

High resolution auroral structures in DMSP/OLS data received at Syowa Station, Antarctica

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A data acquisition system for DMSP satellites was installed at Syowa Station, February, 1997, then started to collect high resolution auroral images by DMSP satellites continuously. The system is composed of a L/S-band dual feed antenna with LNAs/DCs, receiver unit, bit/frame

synchronizer and an UNIX workstation to control the whole system automatically. We have successfully collected the DMSP-F12, F13 and F14 RTD(real time data) more than 4,000 passes every year. Global auroral images with a spatial resolution of 2.75km have been processed and archived for the DMSP/OLS online database system.