Annual Report
2014

"Successful voyages, sustainable planet."

I A L A

A I S M

Table of Contents

About IALA

Established in 1957, IALA is a not-for-profit, international technical association. It brings together marine aids to navigation authorities, manufacturers, consultants and scientific and training institutes from across the globe to exchange and compare experiences and achievements and to improve and harmonize aids to navigation services worldwide.

Our Purpose...

"To foster the safe and efficient movement of vessels through the improvement and harmonisation of marine aids to navigation worldwide, and by other appropriate means."

Our Team...

"A 12 person permanent Secretariat along with assistance provided by many national authorities and international organisations."

Our Goals to 2026...

Ensure that aids to navigation systems and related services, including e-Navigation, Vessel Traffic Services and emerging technologies are harmonized through international cooperation and the provision of standards.

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.
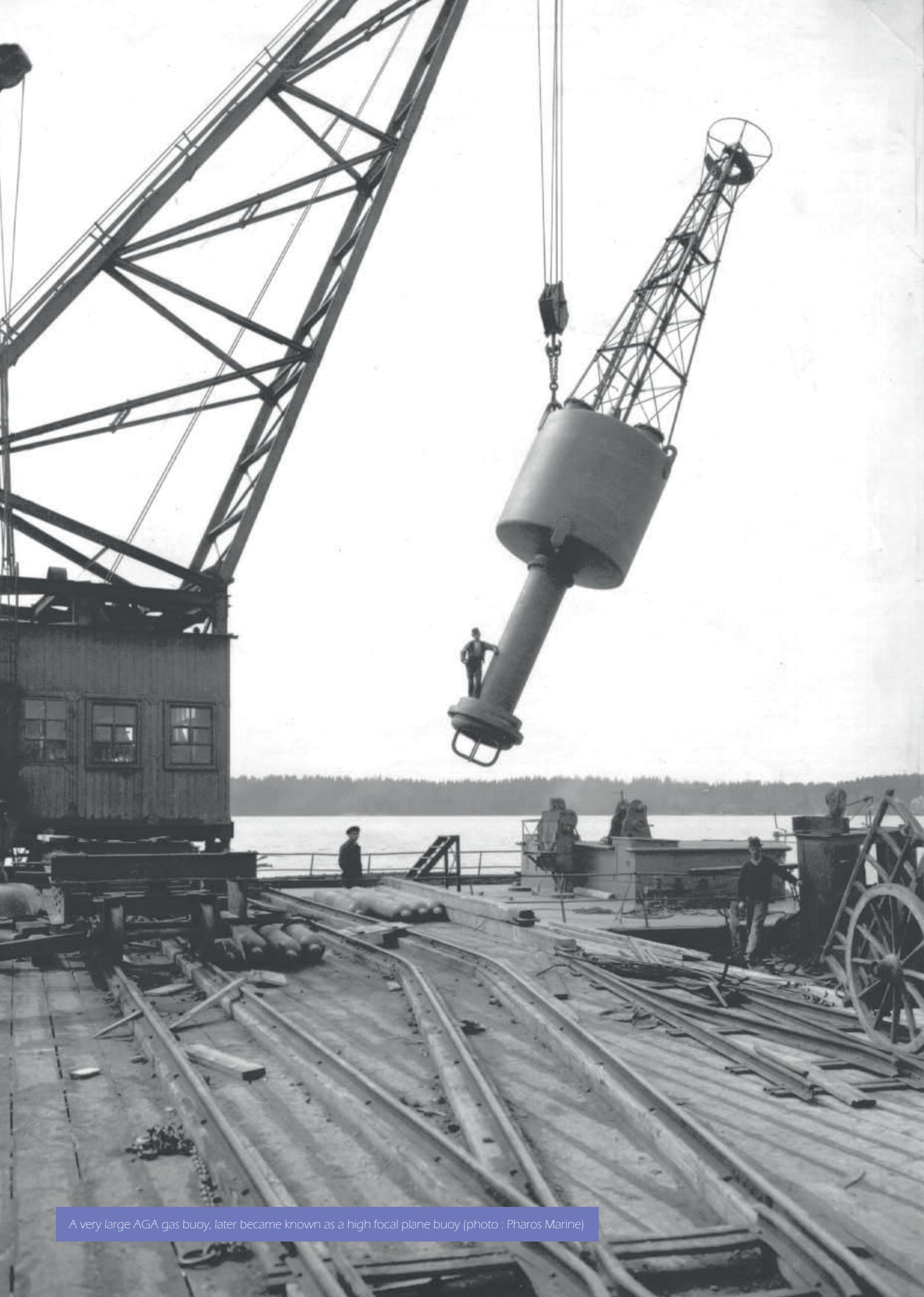
A very large AGA gas buoy, later became known as a high focal plane buoy (photo : Pharos Marine)

A Message from the IALA President

The year 2014 gave us a major challenge for the future: the change of status, by which IALA would cease to be an International Association and would become an Inter-Governmental Organization (IGO), according to the plan defined by the General Assembly held in late May in A Coruña, Spain.

At this same General Assembly a new Council was elected, on which Italy and Portugal were represented for the first time. This new Council elected a new President, a responsibility I have the honour to exercise right now. My gratitude goes to David Gordon, the former President, for the excellent work done during his presidency. A new Vice President was also elected and the representative of Trinity House was re-elected as Treasurer, in recognition of his excellent work and commitment in the previous years.

In addition, the Conference and Industrial Exhibition were the central point of the IALA activity this year. Progress was made in the new concept of e-Navigation, without forgetting the new technologies applied to traditional aids. It was the first time that an IALA Conference had a session on «Best Practices» to present concrete experiences that had been widely used to provide solutions in frequently encountered situations.

This was the year in which our colleagues at Trinity House celebrated the 500th Anniversary of that organisation, an event that was reflected with the participation of HRH Princess Anne at the Conference.

The year ended with a surprise, the resignation of Gary Prosser as Secretary-General, which required us to establish a process for selecting a new Secretary-General, and ending with the selection of Francis Zachariae, already known to all of us for his commitment to the IALA family and especially the change of status project. I am sure that Francis will give a new impetus to IALA, both in its internal life and in its outreach.

Two special considerations, one for our colleagues involved in the Committees, Panels and Working Groups, and a warm welcome to the Heritage Panel. The other consideration is for the IALA World Wide Academy that has been consolidated during the year, having successfully developed its task of capacity building, helping from that perspective to improve the safety of navigation.

Finally, my gratitude to the entire team of the IALA Secretariat for their support at all times and especially during the organisation of the Conference and its development.

It is a privilege to introduce, as IALA President, the Annual Report of IALA for 2014.

Juan Francisco REBOLLO
PRESIDENT

IALA Governance Arrangements

IALA continues to place considerable emphasis on strong governance arrangements which become increasingly important as it is now seeking inter-governmental status. The following report details the groups and functions established to ensure IALA remains accountable for its actions and is in a position to respond to the changing needs of its members and the global maritime community as a whole.

IALA Assembly and Council

The IALA Assembly and Council provide strong oversight and direction of the organization's governance arrangements.

The IALA Council, which comprises 21 elected and three non-elected members, approves IALA's strategic direction, annual budget and sets the rates for contributions each year. It also authorizes any major financial purchases or bank loans required for the running of IALA.

Of specific note in 2014, the General Assembly passed a Resolution requesting the Council to take all necessary actions toward a change of the status of IALA to that of an inter-governmental organization. As a consequence the Secretary General was tasked to review IALA's governance and staffing arrangements in order to prepare the organization for such a change. Progress on both aspects will be reported in 2015.

Finance and Audit Committee

The IALA Finance and Audit Committee (FAC) operates under direction of the IALA Council. Under the Chairmanship of the IALA Treasurer Captain Ian McNaught, the FAC is responsible for reviewing and overseeing the financial aspects of IALA. The FAC provides briefs to IALA Council every six months on the status of IALA's finances and makes recommendations regarding contribution adjustments, investment policies and other financial matters.

The FAC now assumes responsibility for the oversight of the external auditor process and the management of its findings.

Legal Advisory Panel

The IALA Legal Advisory Panel (LAP) also operates under direction of the IALA Council. Its primary role is to advise IALA Council on legal matters pertaining to the organization, including legal issues associated with the provision of aids to navigation services, and to respond to concerns raised by IALA Committees.

A particular focus for LAP during 2014 was IALA's consideration of its proposed change of legal status. A second Extraordinary Legal Advisory Panel meeting was held at IALA Headquarters in March 2014 to discuss the change with National Members.

The LAP also maintains a risk register for IALA, with continual monitoring reported to Council every six months.

IALA Secretariat

IALA operates a 12 person Secretariat which comprises a combination of full-time and part-time staff. IALA headquarters is based in Saint-Germain-en-Laye, France. The Secretariat is supported by officers seconded from our National Members.

IALA's Secretariat is led by a Secretary General, who works closely with the Deputy Secretary General, the Dean of the IALA World Wide Academy and other senior staff to shape the direction of the organization and apply sound governance to its operating processes.

At 31 December 2014, the structure of the IALA secretariat was:

Management team

Secretary General

Gary Prosser
(replaced in 2015 by Francis Zachariae)

Francis Zachariae

Deputy Secretary General

Michael Card

World-Wide Academy

Dean Jean-Charles Leclair

Administration Manager

Marie-Hélène Grillet

Membership and Finance Executive Officer

Christine Philip

Supporting team

Membership and Finance Officer

Lorraine Mbong

Executive Assistant

Virginia Butler

World-Wide Academy Programme Manager

Stephen Bennett

World-Wide Academy Senior Advisor

Jacques Manchard

Seconded Officer

Cho Young-hun

Committee Secretaries

James (Seamus) Doyle

Wim van der Heijden

General Duties

Christophe Laglenne

Northern lighthouse board vessel *Pharos*, launched in 2006, and buoy work being carried out.

The IALA Year

IALA Activities

2014 was an extremely busy year for IALA. Below is a 'snapshot' of key activities and events conducted by IALA during the year. Further details of many of these activities are contained throughout this report.

Month	IALA	World-Wide Academy
January	e-Navigation Underway Conference – Denmark	
February	ENAV Working Group 6 – IALA Headquarters	VTS Forum – India Needs Assessment Mission – Fiji ROPME Sea Area Hydrographic Commission - Abu Dhabi North Indian Ocean Hydrographic Commission – Bangkok RSAHC – Abu Dhabi IWRAP Steering Group – Copenhagen
March	2nd Extraordinary LAP meeting – IALA Headquarters Extraordinary meeting of the Policy Advisory Panel – IALA Headquarters e-Navigation Underway North America - California	IHO/IMO/IALA Stakeholders Forum – Monaco Level 1 AtoN Course – IALA Headquarters
April	ENAV Committee Working Groups 3 & 4 – IALA Headquarters Resilient PNT Forum – Rotterdam, The Netherlands	Level 1+ Seminar – Ghana
May	18th IALA Conference – Spain 12th IALA General Assembly – Spain 57th and 58th sessions of the IALA Council – Spain	Training and Certification Seminar –Spain
June		Needs Assessment Mission – Comoros
July		
August	Workshop on Employing the e-Navigation Common Shore-Based System Architecture (CSSA) – Hamburg, Germany	South Africa and Islands Hydrographic Commission – Mozambique Level 1+ visit – Qatar
September	e-NAV Committee Working Groups 3 & 4 – IALA Headquarters	IMO Seminar – Bulgaria Eastern Atlantic Hydrographic Commission – Casablanca, Morocco Risk Seminar – Istanbul, Turkey
October	38th session of the VTS Committee – IALA Headquarters 15th session of the ENAV Committee – IALA Headquarters 13th session of the Legal Advisory Panel – IALA Headquarters 28th session of the Policy Advisory Panel – IALA Headquarters	Needs Assessment Mission – Vietnam Japan Coast Guard VTS Seminar – Japan
November	1st session of the ARM Committee – IALA Headquarters 1st session of the ENG Committee – IALA Headquarters 1st session of the IALA Heritage Forum – IALA Headquarters	Introduction to Safety of Navigation – Kuala Lumpur, Malaysia Joint IMO Capacity building – Copenhagen
December	59th session of IALA Council – IALA Headquarters	Meso-America and Caribbean Hydrographic Commission – Mexico

Fireworks at the industrial members' evening during the 18th IALA Conference, A Coruna, Spain.

Financial Position

The balance sheet of the tax year ending 31 December 2014 shows a total of €4,994,922 before allocation of the net profit.
IALA's annual accounts show a net consolidated surplus of €287,361.64 mainly due to an increase in the number of members (+4% compared to 2013).

Consolidated income statement (in €)

	2014	2013
Total operating income	2 741 737	2 547 088
Total operating expenses	2 534 501	2 383 933
OPERATING RESULT (I)	207 236	163 155
Total interest and other financial income	35 905	52 945
Total interest and other financial expenses	212	24 361
FINANCIAL RESULT (II)	35 693	28 584
Current Result from Operations before taxes (I)+(II)	242 929	191 739
Total extraordinary gains	58 871	50 234
Total extraordinary losses	6 771	5 577
EXTRAORDINARY RESULT	52 100	44 657
Income tax	7 667	2 845
Total gains	2 836 513	2 650 267
Total expenses	2 549 151	2 416 716
NET RESULT FOR THE PERIOD	287 362	233 552

Consolidated balance sheet (in €)

ASSETS	2014			2013
	GROSS	Depreciation & allowances	NET	NET
Total fixed assets	2 894 473	547 640	2 346 834	2 479 445
Total current assets	2 853 079	204 990	2 648 088	2 184 215
Grand total ASSETS	5 747 552	752 630	4 994 922	4 663 660

LIABILITIES	2014	2013
Total association funds and reserves	2 570 811	2 283 448
Subsidies of long-term investments	878 664	910 253
Total contingencies and loss provisions	315 627	395 538
Total dedicated funds	108 265	204 256
Total debts and liabilities	1 121 554	870 164
Grand total LIABILITIES	4 994 922	4 663 660

World Wide Academy

The budget of the IALA WWA is funded wholly from direct or in-kind sponsorship from external donors. In 2014, this budget was overspent by a total amount of €95,991.55 due to a heavy work programme. This deficit reduced the Academy Reserve Fund. This Reserve Fund still remained positive by the end of the year with a total amount of €108,265. These unexpended funds were carried over to the following year for continued project implementation according to the approved Master Plan.

Secretariat Support Costs to IALA 30%
Capacity Building 53%
Routine Staff Activity 1%
Academy Related 11%
IALA Committees 3%
Academy Board 2%
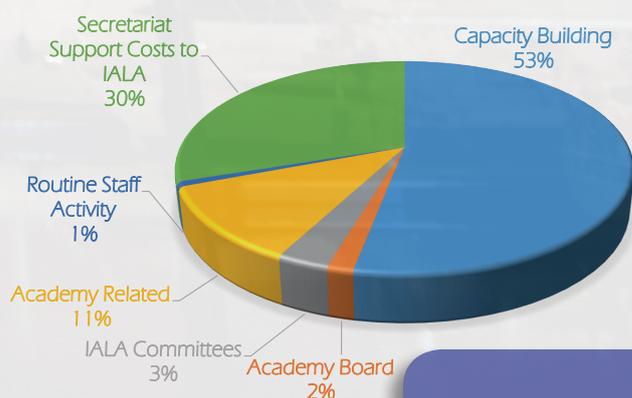
Strategic Vision

	IALA's Strategic Vision 2014-2026	
Purpose	The aim of IALA is to foster the safe and efficient movement of vessels through the improvement and harmonization of marine aids to navigation worldwide, and by other appropriate means. **Our motto - «Successful voyages, sustainable planet.»**	
Goals for 2016	G1 - Harmonize aids to navigation systems and related services, including e-Navigation, Vessel Traffic Services, and emerging technologies, through international cooperation and the provision of standards.	G2 - Ensure that all coastal states contribute to an efficient global network of aids to navigation and services for the safety of navigation, through capacity building and the sharing of expertise.
Strategy for 2014-2026	G1 S1 - Develop standards suitable for direct citation by States in areas deemed important by the General Assembly, and continue to improve strong governance, including document policy and procedure for standards.	G2 S1 - Position IALA as the source of standards, knowledge, and expertise that will enable States to undertake and share the technical development of aids to navigation, in accordance with UNCLOS, SOLAS, and other obligations.
	G1 S2 - Improve and harmonize the delivery of VTS globally and in a manner consistent with international conventions, legislative frameworks and public expectations.	G2 S2 - Continue to develop capacity building activities to improve the global operations and management of aids to navigation systems and related services including VTS.
	G1 S3 - Harmonize the information structure, Maritime Service Portfolios, and communications for e-Navigation by creating standards, and by cooperation with other IGOs, to achieve worldwide interoperability of shore and ship systems.	G2 S3 - Coordinate the further development of VTS, e-Navigation, and short range aids to navigation, taking into account new technologies and sustainability.
	G1 S4 - Work towards the transformation of IALA into an IGO, to enable the organization to better fulfil its objectives, subject to General Assembly decision.	G2 S4 - Create standards for the design and analysis of aids to navigation systems in areas where increasing environmental and economic developments are affecting navigable waters.
IALA's Strategic Domain	✔ The term 'Marine Aid to Navigation ' means a device, system, or service, external to a vessel, designed and operated to enhance safe and efficient navigation of all vessels and/or vessel traffic ✔ The organisation shall have a consultative, recommendatory, and technical nature.	

IALA's Strategic Plan 2014-18

To attain our goals we will pursue a strategy, over the next four years, of focusing on our product structure, including creating a limited suite of standards to strengthen their usefulness and effectiveness. The content will emphasize coordination of the development and harmonization of VTS, e-Navigation, and short range aids to navigation. We will work to build capacity for managing and operating aids to navigation around the world in order to raise the current level of provision. Subject to approval of the General Assembly, the status of the organization will change from a NGO to an IGO in order to strengthen its impact on the safety of navigation and better facilitate the activities of the organization.

Priorities 2014-2018	Our Priorities for the four-year work period 2014-2018 are the following.	
Strategy for 2014-2026	P1 - Transform the IALA product line by redefining and restructuring existing documentation to meet the future needs of the organization, including document content, the approval process, and accessibility.	P8 - Provide guidance on management, engineering, and sustainability in aids to navigation, particularly concerning modern materials and light sources.
	P2 - Deliver a limited suite of high level standards suitable for direct citation by States and by other international organizations.	P9 - Promote the demonstration of e-Navigation services, through the provision of test beds, and the harmonization of results.
	P3 - Develop guidance on positioning, communications, Maritime Service Portfolios, and data modelling for e-Navigation.	P10 - Develop guidance on information management, portrayal, and new technologies for VTS.
	P4 - Develop guidance for the delivery of VTS, including communications, human factors, qualifications, and training.	P11 - Develop funding sources, programs and delivery options for The World Wide Academy.
	P5 - Develop guidance on aids to navigation in navigable waters affected by operational limitations.	P12 - As part of the WWA Master Plan, prioritize and conduct needs-assessment missions and related capacity-building activities, and further the use of Model Courses by national authorities.
	P6 - Develop a forward plan for future delivery of aids to navigation systems and related services including VTS, taking account of developments in technology and changing needs.	P13 - Define common metrics and evaluation techniques, including risk analysis methodologies, for use in determining aids to navigation solutions.
	P7 - Continue to improve guidance on light and vision aspects of marine signalling, consolidating documentation.	P14 - Promote technology transfer and knowledge sharing concerning aids to navigation.

IALA General Assembly

The IALA General Assembly brings together members from all its membership categories every four years and these meetings are usually held in conjunction with an IALA Conference. At the General Assembly, National Members:
✔ determine the overall policy direction of IALA;
✔ elect members to the IALA Council; and
✔ decide upon changes to the IALA Constitution.
IALA is headed by a President, who is chosen by members of the newly elected IALA Council.
General Assembly 2014
In 2014 IALA held its 12th General Assembly at A Coruña in conjunction with the Conference. The General Assembly consisted of two sessions, the second one being devoted to the election of the new IALA Council.
The first session on 27th May was attended by 44 voting national members. Members of other categories were also in attendance but, according to the IALA Constitution, only National Members present can vote.
During the session members in attendance were presented with a financial report of the four past years, the IALA Vision 2014-2026 and, most importantly the project to change the IALA legal status to that of an Inter-Governmental Organization (IGO) with subsequent amendments to the Constitution to ease the transfer from the current IALA to the next one. The project was debated and a General Assembly Resolution was passed that inter alia *"Encourages the IALA Host and other Governments to conduct the necessary diplomatic activities"* and *"Directs the IALA Council [...] to further consider the preparation of IALA for a change of status [...]".* The Resolution appears in full at Annex A. As a consequence, in December 2014 the Council formed a specific group that will support the actions needed. The draft amended IALA Constitution was also approved.
The second session was held on 31st May to elect the Council that will lead IALA until its next General Assembly in May 2018.

IALA Council

The Council meets twice each year. The membership of the Council elected at the General Assembly in May 2014 is shown in the table below.

Country	National Agency
Elected	
Australia	Australian Maritime Safety Authority
Brazil	Centro de Sinalizacao Nautica e Reparos Almirante Moraes Rego
Chile	Armada de Chile, Directemar
Peoples Republic of China	Maritime Safety Administration
Denmark	Danish Maritime Authority
England and Wales	Trinity House Lighthouse Service
Finland	Finnish Transport Agency
Germany	Wasser-und Schifffahrtsdirektion Nord/NordWest
India	Department of Lighthouses and Lightships
Ireland	Commissioners of Irish Lights
Italy	Italian Coast Guard
Japan	Japan Coast Guard
Malaysia	Light Dues Board Peninsular Malaysia
The Netherlands	Ministry of Transport
Norway	Norwegian Coastal Administration
Portugal	Direcçao de Farois
Senegal	Port Autonome de Dakar
South Africa	Transnet National Ports Authority
Sweden	Swedish Maritime Administration
Turkey	Directorate General of Coastal Safety
United States of America	US Coast Guard
Non-Elected	
France	Direction des Affaires Maritimes
Spain	Puertos del Estado
Republic of Korea	Ministry of Oceans and Fisheries

The Council held three meetings in 2014. Session 57 approved the last technical guidance documents developed during the period 2010-2014 and Session 58 elected the IALA President, Vice President and Finance and Audit Committee for the period ending with the next IALA General Assembly to be held in Korea in May 2018:

✔ IALA President: Juan Francisco Rebollo of Puertos del Estado, Spain
✔ IALA Vice-President: Mr. Lim, Yun-Churl of the Ministry of Oceans and Fisheries, Republic of Korea
✔ Finance and Audit Committee:
  ✦ Trinity House, UK with Captain Ian McNaught, Deputy Master elected IALA Treasurer
  ✦ Direction des Affaires Maritimes, France
  ✦ Wasser- und Schifffahrtsdirektionen Nord/Nordwest, Germany
  ✦ Commissioners of Irish Lights, Ireland
  ✦ Light Dues Board Peninsular Malaysia, Malaysia

Session 59 held in December started the new work period 2014-2018. The main decision the Council had to make was to appoint a new Secretary-General after Gary Prosser had announced his intention to leave IALA at the end of the year. A selection panel had been formed consisting of the President, the Vice President, the Treasurer and the past President with the support of an experienced staff member. The selection panel provided the Council with a documented report and recommended for the position Mr. Francis Zachariae of the Danish Maritime Authority. The Council approved the recommendation and Mr. Zachariae was appointed IALA Secretary General with effect from 1st February 2015. It was also during Session 59 that the dedicated group was formed to support the actions towards the change of status.

IALA Secretary-General

After four years of dedicated work Secretary-General Gary Prosser announced that he would leave IALA at the end of 2014. Gary Prosser was instrumental in moving IALA Headquarters to new premises, launching the World-Wide Academy and initiating the change of status project.

The Council appointed Mr. Francis Zachariae with effect from 1st February 2015.

IALA Members

Membership Categories
IALA Membership comprises a large number of national authorities, agencies, private companies and individuals involved in the provision and management of aids to navigation across the globe. IALA Membership has four different categories. Details of these, and the global reach of IALA, are displayed in the tables and charts below:

Membership Category	Description
National	National membership is generally applied for by the national authority of a country which has the responsibility for the provision, maintenance or operation of marine aids to navigation within that country.
Industrial	Industrial membership is for manufacturers, distributors or consultants involved in the field of aids to navigation.
Associate	Associate membership is open to other services, organizations or scientific agencies involved in the field of aids to navigation.
Honorary	Honorary Membership may be conferred for life to an individual who is considered by IALA Council to have made an important contribution to the work of IALA.

We are pleased to report that overall membership continues to grow steadily, up by 4% from 2013 and 35% since 2004. The table and chart below illustrates the growth of IALA membership over the past 10 years and the global reach of IALA's national membership base:

Membership Statistics

Year	National	Industrial	Associate	Total
2004	70	73	30	173
2005	73	78	37	188
2006	74	81	39	194
2007	72	80	41	193
2008	72	87	45	204
2009	73	100	45	218
2010	74	98	47	219
2011	75	104	48	227
2012	77	101	46	224
2013	77	105	49	231
2014	75	112	54	241

National Membership by Country

Member Assistance to IALA Secretariat

IALA continues to welcome the assistance of its National Members to assist in the day to day work of IALA, and with special projects, by way of secondment.

In 2014, Mary Dean was again seconded by the Australian Maritime Safety Authority to support the change of status project and help developing supporting documents for the General Assembly. In May we were happy to welcome Mr. Cho, Yong Hun who was seconded by the Ministry of Oceans and Fisheries of the Republic of Korea. Cho developed a global list of DGNSS stations and was supportive of the day-to-day work of the IALA Secretariat.

IALA Technical Activities

IALA coordinates the technical aspects of its work through the establishment of formal technical committees and the hosting of a range of conferences, workshops and seminars. Technical committees normally meet twice per year.

A new IALA Committee structure for the work period 2014 to 2018 was agreed by Council at its meeting in India in December 2013. The new structure retains four technical committees with a number of technical domains contained within.

For the four year work period ending in 2018, there are four IALA Committees in operation:

✔ Aids to Navigation Requirements and Management
✔ e-Navigation
✔ Vessel Traffic Services
✔ Engineering and Sustainability.

The primary objective of each committee is to develop IALA guidance documents, manuals and recommendations. These documents are the principal way in which IALA harmonizes the establishment and operation of aids to navigation systems globally, and are used by navigation authorities worldwide. IALA guidance documentation is approved by the IALA Council before being released to the public.

Each IALA Committee is directed by a chair and vice-chair, each chosen from among the IALA Members for his or her technical competence and management skills.

A Committee chair will normally establish working groups within that committee as a means of allocating the technical tasks to smaller groups. The chair is empowered to decide the working groups, their responsibilities, and their leaders.

The IALA Secretariat supplies a Committee Secretary for each meeting of a Committee, and also for each Workshop or Seminar arranged by a Committee. The Committee Secretary's duties include making preparations, managing documents, writing the event or meeting report, and taking follow-up action as required. IALA benefitted from the experience and skills of two Committee Secretaries during the year.

Workshops and Seminars are instigated, with the approval of the IALA Council, when the leadership of a Committee wishes to make progress on a specific aspect of its work. These events are conducted on formal lines. Workshops usually produce draft guidance documents for consideration by the committee.

New IALA Committees 2014-18

The new committees will operate in the following areas:

Committee Title	Technical Domains
AtoN Requirements and Management Committee (ARM)	1. Requirements for AtoN systems 2. Management of AtoN Services 3. Marine spatial planning 4. International coordination and liaison (new function)
e-Navigation (ENAV)	1. Data modelling and message systems 2. e-Navigation communications 3. Shore technical infrastructure 4. E-Navigation test beds 5. Maritime service portfolios
AtoN Engineering and Sustainability (ENG)	1. Light and vision physics 2. AtoN design and maintenance 3. Global capacity building and training 4. Civil engineering and environment
Vessel Traffic Services (VTS)	1. Operations 2. Technology 3. VTS Training

✔ Aids to Navigation Requirements and Management (ARM)

The ARM Committee is under the leadership of Phil Day of the Northern Lighthouse Board (Scotland, UK) with Michael Skov of the Danish Maritime Authority as Vice Chair.
The first meeting held in November was mainly devoted to organize the work for the four year period. Two Working Groups were established: WG1 – Navigational requirements and WG2 – Continuous improvement.

✔ E-Navigation (ENAV)

The ENAV Committee is under the leadership of Omar Frits Eriksson of the Danish Maritime Authority with Hideki Noguchi of the Japan Coast Guard as Vice Chair.
Five Working Groups have been formed at the first meeting in October, each led by a Chair and a Vice Chair: WG1 – Harmonization: WG2 – Implementation; WG3 – Telecommunication; WG4 – ENAV services; and WG5 – Position, navigation and timing (PNT).

✔ Vessel Traffic Services (VTS)

The VTS Committee is under the leadership of Tuncay Çehreli of the Directorate General of Coastal Safety, Turkey with Neil Trainor of the Australian Maritime Safety Authority as Vice Chair.
The Committee held its first meeting of the period in October and established three Working Groups, one for each Technical Domain, as follows: WG 1 – Operations; WG2 – Technology; and WG3 – Training. Task 1.1.1 of TD#1 (Operations) was completed during the meeting with the production of a draft IALA Guidelines on the use of decision support tools in VTS, which was forwarded to the Council for approval in December.

✔ Aids to Navigation Engineering and Sustainability (ENG)

The ENG Committee is under the leadership of Simon Millyard of Trinity House, UK with David Jeffkins of the Australian Maritime Safety Authority as Vice Chair.
The Committee met for the first time in November and formed two Working Groups: WG1 – Visual and physical Aids to Navigation, and WG2 – Technical knowledge and sustainability.
The ENG Committee is also supervising the work of the newly created Heritage Forum, which takes over the tasks of Working Group 2 of the former IALA Committee on Engineering, Environment and Preservation (EEP).

✔ Heritage Forum

The Forum focuses on preservation of historic aid to navigation buildings, equipment and artefacts. In addition to all IALA Members it is open to all concerned particularly heritage bodies, preservation societies and research institutes. It met for the first time for two days in November in conjunction with the ENG Committee, to which it reports.
The first meeting was devoted to review the work programme and establish a work plan.
Its Chairman is Bob McIntosh of the Northern Lighthouse Board.

IALA Events

18th IALA Conference

The major IALA event in 2014 was the 18th Conference, which was held at A Coruña, Spain from 25th to 31st May 2014.
The Conference realised a record number of 558 registrations by delegates coming from 62 countries. The Exhibition attracted 46 Industrial Members with 77 stands. A series of 79 presentations focused on the Conference theme Aids to Navigation Knowledge and Innovations - From the Torre de Hércules to e-Navigation and Beyond. A Best Practice initiative was included as a way of sharing organisations' experiences. HRH Princess Anne was in attendance on the morning of 30th May to celebrate the Trinity House 500th Anniversary.

The keynote speech was made by Koji Sekimizu, IMO Secretary General, and the opening session ended with an address by the IALA Secretary General Gary Prosser. The opening ceremony was also an opportunity for the *"best participant"* of the WWA Aids to Navigation Manager training course to receive his certificate from Mr. Sekimizu.

The Conference identified nine conclusions, as follows:
1. IALA should consider providing guidance on anomalous behaviour recognition to improve VTS operations and ship monitoring.
2. An evolving mix of communication systems is needed to convey maritime safety information and e-Navigation services. The need for protection of radio frequencies will continue.
3. There is an emerging consensus to adopt the Maritime Cloud concept as a logical infrastructure for e-navigation, with communications standardisation and resilient PNT.
4. Apparent Intensity compared to Effective Intensity may be more suitable for characterizing the range of Marine Signal lights and requires further study.
5. Shore based authorities should recognise that there is a significant population of smaller and non SOLAS vessels that is not equipped to take advantage of all aspects of e-Navigation services.
6. Recognising the IMO/IALA zero accident campaign, there is a need for standardised reporting, investigating and analysing vessel near misses.
7. The need for training and capacity building was recognised to ensure correct assessment, specification, delivery and quality assurance of AtoN. This should include safe maintenance practices and the use of personal protective equipment.
8. Marine Spatial Planning could have a significant economic benefit if successfully implemented. Maritime authorities should take account of route topology modelling and the analysis of risk using the IALA risk management toolbox.
9. Comprehensive planning for the protection of aids to navigation from significant weather or environmental events (e.g. hurricanes, tsunamis or earthquakes) is an effective risk mitigation strategy.

Industrial Exhibition

For the 12th time the IALA Industrial Members gathered in an Industrial Exhibition where they were able to display their products and services. The 2014 Industrial Exhibition ran for four full days from Monday 26th May 16h00 to Friday 30th May 16h00.
A Coruña achieved a new record number of 47 exhibitors sharing 73 booths plus 47 outdoor exhibiting areas. Exhibiting companies had come from all over the world not to miss this unique opportunity to meet with their customers – present or future – show their latest products and hear about the customers' needs.
In order for the exhibiting companies to get a better image of what is discussed at IALA Conferences a full Conference package was included in the price of an exhibition booth. This was a further opportunity for the Industrial Members to better understand the needs of the aids to navigation providers and hear about developments happening in other companies. Conference delegates could visit the Exhibition during morning and afternoon breaks organized within the exhibition area where they were able to see all booths.

Workshops

Employing the e-Navigation Common Shore-based System Architecture

An IALA Workshop on Employing the e-Navigation Common Shore-Based System Architecture (CSSA), was held in Hamburg, Germany, from 26 to 29 August, 2014.
47 delegates representing 16 countries participated in the Workshop, which produced a draft Recommendation on the Generic Service Engineering Model and a number of important conclusions for IALA to consider as part of implementing the IALA CSSA.

Other Events

Due to IALA holding its Conference and General Assembly in 2014 the only other events of importance during this year were the e-Navigation Underway Conference, which took place in January in Scandinavia, and e-Navigation Underway North-America Conference held in March in California.
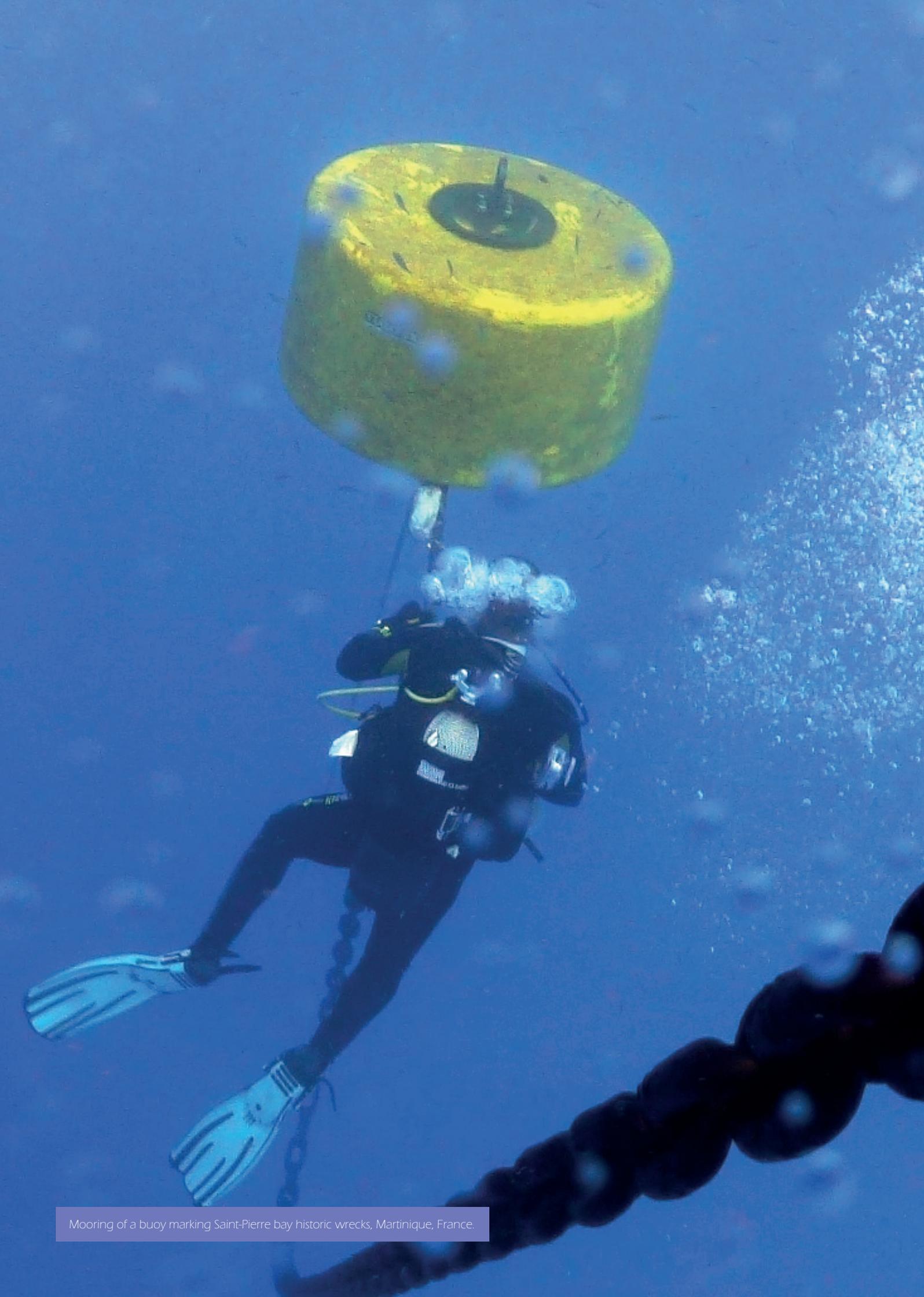
Mooring of a buoy marking Saint-Pierre bay historic wrecks, Martinique, France.

Cooperation with other International Bodies

To achieve its objectives, IALA cooperates with a number of international bodies, both inter-governmental and non-governmental.

International Maritime Organization (IMO)
IALA has observer status at the IMO, and contributes to its technical work as well as cooperating on capacity building projects via the IALA World-Wide Academy.
During 2014, IALA participated in meetings of the IMO Council, the two sessions of the Maritime Safety Committee, and the first meeting of the new Navigation, Communications, and Search and Rescue Sub-Committee.

International Hydrographic Organization (IHO)
IALA continued its work on data modelling for e-Navigation to establish an IALA Domain within the IHO's GSIS S-100 registry. This domain will be populated with world-wide data on aids to navigation, including vessel traffic services, to provide a global database.
The IALA World-Wide Academy works in a close relationship with the I Regional Hydrographic Commissions of the IHO.

International Telecommunications Union (ITU)
The development of the IALA VHF Data Exchange System (VDES) involves interaction with the ITU through its Working Party ITU-R WP5B. During the year, IALA again benefited from the services of Mr Stefan Bober of the German Federal Waterways acting as the IALA representative at ITU meetings.

Arctic Council
IALA was invited to address the Protection of the Marine Environment working group of the Arctic Council, at its meeting in Girdwood, Alaska, USA, in February.

Far East Radionavigation Service (FERNS)
IALA acts as moderator at meetings of the FERNS Council. FERNS operates under an inter-governmental treaty to provide harmonized radionavigation services to shipping.
The FERNS Council met in October in China

International projects and meetings
IALA contributed to the ACCSEAS and MONALISA projects.
IALA cooperated with the Danish Maritime Authority (DMA) to organise the "e-Navigation Underway" conference, held in January, and worked with DMA and the California Maritime Academy to arrange the "e-Navigation Underway North America" conference, held in March.
The first Resilient PNT Forum was organised by IALA, the European Group of Institutes of Navigation (EUGIN), and the International Association of Institutes of Navigation (IAIN), and was held in Rotterdam, the Netherlands, in April.

Other International Bodies
IALA has a Memorandum of Understanding with each of the following organizations: The Comité International Radio-Maritime (CIRM), the International Harbour Master Association (IHMA), the International Hydrographic Organization (IHO), the International Mobile Satellite Organization (IMSO), the Nautical Institute (NI) and PIANC, and an MoU with the International Maritime Pilots' Association (IMPA) is foreseen for the next future.

Industrial Members Committee (IMC)

2014 was a very busy year for the Industrial Members Committee (IMC), the culmination was the IALA Conference Exhibition and Industrial Members evening.
The IALA Council and the host country member selects the conference venue and the IMC members get to work to arrange the exhibition and Industrial Members dinner around the chosen venue. This is not always an easy task.
Arranging the exhibition and industrial members evening actually starts several years before and IMC will be meeting in Korea in October 2015 to conduct an initial review of the 2018 conference venue which will be held in Incheon at the Songdo Convensia conference center.

The 2014 conference was held in A Coruña, north western Spain. Various sizes and locations of exhibition space were available and 46 Industrial Members exhibited their products and services to the marine industry. During the conference there was a steady flow of delegates through the exhibition area, especially at breaks and lunch time.

On Wednesday the Industrial Members Evening was held at a location on the waterfront. The IMC always endeavors to bring a local flavour to this event and the outgoing Chairman, Enrique Bernabeu Dolz, did an excellent job in arranging different local music and regional food in a buffet style. The finale comprised an excellent firework display over the harbour. Rumor has it that there were a few sore heads in the morning.

The conference also had a surprise visitor, Her Royal Highness The Princess Royal, known to us all as Princess Anne, addressed the conference and then attended the exhibition. She spoke to many of the exhibitors and took a keen interest in the products displayed. Many were surprised at her knowledge of marine navigation, not surprisingly she is Master of Trinity House, UK.

The Industrial Members held their general meeting during the conference and IMC officers re-elected. As is customary the chairman is chosen from the next IALA conference host country and Mr. Young Bang, Daekee Marine Corp., was welcomed onto the committee. The following officers were re-elected:

Mr. Young Bang
Daekee Marine Corp.

Vice President,
Member at Large
Mr. Steve J. Nell,
Marine Data Solutions

Secretary, Treasurer,
American and IALA
Observer **Mr. Clive W.
Quickenden,**
Tideland Signal Corp.

Europe, Africa and
PAP Representative
Mr. Lars Mansner,
Sabik

Asian/Oceania
Representative
Mr. Noboru Maruoka,
Zeni Lite Buoy Co. Ltd.

Member at Large,
IALA Observer
Mr. John Sugarman,
Australian Maritime Systems

2014 also saw a host of other background activities. Lars Mansner represents the IMC on the IALA Policy Advisory Panel (PAP) protecting the Industrial Member's interests on IALA policy matters. This is especially important during this period of IALA investigating becoming an Intergovernmental Organization (IGO). In addition Lars has been involved in the VTS exhibition advisory panel.

The IMC is looking forward to continuing its work during 2015 with attendance at IALA Council, PAP and VTS meetings and representing the Industrial Members interests.

IALA World-Wide Academy

The Academy came of age in 2014. It was recognised internationally as a key member of the United Nations joint capacity building *"Delivering as One"* initiative and expanded both its capacity building and training strategies to reach over 500 participants from over 70 States. Secure funding, support from the IALA Committees and increased resources will enable it to meet its aims in 2015 and beyond.

Introduction

The IALA World-Wide Academy (The Academy) - the independently-funded vehicle by which IALA delivers training and capacity building - completed its third operational year on 31 December 2014. Its achievements since 2012 exceed expectations. Its original 78 target States were reduced to 69. Its Board decided therefore to produce a revised Master Plan to focus its delivery for the next five years . The Academy Master Plan 2015–2019 which shows the revised target regions and list of target States can be downloaded from the Academy page of the IALA website. The Academy is now firmly on track to enhance the status of aids to navigation world-wide.

Structure

The Academy is governed by a Board of five members under the Chairmanship of its Dean, Rear Admiral Jean-Charles Leclair. The Academy Board meets biannually and reports to the IALA Council, which has responsibility for noting or approving its deliverables and activities.

Funding

The Academy is very grateful to its major sponsor, The International Foundation for Aids to Navigation. Its very generous and continuous financial support has enabled the Academy to meet its planned activity since 2012. Additional direct and in-kind sponsorship during 2014, notably from the International Maritime Organization, Australia, Denmark, France and the United Kingdom, contributed significantly to the financial stability of the Academy and enabled its operations to remain secure.

Deliverables

The Academy's principal achievements during 2014 were:

✔ Stage 1 capacity building awareness-raising for 486 participants from 50 Target States
✔ Stage 2 technical needs assessment missions to Fiji, Comoros Islands and Vietnam
✔ Delivery of the first full Level 1 AtoN Manager training course in English by The Academy
✔ Facilitation of the first full Level 1 AtoN Manager training course in French by France
✔ Delivery of the third IALA Risk Management seminar and first *"Introduction to e-navigation"* course based on IALA WWA.L1.3; IALA WWA.L1.4 model courses
✔ Close liaison with the AtoN Engineering and Sustainability Committee resulting in the publication of 1 new Level 1 model course on Historic Lighthouse Projects (IALA WWA.L1.5) and four new editions of Level 2 AtoN technician model courses (IALA WWA.L2.1.7 – L2.2.2.1-3).

Joint IMO/IHO/IALA Seminar

Risk Seminar Istanbul

North Reef Lighthouse, Queensland, Australia after its refurbishment in 2011.

Capacity Building Strategy

Whenever possible, the Academy follows the United Nations "Delivering as One" capacity building initiative. To meet this objective the Academy attends the annual IMO Technical Cooperation Committee and is key member of the Joint IHO/IMO/WMO/IOC/IALA/IAEA/FIG Capacity Building Group (Joint CB Group) which held its 8th annual meeting in Copenhagen in November 2014. By focusing on positive joint activity to improve the safety of navigation world-wide, the Group is committed to protecting both the world's oceans and the mariners who navigate them. The Joint IMO/IHO/IALA Introduction to Safety of Navigation seminars, one held in Accra in April and another in Kuala Lumpur in November, were examples of "Delivering as One" activity.

Training Activity and Strategy

In 2014, the Academy delivered AtoN training to 41 participants from 27 countries. It worked with a number of national Competent Authorities to facilitate the delivery of both VTS and AtoN training by Accredited Training Organizations (ATOs). The strategy was explained in detail at the Pre-18th Conference Seminar on the Training and Certification of AtoN and Vessel Traffic Services Personnel in A Coruña, Spain in May. The aim is to develop at least one VTS and AtoN training hub in each of the Academy's Target Regions. In pursuit of this strategy, the Academy participated in VTS seminars in India and Japan in 2014, and IALA signed AtoN training Memoranda of Understanding with France and China. This strategy will be continued during 2015 and beyond.

The Academy could not meet its objectives without the superb support provided by the IALA Committees and IALA-endorsed experts, including the Chair of the new ENAV Committee and the Chair and Vice Chair of the VTS Committee.

Activity	Venue	Month	Participants	Target States
VTS Forum	Kandla, India	February	57	1
ROPME Sea Area Hydrographic Commission	Abu Dhabi	February	37	4
North Indian Ocean Hydrographic Commission	Bangkok	February	31	6
Level 1+ seminar	Ghana	April	42	4
Training and Certification seminar	A Coruña, Spain	May	61	3
South Africa and Islands Hydrographic Commission	Maputo, Mozambique	August	30	5
Level 1+ target visit	Qatar	August	2	1
IMO seminar	Varna, Bulgaria	September	53	0
Eastern Atlantic Hydrographic Commission	Casablanca	September	40	5
Japan Coast Guard VTS seminar	Tokyo	October	21	5
Joint IMO/IHO/IALA Introduction to Safety of Navigation seminar	Kuala Lumpur	November	43	5
Meso-America and Caribbean Hydrographic Commission	Mexico	December	69	11
Total			486	50

Outlook for 2015

The Academy, thanks to new sponsorship from the Republic of Korea and renewed sponsorship from France and the International Foundation for Aids to Navigation, is now fully established, and . its expanding activity will be administered by a full-time Programme Manager. Targeted awareness seminars, high level visits by the Dean and an increased number of technical needs assessment missions by Academy staff and IALA experts are planned. More dedicated AtoN training courses from training hubs are scheduled to be delivered in an updated list of five key target regions.