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Supplemental Material

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1 **Supplement to ”Tropical Transition of Hurricane Chris (2012) over the**
2 **North Atlantic Ocean: A Multi-Scale Investigation of Predictability”**

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ABSTRACT

18 This document is a supplement to "Tropical Transition of Hurricane Chris
19 (2012) over the North Atlantic Ocean: A Multi-Scale Investigation of Pre-
20 dictability". It contains a plot, which served as basis for the choice of a thresh-
21 old applied to the dynamic time warping technique. This threshold represents
22 the maximum allowed average spatio-temporal discrepancy between forecast
23 and analysis tracks considered as similar. In addition, GOES-13 satellite im-
24 ages are provided for the evolution of Chris prior to tropical transition.

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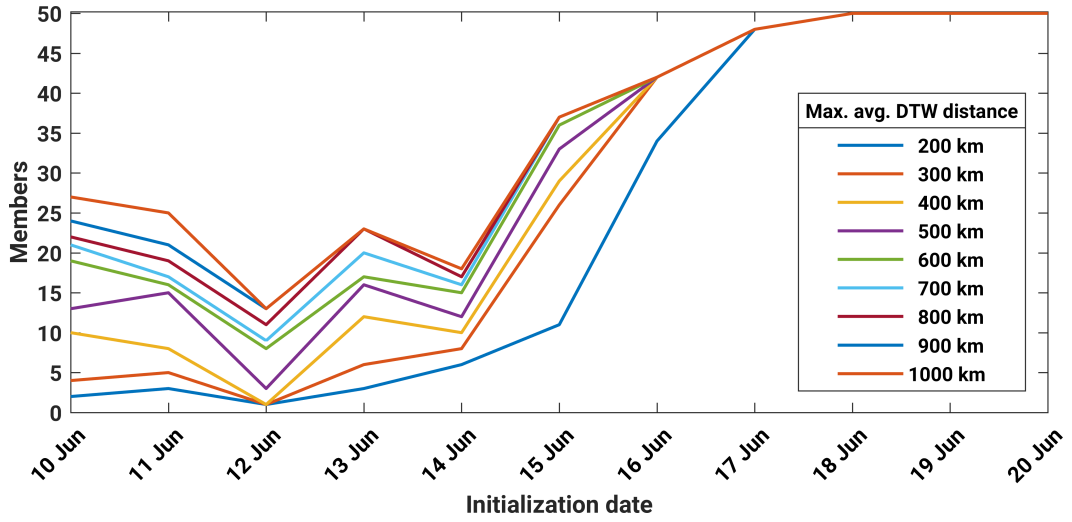


FIG. S1. Number of ECMWF ensemble members that show a storm track similar to Chris in the analysis for different thresholds (200–1000 km) of the maximum allowed average spatio-temporal discrepancy between forecast and analysis tracks ($\overline{d_{DTW}}$). All forecasts are initialized at 0000 UTC.

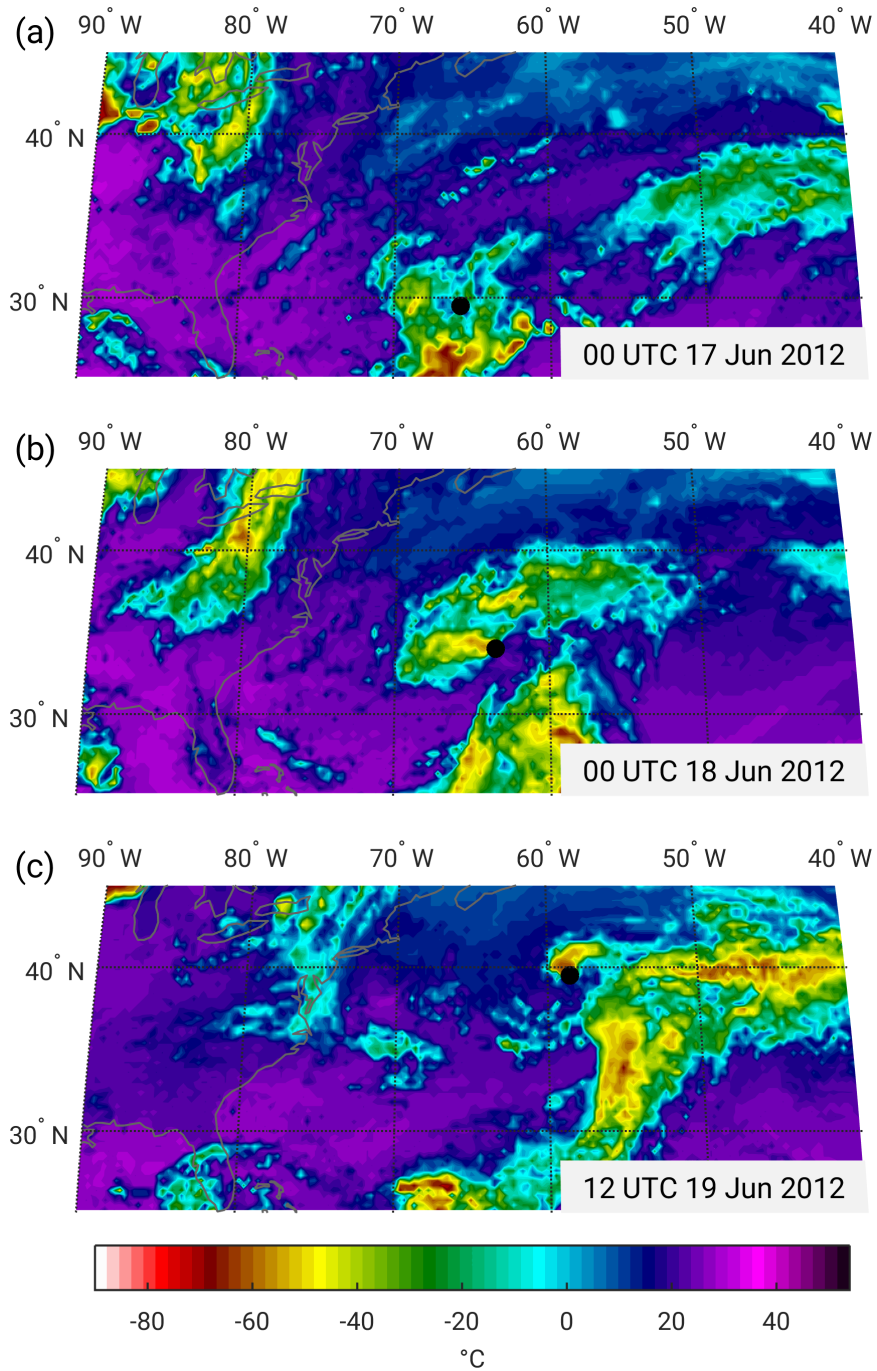


FIG. S2. GOES-13 thermal infrared satellite images valid at (a) 0000 UTC 17 June 2012, (b) 0000 UTC 18 June 2012, (c) 1200 UTC 19 June 2012, showing the development of Hurricane Chris during the pre-tropical phase. The black dot indicates the storm center position at surface.

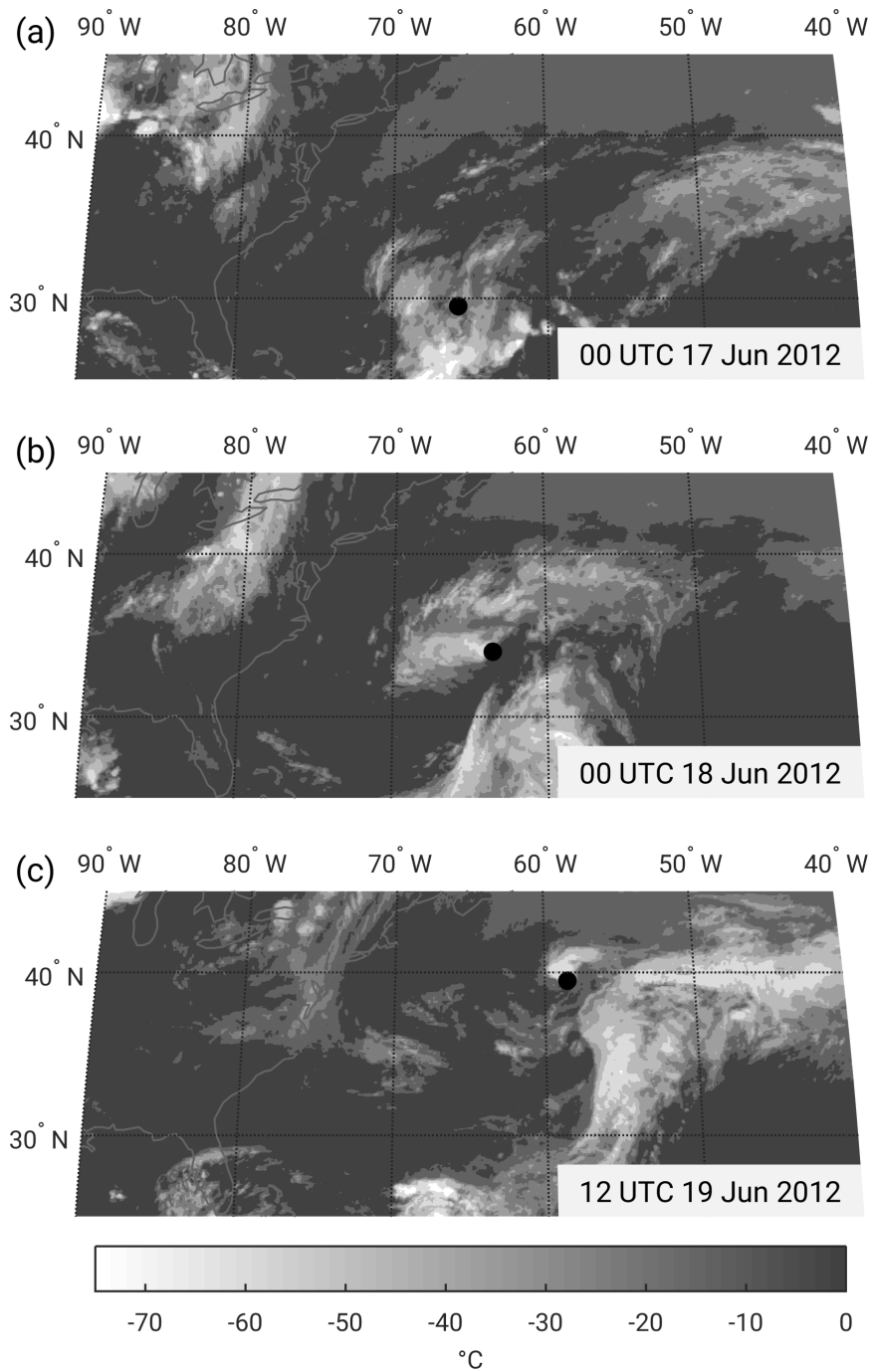


FIG. S3. Same as Fig. S2, but for GOES-13 water vapour satellite images.