IALA World Wide Academy
Training and Capacity Building Activity
in the African Region

Report - June 2017

Executive Summary

The World-Wide Academy is an integrated but independently funded division of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA).

The World-Wide Academy delivers both training and capacity building activity in five key maritime regions, Africa being one of these. IALA delivers this activity in partnership with members of the Joint Capacity Building Group (principally the International Maritime Organisation (IMO) and International Hydrographic Organisation (IHO)) as part of the United Nations "Delivering As One" capacity building strategy.

IALA signed (December 2015) a Memorandum of Understanding with the Maritime Organisation for West and Centre Africa (MOWCA) covering training and capacity building and is working closely with several African and European States to deliver those actions in the most efficient and effective manner for the benefit of both inter-island and international navigational safety in African Region (Côte d'Ivoire, France, Morocco, Portugal, Senegal, South Africa, …).

It is the educational, training and capacity building activity in the African region that will be addressed in this document.

The IALA WWA Team
Jacques Manchard Gerardine Delanoye Omar Frits Eriksson Stephen Bennet

Introduction to IALA

- IALA was formed in 1957 as a technical association based in Paris to support the goals of those earlier conferences. The organisation today is based in St Germain-en-Laye, France. It has a consultative, recommendatory, and technical nature and is a not-for-profit and non-political international technical association with Non-Governmental Organisation (NGO) status. In May 2014, the IALA General Assembly passed a Resolution supporting the change from that of a NGO to that of an international intergovernmental organisation (IGO) - a major step in the evolution of IALA. The Government of France has commenced diplomatic activities to inform the Governments of Member States of this proposed evolution, with the first Pre-diplomatic Conference organised in Paris (18-19 April 2017), the second to take place in Morocco (February 2018), and the Diplomatic Conference to be convened in Incheon, Republic of Korea, in 2018. If, as expected, the transition to IGO status is successful, IALA's core activities will not be affected.

- These are to harmonise standards for Aids to Navigation (AtoN) systems worldwide; to facilitate the safe and efficient movement of shipping and to enhance the protection of the marine environment under the banner "Successful voyages, sustainable planet."

- In particular it gathers together international AtoN experts to enable them to exchange and compare their experiences and achievements in technical committees and working groups. These committees develop common best practice in the form of Standards, Recommendations and Guidelines to ensure that mariners have AtoN which will meet their needs both now and in the future.

- IALA encourages cooperation between nations to assist developing nations in establishing AtoN networks based on the degree of risk for the waterway concerned. Its activities contribute to a reduction in marine accidents; increased safety of life and property at sea and the protection of the marine environment. To focus these activities, IALA set two goals at its last Conference in 2014 which it plans to achieve by the time its 21st Conference is convened in 2026.
    - **Goal 1**: Ensure that aids to navigation systems and related services, including e-Navigation, Vessel Traffic Services (VTS), and emerging technologies, are harmonised through international cooperation and the provision of standards.
    - **Goal 2**: All coastal states have contributed to an efficient global network of aids to navigation and services for the safety of navigation, through capacity building and the sharing of expertise.

Mission

The World-Wide Academy is the vehicle by which IALA delivers education, training and capacity building.

Academy Strategy

- African States, including MOWCA and SAGNEP (Southern African Regional Co-Operation Group on Safety of Navigation and Marine Environment Protection) members, will be well aware that all coastal States are obliged to provide safety of navigation services in accordance with Safety Of Life at Sea (SOLAS) Convention, Chapter V. The principal SOLAS V regulations of relevance to IALA are Regulations 4 (Navigation Warnings); 12 (Vessel Traffic Services – VTS) and 13 (Establishment and Operation of AtoN services). Regulations 12 and 13 are based on a consideration of the volume of traffic and degree of risk in each State or region.

- The IALA World-Wide Academy was established in 2012 to assist both developing nations and the least developed countries (IALA Target States) to recognise their international obligations related to SOLAS Regulations 4; 12 and 13 before assisting them to implement the necessary measures to provide Maritime Safety Information (MSI), VTS and AtoN services that met international standards. For VTS and AtoN services these standards should be based on the Recommendations and Guidelines published by IALA.

- To harmonise international capacity building[1], IALA adopted initially the four-stage capacity building process developed by the International Hydrographic Organisation (IHO). That is to make the national Competent Authorities (CA) in its Target States aware of their obligations before encouraging them to invite the IALA WWA to conduct a technical needs assessment mission to each State. Such a mission, normally conducted in one working week would produce a confidential report comprising a number of recommendations which the CA would then analyse before deciding what action it would take to implement the selected recommendations. Technical and Review missions are conducted by the IALA WWA at no cost to States on its target list. This is because the Academy is independently funded thanks to very generous contributions from its 2 main sponsors, the International Foundation of Aids to Navigation (IFAN) and the Republic of Korea, together with equally generous in-kind support from IALA Member States (France …) and organisations.

- The target list in 2012 comprised 76 countries in seven regions. Awareness seminars in the first 3 years of IALA WWA's operations made 930 individuals from 50 target States aware of their obligations relating to the provision of MSI, VTS and AtoN services. The first technical mission was conducted in 2013 (Mauritius); followed by 2, including Comoros in 2014. Four more technical missions, including Cameroun and Côte d'Ivoire were conducted in 2015 and one nation was removed from the list. Four "Stage 2" missions were conducted in Africa during the year 2016 (Liberia, Benin, Cape Verde and Namibia). The annual review of IALA WWA activity was conducted at the end of 2016. This resulted in a reduction of IALA Target States from to 69 grouped in five regions. Details of capacity building and training activity in the African region are at Part 3 below.

- Capacity building and training are inextricably combined. "The successful delivery of AtoN (and VTS) services depends upon competent and experienced personnel to implement and maintain such aids[2]". It is considered essential that both AtoN and VTS Authorities are provided with sufficient staff, appropriately qualified, suitably trained and capable of performing the tasks required, taking into consideration the type of AtoN and/or VTS and the level of services to be provided. IALA defines international standards for personnel in charge of both VTS and AtoN implementation and maintenance[3].

- Training in AtoN service provision, including VTS, is vital to "the safe and efficient movement of shipping". Both ISO 9001.6.2 and IALA place considerable emphasis on competency[4]. Certification of competency to international standards in both AtoN and VTS is achieved via IALA model courses. There are four categories of VTS training and two levels for AtoN training ("Level 1" applies to AtoN managers and "Level 2" to AtoN technicians[5]).

---

[1] A definition of "capacity building" and other definitions are at Annex C to this report
[2] See IALA Recommendation E-141
[3] VTS and AtoN training standards are set out in IALA Recommendation V-103 and E-141 respectively.
[4] A definition of "competency" and other definitions are at Annex C to this report
[5] See IALA model courses V-103/1 – V-103/4 for VTS syllabi and E-141/1; IALA WWA.L2.0 for AtoN syllabi

- Two deliveries of distance learning for L1 AtoN Manager Training has been organised, and under the train the trainer principle, arrangements for participation to a pilot scheme have been made with UK.

- First delivery of an E-navigation & GNSS Course has been organised at IALA HQ in 2017.

- Apart from an annual risk management course, IALA does not generally deliver training itself. Rather it encourages and facilitates its National Member to accredit either regional or national training organisations to deliver approved VTS and AtoN training based on the suite of model courses published on the IALA website from which the relevant syllabi can be downloaded free of charge[6].

- IALA does not accredit training organisations or courses conducted by other authorities or academies. Only Competent Authorities of IALA National Members can accredit Training Organisations to deliver approved IALA Model Courses. The IALA WWA is available to facilitate the accreditation process if requested to do so by a Competent Authority[7].

Review in Africa

1. Generalities
   a. Regular participation by IALA as an observer at the East Atlantic Hydrographic Commission (EAtHC), the South Africa and Islands Hydrographic Commission (SAIHIC) and the North Indian Ocean Hydrographic Commission (NIOCH) meetings provided an ideal opportunity for follow-up "awareness" briefings.

   b. The provision of both VTS and AtoN services should be based on a formal analysis of maritime traffic patterns and risk. The same applies to the provision of hydrographic services. One meetings between the IALA WWA and SHOM (French Hydrographic Service) explored how their technical assessments could be taken further to maximise effectiveness.

2. Capacity Building
   a. The first Awareness capacity building activity in the African region was delivered in Cape Town, South Africa in June 2012 back-to-back with the 3rd SAGNEP Meeting.
   b. Joint IMO/IHO and IALA safety of navigation seminars have been delivered in Nouakchott (Mauritania) in 2013 and Accra (Ghana) in 2014 and the Aids to navigation and maritime traffic monitoring Workshop organised with MOWCA in Dakar (Senegal), back to back with the 61st IALA Council.
   c. An Awareness seminar on aids to navigation, organised by IALA WWA and the Portuguese Lighthouse Authority, dedicated to Portuguese speaking countries (Angola, Cape Verde, Guinea Bissau, Mozambique, Sao Tome & Principe, Timor Leste and Brazil) has been delivered 2-3 May 2016 in Lisbon, Portugal, on the same issues so that capacity building activity in African Portuguese speaking countries could be improved.
   d. Morocco, with the support of IALA, has been organising (Tanger, Morocco, 25-27 May 2016) a three-day Seminar, the 1st "Journées Techniques Portuaires et Maritimes", allowing to deliver awareness information.
   e. Those meetings were attended by 216 participants from 28 African States, including MOWCA and SAGNEP members. The active partnership between IMO, IALA and her

---

[6] A list of current Accredited Training Organisations in the African region is at Annex B to this report
[7] See IALA Guideline 1014 and 1100 for the training and certification processes for VTS and AtoN respectively

sister organisation the IHO, provides a very positive example of the United Nations "Delivering As One" capacity building strategy.

f. Capacity building Needs Assessment technical missions has been delivered by IALA WWA experts:
   i. Mauritius in 2013, conducted by Omar Fritz Eriksson
   ii. Comoros in 2014, conducted by Jean-Charles Leclair (who has been the Dean until August 2016) and the IALA Senior Adviser
   iii. Cameroon (conducted by the Dean and the IALA Senior Adviser) and Côte d'Ivoire (conducted by the Dean and the Programme Manager of the IALA WWA) in 2015
   iv. Liberia (conducted by the Dean), Benin (conducted by the IALA senior Adviser), Cape Verde (conducted by the IALA Senior Adviser and a Portuguese VTS expert), and Namibia (conducted by the IALA Senior Adviser) in 2016
   v. Togo 'conducted by the IALA Senior Adviser) in 2017.

g. The IALA Senior Adviser is working with Comoros and Cameroun to prepare Review missions. Appropriate actions to implement the recommendations made in the IALA "technical mission report have to be taken.

This will leave 16 potential technical missions to be completed in the African region before the end of IALA's Strategic Goal target of 2026. One is already scheduled at the end of July 2017 in Sudan. It is hoped that the MOWCA and SAGNEP membership will work with IALA to encourage those States to invite the IALA WWA to conduct such missions which, it will be remembered, are free-of-charge to the Target States[8].

3. Training
   a. As part of its training Strategy, IALA encourages African States to accredit training organisations to deliver approved training programmes based on IALA model courses.

      i. There are in France two Accredited Training Organisations (ATOs) delivering VTS courses and one delivering AtoN courses.

      ii. The IALA WWA Dean has been working with the support of France (ENSM Marseille and GPM Marseille) to allow the Académie Régionale des Sciences et Techniques de la Mer (ARSTM) of Abidjan, a body part of MOWCA, to deliver operator VTS training. The aim is to organize VTS training in Africa instead of sending people to Europe.

      iii. The IALA WWA Vice-Dean and the IALA Senior Adviser are supporting South Africa to accredit organisations delivering "Level 1" and "Level 2" AtoN training courses by 2017.

      iv. Morocco has been making a proposal to conclude tripartite agreements with IALA WWA and African countries to deliver training courses. The Casablanca Port Training Institute has been accredited, a MOU has been signed between IALA and Morocco (DPDPM), and a first Level 1 AtoN Manager (4 of the 5 modules) course will be organised in Casablanca in July 2017.

      When operational, the Africa region will benefit at least of two (or three if Accra university join the project) ATOs offering "Level 1" AtoN courses for potential AtoN

---

[8] See the list of Target States in Africa at Annex A of this report

managers[9]. This should be a major achievement of considerable benefit to all coastal States in the African region.

b. One representative of Comoros has been attending successfully the first "Level 1" AtoN manager course organised in 2014 by IALA WWA in IALA Headquarters.

c. According to the MOU signed by IALA and France National Competent Authority (Direction des Affaires Maritimes) three weeks "Level 1" AtoN manager courses were held in France in September 2014, allowing 4 (Cameroon, Côte d'Ivoire, Gabon, Madagascar) participants from African French speaking countries to attend. All 4 participants passed the tests of competency and were awarded a certificate.

d. According to the up-dated MOU between IALA and France National Competent Authority (Direction des Affaires Maritimes), a second three weeks "Level 1" AtoN manager courses was held in France in September 2015, allowing 3 participants from African French speaking countries to attend. All 3 participants (Benin, Côte d'Ivoire, Guinea), passed the tests of competency and were awarded a certificate. As the 2015 course was interrupted during one week, the IALA WWA organised a week of visits (administrations, IALA industrial members) in France for the African participants to the course.

e. Several of the larger African States have numbers of fully qualified VTS personnel but only a few AtoN managers are in possession of international certificates of competence bearing the IALA logo (one from Benin, Cameroun, Comoros, Gabon, Guinea, Madagascar, South Africa, two from Côte d'Ivoire and Kenya). The "Grandfather Clause" whereby Competent Authorities of IALA Member States could award such certificates to experienced personnel expired in late 2014. Thereafter potential AtoN managers of Authorities and AtoN service providers who wish to gain formal certification will need to participate on one of the "Level 1" courses. As the IALA WWA has been delivering its final "Level 1" AtoN manager course in mid-2016, 8 places have been reserved for participants from countries not on the IALA target list.

f. According to the up-dated MOU between IALA and France National Competent Authority (Direction des Affaires Maritimes), a third three weeks "Level 1" AtoN manager courses has been held in France from 26 September 2016 to 21 October 2016, allowing 5 participants from African French speaking countries (Djibouti, Gabon, Morocco, Senegal, and Togo) to attend, with no scholarship fee. As for the 2015 course, due to the one week interruption, the IALA WWA organised a week of visits (administrations, IALA industrial members) in France for the African participants to the course. They all passed the tests of competency and were awarded a certificate.

g. Even if there has been no accreditation for Level 2 training courses, France has offer, without scholarship fee, to French speaking African technicians to attend 3 Level 2 courses, in November 2016. 7 have been attending two courses, and 4 the third one.

h. The four-yearly IALA VTS symposium has been organised in Kuala Lumpur, Malaysia from 8 – 12 August 2016. This major event, which attracts the world's VTS experts and IALA Industrial members providing VTS equipment has been an ideal opportunity for any African State, including MOWCA and SAGNEP members, to contribute to VTS

---

[9] Spain, working with IALA, facilitates the delivery of "Level 1" AtoN manager training in Spanish.

development, update their knowledge or investigate new technology to install or upgrade VTS infrastructure.

Main Activities 2017-2020

Education and training activities

"The successful delivery of marine aids to navigation (AtoN) services depends upon competent and experienced personnel to implement and maintain such aids", therefore the Academy will:

- encourage national Competent Authorities to train their personnel through the use of IALA model courses delivered by Accredited Training Organisations (ATO);
- provide experts for delivering lectures at ATO delivered courses;
- maintain a close liaison with the technical committees in order to facilitate continuous development of model courses;
- increase and develop further its Distance Learning programme and utilise this to educate AtoN managers in developed countries;
- bring its Alumni Association together by convening events where networking and knowledge sharing can take place;
- bring ATO managers and lecturers together by convening events where coordination and knowledge sharing on ATO delivered training can take place;
- develop methods whereby the quality of ATO delivered training can be ensured;
- deliver modular specialist courses on Risk Management, e-Navigation etc.;
- facilitate the delivery of level 2 model courses world-wide.

Capacity building activities

Capacity building is about developing and strengthening human and institutional resources. To assist Target States and others with such needs, the Academy will:

- raise the awareness of higher level decision makers in Target States on their obligations as defined in international conventions;
- conduct technical needs assessment and other missions to Target States and others in need;
- conduct follow-up activities to such States to review progress with the implementation of the recommendations contained in Academy mission reports;
- participate proactively in International Maritime Organizations Technical Cooperation committee and the Joint Capacity Building Group activities;
- cooperate with regional organisations engaged in capacity building activities;
- develop regional strategies for advancing the work of the Academy in each of its continental target regions, beginning with Africa;
- sponsor individuals to attend model courses, IALA committee meetings and other relevant events.

Research and development activities

In order to advance the frontiers of knowledge and facilitate research and development within the scope of IALA, the Academy will:

- liaise with maritime universities world-wide with a view of encouraging research and development of specific topics of interest to IALA members;

- maintain and publish a list of topics within the scope of IALA where research and development may be needed.

Sustainable funding

It is of greatest importance to ensure sustainable funding of Academy activities, therefore the Academy will:

- provide feedback on its achievements to its present sponsors in order to ensure their continued support;
- build relationships with potential new sponsors and seek further sponsorship from individual IALA members.

Conclusion

IALA is moving towards its stated aim of becoming an Inter-Governmental Organisation. It has clear goals to achieve before its 21st Conference in 2026. These include making the remaining 20 Target States[10] in the African region aware of their international obligations under SOLAS Chapter V Regulations 12 and 13; conducting technical needs assessment mission to those States and facilitating a number of both VTS and AtoN training hubs in the African region.

IALA's capacity building and training activity is delivered by the IALA World-Wide Academy; an integral, but mainly independently funded pillar of IALA. Technical Analysis and Review Missions are delivered free of charge to Target States. This could not have been achieved without the superb and generous support of its principal sponsors and in-kind contributions from its Member States and international organisations such as the IMO.

Close liaison with the IMO and IHO under the United Nations banner of "Delivering As One" and with organisations such as MOWCA and SAGNEP are facilitating the delivery of capacity building and training.

The IALA WWA came of age in 2015 and is now embarking on an ambitious programme to improve the safety of navigation in the African region. The support of established MOWCA and SAGNEP members and of IALA members within the African region to assist this programme is seen as key to its success.

---

[10] See the list of Target States in Africa at Annex A of this report

Annex A: List of African Target States

Region 1 Africa	Target States - Total 20	High Level Meeting	Stage 1 – Awareness Seminar	Stage 2 – Needs Assessment Mission	Number of AtoN managers holding IALA certificates	Training facilitation
Region 1A Anglophone Africa (AA)	Angola					
	Cape Verde		2014, 2016	2016		
	Eritrea					
	The Gambia		2014, 2015			
	Ghana		2014			
	Liberia		2014	2016	1	
	Libya					
	Namibia			2016		
	Sao Tome & Principe		2016			
	Seychelles		2012			
	Somalia					
	Sudan		2012	2017		
Region 1B Afrique francophone (AF)	Congo (Dem. Republic of)		2013, 2016			
	Congo (Republic of)		2012, 2013, 2015			
	Equatorial Guinea		2014, 2016, 2016		1	
	Guinea-Bissau		2013, 2015, 2016			
	Madagascar		2012		1	
	Mauritania		2013			
	Morocco		2013, 2015, 2016		1	
	Togo		2013, 2015	2016	1	
Other States	Benin		2013, 2015	2016	1	
	Cameroon		2015	2013	1	
	Comoros			2014	1	
	Côte d'Ivoire	2015	2013, 2015	2015	2	2016
	Djibouti				1	
	Gabon		2013		1, 1	
	Guinea		2013, 2015			
	Kenya		2012			
	Mauritius		2012	2013	1	
	Mozambique		2012, 2016			
	Nigeria		2014			

Senegal		2013, 2015, 2016		1	
Sierra Leone		2014			
South Africa		2012		1	2016
Tanzania		2012			

Annex B: List of current Accredited Training Organisations in the African region

IALA V-103 VTS Training – Registry of Accredited Training Organisations

The following Training Organisations have been accredited by their respective National Competent Authority to deliver Vessel Traffic Service training based on the procedure set out in IALA Recommendation V-103. Guidance on the accreditation and approval process can be found in IALA Guideline 1014. Amendments should be notified to the IALA World-Wide Academy Programme Manager: academy@iala-aism.org .

Area / Region	Training Institutes	Accreditation Authority	Courses	Date of Accreditation	Comments (to include ability to accept foreign students)
Algeria	L'Ecole Supérieure Navale de Tamentfoust Direction de la Marine Marchande et des Ports (Mr Benyelles Lotfi Abderrahim) Director 1 rue Ibn Badis El Mouiz (ex. Poirson) El Biar-Alger Tel: (213) 021 92 98 81 Fax: (213) 021 92 30 46 Email: Benyelles@ministeretransports.gov.dz		V-103/1 on Vessel Traffic Services Operator Training V-103/2 on Vessel Traffic Services Supervisor Training	28 September 2014 28 September 2014	
France	L'Ecole Nationale de la sécurité de la mer 38, rue Gabriel Péri BP 88705 – 44187 NANTES cedex 4 L'Ecole Nationale Supérieure Maritime 39 avenue du Corail CS 50040 – 13285 MARSEILLE cedex 8	Ministère de l'Écologie, du Développement durable et de l'Énergie	VTS Operator Basic Training V-103/1 VTS Operator Basic Training V-103/1 VTS Supervisor Training V-103/2	7 June 2013 valid until 6 June 2018 4 November 2014 Valid until 4 November 2016	
South Africa	School of Ports Transnet National Ports Authority Suite C109, 20 Langeberg Road, Durban, 4001 PO Box 1027, Durban, 4000 Gengan Pillay Senior Marine Facilitator: Pilots +27 31 361 6298 +27 31 361 6366 Cell+27 0837848466 e-mail: Gengan.pillay@transnet.net	SAMSA	VTS Operator V-103/1	Issued 1 Dec 2009 Expires 30 November 2012.	TNPA To rule on this issue.

IALA WWA E-141 AtoN Training – Registry of Accredited Training Organisations

The following Training Organisations have been accredited by their respective National Competent Authority to deliver AtoN training based on the procedure set out in IALA Recommendation E-141. Guidance on the accreditation and approval process can be found in IALA Guideline 1100. Amendments should be notified to the IALA World-Wide Academy Programme Manager: academy@iala-aism.org .

The IALA WWA is working with a number of IALA Member States to facilitate the delivery of AtoN training. For further information or advice, please contact the Academy at the above email address.

Area / Region	Training Institutes	Accreditation Authority	Courses	Date of Accreditation	Comments (to include ability to accept foreign students)
International	IALA World-Wide Academy 10 rue des Gaudines 78100 Saint Germain en Laye France www.iala-aism.org	IALA Council	E-141/1 AtoN Manager Course IALA WWA.L1.3	December 2012 Valid: until further notice May 2013 Valid: until further notice December	Delivered by The Academy or by another ATO with Academy facilitation. Any nationality accept

				2013 Valid: until further notice	subject to good understanding of English Annual event delivered in English Delivered by The Academy or by another ATO with Academy facilitation. Any nationality accept subject to good understanding of English
			IALA Risk Management Toolbox IALA WWA.L1.4 Introduction to GNSS and eNavigation		
France	France Le Centre de Valorisation des Ressources Humaines (CVRH) 25 rue du Douet-Garnier BP 23606 – 44036 NANTES Cedex 01	Ministère de l'Écologie, du Développement durable et de l'Énergie : Direction des affaires maritimes (Directorate for Maritime Affairs) Grande Arche - Paroi sud 92055 – La Défense cedex	E-141/1 AtoN Manager Course	16 July 2014 valid until 15 July 2019 subject to periodic verification	Open to French speaking foreign students on a case by case basis
Portugal	Núcleo de Formação de Faroleiros Escola de Autoridade Marítima ETNA – Edifíco do DPE Alfeite 2810-001 Almada Portugal	Direcção De Faróis Avenida Marginal 2770-210 Paço de Arcos Portugal	IALA WWA.L2.0 AtoN Level 2 Technician training course	16 December 2014 Valid until 31 December 2017	
Spain	Spain Area de Ayudas a la Navegación Marítima Puertos del Estado Avda. Del Partenón, 10 Campo de las Naciones 28042 Madrid Spain	MEDITERRÁNEO SEÑALES MARÍTIMAS GMV	E-141/1 AtoN Manager Course IALA WWA.L2.0 Selected AtoN technician courses IALA WWA.L2.0 Selected AtoN technician courses 6	October 2014 valid until further notice 31 July 2015, valid until further notice 16 March 2015, valid until further notice	

Annex C: Definitions

Education and Training

Education is the process by which someone acquires the knowledge, skills, values, beliefs, habits and ability to exercise judgement within a domain.

Training is the process by which someone acquires the skills needed to perform a specific task or a set of specific tasks or functions.

Competency is a demonstrated availability to apply knowledge and skills.

Research and Development

Research is the process of systematic study aiming at fuller, more complete knowledge and understanding of a concept or a phenomenon.

Development is the process of innovation activities leading to new or improved services, products, processes or procedures.

Basic Research is the process of systematic study aiming at fuller, more complete knowledge and understanding of *the fundamental aspects* of a concept or a phenomenon without aiming toward any concrete application.

Capacity Building

Capacity Building is the process of developing and strengthening human and institutional resources and capabilities.

In the context of the Academy, Capacity Building is a long-term continual process, involving all stakeholders, encompassing activities such as awareness raising, education and training of individuals, development of management structures, processes and procedures, institutional and legal framework changes as well as follow-up activities, enhancing the ability of Coastal States to fulfil their international maritime obligations.

Accreditation and Approval

Accreditation is a process whereby the Competent Authority or an authority designated and approved by the CA, grants recognition to a training organisation for demonstrated ability to meet predetermined criteria for established standards. Once accreditation has been granted, the training organisation is designated as an Accredited Training Organisation (ATO).

Approval is the result of completing successfully the quality assurance process under which a training course is assessed to ensure that the IALA standards are set. The Accreditation process is for the training organisation and Approved is for each training course conducted by the training organisation.