

ACG031-P07

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Variation of distribution of surface water body in Eastern Siberia

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In the permafrost region, lake is a quite frequent phenomena which constitutes a part of hydrological cycle. It is one of the storage component of water in this cycle. They show variation according to the change in climate and also in relation to the change in the sub-surface structure. Some papers have discussed about the disappearance of lake due to change in the condition of the frozen ground. Therefore, lakes are interesting and important phenomena as a one component of hydrological cycle, and as a phenomena which shows the terrestrial condition of the area. We have obtained the distribution of water body (mainly lakes and flood plain) in the Siberian Region using LANDSAT images which were taken from 1975 to 2008. In addition, meteorological data were analysed to inspect the climatological condition during these years. Detail analysis were made for central part of Lena River basin and coastal regions from 125deg E to 165deg E. Temporal variation of lake distribution and sizes were obtained, and they in some area showed strange and also non-synchronized changes.

Keywords: Eastern Siberia, lakes, Terrestrial Change, Global warming, Precipitation