



**IALA World-Wide Academy Pre-18<sup>th</sup> Conference  
Seminar on**

**The Training and Certification of Aids to Navigation  
(AtoN) and Vessel Traffic Services (VTS) Personnel**

**A Coruña, Spain - 24 May 2014**

**REPORT**

**Jean-Charles Leclair  
Dean of the IALA World-Wide Academy**

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The opinions expressed in this report are solely those of the authors and do not in any way reflect the opinions or policies of the International Association for Marine Aids to Navigation and Lighthouses Authorities

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## Summary and Recommendations

The 18<sup>th</sup> IALA Conference was held in A Coruña, Spain from 25<sup>th</sup> to 31<sup>st</sup> May 2014. A one day pre-Conference seminar on the Training and Certification of Aids to Navigation (AtoN) and Vessel Traffic Services (VTS) Personnel was held in Arao Auditorium of the PALEXO Conference Centre A Coruña on 24 May 2014. It was delivered by the IALA World-Wide Academy and hosted by Puertos del Estado and was attended by 61 participants from 26 countries. Practical examples of both Aids to Navigation (AtoN) and Vessel Traffic Service (VTS) training and accreditation processes were presented by seven of these countries.

At the end of the Seminar, two recommendations were adopted by participants. These were:

- The establishment of accredited national and regional training organizations should be considered and Competent Authorities are encouraged to implement training consistent with IALA Recommendations E-141; V-103 and associated Model Courses
- A framework for the mandatory training of VTS personnel in a manner similar to the provisions for navigating officers provided in STCW Convention should be considered



Rear Admiral Jean-Charles Leclair  
Dean  
IALA World Wide Academy

## 1. Background and Objective

This report covers the development and delivery of a one day pre-Conference seminar on the Training and Certification of Aids to Navigation (AtoN) and Vessel Traffic Services (VTS) Personnel was held in Arao Auditorium of the PALEXCO Congress Centre A Coruña, Spain on 24 May 2014. It was delivered by the IALA World-Wide Academy (The Academy) and hosted by Puertos del Estado (PdE). It was attended by 61 participants from 26 countries. In addition to the host nation, these were [to be inserted] A full list of participants is at Annex B.

## 2. Preparation of the seminar

During the preparations for the 18<sup>th</sup> IALA Conference, PdE suggested that a one day seminar targeted at Spanish-speaking nations, could be held on the Saturday before the Conference started. This initiative was welcomed by The Academy which proposed that the focus might be on training and accreditation of both AtoN and VTS personnel. The seminar aimed to deliver a series of general presentations on the background and principles of training and accreditation before case studies were presented from a wide spectrum of IALA Member States.

The superb organization provided by Puertos del Estado ensured that this seminar was conducted faultlessly. Support by the Technical Secretariat of the Conference Organiser Orzáncongres was most professional and the staff of the PALEXCO Congress provided a perfect venue for the event. The Presenters from the seven countries who delivered practical examples prepared a series of very well considered presentations to participants. This paragraph provides an ideal opportunity to thanks all of the above for the efforts to make the seminar the success that it was.

## 3. Progress of the Seminar

Most participants arrived the day before the seminar was opened on Saturday 24<sup>th</sup> May 2014. They were given memory sticks with most of the presentations during registration between 0830 and 0930. The opening ceremony in the Arao Auditorium of the PALEXCO Conference Centre commenced at 0940 with a speech of welcome by Mr Gary Prosser, the Secretary-General of IALA and closed at 1810 with closing remarks by Rear Admiral Jean-Charles Leclair, Dean of The Academy and Snr Juan Francisco Rebollo – Head of the Spanish AtoN Service, Puertos del Estado.



Opening Ceremony



Panel of Country Presenters

#### 4. Content of the Seminar

The objective of the seminar was to provide participants with an overview and update on the latest developments relating to training and certification of AtoN and VTS personnel. Details of presentations delivered during the 6 Sessions are listed below.

##### *Session 1: 0940 – 1000 Introduction and Opening Ceremony*

The seminar was opened by the Secretary-General of IALA who welcomed both old and new friends. He thanked all the organisers of the important event stressing the importance of training to safe navigation world-wide. He identified the IALA World-Wide Academy (The Academy) as a key deliverer and facilitator of such training, particularly as training became more complex. He introduced Juan-Francisco Rebollo who welcomed the participants on behalf of the President of Puertos del Estado and reiterated thanks to the organisers before highlighting the vital importance of human resources in both Aids to Navigation (AtoN) and Vessel Traffic Services (VTS) training. He saw that the role of The Academy was essential to such services.

Jean-Charles Leclair welcomed the participants. He stressed that training was an essential element to the harmonisation of AtoN and VTS services. He thanked Spain and Juan-Francisco Rebollo in particular for the initiative to hold the seminar. He then outlined the objective of the seminar before focussing attention on the fact that the vast majority of maritime accidents were due human failure.

##### *Session 2: 1000 - 1040 - IALA and Other International Organizations concerned – Legislation*

Jean-Charles Leclair briefed participants on the IALA toolbox highlighting the new Committee structure. He stated that IALA Recommendations, Guidelines and Manuals represented international standards recognised by the International Maritime Organization under the SOLAS Convention. He then explained the background and function of the independently-funded Academy. He explained that The Academy's training activity would be covered in greater detail during Sessions 4 and 5 before explaining the principal function of Capacity Building. He stressed the importance of "Stage 1" awareness seminars which had been delivered to over 500 delegates in six of the seven Academy target regions. He hoped that such a seminar would be held in the final Meso-America and Caribbean region. He then detailed the importance of "Stage 2" needs assessment missions, particularly in the light of forthcoming mandatory IMO audits. He highlighted the significance of the United Nations "Delivering as One" capacity building strategy and made particular mention of the strong liaison developed with the IMO and the International Hydrographic Organization.

The Dean of The Academy then moved to the obligations placed on Coastal States under IMO Conventions. He stressed the importance of formalized national maritime legislation which should state which organizations were responsible for specific AtoN services. He closed by drawing attention to the availability of the 19 IALA-experts whose names and contact details were on the Academy page of the IALA website.

Gary Prosser highlighted once again the importance of quality AtoN and VTS services as part of the IMO "Accident Zero" campaign before inviting questions from participants. There was some discussion on national responsibility for Automatic Identification System (AIS) data.

##### *Session 3: 1045 – 1100 IALA's International Standards – The IALA maritime Buoyage System; Recommendations and Guidelines*

M. Jacques Manchard – Senior Adviser IALA World-Wide Academy delivered a two-part presentation in French<sup>1</sup> to participants. The first session concentrated on the historical background and functions of the IALA Maritime Buoyage System (MBS). After a short update on the categories of buoys and marks in the MBS he moved on to the second part of his presentation covering IALA Recommendations and Guidelines. He highlighted the importance of the Committees in generating new and revised publications for consideration and approval by the IALA Council. He ended by re-stressing the status of IALA publications as SOLAS-endorsed international standards.

#### *Session 4: 1140 – 1215 AtoN Personnel Training and Certification*

Stephen Bennett, Programme Manager of The Academy reiterated the twin Academy deliverables of capacity building and training before concentrating on the latter. He reminded participants of the necessity of a properly trained personnel resource within both national Competent Authorities set out in IALA Recommendation E-141 before reviewing the suite of AtoN Model courses. He drew attention to a forthcoming Level 1 AtoN Manager course to be delivered in France in September 2014 on which 4 sponsored places were available. He explained the Academy's strategy on the delivery of regional training facilitated by The Academy and encouraged participants to consider this in their own regions. He ended by briefing on the definitions of "accreditation" and "approval" of Training Organizations and courses before describing the full accreditation process and the use of the IALA logo on certificates of competency.

Questions focussed on the practical application of regional modular training and distance learning possibilities.

#### *Session 5: 1215 – 1300 VTS Personnel Training and Certification*

Captain Tunçay Çehreli – Chair IALA VTS Committee started by highlighting the fact that over 80% of marine accidents were attributable to human error before detailing the international framework for VTS legislation; particularly SOLAS Chapter V Regulation 12 and IMO Resolution A.857/20. He explained that STCW Conference in 1995 raised the issue of formalised VTS courses. This was carried forward through IMO circulars to produce a suite of VTS Model Courses based on IALA Recommendation V-103. Such training was not yet mandatory, but VTS authorities were encouraged to adopt the V-103 suite of VTS courses. He then briefed participants on the suite of Model Courses and drew attention to the recommendation to establish regional VTS training organizations and a framework for mandatory training of VTS personnel similar to the provisions for navigating officers in STCW. These were developed at the Regional Forum on VTS in Singapore in October 2013. He reiterated the significance of the IMO "Accident Zero" campaign proposed at the 2012 VTS Symposium which had been evaluated by an international panel of 8 experts. He highlighted specific training-related initiatives proposed by the campaign. He then briefed on the IMO Member State Audit Scheme set out in IMO Resolution A.1067 (28) which included SOLAS Chapter 5 implementation on day 5 of such an audit.

#### *Session 6: 1300 – 1320; 1500 – 1655; Practical Examples*

##### **6.1 Spain – VTS and AtoN**

Carlos F. Salinas – VTS head of area Centro Jovellanos (an IALA VTS expert) explained that potential VTS operators must be professional marine officers. They would then be trained in accordance with V-103/1 using both theoretical and practical modules using simulators. Other V-103 model courses have being developed. They will be delivered in the near future. During questions he stated that courses were generally delivered in Spanish, but other languages were possible. The Dean drew

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<sup>1</sup> Simultaneous translation was available in English, French and Spanish

attention to the VTS ATO list on the IALA website where the language of delivery could be stated in the remarks column. The difference in training for both coastal and port VTS was discussed.

Juan Francisco Rebollo – Head of the Spanish AtoN Service briefed participants on the history of AtoN training in Spain. He explained that in 1993 a new States Port System (Puertos del Estado - PdE) was established. This was divided into 3 categories (major ports; regional ports and other ports). However formal training for all AtoN personnel was discontinued. Only the National Ports and coastal network provided in-house training based on a competence management system based on gap-analysis. This has continued to the present day with Puertos del Estado conducting oversight of other ports. There is at present no Approved Training Organization in Spain. This has led to a dilution in trained AtoN manpower. Future strategy is to extend the role of PdE in AtoN training and delivery. This would involve declaring PdE as the ATO and develop a formal training and accreditation process. He concluded by presenting a summary of PdE's strengths and weaknesses with the latter being predominant primarily in the loss of trained personnel and budgetary constraints. Threats and opportunities were then identified.

6.2 Australia - VTS and VTS training. Jillian Carson-Jackson (Australian Maritime Safety Authority - AMSA) updated participants on recent changes to Australian Domestic Law. Individual States have authority over waters extending from the baseline to 3 nautical miles. The Commonwealth of Australian States has responsibility from 3 to 12 nautical miles. The Navigation Act 2012 identified AMSA as the Competent Authority for VTS. Marine Order 64 (VTS) provided for authorisation of VTS authorities, accreditation and training. The Training Accreditation process is based on a pre-audit; on site audit and verification audit. Only two ATOs are accredited to deliver V-103/1 and V-103/2 courses. At present there are no ATOs delivering V-103/3 or V-103/4 model courses.

6.3 Brasil - . Captain Alberto Piovensana Junior drew attention to the vast area of both offshore and inland waters for which Almirante Moraes Rego was responsible before detailing the AtoN and VTS facilities established within that area. After outlining the history of the AtoN service, he briefed on national responsibilities for AtoN and VTS (Directorate of Hydrography and Navigation). Each sub-contracted AtoN service must have an ex-military certified AtoN Manager on its staff. The Technical School "Almirante Alves Calve" was established to train military personnel to replace civilians. This school also trained students from other South American countries. A VTS ATO was accredited in 2013. Trained VTS personnel are all civilians. Future strategy is to increase AtoN training by a specific module. He concluded by highlighting the accelerated growth in technology.

6.4 Chile – Commander James Crawford Crawford (Chilean Navy – Directemar) commenced by outlining the roles of the Chilean Navy focussing on Directemar which has responsibility for AtoN. Both AtoN managers and technicians are military personnel who undergo detailed training related to AtoN. Further training is conducted where necessary. Foreign national are also trained.

6.5 France – Training and Certification of AtoN and VTS personnel in France. Captain Vincent Denamur delivered a presentation in French which focussed on AtoN capabilities and training by the Directorate for Maritime Affairs (DAM). He first explained that there were 3 coastal and 2 port VTS centres. The Coastal VTS were IMO declared Navigational Information and Navigational Assistance services (INS/NAS) which incorporate mandatory reporting measures. He then explained developments in AtoN training which would be conducted in French in partnership with The Academy based on IALA Recommendation E-141. The first joint AtoN Level 1 manager course would commence in September 2014. There were other challenges in VTS training, particularly between specific courses for port versus coastal VTS services. However DAM France had recently accredited a second ATO to deliver V-103/1 and V-103/2 courses targeted at port VTS personnel. These courses



are open to other French-speaking countries. Further courses for supervisor and on-job training are being considered.

6.6 Japan – Commander Hideki Noguchi – Maritime Traffic Department – Japan Coast Guard. Commander Noguchi described the roles of the Japan Coast Guard (JCG) before concentrating on the activity and capability of the Marine Traffic Department with respect to AtoN and VTS. JCG AtoN training is conducted at a specialist academy and a school at Moji, the latter being a VTS ATO delivering V-103/1-3.

6.7 Korea – Professor Dr. Seung-Gi Gug (Korea Maritime and Ocean University) in association with Mr Min-Su Jeon (Korea Association of AtoN) and Mr Young-Chan Bae, Ministry of Oceans and Fisheries. The presentation was divided into three sections. The first covered AtoN training which is conducted by the AtoN Training and Education Center; part of the Korea Association of AtoN (KAAN). Action is in hand to accredit this training organisation in accordance with IALA Guideline 1100. The second section dealt with VTS activity which comprised 14 port, 1 inland water and 1 coastal VTS centres operated by the Ministry of Oceans and Fisheries and Korean Coast Guard. Long Range Information and Tracking and AIS was used to monitor maritime traffic. He outlines the national and international legislation in force before stating that a study was underway to audit VTS training and procedures so that they complied with IALA Guideline 1014. He drew attention to a plan to enhance maritime traffic safety in Korean waters. He concluded by presenting video clips to describe the use of simulation for leading light design.

#### *Question Period: 1655 – 1710*

Stephen Bennett asked delegates with ATOs on the IALA website to check their details and to add remarks about the training language where appropriate. There were interesting interventions and responses concerning E-141 gap analysis; the partnership between DAM and The Academy; mandatory monitoring and reporting in coastal waters in European Union; the analogy between air and maritime traffic control and training differences for port versus coastal VTS.





## **Seminar Participants**

*Session 7: 1740 - 1810 Final Discussion and Debrief*

### **Conclusions and Recommendations**

The Chairman, Jean-Charles Leclair, asked participants to consider two draft recommendations for endorsement by the seminar. After some discussion the seminar approved the following two recommendations which were based on the text of two of the recommendations from the Singapore VTS seminar referred to in Session 5:

- The establishment of accredited national and regional training organizations should be considered and Competent Authorities are encouraged to implement training consistent with IALA Recommendations E-141; V-103 and associated Model Courses
- A framework for the mandatory training of VTS personnel in a manner similar to the provisions for navigating officers provided in STCW Convention should be considered

In conclusion the Chairman noted the broad participation from a large number of nations and made special mention of the superb support provided by Puertos del Estado and Juan Francisco Rebollo in particular. In turn Juan Francisco thanked the presenters and participants for their contribution before acknowledging the work of the World-Wide Academy in delivering such a successful seminar.

**Capacity Building Pre-Conference Seminar**  
***Training and Certification of AtoN and VTS Personnel***

**A Coruña, Spain**  
**Saturday 24 May 2014**

**PROGRAMME**



Time	Event	Content	Chair/Presenter
08:30 – 09:15	Registration		
09:30 – 10:00	<b>Session 1</b>	<b><u>Introduction to the seminar</u></b> Opening Ceremony Objectives of the Seminar Maritime Safety, Safety of ships, Safety of Navigation	Gary Prosser, IALA Secretary-General Juan Francisco Rebollo, Puertos del Estado Jean-Charles Leclair, Dean IALA World-Wide Academy
10:00 – 11:00	<b>Session 2</b>	<b><u>IALA and other International Organizations concerned – Legislation</u></b> IALA and the IALA World-Wide Academy International Organizations involved in Safety of Navigation Obligations of Coastal States International Regulations – Conventions, Recommendations and Guidelines National Legislation	Jean-Charles Leclair
	<b>Session 3</b>	<b><u>IALA's International Standards</u></b> The IALA Maritime Buoyage System IALA Recommendations and Guidelines	Jacques Manchard Senior Adviser to the IALA World-Wide Academy
11:00 – 11:30	Coffee		
11:30 – 12:30	<b>Session 4</b>	<b><u>AtoN Personnel Training and Certification</u></b> The Level 1+ Awareness Seminar Training for AtoN Services' Personnel AtoN Training Model Courses level 1 and 2 Accreditation of Training Organizations	Stephen Bennett Programme Manager IALA World-Wide Academy
12:30 – 13:30	<b>Session 5</b>	<b><u>VTS Personnel Training and Certification</u></b> Training for VTS Personnel VTS Training and IALA Model Courses Accreditation of Training Organizations	Tunçay Çehreli Chair IALA VTS Committee
13:30 – 15:00	Lunch		

15:00 – 17:00	<b>Session 6</b>	<b><u>Practical Examples</u></b> Spain - AtoN and VTS Australia Brazil Chile France Japan Republic of Korea	Juan Francisco Rebollo Jillian Carson-Jackson Alberto Piovensana Júnior James Crawford Crawford Vincent Denamur Hideki Noguchi Seung-Gi Gug
17:00 – 17:30	Coffee		
17:30 – 18:00	<b>Session 7</b>	<b><u>Final Discussion and Debrief</u></b> Discussion, Conclusions and Recommendations Closing Ceremony	Jean-Charles Leclair Juan Francisco Rebollo

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**Annex B**

**Capacity Building Pre-Conference Seminar  
Training and Certification of AtoN and VTS Personnel  
A Coruña, Spain**

**LIST OF PARTICIPANTS**

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