Study on atmospheric gravity waves in the auroral region using Na airglow images - Alaska-project ASI report III

Minoru Kubota[1], Yasuhiro Murayama[1]

[1] CRL

http://salmon-www.crl.go.jp/

As part of an international cooperative research project with Geophysical Institute of University of Alaska, we developed two all-sky imagers (CRL-ASI), and installed them at Poker Flat, Alaska. We have conducted aurora/airglow observations since October 2000. Obtained data have been immediately transferred to CRL, Japan using the System for Alaska Middle Atmosphere Observation Data Network (SALMON), and anyone can see the summary data by internet (http://salmon.crl.go.jp/index_e.html).

The CRL-ASI can observe ten kinds of emissions. We found that one of the emissions, Na D line is very useful to investigate atmospheric gravity waves (AGW). These AGWs are possible to be influenced by auroral particle precipitations, and the investigation of these phenomena is important for understanding of atmospheric dynamics in the high-latitude MLT region. In this paper, we will show initial results of AGW observations, and future plans of our study.