

**Meeting Summary
for the
15th AMS Conference on Polar Meteorology and Oceanography**

The 15th AMS Conference on Polar Meteorology and Oceanography was held in Boulder, Colorado from 19-23 May 2019. The conference included both oral and poster presentations on research on weather and climate in both the Arctic and Antarctic. With more than 140 abstracts submitted and over 150 people registered for the meeting, the 15th edition was the largest AMS Polar meeting to date.

The conference started with a triple session focused on Arctic cyclones. Understanding these phenomena, which have distinct dynamics compared to mid-latitude cyclones, has become an active area of research. A wide variety of talks showcased recent results from studies using wide-ranging methodologies from in situ observational to remote sensing and modeling experiments. During the second day, joint sessions on atmospheric polar-extra polar teleconnections and climate modeling & forecasting showcased significant progress in both sub-disciplines, with modeling studies quantifying the impact of polar regions on the mid-latitudes/tropics and vice-versa while progress and challenges in polar forecast skill were highlighted. A session on the role of clouds in the polar climate system followed, underlining the importance of clouds on the energy budget of the poles and progress in their modeling. The third day was focused on a single session that explored the cross-component interaction in both poles of the Ocean-Cryosphere-Atmosphere coupled system. The final day of the conference was comprised of several single sessions that showcased new field and remote sensing observations and investigated the hydrologic cycle of the polar regions and reducing uncertainty in future sea ice reductions via increased process understanding.