

## **Space Shift and Toyota Motor Corporation sign a memorandum of understanding on the study of a project to solve social problems by using satellite and vehicle data.**

### **Rapid information dissemination during disasters contributes to the proposal of safe evacuation routes and recovery efforts.**

Space Shift Inc. (Headquarters: Chiyoda-ku, Tokyo; CEO: Naruo Kanemoto; hereinafter referred to as “Space Shift”), a developer of satellite data analysis systems, is pleased to announce that it has begun discussing a business utilizing satellite data and vehicle data with Toyota Motor Corporation (Headquarters: Toyota City, Aichi Prefecture; President and CEO: Koji Sato; hereinafter referred to as “Toyota”) and signed a memorandum of understanding.

#### **■ Background**

Disaster countermeasures have become an important issue for governments, local authorities, and businesses, as typhoons and torrential rains have caused increasing damage in recent years. Under such circumstances, the use of synthetic aperture radar (SAR) satellites, which can observe objects on the earth even in rough weather, has become an indispensable element in understanding disaster situations. Space Shift has developed its own AI algorithm for satellite data analysis and provides technology to automatically estimate the extent and depth of flooding caused by heavy rainfall and other factors from SAR satellite data. On the other hand, since the current number of SAR satellites and data alone are limited by the frequency of imaging and other factors, combining them with ground-based data will enable more accurate analysis.

Space Shift is working with Toyota to develop technology that combines the company's vehicle probe information with the results of satellite data analysis. Toyota's probe information is collected from vehicles using its connected services. The company statistically processes and utilizes the collected data to help solve social issues. In the joint development conducted by the two companies to date, the accuracy of analysis of flooded and submerged areas has been improved, demonstrating that the combination of satellite data, which excels in analysis over a wide area, and ground data analysis

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results, which are more real-time and accurate, can be used as a complementary relationship (figure).

Thus, the two companies agreed to conclude a five-year MOU with the aim of further improving the accuracy of analysis and the speed of information provision by combining satellite and vehicle data.

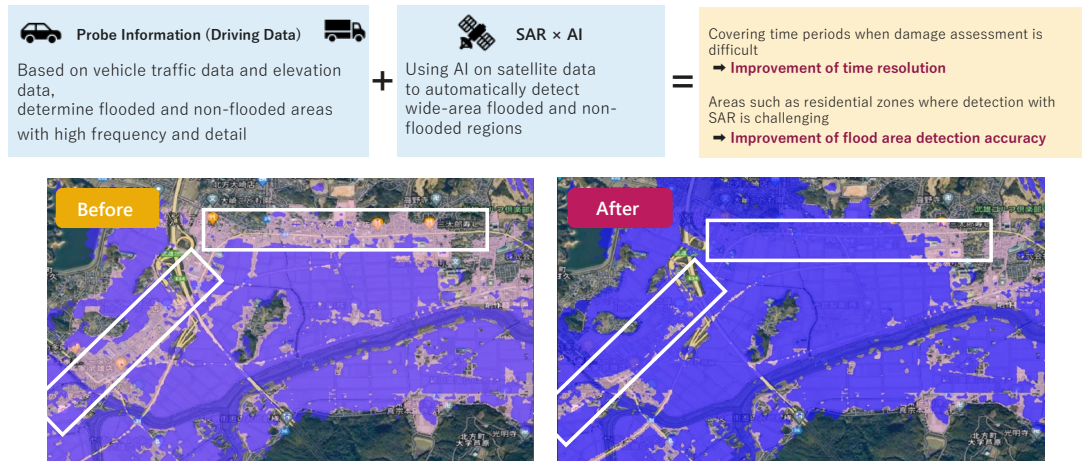


Figure: Image of analysis combining satellite data and vehicle driving data

## ■ Outlook

With the conclusion of this MOU, the two companies will promote further business collaboration utilizing Toyota's probe data and Space Shift's satellite data analysis technology. In the disaster field, which has been a focus of the two companies' joint development to date, the two companies aim to provide information to companies and local governments involved in non-life insurance operations and infrastructure management. For example, by providing information about impassable roads, the system can be used to present safe evacuation routes in the event of a disaster, assist in disaster recovery planning, and contribute to strengthening the resilience of cities.

In addition to disaster management, the two companies will also consider expanding the technology to a wide range of industries and users, such as providing optimal route information to drivers by monitoring traffic volume and parking lots on roads, and contributing to safe vehicle operation in the widespread use of automated driving. By combining the data and analysis technologies of the two companies, we will develop new solution businesses and create business value jointly address various social challenges.

## 【 About Space Shift 】

Established in December 2009, operate under the theme "Sense the Unseen from Orbit,"

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aiming to extract a wealth of information with capabilities surpassing human perception by analyzing data from Earth observation satellites using AI. Develop Software focusing on various fields such as infrastructure management, disaster prevention and mitigation, agricultural monitoring, and environmental conservation. By leveraging satellite data in these diverse areas, we strive to contribute to the realization of a sustainable society.

## **【 Company Overview 】**

Company name : Space Shift, Inc.

President : CEO Naruo Kanemoto

Headquarters : 6th Floor, Otemachi Building, 1-6-1 Otemachi, Chiyoda-ku, Tokyo

Established : December 11, 2009

Authorized Capital : 6.18 billion yen (including reserve)

URL : <https://www.spcsft.com/>

## **< Contact information >**

Space Shift, Inc. (Contact : Tada)

E-mail : [sales@spcsft.com](mailto:sales@spcsft.com)