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## Observation of the ionospheric disturbance by ALOS/PALSAR

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While ALOS PALSAR is a L-band synthetic aperture radar launched in January 24 2006 is very sensitive to the forest monitoring and surface deformation, this signal is affected by the ionosphere which distributes mainly at the altitude of 200km above the ground in night time, signal propagation path is refractive and the stripe noise sometimes appeared in the images. The possible causes are plasma bubble which is generated as the rather low ionospheric density tube or bubble at the transition stage from high density plasma condition to the low plasma condition. In this study, we will introduce 1) observation result for the SAR images affected by these phenomena from the PALSAR browse archive from 2006-2008, 2) correlative study on the occurrence statistics and the solar activity, and 3) theoretical study on why the noise appears in amplitude and phase information.

Keywords: SAR