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ASSEMBLY CIRCULAR LETTER 5 bis-8

23 January 2017

1st SESSION OF THE IHO ASSEMBLY

Monaco, 24-28 April 2017

**NOMINATION OF CAPTAIN (RETIRED) RAFAEL PONCE URBINA BY MEXICO
FOR DIRECTOR OF THE IHO**

References:

- A. Conference Circular Letter No.5 dated 14 June 2016 – *Call for Nomination of Candidates for Secretary General and Directors of the IHO*
- B. General Regulations of the IHO, Article 21

Dear Hydrographer,

1. Reference A invited IHO Member States to nominate candidates for the positions of Secretary General and Director of the IHO and indicated that the names of candidates and their nomination forms will be published as soon as they are received.
2. Mexico has nominated **Captain (Retired) Rafael PONCE Urbina** to stand for election at the 1st Session of the IHO Assembly for a post of Director of the IHO. The nomination form is enclosed.
3. As required by Reference B, the Secretary-General will collate all the nominations received and present a consolidated inventory as part of the documentation for the consideration of the Assembly.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "Robert Ward", is positioned below the text "Yours sincerely,".

Robert WARD
Secretary-General

Annex: Nomination Form from Mexico

Mapping our Seas, Oceans and Waterways - more important than ever

Candidature for a post of¹
SECRETARY-GENERAL
DIRECTOR
(Article 20 of the General Regulations)



Candidature à un poste de¹
 SECRETAIRE GENERAL
 DIRECTEUR
(Article 20 du Règlement général)

GENERAL - GENERALITES

1. Nominating Member State – *Etat membre qui présente le candidat* : **Mexico**
2. Name – *Nom* : **Rafael PONCE Urbina**
3. Nationality – *Nationalité* : **Mexican**
4. Date of Birth – *Date de naissance* : **4th May 1964**
5. Title and Decorations – *Titres et décorations*:
 - Mexican Navy Captain (Ret)
 - Recipient, Mexican Navy Third Class Exceptional Perseverance Medal for 20 Years of Outstanding Uninterrupted Active Service, Mexico D.F., Mexico, 2003
 - Honoric Mention, for Participation in the Writing of the Book *Military Geography*, Center for Naval Studies, Mexico D.F., Mexico, 1999
 - Recipient, First Place Academic Award, Navy Staff Course, CESNAV, Mexico D.F., Mexico, 1999
 - Recipient, Mexican Navy Fourth Class Exceptional Perseverance Medal for 15 Years of Outstanding Uninterrupted Active Service, Mexico D.F., Mexico, 1998
 - Recipient, Mexican Navy Fifth Class Exceptional Perseverance Medal, for 10 Years of Outstanding Uninterrupted Active Service, Acapulco, Mexico, 1993
 - Recipient, Second Place Academic Award, Mexican Navy Destroyers School (CIDES), Acapulco, Mexico, 1990
 - Recipient, Second Place Academic Award, Mexican Naval Academy, Anton Lizardo, Mexico, 1984

EDUCATION AND LANGUAGES – ETUDES ET LANGUES

6. Education (periods, including specialized or special qualifications) – *Etudes (durée, y compris les qualifications spécialisées ou particulières)* :

- From 1983 to 1987: Mexican Naval Academy, graduated as Naval Sciences Engineer, Line (surface) Officer, Anton Lizardo, Mexico.
- 1989 Officer's training course on sail navigation on board Tall Ship Cuauhtémoc.
- From 1989 to 1990: Mexican Navy Destroyers School (CIDES), ASW specialty, Acapulco, Mexico.
- 1993: Technical training on the 57 mm Bofors gun and Fire Control System, Acapulco, Mexico.
- 1994: Category B Hydrographic Surveyor at the US Naval Oceanographic Office, Stennis Space Center, Mississippi, United States.
- From 1999 to 2000: Mexican Navy Staff Course, CESNAV, Mexico City, Mexico.
- From 2002 to 2004: Master of Science in Hydrographic Science and Category A Hydrographer at the University of Southern Mississippi, Stennis Space Center, MS. United States.
- 2005: IV Training Course on the Extended Continental Shelf Limits Beyond the 200 M for Latin America and the Caribbean, DOALOS – COPLA, Buenos Aires, Argentina.

7. Languages (speaking and reading capacity) – *Langues (niveau oral et écrit)* :

- Spanish (native)
- English (completely fluent, speaking, reading and writing)
- French (understanding, reading and writing, basic conversation)

SERVICE AND EXPERIENCE² – SERVICES ET EXPERIENCE²

8. Hydrographic service – *Services dans l'hydrographie* :

- 1995 – 1997: Mexican Hydrographic Office, Hydrographic Surveyor: Hydrographer in Charge in hydrographic surveys and Head of the Navy's Tide Gauge Network. Participated as team hydrographer and hydrographer in charge (hydrographic survey team chief) in several hydrographic surveys and as liaison officer in joint surveys with the US Naval Oceanographic Office. Planned and installed the new national tide gauge network of the Navy.
- 1997 – 1999: Mexican Hydrographic Office, Deputy Director of Hydrographic Surveys: Lead the development of the national hydrographic survey plan, that once approved, lead its execution and supervision.
- 2000 – 2002: Mexican Hydrographic Office, Deputy Director of Marine Meteorology: Consolidated the new Navy's marine meteorological network and streamlined forecast workflows for efficient delivery. Was tasked to modernize the HO's cartographic production system and then lead the migration of the nautical cartographic production from manual to fully digital production and produced the first series of Mexican S-57 ENCs. Our team was able of migrating from completely manual production to fully digital in one year (2001).
- 2004 – 2007: Mexican Hydrographic Office, Deputy Director of Hydrography and Cartography. Created a new National Cartographic Plan and annual hydrographic survey campaigns. In 2004, lead the project and started the Central Database production system

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and started migrating the file based chart production (ENC, Paper and raster) to the new enterprise production system. During this period I worked on the creation of a new bilateral agreement with the NOAA Office of Coast Survey and together created the US-Mexico Cartographic Committee for the harmonization of adjacent ENCs. Also, worked on the renewal of the bilateral agreement with the US Naval Oceanographic Office for closer and enhanced cooperation between the two countries. During this period negotiated and joined the IC-ENC RENC and started distributing Mexican ENCs internationally for the first time. I had the privilege and honor to represent Mexico at:

- The Meso-American-Caribbean Sea Hydrographic Commission (MACHC): I served as a long-standing (five-year) member of the Mexican delegation at commission meetings. I supported and facilitated cooperation between Mexico and other countries in the region on various hydrographic projects, including capacity building; I had the opportunity to serve as vice-chair of the Electronic Chart Committee, which worked on several projects and initiatives related to capacity building and the harmonized production and distribution of ENC data in the Mesoamerican region.
- The IHO Strategic Planning Working Group (SPWG): I participated in the proposed IHO development strategy with respect to budgetary, administrative, and technical issues. I also worked with my colleagues of the group on the amendments to the IHO Convention that we have today.
- The General Bathymetric Chart of the Oceans (GEBCO) Sub-Committee on Undersea Feature Names (SCUFN): I served as one of six IHO representatives on the subcommittee that evaluated proposed names for undersea features. The evaluations involved technical and historical analyses.
- The Pan-American Institute of Geography and History (PAIGH): I represented Mexico at meetings and coordinated the organization of the XII PAIGH Hydrographic Committee meeting held in Mexico in March 2007.
- The Mexico's Multidisciplinary Team for the United Nations Convention on the Law of the Sea (UNCLOS Article 76): participated in the Mexican Technical Group (PLACA) in preparation of the Mexican claim to the extended continental shelf beyond the 200-nautical-mile limit in the Gulf of Mexico. In this capacity, I lead the hydrographic survey planning of the Campeche escarpment that served as the base survey in the area for determining the foot of the continental slope, analyzed bathymetric data and finally wrote the hydrographic chapter technical appendices (Spanish and English versions) of the document to be presented to the United Nations.
- 2007: Hydrographic Survey ship ARM Rio Tuxpan: I served as Commanding Officer, started the rehabilitation of the ship and its survey launches, streamlined survey workflows and modernized production systems as well as prototyping the first bathymetric database on board.
- In August of 2007 I requested my voluntary retirement from active duty, passing to the private sector and continuing working on hydrographic matters since then.

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9. Non-Hydrographic service – *Services autres qu’hydrographiques* :

- From 1987 to 1989: I served as Navigation Officer and Weapons Officer on Board Escort Ship Manuel Azueta; and as a Chief Engineering on board Oceanic Patrol ship Tabasco.
- From 1989 to 1990: I was Officer in training on board the Destroyer Escort Netzahualcoyotl (E-04).
- From 1990 to 1993: I was Weapons Officer and Logistics Officer on board the Destroyer Escort Quetzalcoatl (E-03).
- 1994 to 1995: Chief Engineering on board Dredge ship Bahia Magdalena.
- After retiring from the active service, in the private sector I have worked on GIS applications in Hydrography and maritime issues:
 - From 2007 to 2010: Worked as Senior Maritime Project Manager in the development and implementation of enterprise GIS software.
 - From 2010 to 2012 as Maritime Program Manager in charge of the company’s Maritime team and the maritime software development plan and implementation of GIS in the maritime domain (specifically in hydrographic matters).
 - From 2012 to present as Global International Maritime Business Development Manager, leading business development around the world for the implementation of GIS technology in maritime and hydrographic matters and participating at the IHO HSSC and IRCC committee meetings as well as the MSDIWG contributing with the private sector perspective from the technology point of view.

10. Scientific activities – *Activités scientifiques* :

- Research Assistant at the ECDIS Laboratory at the University of Southern Mississippi, USA, 2002.
- Research project “Establishing a Digital Hydrographic Database to produce Multiple Electronic Chart Products and Services”, for the implementation of an enterprise hydrographic database comparing two approaches: a central database based on S-57 data and using Helical Hyperspatial Code (HHCode), University of Southern Mississippi, USA, 2002.
- Creation of a Tide Gauge Network, Tides Database and Tidal Harmonic analysis and forecast, Mexican Navy Hydrographic Office, Mexico 1995 – 96.
- Member of the General Bathymetric Chart of the Oceans (GEBCO) Sub-Committee on Undersea Feature Names (SCUFN). Mexican Hydrographic Office, 2004 – 2007.
- Member of the Mexican Technical Group for the Extended Continental Shelf (PLACA) to prepare the Mexican claim to the extended continental shelf beyond the 200-nautical-mile limit in the Gulf of Mexico; planned the required surveys in the Gulf of Campeche and analyzed the bathymetric data to determine the foot of the continental slope (FoS), created a new workflow using a controlled uncertainty survey and statistical analysis to determine the FoS; and wrote the hydrographic chapter technical appendices (Spanish and English

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versions) of the document to be presented to the United Nations. Mexican Hydrographic Office, Mexico, 2004 – 2005.

- Founder member of the US-Mexico ENC Harmonization Committee. Mexican Hydrographic Office, Mexico, 2004 – 2007.
- Radio Technical Commission on Maritime Services (RTCM) member, 2009 – Present.
- Hydrographic Services and Standards Committee participant representing the Radio Technical Commission for Maritime Services (RTCM), 2010 – Present.
- Marine Spatial Data Infrastructure Working Group member, 2010 – Present.

11. Publications – *Publications* :

- Mexican Tidal Manual (Manual de Mareas), Secretaría de Marina, Mexico, 1999.
- Recent articles published in specialized magazines:
 - Hydro International Magazine, “The New Role of Hydrography in the 21st Century”: <https://www.hydro-international.com/content/article/the-new-role-of-hydrography-in-the-21st-century>
 - Sea Technology Magazine, “Five Information Innovations will Change Ocean Mapping: Creating an Accessible Framework to Manage Vast Ocean Data”: <https://www.highbeam.com/doc/1P3-4156672351.html>
 - xyHt Magazine, “Hydro Insights”: <http://www.xyht.com/hydromarine/hydro-insights/>; <http://www.xyht.com/hydromarine/hydro-insights-part-2/>; <http://www.xyht.com/hydromarine/hydro-insights-part-3/>
- Articles published in LinkedIn:
 - “The Challenges of Evolving from S-57 to S-101 Production Systems”: <https://www.linkedin.com/pulse/challenges-evolving-from-s-57-s-101-production-systems-ponce?trk=prof-post>
 - “IHO Data Protection Scheme and the use of S-57 data beyond Navigation”: <https://www.linkedin.com/pulse/20140429012119-34370006-iho-data-protection-scheme-and-the-use-of-s-57-data-beyond-navigation?trk=prof-post>
- Papers presented recently at maritime and hydrographic conferences:
 - Ocean Business – Offshore Survey 2015 Conference as keynote speaker “The Future of GIS and its Impact in the Ocean Activities”; Southampton, UK April 2015.
 - At the Hydro 2016 Conference in Rostock, Germany, November 2016:
 - “Charts on Demand: A New Revenue Stream for Hydrographic Agencies”. K. Ingram and R. Ponce. Redlands, CA. USA.

CANDIDATE’S POSITION – *POSITION DU CANDIDAT*

The International Hydrographic Organization is a *highly dynamic* global and technical entity formed by national hydrographic offices in charge of developing the standards and guidance for all hydrographic matters at sea, including capacity building and dissemination of the relevance of hydrography in the

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national development, with the main goal of producing high quality data and products for the safety and efficiency of navigation and in support of other activities at sea and marine environmental protection, taking advantage of the latest technologies; in doing so, the IHO works in coordination with other marine, maritime and international agencies, non-government organizations and the original equipment manufacturers. I'd like to start my position with that vision in mind.

We are living times of great changes, a new epoch, which scientists call the anthropogenic era. The world does not evolve in a linear manner anymore; it is now exponential. In our hydrographic world, it means that technology is evolving rapidly, affecting the way we behave, altering the status quo, bringing new challenges to our organization but also new opportunities. It is up to us to adapt or to slowly but surely fade away. This by no means pretends to be a catastrophic statement, it is just the law of nature. To evolve, our organization needs to clearly identify its priorities and without losing the context of the world surrounding us, laser focus on SMART objectives for capacity building for the less developed nations, reach out non-member maritime nations to grow our membership, consolidate, evolve and implement the new universal hydrographic data model (S-100) and strengthen the cooperation with other relevant institutions. In parallel, internally our Secretariat needs to reorganize and evolve to become more efficient in serving our member states, taking advantage of new technologies (document management systems, virtual forums, portals, cloud based services) to increase our productivity (working smarter).

We can no longer use the past to predict the future, we cannot (and certainly will not) compare with the times when the S-57 standard came about. Even though S-100 brings a good answer to today's needs, we should not wait the same amount of time to develop and implement its derived product specifications. We need to promote and impulse S-100 development to make it prevalent. Change is accelerating; some people say that the world is likely to change more in the next 50 years than in the last few hundred. The oceans are seeing a new "Seaconomics" era (as some visionaries like to call it) where the historic link between global GDP growth and shipping volumes have decoupled; new generations are demanding more than just better "return of investment" (or cost-benefit), they are considering sustainability, resiliency, persistent systems to improve lives and preserve nature. In a no distant future we will see how e-Navigation will transform the shipping industry, the ports and their services, the very things that constitute our core mission: safety of navigation. And an important relatively new aspect of these changes is the need to use hydrographic data for many other maritime activities, our main asset: bathymetry is the reference framework for everything that happens or need to happen at sea, that in conjunction with other data, including the vector data created for ENCs, bring the need to create Marine Spatial Data Infrastructures to organize, produce and share marine information efficiently for multiple applications, connecting hydrography to the National SDI, and consequently elevating the relevance of hydrography in the national context. This evolution includes important Security and Defense aspects, as well as administration of Marine Resources and Renewable Energy such as windfarms among others.

Today, is not only about the terabytes of data generated, but also the high speed at which they are transmitted and processed, this is what we call "Big Data" that together with the right applications create the "Internet of things" that is transforming our lives. From AUV's sonar data acquisition to Satellite Derived Bathymetry, all are part of the new technology revolution. This is not exclusive of

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shore based systems, they are becoming available on board too, enabling the possibility for analysis and the insights required to take the right decisions at the right time. E-Navigation and the Maritime Services Portfolios are part of these systems too. They all will form a maritime nervous system that we all will feed. Hydrography should be at the core of this nervous system, and we, as the International Hydrographic Organization can make it happen, and evolve (without losing our fundamental safety of navigation mission) from chart makers to maritime geospatial agencies.

To serve as IHO's Director, I consider that I bring the required knowledge and experience from the public sector as a Naval Officer, Hydrographer and Deputy Director; and from the private sector as a senior manager in charge of developing and implementing software technology for maritime and hydrographic applications. During my naval career, including the Hydrographic Office, I learned how to produce results with limited budgets and resources, and in the private sector I have learned how technology develops and evolves, and how to implement this technology in the real world, on time and within budget. I consider that that experience from both worlds would benefit our organization, our member states, to continue evolving at a faster pace, to elevate hydrography to the national level it deserves in our countries and to become the International Hydrographic Organization we all envision.

If I have the opportunity to serve as an IHO Director, as a team member with the rest of the Secretariat and all member states, I will work with each and every one of you, including associated members and non-member states, NGOs and OEMs in evolving our organization into the 21st Century, using all the tools and prerogatives I have at my disposal to bring hydrographic knowledge to all corners of our world, to build bridges between developed and developing member states, to facilitate and help develop Capacity Building at all levels (from basic hydrographic surveying to the complexities of creating Marine SDIs and everything in between), to support development of hydrographic standards (with S-100 at the forefront), to help educate higher levels of government and decision makers in understanding the relevance of hydrography and the role of the IHO, to build together that better and more resilient world we all envision for generations to come.

ADDITIONAL INFORMATION – RENSEIGNEMENTS COMPLEMENTAIRES

(if any)

(le cas échéant)

During my time at the Mexican Hydrographic Office, leading the team we successfully organized the following MACHC meetings:

- MACHC Extraordinary Meeting, November 7 – 11, Veracruz Mexico 2005
- VII MACHC Conference, October 4 – 7, Acapulco Mexico 2006.

I represented our Hydrographic Office at the Mexican multidisciplinary Federal Government group for the development of the National Digital Base Map (2004-2006).

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In 2005 leading the team we organized the 7th Strategic Planning Working Group meeting in Mexico City.

From 2002 to 2005, I participated in the negotiations and different stages of the transfer process of the Hydrographic Ship Whiting from NOAA OCS to the Mexican Hydrographic Office, becoming the ARM Rio Tuxpan B-12 hydrographic survey ship, and her further rehabilitation for service (2006 – 2007).

In 2009 I became member of the Radio Technical Commission on Maritime Services (RTCM), representing the company and participating at the Special Committee 109 on Electronic Charting Technology and Special Committee 133 Standard on Internet-Based Automatic Identification System Services (AIS-i). I have represented RTCM at the Hydrographic Services and Standards Committee 6, 7 and 8 meetings and the Inter-Regional Coordination Committee 7.

I'm a current member of the IHO Marine SDI WG since 2013, have participated at the MSDIWG 4, 5, 6 and 7 meetings, including the updating of the publication Spatial Data Infrastructures "The Marine Dimension" C-17, Edition 2.0

I am a founder member of the Latin American Chapter of the Hydrographic Society of the Americas, and current chair of the Norms Internal Committee: <http://www.thsoa.org/Capitulo-de-America-Latina>

LinkedIn profile: <https://www.linkedin.com/in/rafaelponceurbina>

Date: 16 January 2017

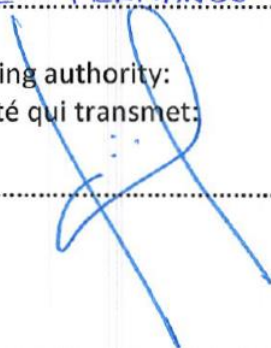
Signature of candidate:
Signature du candidat:



Forwarding Authority – Autorité qui transmet:

CONTRALMIRANTE FERNANDO ALFONSO ANGLI RODRIGUEZ

Signature of forwarding authority:
Signature de l'autorité qui transmet:



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