Supplement

Table S1.
Ice shelf intercomparison to the LBIS. T-statistic was calculated using a two-tailed t-test. Bold values represent ice shelves that are significantly different from the LBIS at the 95% confidence interval.

Surface Melt Production

	Total		Non-föhn		Föhn	
	t-statistic	p-value	t-statistic	p-value	t-statistic	p-value
Larsen A	0.04	0.969	-0.39	0.695	0.54	0.591
SCAR inlet	**2.01**	**0.050**	1.23	0.225	**2.75**	**0.009**
Larsen C (north)	**2.44**	**0.019**	1.60	0.117	**3.18**	**0.003**
Larsen C	**4.57**	**0.000**	**3.99**	**0.000**	**4.73**	**0.000**

Air Temperature

	Total		Non-föhn		Föhn	
	t-statistic	p-value	t-statistic	p-value	t-statistic	p-value
Larsen A	**-5.01**	**0.000**	**-6.19**	**0.000**	**-7.24**	**0.000**
SCAR inlet	**2.90**	**0.006**	**2.13**	**0.039**	**2.20**	**0.033**
Larsen C (north)	**2.29**	**0.027**	1.78	0.082	**4.23**	**0.000**
Larsen C	**6.55**	**0.000**	**6.27**	**0.000**	**8.80**	**0.000**
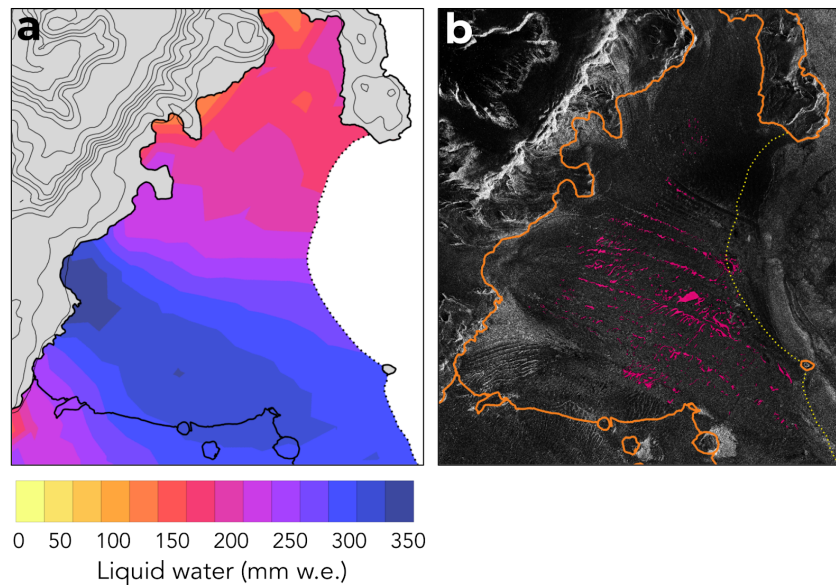
Figure S1. (a) Cumulative surface melt production on the LAIS during the nine-day föhn wind event period, January 18 - 27, 1995 (b) Advanced Very High-Resolution Radiometer (AVHRR) image of the LAIS on December 8, 1992, with surface melt lakes identified with pink shading. The solid orange line denotes the grounding line and the dashed yellow line denotes the location of the calving front prior to collapse in January 1995.
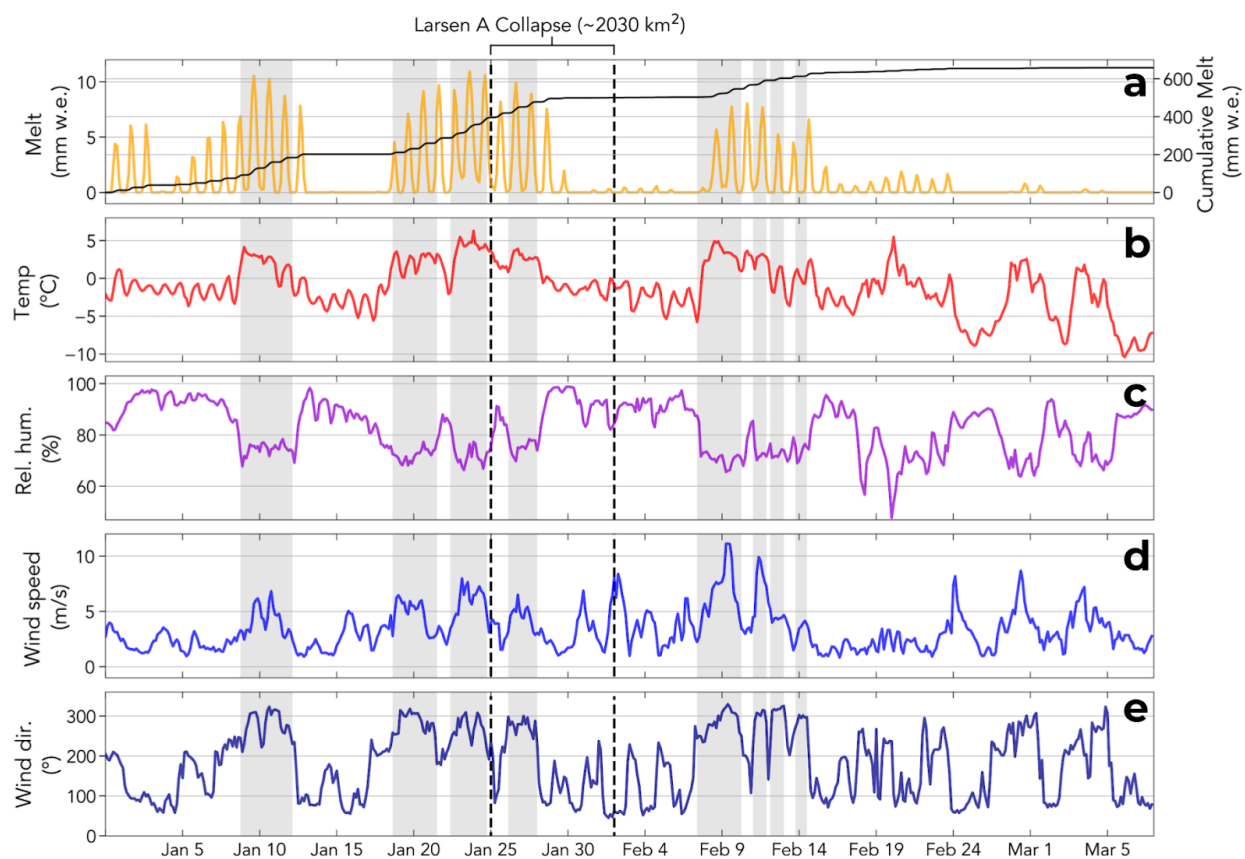
Figure S2. Time series during the 94/95 melt season averaged over the LAIS. Grey shading indicates the presence of föhn winds. (a) Surface melt production and Cumulative melt (b) Air temperature, (c) Relative Humidity, (d) 10 m Wind Speed, (e) Wind direction. *Note*: Values that occur after the collapse event indicated by the dashed lines are estimates if the ice shelf did not collapse.