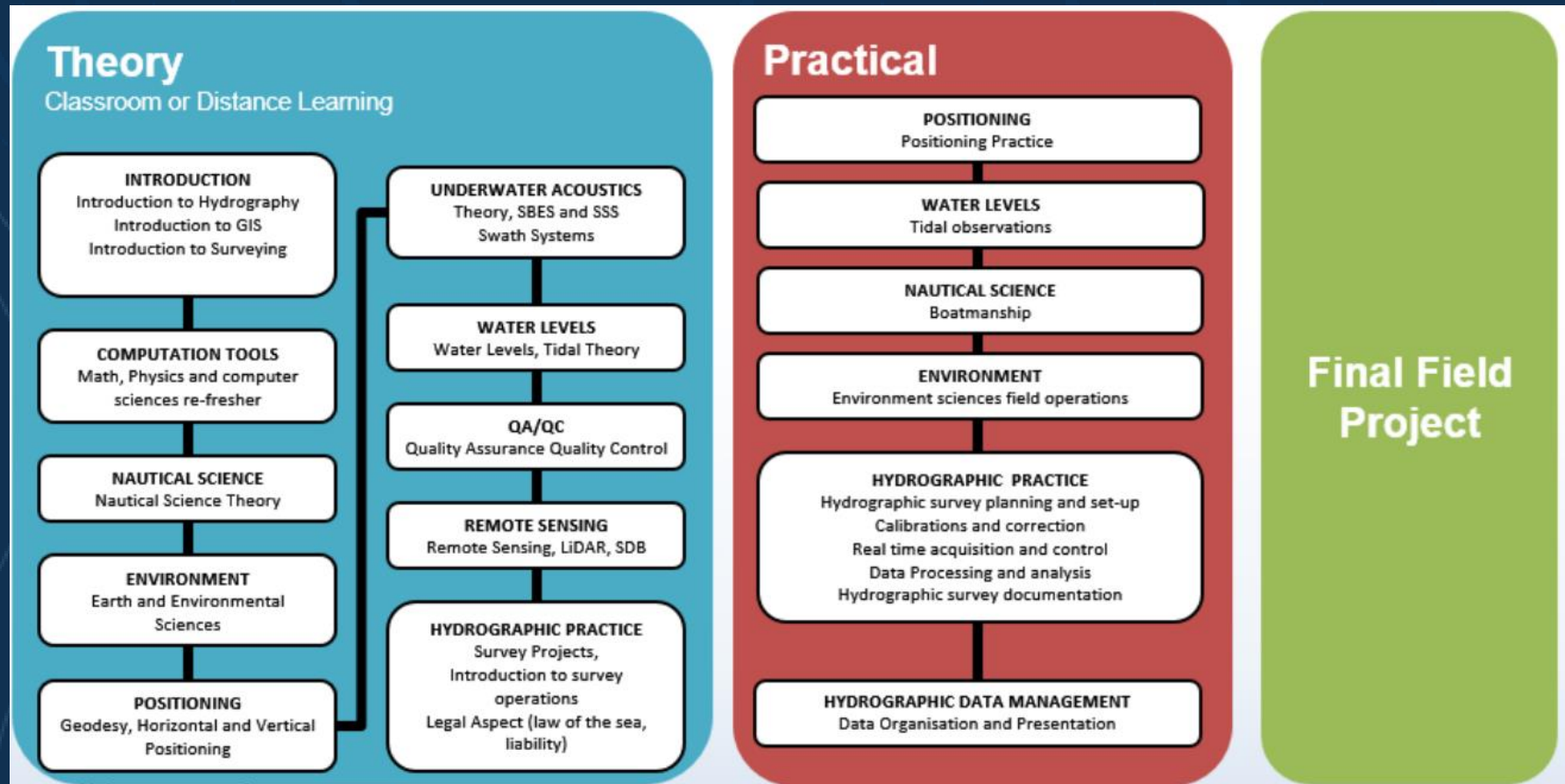
**S-8B**



# IIC Academy Cat S-5B Course Design and Delivery

**On-line**  
(13 weeks content /  
30 weeks to complete)

**On-Site (Globally)**  
5 weeks                      4 weeks



# IIC Academy Cat S-8B Course Design and Delivery

On-line

(22 weeks content / 30++ weeks to complete)



## Foundations of Marine Geospatial Information (10 Days)

- Introduction to Nautical Cartography
- Charting International framework and organizations
- Basic concepts of Cartography

## Data Assessment, Compilation and Production (32 Days)

- Essential aspects of Nautical Chart production
- S-57 Object Catalogue
- Data Sources and Production Tools

## Production and Validation (32 Days)

- Evaluation and Categorization of Bathymetric Surveys, CATZOC
- Workflow and Process Design
- ENC Production, Quality Management and S-65
- Chart Proofing and Printing, Raster Chart Production

## Marine Environment: Physical Characteristics and Legal Issues (6 Days)

- Elements of Geology, Geophysics, Oceanography and Maritime Law
- Marine Environment and Cartography

## Marine Spatial Data Infrastructure (5 Days)

- Concepts, Evolution
- Practical Deployments
- Role of MSDI in National and Regional Development

## Remote Sensing (5 Days)

- Concepts, Sensors
- Data Formats and Preparations
- Remote Sensing in Cartography

# Web-based Learning Components



Webinars

Instructor led



Presentations

Contents

Videos

Self-paced reading

Instructor monitors  
progress time



Quizzes

Short Tests

Self-paced

Instructor monitors  
re-takes

Instructor validates  
results



Assignments

Exercises

Interaction with  
instructor

Instructor corrects  
and guides



Forum

Instructor  
moderated

Instructor assesses  
student participation



Tutoring

(if required)

Instructor led  
Individual students  
or small groups





# Category S-5B Program (2023-24)



Partnership



## 2<sup>nd</sup> Blended

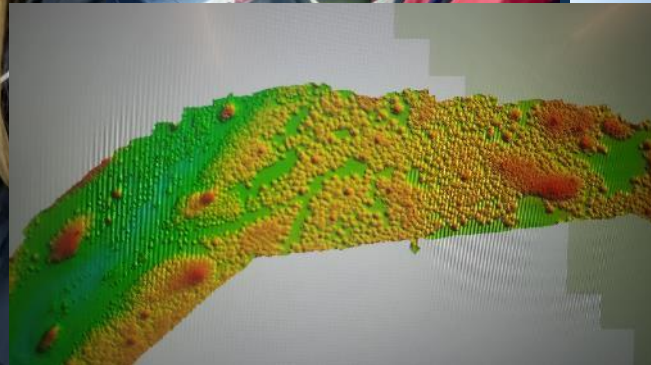
- Commenced September 2022
- Practical & Final Field Project – May 2023 / Australia
- 11 students graduated

## 3<sup>rd</sup> Blended

- Commenced September 2023
- Practical & Final Field Project – May 2024 / Australia and Canada
- 19 students enrolled



# S-5B Practicals and Final Field Project





## Category S-8B Program (2023-24)

### 2<sup>nd</sup> Blended

- Commenced September 2022
- Practical & Comprehensive Cartographic Project – Jun 2023 / Australia
- 6 students graduated

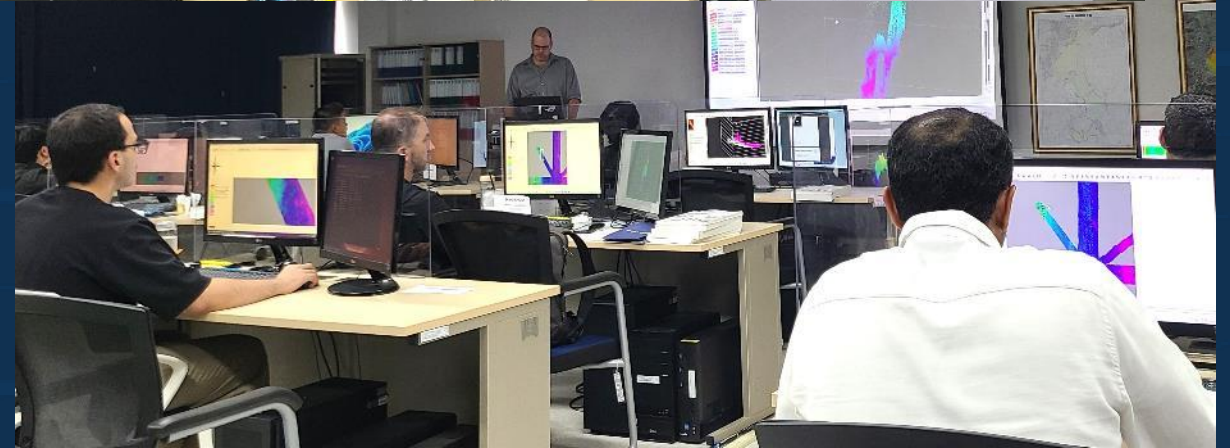
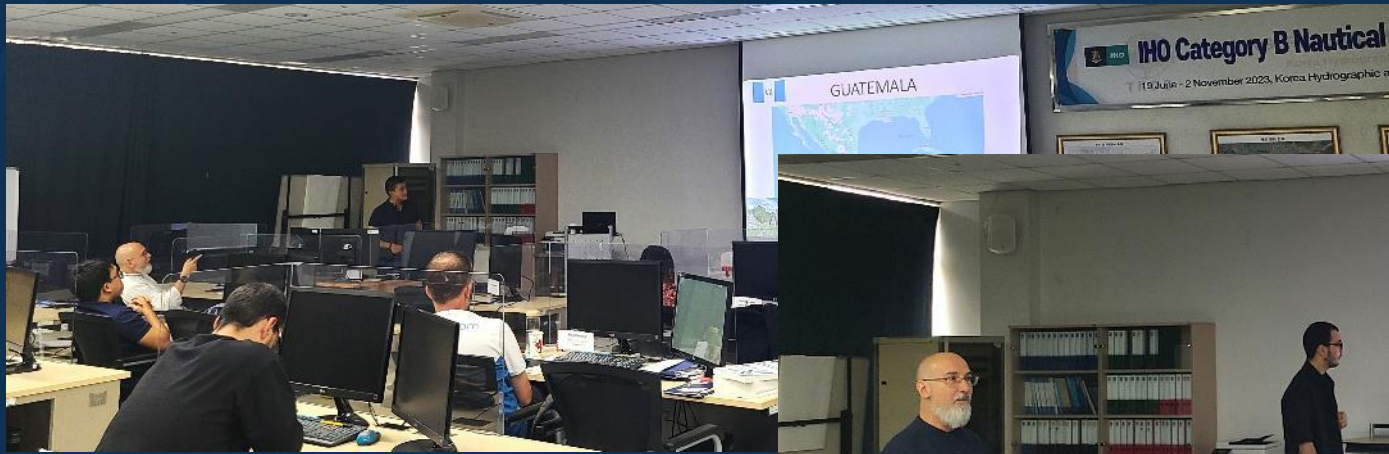
### 3<sup>rd</sup> Blended

- Commenced September 2023
- Practical & Comprehensive Cartographic Project – Jun 2023 / Australia, Philippines and USA
- 20 students enrolled



## Category S-8B Program - KHOA 2023

- 22 weeks on site
- IBSC recognized program
- 9 students representing Greece, Australia, Ghana, Guatemala, Georgia, Phillipines, Nigeria, Oman and Saudi Arabia.





# Thank You

[www.iicacademy.com](http://www.iicacademy.com)

For more information on the S-5B course or to register:

Email:  
[hydrographicsurveyor@iicacademy.com](mailto:hydrographicsurveyor@iicacademy.com)

For more information on the S-8B course or to register:

Email:  
[nauticalcartographer@iicacademy.com](mailto:nauticalcartographer@iicacademy.com)