

February 25, 2019

Kawasaki Kisen Kaisha, Ltd.

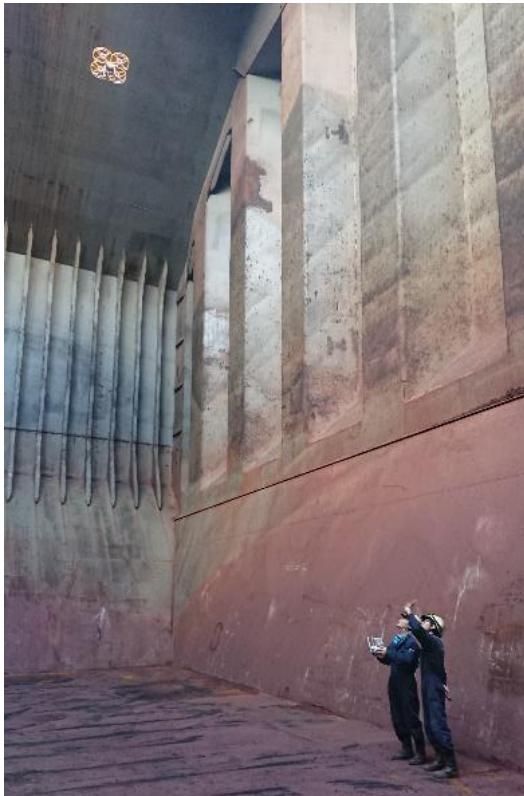
Joint Development of an Innovative Method for Ship Hull Inspection and Maintenance Using Drone and Image Analysis System

Kawasaki Kisen Kaisha, Ltd., (hereinafter referred to as “K” LINE) is pleased to announce the launching of a development project using an innovative method for ship hull inspection and maintenance by a drone and image analysis system jointly with TECHNOS MIHARA CORPORATION (hereinafter referred to as TECHNOS MIHARA), a professional company of “non-destructive testing” in Hiroshima, Japan.

“K” LINE has been maintaining the finest quality of our fleet under unique ship management policy named “KL-QUALITY,” designed as a high-level and systematic ship inspection program by a dedicated team consisting of professional Superintendents. However, we have continued having difficulty for a long time in inspection of ship parts that are hard to access, such as the top side of cargo hold, ship hull under water, etc. As a result of multiple on-site trials with aerial and underwater drones with TECHNOS MIHARA, which has sophisticated technology for drone operation and image analyzation, we’ve found notable improvement in the accuracy of such inspections. In addition, we have also enjoyed an improvement in efficiency and safety of the inspections by automation using these drones.

“K” LINE and TECHNOS MIHARA are now proceeding to the next step and have reached a mutual agreement to develop a new system for ship hull inspection and maintenance through integration between drone and digital image analysis technology of TECHNOS MIHARA together with the long-time accumulated and cultivated expertise and know-how of “K” LINE’s ship management.

Our new department known as “AI/Digitalization Promotion Division” was set up in January 2019 and is aiming to introduce new technology, improve our high-value-added transportation services and obtain the best possible satisfaction and reliability from our esteemed customers. “K” LINE is dedicated to continue seeking the best and safest services through strong cooperation and alliances with various businesses partners across different fields.



(Right) Underwater Drone

(Left) Trial inspection of Aerial Drone  
in a cargo hold

Please refer to the link below for a closeup video captured by aerial drone.

(URL) <https://www.youtube.com/watch?v=bi2LkC-C1Og>

<The development history of drone of TECHNOS MIHARA >

2014 TECHNOS MIHARA started to develop a drone for marine transportation business.

Apr 2018 Started practical tests onboard supported by "K" LINE.

Jul 2018 Started a service of aerial crop spraying by drone.

Jan 2019 Obtained world's first approval from ClassNK as an official drone service provider for an alternative vessel inspection system.

Jan 2019 Obtained world's fourth (Japan's first) approval from Bureau Veritas as an official drone service provider.