

October 18, 2021

## **MIRAIT Holdings Corporation**

## [ MiratecDrone Corp. ]

## Commences Provision of Drone-based Water Pipe Bridge Inspection Service

Responding to an increase in leaks and damage due to aging of water facilities

MiratecDrone Corp. (head office: Shinagawa-ku, Tokyo; President: Yasuyuki Sasaki; "MiratecDrone"), which is a Group company of MIRAIT Holdings Corporation, will commence the "Drone-based Water Pipe Bridge Inspection Service" for inspecting aging water facilities that have become a problem in recent years.

In Japan, water facilities that were built from the 1960s to the 1970s are aging, and in recent years there have been over 20,000 incidents of leaks and damage per year. In particular, the percentage of water pipes exceeding the statutory useful life is 17.6%, and this percentage will inevitably increase. (Source: 2018 Waterworks Statistics) In addition, in response to part of a water pipe bridge being damaged and collapsing in Wakayama City on October 3, 2021, MiratecDrone believes that there is an urgent need for the inspection of the large number of similar water pipe bridges in Japan and decided to establish systems for providing service and commence provision of the service.

MiratecDrone has conducted field trials of water pipe bridge inspections using drones with the Sakai City Waterworks and Sewerage Bureau in February 2020 and the waterworks bureaus of several other local governments in the past. Based on the results, it was proven that fractures in pipe surfaces, peeling of paint, rust and cracks in concrete used in bridges can be accurately determined, and work has been conducted to practically implement the service. As a result, the inspections of water pipe bridges that have been conducted from the shore with the naked eye until now can be recorded in detail from close proximity using a camera on a drone.

In addition, the service utilizes the functions of "Hec-Eye" software developed by Realglobe, Inc. (head office: Chiyoda-ku, Tokyo; President: Takahiro Ohata; "Realglobe") to enable experts on diagnosis of the deterioration of water pipe bridges and bridges to perform diagnosis

of video delivered by drones in real time from remote locations such as an office. It is also possible to take high-definition images of areas suspected of deterioration from a variety of angles as needed, and record and view the locations on a map.

The service will be provided to waterworks bureaus and business operators managing water pipe bridges throughout Japan by dispatching pilots from MiratecDrone and partner companies nationwide.

Service name: Drone-based Water Pipe Bridge Inspection Service

Starting date: October 18, 2021

Details: A service in which drones approach water pipe bridges to photograph and record fractures in pipe surfaces, peeling of paint, rust and cracks in concrete used in bridges, and a service in which video from drones is transmitted in real time, with detailed images being taken of deteriorated areas, and the locations being recorded and viewed on a map.

Pricing: Individual estimates will be provided based on the size of the bridge and the surrounding conditions



Water pipe bridge photographed and recorded from a drone



Water bridge base



Real-time diagnosis by an inspector (expert) in a remote location using "Hec-Eye™" software developed by Realglobe