

# IoS-OP Taiwan Seminar

Archives On-demand

**CI measures and retrofits in existing ships**

**From 1st August to 30th September 2022**

## *Opening Address*

Tomoyuki Koyama

Chairman of IoS-OP Consortium

Senior Managing Executive Officer, Chief Executive of Technical Headquarters,  
Nippon Yusen Kabushiki Kaisha (NYK Line)



No.1

## *IoS-OP and activities*

Yasuhiro Ikeda

President

Ship Data Center Co., Ltd. (ShipDC)

*This presentation will introduce IoS-OP, the Internet of Ships Open Platform, which is a data-sharing framework promoted by ShipDC. It includes the concept of data ownership, IoS-OP common rules, key features and technical specification of the shore platform managed by ShipDC, activities of IoS-OP Consortium, and business cases led by private cooperation.*

Keywords: ShipDC, IoS-OP, Ship IoT, Data Ownership



No.2

## *Introduction of TERASAKI Marine Information Platform (TMIP)*

Mengqiu Yu

International Sales Section, Marine Sales Department, System Division

TERASAKI ELECTRIC CO., LTD.

*This is an Onboard data platform that collects and saves various onboard data and provides the data to each application. Contributes to data utilization and efficient work on board.*

Keywords: On Board data server, Platform Provider, Data Collection, ISO19847/19848

No.3

*DanelecConnect IoT at sea <Archives On-demand Only>*

Thomas Petersen

VP Marketing

Danelec

*Danelec simplifies data capture for ship owners, enabling them to future-proof their fleet and compete effectively in tomorrow's data-dependent, net zero economy. The company develops technologies to optimize safety, cost and performance of marine operations as a leading manufacturer of Voyage Data Recorders (VDR), Shaft Power Meters (KYMA) and provider of IoT infrastructure and ship performance monitoring solutions, with products installed on more than 10,000 vessels worldwide.*

Keywords: Value from maritime data



**IoS-OP Consortium**

No.4

*Accelerate digital transformation begins with decarbonization*

Braxton Chan

Manager, Inmarsat Maritime  
Inmarsat Maritime



*Inmarsat will accelerate digital transformation in the maritime industry beginning with decarbonization. How SATCOM will navigate the future digital transformation for a beginning stage of decarbonization.*

Keywords: Digital Transformation, decarbonization, Satellite communication, Data sharing

No.5

*The world's top speed GEO satellite broadband service "JSATMarine" <Archives On-demand Only>*

Nao Shigenari

General Manager, Mobile Business Division, Global Business Group  
SKY Perfect JSAT Corporation



*SKY Perfect JSAT Corporation is Asia's largest satellite operator with a fleet of 16 satellites. "JSATMarine" is the one of the world's top GEO satellite based maritime service in terms of speed as fast as 50Mbps (shore-to-ship) and 3Mbps (ship-to-shore) at monthly fixed rates in major shipping routes from Western Pacific Ocean region to Indian Ocean region.*

Keywords: Satellite, broadband, communication, VSAT

No.6

*Overview of New Certification Service -Innovation endorsement-*

Noriyuki Kajita

Digital Transformation Center  
Nippon Kaiji Kyokai (ClassNK)



*Introduce Innovation Endorsement Services that are developed to support spreading new innovative value introduced by Maritime Stakeholders. Explain 3 services, IE Notation, Product & Solutions Certification and Provides Certification. We hope our policy will be understood by all area of stakeholders in Maritime industry.*

Keywords: Innovation, Digital, Safety, Environment, Labour

No.7

*The introduction of U-MING Fleet Safety Management*

Capt. Felix Lu

Chief of Operations Center, U-MING  
U-MING Marine Transport CORP.



*To further enhance the ship operation transparency in turns of location, speed, and navigation parameters in the near real-time manner. We utilized the Machine to Machine technology to well connected our vessels to provide accurate information and allow top managers to make decisive decisions immediately.*

Keywords: FSM

No.8

*SMARTShip: IoT & AI based Decision Support <Archives On-demand Only>*

Bala Sankaran

Co- CEO

Piyush Raj

Sr, Director, Product Management

Rajesh Nanda

Technical Account Manager

Uttam Kumar

Director, Product Management

Alpha Ori Technologies



*Alpha Ori Introduction and our Vision / Key problems we are solving / Key Strategic pillars of SMARTShip / SMARTShip Features and introduction / Closing and Thank You*

Keywords: IOT, AI, Automated Real Time, Sustainability, Digitalization



No.9

*HiZAS, Hitachi Zosen Application Service, Advanced Vessel & Main Engine Data Analysis*

CHEN YING-JHEN

Taipei Branch, After Service of Marine Engine  
Hitachi Zosen Corporation



*In recent years, due to tightening of regulations and growing need for safe ship operation management has become sophisticated, data amount collected from ships is increasing. Shipowners/Ship management companies spend time and effort analyzing, and there is urgent need to improve work efficiency through DX. We have developed "HiZAS®VDA" to support analysis for ships with data collecting platform service.*

Keywords: DX (Digital transformation), Safe ship operation management, Main Engine performance, Operation performance, Data analysis

No.10

*Contribution to Safe Ship Operation by Main Engine Monitoring Systems of e-GICS Advance and CMAXS e-GICSX*  
[\*<Archives On-demand Only>\*](#)

Bryan Lutes

Sales Gr., Diesel Engine Service Dept., Technoservice Div., Assistant Manager  
Mitsui E&S Machinery Co., Ltd.



*The CMAXS e-GICSX, a high-end monitoring system that uses AI to achieve highly accurate predictive abnormality detection, and the reasonably priced e-GICS Advance, which is based on the CMAXS e-GICSX but with reduced functionality, will be introduced with examples of abnormality detection and their potential for contributing to safe ship operations.*

Keywords: Main Engine Monitoring Systems, e-GICS Advance, CMAXS e-GICSX, Detection of predictive signs using AI, CBM

No.11

*Decarbonization in shipping industry & NYK's Green Business*

Takahiro Rokuroda

General Manager, Green Business Group  
Nippon Yusen Kabushiki Kaisha (NYK Line)



*1. Introduction of NYK Line / 2. Decarbonization trend in shipping industry / 3. NYK's Green Business activities*

Keywords: decarbonize, hydrogen, ammonia, co2, wind power

No.12

*CII solutions by retrofitting with antifouling coating system*

Hirohisa Mieno

Antifouling Coatings Tech. Dept. Technical Headquarter / Ph.D.  
Chugoku Marine Paints, LTD.



*Due to the requirement to reduce CO2 emissions, which is cause of global warming, efficient vessel operation is required by international treaty (EEXI/CII by IMO from 2023). Retrofitting with antifouling coating is one of the most efficient and easy solution that suitable for above situation. Example of vessel performance improvement by recent antifouling coating and information service "CMP-MAP" which contribute to performance improvement by visualization of hull (antifouling) performance.*

Keywords: antifouling coatings, retrofit, data monitoring, operational profile, performance improvements

No.13

*Advanced PBCF (Propeller Boss Cap Fins) for EEXI and CII*

ZHENCHUAN HUANG

Assistant General Manager, R & D Promotion Office / Environment and Safety Related Devices Dept.  
MOL Techno-Trade, Ltd.



*In the environmental era, reducing GHG emissions must be considered right away. However, what are the effective measures in shipping? One of the answers is to install MOL's Advanced "PBCF", which is the original & best-selling brand of a propeller-cap with fins. This seminar will focus on the key features of Advanced PBCF, the latest findings through R&D and how effective for new regulations, EEXI and CII.*

Keywords: PBCF, ESD, Retrofit, GHG reduction, Fuel-saving



No.14

*New propeller for the new wave -our approach to EEXI regulation and CII rating-*  
Yoshihiko Tage

Deputy Manager, Sales & Marketing  
Nakashima Propeller Co., Ltd.



*EEXI regulations/CII ratings are about to be launched. As a total propulsion system supplier, we, Nakashima Propeller, will introduce our latest initiatives and case studies amid expectations of improved fuel efficiency for existing vessels.*

Keywords: Propeller, ESD, Rudder, Retrofit, improvement of the fuel consumption

No.15

*NAPA Logbook*  
Jussi Siltanen

Senior Product Manager, Safety Solutions  
NAPA Ltd



*NAPA Logbook is an electronic logbook solution for ships serving the same purpose as paper logbooks but also bringing additional benefits in terms of work time saving, data validation and data sharing. This presentation will show the benefits of shifting onboard to electronic logbooks, it's benefits and how it takes place, without forgetting the current status of international and flag regulation on the topic.*

Keywords: Logbook, MARPOL, Digitalization, Ship operations, Ship data,

No.16

*Financial platform for Seafarers*  
Toshiaki Fujioka

President, CEO  
MarCoPay Inc.



*MarCoPay is an eWallet/financial platform is designed primarily for seafarers, their families and loved ones to gain financial freedom and to allow them to enjoy their lives even more. MCP will create new economic opportunities by providing attainable innovative products which used to be inaccessible.*

Keywords: Fintech, Cashless, Economic potential, APP

No.17

*Decarbonization using Smart Digital Technologies* <Archives On-demand Only>  
Ossi Mettälä

Shipping Solution Sales, Sales Manager  
NAPA Ltd



*NAPA will improve your CII, bunker bill and safe navigation.*

Keywords: Decarbonization, Digitalization, Sustainable shipping, Optimization, Voyage planning

No.18

*POLARIS Report: Evaluate the ship performance with Fleet Data × Metocean* <Archives On-demand Only>  
Trones Catharina

Transport Management Solutions Section, Sales Assistant  
Japan Weather Association



*As a GHG reduction measure in the DX era, we have started a new service for ship evaluation using Inmarsat's Fleet Data and POLARIS. Introducing JWA's efforts towards the 2023 CII rating.*

Keywords: Metocean Forecast, Monitoring, GHG reduction, CII, Consulting



No.19

*Energy-saving voyage by utilizing the ocean current* <Archives On-demand Only>

Yoshiko Sato

Marketing Section, Social and Disaster Management Dept.  
Japan Weather Association



Kazutoshi Horiuchi

Operating officer  
Forecast Ocean Plus



*Voyage using ocean currents is very useful for reducing GHG. We will introduce highly accurate ocean current forecast and examples of optimal navigation implementation using it.*

Keywords: Metocean Forecast, Current, Optimal route, GHG reduction

No.20

*GHG treatment in LNG Fuel Utilization* <Archives On-demand Only>

Kentaro Ue

Tokyo branch, Chief  
VOLCANO CO., LTD



*Nowadays, there should be a demand for environmental consideration. The safe and appropriate treatment of boil off gas generated on board is also required for LNG fueled vessels. VOLCANO will propose a solution to prevent boil off gas from being released to the atmosphere for ship owners who are considering the treatment of boil off gas.*

Keywords: LNG, GHG, Emission regulations, Emergency safety measures,

No.21

*Reduction of CO2 Emission by premium antifouling coating system* <Archives On-demand Only>

Hirohisa Mieno

Antifouling Coatings Tech. Dept. Technical Headquarter / Ph.D.  
Chugoku Marine Paints, LTD.



*Simulation of CO2 emission reduction by premium antifouling coating system and reduction of environmental impact of 60 months actual vessel applied by those system is introduced as an example of decarbonization efforts of maritime industries.*

Keywords: premium antifouling coatings, EEXI/CII, retrofit, data monitoring, CO2 reduction

*Closing Remarks*

Yoshiya Yamaguchi

Corporate Officer, Director of Innovation Development Division  
Nippon Kaiji Kyokai (ClassNK)



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