

## Self-potential mapping around the summit area of Ontake volcano and continuous telluric observations

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In this presentation, we will report the result of self-potential (SP) mapping around the summit area of Ontake stratovolcano obtained by campaign measurements in summer season of the years 2005 and 2006. By comparing the distribution of SP with the location of the 2014 phreatic eruption, we discuss whether it was possible to know a potential risk of such phreatic eruption in advance.

In February 2007, we established a continuous SP observation network the eastern submontane area of Ontake volcano with the aim of monitoring the crustal/hydrothermal activity. This network consists of 8 long dipole telluric observations using leased telephone infrastructures as the cables connecting the electrodes and is about 10 km away from the summit. We will also introduce long-time variations detected by this telluric observation network and report the presence or absence of a remarkable change around the time of the 2014 phreatic eruption.

Keywords: Self-potential, Ontake volcano, continuous telluric observations