Supplement of

Recent changes in pan-Antarctic surface snowmelt detected by AMSR-E and AMSR2

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Content

Figure 1

Figure 2

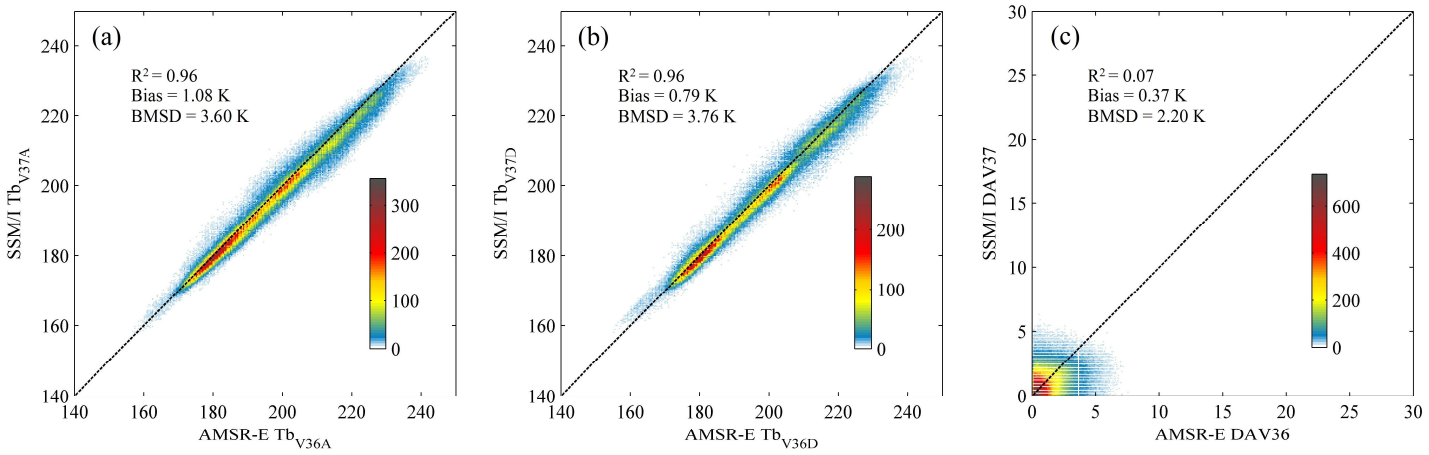

Figure 1. Comparison between AMSR-E vertically polarized 36.5 GHz Tb (Tb_{V36}) and SSM/I vertically polarized 37 GHz Tb (Tb_{V37}) during 2002-2003. (a), (b) and (c) show the comparisons for ascending passes, descending passes, and their differences. DAV37 and DAV36 denote diurnal amplitude variations (DAV) of vertically polarized SSM/I 37 GHz Tb and AMSR-E 36.5 GHz Tb, respectively.

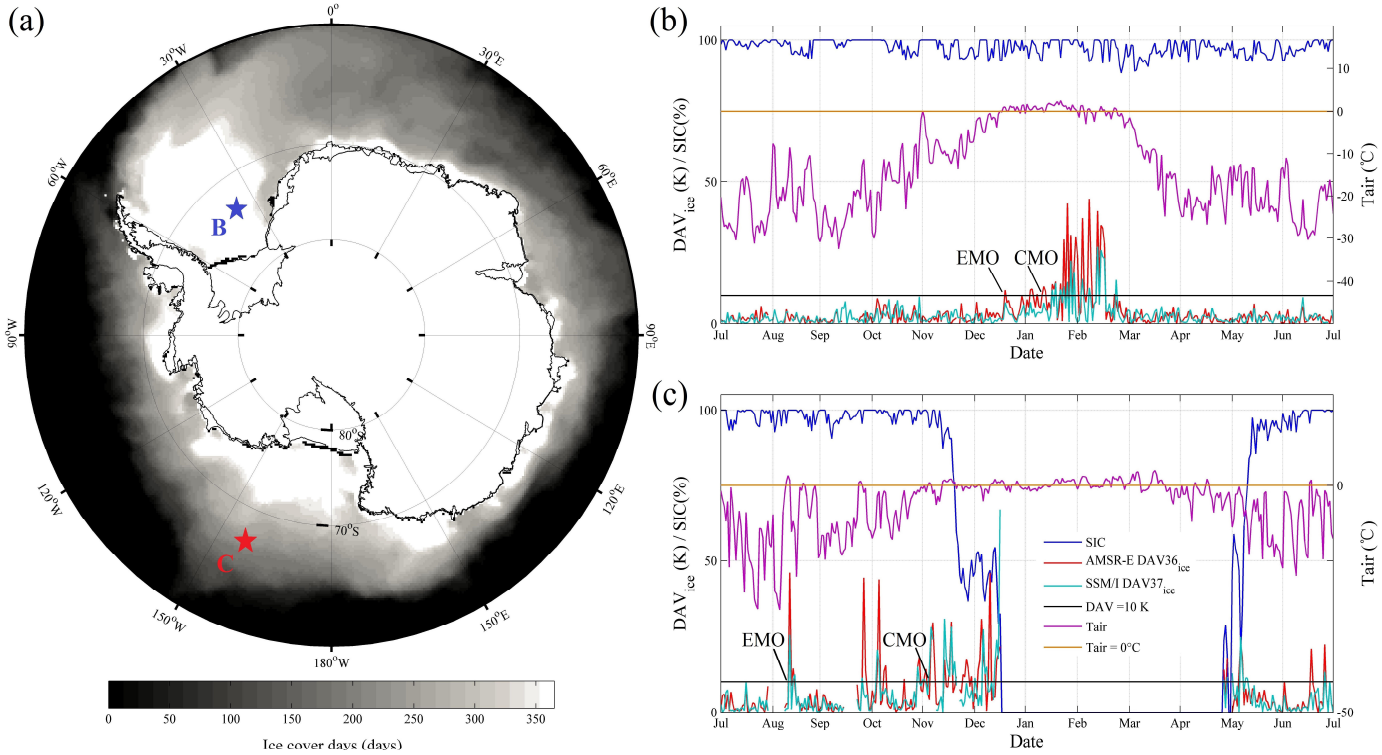

Figure 2. Surface snowmelt detection on the Antarctic sea ice. (a) Pan-Antarctic ice cover days in 2002-2003, Point B and C show the locations of the pixels examined in (b) and (c). (b) and (c) show the comparisons of sea ice concentration (SIC), ERA-Interim Tair and satellite observations for a multi-year sea ice pixel (Point B) and a first-year sea ice pixel (Point C). $DAV37_{ice}$ and $DAV36_{ice}$ denote diurnal amplitude variations (DAV) of vertically polarized SSM/I 37 GHz Tb and AMSR-E 36.5 GHz Tb contributed by the ice portion, respectively.