

## Recent advances in space weather monitoring using the Super Dual Auroral Radar Network

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Over the last decade, the Super Dual Auroral Radar Network (SuperDARN) has undergone a dramatic expansion in the Northern Hemisphere with the addition of more than a dozen radars offering improved coverage at midlatitudes (50°–60° magnetic latitude) and in the polar cap (80°–90° magnetic latitude). This has led to the development of new empirical models which better describe both the regional and global morphology of ionospheric convection under a range of solar wind and geomagnetic activity conditions. In addition, real-time measurements of ionospheric plasma motion are once again being collected from more than 15 SuperDARN radar sites to produce nowcasts of the global convection pattern. In this presentation we discuss the operational challenges and space weather applications of these real-time SuperDARN products.