Advances in Polar Prediction

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There has been a growing interest in the polar regions in recent years, fuelled by concerns about amplification of anthropogenic climate change. Furthermore, increased economic and transportation activities in polar regions are leading to more demands for sustained and improved availability of prognostic information to support decision-making, on all time scales. Recognizing this, WMO's World Weather Research Programme (WCRP) has launched the Polar Prediction Project (PPP, 2013–2022) with its flagship activity, the Year of Polar Prediction (YOPP). With its three phases—the Preparation Phase (2013–mid 2017), Core Phase (mid-2017 to mid-2019) and Consolidation Phase (mid-2019 to 2022)—YOPP will enable a significant improvement in environmental prediction capabilities for the polar regions and beyond, by coordinating a period of intensive observing, modelling, verification, user-engagement and education activities. In this presentation, the objectives of YOPP along with the strategic approach will be outlined. Furthermore, recent progress on a number of key themes will be reported, including predictability limits, observing system design, model development and Arctic-midlatitude linkages. Finally, a number of activities will be outlined that promise significant further progress in the field of polar prediction.