Title:

Hydrographic Surveyors Certification

Speaker:

Mr. Neil Hewitt, MSc, CPHS1

Chair, FIG Working Group 4.1

AHSCP Panel Member

Date:

18 & 19 November 2019

Australasian Hydrographic Surveyor Certification Panel (AHSCP) Certification

History

- Late 1980s – awareness a need to lift standards of hydrographic surveying and provide a clear career pathway to aspiring surveyors.
- 1991 – A Symposium of some 100 Surveyors voted unanimously to find a means to industry regulation and certification independent to Land Surveyor Registration which was limited to Cadastral Surveying.
- 1992 – the then Institute of Surveyors, Australia (ISA) expressed a wish to widen its membership to include all aspects of surveying with commissions modelled on the FIG.
- 1993 – the Reciprocating Surveyors Board of Australia and New Zealand supported the proposal for accreditation.
- 1993 – ISA formed a Hydrographic Commission.
- 1994 – The ISA Hydrographic Commission created the Australian Hydrographic Surveyors Accreditation Panel
- 2001 – Trans – Tasman agreement between ISA and New Zealand Institute of Surveyors (NZIS) results in AHSAP becoming the Australasian Hydrographic Surveyors Accreditation Panel

History

- 2004 – parts of the ISA amalgamates with other interrelated Australian professional bodies to form the Spatial Sciences Institute (SSI).
  - ISA Hydro Commission moves under the SSI as the SSI Hydrographic Commission.
  - The AHSAP is renamed the Australasian Hydrographic Certification Panel (AHSCP) in line with SSI convention that recognise accreditation of courses and certification of individuals.
- 2009 –The AHSCP discontinue the "Long Term Practice" clause as a pathway to certification.
- 2009 – SSI and ISA merge to form the Surveying and Spatial Science Institute (SSSi).
- 2012 – AHSCP gains certification from IBSC for the AHSCP Certification Scheme
- 2018 – NZIS changed its name Survey and Spatial New Zealand (S+SNZ)
- 2019 – AHSCP Gained accreditation from the IBSC to assess applicant under the new S5A and S5b syllabus

WHAT?

Recognition of education and competence in Hydrographic Surveying

Regional (Australasia) certification process

AHSCP process Recognised by the IBSC

WHY?

- ✓A mark of excellence
- ✓Achieve Recognition
- ✓Credibility
- ✓Professional standing
- ✓Confidence in you company

WHY?

Employment and opportunities:

- Communicates competency (rather than just education) to Employers.
- Communicates competency to Clients. Makes you more attractive to Employers.
- Requirement under LINZ specifications to be in charge of surveys (Cat A or Level 1, plus experience).
- Requirement under AHO HIPP specifications – Level 1 and Level 2.

WHY?

More importantly:

Island nations such as Australia and New Zealand must have confidence in the Hydrography that support its maritime trade

Certification underpins this confidence

Levels of Certification

Certification has two distinct levels:

Level 1 – The highest achievable and demonstrates an in depth knowledge and project management capabilities

Level 2 – Field surveyor / technician demonstrating operational surveying capabilities

Pathways

Each level has different pathways based on:

- Education
- Experience in practical hydrography
- Sea Time
- Time in charge

Pathways – Level 2

- Practical level of certification
- Recognises education and practical competence in hydrographic surveying

Pathways – Level 1

- Highest level of certification
- Recognises education and in depth knowledge of hydrographic surveying concepts and practices

The Process


Education
Check the requirements and Guidelines
Experience
Certification

Education

Aligned with the S5A and S5B Syllabus

- Category A and B courses
- Degree in surveying or allied discipline
- Surveying or allied qualification

Experience

- Log all surveying experience
- Log sea time (practical hydrographic surveying)
- Substantial amount of sea time in charge
- Demonstrate knowledge through portfolio (Level 1)

LOGBOOK OF PRACTICAL HYDROGRAPHIC SURVEYING EXPERIENCE

(Example 1)

Candidate (Applicant): Jim Kirk

Dates (dd/mm/yy)		Consolidation of Category B and / or Category A syllabus level of knowledge				Description[2]	Competencies Exercised[3]
From	To	Field Survey / Office Days[1] Cat B	Field Survey / Office Days[1] Cat A	Sea-time Days Cat B	Sea-time Days In Charge Cat A		
06/03/07	08/03/07		3			**Project Name/Task**: West Channel Port Development **Location:** Seaforth Harbour **Vessel/Barge/Rig/Platform[4] Name:** SMB 'Dolphin' **Particulars:** LOA: 15m; Draft: 1m; GRT: n/a; Ships Crew: 2; Inshore survey/dive vessel (Class 2C). **Candidates Position**: Senior Surveyor / OIC on vessel **Candidates Responsibilities**: Responsible for mobilising testing and calibrating all navigation and geophysical equipment. All online navigation operations to meet job specifications. Assisted with divers' reconnaissance of cable crossings. **Survey Equipment Utilised:** Multibeam, Echosounder, Side scan sonar, Bottom sampler **Number of Survey related Personnel on Vessel:** **Including sub-contractors (not Ships Crew)**: 2 dive personnel joined temporarily on 20 & 22 March 2007 **Comments/Experience Gained:** 1. Analysis of tidal data for region of survey from recent and historic surveys. 2. Checked historic field coordinates & geodetic transformation values for identification & integration of historic channel and seabed obstacles 3. Contouring seabed bathymetry & data processing. 4. Responsible for desk study on seabed sediment movement in port region particularly survey area with emphasis on future dredging works. 5. Initial volumes determination. 6. Responsible for final report, signed off by Survey Manager	O2.6, O2.1, O2.7, O2.5, O1.1, E4.1b, E4.2(a,b) O5.4 E3.2(h), E5.3(b) E1.2 (a - f), E1.3(a,b), E1.4(a - d) O7.6 O2.4, O7.2, O7.5 E3.1(b - e)
11/03/07	14/03/07		0		4		
15/03/07	16/03/07		2		0		
20/03/07	23/03/07		0		4		
26/03/07	29/03/07		0		4		
31/03/07	03/04/07		0		4		
05/04/07	06/04/07		0		2		
16/04/07	20/04/07		5				
Total Days[6]		0	10	0	18		

Notes:
1. Include working days only.
2. If Project particulars change during Project period it is not necessary to renew the page unless significant changes occur. Note any changes in the Comments section.
3. Competencies Exercised relate to the Essential Subjects & Optional Units defined in IHO Publication S-5 Standards of Competence for Hydrographic Surveyors Edition 11 (Appendix D to these Guidelines). S-5 reference numbering is to be used.
4. Platform may refer to fixed wing or helicopter remote sensing platforms.
5. Senior Supervisor should be onsite however may be shore based.
6. **The number '0' must be between numbers for calculation to work. Refer to examples. Then right click on totals and select 'Update Field'**

Senior Supervisor[5]: Rob Stokes **Signature**: R Stokes

Position: Survey Project Manager

Company: O&G Marine Pty Ltd

Date: 20th November 2006

Experience

Portfolio of work (Level 1)

- Min two Reports and Plans
- Demonstrate in depth knowledge
- Demonstrate in charge
- Critical analysis of data and results

Specialisms

- Hydrography in Support of Coastal Zone management
- Hydrography in Support of Inland Waterways Management
- Hydrography in Support of Offshore Infrastructure Development
- Hydrography in Support of Safe navigation

The Process

- Ensure documentation submitted
- Certified true copies
- Assess level of education
- Review competencies exercised
- Assess survey time and time in charge
- Review portfolio of work

The Process

- Panel members review applicants independently
- Assessments sent to AHSCP secretary
- Assessments distributed to the panel day before meeting
- Panel discuss applicants at meeting
- Panel provides feedback to Hydrography Commission

Tips - Individuals

- Ensure all paperwork is correct
- Ensure you have the correct amount and type of days experience
- Start your logbook early in your career
- In depth knowledge of fundamental aspects of hydrographic surveying
- Seek In charge opportunities
- Provide critical analysis of results (if required)
- Once certification is achieved - maintain it!

Tips - Employers

- Include your employees professional development in your plans
- Identify opportunities across a range of projects
- Provide time for your employees to further develop projects for certification
- Seek approval from Clients to use the reports and data for certification purposes

The panel

Chair – Commodore Fiona Freeman (RAN)

Private Practice - Neil Hewitt

Hydrography for Coastal Zone Management – Barry Smith

Nautical Charting Hydrography – Nigel Townsend

Education - Richard Cullen

Industrial Offshore Surveying - Martin 'Cass' Castalanelli

Volunteers

Certified

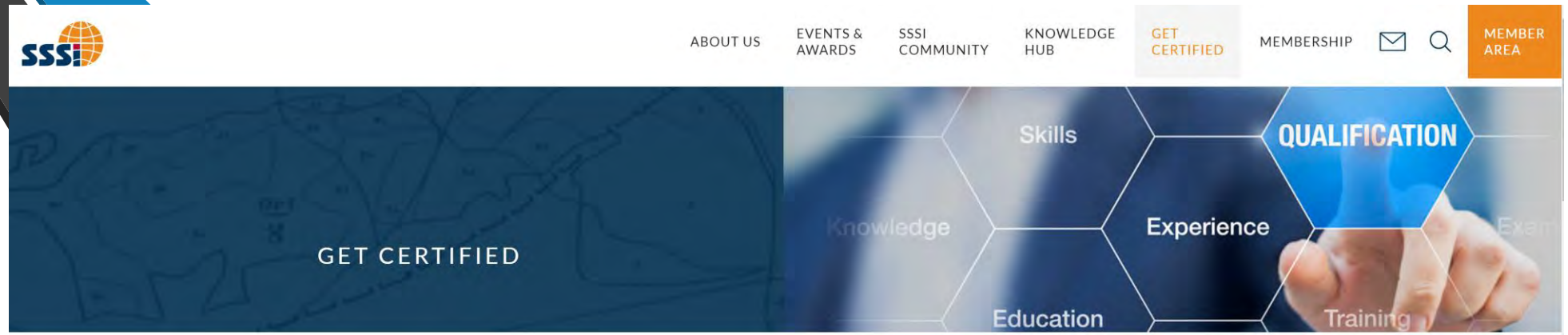
- Join SSSI or SSNZ
- Maintain CPD
- Or
- Reapply evert Year

- Post Nominals CPHS1 or CPHS2

Where to find out more?

Surveying & Spatial Sciences Institute (SSSI) website –

https://sssi.org.au/get-certified



GET CERTIFIED

Questions