Intercomparison of ionospheric observations obtained by 10C-type ionosonde and by FMCW-type ionosondes at Syowa station

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Ionospheric routine observation at Syowa station, Antarctica has been operating more than fifty years. The dataset of ionospheric observation obtained at Syowa station is quite valuable for studying the long-term variations of ionosphere, and the relationship among the ionosphere, lower atmosphere, and solar activity. Currently we are operating single pulse type ionosonde (10C). To minimize the resources and effective operation for continuing our observation as regular survices, we will introduce new type of ionosonde (FMCW) in this eight-th plan of Antarctic research. We are operating FMCW-type ionosonde and 10C-type ionosonde simultaneously for comparison. This time, we try to compare the quality of both data by using manual-scaling ionospheric parameters. We will show initial results of our comparison in our presentation.

Keywords: Ionospheric observation, Single pulse method, FMCW method, Ionosonde, Antarctica