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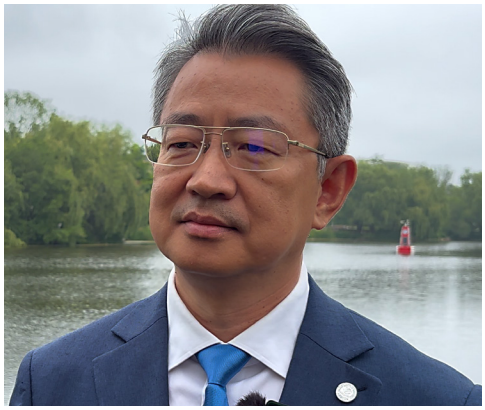
"FROM POLICY TO PRACTICE" INTERVIEW SERIES

DALIAN MARITIME UNIVERSITY PRESIDENT DR. SHAN HONGJUN



DMU President Dr. Shan Hongjun, speaking to IMO, June 2026.

WHAT IS YOUR VISION FOR MARITIME EDUCATION AND TRAINING, AND WHAT ROLE DO INSTITUTIONS LIKE DMU PLAY IN TRANSLATING IMO POLICY INTO PRACTICE AND ADVANCING MARITIME EXCELLENCE?

Thank you for raising such a timely question. First, on behalf of Dalian Maritime University (DMU), I would like to extend my sincere greetings to maritime professionals around the world.

The theme for World Maritime Day 2026-2027 is "From Policy to Practice: Powering Maritime Excellence". In his message on the World Maritime Day theme 2026, IMO Secretary-General Arsenio Dominguez made a statement that left a deep impression on me: "When we talk about 'practice', we are talking about people". This precisely reveals a fundamental proposition - the essence of maritime excellence is human excellence. And the wellspring of high-level talent lies in high-standard education and training. This is the mission that DMU has upheld for 117 years.

Our vision for maritime education and training can be summarized as "cultivating a new generation of maritime professionals with global competence". Specifically, the talent we aspire to develop is characterized by three distinctive attributes: First, value-driven leadership - upholding the university motto of " Gathering knowledge from myriad sources, extending virtue to the boundless seas", and internalizing maritime ethics centered on safety, environmental protection, and fairness as a professional creed. Second, professional excellence - not only mastering core competencies in navigation technology, marine engineering, maritime law, and maritime management, but also adapting to the paradigm shifts brought by smart shipping and green shipping. Third, a global perspective - communicating effectively in multicultural environments and making China's voice heard in international rule-making.

DMU plays a vital role in the implementation of IMO policies and the pursuit of maritime excellence. First, DMU serves as an "incubator" of maritime excellence talent. We have built a multi-tiered education system spanning bachelor's, master's, and doctoral programs in navigation technology, marine engineering, maritime law, and maritime management - all closely aligned with IMO policies. Over the past century, DMU has cultivated more than 200,000 maritime professionals who are active in key positions across the global shipping industry, serving as a backbone force in the implementation of IMO policies and the development of the maritime sector.

Second, we act as a "converter" connecting IMO policy with global maritime practice.

IMO has established an extensive convention system covering maritime safety, marine environmental protection, and seafarers' rights. On the one hand, we promptly integrate these requirements into our

DMU Dual-Purpose Intelligent Training Ship **Xin Hong Zhuan**

“OUR TRAINING SHIP “XIN HONG ZHUAN” IS EQUIPPED WITH SIX MAJOR INTELLIGENT SYSTEMS INCLUDING AUTONOMOUS NAVIGATION, REMOTE CONTROL, AND SHORE-BASED INFORMATION SUPPORT”

curricula and training programs to ensure that our graduates possess global competence. On the other hand, we conduct applied research on IMO priority topics such as autonomous vessels and alternative fuels, translating research outcomes into practical technologies that drive industrial upgrading.

Third, we serve as a “new engine” of global maritime governance. “From Policy to Practice” is not a one-way input but a two-way interaction: we not only translate global rules into Chinese practice but also contribute Chinese experience to the global community. Over the past two years, our faculty have attended IMO meetings 81 times as advisors for the Chinese delegation, and were involved in the drafting and submission of 172 IMO proposals, deeply participating in rule-making and revision.

ARE THERE SPECIFIC REGULATIONS, EMERGING PRIORITIES, OR NEW TECHNOLOGIES THAT ARE SHAPING YOUR CURRENT AND FUTURE FOCUS?

This is a very pragmatic question. The global maritime sector is currently at the convergence of a “regulatory restructuring phase” and a “technology explosion phase.” These forces together define our present priorities and future strategic layout.

IMO regulations set the course. International maritime regulations are the cornerstone of all our work, and we are currently in an intensive cycle of rule updates. Most notable is IMO’s greenhouse gas reduction strategy. The non-mandatory goal-based International Code of Safety for Maritime Autonomous Surface Ships (MASS Code) was adopted at MSC 111 in May 2026, and has entered into an experience-building phase, laying the groundwork for mandatory rule-making to commence in 2028. The comprehensive review of the STCW Convention is also advancing steadily, with revisions underway for hundreds of provisions covering cybersecurity, alternative fuels, mental health, and gender and cultural diversity. Every update to these regulations is directly transmitted into our talent cultivation programs.

Technology determines the speed. If regulations tell us “where to go,” new technologies determine “how to get there”. At present, we focus on three major technology clusters:

The first is the green and low-carbon technology cluster. We not only research application pathways for alternative fuels such as LNG, methanol, ammonia, and hydrogen, but also explore energy-saving technologies including onboard carbon capture and storage (OCCS), wind-assisted propulsion, and air lubrication drag reduction. These cutting-edge advances have been translated into teaching content - courses on green ship design, marine environmental protection, and carbon emission management and trading have already been incorporated into our curricula.

The second is the smart shipping technology cluster. We focus on several key technologies: cross-modal semantic alignment of multi-source heterogeneous maritime data; intelligent navigation and autonomous collision-avoidance decision systems; remote ship control and shore-based support systems; and cybersecurity and intelligent energy management. Notably, as an integrated validation platform for these technologies, our training ship **Xin Hong Zhuan** is equipped with six major intelligent systems including autonomous navigation, remote control, and shore-based information support, achieving a world-leading level of intelligence.

The third is the educational digitalization technology cluster. Technology is not only transforming the shipping industry but also reshaping education itself. Digital technologies break the boundaries of time and space through scenario reconstruction. Our self-developed full-scale ship maneuvering simulator can accurately simulate hundreds of ports worldwide and various extreme scenarios. The digital twin system of our training ship **Xin Hong Zhuan** synchronizes real-time operational data - main engine conditions, energy consumption curves, navigation tracks, and environmental parameters - directly into the classroom. What students see in the classroom is no longer a static textbook but a “digital mirror” of a real vessel sailing on the ocean.

“INTERNATIONAL MARITIME REGULATIONS ARE THE CORNERSTONE OF ALL OUR WORK, AND WE ARE CURRENTLY IN AN INTENSIVE CYCLE OF RULE UPDATES”

HOW IMPORTANT IS COLLABORATION WITH INTERNATIONAL ORGANIZATIONS, ACADEMIC INSTITUTIONS, AND THE IMO IN ACHIEVING THESE GOALS?

This is a crucial question. On the globalized ocean, there is no isolated excellence - only connected progress. The intrinsic nature of the maritime industry makes cooperation not an “option” but a “must”. No country or institution can afford to work in isolation.

I would like to share our international cooperation efforts from three dimensions.

The first dimension: cooperation with IMO and other international organizations. For us, cooperation with IMO carries dual value. On the one hand, it is “input” - keeping abreast of the direction of regulatory evolution to ensure our course remains synchronized with global benchmarks. We dispatch experts and scholars to IMO meetings every year to track regulatory developments in real time, promptly translating policy signals into curriculum adjustments to ensure that our training standards are always aligned with the latest IMO requirements. On the other hand, it is “output” - contributing Chinese wisdom and Chinese solutions. As I mentioned earlier, our faculty actively participate in IMO meetings and continuously contribute Chinese proposals in IMO rule-making and revision. In addition, DMU serves as the regional representative of the International Association of Maritime Universities (IAMU), and I am honored to serve as

DMU students attended an IMO presentationon on the organization, its regulatory processes, and opportunities within the UN system.

Onboard training underway at DMU.

IAMU President for the 2025–2027 term. Through the IAMU platform, we have been deeply involved in initiatives such as the Global Maritime Professional (GMP) initiative and the new edition of the GMP-BoK (Body of Knowledge) system.

The second dimension: cooperation with global academic institutions. Maritime education and research are highly international in nature, and drawing on global best practices is essential for enhancing our educational and research quality. At present, DMU has established cooperative relationships with 201 renowned institutions in 51 countries and regions, forming a global network covering major maritime education centers. Since 2005, we have jointly operated the Master of Maritime Administration program with the World Maritime University (WMU), cultivating more than 750 outstanding senior managers for China's maritime transportation system. Furthermore, we have established credit recognition and student exchange programs with maritime universities in Japan, the Republic of Korea, Norway, the United Kingdom, and other countries, enabling students to experience different educational models and cultures and develop cross-cultural communication skills.

The third dimension: cooperation with industry enterprises. If cooperation with IMO addresses whether "the rules are right", and cooperation with academic institutions addresses whether "the knowledge is up to date", then cooperation with industry enterprises addresses whether "the outcomes are applicable". We maintain long-term partnerships with world-renowned shipping companies such as Maersk, CMA CGM, China Merchants Group, and COSCO Shipping Group, jointly building laboratories, undertaking research projects, and cultivating talent. I would like to cite a recent example: at the end of 2025, DMU signed a Memorandum of Understanding on Partnership with the French CMA CGM Group. The two sides will cooperate in four areas: student internship programs, joint curriculum and textbook development, crew training upgrades, and executive and youth exchanges.

ANY CLOSING REMARKS?

Thank you. In closing, I would like to borrow a Chinese proverb: "A single flower does not make spring; only when a hundred flowers bloom does spring come to the garden". Dalian Maritime University is ready to work hand in hand with IMO, maritime universities around the world, and industry partners to turn the commitment of "From Policy to Practice" into action. Let us pursue maritime excellence through open cooperation and promote the high-quality development of the global maritime industry through connectivity. Together, let us look forward to a safer, greener, and smarter maritime future. Happy World Maritime Day to all!

"DMU IS READY TO WORK HAND IN HAND WITH IMO, MARITIME UNIVERSITIES AROUND THE WORLD, AND INDUSTRY PARTNERS TO TURN THE COMMITMENT OF "FROM POLICY TO PRACTICE" INTO ACTION"

DMU students attending the joint World Maritime University (WMU)-Dalian Maritime University (DMU) M.Sc. in Maritime Affairs

问题 1　Question 1

主持人：在世界海事日即将到来之际，我们想先请您谈谈对海事教育和培训的愿景，以及像大连海事大学这样的机构，在将国际海事组织（International Maritime Organization，简称 IMO） 政策转化为实践、推动海事卓越方面扮演着怎样的角色？

单红军校长：

感谢您提出这个恰逢其时的问题。首先，请允许我代表大连海事大学，向全球海事同仁致以诚挚的问候。

2026-2027 年世界海事日的主题是“**从政策到实践：驱动海事卓越**”。IMO 秘书长多明格斯先生在世界海事日主题的致辞中有一句令我印象深刻的阐述：**“当我们谈论‘实践’时，我们谈论的是人。”**这句话精准地揭示了一个根本命题——**海事卓越的本质，是人的卓越**。而高素质人才的源头，正是高标准的教育与培训。这也是大连海事大学 117 年来始终坚守的使命。

我们对海事教育与培训的愿景，可以概括为**“培养具有全球胜任力的新时代海事人才”**。具体而言，我们期待培养的人才具备三个鲜明特质：**一是价值引领**，恪守“学汇百川、德济四海”的校训精神，将安全、环保、公平的海事伦理内化为职业信仰；**二是专业卓越**，不仅掌握航海技术、轮机工程、海事法规等核心能力，更能适应智能航运、绿色航运带来的范式变革；**三是全球视野**，能够在多元文化环境中有效沟通，在国际规则制定中发出中国声音。

海大在 IMO 政策落地与海事卓越中扮演着非常重要的角色。**首先，海大是海事卓越人才的“孵化器”。**我们**构建了**涵盖航海技术、轮机工程、海商法、海事管理等与 IMO 政策紧密对接的优势学科的**本硕博多层次人才培养体系**。百余年来，海大已培养 **20 余万名**海事专业人才，他们活跃在全球航运业的各个关键岗位，成为 IMO 政策实施和海事产业发展的中坚力量。**其次，我们是连接 IMO 政策与全球海事实践的“转换器”。**IMO 构建了涵盖海上安全、海洋环保、船员权益等领域的庞大公约体系，我们一方面及时将这些要求融入课程体系和培训计划，确保毕业生具备全球胜任力；另一方面我们围绕自主船舶、替代燃料应用等 IMO 重点议题开展应用研究，将研究成果转化为实用技术，推动

行业升级。**再次，我们还是全球海事治理的“新引擎”**。“从政策到实践”不是单向的输入，更是双向的互动——既要将全球规则转化为中国实践，也要将中国经验贡献给全球。近两年，我校教师作为中国代表团的主谈代表和咨询专家出席 IMO 会议 81 人次，**完成 IMO 提案 172 份**，深度参与规则制定与修订。

问题 2　Question 2

主持人：面对当前全球航运业的快速变革，是否有特定的法规、新的行业重点或新技术，正在影响您当前及未来的战略关注点？

单红军校长：

这是一个非常务实的问题。当前全球海事领域正处于“规则重构期”与“技术爆发期”的叠加阶段，这三者共同塑造了我们海大现在的关注重点和未来的战略布局。

法规决定航向。国际海事法规是我们一切工作的基石，而当前正处于一个密集的规则更新周期。最引人注目的当属 IMO 的**温室气体减排战略**。非强制性**海上自主水面船舶（MASS）规则**已于 **2026 年 5 月 MSC 111 会议**通过，随后将进入经验积累阶段，为 2028 年启动的强制性规则制定奠定基础。**STCW 公约全面复审**，正在稳步推进，正在对涵盖网络安全、替代燃料、心理健康、性别与文化多样性等领域的上百条条款进行修订。这些法规的每一次更新，都直接传导到我们的人才培养方案中。

技术决定航速。如果说法规告诉我们“去哪里”，新技术则决定了“怎么去”。当前，我们重点关注三大技术集群：**首先是绿色低碳技术集群。**我们不仅研究液化天然气（LNG）、甲醇、氨、氢燃料等替代燃料的应用路径，还探索船舶碳捕集与封存（OCCS）、风帆辅助推进、空气润滑减阻等节能技术，并且将这些前沿成果转化为教学内容——**绿色船舶设计、海洋环境保护、碳排放管理与交易**等课程已纳入培养方案。**其次是智能航运技术集群。**我们聚焦于几个关键技术：**多源异构海事数据的跨模态语义对齐，智能导航与自主避碰决策系统，船舶远程驾控与岸基支持系统，网络安全与智能能效管理等。**值得一提的是，作为这些技术的集成验证平台，我们“新红专”轮集成了自主航行、

远程驾控、岸基信息支持等六大智能系统，智能化程度达到世界领先水平。**第三是教育数字化技术集群。**技术不仅在改变航运业，也在重塑教育本身。数字化技术通过场景重构让学习突破时空边界。我校自主研发的大型船舶操纵模拟器可以高精度模拟全球上百个港口和各类极端场景，我们**“新红专”轮的数字孪生系统**，能够将船舶的实时运行数据——主机工况、能耗曲线、航行轨迹、环境参数——同步接入课堂。学生在教室里看到的，不再是静态的教科书，而是一艘正在大洋上航行的真实船舶的“数字镜像”。

问题 3　Question 3

主持人：刚才您谈到了法规、技术和人才三个层面的战略布局。那么这些目标的实现，离不开广泛的国际合作。能否请您谈谈，与国际组织、学术机构以及行业企业的合作，对于实现这些目标的重要性？

单红军校长：

这是一个非常关键的问题。**在全球化的海洋上，没有孤立的卓越，只有联结的进步。**海事行业的本质属性决定了合作不是“可选项”，而是“必选项”。任何国家、任何机构都不可能闭门造车。

我想从三个维度来分享一下我校的国际合作情况。

第一维度：与 IMO 和其他国际组织的合作。对我们而言，与 IMO 的合作具有双重价值。**一方面，是“输入”——及时把握规则演进的方向，确保了我们的航向与全球基准同步。**我们每年派遣专家和学者参加 IMO 会议，零距离跟踪法规政策动态，**及时将政策信号转化为课程调整方案**，确保我们的培养标准始终与 IMO 最新要求对齐。**另一方面，是“输出”——贡献中国智慧和中国方案。**正如我刚才所说，我校教师积极参加 IMO 会议，在 IMO 规则制定与修订中持续贡献中国方案。除此之外，我校还是国际海事大学联合会（IAMU）的地区代表，我本人也是 IAMU **2025-2027 年度主席**。通过 IAMU 平台，我们深度参与了“全球海事专业人才”倡议、新版 GMP-BoK 知识体系等工作。

第二维度：与全球学术机构的合作。海事教育和研究具有很强的国际性，借鉴全球先进经验对于提升我们的教育和研究质量至关重要。目前，我校已与

51 个国家和地区的 201 所国际著名院校、单位建立了合作关系，形成了覆盖全球主要海事教育中心的合作网络。我校与世界海事大学（WMU）自 **2005 年**起联合举办“海事管理硕士项目”，已为我国海事交通系统培养了 **750 余名**优秀高级管理人才。此外，我们与日本、韩国、挪威、英国等国的海事大学建立了学分互认和学生交换项目，让学生体验不同的教育模式和文化，培养跨文化沟通能力。

第三维度：与行业企业的合作。如果说与 IMO 的合作解决“规则对不对”、与学术机构的合作解决“知识新不新”，那么与行业企业的合作解决的就是“成果用不用得上”。我们与马士基、达飞、招商局集团、中远海运集团等世界著名航运公司保持长期合作，共建联合实验室、共担科研项目、共育专业人才。**我举一个最近的案例：**2025 年底，我校与法国达飞集团签署《合作伙伴关系合作谅解备忘录》，双方将在学生实习项目、课程与教材共研、船员培训升级、高管与青年交流等四个方面开展合作。

结束语 Closing

主持人：非常感谢校长今天与我们分享了如此深刻的见解。

单红军校长：

谢谢主持人。最后，我想借用一句中国谚语结束我的访谈：**一花独放不是春，百花齐放春满园。**大连海事大学愿与 IMO、全球海事院校及行业伙伴携手，将“政策到实践”的承诺化为行动。在开放合作中追求海事卓越，在互联互通中推动全球海事行业的高质量发展。让我们共同期待一个更加安全、更加绿色、更加智能的海事未来。祝大家世界海事日快乐！