

Visit to the University of Southern Mississippi (USM) facilities and the Graduation Ceremony of the Category "A" Master of Science in Hydrographic Science at the University of Southern Mississippi, USA, 1 – 2 August

Contribution to the IHO Work Programme 2024	
Task 3.3.9.1	Maintain relations with KHOA for the management of Cat A Course at University of Southern Mississippi

The Graduation (Recognition) Ceremony of the Category "A" Master of Science in Hydrographic Science and Category "B" Bachelor of Science in Marine Science (Hydrography) was held at the University of Southern Mississippi (USM), USA on 2 August 2024. Two students from Mauritius and Türkiye graduated from the Category "A" Master of Science in Hydrographic Science Programme under the IHO-Republic of Korea (ROK) Programme of Technical Cooperation.

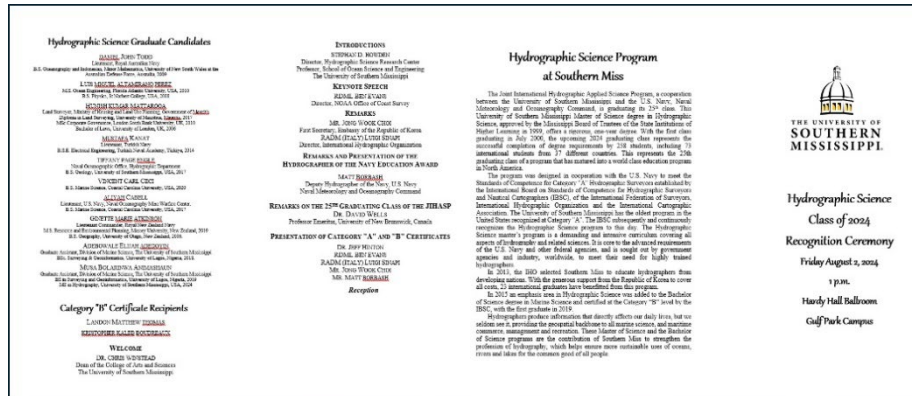


Graduates and representatives from USM, IHO, ROK, NOAA and US Navy – Figure 1

The ceremony was hosted by Dr Chris Winstead, Dean of the College of Arts and Sciences of the USM, and moderated by Prof Stephan Howden, Director Hydrographic Science Research Center of the USM. Ten students graduated from the Master of Science in Hydrographic Science this year, including the two students supported by the IHO-ROK Programme and one student supported by the U.S. Navy. Two more students graduated from the Bachelor of Science in Marine Science. In addition to many officials from the USM, representatives from Mississippi State and Congressional Delegation, NAVAL Oceanographic Office, Saildrone and TSHOA and U.S. Navy, Mr Jongwook Choi, First Secretary of the ROK Embassy in the U.S., Rear Admiral Ben Evans, Director, NOAA Office of Coast Survey and Cdr (ret) Matt Borbash Deputy Hydrographer of the U.S. Navy attended the ceremony. The IHO Secretariat was represented by Director Luigi Sinapi.

Since 2000, the USM has been organizing the Category "A" Master of Science course in Hydrographic Science, recognized by the IBSC (FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers). The IHO-ROK Technical Cooperation Programme under the Memorandum of Understanding between the IHO and

ROK commenced with supporting students to attend the course from 2013 to contribute to the IHO Capacity Building Programme. The number of successful graduate students from the programme totals 23, including the two from Mauritius and Türkiye (2023-2024 academic year), and from 14 IHO Member States (Bahrain, Bangladesh, Estonia, Guatemala, Jamaica, Malaysia, Mauritius, Mexico, Nigeria, Philippines, Romania, Thailand, Tunisia and Türkiye).



Details of the Ceremony – Figure 2

Dr Chris Winstead, Dean of the College of Arts and Sciences of the USM congratulated the graduates and highlighted that the Joint International Hydrographic Applied Science Programme (JIHASP) is a cooperation between the USM and the U.S. Navy, Naval Meteorology and Oceanography Command celebrating this year its 25th class. With the first class graduating in July 2000, the upcoming 2024 graduating class represents the successful completion of degree requirements by 258 students, including 73 international students from 37 different countries.



IHO Director and ROK representative with the IHO-ROK graduates Mr Hunish Kumar Mattarooa (Mauritius) and Lt Mustafa Kanat (Türkiye) - Figure 3

Rear Admiral Ben Evans recalled the recent efforts made in increasing the knowledge of oceans' floor, adding – in 2024 – an area of roughly the dimensions of the European Union and bringing the total percentage to 26.1%. A tremendous challenge is still awaiting the hydrographers: to make the world's leaders more aware of the oceans and the consequences that this massive gap has on their fundamental understanding. In fact, as climate change is causing sea level rise and an increase in the frequency and intensity of severe weather conditions, coasts are experiencing a growing threat of inundation for high tides and storm surge and these impacts don't end in the coastal zone, and hydrography can help in accurate forecasting extreme events, requiring high resolution in surveying coastal areas and shallow waters. He finally underlined the importance of hydrographic data that requires to be processed and reported in a way that meets the goal *to get once and use many times*.

First Secretary Mr Jong Wook Choi from the ROK Embassy to the USA congratulated with the graduated students for the passionate efforts in achieving the important recognition in hydrography, to contribute to the safety of navigation and the conservation and use of the oceans. He finally thanked the teaching body of the USM, highlighting the significance of collaboration of the three organizations (ROK, IHO and USM) behind the Category "A" Master of Science in Hydrographic Science.

IHO Director Luigi Sinapi thanked the USM and the Republic of Korea for this successful program since the 2013-14 academic year, highlighting that nowadays, the marine and maritime domains are in the midst of radical changes which will propel navigation forward and open a realm of new possibilities, where hydrographers have a central role in facilitating the omnicomprehensive digital representation of the Ocean. The uses of hydrographic information have expanded from just nautical charts and services to including a broad range of stakeholders and marine and maritime sectors. In addition to that, the International Hydrographic Community is fully committed in revolutionizing the approach to Hydrography, through a massive recourse to autonomous sea operations requiring machine-to-machine data exchange and automated decision-making, and a new standardized and real-time approach to safety of navigation, through the use of new products and services under the framework of the new Universal Hydrographic Data Model S-100, which will become operational in 2026.

Cdr (ret) Matt Borbash, Deputy Hydrographer of the U.S. Navy presented the "*Hydrographer of the Navy Education Award*" to Mr Vincent Carl Ceci, as Mr Ceci had shown outstanding performance during the 2023-24 academic year.

Finally, Dr David Wells, professor Emeritus, University of New Brunswick, Canada, in his recorded remarks of the 25th graduating class of the JIHASP, highlighted the role of IBSC and the essential skills that a surveyor must have for a successful carrier: capacity to work in a team, experience and integration.



Visit to the USM facilities of Stennis Space Center – Figure 4

The ceremony was preceded (1st August) by a meeting with the students of the 2023-24 Category "A" Master of Science in Hydrographic Science, who illustrated the projects executed at the completion of the course, and then by a visit to the USM facilities at the Stennis Space Center in Mississippi. Dr Stephan Howden, Director Hydrographic Science Research Center of the USM and Dr Leonardo Macelloni, Associate Director Hydrographic Science Research Center illustrated the functions of the oceanographic support facility and the respective laboratories at the Stennis Space Center.