



Notice Regarding Participation in the Research and Development Project
"Establishment of a Small Unmanned Aircraft Swarm System through Innovation
in Cooperation and Digital Twin Technology (Tentative Title)", which was Adopted
as a Research and Development Project under Key and Advanced Technology R&D
through Cross Community Collaboration Program.

ACSL Ltd. (ACSL) hereby announces that it will participate as a research and development organization in the "Establishment of a small unmanned aircraft swarm system through innovation in cooperative and digital twin technology (tentative name)" (the Project), which was selected on October 31, 2023 as a research and development project "Autonomous control and distributed control technology for small unmanned aerial vehicles and detection technology for multiple small unmanned aerial vehicles to enhance the safety of airspace use" in the research and development concept "Autonomous control and distributed control technology for small unmanned aerial vehicles and detection technology to enhance the safety of airspace use" in the "Key and advanced technology R&D through cross community collaboration program" (K program), for which the Japan Science and Technology Agency (JST) issued a public call for proposals.

1. Purpose of the Project

The purpose of the K Program is to conduct research and development based on the R&D vision and R&D concept established by the government to foster cutting-edge key technologies that will be an essential element for Japan to continue to secure a firm position in the international community over the medium to long term.

The adopted project aims to achieve both the utilization of a large number of small UAVs and the assurance of airspace safety in the future, and to provide advanced autonomous control and distributed control technology that enables multiple small UAVs to work together to perform missions such as information gathering and rescue support in unknown and complex environments and non-GNSS environments such as disaster areas, structures such as infrastructure and plants, and areas affected by electromagnetic waves such as around high-voltage lines. In addition, with a view to securing Japan's autonomy in the use of AI and other technologies for sensing, it aims to develop elemental technologies and innovative methods for sensing and imaging space to enable the detection of small unmanned aircraft in the airspace, and to pioneer new detection technologies for small unmanned aircraft ahead of the world, with more efficient utilization of airspace in mind.





2. Description of the Project

In this project, to achieve the above objectives, ACSL will conduct research and development as a research partner to build innovative control technology and systems for autonomous swarm flight in harsh environments. In particular, by developing a technology that enables multiple small UAVs to estimate and grasp their own spatial position and share it among themselves, ACSL aims to establish elemental technologies that enable not only autonomous flight by a single UAV, which has been achieved with existing technologies, but also autonomous flight by a swarm of small UAVs, even in non-GNSS and unknown environments.

3. Implementation structure

The project will be conducted under a research and development structure headed by Dr. Yuichiro Sueoka, Assistant Professor at the Graduate School of Engineering, Osaka University.

4. Implementation period

December 2023 (planned) - March 2028

5. Scale of business

The maximum total R&D cost per proposal is 1 billion yen (including indirect costs. The amount is the total of all R&D organizations). The actual amount will be determined through future scheduled discussions with JST and the Program Officer.

6. Outlook

ACSL has decided to postpone the disclosure of earnings forecasts for the fiscal year ending December 31, 2023, although the company has determined that it is difficult at this point in time to appropriately and reasonably calculate figures for net sales overseas.

As for the impact of the Project on our business performance is insignificant, but we are currently examining other factors as well, and will promptly disclose our business forecast when we are able to do so.

The impact on business performance for the fiscal year ending December 31, 2024 and beyond is currently being closely examined and will be incorporated into the business forecast to be announced in the future.

Attention

This document is an unofficial translation of the timely disclosure on November 2, 2023 by ACSL and this is for reference purpose only. In case of a discrepancy between the English and Japanese versions, the Japanese original shall prevail.