

Current state and potential future developments in auroral and airglow imaging

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Auroral imaging has provided valuable information about the coupling between the magnetosphere and the high latitude ionosphere. The technical development from film cameras that could only operate during night time and provided a limited view to highly sophisticated ultraviolet instruments that observed the global-scale aurora on the nightside and dayside has greatly enriched our understanding of auroral processes. The same technological advances also applied to airglow observations that allowed the determination of wave modulations and gravity wave coupling from low to high altitudes. Without claiming completeness this presentation will try to summarize the major technological, logistical and infrastructural advances of the past ~50 years. We will also describe some current projects, particularly the NASA ICON mission and try to point out potential future developments that can go beyond a simple improvement of the temporal or spatial resolution of auroral and airglow imaging.