

UAV application and possibility for disaster prevention.

SAITOU, Osamu^{1*} ; KUWAHARA, Yuji¹

¹Center for Disaster Prevention and Security, IBARAKI University

Videos of the tsunami taken from the airplane conveyed the horror of the recent great disaster which attacked the various places in eastern Japan, the Great East Japan Earthquake of 2011. Numerous engineers and researchers were shocked by the images. Moreover, many real-time movies and images of this disaster exist. Especially in the past several years, other disasters caused by extreme weather because of our changing climate, such as heavy typhoons, rain cataracts, flurries, and tornadoes, also cause widespread destruction. When these disasters or earthquakes occur, rapid situational assessment is crucially important, but it is difficult because transportation systems including roads and railways often shut down under those circumstances. Therefore, a monitoring system that provides information immediately when a disaster occurs is required. When a disaster occurs, monitoring from an airplane or satellite is effective but such systems are not easy to use. This study examines the possibility of disaster monitoring systems using uncrewed aerial vehicles (UAV).

Keywords: UAV, sensor network, sensor, disaster prevention