

January 30, 2024  
SKY Perfect JSAT Corporation  
Orbital Lasers Co., Ltd.

**Notice Regarding Establishment of “Orbital Lasers Co., Ltd.”**

Aiming for the World's First Commercial Use of Space-based Laser Technologies:  
Initiating Space Debris Business for Active Removal and  
Satellite LiDAR Business for Provision of High-precision Ground Surface Information

SKY Perfect JSAT Corporation (Head Office: Minato-ku, Tokyo; Representative Director, President & Chief Executive Officer: Eiichi Yonekura, “SKY Perfect JSAT”) announced the establishment of Orbital Lasers Co., Ltd. (Head Office: Minato-ku, Tokyo; President & Chief Executive Officer: Tadanori Fukushima, “Orbital Lasers”) as of January 12, 2024. This milestone follows the announcement in June 2020 to design and develop the payload of the world's first<sup>\*1</sup> satellite for space debris removal using laser technology, in collaboration with the Institute of Physical and Chemical Research (RIKEN)<sup>\*2</sup>. As a result of this progress, a startup was born from SKY Perfect JSAT.

Orbital Lasers will not only engage in space debris removal but also aims to further utilize and develop its laser technologies. By incorporating space-based LiDAR (Light Detection and Ranging)<sup>\*3</sup> technology into satellites, the company aspires to become the world's first<sup>\*1</sup> commercial provider of high-precision ground surface information through the use of Satellite LiDAR. In connection with this Satellite LiDAR business, SKY Perfect JSAT and JAXA entered into a contract regarding the conceptual study of earth observation LiDAR satellites system and its future commercialization, on January 12, 2024. Orbital Lasers is scheduled to undertake this conceptual study under contract from SKY Perfect JSAT.



**Corporate Logo of Orbital Lasers**

Orbital Lasers will engage in the following businesses:

1. Space Debris Removal
  - i. Detumbling (DTB)  
Development and sales of payload capable of detumbling space debris \*Planned in FY2025

- ii. Active Debris Removal (ADR)  
Service to remove space debris \*Planned in FY2029

2. Satellite LiDAR

- iii. Earth Observation (EO)  
Provision of ground surface information using Satellite LiDAR \*Planned



**Image of Orbital Lasers' businesses**

In our everyday lives, we use information from space for various purposes, including weather forecasts and GPS location data, contributing to the establishment of a secure society and enhancing our overall well-being. Moreover, space-based services play a crucial role in disaster situations, offering a valuable means to assess the extent of damage and facilitate emergency communication. The significance of space systems, as infrastructure supporting the economy and society, is anticipated to continue to increase in the future.\*4

Since the launch of Japan's first commercial communication satellite “JCSAT-1” in 1989, SKY Perfect JSAT has been a pioneer in the space business, providing satellite services in Japan and overseas for over 30 years. In 2018, an internal startup program was established to explore next-generation businesses, and a project aimed at maintaining a sustainable space environment was initiated. Through collaborative efforts between industry and academia, the project progressed with research and feasibility studies, leading to the further development and utilization plans for space-based laser technologies. As a result, two new businesses involving space debris removal and Satellite LiDAR have been launched.

The issue of space debris is now regarded as an environmental problem as significant as global warming and marine plastic pollution. SKY Perfect JSAT and Orbital Lasers are earnestly addressing this concern and aiming to contribute to the improvement of a sustainable space environment.

### **Overview of the New Company**

Company Name	: Orbital Lasers Co., Ltd.
Address	: 1-8-1 Akasaka, Minato-ku, Tokyo, Japan
Shareholder	: SKY Perfect JSAT, others
Representative	: Tadanori Fukushima (President & CEO)
Date of Establishment	: January 12, 2024
Business Operations	: Space Debris Business (Detumbling, Active Debris Removal), Satellite LiDAR Business (Earth Observation).
Website URL	: <a href="https://www.orbitallasers.com">https://www.orbitallasers.com</a>

#### ■ Comments:

##### Tadanori Fukushima, President & CEO, Orbital Lasers

In my 14 years of experience in satellite operations, I have always been highly concerned about the impact of space debris on the space environment. Consequently, I applied for an internal startup program and engaged in research and development of space debris removal with universities, research institutions, government agencies, companies, and experts to advance its business development. I would like to express my sincere gratitude to all the people involved in the establishment of Orbital Lasers. Furthermore, during this progress, we were able to discover new possibilities using space-based lasers, leading to the Satellite LiDAR Business. Through Orbital Lasers' initiatives, we aim to contribute to society by further enhancing the usability of space.

##### Eiichi Yonekura, Representative Director, President & CEO, SKY Perfect JSAT

I am deeply honored that we have finally been able to establish this new company through the startup program—an employee-initiated new business proposal system—that we launched in 2018. As a leader in the space industry, SKY Perfect JSAT will continue to aim for further business expansion and embrace challenges, seeking not only to create the next new businesses but also to generate new business models and values, including through partnerships with other companies.

##### Setsuko Aoki, Outside Director, SKY Perfect JSAT Holdings Inc.

The Orbital Lasers Co., Ltd. has started two world's first businesses through state-of-the-art lasers technology: aiming to provide high-quality Earth information; and protect orbits as 'limited natural resources' by active debris removal. This is not just a new venture. This also qualifies as a part of Japan's contribution to the global society whose urgent needs include the safe and sustainable use of outer space. As an outside director, I am most proud of the innovative enterprise on which both companies have embarked.

\*1 : Based on SKY Perfect JSAT research.

\*2 : Satellite Orbital State Control Laser Laboratory [https://bzip.riken.jp/oneteam/team\\_49/](https://bzip.riken.jp/oneteam/team_49/) (Japanese Web page)

\*3 : LiDAR (Light Detection and Ranging) is a remote sensing technology that measures the distance to and shape of a target object by emitting laser light and using information obtained from the reflected light.

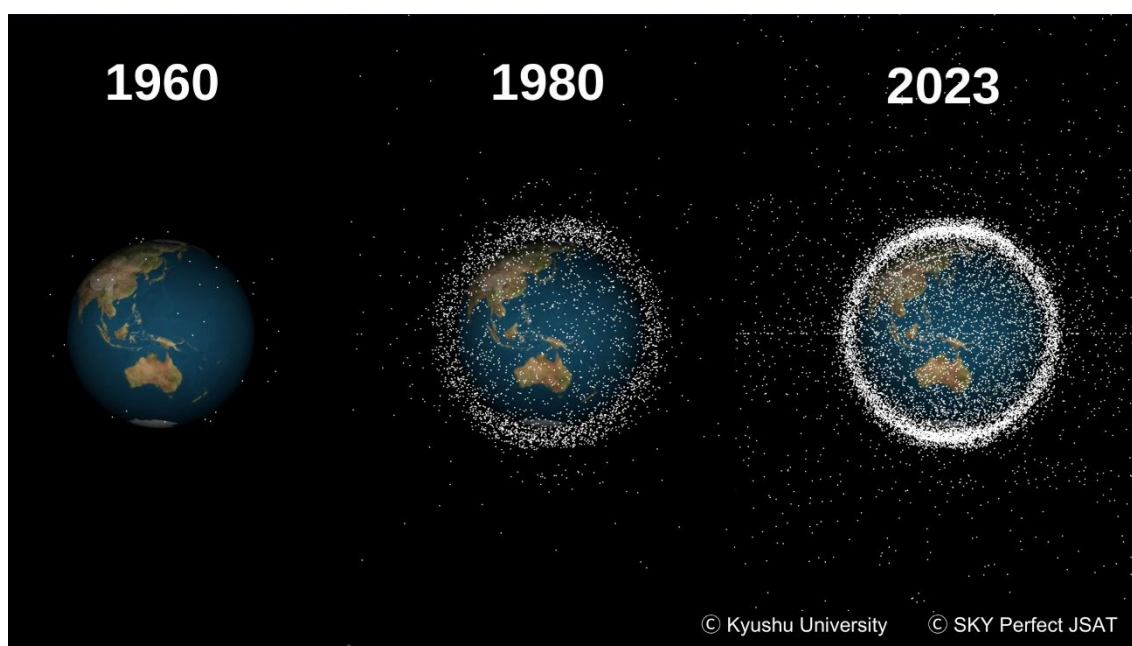
\*4 : In reference to the Cabinet Decision dated June 13, 2023, regarding the "Basic Plan on Space" by the Cabinet Office of Japan.

#### ■ Related Links

- Orbital Lasers Concept Movie : <https://youtu.be/66VvLtlhNcs>
- June 11, 2020, SKY Perfect JSAT News Release : [“Designing and Developing the World’s First Satellite for Removing Space Debris with a Laser: Aiming to Maintain a Sustainable Space Environment and Lead the Space SDGs”](#)
- Profile of Setsuko Aoki : <https://www.skyperfectjsat.space/en/company/resume/sjh/officer/>

#### ■ Reference

- Image of Increasing Space Debris in Orbit



#### ■ About SKY Perfect JSAT

SKY Perfect JSAT is Asia’s largest satellite operator with a fleet of 17 satellites, and Japan’s only provider of both Multi-channel Pay TV broadcasting and satellite communications services. SKY Perfect JSAT delivers a broad range of entertainment through the “SKY PerfecTV!” platform, the most extensive in Japan with over 2 million subscribers. SKY Perfect JSAT’s satellite communications services, which cover Asia, Indian Ocean, Middle East, Pacific Ocean and North America, play a vital role in supporting communications infrastructures for mobile backhaul, government, aviation,

maritime, oil & gas and disaster recovery.

For more information, visit our corporate website (<https://www.skyperfectjsat.space/en>) and Space Business website (<https://www.skyperfectjsat.space/jsat/en/>).

■ About Orbital Lasers

Orbital Lasers is a new company born from the startup program of SKY Perfect JSAT. Orbital Lasers will engage in two businesses: Space Debris Removal and Satellite LiDAR (Light Detection and Ranging). In Space Debris Removal, we are aiming to improve the space environment with the world's first space-based laser. In Satellite LiDAR Business, we are aiming to provide the world's first commercial Satellite LiDAR service. The LiDAR system emits lasers onto the Earth's surface and detects reflected lasers, obtaining height information of objects and ground surface with an unprecedented degree of accuracy. Orbital Lasers will continue to tackle various societal issues using laser technologies, ranging from the removal of space debris for a sustainable space environment to enhancement of Earth observation by Satellite LiDAR.