Japan

Quality Assurance and Quality Control of Surface Observations in JMA

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JMA operates surface observation networks carried out at about 1,300 stations: 68 manned meteorological observatories, 88 unmanned meteorological observatories, and more than 1,100 AWSs. All these stations are integrated into the AWS network in Japan named as AMeDAS (Automated Meteorological Data Acquisition System).

Observational data at meteorological observatories are transmitted to the data-processing centre (AMeDAS Integrated Processing System: AIPS) in JMA headquarters every ten seconds, and ten minutes frequency for observations at other AWSs.

Observational data are quality controlled in the instruments and in the AIPS in real time. After sending SYNOP reports to GTS line and domestic BUFR reports to the external telecommunication line, processing systems in JMA-HQ implement non-real time AQC: Spatial check, sequential check and extreme value check. According to the AQC result returned from AIPS and the processing systems, the officer in the observatory corrects observation value.