



TOKYO KEIKI Releases Partial Findings in Study on Avoiding Collisions

December 26, 2017

On December 26, 2017, TOKYO KEIKI released partial findings of a study on collision risk judgement and the autonomous operation of vessels, in cooperation with Nippon Yusen Kaisha (NYK) (head office: Tokyo; president: Tadaaki Naito), and NYK Group companies MTI Co. Ltd. (head office: Tokyo; president: Yasuo Tanaka) and Japan Marine Science Inc. (head office: Kanagawa; president: Koichi Akamine), Japan Radio Co., Ltd. (head office: Tokyo; president: Kenji Ara), and Furuno Electric Co., LTD. (head office: Hyogo; president: Yukio Furuno). The representatives from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and Nippon Kaiji Kyokai (ClassNK) were in attendance when the findings were released.

This study, selected by MLIT for its “2016 Support Projects for R&D in Advanced Safety Technology of Vessels”, has been conducted by NYK, the proponent of the study project, and five abovementioned co-implementers. The entire study includes development of functions to facilitate judgement related to avoiding risk of collision with other vessels; remote operations by land operators; and devices related to AR (augmented reality)* of nautical instrument information, with the aim to pursue safe operations and reduce officer workload.

The study was reported on its process in developing functions to facilitate judgement related to avoiding risk of collision. Data on how experienced captains of large merchant vessels avoid the risk of collision were accumulated and then digitalized, by means of the large ship-handling simulator at Japan Marine Science Inc.

Usually, officers make a prediction, a judgment of the risk of collision based on their own experience, but each person’s sense of danger differs. The usage of accumulated data to develop common standards will help officers to appropriately judge risk and prevent collisions.

TOKYO KEIKI, boasting its outstanding maritime autopilots, will continue to bolster navigational safety by the use of its leading-edge technologies relating to automatic steering and navigation assisting.

* AR (augmented reality)

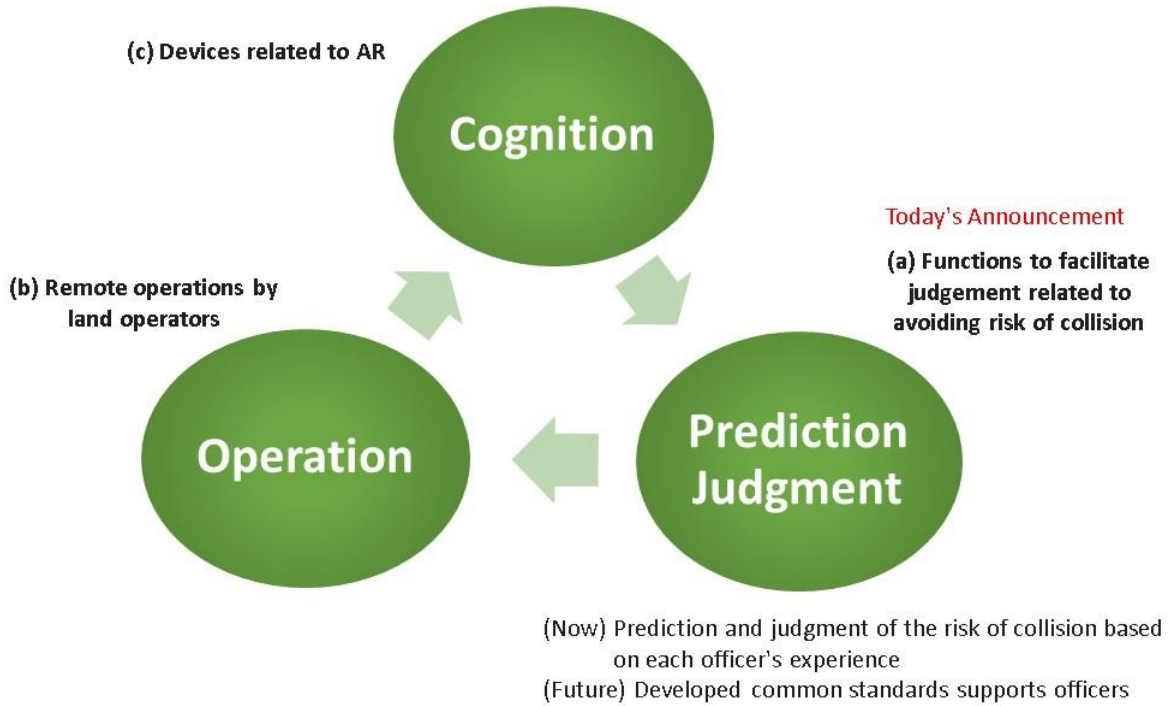
A live view of physical, real-world environments, the elements of which are augmented by computer-generated sensory input.

- Reference

Announcement on July 6, 2016, “NYK and MTI Participating Projects Selected as Support Projects for R&D in Advanced Safety Technology of Vessels by MLIT,”

<http://www.nyk.com/english/release/4208/004366.html>

Study on Autonomous Operation of Vessels



Accumulating data during a simulation led by an experienced captain



Simulated operation room for the approaching ship



Photo from left,

Satoru Kuwahara, Consultant Group, Japan Marine Science Inc. (Project Manager, from NYK)
Akihiro Tamura, Director of Engineering Policy Planning Office, Ocean Development and Environment Policy Division, Maritime Bureau, MLIT

Toshiyuki Matsumoto, Director of Research Institute, ClassNK

Motoji Kondo, Head in Charge, Products Planning & Marketing Department, Marine Electronic Products Division, Furuno Electric Co., Ltd.

Tadashige Hakoyama, Staff Manager of Marine Systems Company Engineering Dept., Tokyo keiki Inc.

Shintaro Inoue, Maritime Solution Group Leader, Marine Solution Engineering Department, Marine Systems Division, Japan Radio Co., Ltd.

Minoru Taguchi, Manager of Marine Technology team, Marine Group of NYK