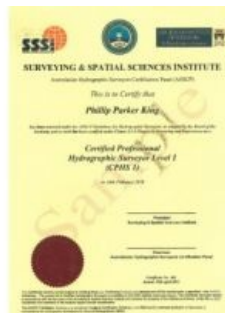


A World First for Hydrographic Surveying Certification



The Australasian Hydrographic Surveyors Certification Panel (AHSCP) is the first national/regional competency certification scheme to be internationally recognised. On 24 May 2012, at its annual meeting held in Buenos Aires, Argentina, the FIG/IHO/ICA International Board for Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) awarded

recognition to the AHSCP Certification Scheme. This was indeed a historic event for the AHSCP, being the first and currently the only national/regional hydrographic surveyor competency certification scheme to gain recognition from the IBSC.

by Commodore Brett Brace RAN, Chairman AHSCP

In general terms IHO 'Category A' or 'Category B' refer only to the level at which a course of study is recognised by the IBSC and not an individual. Should you successfully complete a Category A or B hydrographic surveying course, competency obtained by practising the profession has been the component lacking most. Competency comes from the application of theory in practical activities and often requires being an "understudy" or in modern terms, "mentored". In much the same way as a doctor who leaves university is not given a licence to practise medicine until he/she becomes practically experienced (competent), hydrographic surveyors, like their land surveying counterparts, must increasingly be deemed competent in order to submit hydrographic survey data for official use.

The IBSC has long recognised the crucial linkage between education and competence but until recently has only had the ability to influence the former through the recognition of academic courses. However their rules have recently been changed to enable them to recognise national or regional schemes that certify individual surveyor competence, the AHSCP being the first. The AHSCP is a regional certification body jointly sponsored by the Surveying and Spatial Sciences Institute (SSSI) and the New Zealand Institute of Surveyors (NZIS).

The AHSCP has assessed over 200 applicants between 1995 and September 2013, of which 132 have been certified at Level 1 and 56 at Level 2. Over the years some of our surveying fraternity have moved into retirement and continue to dwindle from the [List of Current Certified Professionals in Hydrographic Surveying](#). However each year, new applicants see the value to their resume, clients and employer that certification is an 'Ace in the hole'. Interestingly about 20% of the certification applications received have been from surveyors living outside the Australasian region. (**Table 1**)

Applications:	Sub Total				Breakdown of Foreign Applications											
	AUSTR	NZ	Other	Bangla- desh	BEL	CAN	FIN	FRA	Hong Kong	IND	ITA	Peru	SIN	SA	UK	USA
Certified at Level 1	132	104	10	18	1		4		1		1		2	3	6	
Certified at Level 2	56	38	7	11		1	1	3	1		1			2	1	1
Under Review																
(pending submission of additional information)	18	8	1	9			1						1	1	6	
Not eligible	7	4	2	1								1				
Total	213	154	20	39	1	1	1	8	1	1	1	1	3	6	13	1

Table 1, AHSCP - Summary of Applications and Assessment (1995 - Sep 2013)

History of the AHSCP

Hydrographic surveyor competency certification has long been an objective of the Australasian hydrographic community. At a Hydrographic Society Symposium held in Sydney in 1991 some 100 hydrographic surveyors voted unanimously to explore a means of industry regulation and accreditation (certification) of hydrographic surveyors, recognising that certification would lift hydrographic surveying standards thereby ensuring the delivery of quality surveying services to government and the private sector and provide a career path for aspiring hydrographic surveyors.

In 1992 the Institution of Surveyors, Australia (ISA) established a series of commissions for surveying specialities including hydrography, modelled on the FIG commissions. The 1993 meeting of the Council of Reciprocating Surveyors Boards of Australia and New Zealand (CRSBANZ), comprising all Surveyors-General of the Australian States and Territories and the New Zealand Surveyor-General, was briefed on the accreditation proposal and supported the idea.

The ISA Hydrographic Commission was subsequently formed and charged with the task of establishing a means of hydrographic surveyor accreditation. This resulted in the creation of the Australian Hydrographic Surveyors Accreditation Panel (AHSAP), which held its inaugural meeting on 4 August 1994.

In 2001 the Australian Hydrographic Surveyors Accreditation Panel became the *Australasian* Hydrographic Surveyors Accreditation Panel with the ratification of the Trans Tasman agreement between the ISA and NZIS. The AHSAP had by then accredited a number of applicants from New Zealand and other countries and its work was becoming recognised internationally.

In 2004, the ISA, and four related associations, founded the Spatial Sciences Institute (SSI). The Australasian Hydrographic Surveyors Accreditation Panel became the Australasian Hydrographic Surveyors *Certification* Panel, in line with SSI conventions that recognised accreditation of courses of study and certification of individuals.

In 2009 members of ISA and SSI voted to dissolve their respective organisations and move the assets and memberships into the Surveying and Spatial Sciences Institute (SSSI) with the AHSCP continuing its work within the SSSI Hydrography Commission.

The path to IBSC Recognition

The AHSCP commenced its journey for international recognition in 2006 by presenting its credentials to the IBSC at their meeting in Goa, India (http://www.iho-ohi.net/mtg_docs/com_wg/AB/AB29/AB29_Report.pdf).

In May 2011, the IBSC, which had previously only recognised academic training courses, published, in the 11th Edition of its Standards of Competence for Hydrographic Surveyors (S-5), a new set of criteria allowing the recognition of national or regional schemes certifying the competency of individuals. (http://www.iho.int/iho_pubs/standard/S-5_Ed_11.0.1_06May2011_Standards-Hydro.pdf)

The formal AHSCP application was submitted to the IBSC in December 2011 and AHSCP Chair Commodore Rod Nairn RAN (Hydrographer of Australia) presented the case for recognition at the IBSC meeting in Buenos Aires in May 2012. It was at this meeting that recognition of the AHSCP scheme was approved, and a Certificate of Recognition awarded. **(Figure 1)**

This historic event was the culmination of six years of concerted effort by members of the AHSCP and the SSSI Hydrography Commission, being the first and currently the only national or regional scheme certifying hydrographic surveyor competency to gain international recognition.

The AHSCP Certification Process

The objective of AHSCP certification is to ensure that hydrographic surveys, critical to navigation safety, to the support the maritime and offshore oil & gas industries and to the protection of the marine environment, are carried out to international standards by competent professionals.

The Panel is comprised of five experienced hydrographic surveyors with practical expertise in the disciplines of Nautical Charting Hydrography, Surveys for Coastal Zone Management, Offshore Construction Hydrography, Education, and Private Practice. Members are elected for a two-year term and meet quarterly under the chairmanship of the incumbent Hydrographer of Australia who is an ex-officio member of the Panel.

Applicants are certified following a rigorous assessment process involving detailed scrutiny of the applicant's academic qualifications, verified employment history and relevant hydrographic experience in accordance with the S-5 standards. Individual assessments of these elements by each Panel member are combined and analysed to determine whether the evidence provided is sufficient to prove competence.

This certification scheme, one of several offered by SSSI, is designed to ensure that those employed as hydrographic surveyors have the appropriate education, skills and experience to undertake their tasks. It is especially useful for potential employers to know that prospective employees have been independently assessed to an international standard. Certification is an open process and to obtain certification a person need not be a member of SSSI or NZIS nor are successful applicants required to join either organisation.

There are two levels of specialist hydrographic surveyor certification offered by the AHSCP. Level 1 is the highest attainable, assessing the Hydrographic Surveyor as competent to undertake and manage hydrographic surveying projects and is regarded as the Professional Level. Level 2 certification recognises a practical comprehension of hydrographic surveying and is regarded as the Technician Level. These certification levels avoid confusion with Category A and Category B and recognise the important point of difference, the evidence of

appropriate experience.

'The Guidelines for Specialist Certification in Hydrographic Surveying' provide details of the AHSCP certification programme including the procedure for submission of applications. A copy of the latest version of the Guidelines and relevant documentation is available at the following web sites:

SSSI: <http://www.sssi.org.au/details/commission/4/cat/238/sub/379.html>

NZIS: <http://www.surveyors.org.nz/node/76087>

A certificate (example as shown in **Figure 2**) indicating the level of certification attained is awarded to the successful applicant and the name of each AHSCP Certified Hydrographic Surveyor is included on the [List of Current Certified Professionals in Hydrographic Surveying](#), which is published on the SSSI website.

Retention on this list is conditional upon each surveyor undertaking Continuing Professional Development (CPD). The AHSCP is committed to ensuring that Certified Hydrographic Surveyors maintain a level of knowledge that is current and relevant within and across the hydrographic surveying profession. This is achieved by linking certification with annual CPD in accordance with the requirements specified by SSSI and NZIS or equivalent.

AHSCP certification bestows the use of the notation 'SSSI Certified Professional in Hydrographic Surveying – Level 1 or 2' (SSSI CPHS1 / SSSI CPHS2) and confers eligibility for membership of the SSSI or NZIS, subject to their approval.

Adoption of Competency Based Certification in Government and Industry

In Australia and New Zealand, AHSCP competency certification has been increasingly adopted as a mandatory requirement for hydrographic survey activities within Government and industry. Most of the maritime authorities and Surveyors-General of the Australian States have adopted AHSCP certification as the competency standard for hydrographic surveyors undertaking safety of navigation surveys.

Three significant government publications have been developed to supplement IHO Special Publication S-44 (Standards for Hydrographic Surveys) for the guidance of hydrographic surveyors in Australia and New Zealand. All of them require or recommend the use of AHSCP Certified Hydrographic Surveyors. Links to these publications are provided below:

[Standards for Hydrographic Surveys within Queensland Waters.](#)

[Guidelines of Good Practice for Hydrographic Surveys in New Zealand Ports and Harbours](#)

[Guidelines for Hydrographic & Geotechnical Data.](#) (published by Maritime New South Wales)

Ports Australia (<http://www.portsaustralia.com.au>) has also developed 'Principles for Gathering & Processing Hydrographic Information in Australian Ports', which is a useful guide in the preparation of a detailed technical specification for inclusion in contract documents.

Flowing from these publications, many tender documents in the private sector are now adopting the specific requirement for AHSCP Certified Hydrographic Surveyors to be embedded in project survey teams.

The Australian Hydrographic Service now includes in their tenders the requirement for any contracted survey for safety of navigation purposes to be conducted by an AHSCP Certified Level 1 Hydrographic Surveyor.

Land Information New Zealand has similarly indicated that the requirement for AHSCP Certified Level 1 Hydrographic Surveyors will be included in their nautical charting tenders.

Additionally, the Royal Australian Navy has recently introduced the stipulation that Level 1 certification is a pre-requisite for appointment as a Charge Surveyor undertaking RAN hydrographic surveys.

Conclusion

Over the last 30 years hydrographic surveyor certification in Australasia has evolved from the wish of members of the hydrographic community for regulation of an industry in which only limited training was available through to an internationally recognised competency certification scheme that meets the needs of government and industry and is widely regarded as a de-facto registration system for hydrographic surveyors working in the region.

This robust system of competency assessment and certification of individuals supports and protects maritime authorities (by ensuring that work is carried out by a competent professional), employers, and contractors (by reducing their overheads in assessing the experience and qualifications of prospective job applicants) and hydrographic surveyors themselves (by providing a credible system that certifies their competency to international standards).

The AHSCP Competency Certification scheme has made a significant contribution towards ensuring that the hydrographic surveys critical to safety of navigation and marine exploration are conducted by competent professionals. This aids in reducing the risk of accident and contributing to marine safety and the protection of the marine environment. The certification process provides additional confidence in survey activities when those activities are being conducted by AHSCP Certified Hydrographic Surveyors. This confidence extends beyond the Australasian region to the international hydrographic community.

