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Poster
Aurora chasers are a major public user group of space weather products and tools. Understanding how they use forecasts is important for public engagement, trust in science, and communicating the societal value of space weather research. We conducted a University of Minnesota IRB-approved online survey distributed through aurora-chasing communities and received 945 responses. Questions covered geography, chasing frequency, aurora science knowledge confidence, forecast resources used, confidence in local news coverage, and how forecast uncertainty affects chasing decisions.

This poster presents an initial analysis and highlights early results. Aurora science knowledge confidence increases with chasing activity level, and more frequent chasers report substantially higher confidence in aurora science and forecasting. Forecast uncertainty is also strongly tied to behavior. Casual and less-frequent chasers are much more affected by uncertainty, while frequent chasers are more likely to chase despite uncertain forecasts. These patterns indicate that uncertainty tolerance is a key part of aurora chase decision-making. In a forecast-format comparison, respondents strongly preferred the more detailed forecast with explicit uncertainty discussion over the simpler forecast. Views on local news station aurora coverage were mixed, which suggests another opportunity for improvement.

Although this sample is not representative of the general public, the method is effective, and the results are informative for improving space weather communication. Better-informed aurora users can become ambassadors for space weather and support citizen science and other scientist-public collaborations.
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Meeting homepage
2026 Space Weather Workshop
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