



## **The Microphysics of Antarctic Clouds – Part one Observations.**

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During the Antarctic summer of 2010 and 2011 in-situ measurements of clouds were made over the Antarctic Peninsula and in 2015 similar measurements were made over the eastern Weddell Sea using the British Antarctic Surveys instrumented Twin Otter aircraft. This paper contrasts the clouds found on either side of the Antarctic Peninsula with the clouds over the eastern Weddell Sea, paying particular attention to the total number of ice and water particles found in the clouds. The differences found between the clouds are considered in relation to the sources of cloud condensation nuclei and ice nuclei that are expected to be active in the different cases. In particular it was found that the number of ice nuclei was very low over the Weddell Sea when compared to other regions.