



Seminar of the 18th EAtHC Conference *Séminaire de la 18^{ème} Conférence de la CHAtO*

“20 Years of Capacity Building Actions in EAtHC Assessment and Prospect”
« 20 ans de renforcement des capacités dans la région CHAtO : Bilan et Perspectives »

Current training offers in hydrographic schools (Portugal)
Offres actuelles de formation dans les écoles d'hydrographie (Portugal)

Presented by Portugal / IHPT
Présenté par Portugal / IHPT

Agenda Item 4.4 (Portugal)



IHO

International
Hydrographic
Organization

Hydrography and Oceanography School

Is an organ of IHPT organizational structure

Is part of the Navy's Professional Training System (SFPM),



<https://www.hidrografico.pt/op/23>



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Current Offers



 Hydrography: **CATEGORY A**

 Hydrography: **CATEGORY B**





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Training Offers

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Hydrography CatA	
Place:	Portugal - Lisbon
Periodicity:	Every two years (September - September)
Duration:	12 months (In Person)
Language:	Portuguese
Certification:	FIG/IHO/ICA - CAT A
Contact:	Hydrographic and Oceanographic School CMG Mesquita Onofre (Director) eho.dir@hidrografico.pt Dra Zélia Cardoso (zelia.cardoso@hidrografico.pt)
Fees:	Yes. Value depending on the existing Bilateral Arrangements.
	Scholarships within Portuguese Cooperation - YES (Defense) Scholarships under IHO-CB - NO



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Training Offers

International Hydrographic Organization

		MODULES	TIME (H)		
Hydrography CatA					
Academic Requirements (Minimum):	Degree in Science or Engineering (basic training in maths and physics)	Group I Weight 1 -			
Academic programme:	Maths, Data Processing, Physics, Electricity, Electronics and Telecommunications, Computer Science and Basic Programming, Nautical Meteorology, Seamanship and Safety, Elementary Navigation, Geodesy, Geodetic Surveys, Geodetic and Hydrographic Positioning Systems, Angle and Distance Measuring Equipment, Photogrammetry & Lidar, Depth Determination, Hydrographic Surveys, Cartographic Projections, Nautical Cartography, Physical Oceanography, Coastal Oceanography, Marine Geology and Geophysics, Chemical Oceanography, Biological Oceanography, Tides, Oceanographic Instrumentation, Remote Sensing, Introduction to Maritime Hydraulics, Law of the Sea.	1. IN - Elements of Computer Science 2. PR - Basic Computer Programming 3. OQ - Chemical Oceanography 4. OB - Biological Oceanography 5. DI - Law of the Sea 6. HM - Introduction to Maritime Hydraulics 7. LF - Photogrammetry & Lidar 8. DR - Remote Sensing 9. NW - Nautical Meteorology (<i>Portuguese Navy Officer - not required</i>) 10. NM - Safety and Seamanship (<i>Portuguese Navy Officer - not required</i>) 11. NN - Elementary Navigation (<i>Portuguese Navy Officer - not required</i>) 12. NO - Environmental Support to Naval Operations (<i>only Portuguese Navy Officers</i>)	288		
Visits:	(1 week) Navy Units and External organizations	Group II Weight 2 -			
Projects:	(4 weeks) Hydrographic Surveys; Data Processing; Nautical Cartography (4 weeks) Multidisciplinary project	13. ME - Mathematics 14. PD - Numerical Data Processing 15. FI - Physics 16. EI - Electricity, Electronics and Telecommunications 17. IO - Oceanographic Instrumentation 18. OF - Physical Oceanography 19. OC - Coastal Oceanography 20. GM - Marine Geology and Geophysics	299		
Ambarkation:	(1 week) on a Hydrographic vessel	Group III Weight 3 -			
		21. GE - Geodesy 22. LG - Geodetic Surveying 23. PC - Map Projections 24. CN - Nautical Cartography 25. LP - Positioning Systems in Geodesy and Hydrography 26. LO - Angular and Distance Measurement Equipments 27. LH - Hydrographic Surveying 28. DP - Depth Measurement 29. MM - Tides (MM)	549		
		Visits	Visits to technical and scientific institutions	35H	
				35	
		Group I Weight 1	30. PLH - Hydrographic Survey Project 31. PMBDP - Project of Multibeam Data Processing 32. PCN – Project of Cartography	140	
		Weight 4	33. Complex Multi-disciplinary Field Project (CMFP)	140H	
				140	
		Hidro Ship	Weight 1	34. Training Aboard on Hydrographic Vessel	35H
				35	
				TOTAL	1486



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Training Offers

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Hydrography CatB	
Place:	Portugal - Lisbon
Periodicity:	Every two years (September - August)
Duration:	11 months (In Person)
Language:	Portuguese
Certification:	FIG/IHO/ICA - CAT B
Contact:	Hydrographic and Oceanographic School CMG Mesquita Onofre (Director) eho.dir@hidrografico.pt Dra Zélia Cardoso (zelia.cardoso@hidrografico.pt)
Fees:	Yes. Value depending on the existing Bilateral Arrangements.
	Scholarships within Portuguese Cooperation - YES (Defense) Scholarships under IHO-CB - NO



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Training Offers

International Hydrographic Organization

		MODULES	TIME (H)
Hydrography CatB			
Academic Requirements (Minimum):	12th grade (basic school), including maths and physic	1. IN - Elements of Computer Science 2. PR - Basic Computer Programming 3. OQ - Chemical Oceanography 4. DI - Law of the Sea 5. NW - Nautical Meteorology 6. NM - Safety and Seamanship 7. NN - Elementary Navigation 8. NO - Environmental Support to Naval Operations	
Academic programme:	Maths, Physics, Electricity, Electronics and Telecommunications, Computer Science, Basic Programming, Nautical Meteorology, Seamanship and Safety, Elementary Navigation, Geodesy, Geodetic Surveys, Geodetic and Hydrographic Positioning Systems, Angle and Distance Measuring Equipment, Hydrographic Surveys, Depth Determination, Cartographic Projections, Nautical Cartography, Physical Oceanography, Marine Geology and Geophysics, Chemical Oceanography, Tides, Oceanographic Instrumentation, Law of the Sea.		
			196
		9. ME - Mathematics 10. FI - Physics 11. EI - Electricity, Electronics and Telecommunications 12. IO - Oceanographic Instrumentation 13. OF - Physical Oceanography 14. GM - Marine Geology and Geophysics	
			241
Projects:	(3,5 weeks) Hydrographic Survey; Data Processing; Nautical Cartography (12 weeks) Final Comprehensive Practical Project carried out at the Hydrographic Brigade	15. GE - Geodesy 16. LG - Geodetic Surveying 17. PC - Map Projections 18. CN - Nautical Cartography 19. LP - Positioning Systems in Geodesy and Hydrography 20. LO - Angular and Distance Measurement Equipments 21. LH - Hydrographic Surveying 22. DP - Depth Measurement 23. MM - Tides (MM)	
			490
		24. PLH - Hydrographic Survey Project 25. PHDP - Project of Hydrography Data Processing 26. PCN – Project of Cartography 27. Complex Multi-disciplinary Field Project (CMFP)	
			539
TOTAL			1466



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Training Offers

Hydrography and Oceanography School

 CAT A Hydrography Course **Ongoing - September 2023 to September 2024**

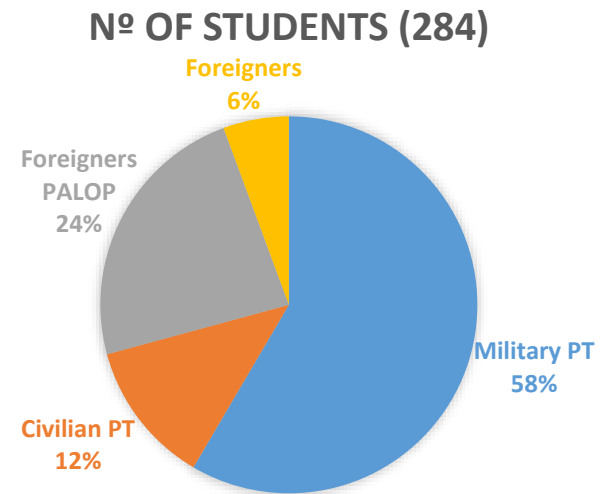
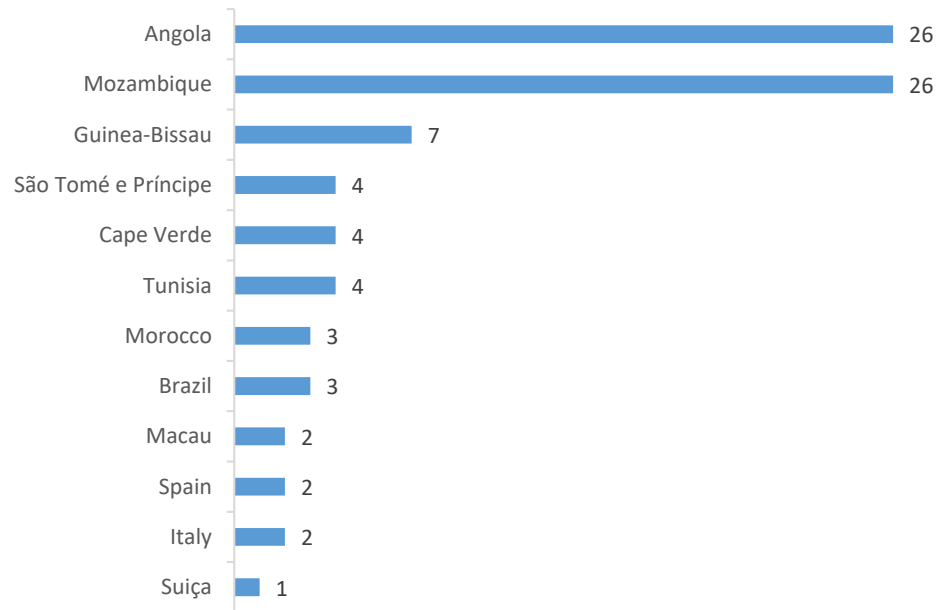
 CAT A Hydrography Course **Planned – September 2024 to September 2025**



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Training Offers

Total of 284 students: 1977-2024





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Training Offers

Short Courses By direct request

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Example: MSI online training course to Angola

<p>DIA 1 (09:15-12:45)</p>	<p>1.1 GMDSS</p> 	<p>1.2 MSI</p> 	<p>1.3 MSI-Broadcasting Services</p> 	<p>1.4 Navigational Warnings</p> 	<p>SESSIONS 12</p> <p>DURATION 45 min</p> <p>TRAINERS 4</p>
<p>DIA 2 (09:15-12:45)</p>	<p>1.5 (GEO)ANAVNET</p> 	<p>1.6 Notices to Mariners</p> 	<p>1.7 Comunicados</p> <p>em https://arqg.is/fr/c4 ou do QR Code.</p> 	<p>1.8 Maritime Buoyage</p> 	
<p>DIA 3 (09:15-12:45)</p>	<p>1.9 Special Areas</p> 	<p>1.10 Nautical Cartography</p> 	<p>1.11 Maritime Information</p> 	<p>1.12 Conclusion</p> 	



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Training Offers - Others

OnJob Training and Internships By direct request

Thank you for your attention