

PRESS RELEASE

A.L.I. Technologies and Aero G Lab to Form Business Alliance

2022/12/28

A.L.I. Technologies Inc.

A.L.I. Technologies Inc. ("A.L.I.") has announced that it has entered into a business alliance with Japanese drone manufacturer Aero G Lab Inc. ("AGL"),

■ Background and Purpose of Business Alliance

A.L.I. has been developing a drone version of UTM (operation management service system) for some time, and has been participating in NEDO demonstrations using its own prototype version of C.O.S.M.O.S. since last year. NEDO is a Japanese national research and development agency that creates innovation by promoting technological development necessary for realization of a sustainable society. NEDO acts as an innovation accelerator to contribute to the resolution of social issues by developing and demonstrating high-risk innovative technologies having practical application. Since this summer, A.L.I. has been installing C.O.S.M.O.S. on the aircrafts of various domestic drone manufacturers with the goal of widespread social implementation of the UTM.

At the same time, AGL has developed its own hybrid drone equipped with an engine generator capable of long-distance flight, and has participated from early on in the logistics drone demonstration project in mountainous areas promoted by the Ministry of Land, Infrastructure, Transport, and Tourism in Japan. FLIGHT LEVEL 3, referring to unmanned, unobserved flight in unpopulated areas (without an assistant), were achieved early on, however, AGL had yet to develop an operational management system that would enable safe operations in a shared airspace with other aircraft, as well as a system for operating the aircraft from a remote location.

Since the summer of 2022, the two companies have been participating in several joint demonstration projects using AGL's AeroRangeQuad equipped with A.L.I.'s flight operation management service system, C.O.S.M.O.S. Such projects include a logistics demonstration conducted in Osaka in June, a demonstration of control of multiple aircraft (one-to-many) in

Hokuto City, Yamanashi, in August, and in September a disaster drill in Tokushima, Tokushima Prefecture, in anticipation of the transport of disaster relief supplies by remotely operating aircraft from Tokyo, 500 km away.

Through these efforts, the combination of AGL's AeroRange series of drones and A.L.I.'s C.O.S.M.O.S. air traffic control system has proven that drones can contribute to society in FLIGHT LEVEL 3 environments, including mountainous areas and remote islands. The two companies have decided to coordinate their efforts into the form of a business alliance, and will jointly participate in further demonstration projects and use A.L.I.'s sales force to market the aircraft.

■What is the AeroRange series ?

Current mainstream battery-powered drones have a flight time of about 15 to 20 minutes, but AGL's AeroRange series, a hybrid drone equipped with an engine generator, can fly for more than two hours (up to three hours). The airframe, which is assembled by hand one by one at a factory in Japan by skilled engineers, is a purely domestically manufactured drone with every part made in Japan. The AeroRangeQuad is the first drone other than A.L.I.'s original aircraft, to be equipped with C.O.S.M.O.S. and to have undergone a verification test.



■Possibilities of Japanese hybrid drones

Most current drones use lithium-ion batteries, which, despite their ever-evolving performance, do not provide much flight time. Despite the lifting of the FLIGHT LEVEL 4* prohibition on December 5, 2012, and the introduction of legislation to ease regulations for out-of-sight flight, drones are still limited to short-range operations. However, the most attractive feature of AGL's hybrid drones is that they can operate for longer than two hours.

In addition, because it uses readily available gasoline as its power source, it is easy to secure power even in the event of a disaster, and can fly in both normal and emergency situations. At the same time, the use of an internal combustion engine as a power source makes it possible to operate in cold weather as usual, a feature that conventional battery-powered drones lack. This makes it possible to operate drones throughout Japan, including in snowy regions, regardless of the season.

In the overseas drone market, hybrid drones powered by gasoline, rather than battery powered drones, are being released one after another. AGL's AeroRange series are all manufactured in Japan, from development to procurement of materials and production, which minimizes security risks such as information leakage, and this also permits users to take advantage of full after-sales support after purchase.

*FLIGHT LEVEL 4 refers to flights that are conducted out of line of sight above populated areas such as urban environments.



■ Future Developments

With the deregulation of LEVEL 4 on December 5, it is expected that drones will have more opportunities to play an active role in our daily lives. However, the use of drones for out-of-sight flights (LEVEL 3) in depopulated areas such as mountainous regions and remote islands has not yet been fully implemented in society, and A.L.I. and AGL intend to continue expanding the market where LEVEL 3 flights are required through this business alliance.

It is expected that in late December multiple AeroRangeQuads will be flown in Chiba City to demonstrate the centralized control of aircraft and airspace management by C.O.S.M.O.S. In addition, a demonstration will be conducted to monitor AeroRangeQuad

operations from Japan using C.O.S.M.O.S. after the aircraft is shipped out of the country.

In addition, the AeroRange series will be further improved to accommodate alternative fuels such as hydrogen fuel and biofuels, and to build an operation system in anticipation for a decarbonized society.

<A.L.I. Technologies Inc.>

Under the mission statement Changing Society from the Top Down, A.L.I. has developed and released air mobility platform, C.O.S.M.O.S., and the *XTURISMO Limited Edition* Hoverbike. A.L.I. will continue to innovate, unbound by existing ideas, to develop and deploy systems that are necessary for the realization of an air mobility society.

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■ Forward-Looking Statements

This press release contains statements that constitute "forward-looking statements." Forward-looking statements are subject to numerous conditions, many of which are beyond A.L.I.'s control. While A.L.I. believes these forward-looking statements are reasonable, undue reliance should not be placed on any such forward-looking statements, which are based on information available to A.L.I. on the date of this release. These forward-looking statements are based upon current estimates and assumptions and are subject to various risks and uncertainties. Actual results could be materially different. A.L.I. undertakes no obligation to update these statements whether as a result of new information, future events or otherwise, after the date of this release, except as required by law.