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# Radiation Monitoring using an Unmanned Helicopter in the Evacuation Zone Set up by the Fukushima Daiichi NPP Accident.

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By the nuclear accident of the Fukushima Daiichi Nuclear Power Plant (NPP) caused by the East Japan earthquake and the following tsunami occurred on March 11, 2011, a large amount of radioactive materials was released from the NPP. In recent years, technologies for an unmanned helicopter have been developed and applied to natural disasters. In expectation of the application of the unmanned helicopter to airborne radiation monitoring, we had developed a radiation monitoring system using an autonomous unmanned helicopter (AUH). Then, we measured the ambient dose-rate at the height of 1-m above the ground and the soil deposition of radioactive cesium (Cs-134, Cs-137) by using the AUH system in the evacuation zone of residents around the NPP. Here, we report on the measurement technique and the result. As a result measured around a river at 10-km away from the NPP, high contaminated areas compared with the circumstance are detected along the dry riverbed. It was seemed that it had flowed along the river from highly contaminated areas in the upper stream.