News Release

November 19, 2026
Sharp Corporation
Saitama University
ARAV Inc.
Prodrone Co., Ltd.
FURUNO ELECTRIC CO., LTD.

Joint Proposal Selected for the Space Strategy Fund Project "Development and Demonstration of General-Purpose Ground Antennas and Use Cases to Expand the Utilization of Satellite Communications"

Overview

Sharp Corporation, Saitama University, ARAV Inc., Prodrone Co., Ltd., and FURUNO ELECTRIC CO., LTD., together with Institute of Science Tokyo, jointly submitted a proposal for a technology development theme under the Space Strategy Fund for which the Japan Aerospace Exploration Agency (JAXA) invited proposals. The proposal involves the development of general-purpose ground antennas compatible with 5G NTN (Non-Terrestrial Network) as next-generation satellite communication terminals and the demonstration of their use in the mobility sector under "Development and Demonstration of General-Purpose Ground Antennas and Use Cases to Expand the Utilization of Satellite Communications". The joint proposal was selected on October 30, 2026.

About the Space Strategy Fund

Amid the global expansion of the space market, the Space Strategy Fund was established at JAXA in March 2024 to provide long-term support for technology development in the space sector. The Fund supports a wide range of initiatives undertaken by private companies, universities, research institutions, and other organizations, ranging from business demonstrations to innovative technology development. It provides support over multiple years, for up to 10 years, in three areas: "Space Transportation," "Satellites," and "Space Exploration."

Development of General-Purpose Ground Antennas Supporting Multiple Satellite Communication Services

Further utilization of satellite communications is expected to help ensure stable connectivity even in areas with limited terrestrial communication network coverage, such as mountainous areas, maritime areas, and disaster-affected areas. Based on this proposal, the parties will develop a general-purpose ground antenna compatible with 5G NTN, a communications standard that applies widely adopted terrestrial 5G technology to satellite communications and is being standardized internationally. In addition, the antenna will be designed to support multiple frequency bands, with the aim of enabling a single antenna to switch between multiple satellite communication services.

Demonstration of Applications in the Mobility Sector

The general-purpose ground antennas developed under this project will be installed on vehicles, drones, construction machinery, and vessels to conduct demonstration trials of satellite communication. The trials will assess communication quality and stability while in motion and verify the potential use of satellite communications for applications such as data transmission during autonomous driving, remote inspection, and video transmission.

Overview of the Call for Proposals

Soliciting Organization	Fund Name	Technology Development Theme	Technology Development Project	Project Period
Japan Aerospace Exploration Agency (JAXA)	Space Strategy Fund	Development and Demonstration of General-Purpose Ground Antennas and Use Cases to Expand the Utilization of Satellite Communications	Development and Demonstration of 5G NTN-Compatible Compact General-Purpose Satellite Terminals and Mobility-Oriented Use Cases for Construction Machinery, Vehicles, and Other Applications	Through March 2031 (*1)

*1 The schedule is subject to change.

Related Information:

Space Strategy Fund website, "Development and Demonstration of General-Purpose Ground Antennas and Use Cases to Expand the Utilization of Satellite Communications"

https://fund.jaxa.jp/techlist/theme3_1/ (in Japanese)

Main Roles of Each Organization and Related Websites

Organization	Role	Main Responsibilities	Official Website
Sharp Corporation	Lead Organization	Development of general-purpose compact satellite terminals; development and demonstration of each use case; overall project coordination	https://global.sharp/
Saitama University	Partner Organization	Development of compact antennas (development of shared TX/RX antenna elements)	https://en.saitama-u.ac.jp/
Institute of Science Tokyo	Partner Organization	Development of compact antennas (antenna element placement and array theory)	https://www.isct.ac.jp/en
ARAV Inc.	Partner Organization	Construction machinery use case	https://arav.jp/en/
Prodrone Co., Ltd.	Partner Organization	Drone use case	https://www.prodrone.com/en
FURUNO ELECTRIC CO., LTD.	Partner Organization	Maritime vessel use case	https://www.furuno.co.jp/en/