

INTERNATIONAL HYDROGRAPHIC ORGANIZATION

Report on a MACHC Seminar on Raising Awareness of Hydrography (and
Maritime Services)

Antigua and Barbuda

7th – 8th December 2015



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International Capacity Building Manager

This report includes a brief summary and final recommendations arising from a seminar on raising awareness of hydrography (and maritime services) held in Antigua and Barbuda in December 2015. It does not in any way reflect the opinions or policies of the International Maritime Organization, International Hydrographic Organization or International Association for Marine Aids to Navigation and Lighthouses Authorities

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Outline

A two day Meso American and Caribbean Sea Hydrographic Commission seminar on Raising Awareness of Hydrography (and Maritime Services) was held in the Jolly Beach Resort and Spa, St Michael's, Antigua and Barbuda from 7th to 8th December 2015. It was delivered by the International Hydrographic Organisation, IALA and the IMO as part of the United Nations "Delivering as One" capacity building initiative.

The seminar was attended by 26 participants, 4 observers, 7 lecturers and 3 support staff from 18 countries. A list of participants is at Annex B.

Seminar Programme (see Annex A)

Day 1 – Monday 7 December 2015

0910 Mr. Jeff Bryant (International Capacity Building Manager, United Kingdom Hydrographic Office – UKHO) opened the seminar by introducing the 3 organisations focussed on the safety of navigation; IHO, IMO and IALA. He stressed that the focus of the seminar was hydrography, but with other aspects of the safety of navigation taken under specific subjects. He introduced the Manager Maritime Affairs and External Relations of Government of Antigua and Barbuda Department of Marine Services and Merchant Shipping (ADOMS), Commander Wayne Mykoo, who welcomed the participants on behalf of his Director Ambassador Gardiner.

This was followed by the 40 participants, lecturers and observers introducing themselves before the group photograph was taken.



Session 1 – International Organisations and Legislation

0930: Mr Robert Ward, President of the IHO gave the overview presentation which highlighted the aim of the seminar and international awareness of the importance of oceans and their governance. He then outlined the work of the IHO and screened a video on the importance of hydrography before stressing how little of the world's oceans and coastal areas were adequately surveyed – only 20% within the Caribbean – for example. He finalised his presentation by highlighting the growing importance of regional Hydrographic Commissions and how they fitted into the IHO organisation but regretted that more States were not inclined to become members of the IHO. Within his

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presentation he stressed the close liaison with IALA and the use by both organisations of expert stakeholders.

[**Note:** There are 183 coastal States. IHO has 85 members and 7 pending applications].

1045: Mr Colin Young (Regional Maritime Adviser Caribbean) from the IMO gave an overview of the IMO Member State Audit Scheme before moving on to Coastal States' obligations and how mandatory audits will be conducted. He highlighted the problems associated with non-compliance and the advantages to navigational safety of compliance, particularly when Port State Control was effective. The role of the III (IMO Instruments Implementation) Code was stressed. He advised that 86 States had volunteered for voluntary audits and that 74 such audits had been conducted by October 2015. He highlighted obligations under SOLAS V Regulation 9 before stressing the need for an overall maritime strategy in each State developed by key ministerial stakeholders. He then moved on to how mandatory audits would be conducted. He advised that 173 IMSAS audits – one per Member State – need to be conducted (25 per year over a 7 year cycle). No MACHC States will be audited in 2016, but 5 audits are scheduled for 2017. He emphasised that IMSAS audits should be seen as an opportunity to identify improvements.

In questions, Robert Ward advised hydrographic offices to liaise closely with their national maritime administrations, to ensure that the audits reflect the true state of affairs. The same clearly applied to aids to navigation service delivery and the availability of IALA Guidelines 1054 and 1055 on preparing for IMO audits was highlighted.



Mr Colin Young of the IMO



Seminar Participants

1120: Mrs Gerardine Delanoye, the Programme Manager of the IALA World-Wide Academy briefed on the role of IALA and its Academy. She defined what an aid to navigation was before briefing on the governance of IALA and its change of status to an Inter-Governmental Organisation by 2018. Having briefed on the methods by which IALA achieves its aim, principally through its technical committees, she explained its capacity building strategy delivered by the Academy. She reminded participants on the definition of a national Competent Authority and “capacity building” before outlining its training programme; work as part of the UN Delivering as One strategy and its list of target States. She used the Academy’s interaction with the Republic of Suriname to explain how the four-stage capacity building process worked.

Session 2 – Navigation Risk

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1200: Mr Bennett, Vice Dean of the IALA World-Wide Academy, delivered an interactive presentation on risk stressing that the risk assessment process adopted by IALA applied equally to the assessment of hydrographic risk.

Session 3 – Maritime Safety Information and Navigation

1400: Mr Jeff Bryant (UKHO) provided an overview of nautical information and how such information should be disseminated to the mariner. He stressed the vital role played by timely and effective handling of Maritime Safety Information. President Robert Ward intervened by explaining the importance of nominating a national maritime safety information coordinator.

1415: Mr Bennett delivered a presentation on the definition and concept of navigation followed by an explanation of IMO accuracy standards. This was followed by a presentation on the requirement for strategic planning and positive liaison with stakeholders and how to interact with them, including a team exercise by participants.

Session 4 - eNavigation

1550: The final presentation on an overview of e-Navigation was delivered by Mr Bennett. He explained that IMO is focused on ship matters with IALA handling shore-side developments.

1615: President Ward provided a summary for the day which focussed on making higher authorities in each State informed of their obligations to keep mariners safe.

Comment

The first day of the seminar was well received by participants. All three of the capacity building organisations (IMO; IHO and IALA) highlighted the commonality of risk-based assessments for navigational safety and stressed the importance of making higher authorities fully aware of their obligations under international law.

Day 2 Tuesday 8 December 2015

0900: Captain Marc Donck, Chair of MACHC, welcomed participants before new attendees from Bermuda and Suriname introduced themselves. This was followed by a short quiz set by Mr Bennett on knowledge gained on Day 1 during which the participants demonstrated their newly acquired competencies.



Mr Sam Harper (UKHO)



Mr Jeff Bryant Seminar Chair (UKHO/IHO)

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Session 5 – The Provision of Hydrographic Services, Nautical Charting and ENCs

0915: Mr Sam Harper, International Hydrographic Projects Manager UKHO, delivered a presentation on seabed mapping in the 21st Century. He covered the types of hydrographic surveys and the reasons for conducting them before moving on to survey platforms and the key elements of traditional hydrographic surveys. He then briefed on non-traditional seabed mapping techniques, including satellite-derived and crowd-sourced bathymetry. The presentation then covered standards and specifications for hydrographic surveys (IHO S-44); data quality factors and survey planning; prioritisation and data sharing.

An active question and answer session raised, *inter alia*, the issue of any negative effect of bathymetric systems on marine life. Experts reported that the frequency and power of these systems had no negative impact on the marine environment; indeed they were positive because of the concomitant improvement on the safety of navigation and preservation of the marine environment. Others covered clarification on radar satellite bathymetry; obligations of data exchange; the quality and utility of third party data; crowd sourcing and the use of AIS data.

1050: Jeff Bryant delivered a presentation on nautical chart production which covered the benefits of establishing a national charting authority; the requirement for competent personnel to scheme, compile and publish charts. He outlined the six levels of chart content before covering the printing and distribution of charts by the UKHO and the requirement to keep them up to date. He ended his presentation by outlining details of the vector-data- based Electronic Navigational Chart (ENC) series. Haiti asked whether a new hydrographic office should start with paper charts or ENCs. The advice was that the priority was to develop a database from which a variety of products could be produced.

1125: Alberto Costa Neves (IHO) introduced an excellent 8 minute video made by the Republic of Korea on the S-100 universal hydrographic data model, based on the ISO 1900100 series. This showed how components of S-100 could be used to generate product specifications including S-101 as the ENC product specification that will eventually replace the existing S-57 standard. He then gave more detail on the progress on IHO S-100 product specifications and mentioned that IALA's product specifications were in the S-200 series.

1140: Mr Bennett delivered a presentation on two of the 3 pillars of eNavigation – resilient Position Navigation and Timing (PNT) and communications. He outlined the threats to satellite signals before introducing the IALA World Wide Navigation and Communication Plans. He discussed challenges and opportunities for maritime radio bandwidth before focusing on developments in the Global Maritime Distress and Safety System. He concluded by reminding participants of their national obligations to inform all concerned about MSI as soon as it is known about by all available means.

Session 6 – Training and Accreditation

1205: Mr Costa Neves informed participants of the training and accreditation of hydrographic specialists as part of the IHO capacity building strategy and the work of its Capacity Building sub-Committee and its long term objectives. This included technical needs assessment missions; workshops and targeted sponsored training events for IHO Members and the selection, competency and retention of hydrographic and cartographic specialists. He explained how interaction with the Regional Hydrographic Commissions was used to maximise the delivery of capacity building. He highlighted the work of the seven-strong Joint Capacity Building working group under the UN

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Delivering as One” strategy and Public Relations initiatives before outlining how the competency of both hydrographic surveyors and cartographers was accredited.

1345

Mrs Gerardine Delanoye delivered a presentation on the training and accreditation for both vessel traffic and aids to navigation service delivery. She began by mentioning STCW before giving parallel examples in the harmonised training and accreditation process run by IALA and its endorsement by IMO Resolutions. Reflecting the earlier IHO presentation, she stressed the requirement for properly trained staff highlighting that IALA does not accredit training organisations itself. This was the responsibility only of the national Competent Authority. She then reviewed both VTS and AtoN model courses before advertising the availability of sponsored places on the forthcoming “Level 1” AtoN manager course in May 2016.

Session 7 – Aids to Navigation Management

1420: Mr Bennett briefed participants on their responsibilities for the proper management of an AtoN service. He stressed that responsibility for the delivery of both hydrographic and aids to navigation services cannot be delegated. He encouraged participants to develop and publish both operational and strategic plans which advised mariners of their Levels of Service and availability of aids to navigation to IALA standards.

Session 8 – Safety of Navigation Forum

1445: At the Safety of Navigation Forum, the three international agencies (IMO; IHO and IALA) invited participants to propose four recommendations to be included in the final report which could then be used to advise national maritime administrations if considered appropriate. There were:

- Distribute all the seminar presentations and the UKHO Code of Practice for the provision of hydrographic services to the respective national authorities via the IHO website.
- Implement an effective Maritime Safety Information organisation in each coastal State member of MACHC and report back to the next MACHC meeting via National Reports.
- Implement an effective mechanism for communication with Stakeholders in each State.
- National Maritime Administrations should advise the IMO of any enhancements to existing International Standards that they might wish to be included.

1505: Mr Jan Haug Kristensen from Kongsberg gave a commercial presentation on the development of echo-sounders.

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Mrs Gerardine Delanoye (IALA)



Presentation of Certificates

Closing Ceremony

1525: Certificates of attendance and a copy of the group photograph were issued to all participants. Mr Colin Young delivered a closing statement on behalf of the IMO in which he thanked the participants, lecturers and organisers before saying how valuable he found attendance at such events because it enabled the IMO to be kept aware of regional challenges and experiences in meeting their obligations under SOLAS.

The seminar closed at **1530**.

Conclusions

The joint IHO/IMO and IALA seminar achieved its aim of raising the awareness of 40 participants of their obligations under SOLAS to deliver fully compliant navigation warning; hydrographic and aids to navigation services in the 15 countries from which they came. Delivery of the 11 MS PowerPoint presentations and supporting videos reinforced the joint capacity building strategy of the three principle organisations delivering them, and questions, interventions and feedback from the participants confirmed that the seminar had been an unqualified success.

The seminar would not have been the success it was without the superb administrative support provided by its host, the Department of Marine Services and Merchant Shipping (ADOMS) under the leadership of Ambassador Gardiner and his team so ably led by Commander Wayne Mykoo. The thanks of all who participated in the seminar are noted in this report.

It is recommended that a third seminar be held ahead of MACHC-17 in 2016 to determine the progress made by nation States with the recommendations in this report and to reinforce further capacity building in this strategically important region.

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Annex A

MACHC Seminar on Raising Awareness of Hydrography (and Maritime Services)
Antigua and Barbuda - December 2015



PROGRAMME

Day 1 – 7 December 2015			
Time	Event	Content	Chair/Presenter
09:10 – 10:00	Opening Session	Introduction of participants Objectives of the Seminar Group photograph	Mr Jeff Bryant (UKHO)
	Session 1	International Organisations and Legislation The International Hydrographic Organization	Mr Robert Ward (IHO)
10:00 – 10:30	Coffee break		
10:45 – 12:00		Coastal State Responsibilities and Obligations, IMO Member State Audit Scheme IALA and the IALA World-Wide Academy	Mr Colin Young (IMO) Mrs Gerardine Delanoye (IALA)
12:00 – 12:30	Session 2	The management of risk	Mr Stephen Bennett (IALA)
12:30 – 14:00	Lunch		
14:00 – 15:25	Session 3	Maritime Safety Information and Navigation Maritime Safety Information Concept and Accuracy of Navigation Aids to Navigation responsibilities	Mr Jeff Bryant Mr Stephen Bennett
15:30 – 15:45	Tea break		
15:45 – 16:15	Session 4	e-Navigation An overview of e-Navigation	Mr Stephen Bennett
Day 2 – 8 December 2015			
09:00 – 10:00	Session 5	The Provision of Hydrographic Services, Nautical Charting and ENC's Revision Quiz Digital-based Hydrographic Services	Mr Stephen Bennett Mr Sam Harper (UKHO)
10:40 – 10:55	Coffee break		
10:55 – 11:30	Session 5	Chart production S-100 Resilient PNT and communications	Mr Jeff Bryant Mr Albert Costa Neves (IHO) Mr Stephen Bennett
11:30 – 12:30	Session 6	Training and Accreditation Hydrographic training and accreditation	Mr Albert Costa Neves
12:30 – 13:45	Lunch		
13:45 – 14:15	Session 6	IALA Training and Accreditation process	Mrs Gerardine Delanoye
14:15 – 14:45	Session 7	AtoN Management The Management of AtoN	Mr Stephen Bennett
14:45 – 15:00	Session 8	Safety of Navigation Forum Seminar recommendations from participants	Mr Colin Young Mr Jeff Bryant Mr Albert Costa Neves (IHO) Mr Stephen Bennett
15:05 – 15:25		Kongsberg presentation on development of echo sounders	Mr Jan Haug Kristensen
15:30 – 15:45	Closing Session	Issue of Certificates Closing statement	Mr Jeff Bryant Mr Colin Young

Annex B - List of Participants

S.No	Surname	Given Name	Country	Organization	email
1	Davis	Dorian	Antigua and Barbuda	ABDF Coast Guard	dorian.davis@abdf.gov.ag
2	Ephraim	Trish	Antigua and Barbuda	ABDF Coast Guard	trish_ephram@yahoo.com
3	Pryce	Shawnel	Antigua and Barbuda	Antigua Port Authority	Snellpryce13@gmail.com
4	Butler	Jeremiah	Antigua and Barbuda	West Indies Oil Comp.	palace9390@hotmail.com
5	James	Philmore	Antigua and Barbuda	Fisheries Division	fisheriesantigua@gmail.com
6	Samuel	Sunil	Antigua and Barbuda	Antigua Port Authority	jeffsamuelhotmail@msn.com
7	Halstead	Yannick	Antigua and Barbuda	Survey/Mapping Division	Yannick_halstead@hotmail.com
8	Nurse	Andrew	Antigua and Barbuda	Survey/Mapping Division	1660081556@qq.com
9	Smith	Marius	Antigua and Barbuda	National Parks Authority	
10	Hazell	Rawle	Anguilla	Anguilla Maritime	rawle.hazell@gov.ai
11	Simmons	David	Bermuda	Marine and Ports	dcsimmons@gov.bm
12	Patterson	Sean	Bermuda	Land Survey Section	spatterson@gov.bm
13	Matos	Paulo	Brazil	DHN	paulo@
14	Palmer Fomsera	Luiz Fernando	Brazil	DHN	palmerfomseca@
15	Frett	Rasheed	British Virgin Islands	Virgin Island Shipping	rfrett@gov.vg
16	Whiteman	Michael	Cayman Island	Lands & Survey	Michael.whiteman@gov.ky
17	Gutierrez	Gustavo	Colombia	DIMAR	gustavoagl86@gmail.com
18	Arias	Manuel	Dominican Republic	Navy Hydrographic Service	dir.hidrografico@academianaval.edu.dr
19	Sam	Dexter	Guyana	Marine Department	Dexter.sam40@yahoo.com
20	Polyte	Matthieu	Haiti	SEMANAH	polytemat13@yahoo.fr
21	Thompson	Calvin	Jamaica	National Land Agency	calvin.thompson@nla.gov.jm
22	Edwards	Cynthia	Jamaica	National Land Agency	cynthia.edwards@nla.gov.jm
23	Rodriguez	Jaime	Panama	Panama Canal Authority	jrodriguez@pancanal.com
24	Sagel	Jicksa	Panama	Panama Maritime Authority	jsagel@amp.
25	Johnson	Hyron	St. Vincent & the Grenadines	Maritime Admin	svgmarad@gmail.com
26	Mahabier	Bernice	Suriname	Maritime Auth. of Suriname	bmahabier@mas.sr

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Observers					
S.No	Surname	Given Name	Country	Organization	email
1	Lowell	John	United States of America	NGA	John.e.lowell@nga.mil
2	Balls	Chris	Antigua and Barbuda	ADOMS	cballs@abregistry.ag
3	Simmons	Kenroy	Antigua and Barbuda	ADOMS	ksimmons@abregistry.ag
4	Robinson	Tom	Antigua and Barbuda	ADOMS	trobson@abregistry.ag
Lecturers					
1	Ward	Robert	IHO	IHO	pres@iho.int
2	Bennett	Stephen	UK	IALA WWA	stephen.bennett@iala-aism.org
3	Harper	Sam	UK	UKHO	Samuel.harper@ukho
4	Delanyoye	Gerardine	France	IALA WWA	Geradine.delanyoye@iala
5	Costa Neves	Alberto	Monaco	IHB	albertoneves@iho.int
6	Young	Colin	IMO	IMO	cpyoung@imo.org
7	Bryant	Jeffrey	UK	UKHO	Jeff.bryant@ukho.gov.uk
Hosts and Organisers					
1	Fuller	Annabel	Antigua and Barbuda	ADOMS	afuller@abregistry.ag
2	Lt. Cmdr. Mykoo	Wayne	Antigua and Barbuda	ADOMS	wmykoo@abregistry.ag
3	Mack	Hugh	Antigua and Barbuda	ADOMS	hmack@abregistry.ag