Supplemental Material for:

The Seasonal-to-Multiyear Large Ensemble (SMYLE) Prediction System using the Community Earth System Model Version 2

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Contents:

Lead	NA	EP	NWP
1-month	**0.61**	**0.3**	**0.25**
4-month	**0.44**	0.002	0.08
7-month	0.14	0.06	**0.28**
10-month	0.14	-0.17	0.07
13-month	0.22	-0.16	0.07
16-month	0.19	0.03	0.05
19-month	0.2	-0.02	0.09

Table S1: Similar to Table 1 of Main Text, but showing correlation coefficients of normalized seasonal-mean (JJASON) TC number between the observations and the SMYLE forecasts. Bold numbers indicate the correlations are significant at 90% confidence level. The correlations in the North Indian Ocean, the South Indian Ocean and the South Pacific Ocean are not significant at any leadtime and are therefore not shown.
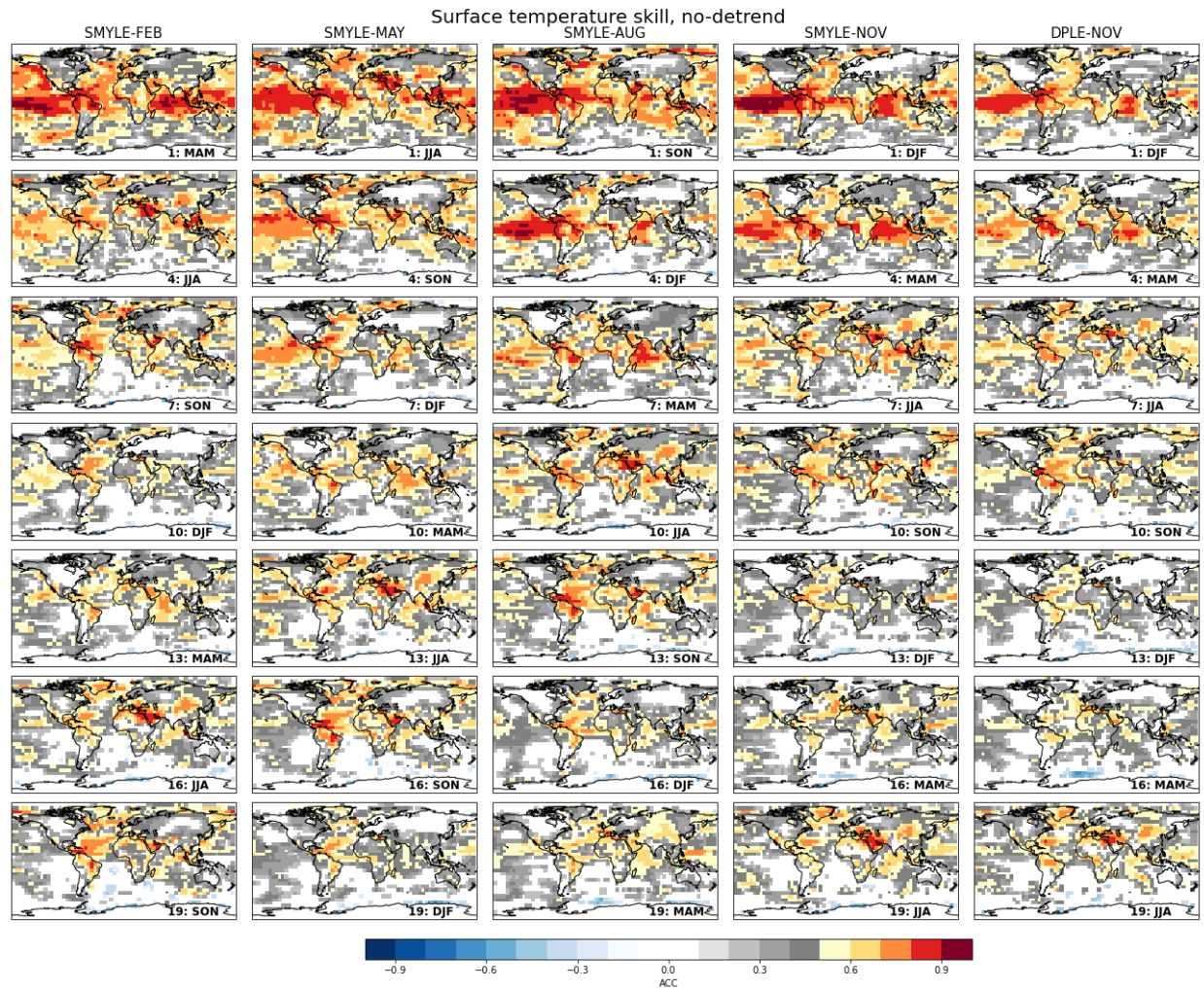
Fig. S1: Equivalent to Figure 1 but without removing a linear trend.
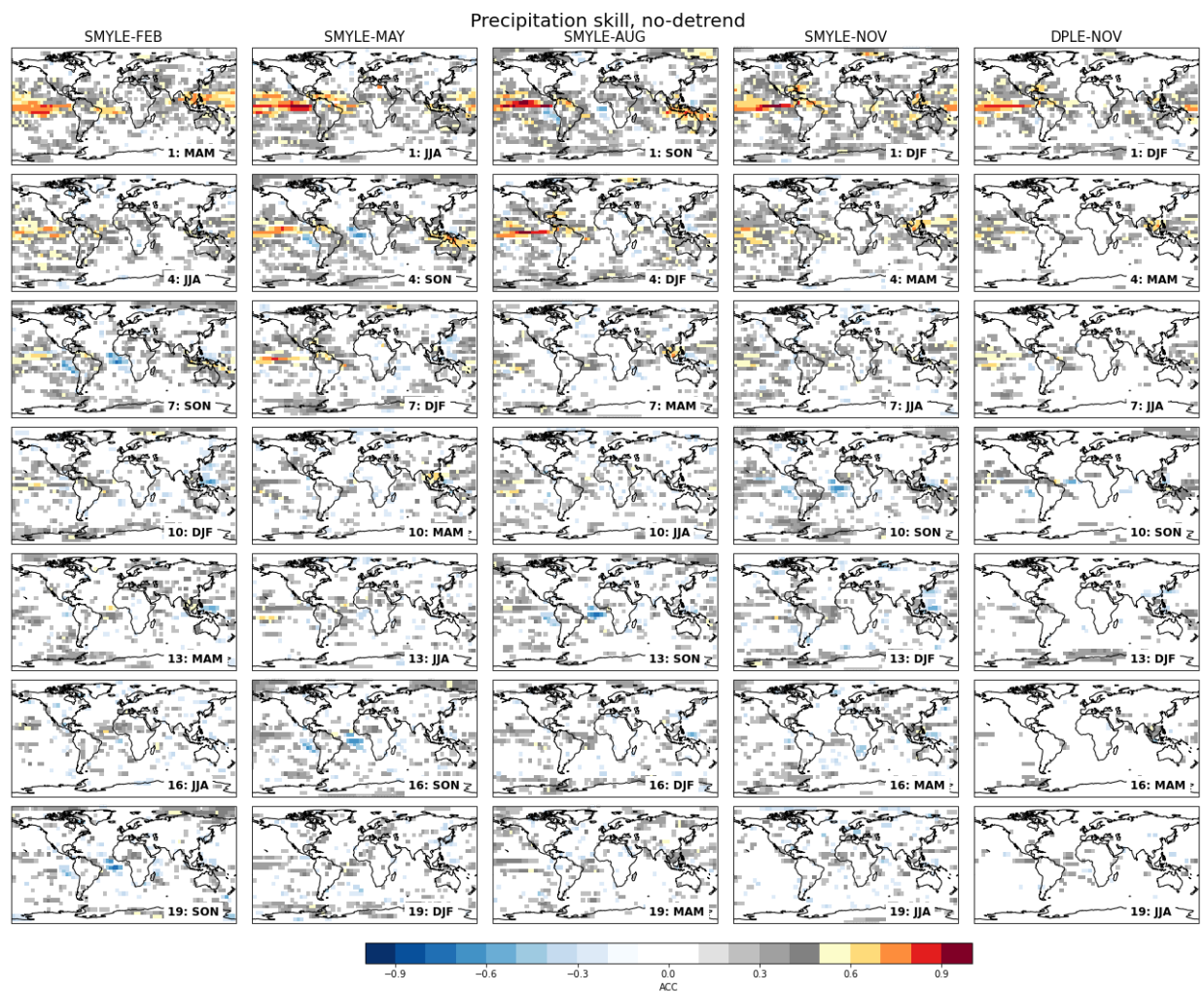
Fig. S2: Equivalent to Figure 2 but without removing a linear trend.

Sea Level Pressure skill, no-detrend
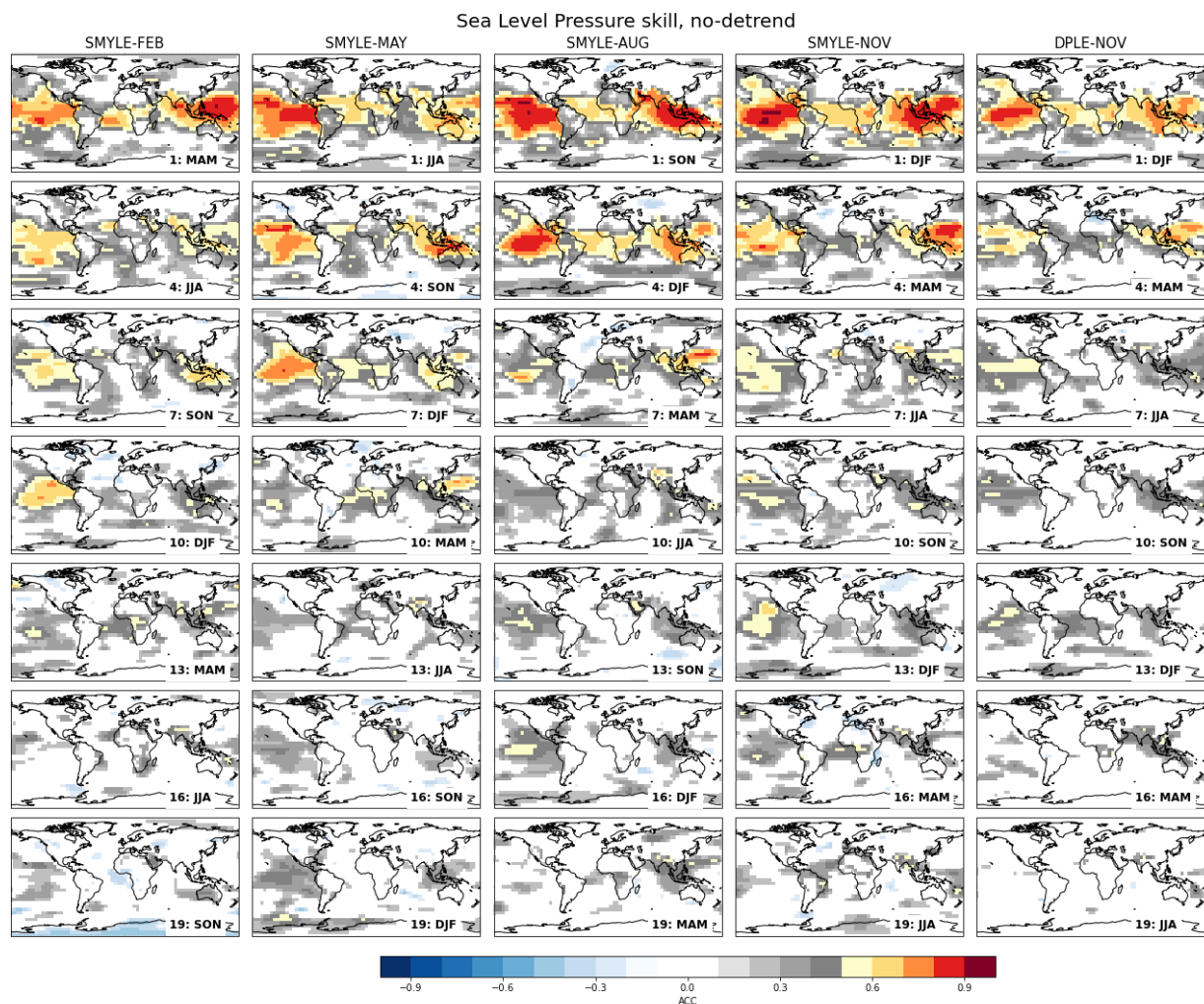
Fig. S3: Equivalent to Figure 6 but without removing a linear trend.
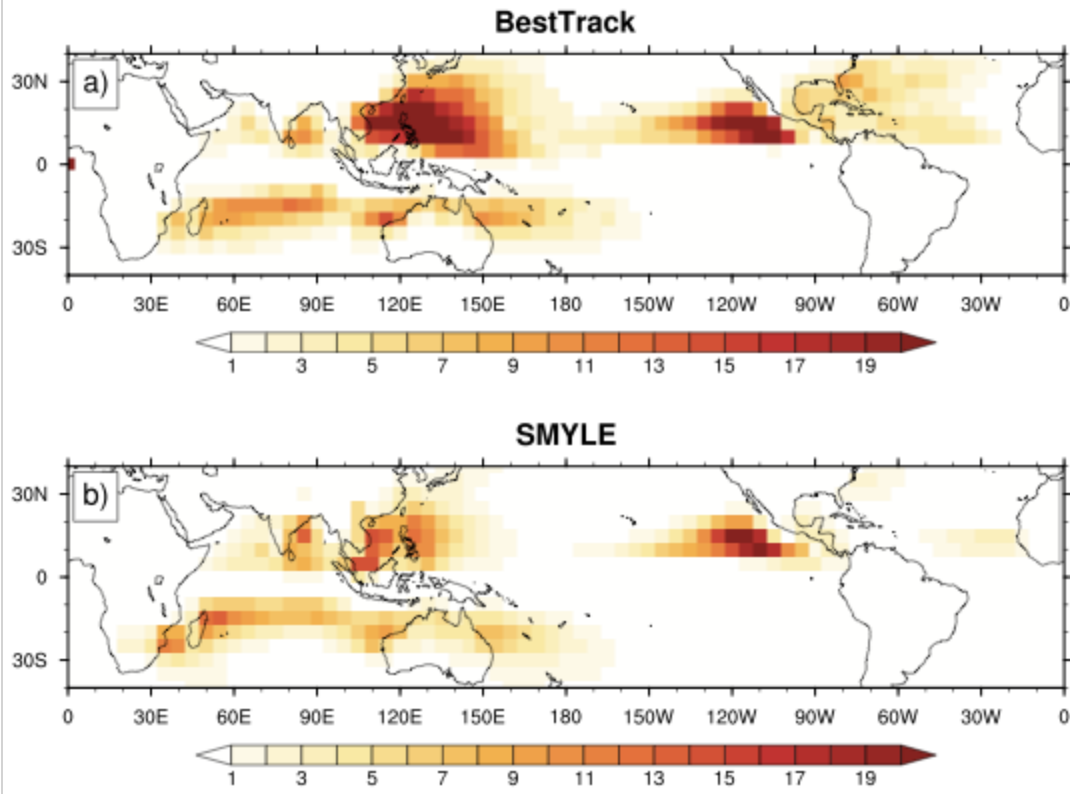
Fig. S4: Annual mean global TC track density (over 5˚x5˚ box) during 1970-2018 in (a) observations and (b) SMYLE lead month 1 forecasts (averaged over 4 initialization times).
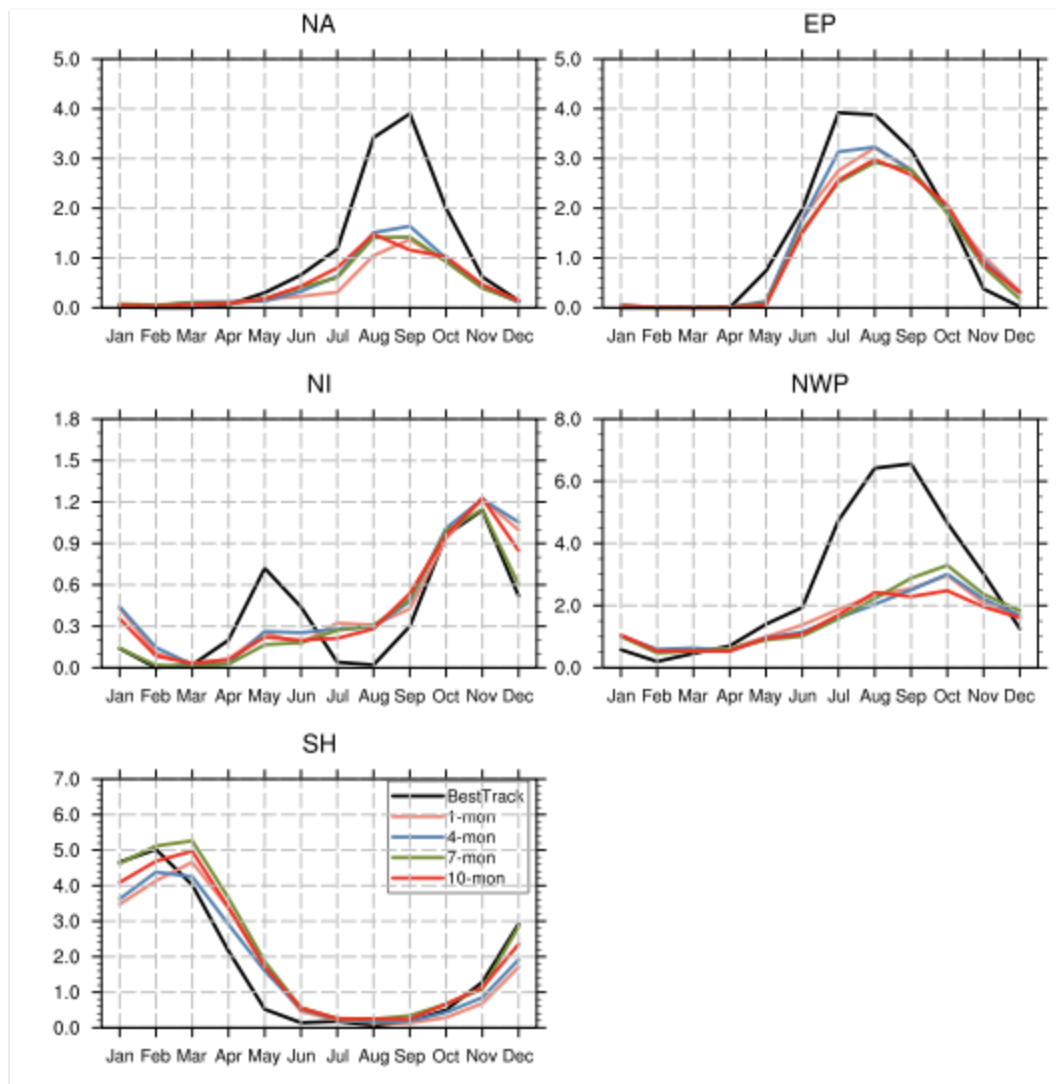
Fig. S5: Climatological mean TC number seasonality in observations (black curves) and SMYLE forecast at 1-month (orange), 4-month (blue), 7-month(green) and 10-month (red) lead time in different TC basins -- North Atlantic (NA), eastern Pacific (EP), North Indian Ocean (NI), Northwestern Pacific (NWP) and Southern Hemisphere (SH).