

August 6th, 2019

ANA HOLDINGS INC.

Weathernews Inc.

LINE Fukuoka Corporation

Autonomous Control Systems Laboratory Ltd.

NTT DOCOMO, INC.

Fukuoka City

Conducting Verification Test Aiming to Realize a Drone Delivery Service

Abalone and turban shellfish from Genkaijima Island transported by drones, with orders and payments made via LINE

First time in Japan to fly 2 routes simultaneously outside visual line of sight without an assistant



Weathernews Inc. (Head Office: Mihama-ku, Chiba-shi; CEO: Chihito Kusabiraki), ANA HOLDINGS INC. (Head Office: Minato-ku, Tokyo; President/CEO: Shinya Katanozaka, hereinafter “ANAHD”), LINE Fukuoka Corporation (Head Office: Fukuoka City, Fukuoka Prefecture; President/CEO: Noritaka Ochiai, hereinafter “LINE Fukuoka”), Autonomous Control Systems Laboratory Ltd. (Chiba City, Chiba Prefecture; President: Hiroaki Ota, hereinafter “ACSL”), and NTT DOCOMO, INC. (Head Office: Chiyoda-ku, Tokyo; President/CEO: Kazuhiro Yoshizawa, hereinafter “DOCOMO”) conducted a verification test aiming to realize a delivery service using small unmanned aerial vehicles (hereinafter “drones”). The test was being conducted with the kind cooperation of Fukuoka City, with the goal being to transport seafood products ordered via LINE by drones flying two routes: between Genkaijima Island, Nishi-ku, Fukuoka City and ZAOU Restaurant Main Branch (Nishi-ku, Fukuoka City), and between Genkaijima Island and Nokonoshima Camp Ground.

- Verification Test Schedule

Tuesday, July 30th ~ Friday, August 2nd, 2019

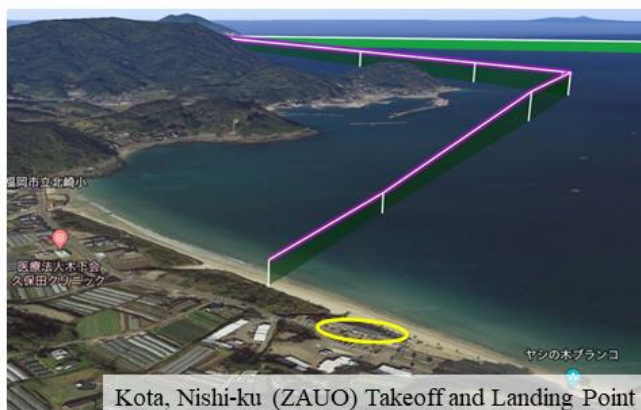
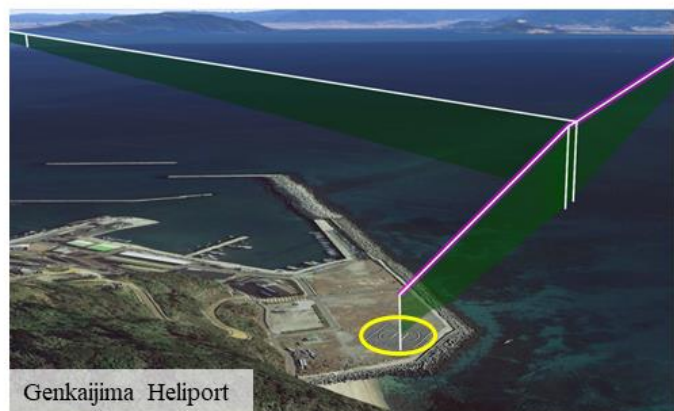
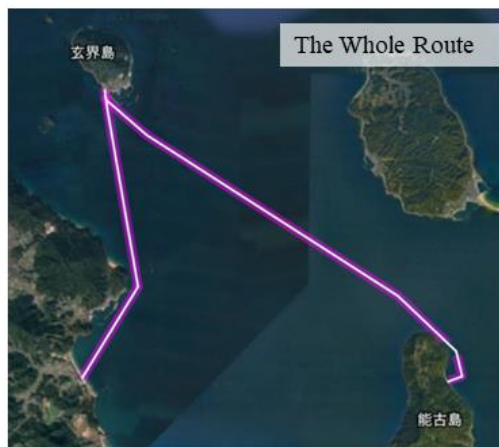
* Public viewing was at ZAOU Restaurant Main Branch, on August 1st only.

- Transported Goods

Genkaijima seafood products (abalone and turban shellfish) were transported from Genkaijima Island.

- Flight Path

Genkaijima Heliport, Nishi-ku, Fukuoka City, Fukuoka Prefecture ~ ZAUO Restaurant Main Branch, Kota, Nishi-ku / sand beach adjacent to Nokonoshima Camp Ground, Nishi-ku



ANA HOLDINGS INC. All Rights Reserved

-Each company's main roles:

- ANAHD: Drone operation control (the representative business operator for this verification test)
- Weathernews: Weather information support (*1) and provision of flight position data (*2) for manned aircraft (helicopter) monitoring
 - *1: Providing detailed weather information for the drone airspace and supporting safe flight operations
 - *2: Using Weathernews' Go or No Go Decision Support System FOSTER-GA to display position data of manned aircraft and drones for monitoring to avoid near-misses and collisions
- LINE Fukuoka: Providing ordering/payment functions for the distribution of goods
- ACSL: Providing aircraft and flight operations support
- DOCOMO: Providing LTE network related to aerial drone flights and support for formulating flight plans taking aerial radio wave conditions into account using the operational support platform of docomo sky™
 - * "docomo sky" is a trademark of NTT DOCOMO, INC.
- Fukuoka City: Cooperation regarding the area subject to the verification test, coordination with related parties, etc.

- Conceptual image of selecting/paying for products via LINE

The process for selecting products and making payments using the message app LINE is shown below.



[Notes]

* In accordance with the “Examination Procedures for Permission/Approval Related to Flight of Unmanned Aerial Vehicles,” which were revised in September 2018 by the Ministry of Land, Infrastructure, Transport and Tourism, ANA Holdings obtained approval on July 18th, 2019 to fly drones over the sea outside the visual line of sight and without deploying an assistant (West Japan Civil Aviation Bureau Permission/Approval Nos. 5467 and 2379).

* This verification testing is used to test the practical application of mobile terminals for drones, etc. installed in unmanned aircraft, and a license required for such testing has been obtained from the Development Test Station.