

HYDROGRAPHER CERTIFICATION IN THE USA

Maxim F. van Norden

Member

ACSM/THSOA Hydrographer Certification Board

The Hydrographic Society of America (THSOA)



1. Membership is open to any individual, no formal qualifications are required.
2. The mission of THSOA is to promote education in hydrography.
3. Individual Members of THSOA are eligible for membership in local chapters, and receive a discount on registration at THSOA sponsored events as well as some international conferences.
4. Members also receive [Hydro International \(HI\) Magazine](#) which is published monthly and has weekly online updates.
5. On odd numbered years THSOA hosts the U.S Hydrographic Conference which alternates with the Canadian Hydrographic Conference (held on even years).
6. Memberships are renewed on January 1. Dues (\$25) are not prorated. Persons joining after October 15 will receive the remainder of the present year plus all of the next.
7. THSOA will reimburse its members to cover the fees incurred in taking the Hydrographic Certification Test HCT. This program will run through 1 May 2013 and may be renewed annually.

<http://www.thsoa.org>

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HISTORY OF THE PROGRAM

- The ACSM/THSOA Hydrographer Certification Program began in 1981 in response to concerns about unqualified bidders getting hydrographic surveying work.
- Initially, certification examinations had two distinctions – “Inshore” and “Offshore” based on survey experience within 25 miles of shore (Inshore) or areas further out (Offshore).
- The first exam was a comprehensive take-home essay exam requiring the examinee to explain how they would plan and complete a hypothetical hydrographic survey.
- Many hydrographers were awarded direct certification. Direct certification ended in 1992.
- In 1997, the Program was revised by combining the two certifications into one and replacing the essay exam with a multiple-choice exam that was timed and proctored.



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CERTIFICATION – WHAT IS IT?

- Webster defines “certification” as “to recognize as having met special qualifications within a field.”
- There is a distinction between certification and registration. The NSPS web site states “certification is official recognition by one's colleagues and peers that an individual has demonstrated professional integrity and competence in his or her field....It is not a substitute for registration...”
- Registration is a legal act on the part of states to protect the public health, safety and welfare of its people...
- Certification as a Hydrographer is official recognition by ACSM/THSOA that a person has demonstrated to the satisfaction of the Certification Board that he or she is minimally competent to conduct hydrographic surveys.



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List of Certified Hydrographers ~ 130

LOUISIANA	Don	Woodward	URS/Washington Int	Paducah	502-315-7321	don.woodward@wgint.com	93	IN-SHORE	90	OFF-SHORE
	Richard	Collins	Pyburn & Odum Inc.	Baton Rouge			118	IN-SHORE		
	Donald	Eames		Metairie			160	IN-SHORE		
	M. Ernest	Gammon	Hydro Consultants Inc.	Baton Rouge			73	IN-SHORE		
	Morris	Hebert		Houma			77	IN-SHORE	80	OFF-SHORE
	Mark	Huber	U.S. Army Corps of Engineers	Jefferson			181	IN-SHORE		
	Art	Kleiner		Lafayette			180	IN-SHORE		
James	O'Neal		Lafayette			98	IN-SHORE	48	OFF-SHORE	
Jason	Foret		Lafayette			240	HYDRO			
Philip	Stutes	John E. Chance & Associates	Lafayette			61	OFF-SHORE			
MASSACHUSETTS	Roy	Okurowski		Hyannis	508-776-0956	rokurowski@comcast.net	212	HYDRO		
	Mark	Rohde		Carver			232	HYDRO		
MARYLAND	Christian	Andreasen	NGA-Bethesda	Bethesda			142	IN-SHORE	143	OFF-SHORE
	Gregory	Barnes		Baltimore			109	IN-SHORE		
	Justin	Callahan	1 Wagonwheel Court	Glen Arm			193	IN-SHORE		
	John	Lazar		Baltimore			223	HYDRO		
	Gerald	Mills		Brookeville			154	IN-SHORE	155	OFF-SHORE
Timothy	O'Neal	SMECO	Hughesville	410-586-8529	tim.oneal@smeco.coop	115	IN-SHORE			
MAINE	Richard	Nadeau		Augum			220	HYDRO		
MICHIGAN	Robert	Cross		Norton Shores			235	HYDRO		
	Donald	Holly	USAED Detroit	Detroit			192	IN-SHORE		
	David	Horne		Madison Heights	248-585-3508	davehorne_2000@yahoo.com	248	HYDRO		
	Victor	Petrus		Ludington		vpetrus@charter.net	128	IN-SHORE		
	Michael	Russell		Montague			247	HYDRO		
MISSISSIPPI	Ian	Fergusson		Carriere	228-688-5636	ian.fergusson@navy.mil	205	HYDRO		
	Frank	Johnson		Greenwood			102	IN-SHORE		
	Mark	Mattox	EMC Inc.	Greenwood			131	IN-SHORE		
	Arthur	Najjar		Long Beach	228-868-7676	artn312@aol.com	36	OFF-SHORE		
Maxim	Van Norden		Long Beach			83	OFF-SHORE			
NORTH CAROLINA	Timothy	Cawood	McKim & Creed	Hampstead	www.mckimcreed.com	910-520-0050	tcawood@mckimcreed.com	159	IN-SHORE	
	Daniel	Myers	Hydrographic Support	Wilmington	www.hydrographicsupport.com	910-431-6112	dan@hydrographicsupport.com	229	HYDRO	
NEW JERSEY	Alfred	Benson	Hydrographic Surveys	Sewell	www.hydrosurveys.net	856-589-8546	hydrographic@comcast.net	50	IN-SHORE	
	Dave	Clarke		Mahway			97	OFF-SHORE		
	Stephen	Farrell	US Army Corps of Engineers	Absecon	732-573-0166	sfgpshydro@hotmail.com	209	HYDRO		
	Fred	Herman		Dumont	201-387-0011	fredherman@opionline.net	208	HYDRO		
	Richard	Kiss		Old Bridge	732-679-3188	rsr501@yahoo.com	89	IN-SHORE		
	Mark	Klein	S.T. Hudson Engineers Inc.	Camden			182	IN-SHORE		
	Robert	Mecarini	Alpine Ocean Seismic Survey	Norwood	www.alpineocean.com	201-768-8000	rob@alpineocean.com	244		
	Douglas	Moore		Atco	856-768-1190	atcboillie@aol.com	79	IN-SHORE		
	James	Nickels	Urban Coast Institute	West Long Branch			231	HYDRO		
	Kenneth	Peters		Tuckerton			80	IN-SHORE		
	Joseph	Scolari		Ocean City			236			
	Henry	Spies		Woodbury			25	IN-SHORE		
	James	Steffen	Hydrographic Surveys	Sewell	www.hydrosurveys.net	856-589-8546	hydrographic@comcast.net	86	IN-SHORE	
NEW YORK	Victor	Blumoehr	Keyspan Engineering & Survey	Staten Island			179	IN-SHORE		
	Robert	Kirkland		Brooklyn	www.rogerssurveying.net	917-578-2412	rkirkland@rogerssurveying.net	246	HYDRO	
	Daniel	Rogers		Staten Island			177	IN-SHORE		



HYDROGRAPHER CERTIFICATION IN THE USA

STEPS TO CERTIFICATION

1. The Application.

- **Application form on website. \$50.00 application fee.**
- **Four references, preferably supervisors familiar with the applicants technical hydrographic work experience, are required to be received by NSPS within 90 days.**
- **The Experience Record is used by the applicant to evince experience and express the necessary knowledge to perform hydrographic surveys and the ability to apply that knowledge.**
- **The Certification Board determines whether the applicant meets minimum standards for taking the certification examination, or for waiving the examination.**
- **The Certification Board may require an applicant to provide additional supporting documentation within 30 days or an interview with the applicant.**



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STEPS TO CERTIFICATION

2. Experience and Knowledge. To qualify for examination:

- An applicant must have at least 60 months total experience in hydrography, of which 24 months are in responsible technical charge and 24 months have been in the field.
- The 24 months in responsible technical charge and the 24 months in the field may be counted for the same time period if appropriate.
- “Responsible technical charge” may include field work and office planning, data processing, analysis, and reporting. “Total experience” may also include time assisting in the planning, processing, analysis and reporting of hydrographic surveys.
- Hydrographic experience is to be fully detailed in the Experience Record portion of the Application.
- The Certification Board will scrutinize the Experience Record to determine whether the applicant may qualify for waivers or exemptions (more on this in later).



HYDROGRAPHER CERTIFICATION IN THE USA

STEPS TO CERTIFICATION

3. The Examination.

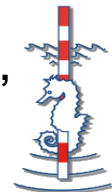
- The applicant must pay a \$150 fee to take the examination.
- Open-book test with 160 multiple choice questions to be completed in one 3- hour proctored session. Passing grade is 70% correct.
- A list of suggested references is provided on the website and reference materials can be brought into the testing facility. Scientific calculators are allowed but cell phones, computers, scanners, cameras, recording devices, and similar items are prohibited.
- The examination is formed by random selection from a bank of questions and tests knowledge in the six categories based largely on the International Federation of Surveyors (FIG)/ International Hydrographic Organization (IHO)/ International Cartographic Association (ICA) Standards of Competence for Hydrographic Surveyors 11th ed., S-5.



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The number of questions from each category is as follows:

- **Hydrographic Specifications - 20 (12.5%)**
USACE/NOAA, Other Administrative questions
- **Nautical Science - 20 (12.5%)**
Rules of the Road, Safety, Communication, Work life afloat, etc.
- **Positioning - 24 (15%)**
Horizontal Control, GPS, Acoustic Positioning, Tag Line, Auto Tracking
Theodolite, Lines-of-Position, etc.
- **Bathymetry - 56 (35%)**
Soundings, wrecks, rocks, obstructions, dangers to navigation, etc., Single
beam, Multibeam, etc.
- **Tides/Water Levels - 20 (12.5%)**
Tides/Water Levels, station installation, vertical datums, correctors for
soundings, zoning, etc.
- **Seafloor Imagery - 20 (12.5%)**
Side Scan Sonar, Acoustic Backscatter, Seafloor, structures, water column,
sub-bottom, etc.



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Waivers, Exemptions, and New Special Exemptions

a. The Board may waive the examination requirement if the applicant's description of hydrographic engagements is exceptional with more than half in responsible technical charge. The examination fee of \$150 will not be waived.

b. CAT A Graduates can have their total 60-month hydrographic experience requirement reduced to 24 months in the field and 24 months in technical charge (which may be concurrent). The Board may grant CAT A graduates a waiver from taking the certification exam. The \$150 examination fee will not be waived.

c. CAT B Graduates can have their total 60 month hydrographic experience requirement reduced to 36 months. The 24 months in the field and 24 months in technical charge (which may be concurrent) will not be waived. The Board may grant Cat B graduates credit for up to 3 categories of the Hydrographer Certification examination. Credit for the Hydrographic Specification Category is not allowed.



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Waivers, Exemptions, and New Special Exemptions

d. NEW - to encourage hydrographers, especially those with less than 5 years experience, the Certification Board has approved a proposal to use recognized hydrographic training courses to make incremental progress toward national certification.

- Training courses may be in any of 5 Categories: Positioning, Bathymetry, Seafloor Imagery, Tides/Water Levels, and Nautical Science. Recognition of training courses in Hydrographic Specifications will not be permitted.
- Individuals may obtain “credit” for up to 3 recognized training courses. Applicants must subsequently take the Certification Exam on material from the other 3 categories including the Hydrographic Specifications category.

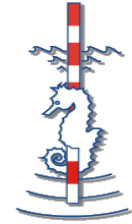


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- Holders of a U.S. Coast Guard deck license may be granted credit for the Nautical Science Category.
- Due to rapid changes in technology, training course credit must have been obtained within the 8 years prior to the date of the Application.
- For organizations to gain recognition of their training course(s), documentation must be submitted for the review and approval of the Certification Board.
- Training organizations which agree to this cooperative must (a) provide a list of individuals passing the end of course exam to the Board and (b) maintain a list of such individuals for future reference.
- Recognized training courses will be listed on the Hydrographer Certification website. The Certification Board will be promulgating its recognition rules for approved hydrographic training this year .





ACSM/THSOA HYDROGRAPHER CERTIFICATION APPLICATION & INFORMATION

[http://www.nspsmo.org/index.cfm?
fuseaction=page.viewpage&pageid=515&stop
Redirect=1](http://www.nspsmo.org/index.cfm?fuseaction=page.viewpage&pageid=515&stopRedirect=1)