Supplement of:

Measurement Report: Cloud and environmental properties associated with aggregated shallow marine cumulus and cumulus congestus

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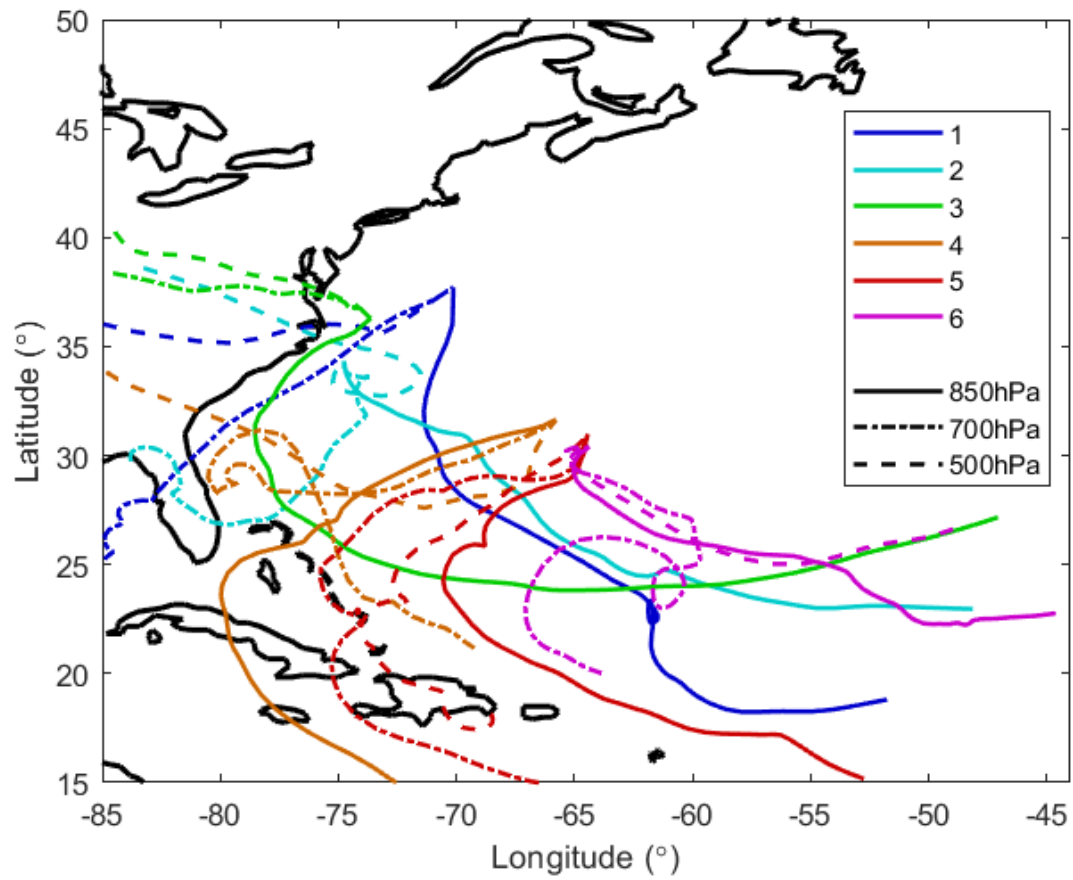
Figure S1: 8-day back trajectories using MERRA-2 3-dimensional wind fields terminating at 850, 700, and 500 hPa, for Cases 1-6. Unlike the layer-averaged horizontal trajectories shown in Figure 2 of the main text, these trajectories incorporate the prognosed large scale vertical advection.
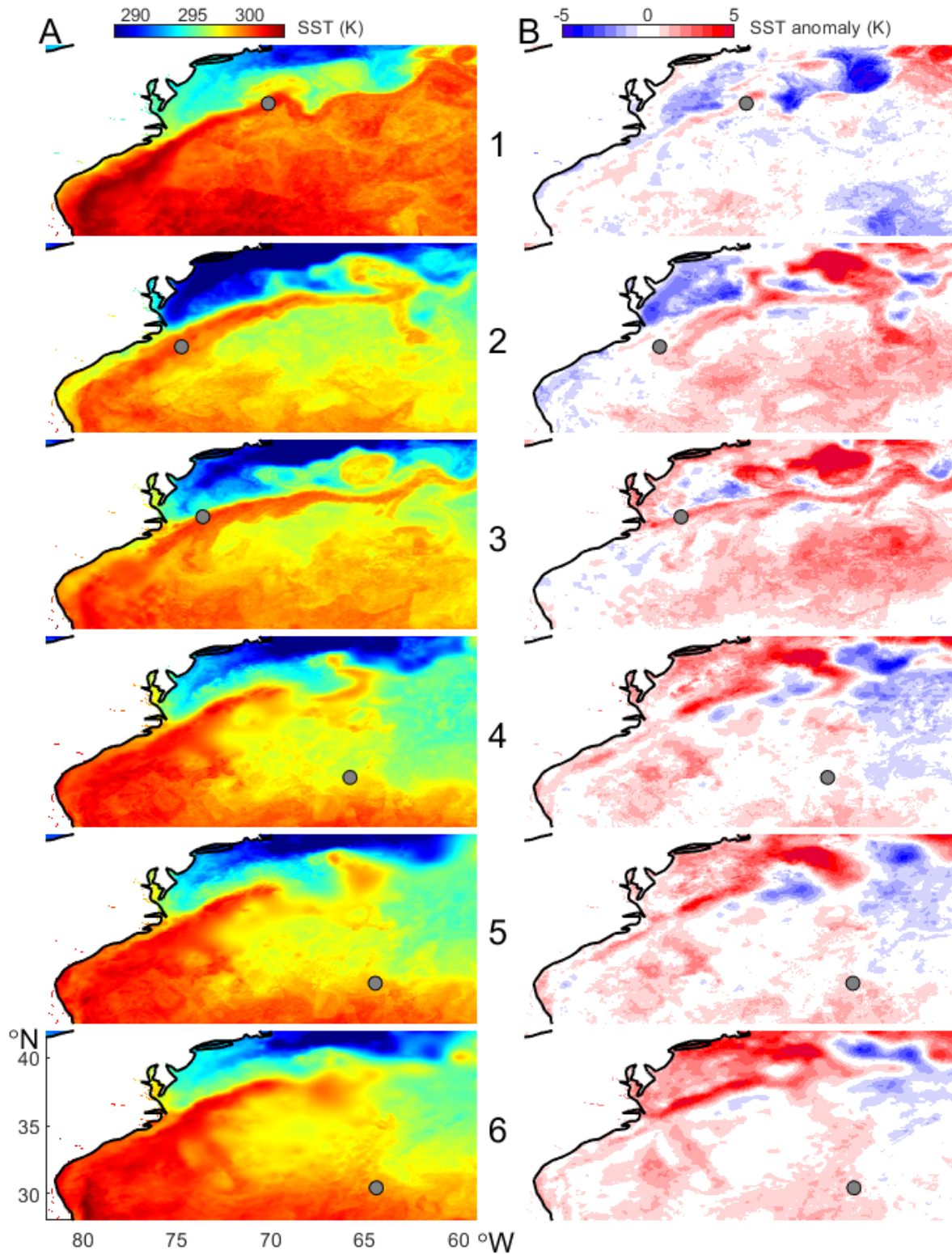
Figure S2: Shown for each case: (A) Sea surface temperature, and (B) sea surface temperature anomalies from climatology. The marker indicates the location of each case study.
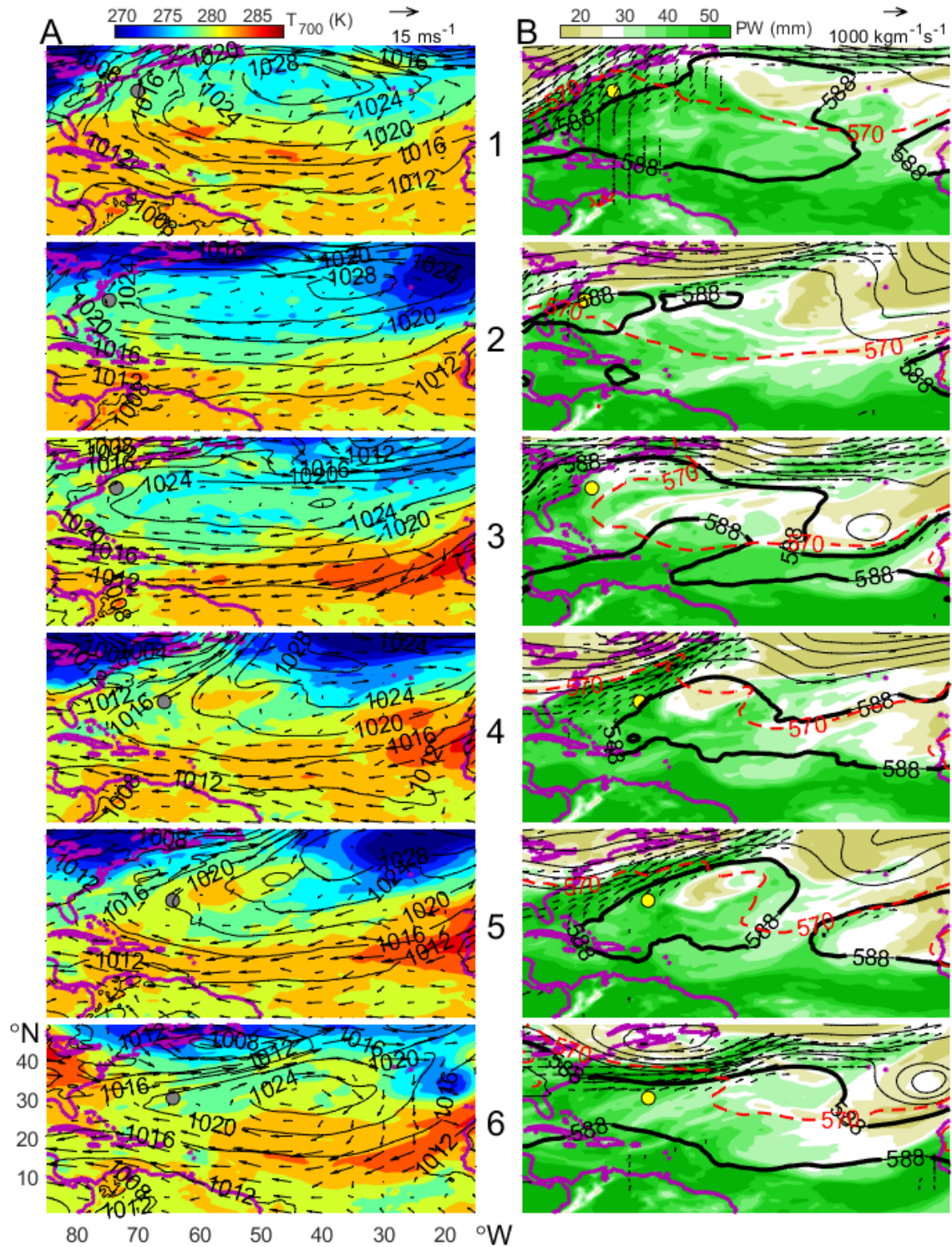
Figure S3: Shown for each case: (A) Sea-level pressure (contours), 850 hPa wind vectors, and 700 hPa temperature (colored). (B) 500 hPa geopotential height (contours at 6 dm intervals, thick contour designates the 588 dm level), 570 dm 1000-500 hPa thickness contour delineating the warm lower troposphere of the tropics, precipitable water (colored), and column moisture flux (vectors).
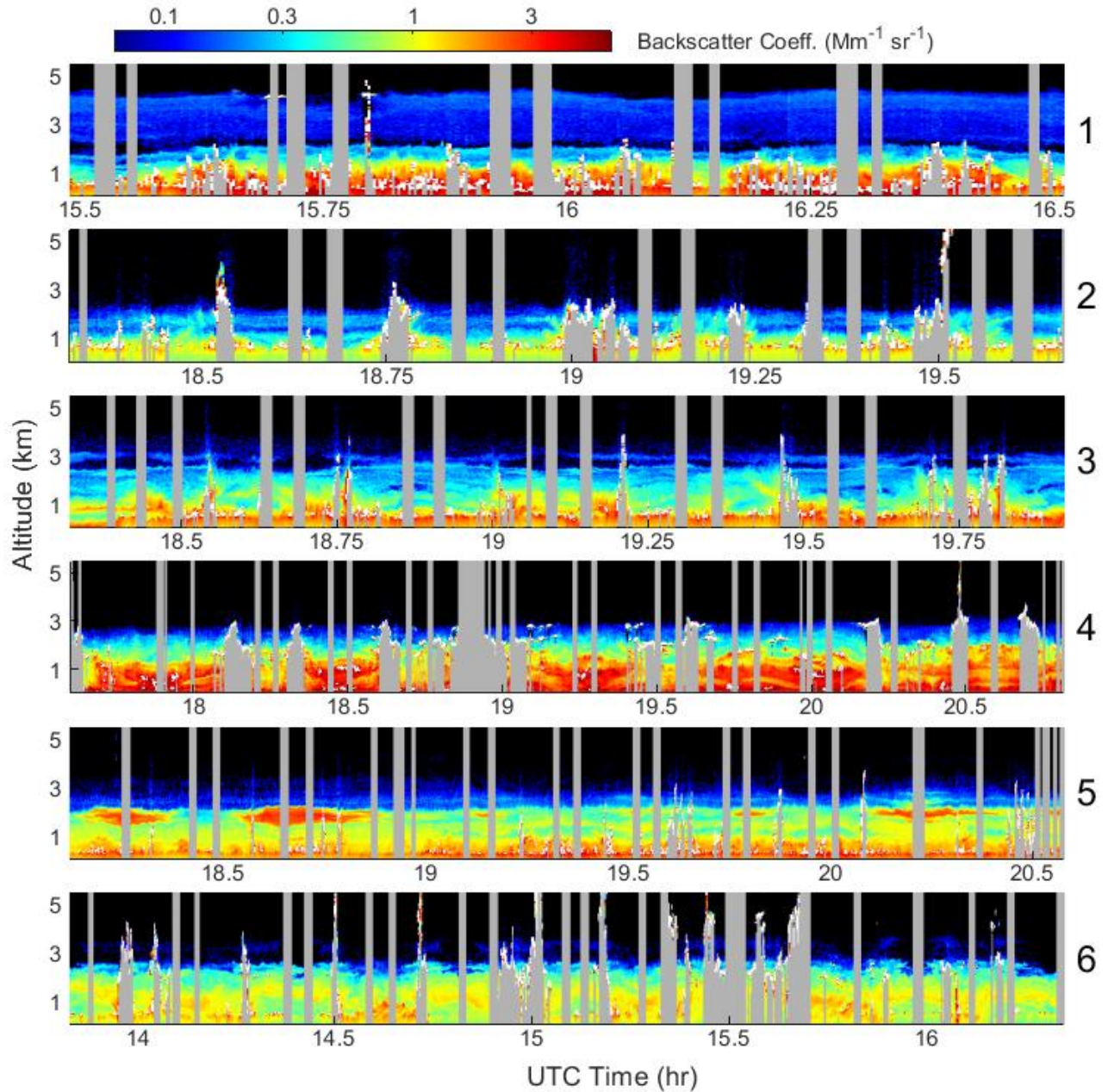
Figure S4: Backscatter coefficient timeseries from HSRL-2 during the King Air module for each case. White and grey shading indicate cloud and data removed because of aircraft turns or attenuation by clouds, respectively.