

A FORECAST SENSITIVITY TO OBSERVATION IMPACT OF TRADITIONAL AND COMMERCIAL OCCULTATION DATA WITH ENVIRONMENT. CANADA'S FORECAST SYSTEM.

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During NOAA's Delivery Order 4 period (spring 2022), a near-real time parallel system (non operational) was prepared at Environment Canada, to test the effect under global assimilation of all available occultation data, including the recent Sentinel-6A, and commercial sources, under conditions equivalent to actual operations. We find a generally positive impact of all data sources, as measured against several independent measures, although with some interesting negative impacts that are worth considering. These impacts will be discussed. The comparative effect of the different sources on the performance of the forecast system was analyzed in more detail with a Forecast Sensitivity (FSOI) study, whose main results will be presented.