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EGU

Supplement of

Greenland Ice Sheet late-season melt: investigating multiscale drivers of K-transect events

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| Year	DOA [d=0]	DOA Anomaly (d)	DOA [-60,-31]	DOA [-30,-1]
2011	30 Oct (303)	-10.65	31 Aug – 29 Sep	30 Sep – 29 Oct
2012	17 Nov (322)	8.01	18 Sep – 17 Oct	18 Oct – 16 Nov
2013	13 Nov (317)	3.10	14 Sep – 13 Oct	14 Oct – 12 Nov
2014	21 Nov (325)	11.65	22 Sep – 21 Oct	22 Oct – 20 Nov
2015	12 Nov (316)	2.25	13 Sep – 12 Oct	13 Oct – 11 Nov

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28 **Table S1**. Baffin Bay sea ice dates of advance (DOA) for each year in the study period (2011-2015) with the day of

29 year (DOY) in parentheses (column 2), the date anomaly with respect to the 1981 - 2010 mean (column 3), and

30 annual date windows preceding each respective DOA (column 4 and 5).

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SST (66.5-67.5°N, 53-55°W) vs AWS Air Temperatures
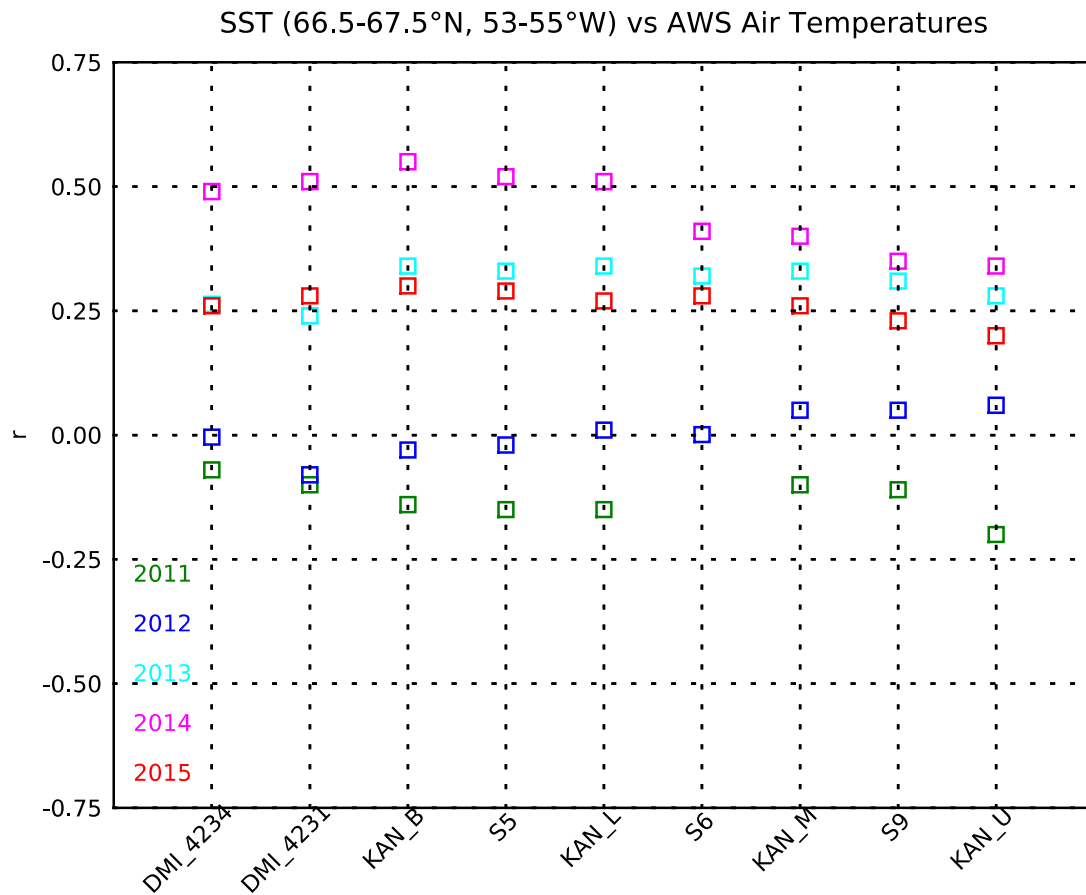
Figure S1. Detrended Pearson (r) correlation coefficients signaling intraseasonal fluctuations between Danish Meteorological Institute (DMI) near-coastal or K-Transect automatic weather station (AWS) air temperatures and sea surface temperatures (SST) surrounding Sisimiut (i.e. WMO code 4234). The SST domain matches the local date of sea ice advance (DOA) domain outlined in Fig 3a-f. The SST product is described in Ballinger et al. (2018b) and DMI air temperatures are from Cappelen (2018, 2019). The coefficients are calculated over the 60-day (i.e. [-60,-1]) period preceding the DOA from 2011 to 2015 and p≤0.05 for r≥|0.26|. The S6 coefficient for 2011 is missing due to an inadequate number of air temperature values. DMI_4234 correlation coefficients overlap (r=0.26) for 2013 and 2015.