



20th IALA CONFERENCE 2023

Rio de Janeiro, Brazil

Marine Aids to Navigation - Innovation For a Sustainable Future

CONFERENCE PROGRAMME

27 May to 3 June 2023

Organised by



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Director of Hydrography and Navigation



Rear-Admiral

Carlos André Coronha Macedo

After five years of expectation for the IALA Family to reunite, next year, on May 28th, this wish will come true with the 20th IALA Conference in Brazil.

Bathed by South Atlantic blue waters and surrounded by a verdant amphitheater of mountains, Rio de Janeiro is the place where we will meet again.

The 20th IALA Conference 2023, under the Theme “Marine Aids to Navigation – Innovation for a Sustainable Future”, will be an excellent opportunity to bring National, Industrial, as well as Associate and Honorary Members of IALA together, to discuss relevant and current issues on Aids to Navigation.

The conference will address the applicability of latest technologies developed in various fields of human activity, for the benefit of the primary purpose, the comprehensive concept of Safety of Navigation. This is a demand that is growing every day, presenting new challenges to IALA Technical Committees and the IALA World-Wide Academy.

It is worth noting the investment in Aids to Navigation results in better protection of the environment, which is something that has always been done ranging from the simplest Aids to Navigation, like buoys and lighthouses, to larger projects, such as e-navigation.

With the certainty that it is essential to preserve the historical and cultural heritage of Aids to Navigation, the 4th IALA Heritage Seminar will be held, this time, before the Conference. The goal of this seminar is to understand and revere the paths traced by our predecessors, looking for solutions to preserve this heritage for future generations.

A good example of this is the commemoration of the two-hundred-year mark that the lens developed by the French physicist Augustin Jean Fresnel was installed in the Cordouan Lighthouse, who lent his name to these fantastic lenses that are still used to this day.

The Brazilian Navy, which is the national Maritime Authority, will be pleased to welcome the entire IALA Family and other worthy representatives of the International Maritime Community, at the 20th IALA Conference. We will put forth every effort to make this important forum of Global Maritime Industry a successful event, aiming at the improvement of Aids to Navigation and, consequently, raising the level of Safety of Navigation and Environmental Protection worldwide.

See you soon in Brazil!

Rear-Admiral Carlos André Coronha Macedo Director of Hydrography and Navigation
Brazilian Navy

Marine Aids to Navigation and Lighthouse Authorities



Secretary-General International Association of
Francis ZACHARIAE

Once again it is my pleasure on behalf of the IALA Council to welcome you to an IALA Conference and next year it will be our twentieth. This event will be hosted by Marinha do Brasil, Diretoria de Hidrografia e Navegação from 27 May to 3 June 2023 at the Windsor Convention Center, Rio de Janeiro, Brazil.

At IALA it has certainly been a great distinction to be involved in the planning of this grand gathering closely cooperating with our Brazilian Navy partners. After the difficulties encountered around the globe with the Covid pandemic we are indeed relieved that all is now set fair for a successful event. To proceed here after these bad times speaks volumes for the hard work and dedication of staff on both sides of the Atlantic.

The theme of the conference is Marine Aids to Navigation Innovation for a Sustainable Future. Delegates will not be disappointed for there will be a broad technical programme of multi-disciplinary topics delivered by hosts, our Members' experts and others. Our Industrial Members will be presenting their aids to navigation products and services at the customary Exhibition.

By way of background, let me remind you briefly of Brazil's stalwart membership of IALA. Since becoming a member in 1961, Brazil has been a very active and supportive member. In June 1988 they were first elected to the IALA Council and have been consistently re-elected. Rio de Janeiro already welcomed the 26th and 45th sessions of the IALA Council respectively in June 2001 and 2011, and the Industrial Members' Committee in 2019.

More recently, the IALA Heritage Lighthouse of the year 2020 was awarded to Brazil's Santo Antônio da Barra Lighthouse.

It is a pleasure too, to record that the diplomatic representative of Brazil in Paris signed the Convention on the new IALA in October 2021, becoming one of the founding fathers of the new organization.

Of Brazil it is important to recognise that this, the largest country in South America, has huge maritime responsibilities with 7,400 km of coastline, it straddles the Equator with North Atlantic and South Atlantic waters and embraces part of the world's biggest river system, the Amazon basin. Our hosts are responsible for no fewer than 1,626 Fixed Aids to Navigation and 3,156 Floating Aids to Navigation.

I much look forward to meeting you in Rio next May.

Francis ZACHARIAE
Secretary-General International Association of
Marine Aids to Navigation and Lighthouse Authorities

CONFERENCE COMMITTEES

I - IALA COMMITTEES

Chair, ARM Committee
Phil Day
Northern Lighthouse Board
Scotland

Chair, ENG Committee
Simon Milyard
Trinity House
United Kingdom

Chair, VTS Committee
Monica Sundklev
Swedish Transport Agency
Sweden

Chair, ENAV Committee
Hideki Noguchi
Japan Coast Guard
Japan

**IALA International Relations and
Administrative Assitant**
Julie Navarre
France

IALA Technical Operations Manager
Minsu Jeon
Republic of Korea

IALA Technical Officer
Jaime Alvarez
Spain

IALA Technical Officer
Tom Southall
England

IALA Finance and Administration Manager
Christine Philip
France

**IALA WWA Capacity Building and Resources
Manager**
Gerardine Delanoye
Belgium

IALA Office Manager
Isabelle Bracq

II - IALA MEMBERS

IALA Secretary-General
Francis Zachariae
Denmark

**IALA Deputy Secretary-General &
IALA Worldwide Academy Dean**
Omar Frits Eriksson
Island

IALA Communication Officer
Audrey Guinault
France

**IALA International Relations and Membership
Officer**
Lorraine Mbong
France

III - IMC

IMC President
Marcel Tetu
Arbo Plásticos Rotomoldados Ltda
Brazil

IV – HOST COUNTRY

Brazilian Navy Commander
ADM Marcos Sampaio Olsen
Brazilian Navy and Brazilian Maritime
Authority

Director of General Navigation Directorate
(DGN)
ADM Wladmilson Borges de Aguiar
Brazilian Navy- DGN

Director at Directorate of Hydrography and
Navigation (DHN)
Rear-Admiral Carlos André Coronha Macedo
Brazilian Navy- DHN

Vice-Director at Directorate of Hydrography
and Navigation (DHN)
CAPT Paschoal Mauro Braga Mello Filho
Brazilian Navy- DHN

Director at Aids to Navigation Center
“Admiral Moraes Rego” (CAMR)
CAPT Fabio Santana Sobrinho
Brazilian Navy- CAMR

Chair, VTS Committe
Monica Sundklev
Swedish Transport Agency
Sweden

Vice Chair, VTS Committe
Dirk Eckhoff
Federal Waterways & Shipping
Administration
Germany

Chair, ENAV Committee
Hideki Noguchi
Japan Coast Guard
Japan

Vice Chair, ENAV Committee
Jorge Arroyo
US Coast Guard
USA

VI – NATIONAL ADVISORY COMMITTEE

Technical Session and Special Division – Brazilian Navy
Marcos Antônio Pires de Almeida
Education Department Chief at FEMAR
CDR Marcos Antonio de Sousa Silva
Head of Marine Aids to Navigation Department
at CAMR
Industrial Exhibition Division

Marcelo Tetu
Arbo Plásticos Rotomoldados Ltda – IMC
President

Event Organizing Division

ADM Marcelo Francisco Campos
President at FEMAR

ADM Airtton Teixeira Pinho Filho
Former President at FEMAR

Monica Vasconcelos de Freitas
ENF Eventos Sociais e Corporativos Ltda- Owner

Paulo Ferreira da Silva Junior
ENF Eventos Sociais e Corporativos Ltda- Owner

José Luiz de Carvalho Cesar
ENF Eventos Sociais e Corporativos Ltda- Owner

V - CONFERENCE PAPERS SELECTION COMMITTEE

Chair, ARM Committee
Phil Day
Northern Lighthouse Board
Scotland

Vice Chair, ARM Committee
Dave Lewald
US Coast Guard
United States of America

Chair, ENG Committee
Simon Milyard
Trinity House
United Kingdom

Vice Chair, ENG Committee
Michel Cousquer
CEREMA
France

CAPT Maxwell Denigres
Coordinator at Conference Organization
Committee
Brazilian Navy- DHN

CAPT (RET) Alberto Piovesana Júnior
Advisor at DHN & Executive Coordinator of
Conference Organization
Brazilian Navy- DHN

Rear-Admiral Carlos Augusto Chaves Leal
Silva
Executive Coordinator of Conference
Organization
Brazilian Navy- DHN

CAPT (T) Victor Carvalho Gervásio Law
Advisor
Brazilian Navy- DHN

CAPT (RET) Amaury Marcial Gomes Júnior
Administrative Advisor
Brazilian Navy- DHN

LT (QC- IM) Aline Luz De Oliveira Ferreira
Financial and Budget sub-committee
Advisory
Brazilian Navy- BHMN

3º SGT Barbara dos Santos Ferreira da Silva
Financial and Budget sub-committee
Advisory 2
Brazilian Navy- BHMN

LCDR Guilherme Pires Black Pereira
Technical sub-committee Advisory
Brazilian Navy- GNHo

LT Leonardo Rabetim De Oliveira
Technical sub-committee Advisory 2
Brazilian Navy- DHN

CPL-CL Tatiane Felix da Silva Corrêa
Technical sub-committee Advisory 3
Brazilian Navy- DHN

LT (T) Ana Carolina Barros de Toledo
Public Relations and Publicity sub-
committee Advisory
Brazilian Navy- DHN

WO-HN Dulcivaldo Freitas Silva
Public Relations and Publicity sub-
committee Advisory 2
Brazilian Navy- DHN

LT Mário da Silva Santos Neto

Organization sub-committee Advisory
Brazilian Navy- CAMR

LT Hugo Leonardo Silva Soares
Organization sub-committee Advisory 2
Brazilian Navy- DHN

1º SGT-BA Rafael Couceiro de Souza
Organization sub-committee Advisory 3
Brazilian Navy- GNHo

CPL-MO Matheus Da Silva Soares
Organization sub-committee Advisory 4
Brazilian Navy- GNHo

LTJG (AA) Jaimeson Francisco da Silva
General Services sub-committee Advisory
Brazilian Navy- CAMR

LTJG (RM2-T) Telssen Eduardo Nogueira
Information Technology sub-committee
Advisory
Brazilian Navy- CHM

3º SGT-PD Diego Moura Oliveira
Information Technology sub-committee
Advisory 2
Brazilian Navy- CHM

1º SGT-CP Carlos Diego Fonteles de Oliveira
Graphical Support sub-committee Advisory
Brazilian Navy- DHN

CPL-GR Thamires Francisca Avelino dos
Santos
Graphical Support sub-committee Advisory 2
Brazilian Navy- BHMN

SC-NI Flávia Maria da Silva
Cultural Events sub-committee Advisory
Brazilian Navy- CAMR

1º SGT-EP Pablo Lessa Motta
Cultural Events sub-committee Advisory 2
Brazilian Navy- BHMN

3º SGT-AD Suellen Lima da Silva
Cultural Events sub-committee Advisory 3
Brazilian Navy- DHN

LTJG (EN) Vanessa Maria de Menezes
Paschoalim
Civil Engineer at Navy
Brazilian Navy – Navy Department of Civil
Works (DOCM)

PROGRAMME AT A GLANCE

May 27th

Room	Oceania X
Time	
09h00- 12h30	Heritage Seminar
12h30- 13h30	Lunch
13h30- 15h00	Heritage Seminar
15h00- 15h30	Coffee Break
15h30- 17h30	Heritage Seminar

May 28th

Room	Oceania X
Time	
09h00- 10h30	Heritage Seminar
10h30- 10h45	Coffee Break
11h00- 12h45	Heritage Seminar
12h45- 13h00	Seminar Photograph
13h00- 14h00	Lunch
14h00- 17h30	Technical Visit to “Santa Cruz” Lighthouse Pre-Conference Seminar on Training and Certification of Marine AtoN and VTS Personnel
19h00- 21h00	Welcome Reception Venue: 2nd floor of Windsor Barra dress code: smart casual

May 28th

Room	Alhambra I
Time	
09h00- 12h30	Council 77

May 28th

Room	Europa 1st floor
Time	
09h00- 17h30	Conference Registration

May 29th

Room	Auditorium
Time	
09h00- 10h00	Conference Registration
10h00- 11h00	Opening and Keynote speech
11h00- 12h30	IALA Activities Report by Secretary-General, Update on IGO status, LAP, 4 Committees
12h30- 12h45	Official Photograph Venue: tbc
12h45- 14h00	Lunch
14h00- 15h30	IALA Activities and Cooperation
15h30- 16h00	Coffee Break
16h00- 17h30	Opening of Industrial Exhibition Venue: Europa 1st floor
19h00- 21h00	Official Dinner Venue: Auditorium dress code: business attire
All day Event	RASA Lighthouse Virtual Tour Venue: Room Oceania IX

May 30th

Room	Auditorium
Time	
09h00- 10h30	Session 1 AtoN management Phil Day, Jakob Bang
10h30- 11h00	Coffee Break
11h00- 12h30	Session 2 AtoN management Natasha McMahon, Yonqiang Lu
12h30- 14h00	Lunch
14h00- 15h30	Session 3 AtoN technologies James Crawford, Mariano Luis Marpegan
15h30- 16h00	Coffee Break
16h00- 17h30	Session 4 AtoN light and optics Malcolm Nicholson, Wang Lingyan

May 30th

Room	Europa 1st floor
Time	
09h00- 17h30	Industrial Exhibition

May 30th

Room	Oceania IX
Time	
All day Event	RASA Lighthouse Virtual Tour

May 31th

Room	Auditorium
Time	
09h00- 10h30	Session 5 AtoN services Dave Lewald, Jin Park
10h30- 11h00	Coffee Break
11h00- 12h30	Session 6 AtoN services Dave Lewald, Jin Park
12h30- 14h00	Lunch
14h00- 15h30	Session 7 Communication and Cyber Security André Chateauvert, Nikolaos Vastardis
15h30- 16h00	Coffee Break
16h00- 17h30	Session 8 Service provision in Autonomous world Jakob Bang, Alwyn Williams
19h00- 22h00	IM Evening Venue: Itanhangá Golf Club dress code: smart casual

May 31th

Room	Oceania X
Time	
All day Event	Speakers corner

May 31th

Room	Oceania IX
Time	
All day Event	RASA Lighthouse Virtual Tour

May 31th

Room	Auditorium
Time	
09h00- 10h30	Session 5 AtoN services Dave Lewald, Jin Park
10h30- 11h00	Coffee Break
11h00- 12h30	Session 2 AtoN management Natasha McMahon, Yonqiang Lu
12h30- 14h00	Lunch
14h00- 15h30	Session 3 AtoN technologies James Crawford, Mariano Luis Marpegan
15h30- 16h00	Coffee Break
16h00- 17h30	Session 4 AtoN light and optics Malcolm Nicholson, Wang Lingyan
17h30- 22h00	

June 1st

Room	Auditorium
Time	
09h00- 10h30	Session 9 VTS Operations and Training Trond Ski, Tatiana Ribeiro
10h30- 11h00	Coffee Break
11h00- 12h30	Session 10 VTS technologies Dirk Eckhoff, Richard Aase
12h30- 14h00	Lunch
14h00- 15h30	Session 11 Sustainability David Jeffkins, Cho Yonghun
15h30- 16h00	Coffee Break
16h00- 17h30	Session 12 Sustainability Raul Escalante, Andres Gonzales Pena

June 1st

Room	Alhambra I
Time	
14h00- 15h30	IMC General Assembly

June 1st

Room	Europa 1st floor
Time	
09h00-17h30	Industrial Exhibition

June 1st

Room	Oceania X
Time	
All day Event	Speakers corner

June 1st

Room	Oceania IX
Time	
All day Event	RASA Lighthouse Virtual Tour

June 2nd

Room	Auditorium
Time	
09h00- 10h30	Session 13 Risk Management Roger Barker, Sunny Gug
10h30- 11h00	Coffee Break
11h00- 12h30	Session 14 Resilient PNT Kaisu Heikonen, Stefan Gewies
12h30- 14h00	Lunch

14h00- 15h30	Session 15 Radar technologies Michel Cousquer, Fu Xiuju
15h30- 16h00	Coffee Break
16h00- 17h30	Session 16 AIS and VDES Jorge Arroyo, Jeffrey van Gils

June 2nd

Room	Europa 1st floor
Time	
09h00-17h30	Industrial Exhibition

June 2nd

Room	Oceania IX
Time	
All day Event	RASA Lighthouse Virtual Tour

June 2nd

Room	Oceania X
Time	
All day Event	Speakers corner

June 2nd

Room	TBC
Time	
18h00- 20h00	Outdoor sport activity: Football

June 3rd

Room	Auditorium
Time	
09h00- 10h30	GENERAL ASSEMBLY
10h30- 11h00	Coffee Break
11h00- 12h30	GENERAL ASSEMBLY (group photo of the new council)
12h30- 14h00	Lunch
14h00- 15h30	CONFERENCE CONCLUSIONS / CLOSING CEREMONY / PRESIDENCY HAND OVER
15h30- 16h00	Coffee Break
19h00- 21h00	Gala Dinner dress code: black tie

June 3rd

Room	Alhambra I
Time	
16h00- 17h00	Council 78

PRÉ-CONFERENCE

28 May 2023, 12h00 – 13h00

Seminar Programme: **Pre-conference Seminar Registration**

28 May 2023, **13h15 – 14h00**

Session 2: **Current state**

Chair: Omar Frits Eriksson

Time	Title and Presenter
13h15- 13h30	Certified Aids to Navigation managers worldwide
	Latifa OUMOUZOUNE, WWA
13h30- 13h45	Capacity building, creating movement in the long term
	Gerardine DELANOYE ,WWA
13h45- 14h00	The Pacific Safety of Navigation Project
	Dii THOMAS, SPC, Fiji

28 May 2023, **14h00 – 16h00**

Session 3: **Challenges Ahead**

Chair: Jaime Alvarez

Time	Title and Presenter
14h00- 14h15	Building and delivering e-Navigation services
	Minsu JEON, IALA
14h15- 14h30	Internet of AtoN things
	Jonas LINDBERG, SABIK
14h30- 15h00	Coffee Break

15h00- 15h15	Developing the skills of AtoN technicians
	Monica HERRERO, MSM
15h15- 15h30	AtoN technicians navigating in a digital world
	Mahdi, AL MOSAWI, MENAS
15h30- 15h45	AtoN Technology and cyber security awareness
	Martijn EBBEN, POR
15h45- 16h00	Cybersecurity in AtoN Management
	Latifa OUMOUZOUNE, WWA

28 May 2023, **16h00 – 17h00**

Session 4: **Competency Framework Development**

Chair: Omar Frits Eriksson

Time	Title and Presenter
16h15- 16h30	The IALA Competency framework
	Latifa OUMOUZOUNE, WWA
16h30- 16h45	Discussion on the IALA competency framework
	Latifa OUMOUZOUNE, WWA
16h45- 17h00	Summary and closing remarks
	Omar Frits Eriksson
17h00- 19h00	End of Pre-Conference Seminar
19h00- 21h00	Conference welcome reception for all Seminar and Conference participants and their accompanying persons

77th IALA COUNCIL MEETING

May 28th

ROOM	Alhambra I
TIME	
10h00- 12h00	Council 77

78th IALA COUNCIL MEETING

June 3rd

ROOM	Alhambra I
TIME	
16h00- 17h00	Council 78

4th IALA Heritage Seminar

GENERAL PROGRAMME

Time	Saturday May 27 th , 2023 Heritage Day 1		
08h00 - 08h30	Coffee and 4th IALA Seminar Registration		
08h30 - 09h30	Steering Committee Meet - Session Chairs & Rapporteurs		
	Session 1 - Welcome and Introductions Chair - Captain Alberto Piovesana		
09h30 - 09h45	Welcome from Brazilian Navy		Director of Hydrography and Navigation (DHN)
09h45 - 09h50	Admin & safety briefing		Jaime Alvarez
09h50 - 10h05	Welcome from IALA		Francis Zachariae / Omar Eriksson
10h05 - 10h10	Seminar aims and objectives		Simon Millyard
10h10 - 10h50	Participant introductions		
Time	Saturday May 27 th , 2023 Heritage Day 1		
	Session 2 - Understanding Heritage Value – Regional & International Heritage Perspectives Chair - Vice Admiral (Ret.) José Carlos MATHIAS Director of the "Brazilian Navy Historical Heritage and Documentation Directorate"		
10h50 - 11h10	S202.1	UNESCO process for Cordouan nomination	Michel Cousquer - France
11h10 - 11h30	S202.2	Salvador – a city centred around its lighthouse	LT Commander Carlos André Lopes da Silva – Brazil
11h30 - 11h50	S202.3	Embracing history and the future – the rebirth of the National Lighthouse Museum in Korea	Songyi Kim – Republic of Korea
11h50 - 12h10	S202.4	Fresnel – the lenses that changed the world of lighthouses	Jean Marie Calbet & Jacques Manchard – France
12h10 - 12h30	Session 2 Q&A		
12h30 - 13h30	Lunch		
Time	Saturday May 28 th , 2023 Heritage Day 2		
	Session 5 - Releasing Heritage & Culture Potential Chair – Thomas Arculus		
09h00 - 09h20	S205.1	Improving the experience of opening Lighthouses to the Public	Jean Marie Calbet - France
09h20 - 09h40	S205.2	"Santo Antônio da Barra" Lighthouse – challenges and solutions associated with public access	Reuben Bello Costa - Brazil
09h40 - 10h00	S205.3	Great Lighthouses of Ireland – Delivering Sustainable Economic Benefits to Coastal Communities	Clodagh Hanratty - Ireland
10h00 - 10h20	S205.4	Valorisation of Lighthouses – the Italian way	Angelo Patruno - Italy
10h20 - 10h30	Session 5 Q&A		
10h30 - 11h00	Break		

Time	Saturday May 27 th , 2023 Heritage Day 1		
	Session 3 - Understanding Heritage Value - Approaches Chair - Simon Millyard		
13h30 - 13h50	Not just a tower – the ancillary structures that tell the lighthouse story		Tom Arculus – UK
13h50 - 14h10	Lighthouse Heritage Strategy, Assessments and Management Plans		Greg Hansen – Australia
14h10 - 14h30	The 1st Plan of Conservation of the Historical and Cultural Heritage of Maritime AtoN in Brazil.		Alberto Piovesana Júnior – Brazil
14h30 - 14h50	National plan for the study of historical characteristics & inventory of historical optics		Javier Martín Santo Domingo – Spain
14h50 - 15h10	Session 3 Q&A		
15h10 - 15h30	Break		
Time	Saturday May 27 th , 2023 Heritage Day 1		
	Session 4 - Meeting Modern Requirements Whilst Retaining Heritage Value Chair - Michel Cousquer		
15h30 - 15h50	Traditional Revolving Optic Reengineered for Continued Operation without Mercury		Jan Thorn - Denmark
15h50 - 16h10	The replacement of a mercury rotating bearing system for a large Fresnel Lens		Ronan Boyle - Ireland
16h10 - 16h30	Lighthouse modernization and removal of mercury-based rotation systems		Nick Goethals - Belgium
16h30 - 17h00	Session 4 Q&A		
Time	Saturday May 28 th , 2023 Heritage Day 2		
	Session 5 - Releasing Heritage & Culture Potential Chair – Thomas Arculus		
09h00 - 09h20	S205.1	Improving the experience of opening Lighthouses to the Public	Jean Marie Calbet - France
09h20 - 09h40	S205.2	"Santo Antônio da Barra" Lighthouse – challenges and solutions associated with public access	Reuben Bello Costa - Brazil
09h40 - 10h00	S205.3	Great Lighthouses of Ireland – Delivering Sustainable Economic Benefits to Coastal Communities	Clodagh Hanratty - Ireland
10h00 - 10h20	S205.4	Valorisation of Lighthouses – the Italian way	Angelo Patruno - Italy
10h20 - 10h30	Session 5 Q&A		
10h30 - 11h00	Break		
Time	Saturday May 28 th , 2023 Heritage Day 2		
	Session 6 - Lighthouse Heritage & Conservation Case Studies Chair - Captain Alberto Piovesana Junior		
11h00 - 11h20	S206.1	Restoration of El Gran Roque Lighthouse	Manuel Segredo Alayón - Venezuela
11h20 - 11h40	S206.2	Historical Homigot (Cape Clonard) lighthouse as a living lighthouse heritage	Jonghun Kim – Republic of Korea
11h40 - 12h00	S206.3	Protection and development of Huaniao Lighthouse as world historical heritage	Luo Ziwen – People's Republic of China
12h00 - 12h20	Session 6 Q&A		
12h20 - 12h45	Closing		
12h45 - 13h00	Seminar Photograph		
13h00 - 14h00	Lunch		
14h00 - 17h30	Technical Visit to "Santa Cruz" Lighthouse		

TECHNICAL SESSIONS

TIME	DATE	
May 30th		
ROOM	Auditorium - Plenary	Oceania X - Speaker's Corner
09H00 –10h30	SESSION 1 AtoN management	
11h00 – 12h30	Session 2 AtoN management	Session 107 Communication and cyber security
14h00 – 15h30	Session 3 AtoN technologies	Session 107 Communication and cyber security session 110 Vts technologysecurity
16h00 – 17h30	Session 4 AtoN light and optics	Session 108 Service provison in an autonomous world
May 31st		
ROOM	Auditorium - Plenary	Oceania X
09H00 –10h30	Session 5 AtoN services	
11h00 – 12h30	Session 6 AtoN services	Session 113 Risk Management
14h00 – 15h30	Session 7 Communication and Cyber Security	Session 104 AtoN Lights & Optics
16h00 – 17h30	Session 8 Service provision in Autonomous world	Session 115 Radar technologies
June 1st		
ROOM	Auditorium - Plenary	Oceania X
09H00 –10h30	Session 9 VTS Operations and Training	
11h00 – 12h30	Session 10 VTS technologies	Session 108 Service provison in an autonomous world Session 114 Resilient PNT
14h00 – 15h30	Session 11 Sustainability	Session 116 AIS and VDES
16h00 – 17h30	Session 12 Sustainability	Session 116 AIS and VDES
June 2nd		
ROOM	Auditorium - Plenary	Oceania X
09H00 –10h30	Session 13 Risk Management	
11h00 – 12h30	Session 14 Resilient PNT	Session 102 AtoN Management
14h00 – 15h30	Session 15 Radar technologies	Session 101 AtoN Management
16h00 – 17h30	Session 16 AIS and VDES	Session 101 AtoN Management

Auditorium: 30 May 2023, **09:00 - 10h30**

Technical Session 1: **AtoN Management**

Chair: Phil Day

Vice-Chair: Guttorm TOMREN

Paper No.	Title and Presenter
145	Modernizing Marine Navigation Service Delivery
	Antonella FERRO (Canada)
94	Establishment of the Private Sector Support Group for Lighthouse Servicing System
	Mayumi ARITA (Japan)
151	Focus on streamlining and cost reductions in the long run - from 7 to 1 buoy tender in 30 years
	Jan THORN (Denmark)
59	Service-Mix Revisited - the trade-off between latest digital technology and classic aids
	Jan-Hendrik OLTMANN (Germany)
165	The importance of visual navigaiton aids in the era of high technology and automation in Brazil
	Lucas BASSANI (Brazil)
Q&A session	
10h30- 11h00	Coffee Break

Auditorium: 30 May 2023, **11:00 – 12:30**

Technical Session 2: **AtoN Management**

Chair: Natacha McMahon

Vice-Chair: Vice-Chair Lu Youngqiang

Paper No.	Title and Presenter
7	Using Big Data Analytics to improve AtoN Managment in Malaysia
	Burhanudin ABDULLAH (Malasya)
40	Implementation of new digital technologies for monitoring buoys position in the Adriatic Sea
	Ivan KARIN (Croatia)
180	Digital information related to AtoNs through NAVDAT
	Jean-Charles CORNILLLOU (France)
153	Case Study - Inspection of Floating AtoN by Drone
	Ulla Bjørndal MØLLER (Denmark)
29	Introduction of new AtoN monitoring system
	Tsuguo AWAI (RADM)
Q&A session	
12h30- 14h00	Lunch

Auditorium: 30 May 2023, **14:00 – 15:30**

Technical Session 3: **AtoN Technologies**

Chair: **James Crawford**

Vice-Chair: **Mariano Luis Marpegan**

Paper No.	Title and Presenter
2	Buoys and Synthetic Moorings for Deeper Water Environmentally Significant Areas
	Adrian VAN BOVEN (Philippines)
85	Research on Intelligent Light Buoy under the Background of Intelligent Shipping
	WANG Lingyan (China (People's Republic of))
144	The Implementation of Modular Plastic Buoys in Canada
	Pierre Luc DELAGE (Canada)
68	Optimization of the service life of plastic buoys: Assessment of the aging of colors and materials, especially with regard to work safety
	Peter SCHNEIDER (Germany)
96	The assessment of buoy dynamics as part of a new buoy design
	Rob DOREY (UNITED KINGDOM)
Q&A session	
15h30- 16h00	Break

Auditorium: 30 May 2023, **16:00 – 17:30**

Technical Session 4: **AtoN Lights and Optics**

Chair: **Malcolm Nicholson**

Vice-Chair: **Wan Lingyan**

Paper No.	Title and Presenter
129	The new generation of lighthouse intensity measurement equipment
	Alwyn WILLIAMS (United Kingdom)
191	Development of the technology of AtoN in Korea for the 4th industrial revolution
	Chungjin LEE (Republic of Korea)
38	Small Size Detector for Beacon Lights
	Ranxuan KE (People's Republic of China)
22	Research on new multifunctional intelligent navigation aids
	Wei JIANG (People's Republic of China)
181	LED light sources in historic headlight and beacon lenses – feedback and follow-up
	Yves-Marie BLANCHARD (France)
Q&A session	

Auditorium: 31 May 2023, **09:00 – 10:30**

Technical Session 5: **AtoN Services**

Chair: **Dave Lewald**

Vice-Chair: **Peter Douglas**

Paper No.	Title and Presenter
121	Tailored Maritime Services for the Norwegian waters
	Arve DIMMEN (Norway)
152	S-100 Comparable AtoN Register in Cooperation ESRI Chart Technology
	Ulla Bjørndal MØLLER (Denmark)
147	The connection between S-124 and S-125 Standards
	Eivind MONG (Canada)
155	MetOcean Data acquisition, transmission and sharing from fixed and floating Aids to Navigation
	Ronan BOYLE (Ireland)
188	The modernization of AtoN data portal
	Yungee KIM (Republic of Korea)
Q&A session	
10h30- 11h00	Coffee Break

Auditorium: 31 May 2023, **11:00 – 12:30**

Technical Session 6: **AtoN Services**

Chair: **Dave Lewald**

Vice-Chair: **Gaëlle Nassif**

Paper No.	Title and Presenter
142	Data Fusion to support MDA & Coast Guard Functions
	Giuseppe AULICINO (Italy)
159	Use of Metocean data to improve safety of navigation
	Cécile ZANETTE (Spain)
187	Development of maritime service provision system for exchanging AtoN information
	Sewoong OH (Republic of Korea)
12	Navigational Warnings
	Rafaela PEREIRA DE CASTRO (Brazil)
148	The Canadian Coast Guard experience on the implementation of the S-201
	Eivind MONG (Canada)
Q&A session	
12h30- 14h00	Lunch

Auditorium: 31 May 2023, **14:00 – 15:30**

Technical Session 7: **Communication and Cyber Security**

Chair: **André Chateauvert**

Vice-Chair: **Nikolaos Vastardis**

Paper No.	Title and Presenter
66	The Big Five - Safari in the world of risks for Cyber Security
	Alan JACOBSEN (Germany)
189	Communication coverage extension through rely technology in marine AtoN environment
	Deniel Kyeongjea LEE (Republic of Korea)
174	Harmonized IoT for Marine Lanterns
	Jonas LINDBERG (Finland)
116	Robust, Secure and Reliable Digital Platforms for AtoN Connectivity
	Malcolm NICHOLSON (Australia)
131	Development of a GLA e-Navigation architecture
	Nikolaos VASTARDIS (United Kingdom)
Q&A session	
15h30- 16h00	Coffee Break

Auditorium: 31 May 2023, **16:00 – 17:30**

Technical Session 8: **Service provision in an autonomous world**

Chair: **Monica Sundklev**

Vice-Chair: **Alwyn Williams**

Paper No.	Title and Presenter
58	What makes an AtoN 'MASS-compatible'?
	Jan-Hendrik OLTMANN (Germany)
178	Preparing for the Future whilst serving the Present - Navigating the Regulatory Framework
	Paul BURTON (United Kingdom)
60	Upcoming Digital Testbeds on German Waterways
	Nicole Langrock (Germany)
41	VTS as information provider to MASS and other maritime stakeholders
	Olli SOININEN (Finland)
92	The application research and prospect of navigational aids in the trend of Smart Ship
	LUO Ziwen (People's Republic of China)

Q&A session

Auditorium: 1 June 2023, **09:00 – 10:30**

Technical Session 9: **VTS Operations and training**

Chair: **Trond Ski**

Vice-Chair: **Tatiana Briglia**

Paper No.	Title and Presenter
126	Poseidon VTS e-learning
	Andreas KELLER (The Netherlands)
54	English proficiency evaluation of VTS operators based on artificial intelligence
	Sungchul CHOI (Republic of Korea)
154	Concrete concepts in a Virtual Environment - moving VTS training 'online'
	Jillian CARSON-JACKSON (United Kingdom)
27	Characteristic of Inexperienced VTS Operators in Japan and Introduction of Education using ship-handling
	Mayumi ARITA (Japan)
47	VTS English Communication Proficiency Criteria Based on G1132 VTS VHF Voice Communication
	Seung-hee CHOI (Republic of Korea)
Q&A session	
10h30- 11h00	Coffee Break

Auditorium: 1 June 2023, **11:00 – 12:30**

Technical Session 10: **VTS Technologies**

Chair: **Dirk Eckhoff**

Vice-Chair: **Ricard AASE**

Paper No.	Title and Presenter
143	Innovation decision support tools VTS operator
	Colin GUIKING (The Netherlands)
164	The challenge of implementing digital VHF radio in the maritime domain
	Jeffrey VAN GILS (The Netherlands)
123	Artificial Intelligence in Radar Subsystems for Vessel Traffic Service
	Mads Ulrik KRISTOFFERSEN (Denmark)
78	The Application of a VTS Decision Support Tool based on Artificial Intelligence
	LUO Ziwen (People's Republic of China)
127	Next generation VTS development incorporating maritime AI and big data intelligence
	Zhe XIAO (Singapore)
Q&A session	
12h30- 14h00	Lunch

Auditorium: 1 June 2023, **14:00 – 15:30**

Technical Session 11: **Sustainability**

Chair: **Peter Schneider**

Vice-Chair: **Cho Yonghun**

Paper No.	Title and Presenter
146	Whale protection in Canada
	Antonella FERRO (Canada)
114	US Guard AtoN Programmatic Consultation on Endangered Species and Essential Fish Habitat
	Christian ADAMS (United States of America)
10	Blue VTS Project
	Erlevent BURCIN (Turkey)
93	Climate Change Challenges
	Greg HANSEN and Samuel (Australia)
179	Sustainability in Marine AtoN provision within the context of Climate Change
	Simon MILLYARD (United Kingdom)
Q&A session	
15h30- 16h00	Coffee Break

Auditorium: 1 June 2023, **16:00 – 17:30**

Technical Session 12: **Sustainability**

Chair: **Raul Escalante**

Vice-Chair: **Simon Milyard**

Paper No.	Title and Presenter
69	Optimization of the energy demand of regeneratively powered lifts though the use of energy-efficient R
	Petter SCHNEIDER (Germany)
167	The role of digital technologies in enhancing sustainability and reducing shipping emissions
	Matthew TURNER (Australia)
35	Sustainability in the provision of aids to maritime navigation
	Maureen GARZEND (France)
113	UN Sustainability goals drives the requirements for AtoN integration in e-Navigation Suites
	Bjorn HJOLLO (Norway)
70	Renewal of 900 lights at the German coast regarding sustainability
	Peter SCHNEIDER (Germany)
Q&A session	

Auditorium: 2 June 2023, **09:00 – 10:30**
 Technical Session 13: **Risk Management**
 Chair: **Roger Barker**
 Vice-Chair: **Sunny Gug**

Paper No.	Title and Presenter
13	Assessment of “Volume of Traffic” and “Degree of Risk” for UK Overseas Territories
	Edward ROGERS (United Kingdom)
50	IALA Risk Management Guideline: Theoretical Basis and Future Needs
	Laine VALTERI (Finland)
56	Risk Management: Italian experience and best practices
	Michele LANDI (Italy)
28	Analyses of AIS data for real time risk detection in maritime traffic
	Hideki NOGUCHI (Japan)
119	Leveraging emerging technologies: Combining behavioral analysis and data exchange
	Pål Didrik Andersen (Norway)
Q&A session	
10h30- 11h00	Coffee Break

Auditorium: 2 June 2023 **11:00 – 12:30**
 Technical Session 14: **Resilient PNT**
 Chair: **Kaisu Heikonen**
 Vice-Chair: **Stefan Gewies**

Paper No.	Title and Presenter
134	MaRINav - a system of systems resilient PNT concept
	Alan GRANT (United Kingdom)
16	Status of the EGNOS Services Development for Maritime Applications
	Manuel LOPEZ (CZEC Republic/Spain)
64	R-Mode Baltic - World-Wide first R-Mode Testbed using MF and VHF
	Michael HOPPE (Germany)
34	A Novel Precise Positioning and Integrity Monitoring System for Maritime Autonomous Applications
	Sang Hyun PARK (Republic of Korea)
36	Standardisation Process for SBAS Maritime receiver in the IEC
	Rodrigo GONZALEZ (Spain)
Q&A session	
12h30- 14h00	Lunch

Auditorium: 2 June 2023, **14:00 – 15:30**
Technical Session 15: **Radar Technologies**
Chair: **Michel Cousquer**
Vice-Chair: **Richard Aase**

Paper No.	Title and Presenter
132	Radar absolute positioning
	Chris HARGREAVES (United Kingdom)
95	Machine learning-based solution to reject interfering signals in Racon's
	Guillaume MARTIN (France)
39	Development and application of "NT" Racon
	Jianyun YANG (People's Republic of China)
158	Modern Racons for use with Modern Solid-state Radars
	Paul MUELLER (United States of America)
141	Passive radar reflectors for use on AtoNs: Theoretical basics and ways for application oriented selection of a suitable radar reflector
	Peter SCHNEIDER (Germany)
Q&A session	
15h30- 16h00	Coffee Break

Auditorium: 2 June 2023, **16:00 – 17:30**
Technical Session 16: **AIS and VDES**
Chair: **Jorge Arroyo**
Vice-Chair: **Jeffrey Van Gils**

Paper No.	Title and Presenter
73	Research on AIS VDL Integrity Monitoring
	WANG Lingyan (People's Republic of China)
133	Authentication in Maritime Communications
	Gareth WIMPENNY (United Kingdom)
130	VDES R-Mode
	Jan SAFAR (United Kingdom)
118	VDES-R advanced user technologies for alternative pnt
	Martin BRANSBY (United Kingdom)
175	Implementation of a satellite VDES system with open interfaces
	Stefan PIELMEIER (Denmark)
Q&A session	

Speaker's Corner Programme

Room: Oceania X, 30 May 2023, **11h00 - 12h30**

Technical Session 107: **Communication and Cyber Security**

Chair: **André Chateauvert**

Vice-chair: **Nikolaos Vastardis**

Paper No.	Title and Presenter
186	Wireless technology in AtoN
	José Antonio Martinez TANCO (Spain)
44	Resilience against AtoN failure and how to recover from cyber incidents and attacks
	Martijn EBBEN (The Netherlands)
218	IMT technologies-based Maritime Evolution with the case study of public warning service
	Hyouunhee KOO (Republic Of Korea)
Q&A session	

Room: Oceania X, 30 May 2023, **14h00 - 15h30**

Technical Session 110: **VTS Technologies**

Chair: **Dirk Eckhoff**

Vice-chair: **Richard AASE**

Paper No.	Title and Presenter
166	Cloud based Vessel Traffic Service and local port service systems
	Ernest BATTY (United Kingdom)
104	Presentation of an innovative information system deployed by France for the benefit of VTS in terms of maritime navigation surveillance and risk management: the "EGIDE" module
	Hervé METAYER (France)
49	Implementation of the Vessel Traffic Management and Information System - VTMISS in Rio de Janeiro
	Tatiana BRIGLIA (Brazil)
219	The intangibility of VTS from the perspective of the first Centre in Brazil
	Douglas SOARES (Brazil)
10h30 - 11h00h	Coffe Break

Room: Oceania X, 30 May 2023, **16h00 – 17h30**

Technical Session 108: **Service provision in an autonomous world**

Chair: **Monica Sundklev**

Vice-chair: **Gaelle NASSIF**

Paper No.	Title and Presenter
185	Standardization and Dissemination of AtoN Management System in Korea
	Joghyun PARK (Republic of Korea)

Room: Oceania X, 31 May 2023, **11h00 – 12h30**

Technical Session 113: **Risk Management**

Chair: **Roger Barker**

Vice-chair: **Sunny Gug**

Paper No.	Title and Presenter
120	Cruise ship safety - Potential Risk Reduction measures
	Arve DIMMEN (Norway)
160	Nautical Risk Assessment and real time manoeuvring simulation and integrated approach Eduardo TANNURI (Brazil)
53	Integrating new ship simulation technology into port and waterway risk assessment
	Knud BENEDICT (Germany)
55	Navigation risk analysis along an entrance channel using probabilistic simulations
	Marcos ANTONIO (Brazil)
37	Collision risk assessment of major ports in the Republic of Korea
	Seung-Gi GUG (Republic of Korea)
10h30 - 11h00h	Coffe Break

Room: Oceania X, 31 May 2023, **14h00 - 15h30**

Technical Session 104: **AtoN Lights and Optics**

Chair: **Malcolm Nicholson**

Vice-chair: **Wan Lingyan**

Paper No.	Title and Presenter
24	Research on beacon lights control method in restricted waters based on differential flashing
	Jinhai CHEN (People's Republic Of China)
169	Flash Simulator for determining suitable characters and synchronization patterns for AtoN lights
	Partel KESSKULA (Estonia)
138	Lasers and saucupans - Investigating the alignment of a lighthouse optic
	Alwyn WILLIAMS (United Kingdom)
137	Visual Signaling in the digital era with machine vision
	Alwyn WILLIAMS (United Kingdom)

Room: Oceania X, 31 May 2023, **16h00 - 17h30**

Technical Session 115: **Radar technologies**

Chair: **Malcolm Nicholson**

Vice-chair: **Richard Aase**

Paper No.	Title and Presenter
184	New generation racon in an increasingly autonomous world
	Liu CHUNHAI (People's Republic Of China)

Room: Oceania X, 1 June 2023, **11h00 - 12h30**

Technical Session 114: **Resilient PNT**

Chair: **Kaisu Heikonen**

Vice-chair: **Stefan Gewies**

Paper No.	Title and Presenter
6	Ensuring GNSS integrity in Brazil
	Alexsander Pires REZENDE (NORWAY)
19	Advancement policy on the maritime resilient PNT in Korea
	Sak LEE (Republic of Korea)
32	Development of Terrestrial Radio Navigation System of R.O.K for maritime PNT
	Younghoon HAN (REPUBLIC OF KOREA)

Room: Oceania X, 1 June 2023, **14h00 - 17h30**

Technical Session 116: **AIS and VDES**

Chair: **Jorge Arroyo**

Vice-chair: **Jeffrey van Gils**

Paper No.	Title and Presenter
1	AIS Network in Papua New Guinea
	Adam HAY (Australia)
122	Practical experience with greenfield AIS base station in a remote, challenging and vulnerable Arctic environment
	Arve DIMMEN (Norway)
149	Navigating our way to the future with virtual AtoN
	Eivind MONG (Canada/Norway/Sweden)
52	Analysis of the Influence of Virtual AtoN setting on AIS Communication Network
	Weiyun LI (People's Republic Of China)
136	VHF Data exchange system - UK's first on air trials
	Jan SAFAR (United Kingdom)
63	Operational aspects for future VDES based services in maritime administrations
	Michael HOPPE (Germany)
61	Implementing digital AtoN Information in European inland navigation
	Stefan BOBER (Germany)
215	Applications of VDES system for the safe and sustainable use of ocean
	Tonomari AKAMATSU (Japan)
216	The present and future development of Skywalker Constellation
	Jinhui ZHAO
	Coffee Break

Room: Oceania X, 2 June 2023, **11h00 - 12h30**

Technical Session 102: **AtoN Management**

Chair: **Natacha McMahon**

Vice-chair: **Malcolm NICHOLSON**

Paper No.	Title and Presenter
17	The importance of the design depth to marine AtoN projects analysis
	Guilherme Pires Black PEREIRA (Brazil)
74	Analysis of buoy migration rule based on telemetry data
	Ke RANXUAN (People's Republic Of China)
8	Modernization of Aids to Navigation in Malaysia
	Mr Hairizam ALBUKHARI and Mr Ezmir S (Malaysia)
48	Dynamic assesment of safety in maneuvering through constricted navigational channels using an online operational system.
	Simon MORTENSEN (Australia)
139	Corridor Management Execution - The RIS COMEX project
	Lukas KUSSEL (Germany)

Room: Oceania X, 2 June 2023, **14h00 - 17h30**

Technical Session 101: **AtoN Management**

Chair: **Phil Day**

Vice-chair: **Guttorm TOMREN**

Paper No.	Title and Presenter
99	Development of a unique AtoN supervision application
	Emma STEPHAN (France)
25	A roadmap to implementing UKC systems under the brazilian regulatory framework
	Felipe Ruggeri (Brazil)
176	The model of improvement of the IALA MBS
	Gogi TSIVADZE (Georgia)
128	A proactive approach to the provision of the Maritime Navigation Aid service
	Julio Fidel SIERRA ALMAGUER (Cuba)
45	The importance of accredited training organizations in the training of technical personnel
	Raul ESCALANTE (Argentina)
10h30 - 11h00h	Coffee Break

THE PERSONS

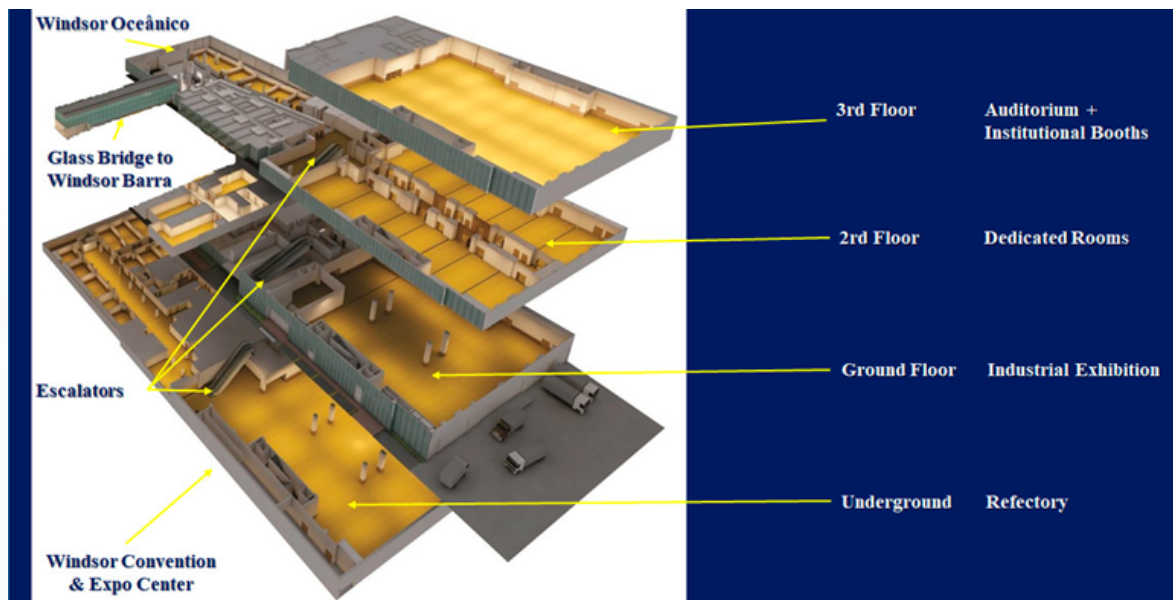
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 Christian ADAMS
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 Tonomari AKAMATSU
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 Mahi AL MOSAWI
 Thomas ARCULUS
 Mayumi ARITA
 Giuseppe Aulicino
 Tsuguo AWAI
 Lucas BASSANI
 Ernest BATTY
 Knud BENEDICT
 Ulla BJORN DAL MOLLER
 Yves-Marie BLANCHARD
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 Arve Dimmen
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 Gao HANZENG
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 Sang HYUN PARK
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 Wei JIANG
 Daniel KARBACH
 Ivan KARIN
 Ranxuan KE
 Andreas KELLER
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 Jonghun KIM
 Song-Yi KIM
 Yunjee KIM
 Ulrik KRISTOFFERSSEN
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 Mariano L MARPEGAN
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 Chungjin LEE
 Sak LEE
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 Yuanhang LI
 Jonas LINDBERG
 Carlos Andre LOPES DA SILVA
 Manuel LOPEZ
 Xiang LU
 Jacques MANCHARD
 Solange MAJOURAU
 Jose MANUEL ALVAREZ
 Guillaume MARTIN
 Javier MARTIN
 Toni MARTINEZ
 Natasha MCMAHON
 Dii MEK THOMAS
 Herve METAYER
 Simon MILLYARD

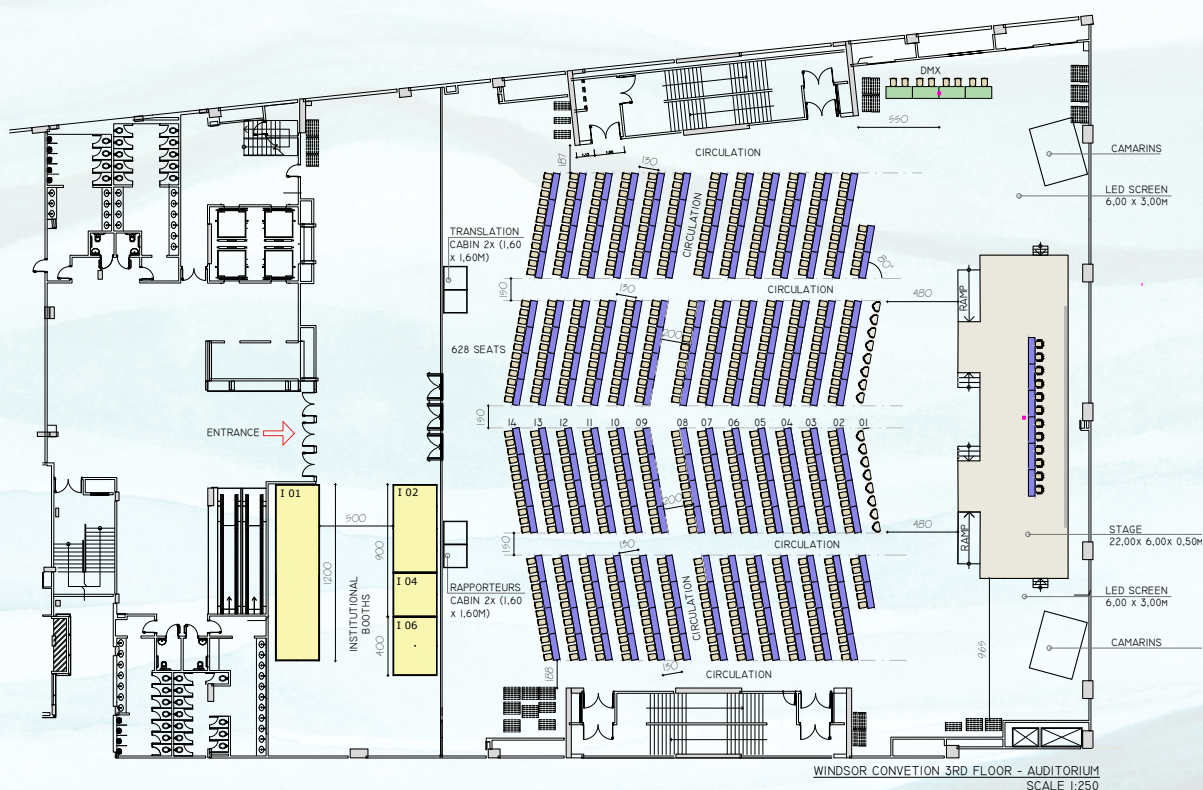
Paul MUELLER
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 Hideki NOGUCHI
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 Latifa OUMOUZOUNE
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 Markus WIRSING
 Jiao XIAOXUAN
 Lu YONGQIANG
 Cecile ZANETTE
 Junhui ZHAO
 Xiao ZHE

Eivind MONG

CONFERENCE FLOOR PLANS



WC&EC 3rd Floor- Auditorium floor plan



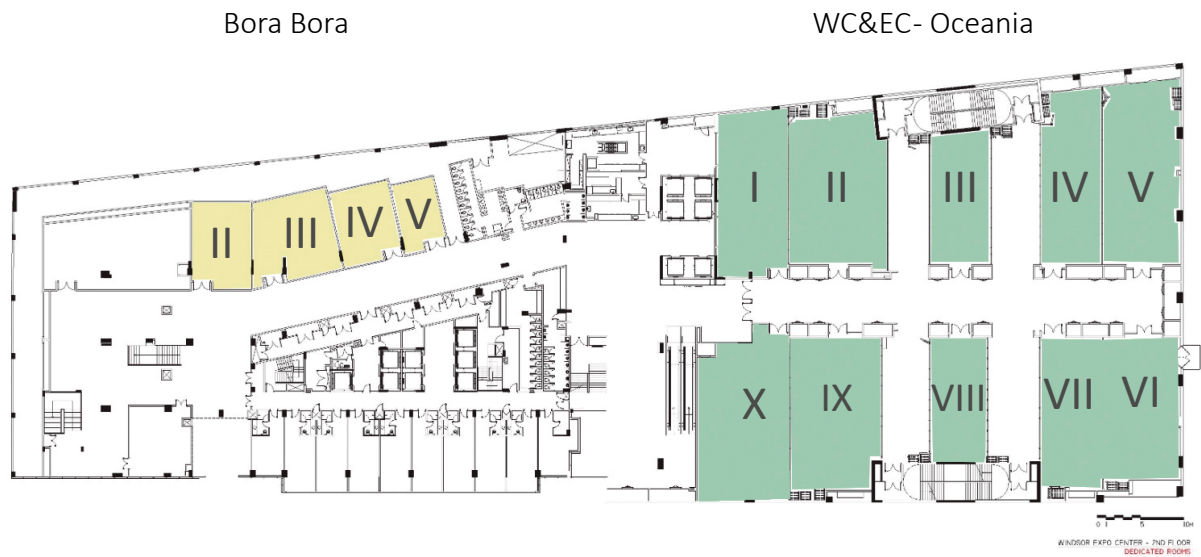
Room name / Place

Asia
Asia
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Purpose

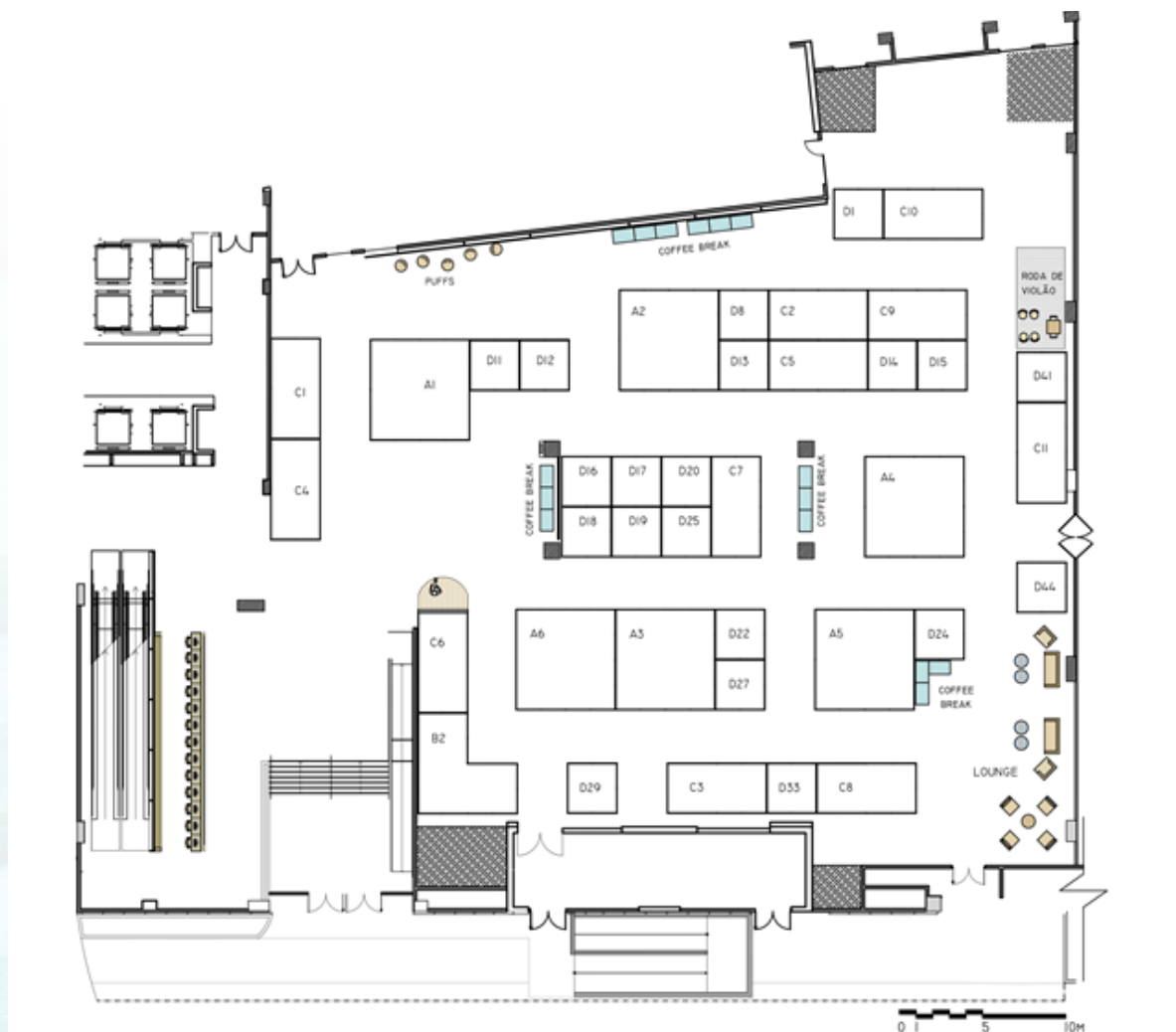
Official Dinner- only on May 29th (Mon)
Auditorium for Technical Sessions
Gala Dinner – only on June 3rd (Sat)

WC&EC and Oceanico- 2nd Floor – Dedicated rooms floor plan



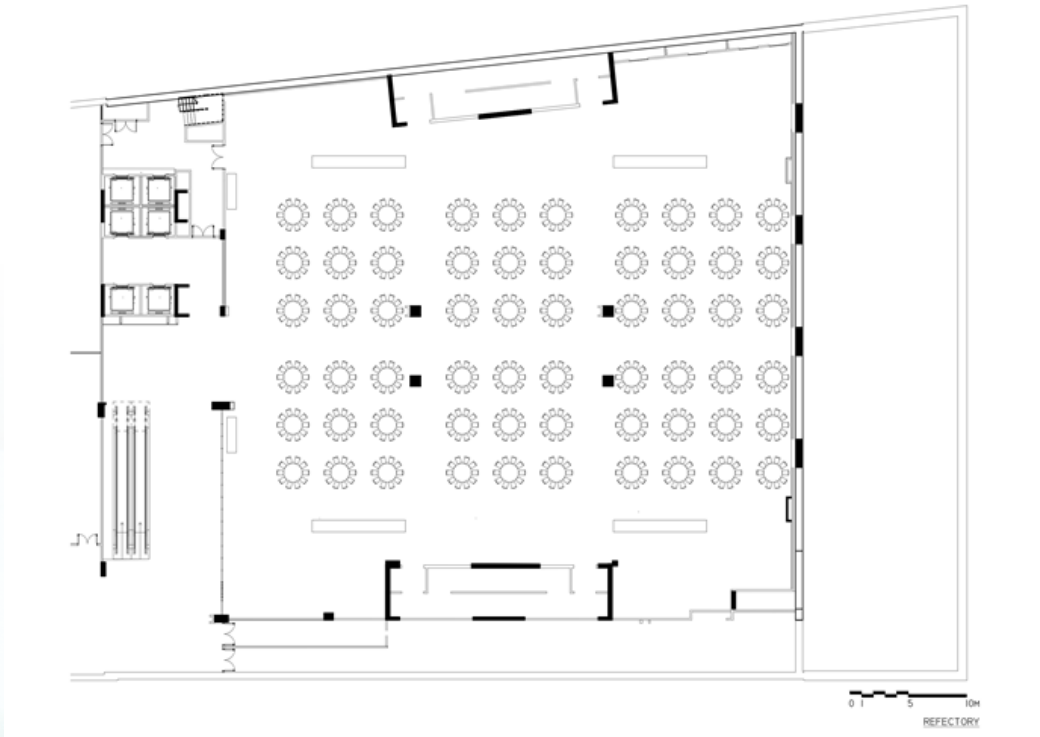
Room No	Room name / Place	Purpose
	WC&EC- Oceania I	VIP / Authorities Reception
	WC&EC- Oceania II	Fresnel 200 Years Exposition
	WC&EC- Oceania III	IALA Secretariat
	WC&EC- Oceania IV	Organization Team I
	WC&EC- Oceania V	Meeting Room
	WC&EC- Oceania VI	Organization Team II
	WC&EC- Oceania VII	IALA – WWA Dean
	WC&EC- Oceania VIII	IALA Secretary-General
	WC&EC- Oceania IX	Rasa Lighthouse Virtual Tour
	WC&EC- Oceania X	Pre-Conference Seminar / 4th Heritage Seminar / Speaker's Corner
	Oceanico – Bora Bora II	Press Room
	Oceanico – Bora Bora III	Exhibitors Warehouse
	Oceanico – Bora Bora IV	IALA Raporteurs Office
	Oceanico – Bora Bora V	Speaker's Room

WC&EC Ground Floor – Industrial Exhibition floor plan



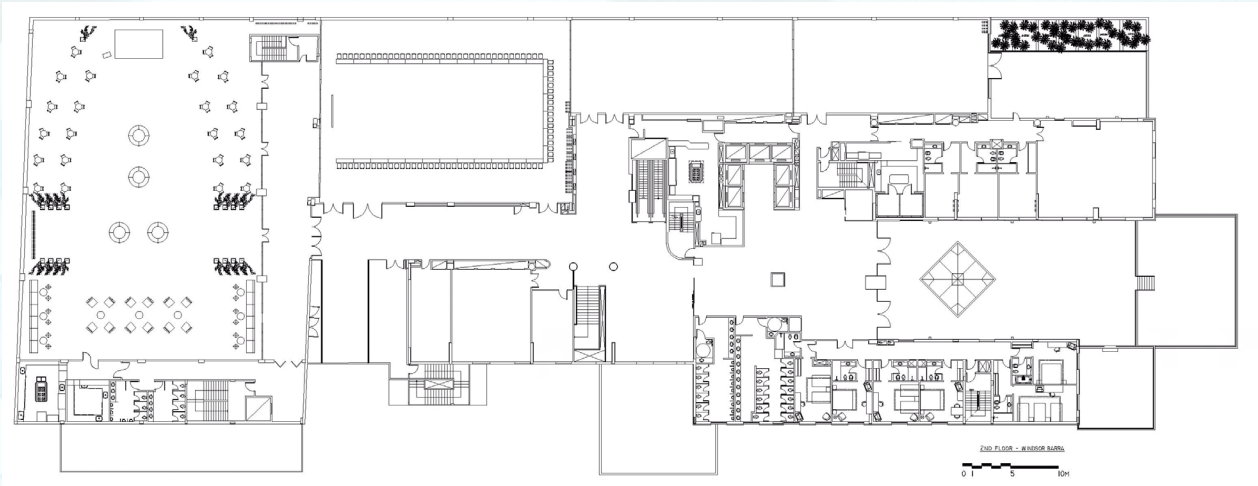
Room name / Place	Purpose
WC&EC- Europa	Industrial Exhibition

WC&EC Underground – Refectory floor



Room name / Place	Purpose
WC&EC- America	Refectory (daily Lunch time only)

Windsor Barra Second Floor



Room name / Place	Purpose
Barra - Alhambra I	IALA Council meetings on May 28th and June 3rd) / IMC General Assembly on June 1st Welcome Reception on May 28th
Barra - Alhambra I/II + Pardo I/ II + Terrace I/II	

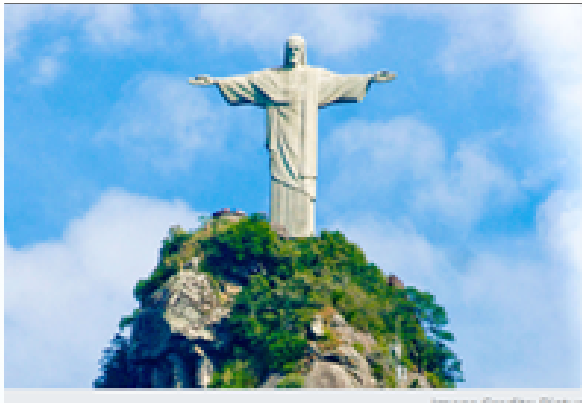
INDUSTRIAL MEMBERS EXHIBITION

Booth No	Name of Company
A1	MEDITERRÁNEO SEÑALES MARÍTIMAS S.L.
A2	TIANJIN TIANYUANHAI TECHNOLOGY DEVELOPMENT CO., LTD.
A3	SABIK OY
A4	MOBILIS
A5	ORGA B.V.
A6	SEALITE PTY
B2	AMS GROUP
C1	JFC GROUP
C2	JAPAN RADIO CO., LTD.
C3	QUANTUM SOLUTION
C4	ZENILITE BUOY CO., LTD
C5	ELMAN SRL
C6	SAAB
C7	GISMAN
C8	KONGSBERG NORCONTROL
C9	JOTRON
C10	CHINA HEAD AEROSPACE TECHNOLOGY CO.
C11	AIRBUS
D1	WEALTH MARINE PTE LTD
D8	SHANGHAI WATERWAY ENGINEERING DESIGN & CONSULTING CO., LTD. (PEOPLE'S REPUBLIC OF CHINA)
D11	KENTA TECHNOLOGIES
D12	TOKYO KEIKI INC.
D13	ORION MARITIME SYSTEMS PTE LTD
D14	NASH MARITIME
D15	IMIS GLOBAL LIMITED
D16	ALMARIN, EQUIPOS Y SERVICIOS PORTUARIOS, S.L.
D17	VISSIM AS
D18	SHANGHAI ROKEM INDUSTRIAL CO LTD
D20	TERMA A/S
D22	STERNULA A/S
D23	UMI SAN SERVIÇOS DE APOIO A NAVEGAÇÃO E ENGENHARIA LTDA
D24	GENERAL DYNAMICS MISSION SYSTEMS-ITALY SRL
D25	IN-INNOVATIVE NAVIGATION GMBH
D27	SAAB AB (PUBL) TRANSPONDERTECH
D29	ICS TECHNOLOGIES S.R.L.
D33	WÄRTSILÄ VOYAGE LATIN AMERICA
D41	QINHUANGDAO YAOXING AIDS TO NAVIGATION TECHNOLOGY CO., LTD.
D44	CHAOHU YINHUAN NAVIGATION AIDS CO., LTD.



PARTNER PROGRAMME

Tuesday May 30th Corcovado Hill / Botanical Garden



Visit to Corcovado Hill + Christ the Redeemer

Enjoy one of the most breathtaking views in Rio de Janeiro!
Take a panoramic ride along the city's beautiful beaches, skirting the Rodrigo de Freitas Lagoon to Cosme Velho.
Christ the Redeemer is one of the Seven Wonders of the World. It is made of reinforced concrete and soapstone and was built between 1922 and 1931.
At the top, the imposing statue of Christ the Redeemer and at the feet of its visitors the whole city to be contemplated.



Lunch at Naval Club "Piraquê" (Lagoon "Rodrigo de Freitas")

The Naval Club is a non-profit association of public utility of the Brazilian Navy, and has three headquarters in Rio de Janeiro: the Social Headquarters, the oldest branch of the Club, the Nautical Headquarters, in Charitas, Niterói, and the Sports Headquarters (Piraquê). Founded in 1940, the Naval Club's Sports Department is located on Piraquê Island, one of the islands in Lagoa Rodrigo de Freitas, in Rio de Janeiro's South Zone.



Visit to Botanical Garden

Founded in 1808 by D. João, then prince regent of Portugal, the Rio de Janeiro Botanical Garden is famous for the exuberance and importance of its plant collections, as well as for the beauty of its landscapes. Its bicentennial history is expressed in its monuments, constructions, and works of art.

Visitors can stroll on foot or by electric car through the alleys and see plants from several countries, get to know the greenhouses (Orchids, Bromeliads, Ferns, and Insectivorous Plants) and the thematic gardens and collections, such as the Japanese Garden, created in 1935 from the donation of 65 specimens of typical Japanese plants.

Among the monuments are the Visitor's Center- a 16th century construction-, the Eco and Narcissus statues made by Master Valentim, and the Fine Arts Academy Portal, designed by Grandjean de Montigny. The Botanical Garden is also a good place for bird watching.

Wednesday May 31st Museum of Tomorrow / City of Samba



Visit to Museum of Tomorrow

The Museum of Tomorrow is a different kind of science museum. An environment for ideas, explorations and questions about the time of great change in which we live and the different paths that open up for the future.

Tomorrow is not a date on the calendar, it is not a place we will arrive at. It is a construction in which we all participate, as people, citizens, members of the human species.



Lunch at Naval Club Social Headquarters – City Center

The Naval Club is a non-profit public utility association, with a personality distinct from that of the members that compose it, and will be governed by these Bylaws and by the legislation in force.

If you like nautical and land sports, enjoy cultural activities related to literature, plastic arts, music, chess, modeling, history, political and strategic studies, symposiums, conferences and other subjects of naval interest, maritime in general or of national amplitude, or if you are interested in the simple social interaction, for sure you will find in the Naval Club a pleasant environment and a lot of valuable information.



Visit to the City of Samba

Visit the City of Samba and the Hangar of Grande Rio

Learn more about Rio's Carnival!

A unique opportunity to get to know one of the famous Carnival Schools, located in the Samba City.

The Samba School Hangar is the place where Cariocas assemble all the floats, coordinate and make the costumes for the Carnival parade.

This is a unique visit... an exclusive Carnival experience!

Thursday June 1st Guanabara Bay / Museum Fortress



Boat Tour at Guanabara Bay

A beautiful traditional boat tour passing by the main tourist and historical sites of the famous Guanabara Bay.

A true City Tour by the sea.

The tour is full of stories from the time of the discovery, beautiful natural scenery, to the visual of modern engineering.

A great program for all ages, especially tourists and admirers of sailing, and nature.



Lunch at Naval Club Charitas

Founded in 1983, occupying an area of 57.480m², the Naval Club "Charitas" offers its Members the best facilities that a club can have, making it undoubtedly one of the best options in Niterói city for leisure, relaxation and sports activities.

Over the years the Nautical Department of the Naval Club, has become one of the most important spaces in the City of Niterói.

Below we have made available testimonials from Navy Officers who had the honor and the great challenge of being at the head of the Club, since its foundation. Check out the testimonials and be sure to read the historical publication of the Club, launched when Charitas completed 25 years with great stories.



Visit to “Santa Cruz da Barra” Fortress

The Fortaleza de Santa Cruz da Barra is a unique historical site in Brazil, with a foundation stone in the year 1555. Its walls were built with stones cut and laid by hand, with an area of more than 7 thousand square meters.

It has a collection of 45 cannons from the 18th and 19th centuries, and a chapel dated 1612, with an image of Santa Barbara from the 18th century. The Santa Cruz da Barra Fortress is located beside the entrance channel to Guanabara Bay, through which all ships that arrive at the port of Rio de Janeiro pass. With a privileged view of the cities of Rio de Janeiro and Niterói, it is a place to admire the natural beauty of our region.

Friday June 2nd Sugar Loaf / Mineral Store



Visit to Sugar Loaf Mountain

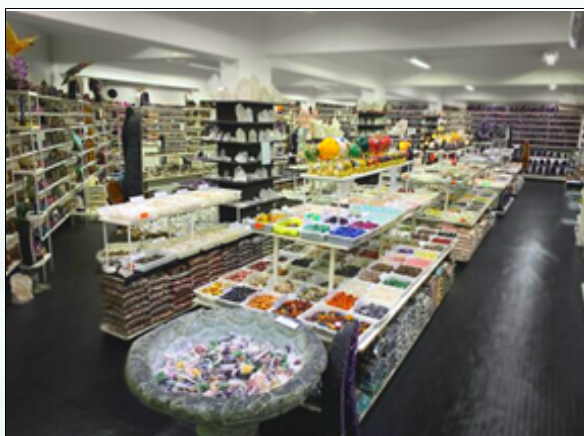
The sky is the limit! Visiting Sugar Loaf is a unique experience, which access is made by a modern cable car with large panoramic windows.

The first leg, which takes 3 minutes, leads up to Morro da Urca. The second stage, to the top of Sugar Loaf Mountain, which reveals a complete view of Guanabara Bay all the way to the city of Niterói. Definitely, a terrific scenery that welcomes all special guest!



Lunch at “Circulo Militar da Praia Vermelha”

In the past, this site housed the Casa Blanca Saloon, one of the most famous nightclubs in Rio’s capital. Later, it hosted the School of Fine Arts of Rio de Janeiro.



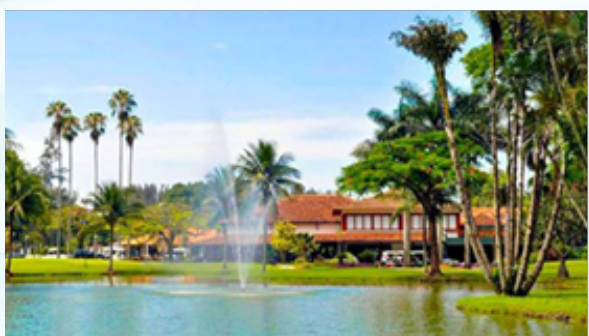
Visit to Mineral Store LEGEP

LEGEPE Mineração started its activities in 1974 in the city of Ametista do Sul, in the state of Rio Grande do Sul. It was founded through the realization of a dream of two brothers, who faced difficulties together and managed to leverage the business. As the years went by, the company grew more and more, acquiring more partners, and reaching the point of being run by nine brothers. The prospection and involvement was such that it didn’t take long for them to open branches in several Brazilian cities, such as Rio de Janeiro- RJ, São Paulo- SP, and Soledade- RS. It is considered a reference in the sector, with many years of excellence.

SOCIAL EVENTS



WELCOME RECEPTION		CONFERENCE DINNER	
DATE	Sunday May 28 th , 2023	DATE	Monday May 29 th , 2023
TIME	19h00 – 21h00	TIME	19h00 – 21h00
VENUE	Windsor Barra Hotel, 2nd Floor	VENUE	Windsor Convention & Expo Center, 3rd Floor



IM EVENING		GALA DINNER	
DATE	Wednesday May 31 st , 2023	DATE	Saturday June 3 rd , 2023
TIME	19h00- 22h00	TIME	19h00- 22h00
VENUE	Itanhangá Golf Club	VENUE	Windsor Convention & Expo Center, 3rd Floor

GENERAL INFORMATION

TIME ZONE	Rio de Janeiro, RJ (GMT-3) Brasilia Time (BRT), UTC-3.
CLIMATE	The climate of the city of Rio de Janeiro is maritime tropical, hot and humid. According to the precipitation there are two seasons: a rainy season from December to April and a relatively dry season between May and November. The average temperature ranges between 25-30°C.
CURRENCY	Brazil's currency unit is the real (plural = reais) and is made up of 100 centavos and written using the symbol R\$. The currency exchange symbol for the real is BRL. The real has been relatively stable for Brazil since its introduction in June, 1994.
GENERAL BANK BUSINESS HOURS	09h00-16h00 (BRT) *Closed on Saturdays, Sundays and public holidays.
CREDIT CARD	All major credit cards are accepted in Brazil by restaurantes, hotels and shops. The main ones are: Visa, Mastercard, Elo, Hipercard and American Express.
ELETRICITY	The current in Rio de Janeiro is 110/127 volts 60Hz. Brazil also has a particular switch standard, it is recommended to bring an universal adaptor.

EMERGENCY CALLS		HELPFULL CONTACTO NUMBERS	
POLICE	190	Police Battalion in Tourist Areas – BPTUR	+55 21 2332-7949
FIREFIFHTERS	193	TOURIST POLICE STATION	+55 21 3398-5050 /4526/4527
AMBULANCE SERVICE	192	MUNICIPAL TOURISM INFORMATION	0800 282 2007

Travel Tips:

Passaport and Visa: Participants from countries requiring passport and visa, are recommendend to make sure ther are authorized to arrive in Brasil before their departure.

Customs Regulations: According to Brazilian regulations, each traveller can bring a computer and a photo camera for personal use, without the need for declaring such items upon entering the country.

Public Health, general rules for entering the country : a proof of complete vaccination against Covid-19 or An antigen test or RT-PCR test, with a negative or non-detectable result for Covid-19, carried out one day before departure. The proof of vaccination or the test result must be presented before boarding to the airline or to the company in charge of sport or recreational vessel, sailboat, yacht, ferry, barge and catamarans. When arriving by land, travelers must present those documents to the authorities at land control points or to the company responsible for international road and rail passenger transport services.

USEFUL INFORMATION

AIRPORTS

Tom Jobim International Airport - RIOgaleão, located on Ilha do Governador, is easily accessible by modern expressways to the Center, South and West regions of the city, where the main hotels are located. National and international airlines operate at the airport, which has the capacity to receive 36 million passengers a year. Santos Dumont Airport, located in the center of the city, is just 10 minutes from the South Zone, a region that concentrates a large number of hotels and main tourist attractions. An excellent taxi and bus service links the airports with the main hotels and residential areas.

Tom Jobim International Airport- RIOgaleão:
Tel – information: (21) 3004 6050
E-mail: faleconosco@riogaleao.com

Domestic Airport- Santos Dumont:
information and flights
(21) 3814-7070

TIPS

Hotels: Hotels often include service charges in bills.

Restaurants: Tips are optional, but are often found at the end of the bill as a “tip”. In Rio, you usually pay between 10% and 12%.

Taxis: Taxi drivers do not require a tip, although most passengers will round up the fare when satisfied with the service.

Trolleys to carry bags at the airport: free

ABOUT RIO DE JANEIRO



PHOTO: [HTTPS://PT.RIOMAP360.COM/MAPA-TURISTICO-RIO-DE-JANEIRO](https://pt.riomap360.com/mapa-turistico-rio-de-janeiro)

Rio de Janeiro is a Brazilian state in the Southeast region of Brazil. Its history is linked to the colonization process understood by the Portuguese, who installed important structures of commerce and services in its territory. This cenário gave the state great political and economic importance that continues to this day.

Rio de Janeiro has a modern structure, through the provision of various transport equipment, services and communications. However, the successive financial and political crises that have occurred in the state in recent years make it difficult to attract investment.

The geography of Rio is very diverse, marked by the Tropical climate, with high temperatures, and by formations of Atlantic Forest and Mangroves. The state has a coastline cut by beautiful beaches bathed by the Atlantic Ocean that attract many tourists.

Tourism with oil exploration are the two psychologists from Rio de Janeiro. Tourists, in addition to beautiful landscapes, seek to learn about the local culture by participating in the famous Carnival and New Year's Eve celebrations that take place in the state.

General data of Rio de Janeiro

Southeast region

Capital: Rio de Janeiro

Government: Cláudio Castro (2019-2022) (2022-2025)

Territorial area: 43,780,172 km² (IBGE, 2019)

Population: 17.463.349 inhabitants (IBGE, 2021)

Population density: 396 inhabitants/km² (IBGE, 2010)

Time zone: UTC-3

Tropical weather

History of Rio de Janeiro

The state of Rio de Janeiro was one of the first territories occupied by colonizers in Brazil. In the current city of Cabo Frio, on the north coast of the state, a pau-brasil processing station was founded.

Since then, the territory of Rio de Janeiro has been occupied, especially along the coast, due to the need to protect the region from invasions by foreign troops. Already in 1524, through the implementation of the Hereditary Captaincy system, two divisions were created: the captaincy of São Tomé and that of São Vicente.

Since then, the occupation of the territory of Rio de Janeiro has been expanding towards the interior, with emphasis on the influence of economic cycles, such as sugarcane and coffee. The gold cycle, in the captaincy of Minas Gerais, also encouraged the occupation of the region and the creation of important land routes between the two current states.

Demographics of Rio de Janeiro



PHOTO: GGE-RJ/SPE

The state of Rio de Janeiro is the second most populous in Brazil. Its approximate population is more than 17 million inhabitants. The state also has the second largest city in terms of population in Brazil, the state capital, Rio de Janeiro, which has more than 6 million inhabitants. Thus, it is clear that, despite the small territorial extension, the state has a large population concentration, in absolute and relative terms.

The population of Rio de Janeiro was formed by miscegenation between Portuguese colonizers, indigenous natives and the African population. In addition, especially throughout the 20th century, the state received many European immigrants, who settled in the state's Serrana Region, as well as many northeasterners, who concentrated in the state capital.

Since then, the occupation of the territory of Rio de Janeiro has been expanding towards the interior, with emphasis on the influence of economic cycles, such as sugarcane and coffee. The gold cycle, in the captaincy of Minas Gerais, also encouraged the occupation of the region and the creation of important land routes between the two current states.

Economy of Rio de Janeiro

The state of Rio de Janeiro is the second largest in terms of wealth generation in Brazil. Its economy is based on oil production, being the main export product of the state. In the primary sector, oil extraction is the main highlight, and there is also an important area of agriculture in the Serrana Region and salt exploration in the Lagos Region.

Culture



Rio de Janeiro has an intense cultural life, offering more than 200 places for cinema, theater, musicals and artistic exhibitions, more than 50 museums and 87 libraries. In addition to the traditional museums, the city is home to museums dedicated to trains, planes, trams, jewelry and precious stones, sports, Indians, Brazilian primitive art, among others.



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HOTELS

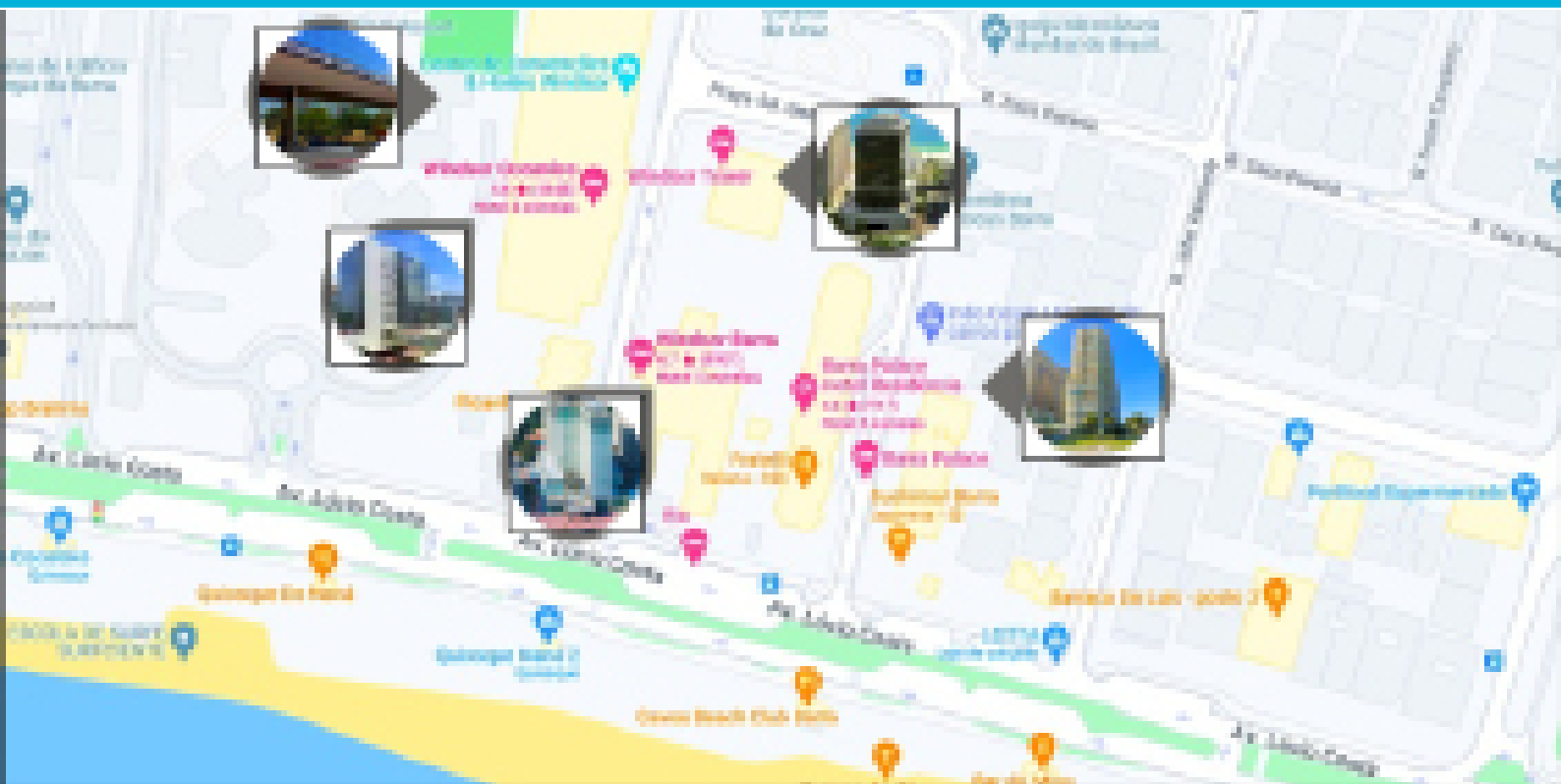


Image: Google Maps

20th IALA Conference Secretariat is pleased to offer a hotel reservation service for all participants of 20th IALA Conference 2023, exclusive hosted at “Windsor Barra complex”.

“Windsor Barra complex”, where official hotels are located, provides an excellent space for the Conference with integrated services, all in the same area. The great new is that it is located just in front of Barra da Tijuca beach!

This venue has been carefully selected after a wide range of factors and considerations that will certainly contribute to the success of the whole event. It consists of the **Windsor Convention & Expo Center** which is connected by an acclimatized walkway to three different hotels: (a) **Windsor Barra Hotel**; (b) **Windsor Oceânico Hotel**; and (c) **Windsor Tower Hotel**.

Conference Venue

Windsor Barra Hotel

Av. Lucio Costa, 2630 – Barra da Tijuca

Rio de Janeiro, Brazil

Postal Code: 22620-172

Phone: +55 (21) 2195-5000

Fax: +55 (21) 2195-5050

More detailed information on **Windsor Convention & Expo Center** website:

<https://windsorexpocenter.com.br/en/>

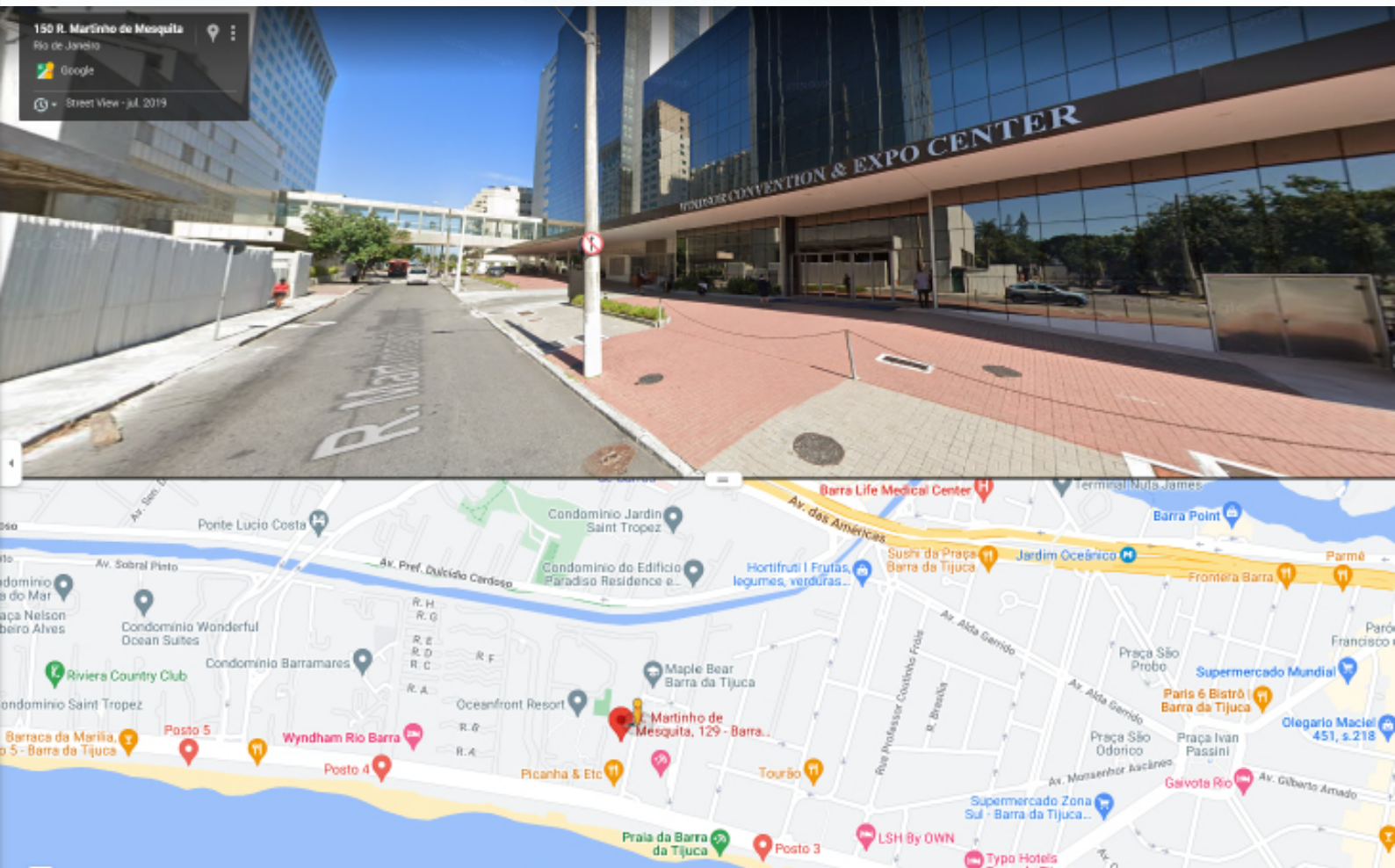


Image: Google Maps

Conference Venue highlights:

Advisory Service with team of professionals

Dedicated IT Infrastructure

Multi-function spaces for Fairs and Exhibitions

Accessibility and Modernity

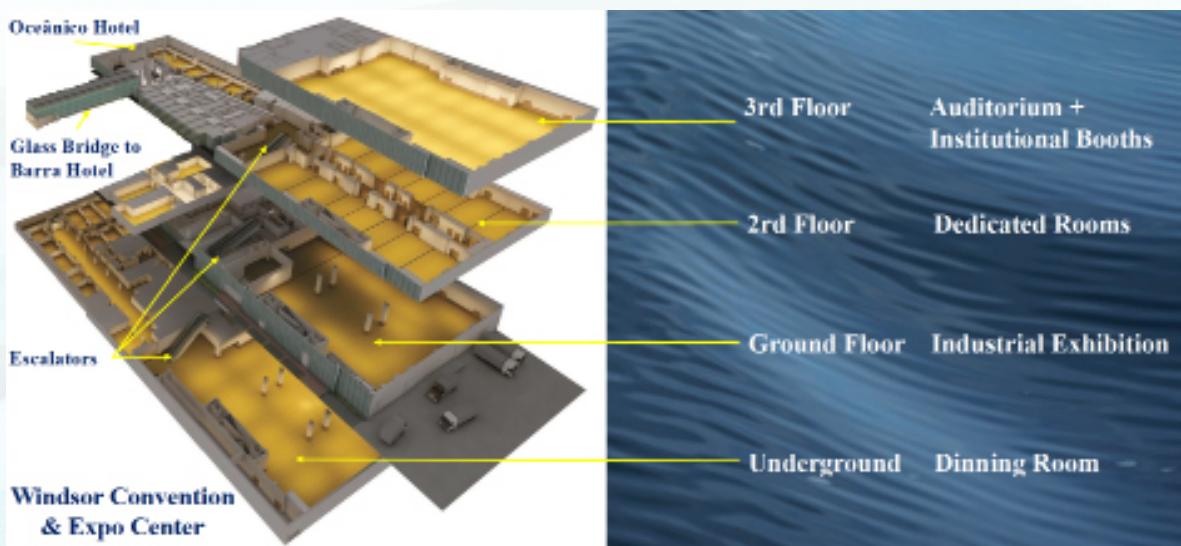
Area for loading and unloading

Parking with 500 spaces

State of the art lighting and air conditioning systems

Location: Barra da Tijuca, a few steps from the beach and surrounded by the main attractions of the neighborhood





*More detailed information on website: <https://windsorexpo.com.br/en/>

Hotels and its rooms highlights



Windsor Barra Hotel

<https://windsorhoteis.com/hotel/windsor-barra/?lang=en>



Windsor Oceânico Hotel

<https://windsorhoteis.com/hotel/windsor-oceanico/?lang=en>



Windsor Tower Hotel

<https://www.windsorhoteis.com/hotel/windsor-tower/?lang=en>

Windsor Barra Hotel

Windsor Barra Hotel

- **Five star** hotel ;
- **338** apartments and suites with privileged views of the sea and mountains ;
- “Haven of sophistication and convenience”: **International and Brazilian cuisine dinning creations** with an exclusive and contemporary presentation ;
- **Panoramic terrace** with two swimming pools and well equipped play areas ;
- **Windsor Barra Restaurant** is open for guests and visitors and works every day:
 - a) **Breakfast** from 06am to 10:30am
 - b) **Lunch** from 12:00pm to 4:00pm
 - c) **Dinner** from 7:00pm to 11:30pm
 - d) **Saturday:** Feijoada from 12pm;
- **Parking** lot for clients ;
- **Room Service** 24 hours a day.



Superior Twin



Superior Double

Granite entrance, large closet with shelves. Room with its beds, work desk, arm chair, minibar, cable TV with international channels, central air conditioning, electronic safe, alarm clock, 2 telephone lines, individual reading light. Granite bathroom with telephone, makeup mirror, hairdryer, basket of amenities. Anti-noise windows.

Windsor Oceânico Hotel

Windsor Oceânico Hotel

- **Four star** hotel ;
- **453 units** between apartments and suites ;
- **Windsor Oceânico Restaurant** open to the public with Room Service from 11:00am to 10:30pm ;
- **Breakfast** Delicious buffet with various items. Every day from 6:00am to 10:30am ;
- **Lunch** A la carte menu: Every day from 12:00pm to 3:00pm ;
- **Dinner** A la carte menu: Every day from 7:00pm to 10:30pm ;
- **Bar** opens every day from 9:00am to 7:00pm.



Superior Twin



Superior Double

Modern apartment designed for your comfort. With its beds, the apartment has cable TV and approximately 23m². The apartment has air conditioning, minibar, desk, LCD TV and anti noise windows.

Windsor Tower Hotel

Windsor Tower Hotel

- **Three star** hotel ;
- **378** modern and cozy apartments ;
- **Leisure area with swimming pool, sauna and gym ;**
- **The newest hotel** marks the completion of the “Windsor Barra complex”;
- **Windsor Tower Restaurant** open for guests and visitors with room service 24 hours a day;
- **Breakfast** daily served from 06:00am to 10:30am.
- **Lunch / Dinner** on a la carte service or Chef’s Suggestions menu served from 12:00 to 11:00pm.



Superior Plus Twin



Superior Plus Double

Modern apartment designed for your comfort. With its beds, the apartment has cable TV and approximately 24m². The apartment has air conditioning, minibar, desk, LCD TV, anti-noise windows.

HOTEL GENERAL SERVICE

- ✓ SERVICES/LUGGAGE STORAGE
- ✓ DISABLED ROOMS
- ✓ LAUNDRY/ DRY CLEANING
- ✓ ACCEPT THE MAINS CREDIT CARD
- ✓ VALET PARKING
- ✓ WHEELCHAIR ACCESSIBILITY
- ✓ CLEANER SERVICE DIARY
- ✓ RECEPTION 24 HOUR
- ✓ PAID GARAGE
- ✓ ELEVATOR
- ✓ FREE WIFI
- ✓ ACCESS TO THE BEACH

RESTAURANTS AND PUBS

- ✓ ROOM SERVICE 24H
- ✓ RESTAURANT
- ✓ POOL PUB

WELL-BEING e SPORTS

- ✓ GYM
- ✓ POOL
- ✓ STEAM ROOM

TOURISTICS PLACES CLOSED TO THE HOTEL:

Barra Beach

Gavea Stone

Estrada Sorimã,- Barra da Tijuca, Rio de Janeiro – RJ.

Barra Mall e New York City Center

Endereço. Avenida das Américas, 4.666. *Barra da Tijuca* , Rio de Janeiro- RJ.

Av. das Américas, 5000- Barra da Tijuca, Rio de Janeiro- RJ.

Village Mall

Av. das Américas, 3900- Barra da Tijuca, Rio de Janeiro- RJ.

Downtown Mall

Av. das Américas, 500- Barra da Tijuca, Rio de Janeiro- RJ.

Natural Municipal Chico Mendes Park

Av. Jarbas de Carvalho, 679- Recreio dos Bandeirantes, Rio de Janeiro- RJ.

City of Arts

Av. das Américas, 5300- Barra da Tijuca, Rio de Janeiro- RJ.

CBF Museum

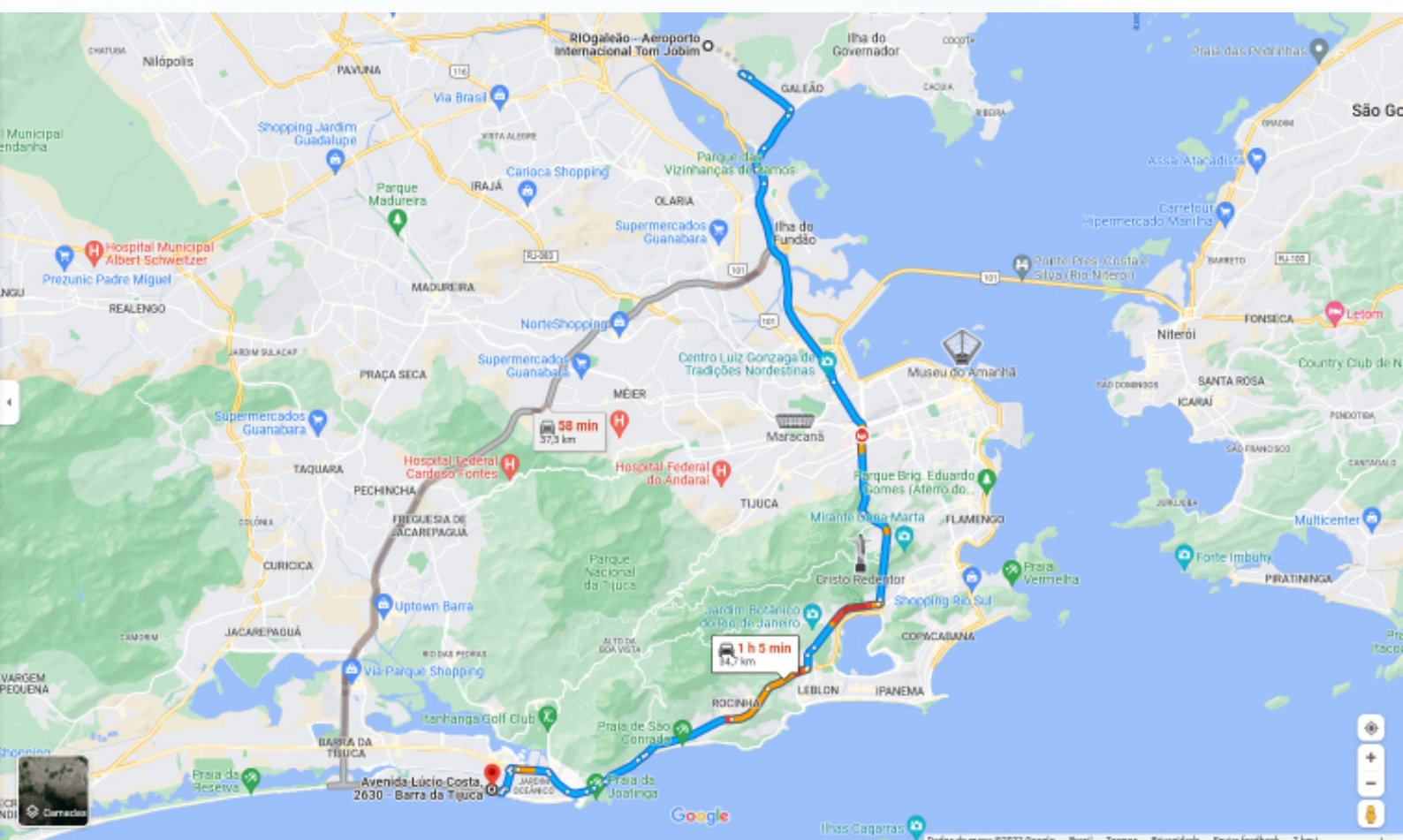
Avenida Luís Carlos Prestes 130, Barra da Tijuca, Rio de Janeiro- RJ.

TRANSPORTATION

There are at least two (2) different kinds of taxis and a wide range of private car transportation services and companies:

The amounts charged by airport taxi drivers are usually pre-defined by the municipal government. Accredited taxis at airports follow quality criteria to serve passengers safely and comfortably. The recommendation is always to use official Airport Taxi services, which are divided into yellow (Regular) and Special taxis.

1. From International Airport Tom Jobim (GIG) by taxi



Distance (km)	Aproximate Travelling Time (min)	Aproximate fare (R\$)
35,8	70	240

a) Regular taxi

To take a taxi leaving GIG, go to ground zero, door A, next to domestic arrivals. After landing, you can take a taxi on the curb of the departures floor of Terminal 2. Aerotáxi and Aerocoop are companies that operate Regular taxis.

b) Special taxi

To take an Executive taxi leaving GIG, go to ground zero, door B, next to domestic arrivals. Cootramo , Transcoopass, Coopertramo, Transcootur and Coopatur are companies that operate Special taxis.

c) Uber

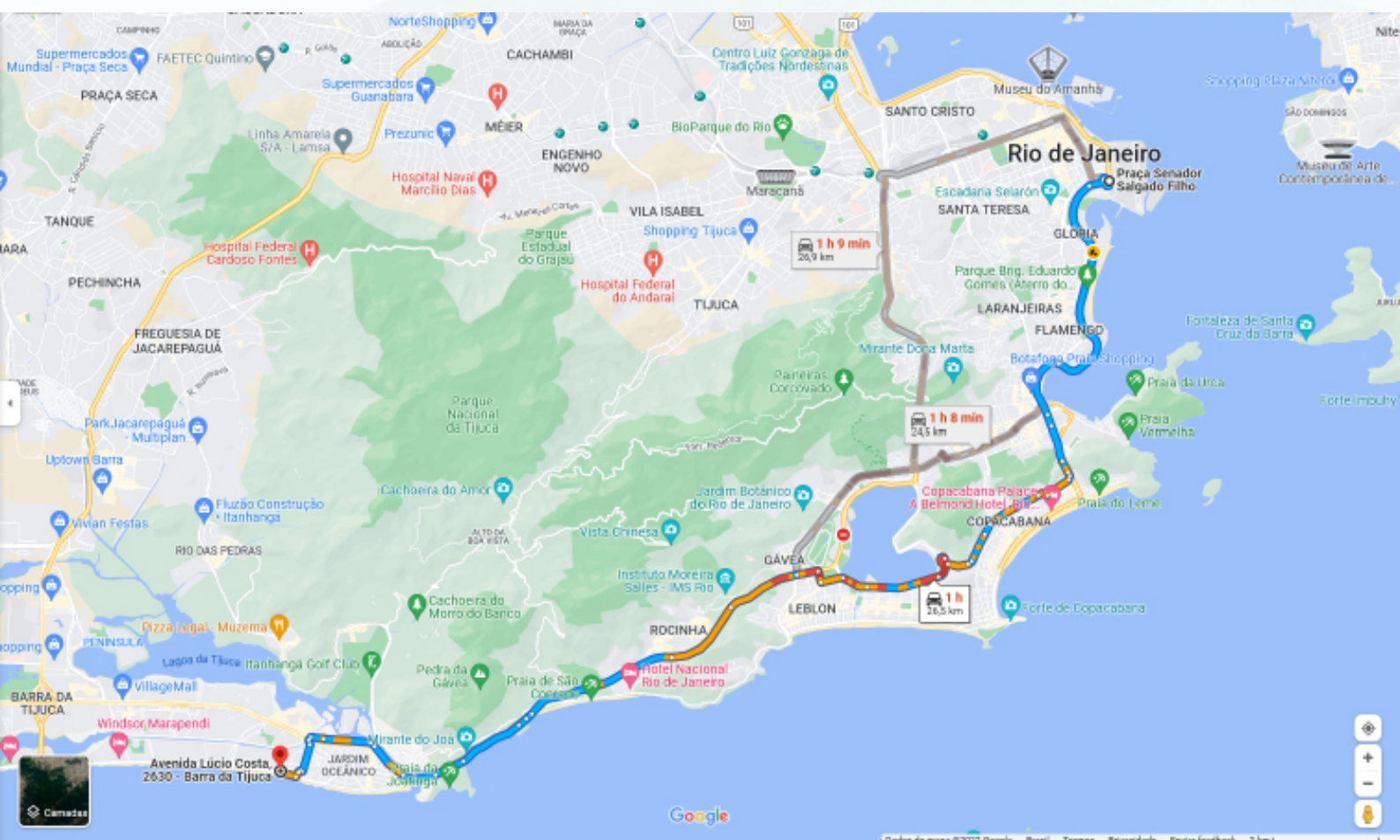
You can wait for your Uber on the departures floor, just outside of Terminal 2.

- GIG Administration contacts:

Website: <https://www.riogaleao.com/passageiros/page/taxis-e-aplicativos>

e-mail	Daily attendance by phone (from 05h30 to 00h15)
faleconosco@riogaleao.com	+55 21 30046050
WhatsApp (Mon-Fri from 09h to 18h: except holidays)	Lost and found (Mon – Fri from 10h to 17h)
+55 21 967615041	+55 21 30046050

2. From Santos Dumont Airport (SDU) by taxi



Distance (km)	Aproximate travelling time (min)	Aproximate fare (R\$)
26,5	60	190

- SDU Administration contacts

Website: <http://www.aeroporto-santosdumont.net/en/taxi-companies-rio-de-janeiro-santos-dumont-airport>

If the passenger has complaints about the service provided by the SDU airport or its airlines, he should contact the ANAC Civil Aviation inspector at the Civil Aviation Section (SAC) located at the main Brazilian airports and fill out the Occurrence Record (RO).

ANAC attendance e-mail	Daily attendance by phone
arus@anac.gov.br	+55 21 38147070
ANAC (User Relations Advisory)	Lost and found (Mon – Fri from 6h to 23h30)
+55 61 39052665	Departures Terminal

- Rio de Janeiro International Airport “Tom Jobim” (GIG) facilities:

Brazilian SIM Card Purchase

SIM Cards can be purchased from telecom stores, convenience stores, or from the websites of the respective service providers. Purchasing a Brazilian SIM Card is cheaper than data roaming abroad, and is therefore the preferred communication service by a large number of business travelers.

International SIM Card Purchase

An authorized reseller of “Malex store” is located at GIG Terminal 2- Arrivals – ground floor, next to International Flight Arrivals. International SIM cards can also be online purchased and then picked up at the authorized reseller, from 07h to 17h.

Malex store telephone contact

+55 21 33982192

“My sim travel” website

<https://mystore.mysimtravel.com/malexgig>

COVID-19 PCR Exams at the International Airport (GIG)

At GIG Airport there is an Einstein laboratory, which offers the PCR and Antigen Test service for COVID-19. The RT-PCR result will be ready in 3 hours and the antigen in 1 hour, after collection. For more information, please access the link above.

Location at GIG	Website
Store 57 – Public Departures floor – Passenger Terminal 2 – Next to the Azul flight company service desk	https://www.einstein.br/estrutura/unidades/aeroporto-internacional-tom-jobim-riogaleao



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NEWS

IALA COUNCIL MEETING 76th SESSION **Official Council Dinner** Wednesday, 14



PHOTO:PERSONAL ARCHIVE
Vice-Admiral Renato Garcia Arruda
Director of Hydrography and Navigation
Brazilian Navy



PHOTO:PERSONAL ARCHIVE
GALA DINNER

Partners Programme



MONDAY, 12- BOTANICAL GARDEN



MONDAY, 12- CITY OF SAMBA



PHOTO:RIO TOUR
TUESDAY, 13- CHRIST THE REDEEMER



PHOTO:PERSONAL ARCHIVE
TUESDAY, 13 – MUSEUM OF TOMORROW



PHOTO:PERSONAL ARCHIVE
WEDNESDAY, 14 – FORTRESS OF SANTA CRUZ



PHOTO:PERSONAL ARCHIVE
WEDNESDAY, 14 – CONTEMPORARY ART MUSEUM



PHOTO:RIO TOUR
FRIDAY, 16 – SUGAR LOAF



FRIDAY, 16 – LUNCH AT ARMY CLUB

IALA COUNCIL MEETING 76th SESSION



PHOTO:PERSONAL ARCHIVE



PHOTO:PERSONAL ARCHIVE

IALA COUNCIL MEETING 76th SESSION OFFICIAL PHOTO



IALA COUNCIL MEETING 76th SESSION OFFICIAL PHOTO

“32 new documents (recommendations, guidelines, and model courses) were approved as well as one workshop proposal and the budget for 2023.

After welcoming the new participants, each councilor reported on national matters. The Secretary General then briefed on the latest news about the secretariat. The Strategy and Policy section saw the validation of the Current Drivers and Trends and the Strategic Vision. A few more details were given about the transition period regarding the change of status. The treasurer went over the finance and audit committee report.

The technical documents were all approved and interesting discussions were prompted by VTS committee new documents. The revised standards were deemed ready to be submitted to the 14th general assembly to be held on 3 June 2023. The Council gave approval to the election of Cap Spartel Lighthouse in Morocco as Lighthouse of the year 2023.

The Council endorsed new members and granted honorary membership to Barry Goldman.

The Council also approved the Terms of Reference for the newly established IALA Disaster Recovery Fund.

Furthermore, the Council was delighted to visit the facilities offered by the convention center selected to host the 20th conference. The council congratulated the Brazilian navy for the arrangements made during the Council week and was very hopeful for a wonderful conference ahead. “ International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA).



The MSM OCEAN logo, featuring the stylized icon and the text 'MSM OCEAN' in white on a teal background.

The MSM DREDGING logo, featuring the stylized icon and the text 'MSM DREDGING' in white on a yellow background.

The MSM OFFSHORE logo, featuring the stylized icon and the text 'MSM OFFSHORE' in white on a black background.

The MSM ACADEMY logo, featuring a stylized icon of a building and the text 'MSM ACADEMY' in white on a grey background.

- Design & Manufacturing of **AtoN equipment**
- **Oceanography & Tsunami** Early Warning Systems
- **Offshore Oil & Gas** platforms & **Windfarm** Marking
- Marking Solutions for **Dredging Operations**
- **Training Courses** for AtoN Technicians



Burhanudin ABDULLAH

Marine Officer Assistant Director
Malaysia Marine Department
Malaysia

BIOGRAPHY

Experience

April 2002- Present

Marine Officer- Assistant Director- Malaysia Marine Department

1997–2001

Navigation Officer- Deck Officer - Malaysia International Shipping Co

Currently In charge in Marine Aid to Navigation (Visual AtoN) in Malaysia Water

EDUCATION

Malaysia Maritime Academy, Malacca

Combined Master & Chief Officer of 3000GT Unlimited Voyage prep class

LEADERSHIP

Head of Virtual AtoN Unit as to ensuring all of the virtual AtoN are in good working condition and complying to IALA standard. Most are equipped with the Automatic Identification System for remote monitoring capability.

CONTACT

burhanuddin@marine.gov.my

+60192767354

Jalan Limbungan P.O Box 12 Port Klang Malaysia



W. Christian ADAMS

U.S. Coast Guard
Navigation Technology & Risk Management Div Chief
(CG-NAV-3)
United States of America

BIOGRAPHY

CDR William “Christian” Adams currently serves on active duty in the Office of Navigation Systems which is responsible for policy, administration, and development of the Coast Guard’s aids to navigation program. His responsibilities as the Navigation Technology and Risk Management Division Chief include overseeing evaluation and incorporation of ATON technologies including AIS ATON, enhancement of existing programs to support digitalization and e-navigation initiatives, program level studies and analysis, and program risk management including environmental compliance. His previous tours include serving as the Assistant School Chief for the Coast Guard’s National Aids to Navigation School and over nine years of sea time, serving on four Coast Guard cutters including three buoy tenders. CDR Adams has a B.S. in Civil Engineering from the U.S. Coast Guard Academy and a M.S. in Organizational Performance and Workplace Learning from Boise State University.



Bjørn Åge Hjøllø

NAVTOR
Chief Sustainability Officer
Norway

BIOGRAPHY

Bjørn Åge HJØLLO has a Master in Meteorology, and started his carrier in Norwegian Meteorological Institute’s R&D division in 1992, worked later as a Marine Forecaster and for the three years heading the Marine Forecasting Centre in Norway.

In 2004, he joined C-MAP Norway as General Manager for C-MAP Marine Forecasting Centre. He became Product Manager in C-MAP, later Jeppesen Marine.

In 2011 he joined a group of managers leaving Jeppesen Marine, establishing NAVTOR AS to focus on e-Navigation. He is today Chief Sustainability Officer and a minority owner in NAVTOR. In this position he guides NAVTOR’s internal, national and international R&D projects focusing on the strategy for “One Platform for Sustainable solutions” supporting Safe and Efficient Navigation, with the basis in NAVTOR’s widely used e-Navigation platform.



Hairizam ALBUKHARI

Malaysia Marine Department
Mr.
Malaysia

BIOGRAPHY

Mr. Hairizam Albukhari is the Director of Traffic Management and Aids to Navigation Division, Malaysia Marine Department. He studied at University Putra Malaysia majoring in Marine Science Degree in 1998. He began his career at Malaysia Marine Department as a Marine officer in 1998 and served in various capacities at Marine Department before assuming his current position in 2021.

Mr. Hairizam has represented Malaysia, attending and participating in various IALA Committee Meeting since 2012. He has also credited as Train the Trainers (IALA model Course V-103/4). He has been appointed as Secretary of the Light Dues Board from 2012 to 2014.

As a Director of Traffic Management and Aids to Navigation Division, Mr. Hairizam is also the Management Representative of The Light Dues Board Peninsular Malaysia. The Light Dues Board managed the Light Dues Fund for the provision, maintenance and upgrading of aids to navigation in Peninsular Malaysia.

He also been selected as a Malaysia Head of Delegation to Aids to Navigation Fund (ANF) Committee Meeting under the Cooperative Mechanism on safety of Navigation and Environmental Protection in the Straits of Malacca and Singapore.



Mahdi Al Mosawi

MENAS
General Manager
Kingdom Of Bahrain

BIOGRAPHY

Mr. Al-Mosawi joined the AtoN industry through Middle East Navigation Aids Service “MENAS” in 2001. From 2001 to 2012 he was one of the AtoN offshore operations engineers on MENAS Buoy Tender Vessels involving offshore AtoN maintenance. In 2012, he was appointed as assistant Navigation Services Manager, which is concerning all survey & maintenance in most of projects/contracts locally & internationally.

Three years later, he joined IALA as Secondment Officer/technical advisor for two years. In 2017, he was appointed as MENAS General Manager. Since then, his main tasks were to manage all MENAS activities in the Gulf region, report to IFAN/MENAS Board, and involved in periodic meetings with the local authorities, the stakeholders for the development of AtoN, DGNSS & MSI services in the area and IALA committees.

PRESENTATION TITLE

AtoN technicians navigating in a digital world.

Thomas ARCULUS

Trinity House
United Kingdom

BIOGRAPHY

Thomas Arculus is the Head of Legal and Risk at Trinity House, the General Lighthouse Authority for England and Wales. Thomas is a member of the Royal Institution of Chartered Surveyors and has worked for Trinity House since 2007. He has knowledge and experience of the range of historic properties across Trinity House's estate. He is also a member of the IALA Legal Advisory Panel.



Mayumi ARITA

Japan Coast Guard
Special Assistant to the Director
Japan

BIOGRAPHY

LCDR ARITA Mayumi is a Special Assistant to the Director of the International Affairs and Engineering Development Office, Administration and Planning Division, Maritime Traffic Department, Japan Coast Guard (JCG). She is currently in charge of international matters of the Maritime Traffic Department, mainly IALA activities. She graduated the Japan Coast Guard School in 1998 and started her career as a radio operator of a coastal radio station of JCG. Since then, she has involved with several kind of JCG works, above all, VTS is her area of specialization. She has the experience of working as a VTS operator and a supervisor in Tokyo-Wan VTS and Osaka-Wan VTS and as an officer for the coordination of duty and training for VTS operator. In addition, she engaged in establishing the VTS Operator Course of the Japan Coast Guard School when it founded in 2018, and gave classes as an instructor to students for a few years. From 2011 to 2012, she worked at the IALA Headquarters as a seconded officer from JCG. She has C0103-1 and C0103-3 certificates and finished C0103-4, the On-the-Job Training Instructor Course.



Giuseppe AULICINO

Rear Admiral
Italian Coast Guard
Head of “Plan and Operations” Department
Italian Coast Guard Headquarters
ITALY

BIOGRAPHY

Giuseppe AULICINO is an Admiral of the Italian Coast Guard, currently Head of the Plans and Operations Department at the Coast Guard Headquarters.

He attended Naval Academy between 1983 and 1987 as a Line Officer of the Italian Navy, Anti-Submarine Warfare specialist. After about 9 years of experience onboard Italian warships, he joined the Italian Coast Guard. He was responsible for various assignments at the Coast Guard HQs related to the ICT matters, participating to the main technological programs regarding the safety and efficiency of maritime traffic, the response to incidents, accidents or potentially dangerous situations at sea, including search and rescue operations.

In particular, he was responsible also for the implementation and the management of the Italian AIS network implemented under the framework of the European Union directive 2002/59.

He was called to represent Italy in several international and European fora. Since 2013 up to the end of 2022 he has played the role of coordinator of the MAREΣ project of the European system SafeSeaNet, which allows the maritime information sharing in the Mediterranean and Black Sea.

During his career, he served as harbormaster of Fano, San Benedetto del Tronto and La Spezia.

Before assuming the current duty, between 2018 and 2020 he held the position of Head of ITC Department of the Italian Coast Guard Headquarters.

He obtained the Diploma of Industrial Expert and graduated in Maritime and Naval Sciences at the University of Pisa, as well as in International and Diplomatic Sciences at the University of Trieste.



Tsuguo AWAI (RADM)

Japan Coast Guard
Senior Director, Int'l Maritime Security Strategy
Japan

BIOGRAPHY

RADM AWAI Tsuguo is a Senior Director of Int'l Maritime Security Strategy Group of the Japan Coast Guard. He has attended the Council meeting since the 69th session and assumed the duties as the IALA councillor for Japan in August 2022. He has led a wide range of international activities of the JCG with his comprehensive knowledge and experience, not only in coast guard services but also in international maritime fields to cover the policy and technology aspects.

He started his professional career in 1984 when he graduated from the Coast Guard Academy and was given a first assignment on board JCG Cutter as a radio officer. Since then, he has engaged in a variety of shore/sea services of the JCG across the country. He had also served in the Maritime Safety Division of the International Maritime Organization in London from 1989 to 1991 as a professional officer in charge of GMDSS, SAR and STCW. He has finished the Special Auditor Course in Electronics/Engineering at Tokyo University. In addition, he is proficient in English and French.

He has authored a wide-ranging writings relating to maritime civil security, marine engineering and geo-politics and has become well known as a JCG key person in international activities. He has also engaged in supporting a variety of IALA activities, including the regional capacity building, etc.



Lucas BASSANI

Brazilian Navy / Directorate of Hydrography and Navigation (DHN)

The importance of visual aids to navigation in the era of high technology and automation in Brazil

Brazil

BIOGRAPHY

My name is Lucas Bassani da Silva, I am 28 years old and I'm a First Lieutenant in the Brazilian Navy. I undergraduated in Naval Science at the Brazilian Naval Academy and supplemented my theoretical knowledge on board the ship Navio-Escola "Brasil" during the XXXIII Viagem de Instrução de Guardas-Marinha, which was a great opportunity to gain hands-on sailing experience visiting 14 countries around the world. I have pursued further training in Naval Communication and now have a graduate degree in Hydrography at Centro de Instrução e Adestramento "Almirante Radler Aquino" (CIAARA).

I have always been an enthusiast of the sea, which is why I decided to join the Brazilian Navy, with the aim of being able to contribute to the safety of navigation. Throughout my career as a navy officer, I had served for almost two years on Corvette "Júlio de Noronha" and for 3 months on Sailing Ship "Cisne Branco". Now, I am currently serving as an assistant in the Hydrography Department of the Hydro Oceanographic Ship "Taurus".

I am committed to continually improving my skills and knowledge in order to contribute to the success of my profession. For this reason, my final paper at graduation was based on highlighting the importance of visual aids to navigation facing modern technological advances in aids to navigation in Brazil, which now becomes a talk and a paper at this conference. I am grateful for this opportunity and look forward to contributing in order to have a safe navigation around the world.



Ernest Batty

IMIS Global Limited

Technical Director

United Kingdom

BIOGRAPHY

Ernest started his career in telecommunications and train radio control systems and then moved into the ship and shore maritime electronics domain. Ernest has also attended the University of South Africa and Oxford Brookes focusing on business management studies. Ernest has been attending IALA meetings in Paris since the late 1990s during the early days of AIS and continues to play an active role in IALA.

Ernest is one of the two founding members of IMIS Global that, for the last 22 years, has focused on Maritime Information Systems and lately their migration to the cloud. Ernest serves as the Technical Director in IMIS Global and is the original architect of the IMIS flag ship product, MariWeb.



Knud BENEDICT

Hochschule Wismar, University of Applied Sciences
Prof. Dr.-Ing.
Germany

BIOGRAPHY

Knud Benedict, born in 1948, was graduated at the Faculty of Naval Architecture of the Rostock University in 1972.

He achieved Doctoral degrees in Ship Hydrodynamics / Manoeuvrability (1978) and on Ship Operation Technology / Advisory Systems (1990).

Since 1992 he has been Professor for Ship's Theory at Hochschule Wismar (HSW), University of Applied Sciences /Germany.

Until 1997 he was the Dean of the Department of Maritime Studies at Wismar University and from 1998-2013 he was the Head of its Maritime Simulation Centre Warnemuende (MSCW). Now he is the Head of the Institute for Innovative Ship Simulation and Maritime Systems ISSIMS at HSW.

He has been Visiting Professor at World Maritime University Malmo for Marine Technology and expert consultant to the IALA World Wide Academy. He has been actively involved in the development and deployment of the IALA Port & Waterway Risk Seminars, specifically for the role of simulation in maritime risk management.



Ulla Bjørndal Møller

Danish Maritime Authority/DMA
Head of Operations, Safety of Navigation – National Waters
Denmark

BIOGRAPHY

Mrs Bjørndal Møller is educated as Master Mariner followed by a degree as MSc in Marine Technology and Exam Art of Humanities.

She was 10 years in the merchant navy, 15 years as lecturer at a Maritime Academy and 8 years as Head of Fleet / Director, Nautical & HSE Management at A2SEA. Her work included compliance of ISM, ISPS, ISO 9001/14001/OHSAS 18001, STCW, MLC, national, local and IMO rules and regulations also following and influencing industries best practice and handling flag, class and clients during tender, planning and execution of projects.

She was appointed Manager of Operations, Safety of Navigation – National Waters within the Danish Maritime Authority in 2018. The appointment involves a range of different topics from direct handling of maritime issues, navigational warnings and information to decision support managing. She is responsible for all floating AtoN in Danish National Waters and the operation of the buoy tender vessel and her crew. The Operations section is highly dedicated to digitalisation and the implementation in 2023 of an Aton register compliant to S-201, and a MSI system that creates data-packages in S-124 and S-125 standards.

Mrs Bjørndal Møller attend as a national member the IALA Aids to Navigation Requirements and management committee (ARM) under WG 2, and workgroups arranged by IALA with partners outside the committee meetings relevant to S-100. She also follows the work in WG 3 during meeting of the E-Navigation Information Services and Communications committee (ENAV), as this is highly relevant to her responsibilities.



Yves-Marie BLANCHARD

Cerema
Mr
France

BIOGRAPHY

Yves-Marie Blanchard, 51, is an engineer and deputy head of the Aids to Navigation group. He graduated from the Ecole Nationale des Travaux Publics de l'Etat in the field of river and coastal development. As a civil servant, he can work in fields as varied as transport, the environment, civil engineering and the coastline, in the service of the French State and the national community. He also holds a degree in mathematics. In a position of responsibility at Cetmef, then at Cerema, in the field of lighthouses and beacons since 2010, he is specialised in visual aids to maritime and river navigation. He was recognised as a specialist by the Ministry of Transport and the Sea in 2017 and confirmed in 2022. As a national technical referent, he represents France in the IALA ENG committee- sub-group "light and vision". In his field of expertise, he also participates in the development and implementation of the French national maritime signalling policy. In his management functions, he supervises a team specialised in fixed and floating aids to navigation, lights and vision, power systems, electronics, mechanics, heritage and culture. He also maintains an expert activity, particularly in the field of visual aids to navigation. One of his areas of interest is the use of LED light sources in historic Fresnel lenses.



Stefan BOBER

Waterways and Shipping Administration
Germany

BIOGRAPHY

Stefan Bober is a senior engineer within the German Federal Waterways and Shipping Administration, Directorate General Shipping, Section Traffic Technologies- national and international Standards. He is working on radio aids and transponder techniques for Vessel Traffic Services (VTS) and River Information Services (RIS). He has been involved in the AIS and VDES projects for maritime and inland waterways applications. Stefan Bober is member of various international working groups dealing with development and standardisation of AIS, VDES and radio communication systems. He is member of the digital communication system WG within the IALA e-Navigation Committee, chair of IEC AIS WG and chair of the European expert group for Vessel Tracking and Tracing for Inland Navigation. He is also IALA representative at ITU-R WP5B. Presentation at the IALA Conference 2023: Abstract 61 Implementing Digital Aids to Navigation Information in European Inland Navigation



Ronan BOYLE

Commissioners of Irish Lights
Director of eNavigation & Maritime Services
Ireland

BIOGRAPHY

Ronan Boyle is a former Lieutenant Commander with the Irish Naval Service. During his naval career he was captain of the L.E. AISLING and later the L.E. NIAMH, and served overseas with NATO in ISAF, Afghanistan. While ashore he specialised in communications and information technology including the introduction of a new maritime surveillance capability for the Navy. He also served at the strategic and policy level at Naval Headquarters.

In 2013 he left the Navy to take up a Divisional Management role with the RNLI, with responsibility for the delivery of RNLI Search & Rescue services on the South and South West coasts of Ireland. In 2019 he joined Irish Lights as Director of eNavigation & Maritime Services with a remit to advance the strategic goals set out in Safe Seas - Connected Coasts Irish Lights Strategy 2018 - 2023 and beyond. He holds a BSc (Hons) in Information Technology from DCU and a MSc in Technology Management from UCC. In addition, he holds an MA in Leadership, Management & Defence Studies from NUIM.



Martin BRANSBY

Telespazio
Head of Navigation
United Kingdom

BIOGRAPHY

Martin Bransby is the Head of Navigation at Telespazio UK. He is accountable for delivering Telespazio's research, innovation and product development programme in a resilient position, navigation & timing, focussing on a multi-layered, multi-systems approach to PNT provision as a service, whilst delivering the company's PNT strategy and direction. He is a Chartered Engineer, Fellow and Council member of the Royal Institute of Navigation, an Associate Fellow of the Nautical Institute. He also holds memberships of the Institute of Engineering & Technology, and the US Institute of Navigation.

<https://www.telespazio.com/en/home>



Tatiana BRIGLIA

Companhia Docas do Rio de Janeiro – CDRJ / Universidade do Estado do Rio de Janeiro

Implementation of the Vessel Traffic Management and Information System- VTMS in Rio de Janeiro

Rio de Janeiro- Brazil

BIOGRAPHY

Oceanographer in the Geophysical and Port Area with knowledge in the five areas of Oceanography. Experienced with work in academic, corporate and laboratory environments, with knowledge in computing and Oceanographic instrumentation. During my graduation I was an environmental coordinator at Ilha Anchieta- SP, environmental consultant at Nauta Empresa Jr. of Oceanography, intern at Núcleo de Pesquisa em Aquicultura Sustentável na UERJ and from 2020 I participated in the implementation of VTMS in the port of Rio de Janeiro as an intern at Companhia Docas do Rio de Janeiro (CDRJ), and in late 2021 I started working with Hydrography and Geophysics, doing follow-ups and studies of Category A and Cat. B.

Currently I am a Master's student in Oceanography at the Ocean and Earth Dynamics Laboratory of the Universidade Federal Fluminense.



Krzysztof BRONK

National Institute of Telecommunications

PhD, Head of Wireless Systems and Networks Department

Poland

BIOGRAPHY

Krzysztof Bronk, PhD, is an Assistant Professor in National Institute of Telecommunications. He is an author or co-author of more than 50 reviewed scientific articles and publications and about 50 R&D technical documents and studies. His research is mainly centred on the field of radiocommunication systems and networks designing and planning, software defined and cognitive radio systems development, multi-antenna technology, cryptography, propagation analysis, transmission and coding techniques as well as positioning systems and techniques. His interests includes also multi thread and object oriented applications, devices controlling applications, DSP algorithms and quality measurement solutions. He is currently involved in national and international research projects with both academic and industrial partners.



Paul BURTON

United Kingdom Hydrographic Office
MASS Technical Engagement Manager
UK

BIOGRAPHY

Paul has almost 40 years' experience in the hydrographic domain having joined the UK Hydrographic Office (UKHO) in 1984.

Over his career he has been involved in the transition from hand-drawn nautical chart compilation, through digital chart production systems, to the design and implementation of the first-generation digital maritime navigation products and services extant today.

He has led in the specification of maritime geospatial standards including the development of the NATO S-57 Additional Military Layers (AML) specification and early work on the International Hydrographic Organisation (IHO) S-100 framework.

Other areas of expertise covered during his career are deep-water surveying capability, bathymetric handling techniques and specialist underwater navigation products.

Since the beginning of 2023 he has taken up the role of Maritime Autonomous Surface Ships (MASS) Technical Engagement Manager at the UKHO. The role will cohere the UKHO involvement in the maritime autonomous domain. This will ensure the UKHO can enable and support the standards, maritime geospatial data provision and legislative requirements, both nationally and internationally, to make autonomous shipping a safe and effective reality.



Jean-Marie CALBET

Phares de France
Treasurer
France

BIOGRAPHY

Mr. Jean-Marie CALBET was born in 1951 in France. He obtained his degree in Public Works from the French State in 1976 at the same time as a degree in law and economics of international maritime transport. He was promoted to Chief Engineer of State Public Works in 2005 and claimed his retirement rights in 2011.

Within the International Association of Marine Aids to Navigation and Lighthouses Authorities, he sat as a member of the Engineering committee from 1983 to 1994, then as vice-president of this committee from 1994 to 1996. He then created the advisory committee for the preservation of historic lighthouses, which he chaired until 1998. He then left the field of lighthouses and beacons professionally to devote himself to that of Civil Aviation.

He is an honorary member of IALA, president of the Cordouan and Grave Lighthouses Association, of the Richard Lighthouse Municipal Association and treasurer of the Lighthouses of France Association.

Mr. Calbet is dedicated to showcasing the lighthouses of his region, and especially the Cordouan lighthouse, to which he is very attached.

His association manages the Cordouan lighthouse and Lighthouses and Beacons museum installed in the premises of the Grave lighthouse, which is one of the Cordouan's promotional tools.



Jillian Carson-Jackson

Organisation / affiliation

The Nautical Institute

Title

Immediate Past President

Country

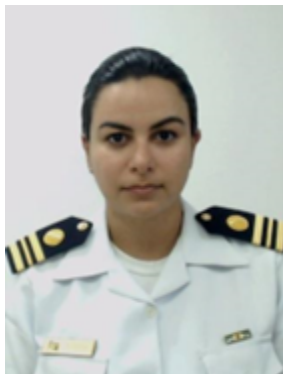
United Kingdom (for NI, Australia as home country)

BIOGRAPHY

A transplanted Canadian, now living in Australia, Jillian has almost four decades of experience in the maritime industry. She has experience both afloat and ashore, she has management experience in different government areas, including aids to navigation (AtoN), Vessel Traffic Services (VTS), shore station radio operations, regulation of maritime pilots, vessel tracking and maritime technology related fields.

She is passionate about education and training, diversity, equity and inclusion, with a focus on the maritime industry. Jillian continues to work on matters related to the digitalisation of the maritime industry, risk assessment and mitigation, and maritime education and training. She is a Director of GlobalMET, an adjunct senior researcher with the University of Tasmania (Australian Maritime College) and a Board member of Captains without Borders.

Jillian is the immediate Past President of the Nautical Institute (International) and an active member of the NI South East Australia branch. Jillian's expertise in navigation, education, vessel tracking, and maritime radio communication technology has been recognised by the award of Fellowships with both the Royal Institute of Navigation and the Nautical Institute. Over the past three years Jillian has been actively promoting alternative approaches to the provision of training, including online, hybrid and just-in-time training initiatives.



Rafaela CASTRO

Navy Hydrographic Center

Title: Navigational Warnings

Brazil

BIOGRAPHY

Graduated in Cartographic Engineering from the State University of Rio de Janeiro (2010). I am currently Lieutenant Commander- Head of Safety of Navigation Information Section in Navy Hydrographic Center. I have experience in the area of Geosciences, with emphasis on Remote Sensing, acting on the following subjects: aerial photogrammetry, geodesy and geoprocessing (GIS).

I am currently responsible for the dissemination of Maritime Safety Information (MSI) through Navigational Warnings for the maritime community, in addition to the Notices to Mariners and other publications to aid navigation.

I am a representative of NAVAREA V (navigation area of responsibility of Brazil) at the World Wide Navigational Warning Service Sub-Committee (WWNWS-SC) whose objective is to monitor and guide the International Hydrographic Organization (IHO) / International Maritime Organization (IMO) and provide network of other NAVAREAs Coordinators.

I am also part of the S-124 Project Team (S-124PT) which brings together representatives from different countries to discuss the migration of txt data from Navigational Warnings to structured and geo spatialized data for the IHO S-124 format.



Jinhai CHEN

Navigation College, Jimei University
Asso.Prof.
China

BIOGRAPHY

Dr. Jinhai CHEN is the Deputy Director of National-local Joint Engineering Research Center for Marine Navigation Aids Services. He has worked 20 years in Navigation College, Jimei University. His background is Maritime Transportation GIS. In July 2015, He has completed his PhD from State Key Laboratory of Resources and Environmental information Systems, Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences. He was awarded a scholarship under the Education Department of Fujian Province, CHINA. to pursue his study for one year in the French Naval Academy Research Institute, as a visiting scholar. His current research interests focus on the Coexisting of Offshore Windfarms and International Shipping in the Taiwan Strait. His contributions in China Ocean Energy lies in Maritime Spatial Plan by combining ships tracks with Site Selection for Offshore Wind Farms in the Taiwan Strait. During the 9th session of the IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR), he joined the Experts Group on Ships' Routeing.



Sungchul Choi

Pukyong National University
English Proficiency Evaluation of VTS Operators Based on Artificial
Intelligence
Republic of Korea

BIOGRAPHY

Sungchul Choi is an associate professor at the Department of System Management Engineering at Pukyong National University, Republic of Korea. He received his Ph.D. in industrial management engineering from POSTECH in 2012 and has worked as a technology strategy manager at Samsung Advanced Institute of Technology. Dr. Choi's research focuses on patent analysis, technology roadmap using text mining approaches, and the application of machine learning and deep learning approaches to academic big data. He has conducted various research related to natural language processing and artificial intelligence. Notably, he is developing a technology that can build a virtual world by fusing AI and digital twins, enabling various AI simulations on the virtual world.



Seung-Hee Choi

Korea Institute of Maritime and Fisheries Technologies
VTS English Communication Proficiency Criteria Based on G1132 VTS
VHF Voice Communication
Republic of Korea

BIOGRAPHY

Dr. Seung-Hee Choi is an associate professor at the Korea Institute of Maritime and Fisheries Technology, which is the government maritime training institute of the Republic of Korea. She is in charge of the maritime English education and training program for VTS operators, mariners, and professionals in shipbuilding industry. Dr. Choi is an alumna of the University of Birmingham in the United Kingdom where she earned her MA and PhD in the field of English Applied Linguistics with the specialization of teaching successful cross-cultural communication strategies across the world maritime industry. As an external expert consultant, she provides advisory services for Korea VTS Competent Authority in the field of VTS English education, training, and evaluation. In addition, she is actively involved in national maritime language research projects such as the development of national maritime English testing system for Korean mariners, online learning system for life-long learning of the maritime professionals, and the standardization of e-Navigation text messages. As a local organizer of technical cooperation programs, she has been successfully leading a number of capacity building activities with the international organizations such as IMO Technical Cooperation Programs and APEC projects. She continues to devote her interests and energy in international cooperation, maritime English training, curriculum development, train-the-trainer course, testing and evaluation.



Jean-Charles CORNILLOU

Cerema / ministère de la Transition écologique et de la Cohésion des territoires
Captain
France

BIOGRAPHY

Jean-Charles Cornillou has ten-year experience at sea on different types of ships. He joined the French Maritime Administration in 1994. After one-year training he was directly appointed in in Fort de France to develop an MRCC, dealing with all Windward Islands in West Indies.

He appointed in a ship inspection service in Rouen in charge of Flag State Implementation (FSI) and Port State Control (PSC). He also was responsible of the implementation of STCW and ILO conventions for the seafarers in the harbour of Rouen. This experience drives him as PSC coordinator in France where he was representing France at Paris MoU, European Union, ILO and IMO.

He was in charge of combined marine operation centre in Corsen (CROSS Corsen) which is a VTS (Ushant Traffic) and an MRCC in Brittany at the west entrance of the Channel (La Manche). During that time, he performed IMO technical consultancy missions on SAR and GMDSS in different countries.

Jean-Charles Cornillou is now project director in maritime safety at the Centre for expertise and engineering on risks, urban and country planning, environment and mobility (Cerema), which is the technical department of the French maritime administration. He is particularly involved with the modernization of GMDSS.



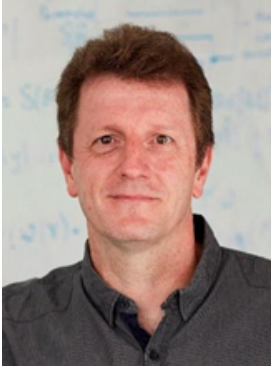
Björn Coster

Kongsberg Norcontrol
Market Manager VTS
Norway

BIOGRAPHY

Björn is Kongsberg Norcontrol's Market Manager for the VTS market globally as well as Managing Director Kongsberg Norcontrol Singapore. Björn has held this position since 2018 with responsibility for Operations and Marketing & Sales in East Asia and Oceania. Björn first joined Kongsberg in 2011 as Project Manager and worked with numerous VTS delivery and development projects worldwide.

Björn has a MSc in Electrical Engineering from Chalmers University of Technology and worked with ship propulsion-, electrical distribution- and automation systems in Siemens and Aker Kvaerner before joining Kongsberg Norcontrol.



Armin DAMMANN

German Aerospace Center
Head of Mobile Radio Transmission Research Group
Germany

BIOGRAPHY

Armin Dammann received the Dipl.-Ing. (M.Sc.) and Dr.-Ing. (Ph.D.) degrees in Electrical Engineering from the University of Ulm, Germany, in 1997 and 2005 respectively. In 1997 he joined the Institute of Communications and Navigation of the German Aerospace Center (DLR) as a research staff member. Since 2005 he is head of the Mobile Radio Transmission Research Group. His research interest and activities include signal design and signal processing for terrestrial wireless communication and navigation systems. In these fields, he has been active in several EU-projects. Armin Dammann is lecturer at the Technical University of Munich for "Robot and Swarm Navigation".



Pierre-Luc DELAGE

Canadian Coast Guard / Integrated Technical Services
A. Engineering Manager
Canada

BIOGRAPHY

Pierre-Luc Delage is a Professional Engineer who holds a Bachelor of Civil Engineering and a Master of Applied Science in Hydraulics Engineering. He began his career in the private sector in 2006 and joined the Canadian Coast Guard in 2010.

In 2015, Pierre-Luc was appointed as the Technical Authority for the Four-Season Buoy project. Working with his team, he designed three spar-shaped steel buoys capable of withstanding the harsh ice conditions of Winter on the St. Lawrence River while providing mariners a stable light signal during the Summer months. Pierre-Luc and his team carried out additional research to determine the ideal coating and electrical systems to ensure long-term functionality, which enabled the buoy system to be deployed for up to four years without requiring fleet services. In recognition of his exemplary contribution to this project, Pierre-Luc received the Prix d'Excellence Innovation in 2019, which is the most prestigious award at Fisheries and Oceans Canada.

Since January 2021, Pierre-Luc has been serving as the Acting Manager of Maritime and Civil Infrastructure (Integrated Technical Services) at the Canadian Coast Guard. He leads a team of engineers who work on various Aids to Navigation (AtoN) projects. This includes designs for mooring hardware and anchors, and enhancing efficiency of marine lights. Additionally, Pierre-Luc and his team are responsible for drafting technical specifications and standards for AtoN equipment such as Coating Standards for AtoN. Presently, his team is focused on sustainable development such as designing modular plastic buoys and establishing a circular plastic economy.



Gerardine DELANOYE

IALA World-Wide Academy
Capacity Building & Resources Manager

BIOGRAPHY

Gerardine Delanoye began the work as Capacity Building and Resources Manager of the World-Wide Academy (WWA) at the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) March 2015. She has a background from the River Scheldt VTS, an international treaty between Belgium and the Netherlands, where she served as VTS Operator and Manager of the VTS Simulation Training Centre.

Gerardine Delanoye is an expert in safety of navigation, specifically AtoN and VTS Management. She conducts technical cooperation missions to coastal States in order to identify the degree of compliance related to safety of navigation under SOLAS Ch. V, based on the IALA Standards.

Gerardine Delanoye has the Belgian nationality. She is married to Jacob. They are passionate about restoring and sailing their 1940 build police patrol vessel. They have two grown up children.

PRESENTATION TITLE

Capacity building, creating movement in the long term.

ABSTRACT

This presentation will give more insight on the capacity building programme of the WWA and how states can benefit from this. It will show the interaction with both the WWA it's training scheme and the work of the IALA technical committees. The presentation will explain the main challenges for developing states and will show some examples of good practice around the world. It will point out why compliance with the IALA Standards is important. Finally, a discussion will follow on how digital skills could fill the gap of innovation for States in need toward a more sustainable future.



Arve DIMMEN

Norwegian Coastal Administration
Director Navigation Technology and Maritime Services
Norway

BIOGRAPHY

Mr. Arve Dimmen is currently the Director of Navigation Technology and Maritime Services at the Norwegian Coastal Administration. Mr. Arve Dimmen has a Master of Science degree in Electronics from the Technical University of Norway in Trondheim, where he specialized in communication and radionavigation.

In his present position at the Norwegian Coastal Administration, he is responsible for the Vessel Traffic Service, Maritime security, Ocean and Coastal surveillance, Maritime Traffic Regulation, Pilotage Authority as well as the promulgation of Navigational Warnings and other services within the Maritime Service Portfolio. He is a Norwegian member of the IALA Council.



Martijn EBBEN

Port of Rotterdam
Cyber Security and Risk Officer
Netherlands

BIOGRAPHY

Martijn is Cyber Security & Risk Officer at the Port of Rotterdam, responsible for strategic and operational cyber security for the VTS, VHF, sensors and AtoN systems in the port. He is responsible for policy, enforcement and implementation of the cyber security strategy and is involved in all projects and day-to-day operational management of the VTS systems.

The Port of Rotterdam has a team of 8 Security Officers that all have a specific business focus.

Martijn has a background in system and security engineering and networking and has been working in the port for seven years after holding several operational and management positions in network security. He is a contributing member in several IALA committees.



Burçin ERLEVENT

Directorate General of Coastal Safety
VTS trainer and marine pilot
Türkiye

BIOGRAPHY

Burçin as a master mariner. He joined the Directorate General of Coastal Safety in 2005 and began his VTS career as an operator at the Istanbul VTS Centre. In 2013, he was assigned VTS supervisor and VTS trainer. After that, he started his doctorate in VTS training at Istanbul Technical University and was promoted to manager for Izmir VTS Centre. Currently, he contributes to the safety of life at sea, the safety and efficiency of navigation and the protection of the marine environment as a marine pilot in Çanakkale Strait.



Matti ERONEN

Finnish Transport Infrastructure Agency
Legal Counsel
Finland

BIOGRAPHY

Mr Matti K Eronen has an LLM degree in maritime law from the Turku University in 1988. He also has run Oslo University Nordic Maritime Institute in 1986. He did court training 1990-91 and Helsinki University EU-expert training 1994. He published research on EU Market Protection Mechanisms at Finnish Lawyers' Association, 1994. He did national expert professional training (NEPT) at EMSA in 2012. Since 2015 he has been a Turku University post graduate doctoral student on subject "VTS liability issues". He is specialized to transport and maritime legislation and has in-depth experience in handling international administrative matters for more than 30 years. His employment history includes working at private shipping companies as forwarding agent, P&I- and H&M insurance specialist and maritime lawyer. Since 1989 he has worked at the administration, Finnish Maritime Administration as Secretary for international affairs, Deputy director and Chief of legal department. Since 2010 he has worked as legal counsel at the Finnish Transport Infrastructure Agency. He has represented Finland at committees and subcommittees of IMO since 1989. He regularly represents Finland at the Legal Advisory Panel (LaP) of IALA.



Raul S. ESCALANTE

Hidrovia SA
Aids to Navigation Manager
Argentina

BIOGRAPHY

Civil Engineer

Member since 2002 of the ARM (previously ANM) IALA Committee

Has participated presenting papers at IALA's Conferences since Hamburg, Germany (1998) till Incheon, South Korea (2018)

Aids to Navigation Manager of HIDROVIA SA in charge of the AtoN of the main waterway of Argentina with 1,600 km of extension from 1995 till 2021

Director of the Postgraduate School of Port Engineering, Faculty of Engineering, University of Buenos Aires

Director of the ATO IALA – Hidrovia AtoN Academy of Argentina

Member of the National Academy of Engineering of Argentina

Antonella FERRO

Canadian Coast Guard
Director of Marine Navigation Programs
Canada

BIOGRAPHY

Antonella is the Director, Marine Navigation Programs within the Fleet and Maritime Services Directorate at the Canadian Coast Guard. Her team manages the operational and program policy work for the 4 marine navigation programs and e-Navigation.

Antonella joined Coast Guard in 2000 as a Marine Communications and Traffic Services Officer and has more than 20 years public service experience. Within CCG, Antonella has held roles with increasing responsibility including acting at the executive level and in various management roles within Maritime Security; Oceans Protection Plan (OPP) Implementation Team; and, Marine Navigation Branch. Antonella has extensive policy, operational, and program implementation experience.

Antonella holds a Masters of Public Administration from Lake Superior State University and a Bachelor of Arts Sociology/Criminology from the University of Windsor; and, she completed the National Security Programme at the Canadian Forces College in Toronto, Ontario.



Sebastian Feuerstack

German Aerospace Center
Dr.
Germany

BIOGRAPHY

Sebastian holds a PhD in Computer Science from the Technical University of Berlin, specialising in Artificial Intelligence. He leads a research group at the Institute of Systems Engineering for Future Mobility that operates eMIR, a maritime testbed in the German Bight connecting several major ports to validate and verify highly automated and autonomous shipping systems. He also supports the Federal Waterways Engineering and Research Institute in the development of open digital testbeds on German waterways for the development and testing of autonomous inland and short sea vessels.

His research interests are the design and evaluation of validation and verification methods for the certification of highly automated systems based on simulations and experiments in the maritime testbed. To this end, his group runs several projects with industry and federal authorities to test on-board systems such as ECIDS, collision avoidance, berthing assistance and shore-based VTS systems for automated anomaly detection, traffic management and automated interaction between the two.



Michele FIORINI

Leonardo S.p.A.
Principal Engineer
Italy

BIOGRAPHY

Educated at Ancona (Italy), Bath (United Kingdom) and Gdańsk (Poland) Universities, Michele Fiorini holds a Ph.D. in electronic and telecommunications engineering and an M.B.A. in strategy, programme and project management. He is a principal engineer for Leonardo S.p.A. in Rome (Italy) where he has been product owner (consortium leader) for the realisation of the “Zautomatyzowany System Radarowego Nadzoru (ZSRN) polskich obszarów morskich / Automatic National System of Radar Control for Maritime Areas of Poland” realized by Selex – Sistemi Integrati (now Leonardo s.p.a.) in consortium with local partners (2012-16). In June 2018 Dr Fiorini was invited to provide a special lecture and advices at Mokpo National Maritime University (MMU), Republic of Korea, on how to solve navigational risk based on vulnerability of maritime accidents for e-navigation. Recently he joined the industrial team of experts working on the implementation of the European Defence Industrial Development Programme (EDIDP) supporting the competitiveness and innovation capacity of the European Union’s defence industry. Michele Fiorini is author of tens of peer-reviewed papers and two co-edited books for the IET Transportation series: ICT Solutions and Digitalisation in Ports and Shipping (2021) and Clean Mobility and Intelligent Transport Systems (2015). He has been a session chair at the 2013 Euro-Asia Economic Forum in Xi’an, China; chair of the Council at the Institution of Engineering and Technology (IET) in London, Savoy Place (2017–18); and is an IALA Industrial Member since 2008.



YAO Gaole

China Maritime Safety Administration (CHINA MSA)
Senior Engineer
The Peoples’ Republic of China

BIOGRAPHY

Yao Gaole is a senior engineer, specializing in the research and application of digital navigation. He joined the National AIS Centre in 2009 as one of its earliest members. For over 10 years, he has involved in eight AIS construction projects dedicated to improving the operational reliability and application efficiency of Chinese AIS system. He is also responsible for several projects on e-Navigation, VDES and R-mode, as well as developing testbeds and carrying out related verification. Meanwhile, Yao has participated in nine IALA committee sessions, contributing five inputs as a lead author.



Maureen GARZEND

Mobilis
Doctor of Philosophy
France

BIOGRAPHY

After a scientific baccalaureate with a mathematical science option and two years of scientific preparatory classes, I did a philosophy thesis, working on the deep connection between science and philosophy. This thesis was completed at Aix-Marseille University (France) and the University of Florence (Italy). The goal of this study was to demonstrate the enduring connection between science and philosophy across various historical periods, with a particular emphasis on how the Renaissance marked a significant turning point in the evolution of intellectual thought. Philosophy allows for a step back and a new perspective on science. Afterwards, in order to be prepared for the professional world, I obtained a master degree in general management at IAE Aix-Marseille Graduate School of Management. I was able to follow this master degree in alternation and integrate the company MOBILIS at the end of 2020, where I am still employed.

I have been working in Mobilis' sales department for 2 years, and am also responsible for creating documentation that demonstrates the longevity of our Aids To Navigation equipment. In relation to this task, I collaborate with one of Mobilis' engineers who is responsible for conducting lifespan analysis on all products manufactured at our factory in France. I have the chance to be a part of large-scale projects and I can measure the impact of the provided solutions all around the world. Therefore, the topic of sustainability has become crucial, and ensuring sustainable practices in the provision of aids for maritime navigation is a significant challenge.



Stefan GEWIES

German Aerospace Center (DLR)
Dr., Head of Maritime Services Working Group
Germany

BIOGRAPHY

Stefan Gewies received the Diploma degree in physics from the University of Heidelberg, in 2003. He graduated from the University of Heidelberg, in 2009, with a focus on the topic of modelling solid oxide fuel cells with Ni/YSZ cermet anodes.

He joined the German Aerospace Center, Institute of Communications and Navigation, in 2009, where he started working on GNSS applications and further development of the GNSS experimentation and verification network E-VENT. Since 2015, he has been led the working group Maritime Services of the department Nautical Systems. As a member of the IALA ENG and ENAV committee, he works on the standardization of R-Mode. His research interest includes GNSS and maritime terrestrial navigation systems.



Dr. Seung-Gi GUG

Korea Maritime and Ocean University / Division of Coast Guard Studies
Professor
Republic of Korea

BIOGRAPHY

EDUCATION

1998 Doctor of Engineering(Hydraulic Civil Engineering), Graduate School, Kyushu University (Japan)
1993 Master of Engineering(Marine Transportation Engineering), Graduate School, Korea Maritime and Ocean University(formerly Korea Maritime University)
1986 Bachelor of Engineering(Nautical Science), Korea Maritime and Ocean University

CAREER HISTORY

1998-Present Professor, Division of Coast Guard Studies, Korea Maritime and Ocean University
1992-1994 Instructor & Officer, Training Ship, Korea Maritime and Ocean University
1990-1992 Assistant Instructor, Korea Maritime and Ocean University
1986-1989 Ship Officer, Hanjin Shipping

ASSIGNED DUTIES

2012-2014 Chief Executive Officer of R&D Business Foundation
2010-2012 Director of Marine Venture Development Center
2007-2008 Deputy Director General of Planning Affairs
2001-2003, 2010-2012, 2020-2022 Head of Department of Coast Guard Studies
2006-Present Head of Aids of Navigation Research Group, Research Institute of Maritime Industry
2014-Present Academic Advisor of Dormitory for Boarding Life
1999-2000 Director of Teaching and Learning of Training Ship

EXTERNAL ACTIVITIES

2021-2022 President of Korea Institute of Navigation and Port Research
2015-Present Chairman of Board Meeting, IALA Worldwide Academy
2014-Present Nonpermanent Executive Board Member, Korea Association of Aids to Navigation
1998-Present Secretary General, Korea Institute of Navigation and Port Research(KINPR)
2008-2009 Sabbatical Professor of TRITINY HOUSE(General Lighthouse Authorities)
2006-Present Chairman of Far East Radio navigation Service(FERNS) Technical Working Group
2004-Present Korea Governmental Advisor to IALA(Council Meeting, Technical Committees)

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Nick GOETHALS

Flemish Government
Agency for Maritime and Coastal Services
Shipping Assistance Division
Project Engineer
Belgium

BIOGRAPHY

Ing. Nick Goethals graduated from the VIVES school in 2000 as a master in electromechanics. He started his career in the Flemish Government where he was responsible for the design and roll out of the fiber network and backbone. In 2009 he decided to join the Shipping Assistance Division where he became responsible for the management of equipment external to the Scheldt Radar Chain, such as the Maritime Rescue and Coordination Center (MRCC) in Ostend, or projects associated with the VTS investments in the Flemish maritime ports. From 2012 he became also responsible for the management and maintenance of the fixed AtoNs in the Flemish Coast harbors.

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Rodrigo GONZÁLEZ

European Satellite Services Provider (ESSP SaS)
Mission Evolution Expert
Spain

BIOGRAPHY

Mr. Rodrigo González holds a M. Sc. Degree in Aeronautical Engineering from the Universidad Politécnica of Madrid (UPM). Since 2009, he has been working in the ESSP SAS providing support for the analysis and assessment of EGNOS performances. He has been in charge of different technical activities related mainly to support to in-service and major system evolutions of EGNOS programme. Finally, he is in charge of ESSP receiver laboratory and responsible of GNSS receiver platform configuration control as well as monitoring, analysing and reporting of GNSS receiver platform performance. In parallel, he has been participating in several H2020 projects, ESSP projects related with positioning in multimodal domains (aeronautical, maritime, railway, agriculture, drones) and in GNSS standardisation forums such as EUROCAE, RTCA and IEC. He is the main responsible of performing EGNOS data campaigns mainly in maritime domain and presenting their results in the corresponding GNSS events.



Alan GRANT

The General Lighthouse Authorities of the UK and Ireland
Head of Research and Development
UK and Ireland

BIOGRAPHY

Dr Alan Grant is Head of Research and Development at the General Lighthouse Authorities of the UK and Ireland (GLA). He leads the highly skilled research and development team (GRAD), which works with national and international stakeholders to improve maritime safety through the development of innovative and cost effective maritime Aids-to-Navigation.

Alan has supported the work of IALA for many years and is the out-going chair of the ENG Radionavigation services working group, having been in the role for the last decade. He is as a Fellow and Council member of the Royal Institute of Navigation (RIN), a member of the US Institute of Navigation (ION) and is a Chartered Engineer and a Chartered Physicist.

Dr Grant has written and co-authored over 120 journal papers, magazine articles and conference papers over the course of 20+ years' experience in this sector.



Lars Grundhöfer

German Aerospace Center (DLR)
M.Sc Research Associated
Germany

BIOGRAPHY

Lars Grundhöfer received the B.Sc. and M.Sc. degrees in electrical engineering from the Harburg University of Technology, Hamburg, Germany, in 2015 and 2017, respectively. He is currently working as a Scientist for the German Aerospace Center, Institute of Communications and Navigation and is aiming for a doctorate at TU Ilmenau. His current research interest focuses on terrestrial maritime navigation in the medium-frequency band. For this research, he has previously published work on signal processing and signal propagation of medium frequency signals.



Colin Guiking

MARIN

Human Factor specialist

The Kingdom of the Netherlands

BIOGRAPHY

Human Factor specialist at MARIN, involved with Human-Machine teaming/ interaction and human performance research. I have a background in cognitive psychology, which focuses on human information processing as a framework to guide and explain human behaviour. I have experience with defining and delivering Human Factor work in technology development projects and in designing and testing new decision-support tools. My most profound interest is how human work can be enriched and improved by using the latest or upcoming technology, from a human-central perspective considering human possibilities and restrictions, and sense-making. In the past five years, I have investigated human performance in complex systems concerning topics such as measuring workload and situational awareness, cognitive task design, training optimisation and mapping operational behaviour. For the largest ports in the Kingdom of the Netherlands, I have been involved with VTS research on the workload of VTS operators and investigating how VTS operators can be helped in their tasks through automation, such as with decision-support tools.



Younghoon HAN

Korea Research Institute of Ships & Ocean Engineering (KRISO) / Ocean & Maritime Digital Technology Research Division

Senior Research Engineer

Republic of Korea

BIOGRAPHY

Younghoon Han is a senior research engineer in the Ocean & Maritime Digital Technology Research Division at Korea Research Institute of Ships and Ocean Engineering (KRISO). He received his B.S. in Electronics Engineering and M.S. in Control and Navigation Systems from Chungnam National University, Republic of Korea. He has been involved in several maritime Positioning, Navigation and Timing (PNT) research and development projects: Development of eLoran system, Development of foundation technologies of GNSS/INS/eLoran integrated navigation for maritime precise tasks, Development of R-Mode system and so on. His research interests are radio based safe navigation technologies for maritime application especially as eLoran and R-Mode.



Clodagh Hanratty

Commissioners of Irish Lights
Director of Coastal Operations
Ireland

BIOGRAPHY

Clodagh Hanratty joined the Commissioners of Irish Lights in early 2023 as Director of Coastal Operations. Clodagh is a Chartered Civil Engineer with expertise in Contract Law, Design, Environmental, Safety and Quality Management.

Clodagh has an extensive career both in Ireland and overseas including the UK, Hong Kong, Thailand and the UAE working at senior level for Civil contractors, Design Consultant and within the Public Sector. She has a wealth of experience in large Civil Engineering projects including Metros, Road Infrastructure and Marine works together with public works building projects.

Clodagh leads the Coastal Operations, Property Management, Safety and Quality, Support and Planning and Commercial Services teams in Irish Lights.



Greg HANSEN

Australian Maritime Safety Authority
Principal Advisor AtoN Engineering
Australia

BIOGRAPHY

Greg Hansen is Principal Advisor AtoN Engineering at Australian Maritime Safety Authority, and manages the asset management, engineering, and project delivery functions relating to AtoN and emergency response assets. Greg has 30 plus years' experience in the engineering sector primarily in the maritime field, covering areas such as marine aid to navigation, defence ordnance, ship construction / repair and renewable energy.

Greg holds a Bachelor Engineering specialising in Marine & Offshore Systems (which incorporates mechanical, electrical, systems, and civil engineering disciplines). And has achieved chartered engineering status in, Marine and Offshore Systems, and Marine Engineering.

Greg has been working with AtoN for over 15 years, has been involved in the renewal of major maintenance services contracts, development of strategic asset management plans, heritage asset refurbishment programs, implementation of new technology, standardisation and building resilience of structural assets.

Greg represents Australia at IALA Engineering and Sustainability Committee.



Christopher HARGREAVES

GLA R&D (GRAD)
R&D Engineer
UK

BIOGRAPHY

Chris is an R&D engineer working in the field of GNSS integrity, interference detection and Resilient PNT. He has developed and trialled a number of alternative (non GNSS) navigation technologies for merchant shipping, including several years working on the UK's eLoran project.

He holds a Master's degree in Mathematics and Physics from the Durham University and a Master's degree in Navigation Technology from University of Nottingham. He spent time at sea as a navigation cadet with Trinity House before joining GRAD.



Samuel HAWKINS

Australian Maritime Safety Authority
Senior Advisor Nautical and Hydrography
Australia

BIOGRAPHY

Sam is a Master Mariner (Class 1) with over twenty years' experience in the Australian domestic and international maritime industry. He has served on a wide variety of vessels including chemical tankers, self-discharging bulk carriers, roll-on roll-off cargo ships and large modern cruise ships.

In 2021 Sam worked as Principal Advisor Maritime Safety for the South Australian Department of Infrastructure and Transport, before starting with The Australian Maritime Safety Authority (AMSA) in February 2022. In his role at AMSA he is responsible for the provision of high-level nautical advice, with a focus on marine aids to navigation and hydrography.

Sam has a graduate certificate in international maritime law from the University of Wollongong and an advanced diploma of nautical science from the Australian Maritime College. Sam is an Associate Fellow of the Nautical Institute.



Adam HAY

M-NAV SOLUTIONS / INOVATON

Director

Australia / Hong Kong / Philippines

BIOGRAPHY

Adam Hay has worked in the AtoN and maritime safety industry for the last 18 years, predominantly in the Asia Pacific region. During that time, he was involved in the design, installation, maintenance and management of remote AtoN and maritime surveillance infrastructure and in assisting in the building of regional capacity. Adam is now Director of M-NAV Solutions, an AtoN and IALA Industrial Member based in the Australia, the Philippines and Hong Kong. In 2021, Adam also co-founded Inovaton Limited to develop, design, and manufacture innovative products for the maritime safety and maritime surveillance industries. Adam has had extensive involvement in IALA activities, acting as Chairman of Working Group 2 in the IALA Engineering and Sustainability Committee (ENG) for 2014 - 2018. He has also attained the IALA Master of Marine Aids to Navigation Management qualification.



GAO Hanzeng

China Maritime Safety Administration (CHINA MSA)

Director/Senior engineer

The Peoples' Republic of China

BIOGRAPHY

Mr. Gao Hanzeng is a senior engineer in the field of AtoN management. He is the director of Tianjin Science and Technology Center of AtoN and Hydrography of Northern Navigation Service Center of CHINA MSA. He has been working in navigation field for 26 years and has participated in 2 national projects including the Project of Key Technologies of Ship Intelligent Navigation and Control Based on Ship-Shore Cooperation. He has won 4 awards at the provincial and ministerial level, among which, the achievement of "Development and Application of Maritime Service Information Platform with Complete Data Fusion" won the first prize of the China Institute of Navigation for Science and Technology Progress. He has been in charge of drafting 5 strategic plans including the Development Strategy of the Northern Navigation Service Center (2021-2035) and 2 industrial standards, including Radio Beacon-Differential Loran System Broadcasting Data Format. He compiled one official publication and published 12 academic papers. Under his guidance, 7 proposals including Progress on the Study of RBN-based Differential Loran-C Technologies have been submitted to the committees of the IALA.



Mónica HERRERO

Mediterráneo Señales Marítimas S.L. (MSM)
Commercial Vice-president MSM
Spain

BIOGRAPHY

Ms. Mónica Herrero joined MSM as Product Manager Marketing in 2013 working mostly with LataM markets. In 2017 she was appointed as Business Development Manager and in 2022 as Commercial Vice-president. She has an active participation in IALA ENG Committees driving the revision of existing guidelines and drafting of new ones, redaction of input papers under IALA scheme and presentation of her experience as ATO in IALA WWA, in charge of the management and organisation of the Level 2 Model Course of MSM. In addition, she is involved in the development of strategic relationships with customers and other stakeholders participating in international events and organisations (National Maritime Authorities, IALA, IHMA, etc.).

Peter HILL

Estate Manager
Trinity House
United Kingdom

BIOGRAPHY

Peter Hill has been Estate Manager to Trinity House in the UK since 2015 and is a chartered member of the Royal Town Planning Institute. With a previous professional background assessing applications for new development and for alterations to protected heritage buildings, the heritage aspect of lighthouses inevitably drew his interest. Since 2019, Peter has been Chair of Working Group Four (Heritage & Culture) of IALA's Engineering Committee.



Michael Hoppe

Federal Waterways and Shipping Agency
National and International Standards and Norms in Traffic Technology Division
Dipl.-Ing.
Germany

BIOGRAPHY

Michael Hoppe received his diploma as a radio engineer in 1990.

Since 1991 he has been working for the German Federal Waterways and Shipping Administration in various positions. He is responsible for the field of radio navigation systems for maritime and inland waterways applications. Michael Hoppe is a member of various national and international working groups dealing with development and standardization of integrated PNT systems. At present, he is acting as vice chair of the PNT WG within the IALA Engineering Committee. Since 2010, Michael Hoppe has been in charge of several research and development projects as a project manager, with a focus on “Automation of Inland Navigation” and “Provision of Alternative GNSS Systems (e.g. R-Mode)”.



Sang Hyun PARK

Korea Research Institute of Ships and Ocean Engineering/ Maritime PNT Research Office
Head (Ph.D.)
Republic of Korea

BIOGRAPHY

Dr. Sang Hyun PARK is a prominent researcher and expert in the field of maritime positioning, navigation, and timing (PNT). He currently serves as the head of the Maritime PNT Research Office at the Korea Research Institute of Ships & Ocean Engineering (KRISO), a government-funded research institute in Republic of Korea.

Dr. Park received his Ph.D. in Electrical Engineering from the Chungnam National University, Republic of Korea in 2002. He had worked as a senior research engineer at Automotive Electronic R&D Centre for the Hyundai-Kia Motors. He has since focused his research on PNT, with a particular emphasis on the development of advanced PNT systems for maritime applications.

Dr. Park has been recognized for his contributions to the field of PNT, having received several awards and honors throughout his career. In 2008, he was awarded the Best Presentation Award at the Institute of Navigation GNSS Conference, and in 2015, he received the Award from the Minister of Ministry of Oceans and Fisheries for his research in maritime PNT.

As head of the Maritime PNT research office at KRISO, Dr. Park is responsible for leading and coordinating research efforts in the field of marine PNT. He is known for his expertise in the development and implementation of new PNT technologies. His current research interests focus on precise positioning & navigation service, resilient PNT, and cyber security for maritime safety.



Alan JACOBSEN

Federal Waterways and Shipping Administration
Head of Department “Principles of Traffic Technology”
Germany

BIOGRAPHY

Mr. Alan Jacobsen was born in 1983, and in 2003, he joined the Federal Armed Forces. As an IT-Officer in the signal troop, he studied Electrical Engineering at the University of the Federal Armed Forces in Hamburg and received his diploma in 2010.

In 2012, he joined the Federal Waterways and Shipping Agency and initially worked as an IT Security Officer for the Maritime Traffic Technology System.

During this time, he graduated with a master degree in Business Administration at the Private University of Applied Sciences in Göttingen in 2014. There he dealt intensively with the topic of business continuity management.

In 2020, he was appointed to the Information Security Officer for Traffic Technology and Deputy Head of the Department for Principles of Traffic Technology. There he was also responsible for information security of the VTS centres in the maritime domain and the river headquarters of the inland waterways as a part of critical infrastructures.

Since 2021, he is the Head of the Department for Principles of Traffic Technology, which is also responsible for the topic of information security for traffic technology.



Unkyu JANG

Korea Institute of Maritime and Fisheries Technology
VTS English Communication Proficiency Criteria Based on G1132 VTS VHF
Voice Communication
Republic of Korea

BIOGRAPHY

Dr. Jang Unkyu has been a professor at KIMFT (Korea Institute of Maritime and Fisheries Technology) since 2001 and former Head of Education.

He is the lead professor for VTS Operator training and Passenger ship training courses.

Since 1994 he has worked as a Chief officer at Hanjin Shipping, onboarding container ships and LNG carriers. Professor Jang is the first ECDIS Trainer in Korea and also an ISPS Trainer.

He has been conducting various research such as national R&D on Maritime Autonomous Surface of Ships (MASS), e-Navigation, VTS, Human factors, and Core Competencies of VTS Operators.

He serves as an advisor to the Korean government and Korean Coast Guard on maritime sector policy, regulatory improvement, and maritime education in Busan Metropolitan City.

He has contributed to the training of Seafarers and VTS operators and has carried out various international activities in cooperation with IMO and IALA.



Dr. You-Rak JANG

Korea Maritime and Ocean University / Korea Coast Guard Policy, Research and Development Center
Senior Researcher
Republic of Korea

BIOGRAPHY

EDUCATION

2021 Doctor of Philosophy in Law, Korea Maritime and Ocean University
2019 Master of Laws, Korea Maritime and Ocean University
2007 Bachelor of business (Maritime Insurance), Korea Maritime and Ocean University(formerly Korea Maritime University)

CAREER HISTORY

2022-Present Senior Researcher of Korea Coast Guard Policy, Research and Development Center
2022-Present Lecturer of Korea Institute of Maritime and Fisheries Technology
2022-Present Lecturer of Republic of Korea Naval Academy
2020-Present Lecturer of Division of Navigation Convergence Studies
2012-2016 Ship's Officer(Chief Mate), Hyundai Merchant Marine co.

EXTERNAL ACTIVITIES

2021-Present The Public Safety Inspector of Ministry of Oceans and Fisheries
2019-Present Director of the Korea Institute of Maritime Law
2017-2019 The Secretary-general of the Korea Institute of Maritime Law
2011 Intern for International Maritime Organization
2011 Intern for United State Coast Guard in New-York Sector
2010-2011 Exchange Student of United States Merchant Marine Academy
2007-2009 Researcher of International Maritime Information Research Center

CONTACT DETAILS

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Minsu JEON

IALA

Technical operations manager

BIOGRAPHY

As the Technical Operations Manager at IALA, Minsu JEON is tasked with supporting and coordinating the efforts of technical Committees and serving as a technical representative for IALA in international organizations such as IMO, IHO, PIANC, and others. Prior to joining IALA, Minsu held the position of Regional Safety Navigation Adviser at the Pacific Community (SPC) in Fiji, playing a key role in enhancing safety awareness and standards throughout the Pacific region. Before 2016, Minsu was also affiliated with the Korea Institute of Aids to Navigation (KAtoN).

PRESENTATION TITLE

Building and delivering e-Navigation services

ABSTRACT

This presentation examines the process of building and delivering e-Navigation services to enhance safety, efficiency, and environmental sustainability in the maritime industry, with a focus on the S-100 data model. It starts by outlining the key components of e-Navigation, such as AIS, ECDIS, and VDES, and the significance of stakeholder collaboration in establishing unified global standards and guidelines. The presentation explains the maritime services in the context of e-Navigation, the role of technical services, and the utilization of data modelling through the S-100 framework. Emphasis is placed on the building and delivering of e-Navigation services, exploring the importance of user-centric solutions and effective communication channels while integrating technical services based on the S-100 data model. The presentation also demonstrates the real-world benefits of e-Navigation services through relevant case studies, highlighting improved situational awareness, optimized route planning, and reduced operational costs. By adopting e-Navigation services and leveraging S-100 data modelling, the maritime sector can navigate towards a more secure and sustainable future.



Wei JIANG

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Yuanshen Road, Pudong, Shanghai 200120, China

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Country:China

BIOGRAPHY

Wei Jiang has a master's degree in Engineering information. Since 2009 she has been in engineering, designing and researching aids to navigation. She has been engaged in the design and aids to navigation engineering System in CCCC Shanghai Waterway Engineering Design and Consulting Co., Ltd for 14 years. The project she participated in has won the medal of China's national design. She also participated in the preparation of many Chinese national standards.



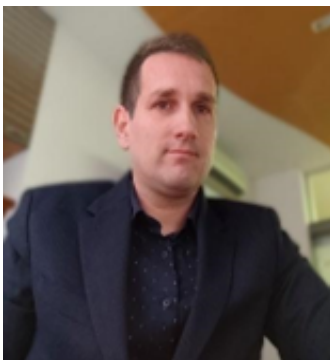
Daniel Karbach

Federal Waterways and Shipping Agency
National and International Standards and Norms in Traffic Technology Division
M.Eng.
Germany

BIOGRAPHY

Daniel Karbach received his M.Eng. in Systems Engineering from the University of applied Sciences in Koblenz in 2016.

Since 2021, he has been employed in the Waterways and Shipping Administration Germany in the section of “National and International Standards and Norms in Traffic Technology”. The focus of his work is on standardization as well as on testing VDES on inland waterways. Furthermore, he is involved in national and international research projects with both academic and industrial partners within the context VDES.



Ivan KARIN

Plovput d.o.o.
Director of Safety of Navigation Department
Croatia

BIOGRAPHY

Ivan Karin was born in Split, Croatia on February 17, 1986., he is married, and he has two children. He graduated from the Faculty of Maritime studies in Split, which he graduated with great results. After that, he continued his education at the same college, doctoral studies in maritime technology, with a topic closely related to the safety of navigation at sea.

Since 2010., he has been working at Plovput d.o.o. in different workplaces related to navigation safety and radio service on the Croatian part of the Adriatic. Based on that, he gained a lot of experience in GMDSS, communications, ship engineering, and radio and marine engineering. For the past six years, he has been working as the director of the Construction and maintenance department, and for the last two and a half years, he has been the director of the Safety of navigation department. In the mentioned period, he considers, it's important to emphasize Plovput's implementation of AIS and DSC systems, the renovation of several maritime lighthouses throughout the Adriatic, but also the design and production of the Plovput's buoy.

Also, it is important to highlight the publication of more than ten international scientific papers. As a rule, all the above are related to the safety of navigation at sea. The contribution of published works is often used for regular work in Plovput.



Ranxuan Ke

AtoN Research Centre of Jimei University
Professor , Doctor
China

BIOGRAPHY

She is PhD on Management Science and Prof. with long term research on Technology application on AtoN. She was offered Lever-1 AtoN manager certificate from IALA in Aug. 2015 and after that, engaged in ARM committee. Later from 2020, she also participates in ENG committee.



Andreas Keller

NNVO foundation
Mr.
Netherlands

BIOGRAPHY

60 years old, born in Rotterdam.

Working experience:

1989 – 2008 VTS-Operator Port of Rotterdam

2008 – 2012 Teacher school for inland navigation

2012- current Head of VTS-training NNVO

Since 2021 member of the Dutch IALA delegation in working group 3 VTS training.

Our foundation is responsible for the VTS training in the Netherlands.

In recent years we developed an E-learning (Poseidon) for VTS trainees where they are able to train basic skills that are usually trained on a simulator. Last November Poseidon won two golden Learning Technology Awards in London.



Pärtel Keskküla

Estonian Transport Administration
Chief specialist
Estonia

BIOGRAPHY

I graduated from the Estonian Maritime Academy in 1997 and got a diploma in Hydrography. In the same year I started working in Estonian Maritime Administration (since 2021 Estonian Transport Administration, covering now also administering of roads and aviation). My specialities include design of fairways and design of AtoN from the viewpoint of navigational requirements. Since 2015, I have been participating in the work of the ENG committee. I also give lectures at the Estonian Maritime Academy of Tallinn Technical University and, on a voluntary basis, I participate in the work of the Estonian Maritime Terminology Council.



Jonghun KIM

Paichai University / Appenzeller-Noble Memorial Museum
Professor/ Director
South Korea

BIOGRAPHY

Jonghun Kim is a professor at Paichai University and director of Appenzeller / Noble Memorial Museum. He is an advisor to the Cultural Heritage Administration of Korea. He was the 4th President of Docomomo Korea which is the Korean chapter of Docomomo International (International committee for Documentation and Conservation of buildings, sites and neighbourhoods of the Modern Movement).

Jonghun graduated with a Ph. D in Architecture from Korea University South Korea, with a thesis on the subject of ' The Development of Korean Transportation Architecture ' and was a visiting scholar at MIT from 2004 to 2006.

Jonghun Kim has worked widely for preservation projects of cultural heritages. He has published in various books, magazines, and edited conference proceedings. He is the chairman of the Lighthouse Cultural Heritage Committee of the Ministry of Oceans and Fisheries in Korea.



Song-Yi Kim

Korea Institute of Aids to Navigation / National Lighthouse Museum
Embracing history and the future, the rebirth of the National Lighthouse Museum
Republic of Korea

BIOGRAPHY

Korea Institute of Aids to Navigation (Senior Curator, 2019. 11.- Present)
Hanyang University (Master degree, 2014. Feb)
Museum Education major



Yunjee Kim

Korea Research Institute of Ships & Ocean engineering(KRISO) / Researcher
Ms.
Republic of Korea

BIOGRAPHY

Yunjee Kim has been working as the researcher of the Korea Research Institute of Ships and Ocean Engineering (KRISO) since 2020.
She holds a Master degree in Earth and Environmental Sciences(especially remote sensing) from Seoul National University in Korea.
She is in charge of marine spatial information at KRISO, and is conducting SMART Aton and connectivity technology development projects from 2021. She has also been attending IALA ARM meetings since the 13th ARM meeting.



Mads Ulrik KRISTOFFERSEN

Terma

Senior Product Manager, SCANTER Radar Systems

Denmark

BIOGRAPHY

Mads Ulrik Kristoffersen holds a position as Senior Product Manager within Terma's Radar Product Management team. His main areas of responsibility include the product strategy for radar sensors targeting the Vessel Traffic Services (VTS) and Coastal Surveillance (CS) markets as well as the associated product portfolio: the SCANTER 5000 and 6000 Series radar systems, target tracking and classification products and software technology platforms.

During his more than 17 years of combined experience with the radar markets, radar systems and radar product development, he has been influential in the development of Terma's current radar product lines, having prior to his current position served as Director of Radar Software development within Terma R&D for a period of 5 years and, prior to that, as Software Architect for 7 years.

Terma is a long time Industrial Member of IALA and participant in the VTS committee. Mads has since 2021 joined this work as a Terma representative.

Mads holds an MSc in Computer Science from Aarhus University, Denmark.



Daniel Kyeong

Yonsei University

Proposal of communication coverage extension technology through relay technology in marine environment

Korea

BIOGRAPHY

Daniel Kyeong Jea Lee received the B.S. degree from Gachon University, Korea, in 2018. He is currently pursuing the Ph.D. degree in electrical and electronic engineering from Yonsei University, Seoul, South Korea. His primary research interest is to develop and analyse wireless communication systems of optimization and relaying.



Mariano Luis Marpegan

Emepa S.A. Aids to Navigation
Civil Engineer
Argentina

BIOGRAPHY

Formal studies

Electromechanical Technician- Civil Engineer- Post Specialization Course in Port Engineering

Courses and seminars

Argentine Congress of Port Engineering- General Course Dredging – Seminars of Inlands Waterways, AIS AtoN - Dredging and environment.

Member of the IALA Engineering Committee (ENG) since 2011 to date.

Published works

Bulletin IALA - (2012 – 2014 – 2017 – 2018 - 2021) - Implementation of AIS-AtoN in Argentine Antarctic - Antifouling paints in aids to navigation and marine structures – AIS-AtoN with transmission of meteorological data – Evolution of Accredited Training Organizations (ATO) during the global pandemic by Covid-19.

Professional experience

Head of Technical Department of AtoN Management of Hidrovia S.A. from 2008 until March 2015 - Technical Manager of AtoN Management of Hidrovia S.A. from 2015 until 2021. Actually, Technical Manager of AtoN Management of Emepa S.A.

Extensive experience in comprehensive coordination of tasks bathymetric survey in the Parana river. Coordinated the implementation and operation of the most important hydrometric network in Latin America with thirty-six (36) stations installed along the Parana River and Rio de la Plata. Responsible for the operational coordination of vessels engaged in the maintenance of the waterway and survey tasks.

Since 2017 General Coordinator and Teacher of the L2 Model Courses for Spanish-speaking technical personnel taught by the Hidrovía Academy of Aids to Navigation- Accredited Training Organization of World-Wide Academy (IALA-WWA).

Internal auditor for Certification of Quality System ISO 9001: 2015.



Captain Valtteri LAINE

Finnish Transport and Communications Agency
Chief Advisor
Finland

BIOGRAPHY

Captain Valtteri Laine is a Chief Advisor at the Finnish Transport and Communications Agency (Traficom). His specific areas of expertise involve maritime safety and risk management, maritime autonomous surface ships and cooperation in maritime organizations at national, regional and international level.

Before his current assignment at Traficom, Laine has worked for more than 30 years in various positions and organizations in the maritime field. These include but are not limited to the duties of chief officer in cargo and cruise ships, as well as the duties of competent pilotage authority of Finland. The list of his earlier employers comprises, for example, Spliethoff BV, Princess Cruises Ltd. and Finnish Maritime Administration. Some years ago, Laine was also managing a project in the Helsinki Commission to provide new risk assessment tools and processes for the European Response authorities. The work in this context was carried out in close cooperation with the IALA-AISM personnel.

In addition to his comprehensive work experience in the maritime field, Laine has an extensive educational background. He holds the diplomas of Master Mariner and Master of Science, and conducts currently his doctoral studies at the Aalto University, Finland. When not working with the maritime administrative tasks or academic studies, Laine is an avid traveller and loves spending time in the great outdoors with his dog. It goes without saying that this dog named Luka is a Skipper dog.



Michele LANDI

Coast Guard / VTMIS Training Centre
Lieutenant Commander
Italy

BIOGRAPHY

Michele Landi is a Lieutenant Commander of Italian Coast Guard, currently employed as coordinator of VTS education at Coast Guard VTMIS Training Centre, previous experiences as VTS manager and Search and Rescue response officer.

Specialised in VTS, as operator and supervisor, in search and rescue, as mission coordinator, Michele has proficiencies in Risk Management and Quality Management Systems. He is a member of the National Working Group for assessment of navigational risks and has been participating in the IALA VTS committee, as a national member, since 2012.

Author of several articles related to the VTS, published in Italian scientific journals dealing with transport and maritime, air and aerospace navigation law.



Chungjin Lee

Korea Institute of Aids to Navigation / AtoN R&D Center
Development of the technology of AtoN in Korea for the 4th industrial revolution
Republic of Korea

BIOGRAPHY

Korea Institute of Aids to Navigation (Senior Researcher, 2022. 10- Present)
Korea Polytechnic University (all but dissertation, 2020. Feb)
Information and Communication Engineering major
Korea Polytechnic University (Master degree, 2018. Feb)
Electrical Engineering major
Korea Polytechnic University (Bachelor's degree, 2015. Feb)
Electrical Engineering major

Sak LEE

National Maritime PNT Office(NMPNT) / PNT Technology Division
Maritime PNT R&D project Manager
Republic of Korea

BIOGRAPHY

Sak Lee is a Maritime PNT R&D project manager in the PNT Technology Division at National Maritime PNT Office(NMPNT). He received his B.S. in Radio Wave Engineering from National KOREA Maritime & Ocean University and M.S. in Information Communication Systems from Chungnam National University, Republic of Korea. He has been involved in several maritime Positioning, Navigation and Timing (PNT) research and development projects: Development of eLoran system, Development of centimeter-level positioning system and so on. His research interests are radio based safe navigation technologies for maritime application and national policies to build a resilient maritime PNT system using eLoran technology.



Weiyun LI

CCCC Shanghai Waterway Engineering Design and Consulting Co., Ltd/ No.850
Yuanshen Road, Pudong, Shanghai 200120, China
Title: Director
Country: China

BIOGRAPHY

Weiyun LI has a master's degree in Communication and Information systems. Since 2007 he has been in engineering, designing and researching aids to navigation. He has been engaged in the design and aids to navigation engineering System in CCCC Shanghai Waterway Engineering Design and Consulting Co., Ltd for 16 years. The project he participated in has won the medal of China's national design. He also participated in the preparation of many Chinese national standards.



LI Yuanhang

China Maritime Safety Administration (CHINA MSA)
VTS Supervisor of Weihai VTS
The Peoples' Republic of China

BIOGRAPHY

LI Yuanhang has been engaged in the vessel traffic management and vessel traffic services in the waters of Chengshan Jiao Promontory since 2010 and has extensive practical experience in the ship's routing system and the mandatory ship reporting system. In 2020 Mr. Li was qualified as a VTS training instructor in compliance with IALA R0103 standard.



Carlos André LOPES-DA-SILVA

Diretoria do Patrimônio Histórico e Documentação da Marinha- Marinha do Brasil- Head of the Department of History
Capitão de Fragata (Quadro Técnico) / Commander (Technical Board)
Brazil

BIOGRAPHY

In 1998, Commander Lopes-da-Silva graduated in History at the State University of Rio de Janeiro (Universidade do Estado do Rio de Janeiro- UERJ), completing a master's degree in Social History at the Federal University of Rio de Janeiro (Universidade Federal do Rio de Janeiro - UFRJ) in 2012. He obtained the degree of specialist in Brazilian Military History at the University Federal of the State of Rio de Janeiro (Universidade Federal do Estado do Rio de Janeiro- UNI-RIO). He is an emeritus member of the Institute of Geography and Military History of Brazil (Instituto de Geografia e História Militar do Brasil – IGHMB) and member of the Laboratory of Military Studies in Politics (LEMP-UFRJ). Since December 2000, he has been a researcher for the Directorate of Historical Heritage and Documentation of the Brazilian Navy (Diretoria do Patrimônio Histórico e Documentação da Marinha – DPHDM). He published several articles in journals specializing in Military History and Maritime History. Currently, he serves as head of the Department of History at DPHDM and is the Editor of the specialized magazine “Navigator: Subsídios para a História Marítima do Brasil” (<https://www.portaldeperiodicos.marinha.mil.br/index.php/navigator>).



Manuel LOPEZ

European Union Agency for the Space Programme (EUSPA)
Sr. Market Development Technology Officer.
Czech Republic

BIOGRAPHY

Manuel Lopez Martinez is Senior Technology Officer in the European Union Agency for the Space Programme (EUSPA), where he is supporting and fostering the adoption of EGNOS, Galileo and Copernicus in Waterborne and Emergency Response Applications. He has deeply contributed to the concept definition of the EGNOS maritime service, the Galileo Emergency Warning Service, and the Galileo Search and Rescue service evolutions. He received his PhD in System Engineering and Automation from the University of Seville in 2005. He got a permanent position as Associate Professor at the University of Seville in 2008, where he was teaching until he joined EUSPA (former GSA) in 2013 as seconded national expert in the Market Downstream and Innovation Department.



XIANG Lu

China Maritime Safety Administration (CHINA MSA)
Director/ Senior Engineer/ Professor
AtoN Research Centre of Jimei University
Honorary director, Tutor for Master
The Peoples' Republic of China

BIOGRAPHY

Mr. Xiang Lu is the Director of Xiamen AtoN Department of Eastern Navigation Service Center of CHINA MSA, engaged in AtoN management for 40 years.

Mr. Xiang led the writing work in 2016 for Guideline of AtoN at the west part of Taiwan Strait, which is the first publication for comprehensive AtoN service in China. As well, his Navigation-aids Information Service in e-Navigation has been one of the papers of 18th IALA Conference.

Mr. Xiang also is the deputy secretary general of AtoN committee of China Institute of Navigation.

This paper is cooperated by technicians of Xiamen AtoN Department and researchers of AtoN Research Centre of Jimei University. After several years remote control data collection with 100% AtoN facilities within jurisdictions of Xiamen AtoN Department, this team applied convex hull algorithm based on big data to obtain the difference between high-frequency position of floating buoy's body and sinker, thus, offering advice and ways of adjusting floating buoy for reference.



Jacques MANCHARD

"Phares de France" Association
Member / Maritime Adviser
France

BIOGRAPHY

Mr. Jacques MANCHARD was born in 1949 in France. He obtained his degree in Public Works from the French State in 1974, was promoted to Chief Engineer of Public Works from the State in 2011 and claimed his retirement rights in 2012.

As head of the French Lighthouses and Beacons office, he was from 1998 to 2011 the representative of France at the International Association of Marine Aids to Navigation and Lighthouse Authorities Council. From 2012 to 2022, as a consultant, he has been IALA Senior Adviser (part-time), in charge of the implementation of the IALA Global Academy's strategy for capacity building and training in Africa.

He is a member of the "Phares de France" Association.



Solange MAJOURAU

Secrétariat d'Etat chargé de la mer / direction générale des affaires maritime, de la pêche et de l'aquaculture
Référente nationale pour la valorisation du patrimoine maritime
National referent for the promotion of maritime heritage at the French directorate for maritime affairs, fishing and aquaculture
FRANCE

BIOGRAPHY

Née en 1962 en France, Docteur en géologie du génie civil et ingénieur hors classe des Travaux Publics de l'État, je suis la référente nationale pour la valorisation du patrimoine maritime à la direction française des affaires maritimes, de la pêche et de l'aquaculture. Je suis aussi, depuis 2012, responsable de la signalisation maritime et de la valorisation du patrimoine des phares et balises de la façade maritime Sud-Atlantique française. A ce titre je suis responsable de l'autorisation d'occupation temporaire du phare et plateau rocheux de Cordouan confiée par l'État au Syndicat Mixte de Développement Durable de l'Estuaire de la Gironde (SMIDDEST) destinée à développer un projet de gestion, de valorisation touristique et d'animation du site de Cordouan.

Depuis 2016, j'ai eu la chance de participer à la totalité des étapes qui ont permis au phare de Cordouan d'être inscrit sur la liste du patrimoine mondial de l'humanité en 2021 au titre de l'année 2020.

Born in 1962 in France, Doctor in civil engineering geology and senior engineer in State Public Works, I am the national referee for the promotion of maritime heritage at the French directorate for maritime affairs, fishing and aquaculture. Since 2012, I have also been responsible for maritime signalling and the enhancement of the heritage of lighthouses and beacons on the French South Atlantic seaboard. As such, I am responsible for the authorization for temporary occupation of the lighthouse and rocky plateau of Cordouan entrusted by the State to the Syndicat Mixte de Développement Durable de l'Estuaire de la Gironde (SMIDDEST) intended to develop a management project, tourist promotion and animation of the Cordouan site.

Since 2016, I have had the chance to participate in all the steps that have allowed the Cordouan lighthouse to be inscribed on the list of World Heritage Sites in 2021 for the year 2020.



José Manuel ALVAREZ

European Satellite Services Provider (ESSP-SAS)
Service Development Manager
Spain

BIOGRAPHY

José Manuel Álvarez López holds a M. Sc. degree in Aeronautical Engineering, a Master's degree in Aerospace Engineering from the Technical University of Madrid (UPM) and a Master in Business Administration (MBA) from the EOI.

José Manuel owns a sound professional experience in the framework of Satellite Navigation (GNSS), Air Navigation (CNS/ATM), Air Transport and Multimodal applications developed in flagship companies like Aena, Ineco, Indra and the European Satellite Services Provider (ESSP).

Since 2014 he is in the position of Service Development Manager at ESSP (The EGNOS Service provider) where he is leading the development, evolution and implementation of the EGNOS Services and heading the corporate Innovation programme. Notably he has been deeply involved in the Development of an EGNOS Service for Maritime Navigation supporting EUSPA and the European GNSS Program.



Guillaume MARTIN

AMG Microwave/ Nantes University, CNRS, IETR UMR 6164, F-44000 Nantes,
France
PhD student
France

BIOGRAPHY

Guillaume is a second-year PhD student at the University of Nantes (France) with the IETR UMR CNRS 6164 Laboratory (Institut d'Electronique et des Technologies du numéRique)for AMG Microwave, a company with expertise in the radio and microwave fields. His current task is to develop a new generation of racons. He received a master of science and engineering degree in numerical system engineering from the Ecole Nationale Supérieure des Sciences Appliquées et de Technologie (ENSSAT), Lannion (France) in 2020. His research interests include machine learning for radar detection such as statistical learning and deep learning.



Javier Martín

Puertos del Estado
Deputy Director Port Operations & Aids to Navigation
Spain

BIOGRAPHY

Academic Training

- 1989. Civil Engineer. Madrid Polytechnic University. Spain.
- 1993. Master in European Union. Madrid Polytechnic University. Spain.
- 1998. Master in Ports Management and Intermodal Transport. Comillas University. Spain.

Professional Experience

- 1989-92. Maritime Projects Manager (Dragados y Construcciones).
- 1992-94. Maritime Civil Works Manager (VIAS; SATO)
- 1994-98. Maritime Projects Design Head of Department (Puertos del Estado)
- 1998-2001. Port Authority Director (Vilagarcía Port Authority, Spain)
- 2001-04. Port Services Head of Department (Puertos del Estado)
- 2004-Current. Deputy Director Port Operations & Aids to Navigation (Puertos del Estado)



Toni MARTÍNEZ

Mediterráneo Señales marítimas S.L.
CEO
Spain

BIOGRAPHY

Toni MARTÍNEZ is an electronic engineer with a solid background in the maritime Aids to Navigation industry. He started his professional career in 1989, developing control panels for the automation of lighthouses and beacons. Throughout 34 years he has held different positions related to Aids to Navigation sector as Project Manager, Production Manager and Head of After-Sales Services, being involved in many international beaconing projects.

In 2006 he decided to launch his own company as co-founder of Mediterráneo Señales Marítimas S.L., a company specialised in aids to navigation products and services with a worldwide presence.

Currently, he is the CEO of the company, providing guidance on strategy, significant value, and expertise to the different departments of the company.



Natasha MCMAHON

Canadian Coast Guard
National Manager of Aids to Navigation and Waterways
Canada

BIOGRAPHY

Natasha McMahon is currently the National Manager of Aids to Navigation and Waterways with the Canadian Coast Guard. She has been with Coast for the past 20 years. She holds a bachelor's degree in Political Science & Communications as well as a Marine Communication and Traffic Services Officer certificate from the Canadian Coast Guard College. She has held various positions in the organization, such as a Marine Communication and traffic Officer, Director of Integrated Business Management and Planning. Her seagoing experience consists of sailing aboard diving liveaboards and private yachts in the Caribbean and Mediterranean.



Dii Mek Thomas

Pacific Community (SPC)
Advisor- Regional Safety of Navigation
Pacific Safety of Navigation Project
FIJI

BIOGRAPHY

Mr. Thomas has been involved extensively with safety of navigation and generally with Maritime Safety and Affairs for more than 17 years particularly in the management and implementation of aids to navigation within the competent authority of Papua New Guinea. He is currently the Regional Safety of Navigation Advisor within the GEM Division of the Pacific Community (SPC) and project manager of the Pacific Safety of Navigation Project funded by the International Foundation of Aids to Navigation (IFAN) and is currently in its 3rd phase. The project provides assistance to 13 target countries in the Safety of Navigation aspects of Capacity Building, Governance Framework and Infrastructure Development.

He holds a Bachelor's degree in Communications Engineering from the PNG University of Technology and a Masters Degree in Maritime Affairs specialising in Maritime Safety and Environment Administration from the World Maritime University in Malmo, Sweden.

PRESENTATION TITLE

The Pacific Safety of Navigation Project – Achievements, Challenges and Way Forward



Jonas LINDBERG

Sabik
R&D Director
Finland

BIOGRAPHY

Mr. Lindberg has key competence in embedded electronics for low power applications. He has been involved in development of visual aids to navigation and remote monitoring since he joined Sabik in 1997, and has a comprehensive understanding of this special application area. He has been in charge of the Sabik's product development team since 2010. He has been a member of the IAIA Engineering committee since 2006.



Hervé METAYER

General directorate of maritime affairs, fishery and aquaculture (DGAMPA) /
SAR and maritime traffic monitoring Office
Deputy Head
France

BIOGRAPHY

After 10 years at the service of the administration of maritime affairs and more than 10 years as officers on board merchant ships, I take part in the development of the framework applicable to the maritime domain at different levels, national, European and international (OMI).

I currently hold the position of deputy head of the Search and Rescue and maritime traffic monitoring office at the General directorate for maritime affairs, fisheries and aquaculture.

I am graduate of the French Maritime Academy (ENSM) and of the National School of Maritime Safety and Administration (ENSAM). I served as second captain and second engineer on board French oceanographic vessels in the IFREMER's fleet. At the Maritime Affairs, I held the positions of inspector in charge of control by the port State and the flag State, then that of deputy Head of LA REUNION MRCC in the southern maritime zone of the Indian Ocean.

Since 2019, at DGAMPA, I provide support and oversees the action of the Regional Operational Center for Surveillance and Rescue (CROSS / MRCC) in their field of expertise, including the three CROSS in the Channel, which have, among other things, the specific functions of Vessel Traffic Service (VTS).



Simon MILLYARD

Trinity House
Mr
UK

BIOGRAPHY

Simon started his career as a Marine Engineer cadet with the Royal Fleet Auxiliary in 1973 gaining his 1st class certificate of competency in 1983 and a Chartered Engineer with IMarEST in 2011.

After 10 years travelling the world with the RFA as a ships Engineering Officer, he left the sea to join his new wife ashore.

Ashore, Simon worked in Technical Sales before returning to production engineering in Printing and then Brewing to pursue his interest both in brewery engineering and a taste for fine ales.

The call of the sea was never far away and in 2003 he joined the Royal National Lifeboat Institution as a Divisional Engineer responsible for maintaining the engineering standards on a fleet of fast modern lifeboats. The RNLI introduced Simon to the world of maritime safety which was to prepare him well for his next career move.

In 2008, he joined Trinity House and until 2019 was Head of Engineering & Operations responsible for the design, maintenance and operation of maritime Aids to Navigation. Since 2010 he has represented Trinity House at IALA and is Chairman of the IALA AtoN Engineering & Sustainability Committee. He is now working part time for Trinity House in training and IALA representation.

Simon is a family man with 4 children, one of whom has followed his footsteps into a career at sea. He spends his spare time with the second love of his life, which is sailing.



Eivind MONG

Canadian Coast Guard
Senior Advisor, e-Navigation, Marine Navigation Programs
Canada

BIOGRAPHY

Eivind Mong joined the Canadian Coast Guard in 2017 after having worked for nearly 20 years in the maritime industry. He is currently the Senior Adviser for e-Navigation and is actively working on implementing e-Navigation solutions in Canada. Mr. Mong is also the chair for the IHO Nautical Information Provision Working Group and leads the S-124 Project Team of the World Wide Navigational Warning Service Sub-Committee.



Paul MUELLER

Orion Maritime Systems PTE LTD
Chief Engineer
Singapore

BIOGRAPHY

Paul earned his Bachelor's degree in Physics from Ithaca College in 1978. Since then, his entire career has involved engineering. He has designed electronic scientific and industrial instrumentation and control systems, including an automobile tire testing (tire abusing) machine, a golf swing analyzer and variable speed AC motor drives. He also designs marine aids to navigation, including remote monitoring systems, racons, optics, and structures in marine environments. Many may know Paul from his 30 years at Tideland Signal. Currently, he is the Chief Engineer for both Orion Maritime Systems, Singapore and Half-PI Electronic Product Development, Texas, USA. The latter he co-owns with his spouse Dawn (Managing Director). Paul serves on the board of directors for the Arc of Spring Branch – Memorial, a membership organization providing social growth and athletic opportunities for people with intellectual and developmental disabilities. He also volunteers with the Special Olympics and enjoys woodworking.



Yoshiyuki NAKAYAMA

Japan Coast Guard Academy / Department of Maritime Safety Technology
Associate Professor, PhD. Eng.
Japan

BIOGRAPHY

Yoshiyuki Nakayama is an associate professor at the Japan Coast Guard Academy, where he conducts research on collision and maritime accident analysis, navigational safety in port and channel, and ship manoeuvrability. He also gives lectures on type of vessels and those manoeuvre abilities to VTS operators at the Moji Branch of the Japan Coast Guard School. He serves on navigation safety committees in several ports in the western area of Japan. In his free time, He likes to play at a park with his two daughters.



Malcolm NICHOLSON

Global Product Manager/Sealite
AUSTRALIA

BIOGRAPHY

Malcolm Nicholson is a seasoned professional in the field of Marine Aids to Navigation (AtoN) with over twenty-five years of experience. He began his career with the Northern Lighthouse Board, where he gained fundamental knowledge and experience. Later, he joined the UK General Lighthouse Authorities and served as the Principal Development Engineer (Visual Signaling).

Today, Malcolm is Sealite's Global Product Manager, where he is responsible for managing and developing the extensive range of Marine AtoN products.

He represents Sealite internationally and is currently the Chairman of Working Group 1 for the Engineering Committee and is the IMC's representative to the Policy Advisory Panel. Malcolm's expertise and accomplishments have also earned him the distinction of being a Fellow of the Royal Institute of Navigation.



Tomohisa NISHIMURA

Japan Coast Guard Academy / Department of Maritime Safety Technology
Professor, PhD. Eng.
Japan

BIOGRAPHY

Tomohisa Nishimura is a professor of navigation at the Japan Coast Guard Academy. His work focuses specifically on marine accidents of vessels, ship-handling simulator training and behavioral characteristics of seafarers on lookout. He also gives lectures on team management to VTS supervisors and effective training methods using simulators to VTS instructors at Moji Branch of Japan Coast Guard School. He received paper awards from Japan Institute of Navigation in 2015 and 2017 for his research papers on the illusion of navigation lights. He used to be a member of the Japan Coast Guard Band and is still active as a trumpet player.



Hideki NOGUCHI

Japan Coast Guard
Mr.
Japan

BIOGRAPHY

Mr. Noguchi graduated from the Japan Coast Guard school in 1980. He studied Aids to Navigation services in the USCG headquarters as the government short-term fellowship student in 1994. He was dispatched to the PCG headquarters in Manila as the expert of the search and rescue and the safety of navigation from 2005 to 2007. He was appointed as the coordinator of the IMO NAV Sub-Committee Correspondence Group on AIS AtoN from 2011 to 2013. He has been appointed as the chair of the IALA e-Navigation Information and Communication Committee since 2017 and also chaired the IALA Workshop on MASS in 2021 and on Maritime Digital Communication in 2023, both hosted by the Japan Coast Guard. He is currently the member of the Japanese delegation to the IMO MSC and NCSR Sub-Committee.



Sewoong OH

KRISO / Principal research engineer
Dr.
Republic of Korea

BIOGRAPHY

Dr. Sewoong Oh is a principal research engineer of Maritime Digital Transformation Research Centre in Korea Research Institute of Ships and Ocean Engineering (KRISO). His research activities focus on the marine data exchange standard and maritime safety services. He has been involved in the S-100 test bed project of Korea and led two research topics which was ENC service for non SOLAS vessel and marine safety information service in the SMART Navigation project. He is also the project lead researcher of SMART AtoN Project which aims to establish AtoN information service centre and develop AtoN information service using the MRN, S-200 series PS and maritime service guideline. Currently, He is a member of IHO S-100WG and also contributing the development of S-200 product specifications of IALA.



Jan-Hendrik OLTMANN

Federal Waterways & Shipping Administration
Senior strategic adviser
Germany

BIOGRAPHY

Jan-Hendrik Oltmann is senior strategic adviser to the German Federal Waterways and Shipping Administration and works at the Aids-to-Navigation (AtoN)/Vessel Traffic Services (VTS) department of that Administration. He received his master degree (Dipl.-Ing.) in Electrical Engineering from Darmstadt Technical University, Germany, in 1992. Since he joined the Administration in 1993, he worked in diverse fields of technology application comprising terrestrial radio navigation services for the maritime domain, the application of transponder technology to VTS as well as ICT system architecture frameworks for shore-based AtoN/VTS systems. In that occupation, he had an active role in the developments of the global Automatic Identification System (AIS), the overarching system architecture framework for IMO's e-Navigation strategy, internationally harmonised data structures for above fields, and has now turned towards the digitalisation of waterways. He managed several domestic and international projects, chaired several international professional working groups, authored several professional publications, and is speaker at international conferences. He is actively involved in IALA proceedings since 1996.



Latifa OUMOUZOUNE

IALA World Wide Academy
Education and Training Manager

BIOGRAPHY

At IALA World-Wide Academy, Latifa OUMOUZOUNE is in charge of Education and Training activities. Acting as the Education and training manager, she is responsible for programme development, delivery and assessment, and other tasks supporting the academy functions. Latifa is specialized in Maritime education and training and graduated from the World Maritime university WMU. Previously, with her technical background in Electronic and telecommunication engineering, Latifa held the position of head of technical and educational affairs at the Higher Institute for maritime studies of Morocco for seafarers' training. She was tasked with simulators and technical labs' management alongside the educational programme development and review.

PRESENTATION TITLE

The IALA Competency Framework

ABSTRACT

The presentation describes the IALA competency framework, which consists of the Core Competencies, which summarize the capabilities required and important across all jobs in the marine aids to navigation domain, including VTS operation.



Jonghyun Park

AtoN R&D Center, Korea Institute of Aids to Navigation
Implementation and Pilot Operation of Standardized AtoN Management System in
Korea
Republic of Korea

BIOGRAPHY

Jonghyun Park received the B.S. and M.S. degrees in electrical and computer engineering from Sungkyunkwan University, Suwon, Korea, in 2006 and 2008, respectively. Since 2020, he has been with AtoN R&D Center, Korea Institute of Aids to Navigation, Korea, as a researcher. His research interests include remote control and monitoring systems (RCMS), digital twin technology, mobile user experience design, and embedded systems.



CAPTAIN ANGELO PATRUNO

Italian Navy
Director of National Maritime Signalling Service of
Italian Navy Logistic Command
Italy

BIOGRAPHY

Captain Angelo PATRUNO was born in Bari in 1967.

He graduated from the Naval Academy as Ensign in 1989.

In 1990 he achieved qualification in “Naval Artillery” and was assigned as “Gunnery Officer” on board: Cruiser Andrea Doria and Corvette Chimera.

In 1997 he assumed Command of the Ship Tremiti.

From 1998 to 2000 he was assigned as Operation Officer on board:
Frigate Lupo and Frigate Perseo.

From 2000 to 2002 he served as “Sea Rider” within the Navy Training Center.

From 2003 to 2005 he served in Petty Officer School in Taranto.

In 2006 he assumed Command of the Navy Training Sail Ship Palinuro.

From 2007 to 2009 he served as Anti Air Warfare Officer and then Chief of the Tactical Training Division in the Navy Training Center.

From 2010 to 2016 he served in the NATO Command COMITMARFOR, (Command of Italian Maritime Forces) formerly as ACOS PLAN and POLICY, than as Chief of Staff.

In 2016 he assumed Command of the Navy Training Sail Ship Amerigo Vespucci. From 2017 to 2019 he served as Chief of Staff in the 2nd Naval Division of IT Navy Fleet.

Captain Patruno is currently the Director of the National Maritime Signalling Service of the Italian Navy Logistic Command.

He is also President of the Navy Sailing Club in Naples.

Captain PATRUNO earned a BS in Maritime & Naval Sciences (Pisa University) and BS in Political Sciences (Trieste University).

He attended in 2002/2003 the 6th Joint Staff Higher Course at the Defence High Studies Centre in Rome.



Guilherme Pires Black PEREIRA

Brazilian Navy – Aids to Navigation Center “Admiral Moraes Rego” (CAMR)
The importance of the Design Depth to marine Aids to Navigation projects
analysis
Brazil

BIOGRAPHY

Born at Rio de Janeiro in 1984, active Lieutenant Commander in the Brazilian Navy, joined the Naval School in 2000; holds a degree in Naval Sciences and Electronics specialization at Naval College, completed in 2007; in 2010, carried out an improvement course in Hydrography for officers (CAHO) of the Directorate of Hydrography and Navigation (DHN); in September of 2019, participated at the IALA model course “Aids to Navigation Manager Course – Level 1”, from China Maritime Safety Agency (China MSA); in December of 2021, completed an accredited by IALA VTS Operator course (VTS-103/1 – Operator Training Course); still at the end of 2019, obtained the title of Master in Oceanic Engineering at the Federal University of Rio de Janeiro (COPPE/UFRJ). Since 2020, has been teaching the discipline “Aids to Navigation” of the Improvement Course in Hydrography for Officials (CAHO), coordinated by the “Admiral Radler de Aquino” Instruction Center (CIAARA), subordinated to DHN; Throughout his career, has worked in the following organizations of the Brazilian Navy: Frigate “Niterói”, Oceanographic ship “Antares”, Navy Hydrography Center (CHM) and Aerodrome Ship “São Paulo”. Since July of 2019, has been in charge of the Electronics and DGNSS Division at the “Admiral Moraes Rego” Aids to Navigation Center (CAMR). As a Hydrographer, his professional skills are in Operational Oceanography obtained over three years experience on board. In the last 3 years has focused his professional work on dealing with matters related to marine Aids to Maritime Navigation (AtoN) of interest to the Brazilian Maritime Authority, at CAMR.



WANG Ping

China Maritime Safety Administration (CHINA MSA)
Director/ Senior Engineer/ Professor
The Peoples’ Republic of China

BIOGRAPHY

Mr. Wang Ping is the Deputy Director-General and Chief Engineer of the Southern Navigation Service Center of CHINA MSA, and a special allowance expert of The State Council of the People’s Republic of China.

Mr. Wang received his Bachelor’s degree in cartography from Wuhan University in 1989, and study in International Maritime Academy (IMA) in Italy in 1996, where he obtained the International Class B Hydrographic Surveyor certificate. He once worked as the Director of Information Technology Office, Chief Captain of Hydrographic Battalion, and Director of Hydrographic Department of Guangdong Maritime Safety Administration of CHINA MSA. His major areas of responsibilities and research areas include: hydrographic survey, radio navigation, maritime digital information technology, application of emerging technologies and maritime strategy study.

Mr. Wang is one of the main planners of China Intelligent Navigation Service Implementation Plan, he actively promoting the application of e-Navigation, S-100 product specification, intelligent ATON, MASS and other new technologies in the navigation service domain. He is the main organizer and developer of the Pearl River Delta e-Navigation project, CHINA Integrated GMDSS Shore Station Communication Control System etc., and won more than 10 provincial and ministerial science and technology awards from China Institute of Navigation, China Society for Geodesy Photogrammetry and Cartography, and China Water Transportation Construction Association.



Stefan PIELMEIER

Sternula A/S
CTO
Denmark

BIOGRAPHY

Stefan Pielmeier was born in Nürnberg, Germany in 1972 and received his Master of Electrical Engineering from University of Erlangen-Nürnberg in 1997 .

During his formal education at the University, he created several small series power and receiver amplifiers for radio amateurs, supporting his interests in technology and a sailplane pilot's license.

In 1997 Stefan Pielmeier joined Ericsson Eurolab Deutschland GmbH in Nürnberg developing embedded software for the first generation mobile 3G base stations later as a system architect.

In 2003, at Texas Instruments Villeneuve-Loubet, France he took the role of project leader for 2.5G mobile chipsets and in 2005 changed to be the continuous integration responsible at the Aalborg, Denmark site.

In 2007 Stefan Pielmeier changed to Telenor Denmark, bringing the data core network components to support 4G.

From 2010-2018, he managed the software development of the maritime MF/HF and VHF radios AIS, GNSS and NAVTEX for Thrane & Thrane A/S in Aalborg, known as the SAILOR Radios.

Since 2014, Stefan is actively participating in the standardisation of the new maritime digital communication standard VHF Data Exchange, since April 2019 as chairman for the IALA eNav communications working group.

Since July 2019, Stefan is CTO for the first commercial danish satellite network operator Sternula, delivering the VDE-SAT service to the maritime community, founded by his partner Lars Moltsen and himself.

Stefan represents Denmark for VDES related topics in ITU WRC, ITU WP5B, IEC and IMO, and is a proud member of RTCM.



Alberto PIOVESANA Jr

Brazilian Navy – Directorate of Hydrography and Navigation
Captain Retired- Adviser for IALA Affairs
Brazil

BIOGRAPHY

Alberto Piovesana is graduate in Naval Sciences by the Brazilian Naval Academy and postgraduate in Hydrography Survey – Category “A” by the Directorate of Hydrography and Navigation.

Doctorate degree in Naval Sciences by the Brazilian Naval War College.

MBA on International Management by the Federal University of Rio de Janeiro.

Performed operative duties aboard an Oceanographic Research Vessel for 7 years.

Commanded a Buoy Tender and was Head of an Aids to Navigation Regional Service responsible for the Aids to Navigation structure in the delta of Amazon River, for five and a half years.

Commanded a Hydrographic Survey Vessel for one year.

Executive Officer in a Clipper Sail Training Vessel for two years.

Performed administrative duties for three and a half years, including as Head of the Centre for Aids to Navigation “Almirante Moraes Rego” (Lighthouse Authority), when was Member of IALA Council from 2001 to 2002.

Currently is Adviser of the Director of Hydrography and Navigation for IALA affairs and Adviser of the IALA Councillor representing Brazil since 2008.

Participates in IALA Heritage Forum since 2020.



Alexander Pires Rezende

Kongsberg Maritime
Sensor and Robotics Manager
Brazil

BIOGRAPHY

Alexsander Pires Rezende has a Master Degree in Energy Engineering and Bachelor's degree in Mechanical Engineering, has over ten years of experience in the naval industry and extensive knowledge on Differential Position Systems. He was in the team that installed the first IALA Station in Brazil, by Kongsberg. Actually, he is a Sensor and Robotics Manager for Kongsberg, provides Global positioning support and solutions on all naval-based industries



TANG Qingyou

China Maritime Safety Administration (CHINA MSA)
Chief Senior Engineer/Director
The People's Republic of China

BIOGRAPHY

Mr. Tang Qingyou is working in Ningbo Aids to Navigation Department of Eastern Navigation Service Center as a head of the unit. He was hired as a chief senior engineer in 2021. Mr. Tang graduated from Dalian Maritime University majoring in aids to navigation management, and engaged in professional technical aids to navigation management for a long time.

Mr. Tang took the lead in mentoring professional technicians to carry out all sorts of forms of technical work such as onsite maintenance of navigation aids, technical management, project implementation, scientific research and development. Over the years, he closely followed the new trend of e-Navigation, uphold the integration of management innovation and technological innovation.

Mr. Tang presided over the drafting of industry standards such as Standards for Professional Skills of Aids to Navigation and Standards for Quality Inspection of Water Transport Engineering, which were well received by domestic maritime sectors and filled the gap in the industry. From July 2020 to June 2022, he was employed as a visiting professor at Maritime College of Ningbo University.

Mr. Tang devoted himself to the historical lighthouses research, and has done a lot of study in the development of lighthouse culture and the preservation of lighthouse cultural relics. Under Mr. Tang's leadership, Ningbo Aids to Navigation Department, with its 12 heritage lighthouses, became the seventh group of protected historic sites in China.

Awards:

Anti-theft Aids to Navigation Light Based on Beidou Navigation Satellite System won the third prize of China Navigation Science and Technology Award in 2014;

Research on Key Technologies of Channel and Anchorage Design in Island and Reef Area won the first prize of China Navigation Science and Technology Award in 2019;

The Research Development and Application of Intelligent Water Safety Assurance System Based on AIS Technology won the second prize of China Navigation Science and Technology Award in 2019.



Ronald RAULEFS

German Aerospace Center (DLR)
Dr.
Germany

BIOGRAPHY

Ronald Raulefs is senior researcher and project manager at the Institute of Communications and Navigation of the German Aerospace Center (DLR) in Wessling, Germany.

He received the Dr.-Ing. degree from the University of Erlangen-Nuremberg, Germany, in 2008. He has been a visiting researcher at the City University of Hong Kong in September of 2004.

He initiated and coordinated the EU projects WHERE and WHERE2. He holds numerous patents in the area of mobile communications and radio based localization.

His current research interests include various signal processing aspects of mobile and maritime radio communications and localization.



Filippo Giacomo RIZZI

German Aerospace Center (DLR)
M.Sc.
Germany

BIOGRAPHY

Filippo Giacomo Rizzi received a B.Sc. degree in Aerospace Engineering in 2016 and a M.Sc. degree in Communication and Computer Network Engineering (CCNE) in 2020 from Politecnico di Torino, Italy. He joined the German Aerospace Center in 2020 where he works as a research scientist in the department of Nautical Systems. His research focuses on signal processing and receiver algorithm development for satellite and terrestrial positioning systems.



Dr Ed ROGERS

NASH Maritime Ltd
Director
United Kingdom

BIOGRAPHY

Dr Ed Rogers is a recognised technical maritime risk expert and is a founding director of NASH Maritime - a shipping, navigation and maritime risk company specialising in understanding and mitigating maritime risk. Ed has a background in delivering complex navigation risk assessments for coastal states, ports, harbours, oil and gas installations and offshore wind farms using both qualitative stakeholder engagement approaches and complex quantitative risk models.

He leads NASH Maritime projects related to SOLAS V obligations for coastal states, and has managed over 32 assessments for both territorial, EEZ and internal port water assessments using IALA SIRA and IALA IWRAP methodologies.

Ed also works closely with the NASH Maritime Technology team in defining user needs, specifying requirements, evaluating vendors and supporting the implementation of navigation management technology such as Vessel Traffic Systems, Port Management Information Systems and in the development and implementation of products such as the IALA OPRA online software.

Ed is a strong believer in evidence-based advice that combines practical maritime experience with data science technology. He ensures that NASH Maritime deliverables are; founded on practical solutions rooted in real-world maritime experience, underpinned by data to provide a robust evidence-base and built on scientifically rigorous methodologies.



Dmitry Rostopshin

Wärtsilä
Head of Port Operations solutions
Finland

BIOGRAPHY

Dmitry Rostopshin has been working in maritime business since 2000. He started his career as a testing engineer in the development department, worked several years as project installation engineer and got back to research and development as product director. He was involved in many vessel traffic services as well as coastal and offshore surveillance projects around the world. Currently he is Head of Port Operation Solutions in Wärtsilä and responsible for all VTS and coastal surveillance product lines.

Dmitry graduated from Saint-Petersburg State University as an astronomer and mathematician. He also studied in Blackpool and The Fylde Nautical College as VTS Operator and worked as VTS Instructor in Admiral Makarov State University of Maritime and Inland Shipping Training Center.



Felipe RUGGERI

Argonautica Engineering & Research
PhD
Brazil

BIOGRAPHY

Dr. Ruggeri is graduated (2010), Master of Sciences (2011) and Doctor of Sciences (2016) degrees from the Naval Architect and Ocean Engineering Department of the University of São Paulo (USP), the last degree achieved by developing the thesis entitled “A Numerical Method for NonLinear Analysis of the Dynamics of Marine Systems under Gravity Waves and Current”. In 2010, he was awarded as the best naval architect from CREA-SP (São Paulo State Engineering Council), SOBENA (Brazilian Society of Naval Architects) and Brazilian Navy. From 2008 to 2015, he worked as a research engineer at the Tanque de Provas Numérico of University of São Paulo (USP) developing projects on green ship shuttle tankers, high speed vessels for crew transportation, military ships, floating breakwater, floating ports, logistic hubs, FLNG and oil platforms for the Pre-Salt layer in Brazil. Dr. Ruggeri is one of the founders and director of ARGONAUTICA ENGINEERING AND RESEARCHES LTDA where he has been involved in hundreds studies for several ports in Brazil, conducting fast-time simulations for maneuvering/underkeel clearance analysis, ship-to-ship interaction, mooring analysis, planning and development of innovative numerical tools to improve operational safety and efficiency of ports, which includes, for example, the development of ReDRAFT® (Real Time Draft) and MeDuSa® (Mooring Design Tool) software packages. He was also one of the technical members of the committee for the revision of the Brazilian Standards (ABNT) regarding port planning and procedures.



Dr Jan ŠAFÁŘ

General Lighthouse Authorities of the UK & Ireland
Research & Innovation Engineer
United Kingdom

BIOGRAPHY

Dr Jan Šafář is a Research & Innovation Engineer with the General Lighthouse Authorities of the United Kingdom and Ireland. Jan has over 15 years’ experience as a researcher in the radio navigation and communications field, working in the areas of Global Navigation Satellite Systems and augmentations, alternative positioning, navigation and timing systems and e-navigation communications. He is a member of the Royal Institute of Navigation, U.S. Institute of Navigation and several international working groups, including the Digital Communication Systems Working Group within the IALA e-Navigation Committee and the IEC AIS Working Group. He has been closely involved with the development and international standardisation of the VHF Data Exchange System (VDES), including its R-Mode component.



Peter Schneider

German Federal Waterways and Shipping Administration
System Engineer Visual Aids to Navigation
Germany

BIOGRAPHY

54 years old, married, one child, education as radio electronics technician, studying telecommunication engineering, worked as development engineer and product manager, since 2003 working at Federal Waterways and Shipping Administration, Germany

Member of the IALA ENG Committee since 2014, Vice Chair of Working Group 2.



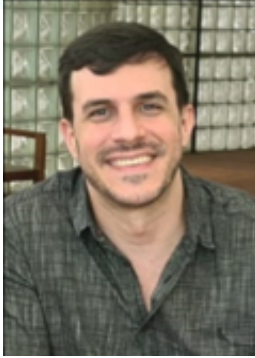
Michael Schütteler

Federal Waterways and Shipping Agency
National and International Standards and Norms in Traffic Technology Division
Dipl.-Ing.
Germany

BIOGRAPHY

Michael Schütteler received the Diploma degree in electrical engineering from the University of Applied Science in Cologne, in 2012.

He joined the Federal Waterways and Shipping Agency in 2021, where he started working in the section National and International Standards Traffic Technologies. In particular his work area is in the field of the german GNSS/DGNSS services. In addition, he is involved in national and international research projects with both academic and industrial partners within the context of R-Mode.



Fernando Sérgio Scoralick

Kongsberg Maritime
Automation Manager
Brazil

BIOGRAPHY

Fernando Scoralick has a Bachelor's degree in Electrical Engineering and Telecommunications Engineering with MBA in Project Management and MBA in Data Science. Over 12 years' experience in the Naval industry. He was part of the first Kongsberg IALA Base Station installed in Brazil as a Sensor and Robotics Manager of Kongsberg Maritime. Actually, he is a Senior Automation Manager, with previous experience for many years in the Sensor and Robotics area. Started his career at Kongsberg as a Field Service Engineer in the Dynamic Positioning and Reference Systems areas.



Julio SIERRA ALMAGUER

GEOCUBA
Mr.
Cuba

BIOGRAPHY

After Julio Fidel Sierra Almaguer graduated as an engineer on Hydrography and Oceanography from the Cuban Naval Academy in 1997, he joined the Hydrographic and Geodetic Service as Aids to Navigation specialist for the Entrepreneurial Group GEOCUBA, being promoted to Chief of the Aids to Navigation Projects Department in 2000 and Chief of Operations in 2004. MSc. in Geomatics in 2005, he has been systematically contributing to the implementation of IALA's latest applicable technical documents on the Cuban AtoN service, also working as new projects designer and maintenance operations supervisor. During different sessions of international technical events held in Cuba, such as GEOMATICA, MARCUBA and AGRIMENSURA, he has lectured about the benefits of the combination of costumed AtoN maintenance and service delivery methods with the implementation of technologies such as LED light sources and AIS for a wide range of purposes. He has prepared and delivered three national thematic AtoN Courses for the Cuban AtoN personnel and has received three IALA WWA Level 2 Certificates. He has attended all IALA Conferences since the 17th IALA Conference held in 2010 in Cape Town, South Africa and to several EEP Committee sessions, including those virtually held during the COVID-19 pandemic. In charge of the translations from English and French to Spanish from 2004 to 2008 for the IALA printed Bulletin, during the current IALA Work Programme he has been actively participating in EEP Committee meetings.



Marcos SILVA

CAMR / Brazilian Navy

Lieutenant Commander- Aids to Navigation Department Chief
Brazil

BIOGRAPHY

54 years old, married, one child, education as radio electronics technician, studying telecommunication engineering, worked as development engineer and product manager, since 2003 working at Federal Waterways and Shipping Administration, Germany

Member of the IALA ENG Committee since 2014, Vice Chair of Working Group 2.



Michael Schütteler

Federal Waterways and Shipping Agency

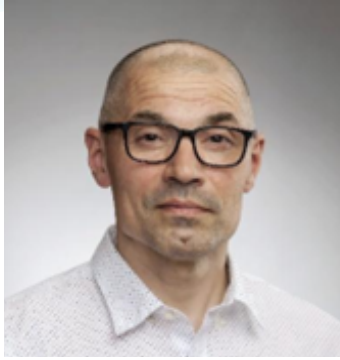
National and International Standards and Norms in Traffic Technology Division

Dipl.-Ing.

Germany

BIOGRAPHY

Marcos Silva is the Aids to Navigation Department Chief in “Admiral Moraes Rego ” Aids to Navigation Center (CAMR) since 2019. In the Brazilian Navy since 1999, have made Courses and developed qualifications at Maritime and Hydrographic Sector. In Brazilian Navy has served in “Niterói” Frigate – Division Operations Assistant Officer (2006 – 2007); Combat Car Landing Ship “Garcia DÁvila” – Division Operations Assistant Officer (2007 – 2008); Deck Division Officer (2009-2010); “Admiral Graça Aranha” Lighthouse Hydro-oceanographic Ship - Hydro-oceanographic Division Officer (2010-2011), Navigation Division Officer (2011-2012) and Operations Department Chief (2012-2014); Navy Hydrographic Center (CHM) – Tide Section Officer (2014 – 2015). Recently, has the opportunity to get expertise in Aids to Navigation working at CAMR in different functions as Studies and Projects Division Assistant Officer (2015-2016), Studies and Projects Division Officer (2016-2019) and now as Aids to Navigation Department Chief (2019-today). Concluded in 2020 his Master in Science in Ocean Engineering by Federal University of Rio de Janeiro (COPPE/UFRJ) with the Master Thesis: “Navigation Risk Analysis along a Channel using Probabilistic Simulations”. During this time working at CAMR has made contributions together with the Department Team in the development of the Aids to Navigation in Brazil.

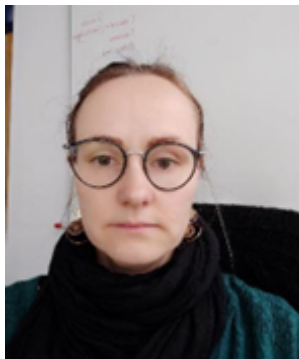


Olli SOININEN

Fintraffic VTS Vessel Traffic Services
Programme Manager
Finland

BIOGRAPHY

Olli Soininen has worked since 1998 in various positions in the Finnish Navy, where since 2004 he has been responsible for project and development of C2 and surveillance systems as a Chief of Systems development. Olli Soininen has worked as a programme manager in Fintraffic VTS since 2020. He is responsible for the company's development and investment projects, project stakeholder activities and international cooperation activities. Olli Soininen has long expertise on VTS-systems, VTS-sensor systems, maritime logistics and maritime single window.



Emma STÉPHAN

Cerema
Dr.
France

BIOGRAPHY

Emma STÉPHAN is an engineer and she holds a PhD in building rehabilitation. After several years working in the field of building, she then became involved in road safety issues. Finally, she joined the aids to navigation world in 2021.

At Cerema she is in charge of DGNSS, AIS AtoN and modernization of aids to navigation. In particular, she is the project manager for the deployment of a unique AtoN monitoring application for the French maritime administration. In addition, she is also writing a guideline for the French Authorities on the strategy for AtoN remote control and monitoring.



Eduardo TANNURI

Universidade de São Paulo (USP)
Full Professor
Brazil

BIOGRAPHY

Eduardo Aoun Tannuri Full Professor at the Department of Mechatronics Engineering, Escola Politécnica, University of São Paulo (EPUSP), principal investigator of the Center for Artificial Intelligence (C4AI USP-IBM-FAPESP) and coordinator of the Manoeuvring Simulation Center of the Numerical Offshore Tank (TPN-USP). Member of ITTC Manoeuvring Committee (2012-2021). Works on Autonomous Navigation and Control Systems applied to offshore vessels and platforms, Application of IA in Ocean Engineering, Manoeuvring and Sea-keeping simulators, with applications to ports, vessels and floating structures design. He graduated in Mechatronics Engineering, in 1998, and completed his doctorate degree in 2002, both at EPUSP. He coordinates several R&D projects in the area of offshore oil & gas exploration, maritime and river navigation and port development. He has published about 188 papers in conferences and 42 in journals. As the technical coordinator of the Manoeuvring Simulation Center of the Numerical Offshore Tank (TPN), he already developed more than 190 simulation studies in different Oil Companies and Ports Operators. He received Brazilian Navy Engineering Merit Award 2017, and National Agency for Petroleum, Natural Gas and Biofuels Innovation Prize 2019.



Jan THORN

Danish Maritime Authority
Director, Safety of Navigation National Waters
Denmark

BIOGRAPHY

Jan Thorn is director of Safety of Navigation National Waters at the Danish Maritime Authority (DMA). He has a background as an officer in the Danish Army with experience from various commands and management positions. He has been a director at the DMA since 2011. His area of responsibility is mainly safety of navigation, pilotage authority and management of Aids to Navigation in the waters of Denmark, Greenland and the Faroe Islands.



Gogi Tsivadze

Independent

The model of improvement of the IALA MBS

Georgia

BIOGRAPHY

I, Gogi Tsivadze, was born on February 8, 1998 in Georgia, the city of Batumi. My parents are Jimsher Civadze (who is a Marine Engineer by profession) and Guranda Shamilishvili (who is a professor at Batumi State University).

In 2015, I graduated from Ilia Chavchavadze #1 public school. In the same year, I entered Batumi State Maritime Academy and received a bachelor's degree in Navigation in 2019.

Since 2020, I have been working as a Cadet at Columbia. Currently, I have been promoted to 3rd Officer.

During my studies at the academy and afterwards, I gained experience in various scientific conferences. Projects that I have worked on:

Development potential of modern social work: methodology and technologies: materials of the V International Scientific and Practical Conference 2021, 12-13 March Ukraine, Kiev». My report paper was also published in the proceedings of the international conference The Impact of Work Stress on the seafarers Mental Health, Development potential of modern social work: methodology and technologies, Kyiv: Taras Shevchenko National University, 2021.- 221 c. The following scientific paper was also published with my participation: G. Shavishvili, G. Chaganava, M. Loria, D. Jincharadze, G. Tsivadze , „The Impact of Work Stress on the seafarers Mental Health and safety “, BULLETIN OF THE GEORGIAN NATIONAL ACADEMY OF SCIENCES vol. 15, no. 4, 2021 “Council of the National Academy of Sciences of Georgia “, vol. 15, No. 4, 2021, P.g. 156-162, the work is indexed in Scopus databases. El Address <http://science.org.ge/bnas/vol-15-4.html> . Also, I am the author of several projects and inventions.



Matthew TURNER

OMC International

GM Delivery and Service

Australia

BIOGRAPHY

Dr Turner is OMC International's General Manager for Delivery and Services. A Senior Engineer with over fifteen years' experience in coastal engineering and coastal science and project management in international settings. Particular MetOcean expertise includes the development and application of numerical models of coastal processes including tides and currents, the forecasting of environmental conditions, assimilation of forecasts into coastal numerical models. Maritime engineering experience includes conducting port under keel clearance risk assessment studies, DUKC® configuration and dredge optimisation studies, and port capacity modelling.



Adrian VAN BOVEN

M-NAV Solutions/Inovaton Limited
Co-Founder, Proprietor and Director
Philippines/Hong Kong/Australia

BIOGRAPHY

Adrian's career started off in agriculture in Australia, obtaining an Associate Diploma in Applied Science (Horticulture) then later, a Bachelor of Agricultural Science (Rural Technology). Moving to Papua New Guinea in 2009 to take on a large agricultural irrigation project in the Ramu Valley which was completed in 2012, Adrian then took on the role of General Manager, then Chief Operating Officer, for a marine construction company in PNG involved in AtoN installation and maintenance throughout the country.

After seeing further opportunities within the AtoN Industry, Adrian co-founded M-NAV Solutions in 2016, which now operates as separate entities out of the Philippines, Hong Kong and Australia. In 2021, Adrian co-founded Inovaton Limited to develop, design, and manufacture innovative products for the maritime safety and maritime surveillance industries.

Adrian currently resides in the Philippines and remains very much hands-on with regards to all facets of M-NAV Solutions and Inovaton Limited business operations.



Jeffrey VAN GILS

Ministry of Infrastructure and Water management
Senior-Advisor
The Netherlands

BIOGRAPHY

Jeffrey has a longstanding experience in maritime and nautical IT matters. He started his career within the Ministry of Infrastructure and Water management at an operational site in the Southern part of the Netherlands and acted as conceptual and technical project manager. He was involved with and responsible for the development of the Inland Tracking System for Inland Waters.

From the beginning Jeffrey was engaged in the domestic and regional development of AIS, the last 15 years also on international level.

During the last decade he acted as a Senior Advisor for maritime communications and other technical e-Navigation related aspects, both again on national and international level.

Since 2008 he is a member of IALA e-Navigation Committee, where he started in the Architecture working group and later on joined the COMMS working groups and is also a member of the Engineering Committee. Jeffrey is also the custodian of the IALA related website www.e-navigation.nl

The last four years he promoted the digitisation of VHF radio as a way forward for e-Navigation and to accomplish a better voice quality and resilient of VHF voice. Since 2022 he is chair of the committee that handles the use of VHF radio in the Scheldt area, an area close to Belgium with a huge demand of VHF voice communications, that since the implementation of the ITU regulations has been challenging for finding proper implementation.



Nikolaos VASTARDIS

GRAD (GLA of UK and Ireland)

Dr.

Country: United Kingdom

BIOGRAPHY

Nikolaos Vastardis is a Research and Innovation Engineer at the Research and Development Directorate (GRAD) of the General Lighthouse Authorities of UK and Ireland (GLA), where he has been working for the past three years. He specializes in software development and system design, bringing to the table over 10 years of experience in the field.

Nikolaos holds a Master of Science in Networks and Telecommunications, which he received in 2008, and a PhD in the field of Delay Tolerant Networks, awarded in 2014. Before joining the General Lighthouse Authorities, he worked as a software developer on a number of academic and industry posts, including a number of years leading a team in the development of a successful aviation MRO solution.

His current research interests include e-Navigation, the S-100 framework, and scalable software designs. Nikolaos is dedicated to pushing the boundaries of technology in his field, and is always exploring new ways to bring innovation and efficiency to his work.



Mario Walterfang

German Federal Waterways and Shipping Agency

National and International Standards and Norms in Traffic Technology Division

Diplom-Ingenieur

Germany

BIOGRAPHY

Mario Walterfang received his diploma as a radio engineer in 1994.

Since then he has been working for the German Federal Waterways and Shipping Administration in various positions. He is a member of ETSI for the standardisation of navigation radar equipment and vice chair of CESNI/TI Inland ECDIS expert group. In the emerging field of the automation of inland navigation, he develops technical standards for track control systems at CESNI and CCNR.

As a senior radar expert, Mario Walterfang is responsible for the type-approval of radar equipment for inland vessels.



JunBo Wang

NingBo AtoN Department of DNSA of China MSA
General Secretary and Deputy Director
China

BIOGRAPHY

First Author: Mr. Wang has been joined in Aids to Navigation Section for 27 years from 1996, while graduating with an Engineering bachelor degree. Now he is senior engineer, as well General Secretary and Deputy Director of NingBo AtoN, whose jurisdiction covers NingBo-ZhouShan port, which ranks Global Top1 throughout for 12 years.



Alwyn WILLIAMS

General Lighthouse Authorities of the UK and Ireland (Trinity House, Northern Lighthouse Board and Irish Lights)
Principal Visual Signalling Engineer
UK and Ireland

BIOGRAPHY

Dr. Alwyn Williams is a Principal Visual Signalling Engineer in the General Lighthouse Authorities of the United Kingdom and Ireland's Research and Development directorate (GRAD). He has been involved with radionavigation research since 1999, covering topics such as Differential GNSS, low-frequency navigation systems and Automatic Identification System (AIS). He has been responsible for the successful re-engineering of several marine aids-to-navigation (AtoN), using the latest technology to further improve reliability and performance of the service. He is the vice-chair of the visual signalling working group at IALA Engineering and Sustainability (ENG) Committee, and has been involved with IEC in setting international test standards. He was the Project Manager for the EU regional project, ACCSEAS, delivering an innovative e-Navigation test-bed in the North Sea Region. He is a Chartered Engineer, Member of the Institute of Engineering and Technology (IET), IALA Level 1 AtoN Manager and Associate Member of the Royal Institute of Navigation.

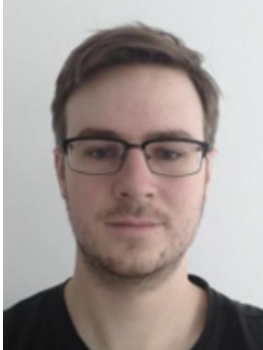


Gareth WIMPENNY

General Lighthouse Authorities of the UK and Ireland
Research and Innovation Engineer
United Kingdom

BIOGRAPHY

Gareth Wimpenny is a research and innovation engineer with the General Lighthouse Authorities of the UK and Ireland. His work is principally focused on maritime communications and e-Navigation. Specific areas of research have included work on the VHF Data Exchange System (VDES), GNSS vulnerabilities and maritime cyber-security; particularly the securing and authentication of e-Navigation communications.



Markus Wirsing

German Aerospace Center (DLR)
M.Sc.
Germany

BIOGRAPHY

Markus Wirsing received the Master of Science degree in Electrical Engineering from the University of Ulm, Germany, in 2018. In 2018 he joined the Institute of Communications and Navigation of the German Aerospace Center (DLR) as a research staff member and to pursue a PhD. His research interests and activities include signal design and signal processing for maritime wireless communication and navigation systems.



JIAO Xiaoxuan

China Maritime Safety Administration (CHINA MSA)
Deputy Section Chief
The Peoples' Republic of China

BIOGRAPHY

Mr. Jiao Xiaoxuan is a deputy section chief of Ningbo Maritime Safety Administration, CHINA MSA.

Mr. Jiao Xiaoxuan was born in China in 1996. In 2017, he graduated from Jimei University with a bachelor's degree in navigation technology specialty, and joined Ningbo Maritime Safety Administration in August of the same year. In the past 6 years, he has engaged in ship inspection, navigation safety and ship pollution prevention and has made some achievements.

Thanks to the development of intelligent supervision by China Maritime Safety Administration, he has been involved in the field of smart ships and unmanned ships since 2019.



Cécile ZANETTE

Mediterráneo Señales Marítimas S.L. (MSM)
CEO MSM Ocean
Spain

BIOGRAPHY

Cécile Zanette joined MSM as a Business Development Manager in 2016 working mostly with North American, European, African and Asian markets. With a Master's degree in International Business and Negotiation, Cécile has extensive experience in managing international projects and relationships.

During her time in MSM, she has received extensive training on Aids to Navigation solutions and has been in charge of leading the design, development and implementation of several beaconing projects over the world including custom-design complex projects.

In addition, since 2020, she is the CEO of MSM's Oceanographic Division, MSM Ocean, where she works with her team as well as external collaborators, to develop instrumented solutions, both floating (data buoys) and onshore for different applications to increase the safety of navigation as well as for scientific research, environmental monitoring or provide data to the offshore energy and blue economy sector. She also has specialized knowledge on MSM's Tsunami Early Warning Systems.



Jinhui ZHAO

Vice President of China Head Aerospace Technology Co
China

BIOGRAPHY

Jinhui ZHAO, Vice President and shareholder of China Head Aerospace Technology Co., is primarily responsible for the top-level planning, satellite design, and deployment of the Skywalker constellation, as well as product development and satellite application market expansion. He is dedicated to promoting the application of satellite data in various fields, including maritime, offshore meteorological services, water conservation, electricity, agriculture, and other industries.

As the co-founder of China Head, Jinhui has participated in major space projects such as lunar exploration, manned spaceflight, and high-throughput communication satellites. As the general leader, Jinhui led the team to complete the overall design of the Skywalker low-orbit communication satellite constellation and successfully developed and launched a total of five satellites: HEAD-1, HEAD-2A/B/C/D. Currently, Jinhui's main responsibilities include managing the marine applications of the Skywalker constellation and VDES product development.

Jinhui hopes that VDES will soon be applied in various fields, such as offshore meteorological services, maritime search and rescue, and navigational assistance. He looks forward to collaborating with IALA members to contribute to VDES joining the SOLAS Convention and the GMDSS.



Zhe XIAO

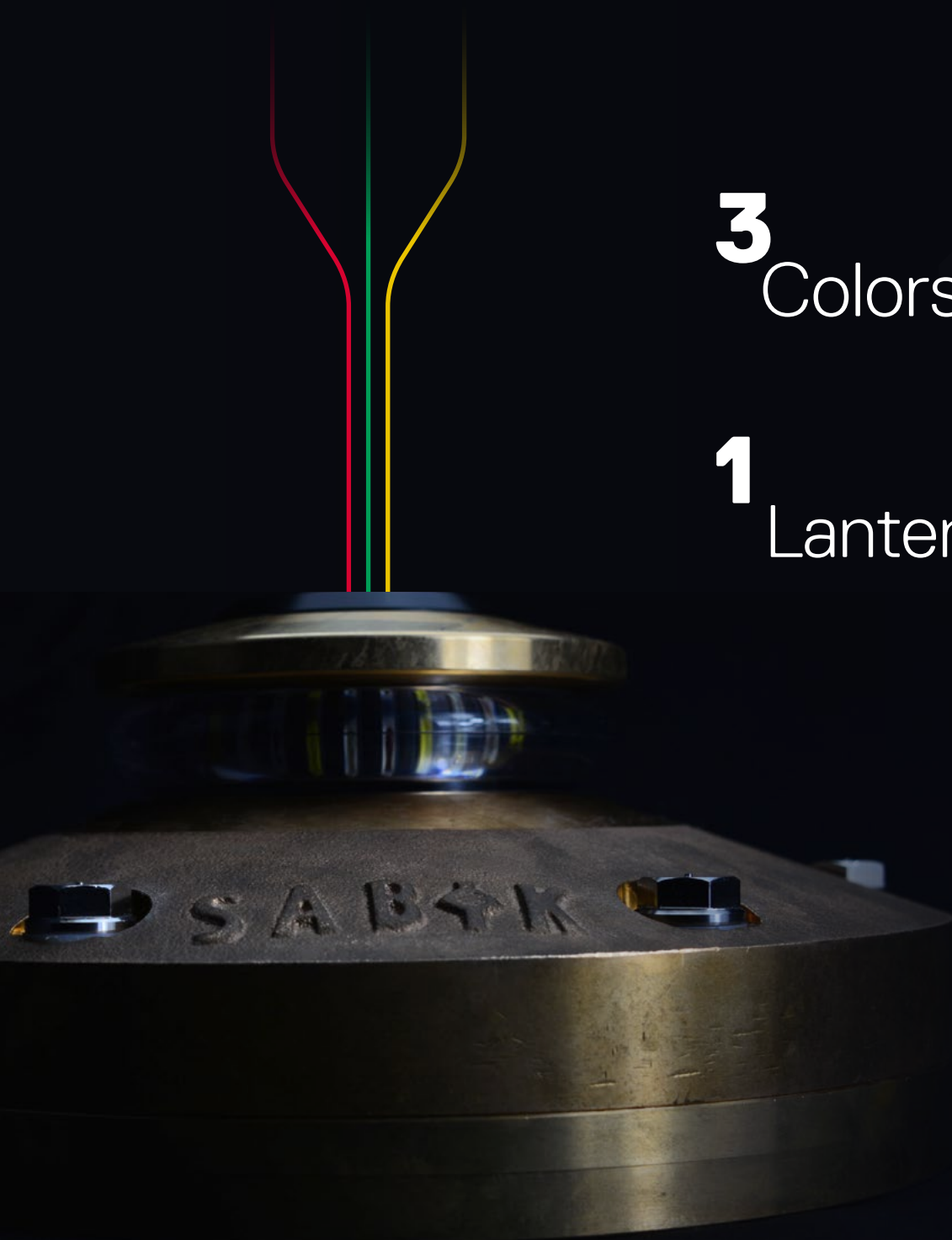
Institute of High Performance Computing (IHPC), A*STAR
Scientist
Singapore

BIOGRAPHY

Zhe Xiao received a Ph.D. degree in Nanyang Technological University, Singapore. He is a research scientist at the Institute of High Performance Computing, A*STAR. He mainly works on intelligent systems and his research interests include system architecture design, large-scale concurrent systems, data science, machine learning, artificial intelligence and blockchain technologies etc. He has been a Principal Investigator (PI) and co-PI of several grant projects on maritime traffic safety management and vessel traffic emission studies. He has published more than 60 papers in international conferences and journals and serves as Associate Editor of IEEE Access. Dr. Xiao Zhe closely works with industries to develop practical and commercial solutions for various vertical domains, whilst maritime traffic & operation is one of the key domains that he was committed to in the past around 10 years.

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