



A synoptic climatology of surface wind regimes in the Ross Ice Shelf region, Antarctica.

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An objective synoptic climatology of sea-level pressure patterns in the Ross Ice Shelf Region is created using the method of self-organizing maps (SOMs). The synoptic climatology is created using analyses and forecasts of sea-level pressure from the Antarctic Mesoscale Prediction System (AMPS). Wind roses of automatic weather station observations for each identified sea-level pressure pattern are calculated and analyzed to better understand the relationship between synoptic pressure gradients and observed near-surface winds over the Ross Ice Shelf. It is expected that results from this analysis will provide additional insight into the forcing and modulation of the Ross Ice Shelf air stream (RAS).