

Earth Observation Platform



# AxelGlobe

## Service Catalog

**New 7 Satellites**  
Planned for Launch in **2026**

[Learn more on pages 8-9](#)

**AXELSPACE**



# Satellite Data Solutions

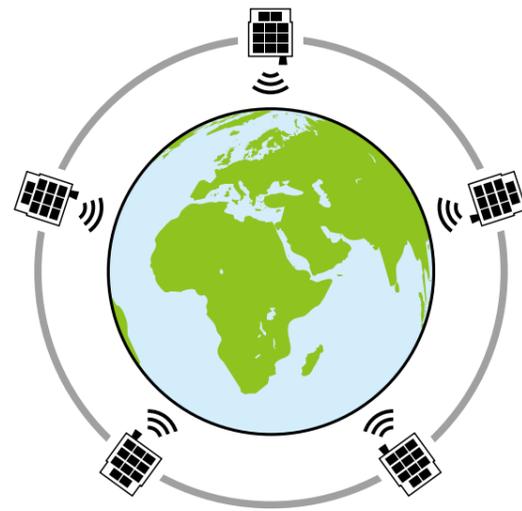
for the Future of Business

# What is AxelGlobe?

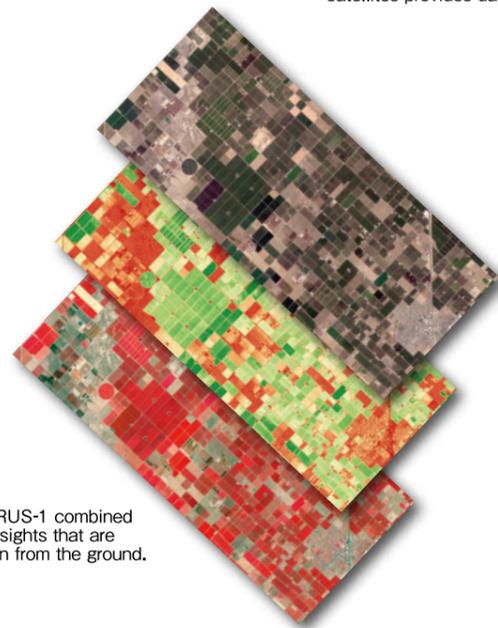
## Business Insights from Customizable Observation

AxelGlobe contributes to solving business problems and creating new value and markets in various industrial sectors using observation data from our satellite constellations.

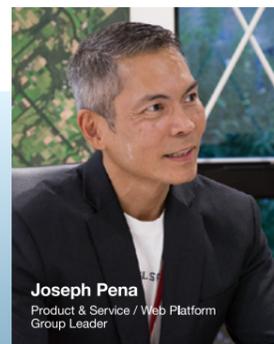
Users can not only use archived data taken in the past, but task areas to be observed, frequency, etc. In addition to being able to observe any location on Earth, AI analysis can be used to visualize qualitative and quantitative changes that are difficult to grasp from the ground. Intuitive insights help businesses make quicker decisions and improve efficiency.



A constellation made up of five GRUS-1 satellites provides data quickly.



Multi-band sensors on GRUS-1 combined with AI analysis reveal insights that are difficult to get a handle on from the ground.



### Satellite Data: The Game-Changer for Business

I've seen how our satellite data transforms businesses, offering insights that drive real-time decisions—whether optimizing crop yields, monitoring critical infrastructure, or tracking environmental changes. The true power of satellite data lies not just in observing our world, but in reshaping how industries operate and innovate globally.



## GRUS-1 Earth Observation Satellite

GRUS-1 is the 100 kg class microsatellite for AxelGlobe. Equipped with two telescopes, it has a wide observation range of 55 km with a resolution of 2.5 m. Panchromatic, RGB, red-edge and near-infrared bands allow the visualization of various information, such as crop conditions and the extent of flooding caused by disasters.

### GRUS-1 Main Specifications

Number of satellites	5	
Orbital altitude	585 km, Sun-synchronous sub-recurrent orbit	
Equator passage time	10:40 - 11:00 (local time)	
Spectral band	Name	Wavelength range
	Panchromatic	450 - 900 nm
	Blue	450 - 505 nm
	Green	515 - 585 nm
	Red	620 - 685 nm
	Red Edge	705 - 745 nm
Ground resolution	Near Infrared	
	770 - 900 nm	
Swath	Panchromatic : 2.5 m (at nadir)	
	Multispectral : 5.0 m (at nadir)	
Longest collection length	55 km (at nadir)	
Sensor bit depth	1,000 km	
	12-bit	

\*One of these satellites is currently not in commercial use



### Empowering Solutions: Unlocking Possibilities for Our Customers

At AxelGlobe, we manage everything in-house, allowing us to move, learn, and adapt quickly. The synergy between AxelGlobe and AxelLiner greatly enhances our ability to solve our customers' challenges. This enables us to rapidly deliver data and provide innovative solutions that consistently exceed expectations.

# What is AxelGlobe?

## Use Cases

AxelGlobe service is offered in more than 30 countries through more than 70 partners and is used to improve efficiency and solve problems in various business areas.

In the example for agriculture, the activity of vegetation can be easily determined by calculating the normalized difference vegetation index (NDVI) from images taken by GRUS-1.

Satellites are also being utilized in the field of disaster monitoring. In the event of a disaster, it is very important to quickly assess the situation, however physical access to the area is often dangerous or difficult. The use of satellites, which can quickly observe large areas without geographical constraints, contributes to solving these problems.

### Assessing the Flood Damage

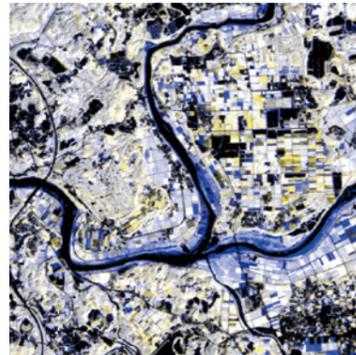
Image Before the Disaster



Image After the Disaster



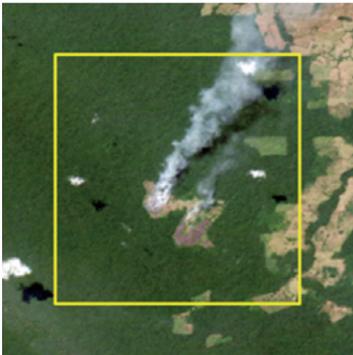
Visualization of Inundated Areas



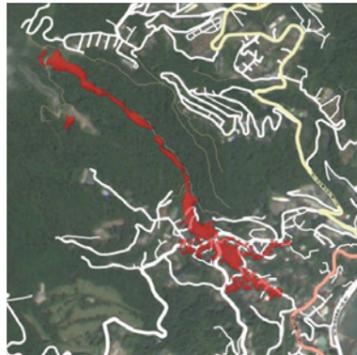
Blue Areas Indicate Potential Inundation

### Various Fields of Application

Abnormal Detection



Assessing the Disaster Situation



Periodic Monitoring of Remote Regions



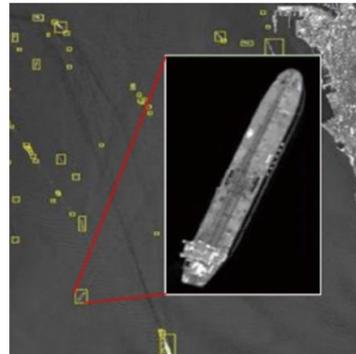
Vegetation Management



Land Management

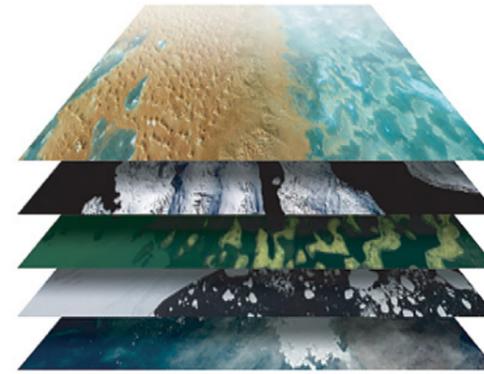


Maritime Surveillance



# Advantages of AxelGlobe

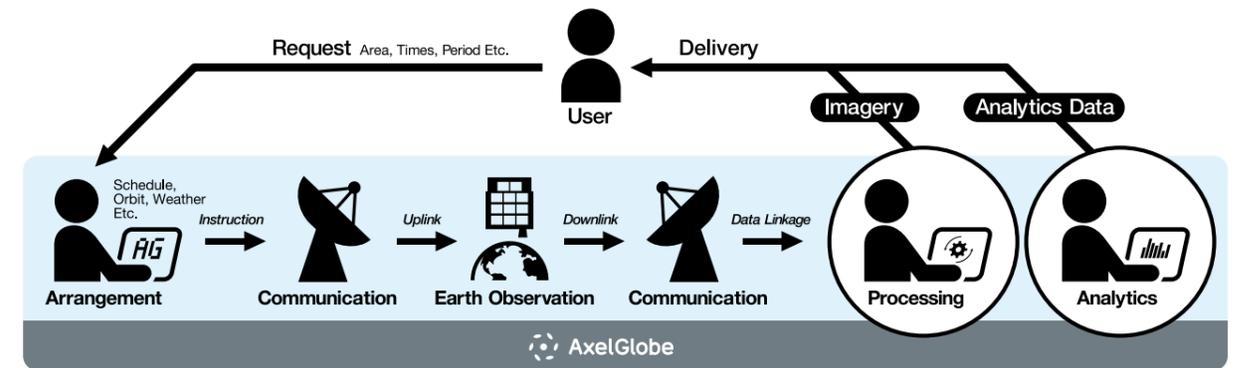
## 1 Flexible Solutions, Proven Results



One of the major features of AxelGlobe is its flexibility. We provide data from observations tailored to your needs, including wide-area observations, regular monitoring, and detection of changes and abnormalities, for any location on Earth. In addition, the knowledge we have cultivated through the development and operation of satellites provides value that goes beyond simply providing satellite data, such as enabling a wider range of satellite applications and customer's service development.

## 2 Swift Observation and Data Provision

Thanks to seamless coordination with the satellite constellation, we can provide observations within 3 hours of receiving a request at the earliest.



## 3 Effortless Control, All Online



All operations such as referencing, searching, narrowing down and requesting downloads of satellite data can be carried out easily on the web platform.

**Please try out the AxelGlobe web platform!**

Your free account gives you access to a limited set of our GRUS-1 satellite imagery.

AxelGlobe 2.0 for free:  
<https://www.axelglobe.com/en/signup>



Next-Generation Earth Observation Satellite

# GRUS-3

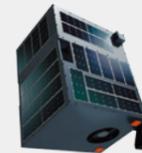
# 7 Satellites

Planned for Launch in 2026

## Extensive Observations with High Frequency

The earth observation satellite succeeding GRUS-1. The addition of these new seven satellites to our constellation will enable extensive coverage, higher frequency observations, and swift delivery of clearer images. The newly added Coastal Blue

Band sensor will be also useful for observing coastal seabed topography and algae beds that absorb carbon dioxide in the water.



GRUS-3

Daily Observation Capacity:

**Extensive Coverage**

Up to **2,300,000 km<sup>2</sup>**

\*Total of 7 satellites

Revisit Period:

**High Frequency**

**1 day**

\*For areas of 25 degrees north latitude or higher



GRUS-1

Daily Observation Capacity:

Up to **750,000 km<sup>2</sup>**

\*Total of 5 satellites

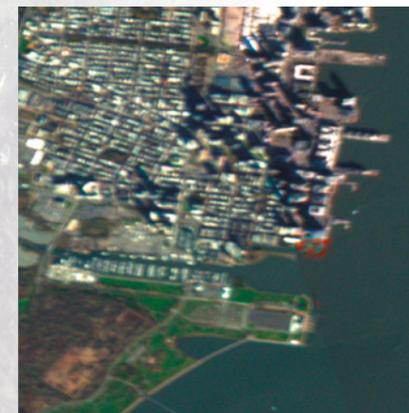
Revisit Period:

**2-3 day**

## Image comparison between GRUS-3\* and GRUS-1

Improved earth observation performance will enable the provision of enhanced business insights.

GRUS-1



GRUS-3



\*GRUS-3 images shown above are simulated using NAIP / USDA imagery

### GRUS-3 Main Specifications

Ground Resolution	2.2m
Orbital altitude	585 km, Sun-synchronous sub-recurrent orbit
Swath	28.3 km
Longest collection length	1,356 km
Spectral band	Panchromatic, Coastal Blue, Blue, Green, Red, Red Edge, Near Infrared
Weight	approx. 150 kg
Size	Width 96 cm, Depth 78 cm, Height 126 cm

\*The above GRUS-3 specifications are subject to change

# Axelspace's Strong Track Record

in Satellite Development and Operation

We are a pioneer of microsatellite technology advancing the frontiers of space business, reimagining traditional ways of using space, and creating a society where everyone on our planet can make space part of their life.

Since 2008, We have the best track record among Japanese space ventures in developing, launching, and operating 11 microsatellites, including the one for JAXA (Japan Aerospace Exploration Agency).

**We Mainly Focus on 100kg-Class Microsatellite**



**11 Satellite Track Record**  
**17 Year History**  
**Over 180 Staff**

**Axelspace Solutions**

**AxelLiner**  
Satellite Project as a Service

**AxelGlobe**  
Earth Observation Platform

**AxelLiner Laboratory**  
In-Orbit Demonstration and Validation for Component and Payload Manufacturers

**AxelLiner Professional**  
100kg-Class Microsatellite Manufacture with Mass Production Capability

Satellite Imagery Providing

Satellite Tasking Service

Solution with AI Analytics

Solution Development

# AXELSPACE

## Axelspace Corporation

Establishment / August 8, 2008  
President and CEO / Yuya Nakamura

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*For More Information  
on AxelGlobe*

