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Dec. 7. 2018
Marubeni Corporation
ZMP Inc.

Establishment of joint venture for the commercialization of autonomous driving at airport

Marubeni Corporation (hereinafter "Marubeni") and ZMP Inc. (hereinafter "ZMP") have established AIRO Inc. (hereinafter "AIRO") in an endeavor to commercialize autonomous driving services through the use of autonomous vehicle within restricted areas at airports.

Throughout the world, there is a strong demand for air travel, and the number of overseas visitors to Japan (hereinafter "Inbound Visitors") is also continuing to increase. The Japanese government wants to achieve 40 million Inbound Visitors to Japan each year by 2020. On the other hand, due to an increase in the number of flights arriving and departing from Japan as a result of the increase in Inbound Visitors and the decrease in working age population, the labor shortage for ground handling work necessary for when aircrafts arrive and depart is becoming a serious problem. In order to help solve this issue, Marubeni and ZMP have teamed up to jointly establish AIRO which will allow for the combination of Marubeni's airport ground handling business and its know-how in the field of aviation with ZMP's solid track record and development capabilities in autonomous driving technology.

In 2006, Marubeni established Swissport Japan, entering the ground handling business. At present, Marubeni operates this business at Japan's major airports (Narita, Haneda, Chubu, Kansai, and Fukuoka) and has developed knowledge and accrued experience in airport-related business fields over a period of more than ten years. In addition, Marubeni has not only launched into agency services, such as aircraft and engine sale and maintenance support, but also engine development investment, aircraft and engine leasing, parts sales and the aerospace business. Marubeni is continuing to work on expanding its business in the aviation field where strong growth is projected to continue for air passenger demand.

ZMP is a venture that has utilized robot technology as its basis for developing the RoboCar® series of autonomous driving development platforms and the IZAC® autonomous driving control computer; ZMP provides autonomous driving platforms with autonomous vehicle management systems. Aditionally, ZMP commenced a POC on public roads in 2014 and continues to carry out POCs for autonomous vehicles in metropolitan areas, including one carried out with Hinomaru in August 2018, which became the world's first driverless taxi between Otemachi and Roppongi. ZMP is also moving forward with the development and POC of CarriRo® Deli, Japan's first delivery robot, and is pursuing the practical application of autonomous technology.

Furthermore, Japan's Ministry of Land, Infrastructure, Transport and Tourism (hereinafter "MLIT") put out a call in June 2018 for participants for a POC of autonomous driving within restricted areas at airports, and Marubeni and ZMP were selected to participate in September 2018. Details of the POC were released by MLIT via a press release on December 4, 2018. As part of its business activities, AIRO plans to carry out a POC in a restricted area of Narita International

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Airport and Chubu International Airport, and in which passenger and crew involvement is anticipated.

AIRO hopes to contribute to the further increase of Inbound Visitors in Japan through the provision of solutions to the serious issue of labor shortage at airports by carrying out POCs and by the commercialization and selling of autonomous vehicles and accompanying services.

<Outline of Joint Corporation>

Company name: AIRO Inc.

Location: Nihonbashi 2-chome, Chuo-ku, Tokyo

Establishment: December 7, 2018

Share: Marubeni 66% • ZMP34% Business: 1.Participation in POCs

2.Examination of the autonomous driving service business using autonomous

vehicles within restricted areas at airports





Left: ZMP Inc.

Director of the Board Business Management

Toru Ichihashi

Right: Marubeni Corporation

Senior Operating Officer, Aerospace & Ship Division General Manager, Aerospace & Defense Systems

Department Toru Okazaki A sample image of RoboCar® MiniVan

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