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DIC Corporation

DIC Begins Initiative Using Drones for the Inspection of Elevated Facilities

—Drones are expected to contribute to enhanced security and disaster prevention—

Tokyo, Japan–DIC Corporation has commenced an initiative using drones for the inspection of structures and elevated facilities at its Tatebayashi Plant, in Gunma Prefecture, for the purpose of facility maintenance. The

Tatebayashi Plant manufactures such products as plastic colorants (masterbatches).

Inspections for facility maintenance include elevated facilities, such as roofs and rooftop pipes, and usually involve erecting scaffolding for visual inspections by workers to identify areas in need of repair. Since it is not possible to predetermine which specific locations will need repairs, scaffolding must be erected over a wide area for the duration of the inspection, requiring substantial investments of both time and expense.



Worker operating a drone

At the Tatebayashi Plant, the use of aerial images captured by drones has made it possible to narrow down the locations requiring repair and assess the level of damage in advance. In addition to facilitating efficient inspections, it is hoped that the use of aerial photographs taken by drones will significantly reduce work that must be carried out in high locations, which involves the risk of falls.



Aerial image captured by a drone confirming the presence of rust on upper section of facility

News Release



In Japan, the use of drones is governed by a wide array of laws, regulations and other controls related to safety and privacy protection. Because the Tatebayashi Plant is not situated in a densely populated area or industrial complex, meaning that there are few impediments to drone use, DIC is considering deployment for a broad range of applications.

Observations using drones proved extremely effective in a disaster prevention drill held at the plant in April 2017. Aerial photography made it possible to monitor the status of employee evacuation procedures and routes and the progress of fire-extinguishing drills simultaneously from the self-defense and disaster prevention headquarters, which was situated at a remote location. Aerial images captured by drones were also reviewed after the drill, which made it possible to identify aspects for improvement.



Drone photography of the disaster-prevention drill

The DIC Group is implementing a variety of safety disaster prevention initiatives, a multifaceted process of trial and error, with the aim of achieving its objective of "zero occupational accidents." With regard to the use of drones, which is governed by strict laws and regulations, the Group is accumulating knowledge at the Tatebayashi Plant with the aim of facilitating the expansion of deployment to other production facilities. DIC also seeks to contribute to improved security and disaster prevention beyond the Group by promoting the provision of information to other local companies and stakeholders.