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Atlantic Basin Seasonal Hurricane Prediction: Past, Present and Future

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Abstract

This presentation will examine the background behind today's Atlantic basin seasonal hurricane forecasts - from pioneering research conducted by scientists as far back as the mid-20th century to the seminal work on seasonal hurricane prediction carried out by Dr. Bill Gray at Colorado State University. Several of the most important predictions used by seasonal forecast groups today will be discussed, including El Nino and Atlantic basin sea surface temperatures. Over two dozen groups from the private sector, universities and government agencies currently issue seasonal hurricane forecasts that are displayed at seasonalhurricanepredictions.org. Techniques currently utilized by several of these groups will be outlined in this presentation. The future of seasonal hurricane predictions will also be discussed - including the use of machine learning techniques, region-specific and landfall forecasts as well as the potential for multi-year outlooks.

Short bio



Dr. Philip Klotzbach is a world-leading expert in the field of seasonal hurricane forecasting. Research scientist in the Department of Atmospheric Science at Colorado State University, he has been issuing forecasts ahead of hurricane seasons since 2000, first as a collaborator (2000-2005) and subsequently as the lead author (2006-present). These forecasts receive intense media coverage from both national and international media. Dr.

Klotzbach also developed the two-week forecasts currently being issued by the National Hurricane Center during the peak months (August-October) of the Atlantic hurricane season.

He has published over two dozen articles in peer-reviewed journals, including four in high-impact journals. He currently serve as the chair of the World Meteorological Organization's panel on seasonal hurricane prediction and as a member of the review panel for the National Research Council's Research Associates Program. He has been an invited speaker at the National Hurricane Conference, the Florida Governor's Hurricane Conference, the Aon Property Symposium and several energy and insurance-related conferences.

Dr. Klotzbach has been collaborating for three years with the Earth Science Department of the BSC in developing and maintaining a website on seasonal hurricane predictions (www.seasonalhurricanepredictions.org).