

# Satellite Data Solutions

for the Future of Business

# Axel Globe?

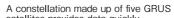
## **Business insights from discretionary observation**

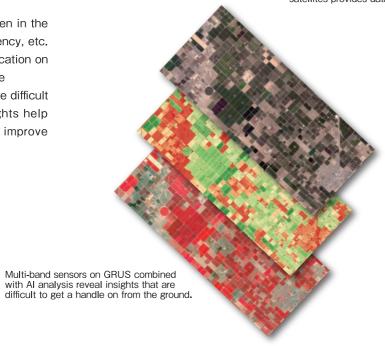
AxelGlobe contributes to solving business problems and creating new value and markets in various industrial sectors using observation data from our satellite constellations.

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.









### 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 Earth observation satellite**

GRUS 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     |
|                           | Near Infrared                               | 770 - 900 nm     |
| Ground resolution         | Panchromatic : 2.5 m (at nadir)             |                  |
|                           | Multispectral: 5.0 m (at nadir)             |                  |
| Swath                     | 55 km (at nadir)                            |                  |
| Longest collection length | 1,000 km                                    |                  |
| Sensor bit depth          | 12-bit                                      |                  |



#### **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.

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

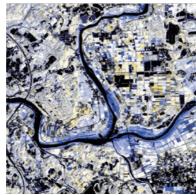
Image before the disaster



Image after the disaster



Visualization of inundated areas



#### Various fields of application

**Abnormal detection** 



Assessing the disaster situation



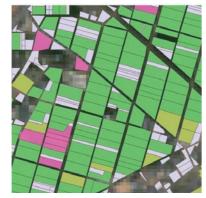
Periodic monitoring of remote regions



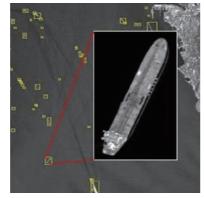
**Vegetation management** 



Land management

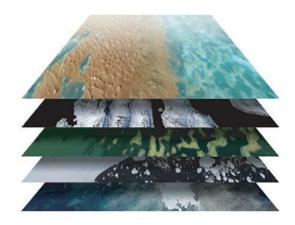


Maritime Surveillance



# Advantages of **AxelGlobe**

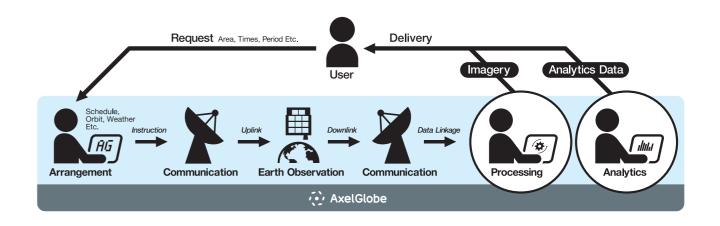
### Flexible Solutions, Proven Results



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.

#### 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.



#### **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.





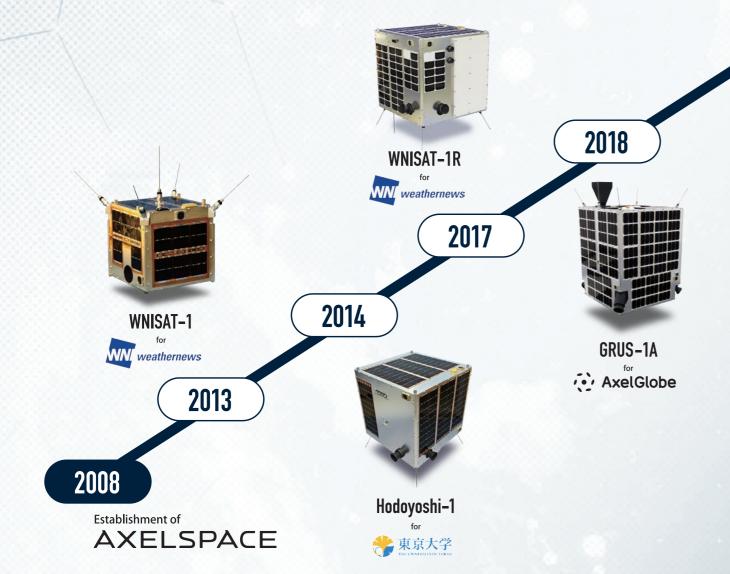
# Axelspace's strong track record

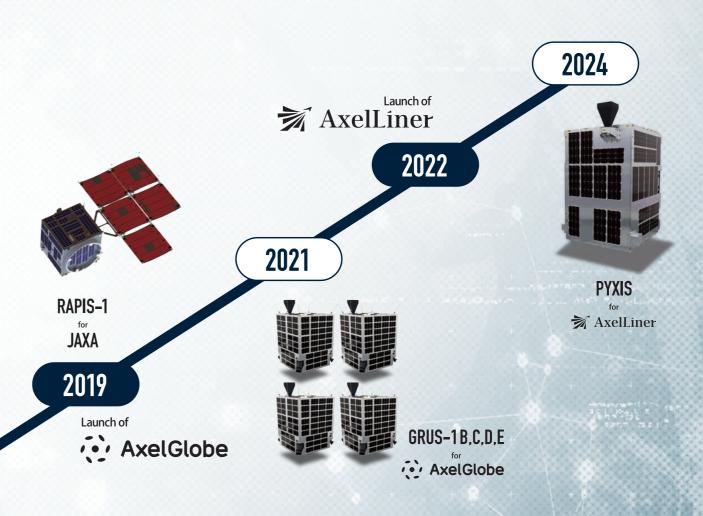
in satellite development and operation

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 10 microsatellites, including the one for JAXA (Japan Aerospace Exploration Agency).

## We mainly focus on 100kg-class small satellite





10 Satellite Track Record 16 Year History Over 160 Staff



#### **AXELSPACE**

#### **Axelspace Corporation**

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

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