The First eVTOL type-certified by Japan's Civil Aviation Bureau

AeroSense

Remote wide-area surveillance capability

Aerosense Inc.

We contribute to society by bringing change with cutting-edge drones, AI, and cloud computing to automate a variety of tasks in the real world.

AEROBO® wing

AEROBO® marker

AEROBO®

AEROBO® cloud

AEROBO® on Air

Investors

SONY

Sumitomo Corporation

AeroSense

Investors

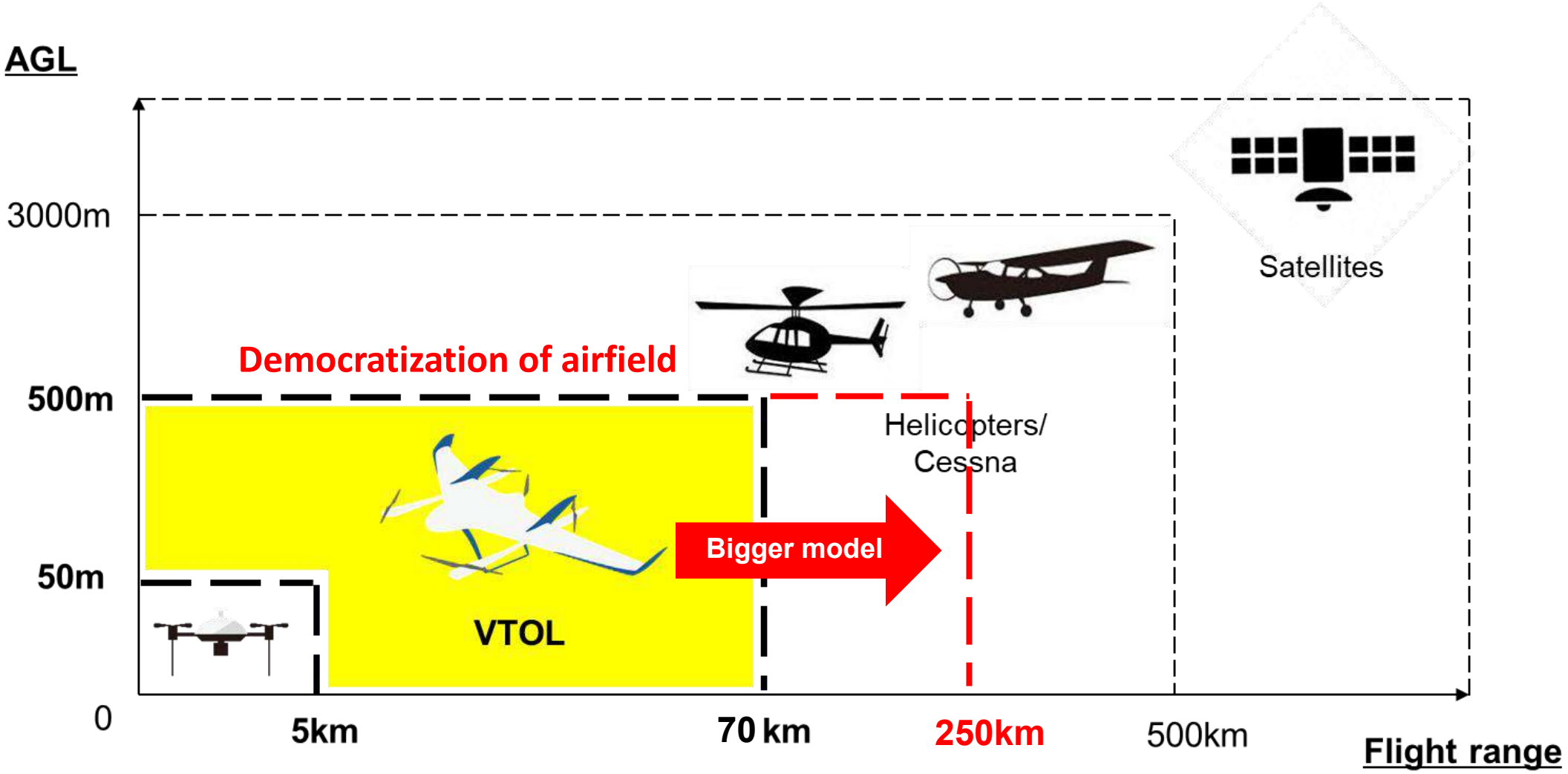
NTT FINANCE

JRC Japan Radio Co., Ltd.

VCs + Aerosense executives

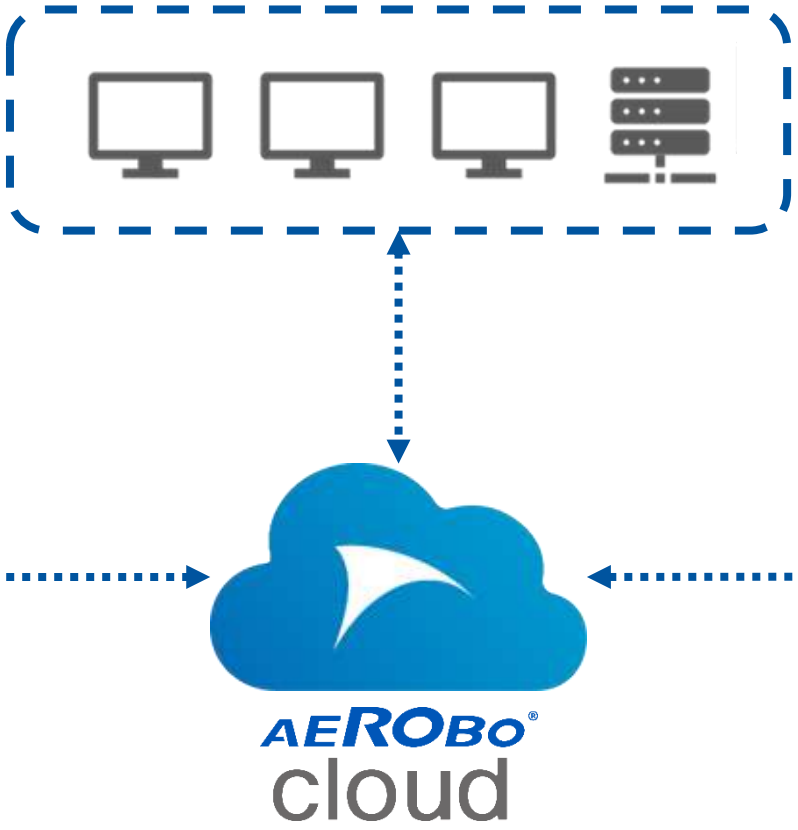
AEROBO® is a registered trademark of Aerosense Inc.

VTOL has broader coverage than average drones.
VTOL is more cost-efficient than airplanes.

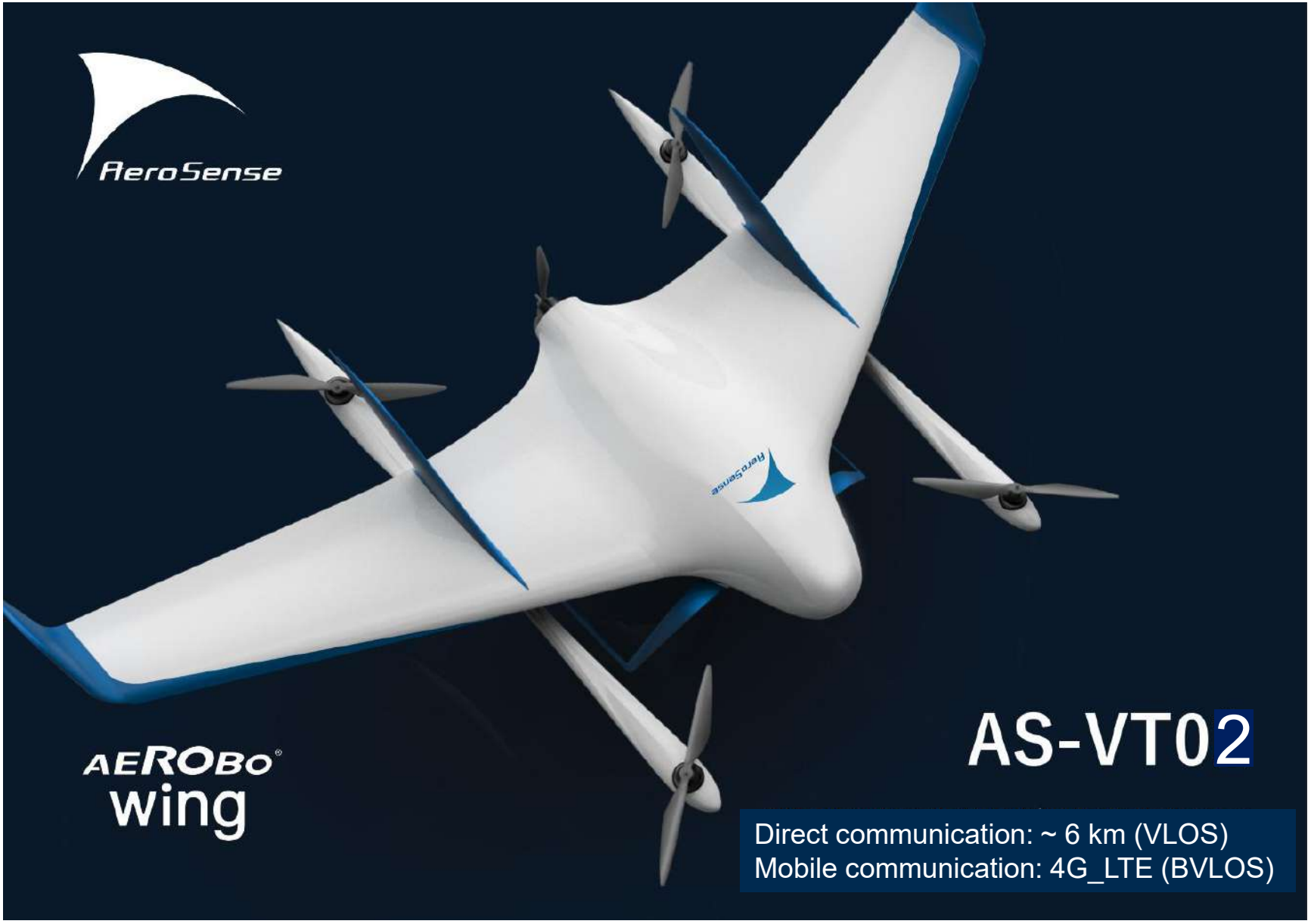


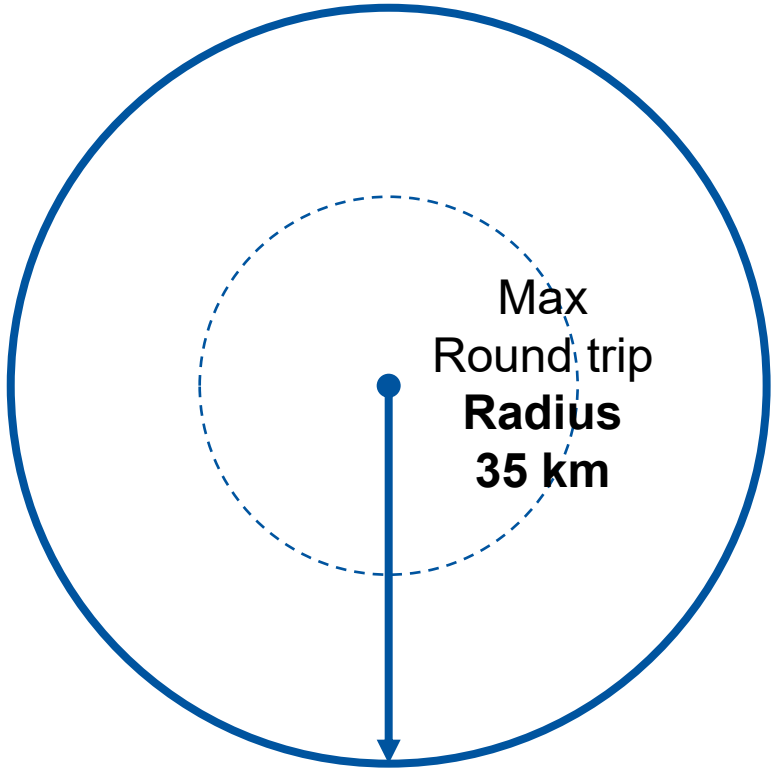
VTOL can reach sites faster with 70km/h

Providing First Responders with situational awareness as an integrated solution



Surveillance by Aerobo Wing (VTOL)





- Survey area: Max **400ha** per flight for photogrammetry
- Best for **automatic flight** & **long-range** surveillance

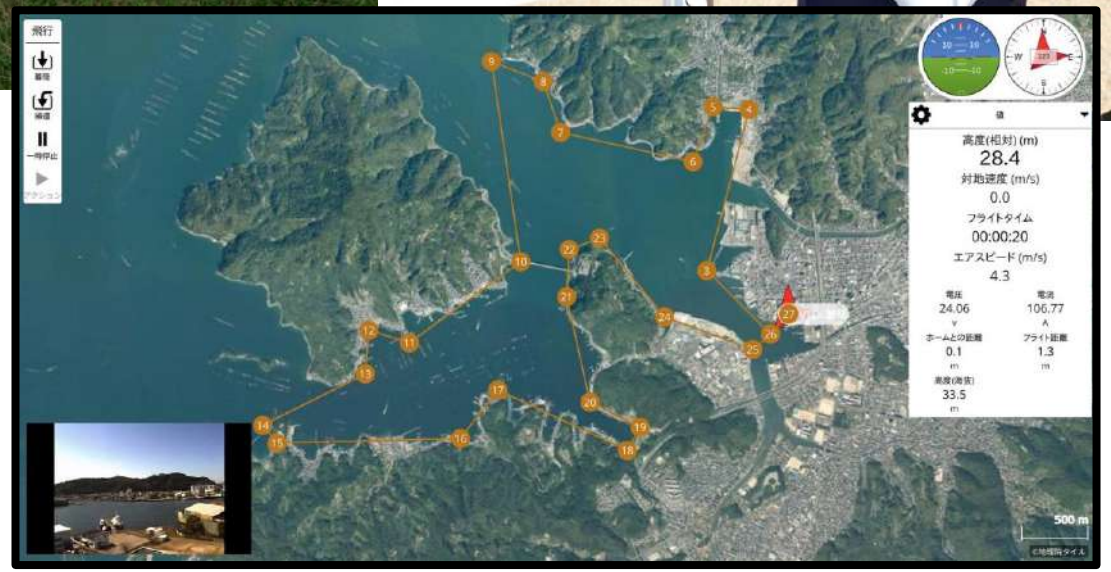
VTOL has higher resolution than airplanes.

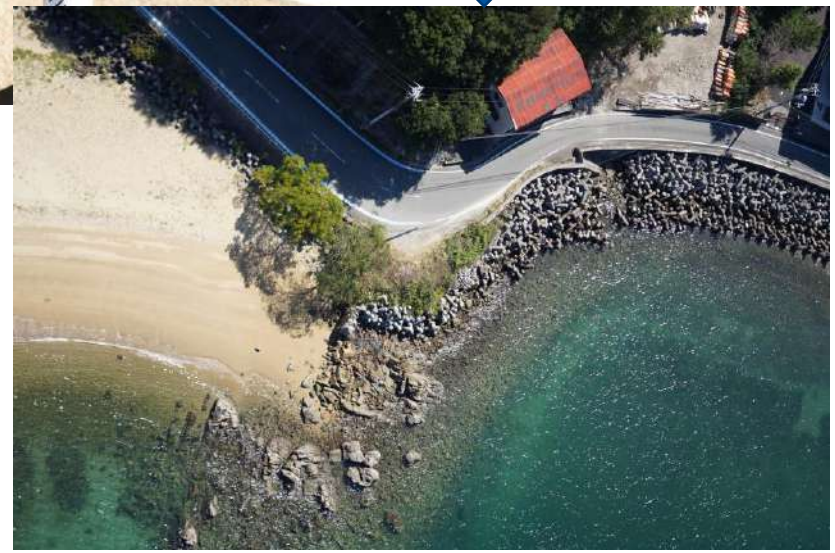
Sony R10C

(High resolution still image for drone photogrammetry)

FPV camera

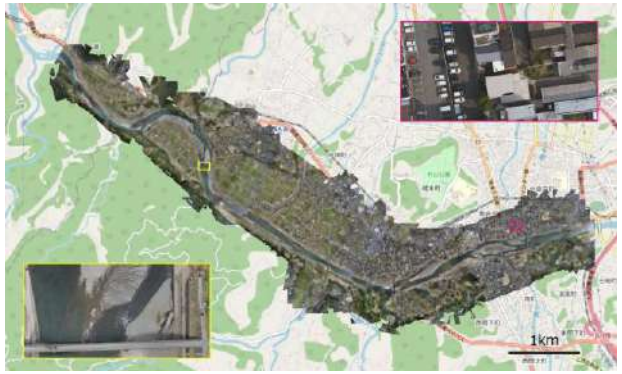
(Realtime video)





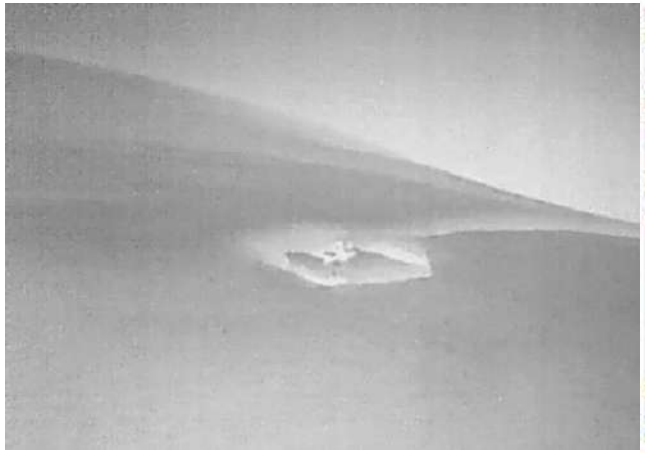
Various applications

- River patrol



- Agriculture sensing

- Illegal fishing surveillance／Road management



- Dam inspection

図１：今回行われた実証実験における点検対象の砂防ダム（砂防堰堤）と飛行ルート概要

- Power line inspection

- Disaster response & management

A local municipality has introduced VTOL for disaster response and taxation assessment.

宇和島
uwajima

VTOL provides 3D model for reconstruction.

VTOL provides quick & accurate assessment after disaster (e.g., Earthquake).

21 January 2024
@ NOTO peninsula

VTOL provides quick & accurate assessment after disaster (e.g., Flood).

Our eVTOL produced this 800 ha of orthomosaic image & 3D data in a day

16 March 2021 @ Kumamoto prefecture

Ministry of Land has introduced VTOL for river patrol automation.

国土交通省
Ministry of Land, Infrastructure, Transport and Tourism

JR East has introduced VTOL for railway inspection automation.

現在の確認方法

徒歩や軌道用カートを使い目視確認

本試験の確認方法

ドローンで俯瞰的に確認

VTOL型ドローン実証実験

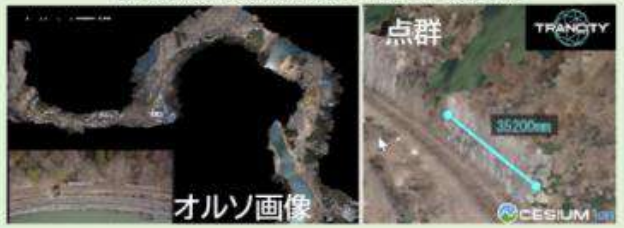
飛行時

Webでリアルタイム配信

机上から確認

飛行後

被災状況の確認・点群による寸法計測

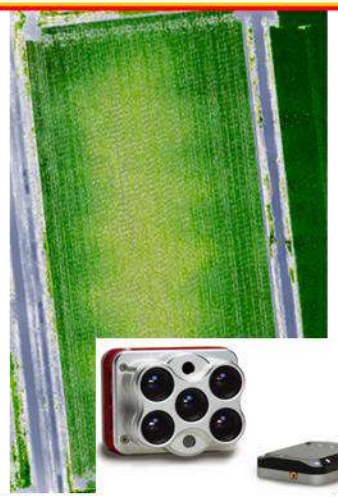


データの活用

VTOL employed for agricultural sensing with multispectral camera.

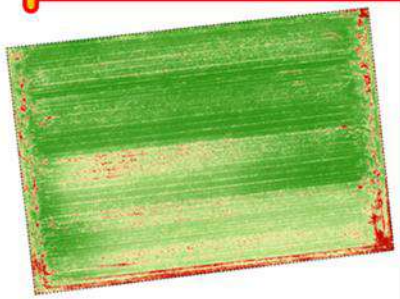
Drone photogrammetry assessment for the entire field

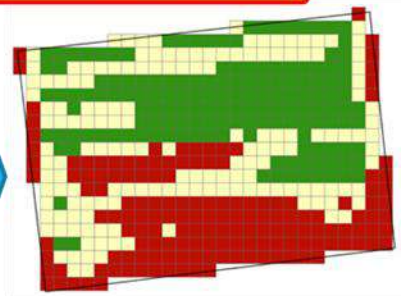
Ortho image （RGB）

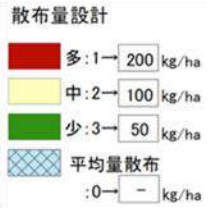


Ortho image （NDVI）

NDVI converted to fertilizer mapping data

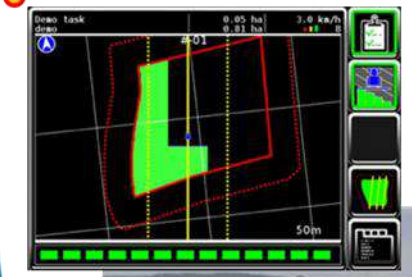


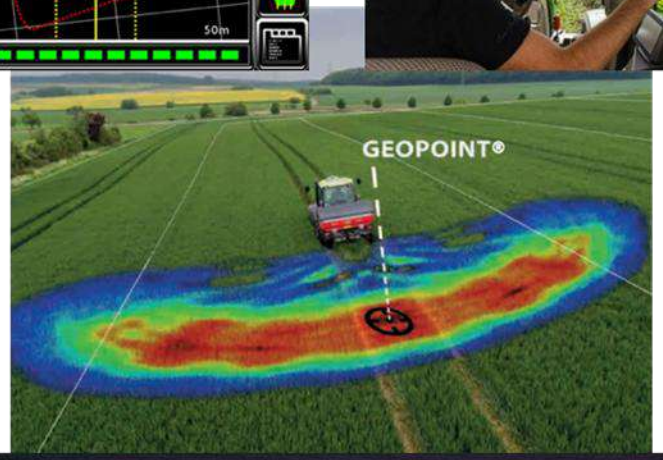




Date uploaded to spraying machine

Automatic fertilizer application by GPS-guided broadcaster



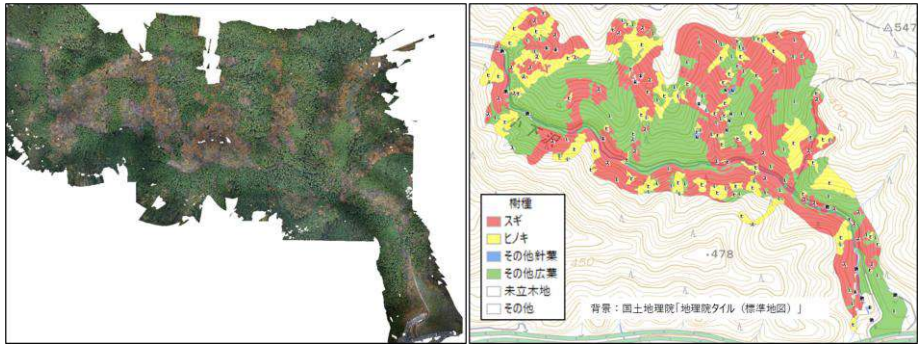


Source: FY2022-23 “Smart Agriculture Demonstration Project in Hokkaido” Final report by Aerosense Inc.

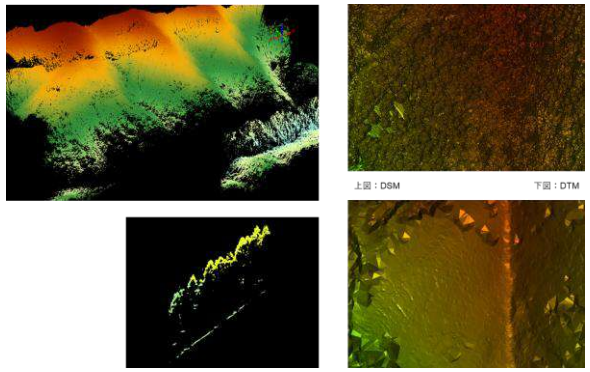
VTOL employed for forestry sensing with LiDAR scanner.

0. Orthomosaic created by Aerobo Cloud + 3D point cloud created by LiDAR marker's software

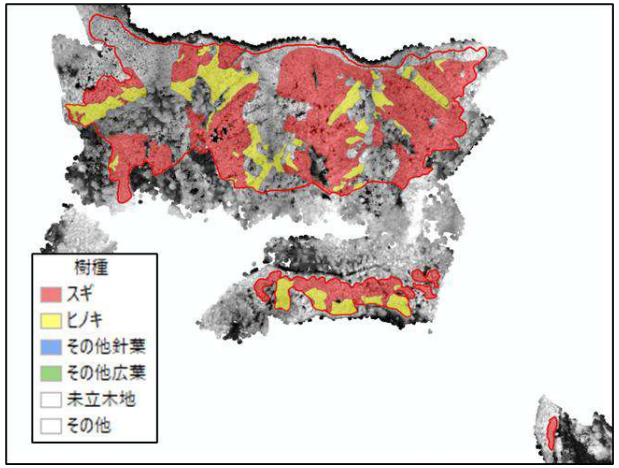
1. Detecting the areas by tree types based on the orthomosaic



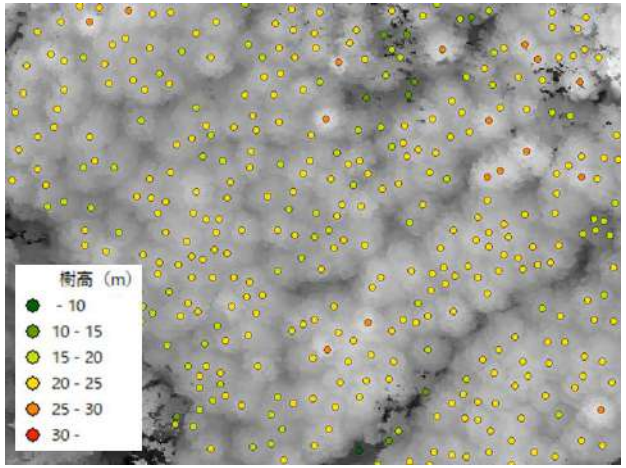
2. Calculating DCHM (Digital Canopy Height Model) by DSM (Digital Surface Model) – DTM (Digital Terrain Model)



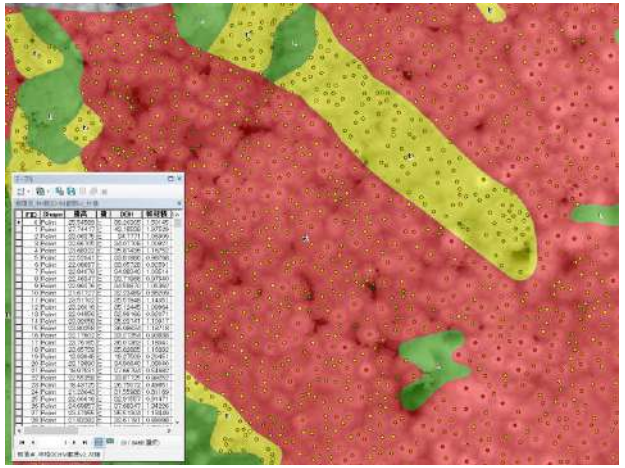
3. Superimposing the DCHM (2) upon the forest type map (1)



4. Extracting tree peaks by tree types



5. Estimating volume by proportional formula of height and DBH (Diameter at Breast Height)



Source: FY2023 "Tama Innovation Ecosystem Promotion Leading Project" Final report by Aerosense Inc.

VTOL employed for illegal fishing surveillance (night-time).

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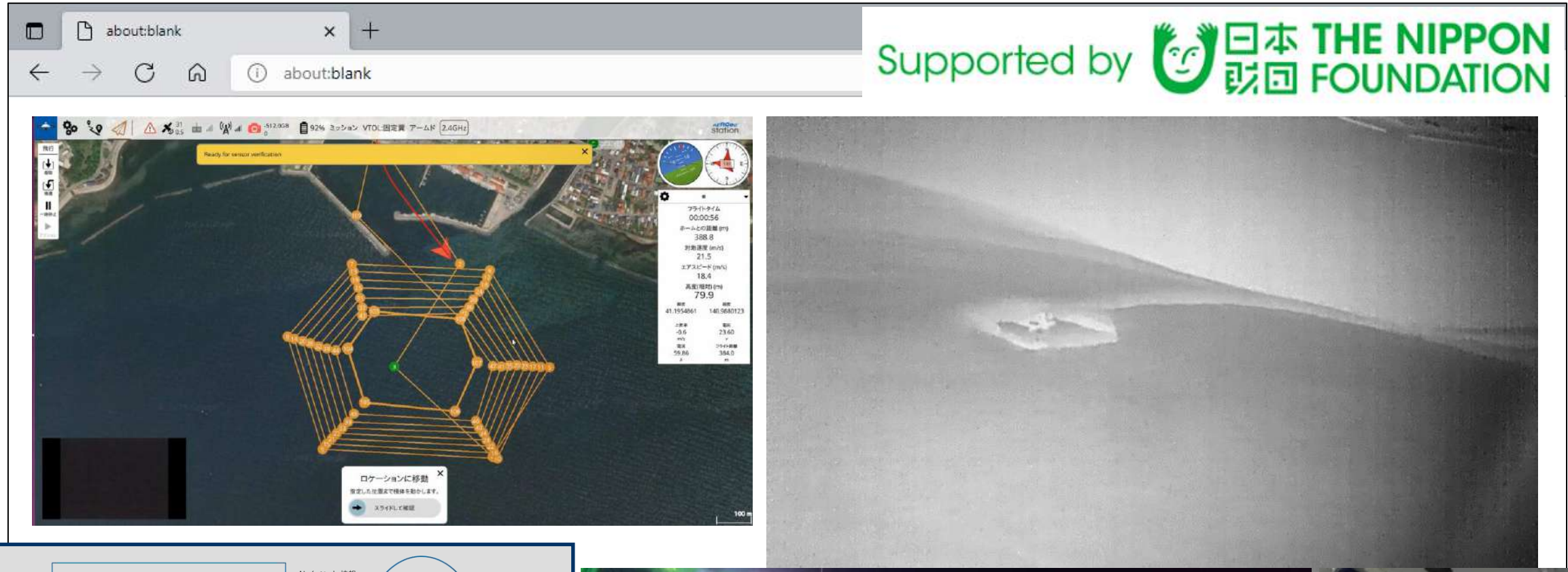
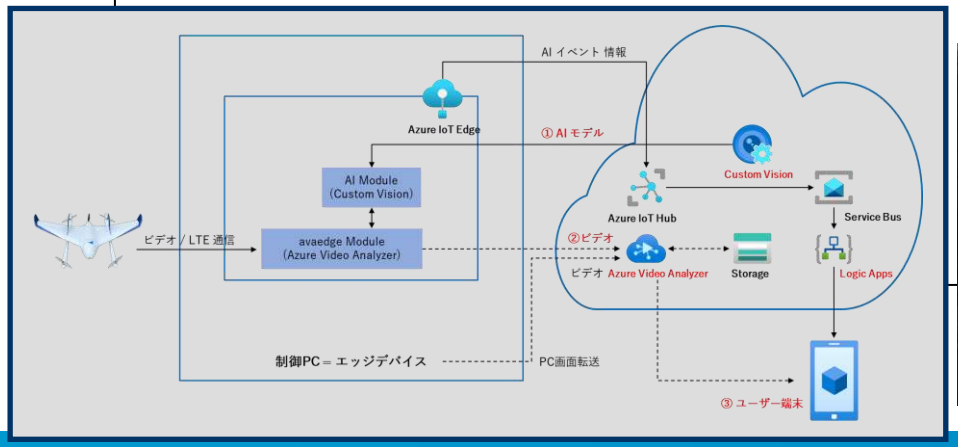
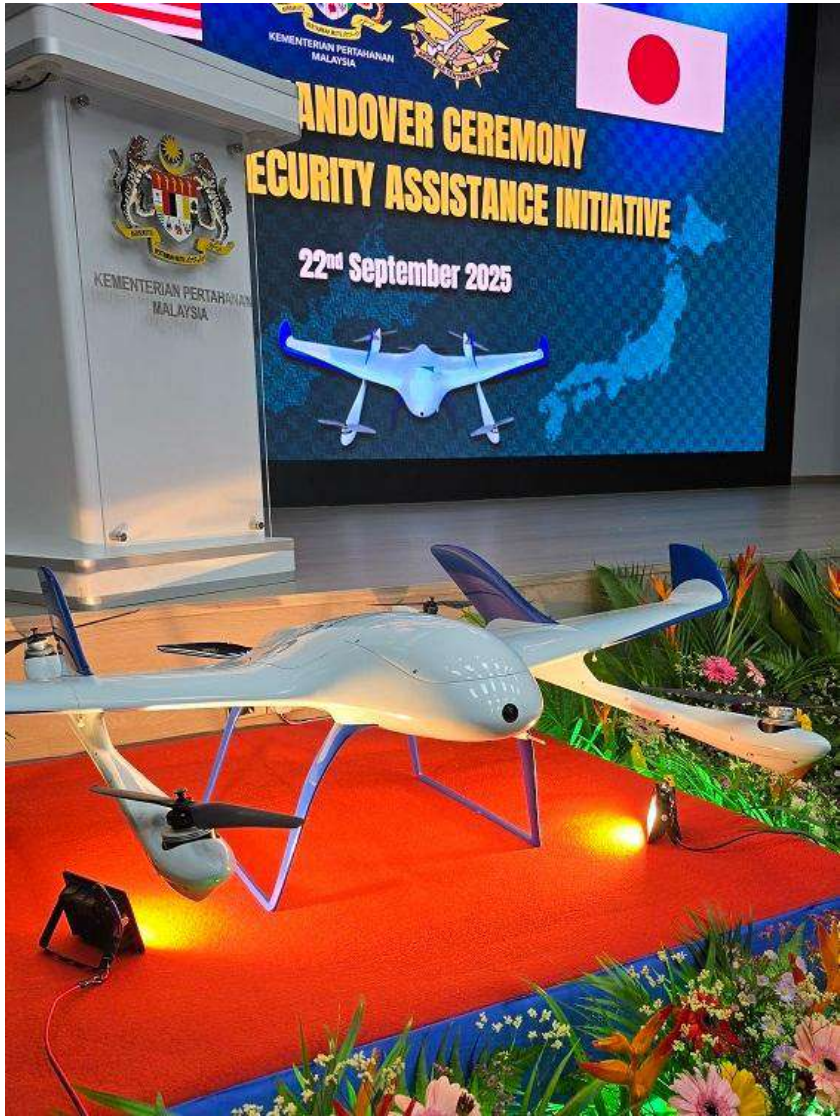




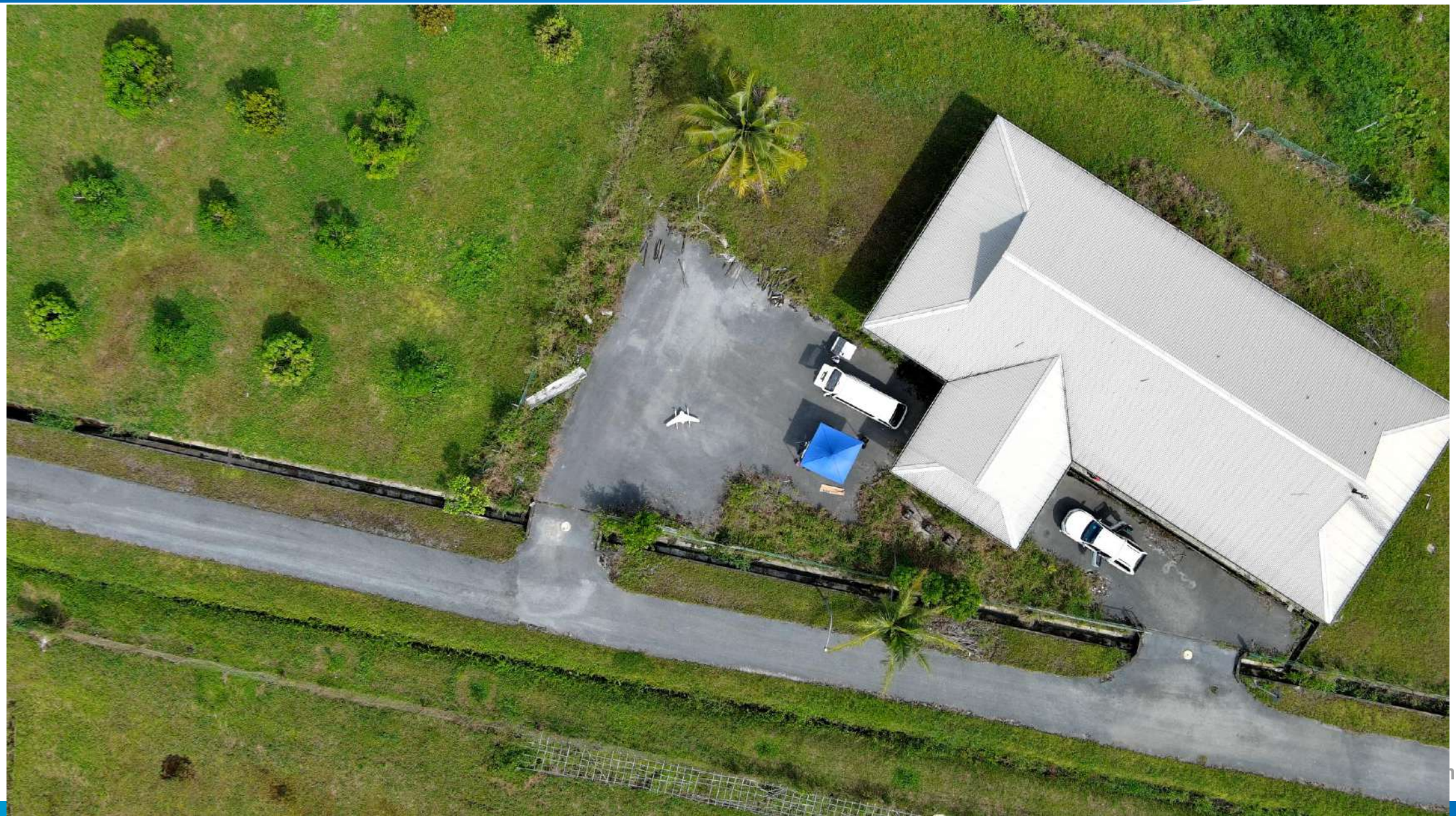
Thermal camera for surveillance

Official Security Assistance from Japan



Source: Embassy of Japan in Malaysia website

VTOL has been introduced for mangrove conservation in Sarawak, Malaysia.



VTOL has covered 2000ha by one-day flights.

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2D MAP

サンプルデータ ダウンロード

2023/07/26-27 ZONE 2 - Merged Flight

ビュー

Ortho

Plan

Mapping

Shooting position

Area
0 m²

UPLOAD

SWITCH SCREEN

Bigger VTOL in FY2025 (Battery-driven)

Fly further

with more payload

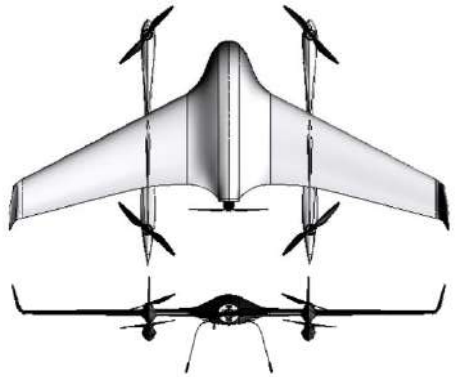
Funded by;

Ministry of Education

(JST K Program) in Japan

FY2020 ~

1 kg payload
&
70 km flight distance

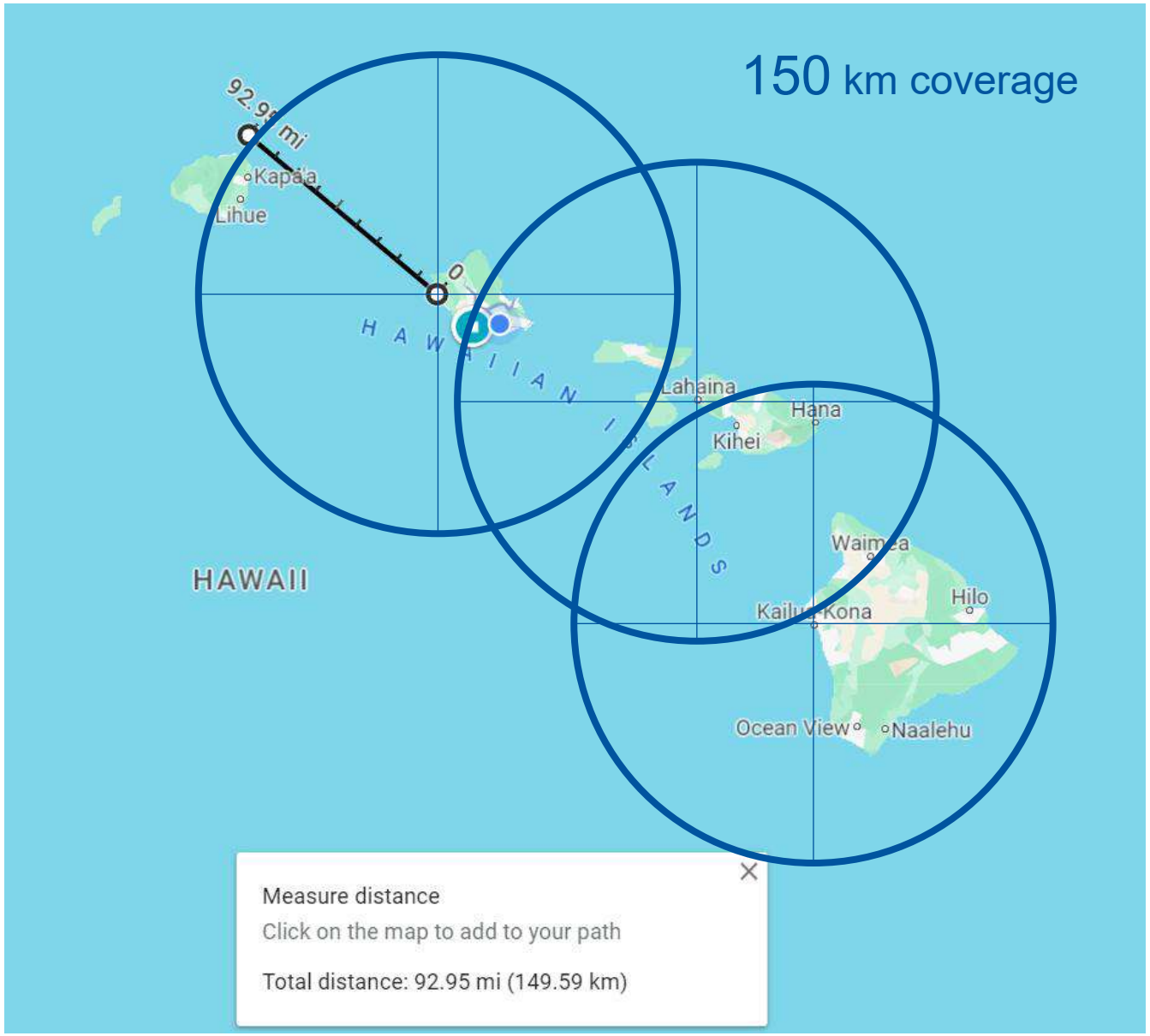


FY2025 ~

~13 kg payload
&
~250 km flight distance

VTOL has won the World Drone Competition 2023.

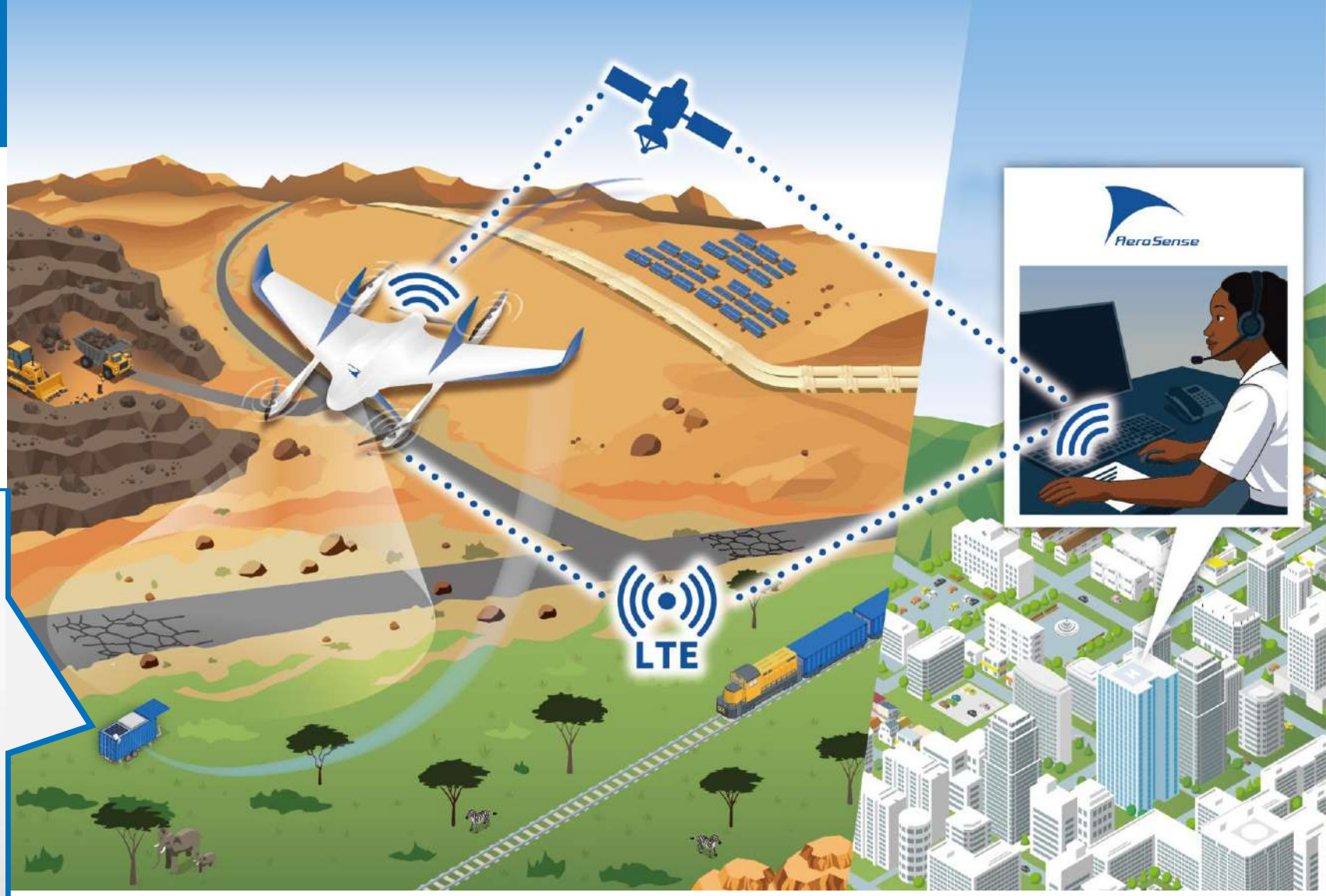
Bigger VTOL for Inter-Island Logistics.



- Unmanned automatic system
- Cheaper and quicker delivery
- Alternative logistics when/ where manned aircrafts/ ships cannot go easily

VTOL Trailers

The Self-Sustained “VTOL Trailers” can be easily dispatched and stationed across territories.



All the VTOLs from “VTOL Trailers” can be fully automatically operated and managed remotely via LTE and satellite communication.

Aerobo Wing size

Looking for a strategic partnership.
If interested, please contact me to discuss how we can serve to solve your problems.

AeroSense

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