

Development of Ku-band broad band radar for tsunami monitoring

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We began to develop tsunami monitoring radars based on the idea of Ku-band broadband radars, which estimate precipitation with quite high range resolution. The final goal of the tsunami monitoring radars is to estimate the arrival time of tsunamis and wave heights of them. The basic idea of the tsunami monitoring radars is quite similar to the Ku-band broadband radar; center frequency, frequency band, and range resolution, respectively, are 15.75 GHz, 80MHz, and 5m. Last year we had an observation campaign with a prototype tsunami monitoring radar in Tanabe Bay, Wakayama prefecture, to test our method. We confirmed that the radar detected caps of sea waves and there was a linear relationship between radar reflectivity and the wave heights.

Keywords: tsunami, remote sensing, microwave