

## Cold air outbreaks: evaluation with satellite fluxes

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### Abstract:

Known as cold air outbreaks, the advection of relatively cooler and drier air over a warmer sea surface Temperature (SST) with higher humidity induces large latent and sensible heat fluxes. Utilizing the currently available satellite flux products, this study looks at marine cold air outbreaks (MCAO) at high latitudes determine the ability of the satellite-derived flux dataset to reproduce atmospheric and oceanic conditions and the surface turbulent fluxes under the extreme conditions found in these regions and model capability to reproduce fluxes under the extreme conditions found in these regions.