

Title:
**Education and Training: Knowledge Leads to
Connections**

Speaker:
Mr. Johan Stam
Managing Director of Skilltrade BV

Date:
18 & 19 November 2019



UTM
UNIVERSITI TEKNOLOGI MALAYSIA





SKILLTRADE

Skilltrade

From Introduction Hydrography to
Certified courses



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Hydrography in the future

- The function is specialized with charting as the primary objective:
 - Safe navigation
 - Data collection
 - Data management role
- But also:
 - Renewable energy, offshore projects, mining and water resources
 - Climate changes: sealevel rise, coastal defenses
- More authorities involved in hydrography
- Certification is no longer an option but a must

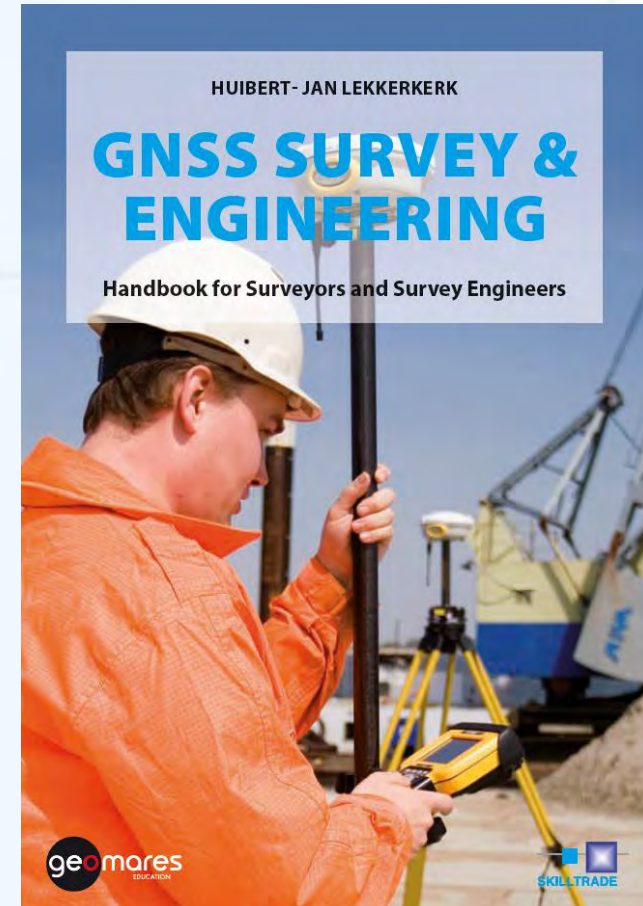
Skilltrade as a company



- Hydrographic training and courses since 2000
- Developed by people who gained their experience in the field and taught by those same individuals
- Books on surveying
- Skilltrade provides courses and training in three areas:
 - Introductory and general hydrographic courses
 - E-learning on hydrographic and positioning topics
 - IHO Category B recognized programme

Part of the lecture materials

- GNSS Survey & Engineering
- Handbook of Offshore Surveying



Our organisation



Johan Stam
Managing director



Guus Verhagen
Course Coordinator
BSc, MICS



Christa Ravensbergen
Management support



Huibert-Jan Lekkerkerk
Principal lecturer
Cat A, MSc, BEe



Axel de Meijer
Practicals / lecturer
Cat B



Gerard Mallee
Technical / lecturer
MSc



16+
Subject lecturers



Jan Appelman
Logbook verifcator
Cat A & B

CAT A vs CAT B



	Cat B	Cat A
Educational level	ISCED level 4 / 5	ISCED level 6 / 7
Aim	Operational (field)	Management (office)
Duration	24+ weeks	40+ weeks
Subjects	Basic, essential	Foundation, basic, essential
Module level	Practical	Theoretical
Final field project	Yes	Yes
Certified?	Yes*	Yes

- Cat B is more practical, shorter and delivers certified surveyors
- Skilltrade Cat B programme has been officially recognised since 2008

* Note that some countries may require at least one Cat A surveyor per project / company

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



BIBBY 
OFFSHORE
because we love this business

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

Cat-B set-up



- Maximum 12 students for practical lectures
- Maximum 16 students for theoretical lectures
- Course runs twice / year
- Next course (Class 24), January 2020
- Theoretical lectures, practical exercises, workshops, a final project and examinations

IHO accredited Category B course



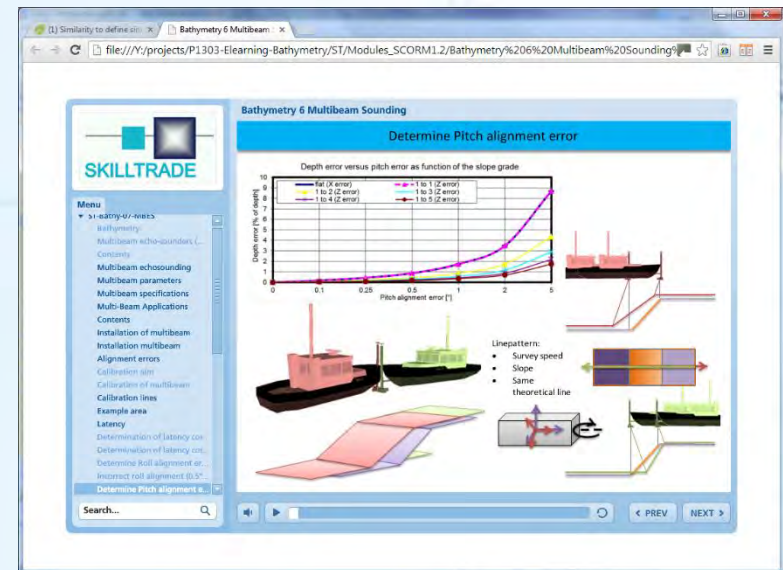
- Course duration of 30 weeks (12 parttime)

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 style="list-style-type: none"> • QINSy Online Cert. • Skilltrade Cert. of Attendance, or Skilltrade Cert. of Education 			FIG/IHO/ICA Cert. of Course Completion	FIG/IHO/ICA Cert. of Field Proficiency

E-Learning Courses – Block I

Since 2015 we offer the following in-depth E-Learning courses:

- Bathymetry
- Geodesy
- GNSS



With the Moodle Mobile app the content of these courses is available, even when offline.

Contact us for a free two week trial



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Cat B Course schedule Block II



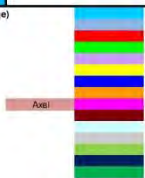
13 weeks e-learning

A program which provides a practical comprehension of hydrographic surveying for individuals with the skill to carry out the various hydrographic surveying tasks

Nova College
Hogeschool Opleidingen Centrum

	course wk01							course wk02							course wk03													
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun							
Morning	B1 Mathematics	B4 Nautical Skills	E 4 Types of Hydrographic Surveys	Nautical Skills	practical exercises (tides, level & positioning)	Social program		Nautical Skills	Mathematics	Mathematics	B3 Physics	Exam: B3 Math			Physics	Physics	Nautical	Exam: B3 (part 1) Physics	B4 Meteo									
Afternoon	Mathematics	Mathematics	B1 Theory of Errors	Mathematics				Nautical Skills	Mathematics	Workshop Port of Rotterdam	Physics	B4 Meteo			Physics	Workshop Hydrographic Surveying	Nautical	CG working STPMA										
after 16:00								B4 practical topics / updates																				
13 weeks e-learning																												
	course wk04							course wk05							course wk06													
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun							
Morning	Exam: B4 Nautical Science	Physics II	Physics II	Exam: B3 (part 2) Physics	B2 ICT databases & GIS ESRI			E4 Underwater acoustics & Singlebeam	Underway exercises & Simulations	E7 Law of the Sea	E2 Waves, Streams and Currents	E3 Geodesy			E2 Tides	E2 Tides	E5 Online Survey Software	E2 Processing of Tidal Influences	E1 Side Scan Sonar	E3 Mot + Geodesy								
Afternoon	Physics II	Physics II	Physics II	E3 Workshop MBUE				E5 Online Survey Software								NOVA	school holiday			T6 Course evaluation								
after 16:00																												
13 weeks e-learning																												
	course wk07							course wk08							course wk09													
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun							
Morning	E3 Horizontal Positioning (LMK theory and calculations)	E3 Acoustic Positioning (Sondaryne Guest speaker)	Exam: E2 & E7	E1 Multibeam Echo-sounder				E3 Horizontal Control	E3 Horizontal Control	E8 Environmental Science	Exam: E1	E3 Horizontal Positioning GPS			E3 Earth Science	E5 Online Survey software	Exam: E6	Hydrographical and Project preparation	E3 Horizontal Positioning GPS practical									
Afternoon		E4 Workshop Telemetry						E5 Online Survey Software			E6 Workshop RARQUE						E6 Workshop Van Oord & Boskalis											
after 16:00								Read exam																				
13 weeks e-learning																												
	course wk10							course wk11							course wk12													
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun							
Morning	Workshop Ocean Wave	E5 Online Survey software	Exam: E4	E4 Practical soldering & fault finding & data telemetry	E2 Coastal Zone			O 4Rqs. Platforms, Drilling Technology	Exam: E4	E4 Prepara. and Drilling Operations & HDV	Substation Survey Project, FK, HJL & AdM Group1			E3 Survey software & workshop (part 1)	RWS	E6 Exam theory & learning	Software Exam E5 (GPS)	Logbooks & 2nd Course Evaluation										
Afternoon			B2 ICT Networking					E4 VanOord workshop		E4 Full day course & evening (classroom & 2D)	RWS			Substation Survey Project, FK, HJL & AdM Group 2		Read exam		Corrections & Drawing ceremony										
after 16:00																Evening program												
13 weeks e-learning																												
	wk13 - Module 4							wk14 - Module 4							wk15 - Module 4							wk16 - Module 4						
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
	SACD safety training (Between 21st and 25th September 2017)							Practical / Training / Trainee period																				

Reedijk, Goedhart, v Sijp, Schiphorst, Brouwer (Nova College)
 Rob van Rie
 Hulbert-Jan Lekkerkerk
 Johan Stam or Guus Verhagen
 Piet de Jong
 Fred Knif
 Herman Hulstema
 Peter v Os / Rinus Koolman
 Axel de Meijer, Robert van Lil, Seger vd Breuk
 Cees Laban & Jan van Dalisen
 Ebelien van der Velde (GPS)
 Ed Esser & Johan van Schaak
 George Spoelstra (ESRI)
 guest lecturer Sondaryne
 Ester Grootjans (Gaz de France)



Exams:
 Basic-1
 Basic-2 (part of E5)
 Basic-3 (part 1)
 Basic-3 (part 2)
 Basic-4
 Essential-1
 Essential-2
 Essential-3
 Essential-4
 Essential-5
 Essential-6
 Essential-7

Date:
 15-sep-17 Mathematics
 24-nov-17 ICT
 21-sep-17 Physics 1
 25-sep-17 Physics 2
 25-sep-17 Mautical Science
 26-okt-17 Bathymetry
 19-okt-17 Water levels, tides and waves
 8-nov-17 Positioning
 14-nov-17 Hydrographic Practice
 24-nov-17 Hydrographic data (GPS)
 1-nov-17 Environmental Science
 19-okt-17 Legal Aspects

Workshops
 Port of Rotterdam
 Royal Dutch Navy
 Stema
 workshop meteo
 kbBlue
 workshop ESRI
 Teledyne Reson
 Pentius
 VanOord & Boskalis
 Oceanwise
 VanOord workshop
 RWS Northsea
 Caris - Dredging museum
Survey Project

Date:
 13-sep-17
 19-sep-17
 21-sep-17
 22-sep-17
 28-sep-17
 29-sep-17
 19-okt-17
 26-okt-17
 1-nov-17
 5-nov-17
 14-nov-17
 17-nov-17
 16-nov-17
 16-nov-17
 19-nov-17







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Our Cat B Workshops



- Port of Rotterdam – survey in real time
- Royal Dutch Navy – head office
- Rijkswaterstaat – section North Sea
- From the UK : Sonardyne and Oceanwise
- Software by QPS and Beaworkx
- Van Oord workshop at Moerdijk
- Visit to an actual Dredging project
- Stay in touch with latest technology







Field Training Project

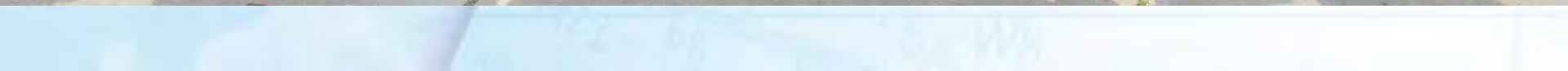


- Field Training Project in a qualified survey organization under supervision of a qualified assessor and Skilltrade verifier
- FTP reflects the level of knowledge outlined in the Skilltrade-Nova College Category B syllabus
- FTP-Task book
- After successful completion of this 4-week FTP the student is awarded the FIG/IHO/ICA Certificate of Programme completion
- Most students return to their employer for their practical FTP.



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Results



Up to and including June 2019 (23 rd Class)		
Number of students	196	100%
Failed and/or stopped	21	10,7%
Skilltrade Cert. of Education and QINSy certificate (theoretical part)	175	89,3%
FIG/IHO/ICA Cert. of Programme Completion (Cat-B – including Field Training Project)	154	78,6%
FIG/IHO/ICA Cert. of Field Proficiency (Demonstrated 200 days of practical experience)	69	35,2%

Supervised entry to the Cat-B



- Whom to send first? Skilltrade approach:
 - Start with a local 10 day course for all interested. Course is concluded with a graded exam
 - Continue with graded e-learning assessment on Mathematics and Physics with local support.
 - After completion of the Mathematics and Physics, management will have a clear view on which student is ready to follow with Essential E-learning modules
 - After the E-learning a final decision is made who will proceed (first) to the 12 week classroom part of the course
 - Pending IHO approval: 4 week Basic modules taught locally. Essential training (8 weeks) in the Netherlands.



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Why this approach?

- To introduce hydrography in an earlier stage without having to fully invest up front
- More local approach/less time abroad
- Use of available local resources (such as Abu Dhabi, Alexandria, Lagos, Curaçao)
- Greater chance of success for those attending the full Cat-B programme
- Network spreading to other areas More awareness for certification



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New approach introduced to:

- Nigeria where it is now in place
- Kuwait via Regional agent
- Egypt via Peinso
- Kazakhstan via Stema Surveys
- South Africa via their Hydrographic Society
- Mexico in cooperation with the Dutch Navy
- Malaysia? Open for discussion at our P1 stand

NPA Lagos, August 2019





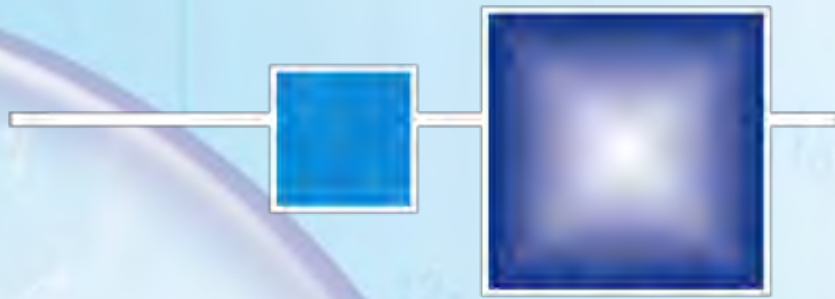
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Future developments

- MOU signed with University UNB Fredericton in Halifax, Canada. Scholar-ship paid by Government
- MOU with AAST in Egypt to support Middle East education developments in Abu Dhabi
- PEJUTA: Visit to The Netherlands (courses and visits to projects and musea – water related
- Oman : Survey eqpt : maintenance course
- TenneT: Introduction to hydrography, including UXO surveys
- DronesCourse Survey Fundamentals – 3 days
- E-learning: more interest as an introduction for new recruits (Andrews Surveys) on going



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