



# Changing market requirements for competence and certification for the hydrographic surveyor



# SKILLTRADE

Specialized in hydrographic training for the hydrographic survey, dredging and offshore industry since 2000

Jan Appelman, Skilltrade Logbook Verifier

#### **Our services**



- Hydrographic training and courses since 2000
- Developed by people who gained their experience in the field and taught by those same individuals
- Skilltrade provides courses and training in three areas:
  - Introductory and general courses
  - E-learning modules
  - Hydrographic Survey IHO-Category B programme

#### **Compentence and certification**



- Rijkswaterstaat and Port of Rotterdam in The Netherlands, the UK Ministry of Defence, government Middle East require minimum IHO-Cat B of their sub-contractors
- Nautical charts need to be certified all over the world for safer shipping routes
- Standards of Competence for Hydrographic Surveyors - IBSC
- IMCA provides "Competence" guidelines for operational functions; such as divers, ROV personnel and hydrographic surveyors.

#### **Our accredited Category B course**



- Skilltrade Category B programme has been officially recognised as such on the 1st July 2008
- Recently our programme received continued recognition as a FIG/IHO/ICA Class B Hydrographic Survey Programme in accordance with the Standards of Competence for Hydrographic Surveyors FIG/IHO/ICA S-5, Edition 11.1.0

#### **Our accredited Category B course**



- Intense course of 30 weeks, a 12 week course in IJmuiden, preceded by a 13 weeks E Learning program.
- The curriculum is compiled with weekly workshops, transfer of technology and a practical project (Educational Survey Project-ESP)
- After completion of the course in IJmuiden (NLD) a 4-week Field Training Project (FTP) required

Block	I	II-0	II-1	II-2	II-3	III	IV						
Week	1-13	14	15 - 18	19 – 25	26	27 - 30	30 – max. 185						
Modules	E-Learning	Safety induction	Basic modules	Essential and Optional modules	Educational Survey Project (ESP)	Field Training Project (FTP)	Field Proficiency Period (FPP)						
Outcome	Eligible to enter Cat.B Course	BOSIET + OLF- supplement Universal Basic Survival	<ul> <li>Skilltrade</li> </ul>	line Cert. Cert. of Attenda e Cert. of Educa	•	FIG/IHO/ICA Cert. of Course Completion	FIG/IHO/ICA Cert. of Field Proficiency						

#### **E-Learning Courses**



Since 2014 we offer the following E-Learning courses:

- Mathematics
- Physics
- Bathymetry
- Geodesy
- Global Satellite Navigation Systems

## **Category B Curriculum**



										13 weeks e-lear	ning										
		SKILLTR	ADE				A progra	m which provid	les a practical	comprehension h	of hydrograph ydrograhic sur	nic surveying veying tasks	for individuals	with the skill to	carry out the	various		1		College Centrum	
	5-sep-16 Mon	Tue	Wed	Cour	se wk01	Sat	Sun	12-sep-16 Mon	Tue	Wed	course	wk02 Fri	Sal	Sun	19-sep-16 Mon	Tue	Wed	Thu	se wk03 Fri	Sat	Su
lorning	31 Mathematics	B4 Nautical Skills	E 4 Types of Hydrographic Surveys	Mathematics	practical exercian		Jul	Mathematics	Mathematics	Mathematics	B3 Physics	Exam - B1 Maths	Oal .	3011	Physics	Physics	Nautical	E7 Law of the sea	Exam - B3 (part 1) Physics		50
emoon	Mathematics	Mathematics	81 Theory of Errors	Nautical Skills	positioning)	Social program		B4 Meleo	Nautical Skilts	Physics	B4 Meteo	Workshop - Hydrografic Service			Physics	B4 Meteo	Skils	Nautical Skills	WorkshopD HS		
16:00												Jan							guus		
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	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sur
loming	Exam - B4 Nautical Science	Physics II	Physics II	E7 Law of the sea	Exam - B3 (part 2) Physics			E1 Underwater acoustics &	Underwaler acoustics & Spoloboom	E2 Waves, Streams and	B2 ICT - databases & GIS	E3 Geodesy			E5 Online Survey	E6 Environmental	E3 Acoustic Positioning (Sonardyne	E5 Online Survey	E3 Mot +Geodesy		
omoon	Physics II	Physics II	workshop Port of Rotterdam	Physics II	E3 workshop - b:Blue			Singlebeam	E4 Werkshop Reson	Currents	Workshop ESIII				software	Science	Guest speaker)	software	Todouday		
r 16:00	johan							knotting & splicing											1st Course evaluation		
	17-okt-16 Mon	Tue	Wed		se wk07	Sat	Sun	24-okt-16 Mon	Tue	Wed	course	wk08 Fri	Sat	Sun	31-akt-16 Mon	Tue	Wed		se wk09	Sat	
oming	E2 Tides	E2 Tides	E5 Online Survey software	Thu E1 Multibeam	Exams - E2 & E7	Sat	Sun	E3 Horizonta	Positioning -	E1 Side Scan Sonar +	Exam - E1	E3 Horizonta	Sit	Sun	E5 Online Survey	Es Earth	Hydrograph c Specification	Thu Exam-E6	O2 Coastal	Sal	Sur
moon	EZ IIQUS	E2 1005	E2 Processing of tidal influences	Echa - sounder	E5 Online Survey Software			(LMK theory ar	nd calculations)	workshop Periplus	O2 workshop Van Oord & Boskalis	Positioning - GPS			software	Science	ns and Project preparation	O2 Workshop - Stema	Zone		
r 16:00	e		NOVA	school holiday		>			Resit exam												
I	7-nov-16	7-nov-16 course wk10					14-nov-16 course wk11						21-nov-16 course wk12								
larning	Mon E3Practical	E3 Horizontal Control- calculations	B2 ICT - Networking	Thu  E4 Practical - soldering & faul finding & data		Sat	Sun	Mon Exam E-3	Tue O4 Pipeline	Wed Exam - E4	Thu Education Sur	vey Project, F - Group 1	Sat SK, HJL & AdM	Sun	Mon workshop RWS	Ed Full day GARIS Workshap - Stedrecht	Estration	Thu O4Rigs.	Logbooks & 2nd Course Evaluation	Sat	Sur
emoon	Horizontal Control:	Workshop Geean Wise	E4 Practical - soldering & fault finding & data telemetry	Software - Exam B2 E5 (QPS)	Positioning - GPS - practical			E4 VanOord workshop	and Cable Operations & ROV	Resit exam	workshop RWS	E4 Full day DARIS Workshop = Sted rectni- group 2 (ST		Education Sun	vey Project, Fri - Group 2	C HJL & AdM	Project - Processing & Repursing	Platforms, Drilling Terminology	Certificate/ Diploma ceremony		
ar 16:00																		Evening program			
I	28-nov-16			Module-4	-	5-dec-16			Module-4		12-dec-16			Module-4		19-dec-16			wk 16 - Module		
П	Mon DELTA SAFET	Tue 'Y safety training	Wed (Beween 2 2016)	Thu 29th August and	Fri I 2nd September	Mon	Tue	Wed	Thu	Fri	Mon	Tue Pract	Wed	Thu  Trainee period	Fri	Mon	Tue	Wed	Thu		Fri
	Reedijk, Goedart, v Sjp, Schiphorst, Brouwer (Nova College) Rob van Ree Hulbert-Jan Lekkerkerk Johan Stam, Guus Verhagen or Jan Appelman Piet de Jong Fred Kriff Stam Guus Verhagen or Jan Appelman Piet de Jong Fred Kriff Stam Commission of Stam Stam Stam Stam Stam Stam Stam Stam			Exams: Basic-1 Basic-2 (pan of E5) Basic-3 (pan 1) Basic-3 (pan 1) Basic-3 (pan 2) Basic-3 (pan 3) Basic-3 (pan 3) Basic-3 (pan 4) Basic-3 (pa			Date: 16-sep-16 Mathematics 10-nov-16 KT 23-sep-16 Physic 1 23-sep-16 Physic 1 25-sep-16 Manadrial Science 27-dx-16 Manadrial Science 27-dx-16 Manadrial Science 12-dx-16 Manadrial Science 14-nov-16 Positioning 16-nov-16 Physics plant practice 16-nov-16 Physics plant plant (DRS) 16-nov-16 Physics pla			Workshops Port of Rotendam Royali Dush Navy workshop melot ESRI  Teledyne Reson Stema Periptus VanOord & Boskalis Oceanwise scholar Cate - Dedonin museum				Date: 14-sep-16 20-sep-16 23-sep-16 29-sep-16 30-sep-16 4-okl-16 21-okl-16 27-okl-16 8-nov-16 14-nov-16							

### **Field Training Project**



- After completion of the 13-week theoretical course in IJmuiden, the student then needs to gain at least 4 weeks experience in a fully supervised Field Training Project in a qualified survey organisation
- Qualified Assessor and Skilltrade Verifier
- FTP-Task book
- FTP reflects the level of knowledge outlined in the Skilltrade-Nova College Category B syllabus

#### Results (up to April 8, 2016)



Up to and including the 18th class		
Numbers of students	161	
Failed and/or stopped	21	13,0%
Category B Certificates Issued*	140	87,0%
*17 students (12%) succeeded after resits		
Logbook completed and Category B Diploma Issued	55	39,3%
Working on logbooks	43	30,7%
No logbook	42	30,0%

#### Competence



- Certificate of Field Proficiency and IMCA logbook to consolidate hydrographic knowledge and to obtain the necessary practical experience as a hydrographic surveyor.
- All supervised by Skilltrade in cooperation with the Education Board



"Since being accepted, both my theoretical and practical knowledge has developed considerably, with many opportunities to progress"





After graduation: "The candidate is then considered to be Graduate level and is ready and prepared for a full-time role"





# SKILLTRADE

Skilltrade BV

Phone: +31 (0)71 561 13 65

www.skilltrade.nl

jstam@skilltrade.nl

Office: Schoolstraat 174

2252 CN Voorschoten

The Netherlands

