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Recent Developments of the Year of Polar Prediction

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The Polar Prediction Project (PPP, www.polarprediction.net) is a 10-year (2013–2022) endeavour initiated by the World Meteorological Organization's (WMO) World Weather Research Programme (WWRP). Aim of this wide international endeavour is to promote cooperative weather and sea-ice research enabling development of improved environmental prediction services for the polar regions, on time scales from hours to seasonal.

The PPP flagship activity, the Year of Polar Prediction (YOPP), has been launched in mid-2017 as a coordinated two-year period of intensive observing, modelling, verification, user-engagement and education activities. Since then, scientists and operational forecasting centers worldwide have closely worked together to observe, model, and improve forecasts of the Arctic and Antarctic weather and climate systems. During three Special Observing Periods in the Arctic and Antarctic, routine observations such as radiosonde launches and buoy deployments were enhanced (in the Arctic: 1 February – 31 March 2018 and 1 July – 30 September 2018, in the Antarctic: 16 November 2018 – 15 February 2019), aiming to close gaps in atmospheric and sea-ice observations and to enable significant progress in environmental prediction capabilities for the polar regions and beyond.

in mid-2019, PPP has moved into its Consolidation Phase which will be key for the success of the initiative. Central activities and projects such as the YOPPSiteMIP initiative or the EU-project APPLICATE will significantly contribute to improving forecasts of weather and sea-ice conditions in polar regions and to make them available to its user community. Data collected during YOPP are available for everyone through the YOPP Data Portal (https://yopp.met.no/) to feed into improved environmental forecasting systems.

In this presentation, an overview of the main achievements accomplished during the three YOPP Special Observing Periods, current activities including two more Special Targeted Observing Periods (TOPs) as well as prospects for future evaluations of PPP are provided.