

ENVIRONMENTAL CONDITIONS AT THE HIGH-ALTITUDE ALI OBSERVATORY FOR SPACE WEATHER RESEARCH

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The deployment of ground stations can be one of the important foundational works for space weather research. This paper introduces the environmental conditions at high-altitude Ali observatory on the most western Qinghai-Tibet Plateau. The statistical results of atmospheric conditions by years of monitoring and research, including cloud cover, water vapor, meteorological parameters, atmospheric background radiation, transmittance and optical turbulence, are presented. The geographical traffic, current infrastructure as well as coming construction plan of the observatory are also shown. In view of the unique highest platform in the Northern Hemisphere with excellent observational conditions and mature infrastructure, Ali observatory should be expected to develop into a multi-disciplinary station including space weather exploration.