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[Environmental Monitoring] The First Pilotless Air Pollution Monitoring Plane in Taiwan Shows up

[Environmental Monitoring] The First Pilotless Air Pollution Monitoring Plane in Taiwan Shows up (Chinese Version)

RTI & China Times E-paper (2010/11/09) The first made-in-Taiwan pilotless air pollution monitoring plane, which targets and can capture samples of ozone, nitrogen dioxide and non-methane hydrocarbons, was presented to the public in Kaohsiung City on November 8. Fooyin University, that invents the plane, pointed out, the plane not only makes a breakthrough regarding the previous limit of air sample collection when the collection could only be conducted at specific locations on the ground; when installed with camera, the plane can also monitor the ground in the air as a new disaster prevention measure.

The air pollution monitoring plane was developed by the Environmental Protection Bureau of Kaohsiung City and the Joint Technology Center for Atmospheric Monitoring, Fooyin University. When the plane detects in the air the pollution sources of ozone, nitrogen dioxide and non-methane hydrocarbons, the captured data of them will be transmitted to the server on the ground. Now the plane has begun its service in Siaogang District.

In the past, the air pollution samples were obtained with tethered airships, whose collecting efficiency and accuracy were highly effected by the factors of wind direction, terrain feature, convection, etc. Now, since the plane can reach 20,000 feet altitude and hover in certain area, the samples collected become more accurate.

Over one million NT dollars were spent on the development of two pilotless monitoring planes in different sizes. They were made of carbon fiber composite, and entitled “High Altitude Guardian No.1” and “High Altitude Guardian No.2” (trans. temp.). No. 1 can afford a ten-kg load and stay in the air for one hour, while No. 2 can afford forty kg and stay in the air for four hours. The disassembly-and-assembly takes half an hour, and they can take off with an one-hundred-meter airstrip. They can respond quickly once a pollution event is reported.

Reference:
RTI 2010/11/09 (Chinese)
China Times E-paper 2010/11/09 (Chinese)

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