

Service and solutions provided by CONSEO members



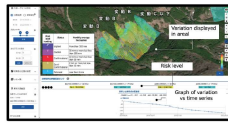
Smart City / Disaster Readiness

SKY Perfect JSAT Corporation



LIANA

By using AI to process data collected by various low-Earth orbit satellites, SKY Perfect JSAT enabled to monitor for ground deformation across the entire country, including both cities and regional areas. Accessible via an explorable web portal, the service -LIANA- (Land-deformation and Infrastructure ANALYSIS) allows users to keep careful tabs on gradual and sudden ground movements. LIANA is based on a microwave observation technique known as SAR (Synthetic Aperture Radar), which uses reflected microwaves to track points on the ground. Ground movements can be detected by comparing the data taken at different times. We've developed an AI-driven statistical analysis and low-computation algorithm that can complete this process and validate the outputs quickly and accurately with minimal expert input.



E-MAIL spatie@ml.sptsjsat.com

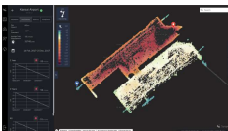
Synspective Inc.



Land Displacement Monitoring (LDM)

Analysis of ground risk in mm with SAR satellites.

Infrastructure risk to geohazards, such as landslides and subsidence, are immense and require assessment, monitoring, and risk reduction to ensure safety and longevity. Synspective's LDM Solution applies InSAR analysis technology with regular satellite monitoring to detect ground deformation in millimeters over a wide area and assess critical infrastructure security and resilience.



E-MAIL mkt@synspective.com

*InSAR: Interferometric SAR. The technology to detect land displacement with mm accuracy.

Remote Sensing Technology Center of Japan

RISE: Restec Interferometry Service

Land Surface Displacement Measurement Service using Synthetic Aperture Radar (SAR) satellite data. Providing high accuracy and wide area measurements in user-friendly GIS Data format.



<What can RISE do?>

- To spatially identify the ground stability
- To monitor long-term land surface displacement
- To detect ground deformation occurrence from past to future

E-MAIL

data@restec.jp

NTT DATA Corporation

AW3D

AW3D is the world's most precise, pre-produced global digital elevation model covering all land spaces with 2.5-meter resolution. AW3D has been used in 3000 projects, over 130 countries across the globe mainly in emerging countries in Asia and Africa, to contribute to infrastructure, disaster prevention and much more. In 2015, AW3D launched enhanced and building-focused services utilizing Maxar's imagery. The building-focused service offers highly detailed pictures of structures and their heights in a vector-map format. This high resolution 3D map is materialized through a technical innovation including processing imagery in multiple angles taken with various high performance satellites. Thanks to this technological innovation, the accuracy of the 3D Map is successfully improved to the level where one tree can be identified.



WEB SITE <https://www.aw3d.jp/en/contactform/>

iQPS Inc.

Near-real-time SAR data by QPS-SAR constellation

QPS-SAR satellite offers the world best class resolution (Spotlight mode: 46cm X 46cm) and quality. We aim at every 10 minutes observation with 36-QPS-SAR satellite constellation and rapid data delivery leveraging optical data relay services beyond 2025.



E-MAIL sales@iqps.com



Smart Fisheries

UMITRON K. K.

UMITRON PULSE

UMITRON PULSE is a web-based service for monitoring ocean environmental data. PULSE provides a high-resolution map view of a range of water quality parameters that are updated daily. The service utilizes satellite remote sensing technology to provide accurate, near real-time measurements.

Fish, shellfish and seaweed farmers depend on the ocean for their livelihood, and changes in the environmental conditions can have dramatic effects on their farm production. PULSE provides farmers with an easy way to regularly monitor changing water conditions. This allows them to make key decisions about when to feed, plant or harvest their crops as well as manage risks such as high water temperatures or harmful algae blooms.



E-MAIL pulse@umitron.com

SDGs / Social Infrastructure

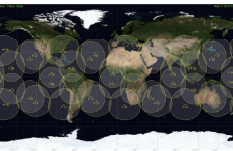
ArkEdge Space Inc.



VDES Satellite constellation for Maritime Digital Transformation

ArkEdge Space was founded in 2018 with the aim of commercializing nano-satellite business based on the development and utilization technologies developed at the University of Tokyo.

Currently, we have established a production system for multiple types of nano-satellites and other types of satellites, and in addition to hardware business such as nano-satellite, ground station maintenance, and design and manufacturing of related components, we are also engaged in a wide range of other businesses such as satellite operation services, related software development, education, and consulting. We also provide satellite operation services, related software development, education and consulting, and other services.



E-MAIL

info@arkedgespace.com

ANA HOLDINGS INC. (Joint Research with JAXA)



GOBLEU: Greenhouse gas Observations of Biospheric and Local Emissions from the Upper Sky

This project is a collaboration between ANA Holdings and JAXA to observe greenhouse gases from aircraft. Currently, we are conducting observation experiments from aircraft to improve the accuracy of observation data. While satellite observations of greenhouse gases have a resolution of about 10 kilometers, aircraft observations have a much higher resolution of about 100 meters. Consequently, aircraft observations of greenhouse gases provide more detailed information about their distribution and concentration than satellites. By combining global satellite observations with localized aircraft observations, this project aims to assess greenhouse gas emissions in urban areas and distinguish their sources, such as transportation and industry. This effort contributes to the Paris Agreement, which calls for global action to reduce greenhouse gas emissions. This initiative represents a novel approach that uses aircraft in addition to satellite technology and data collection. It is a pioneering effort within the aviation industry that harnesses the full potential of both aircraft and those who operate them to address environmental challenges.



WEB SITE

<https://en.ana-spaceproject.com/>

Satellite Communications

WARPSPACE Inc.



WarpHub InterSat

WarpSpace is developing WarpHub InterSat, the world's first private-sector optical data relay service for satellites. Three relay satellites capable of optical communications will relay data sent from other satellites to ground stations in an immediate and high-capacity manner. The service is expected to be available by 2025. The number of Earth observation satellites has grown exponentially in recent years. WarpHub InterSat will make it possible to acquire and use more Earth observation data in near-real time, contributing to the realization of a sustainable global economy by speeding up disaster response and improving the efficiency of resource management.



WEB SITE <https://warpspace.jp/contact>

satellite Communications Ground System

AstroCub Inc.



Low Cost High Performance Satellite Communication Ground Station System

AstroCub is developing low cost high performance satellite communication ground station system.

This initiative represents a novel approach, utilizing aircraft alongside satellite technology and data acquisition. It is a pioneering effort within the aviation industry, harnessing the full potential of both aircraft and those who operate them to address environmental challenges.



E-MAIL hyokotsuka@astrocub.space

