Climate Change

Forecast

December 2017 – February 2018

MedCOF November 2017

Copernicus Europe's eyes on Earth | European Commission | ECMWF

Climate Change

Sources of information

- Copernicus Climate Change Service (C3S) seasonal forecasts (individual systems – ECMWF, UK Met Office, Météo-France – and combination)

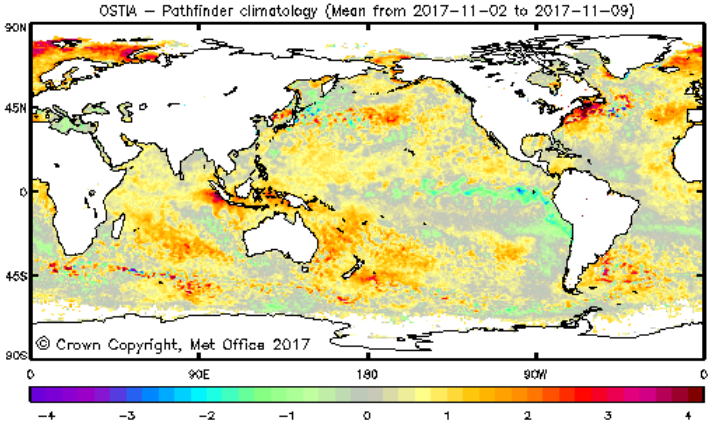
- GPC Exeter and GPC ECMWF

- The WMO Global Seasonal Climate Update (GSCU): experimental product, based on forecasts from LC-LRFMME, designed to be produced and issued four times a year

Observations

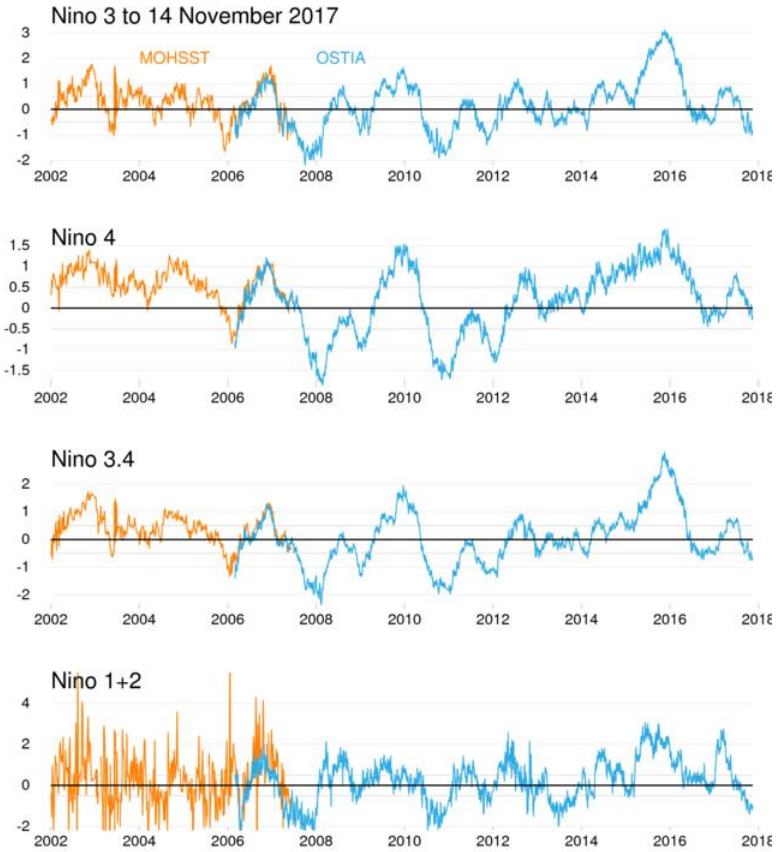
Climate Change

2-9 Nov



SOI to 19 Nov *BoM*

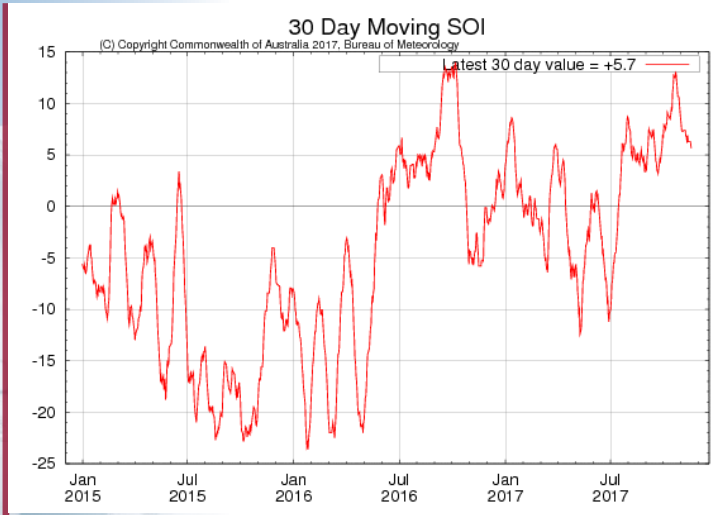
ENSO up to 14 Nov

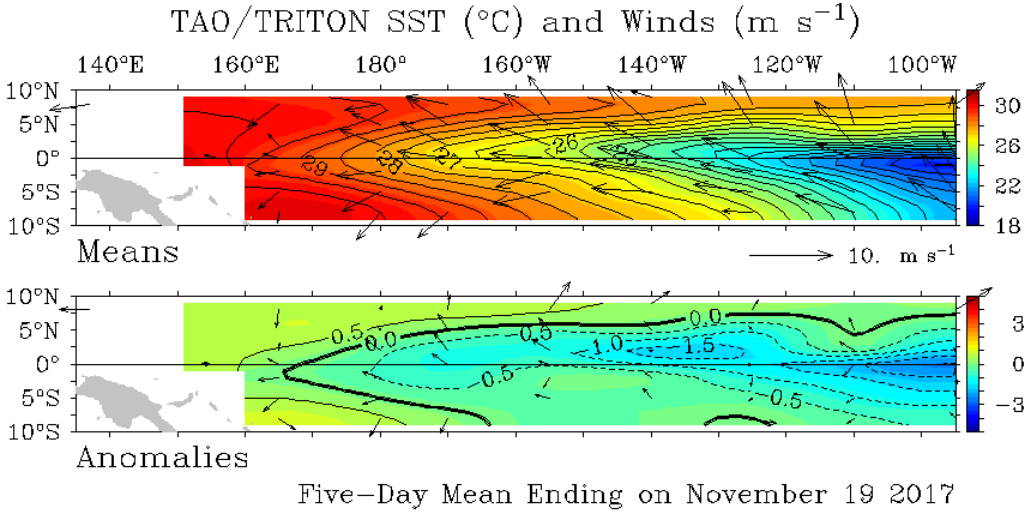


SOI, SST and wind to 19 Nov

Climate Change

from Bureau of Meteorology (BoM), Australia





Climate Change

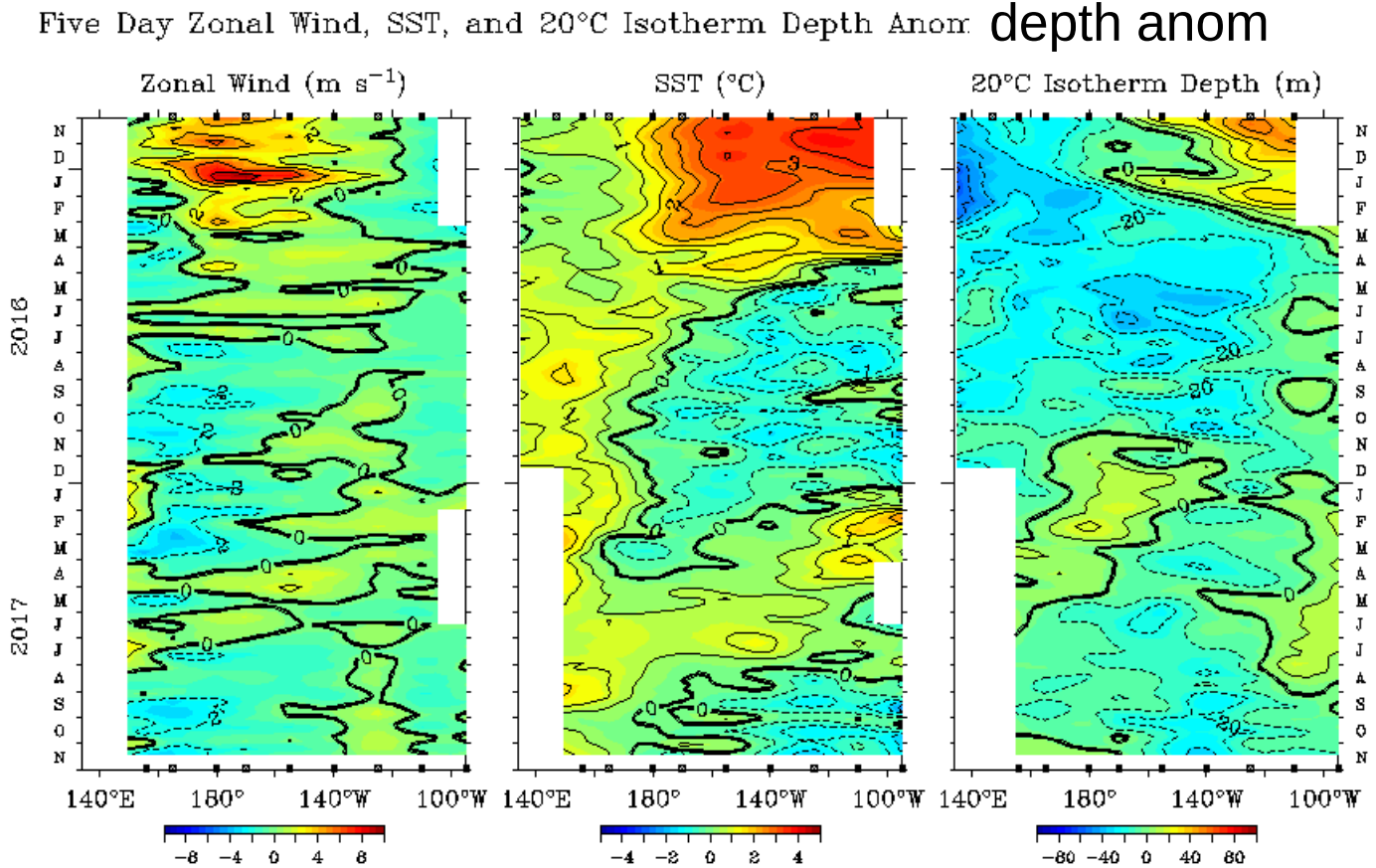
Tropical Pacific sub-surface: 11-15 Nov

U wind

SST

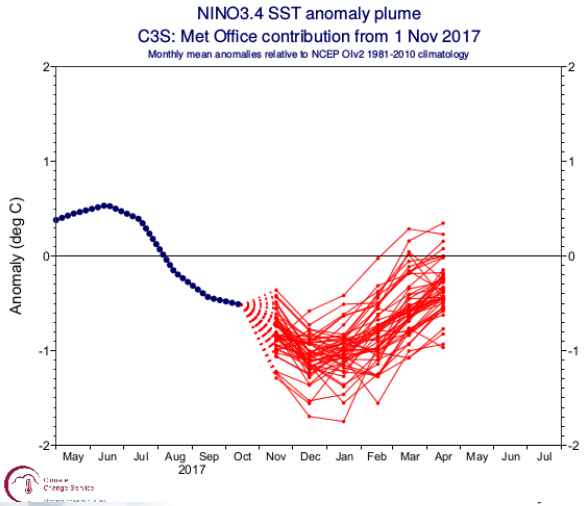
20 deg isotherm depth anom

Time

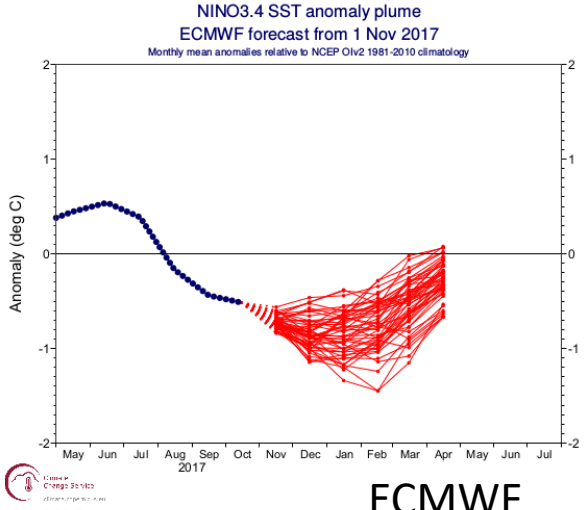


NINO 3.4 - from November 2017

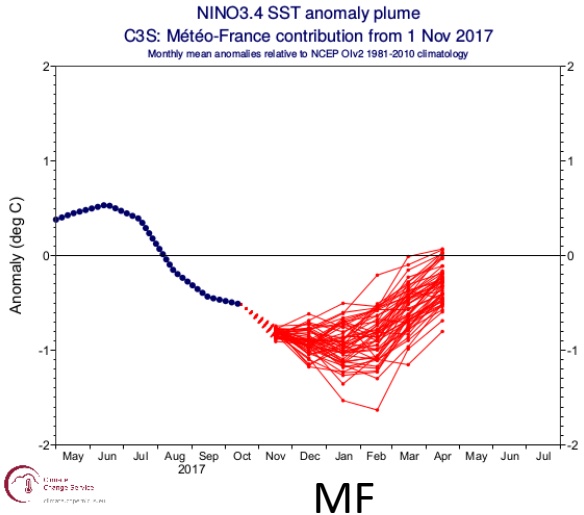
Climate Change



UKMO

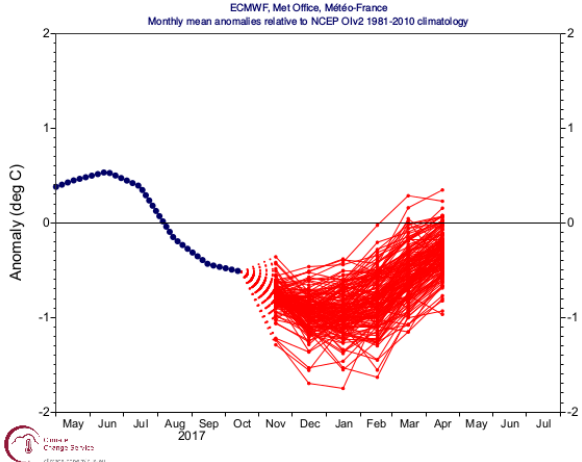


ECMWF



MF

C3S



UKMO: Met Office
MF: Météo-France
C3S: combination

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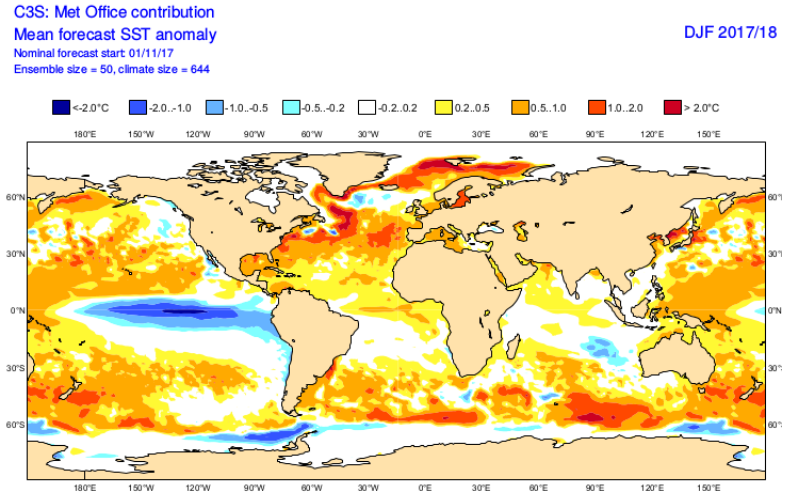
SST-DJF from November 2017



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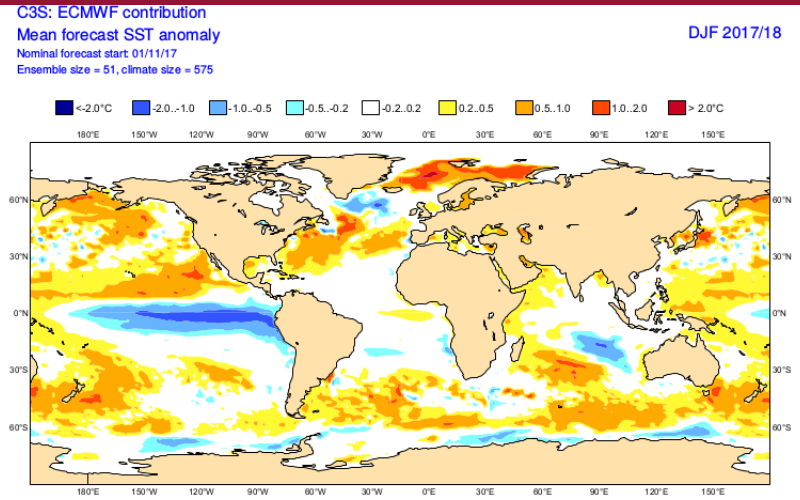

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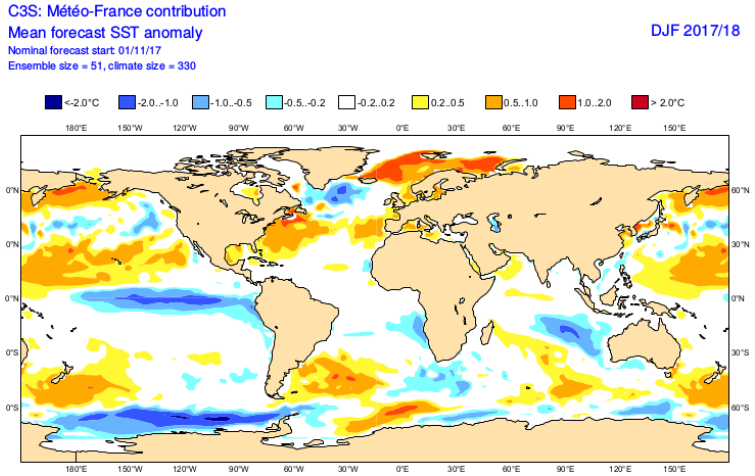

MF

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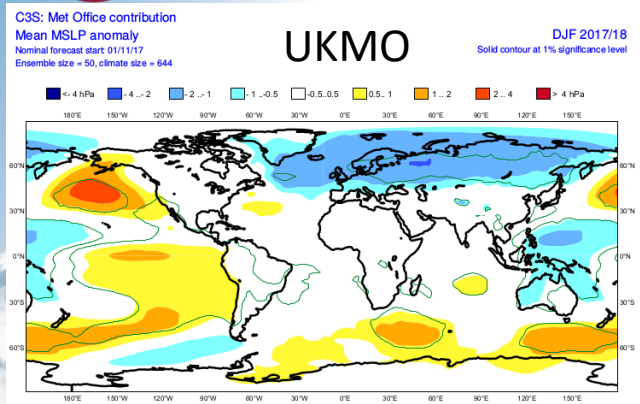
Large-scale SST indices

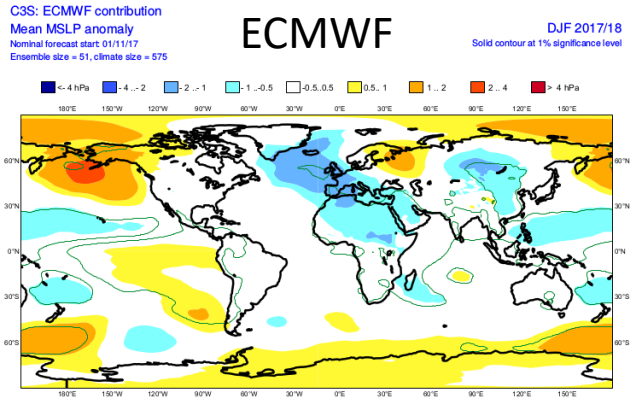
GSCU November 2017

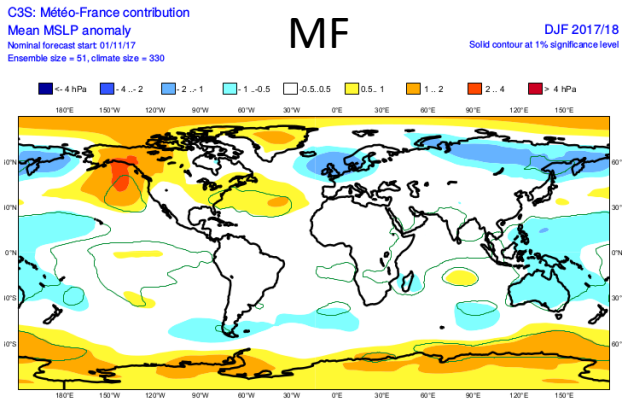
Month	Niño 1+2	Niño 3	Niño 4	Niño3.4	IOD	NTA	STA
December 2017	-0.82±0.45	-1.09±0.35	-0.31±0.17	-0.94±0.24	0.04±0.17	0.18±0.20	0.08±0.19
January 2018	-0.89±0.43	-1.01±0.27	-0.28±0.22	-0.88±0.26	0.08±0.13	0.19±0.19	0.05±0.19
February 2018	-0.74±0.37	-0.80±0.28	-0.26±0.23	-0.81±0.26	0.06±0.15	0.18±0.19	0.06±0.18
December 2017-February 2018	-0.82±0.41	-0.97±0.28	-0.28±0.20	-0.88±0.25	0.06±0.13	0.18±0.19	0.06±0.18

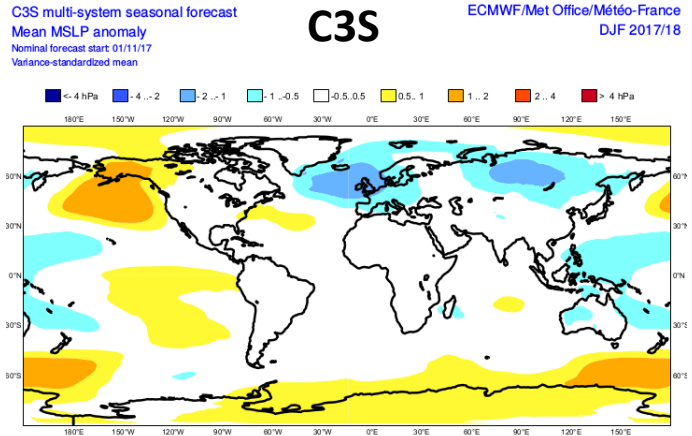
Table 2: Multi-model forecasts for oceanic indices (°C), with standard deviation. Values are the equal-member-weighting average of those derived, using each GPC models own hindcast climate mean, from the 11 GPCs supplying SST forecasts (GPC Beijing, ECMWF, Exeter, Melbourne, Montreal, Moscow, Offenbach, Seoul, Tokyo, Toulouse, Washington). The standard deviation is calculated on all ensemble members, except for GPC Toulouse (GPC Toulouse provides only ensemble mean anomaly). The latitude/longitude bounds of the regions are given in the supplementary information section.

MSLP-DJF from November 2017









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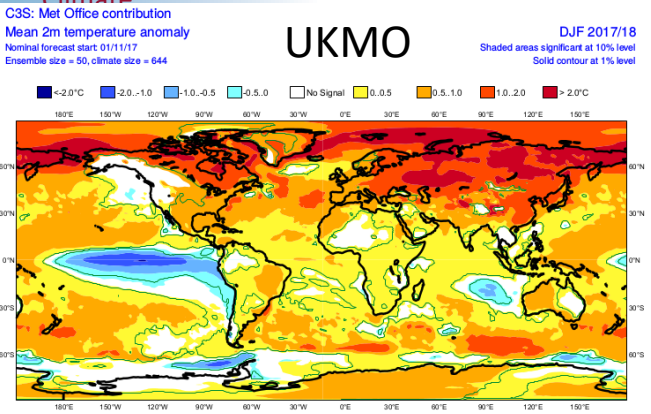
T2m-DJF from November 2017

Climate

UKMO



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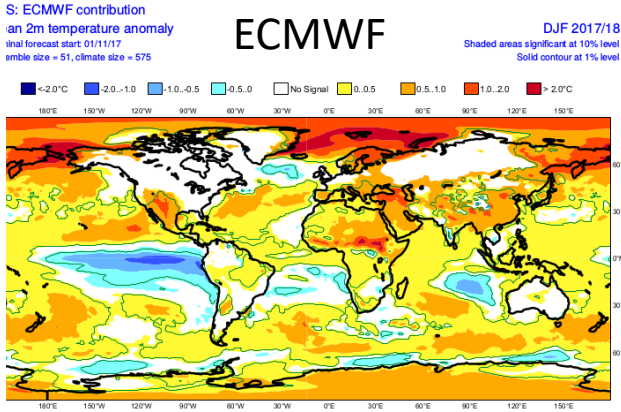

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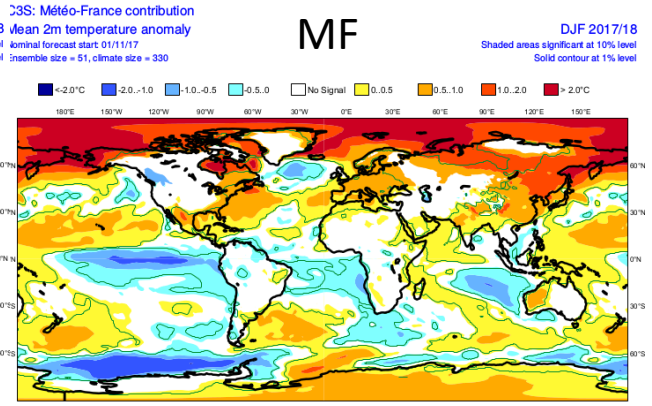
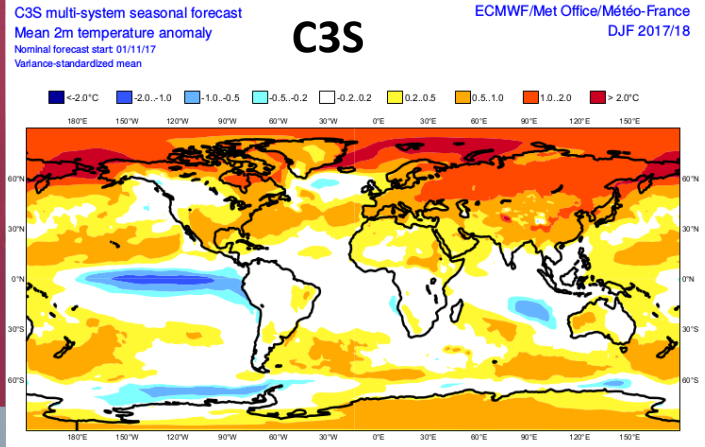
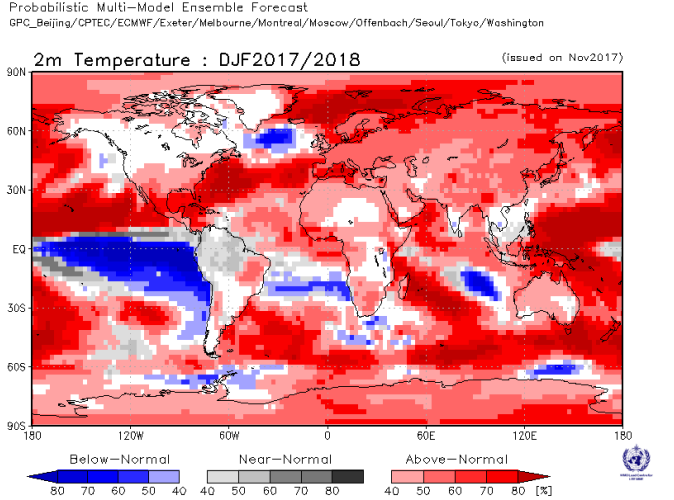


C3S



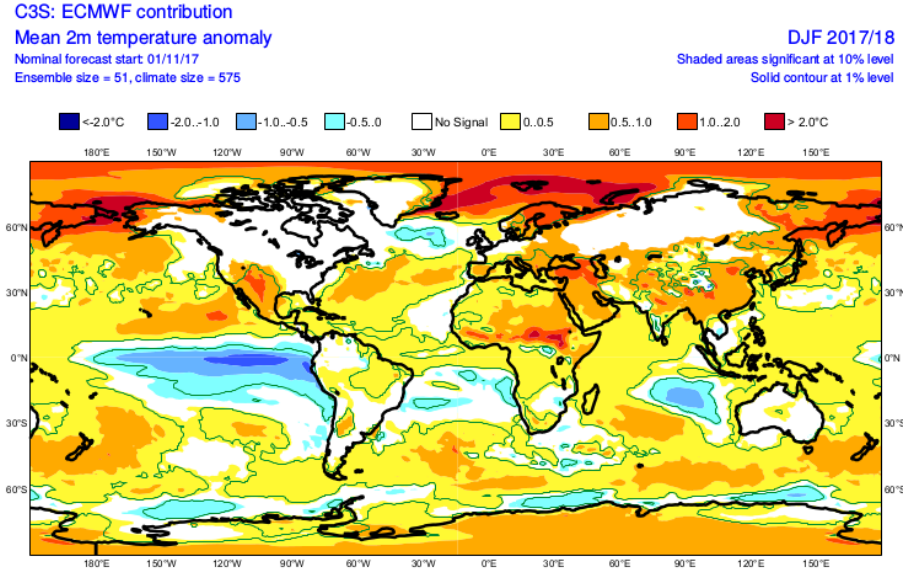
GSCU



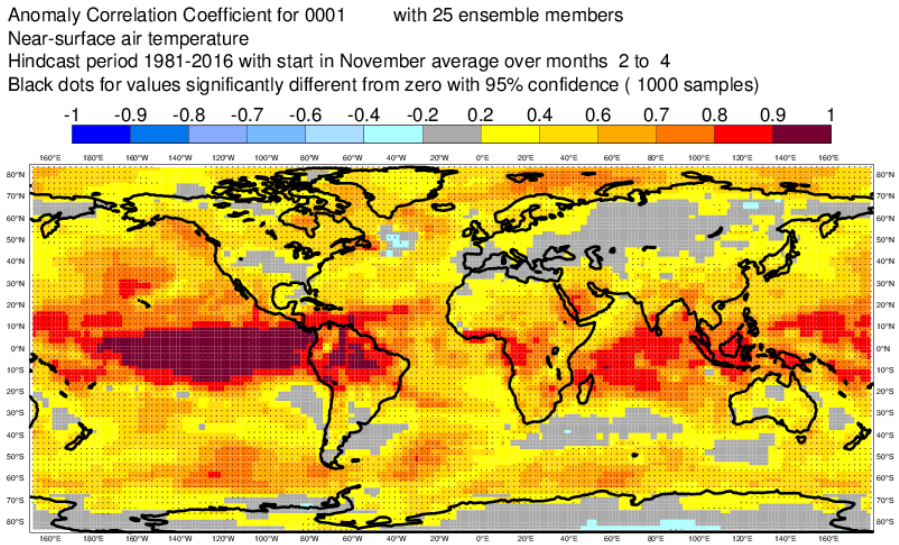
Climate Change

T 2 m - E C M W F

Ensemble mean - DJF from November 2017



Anomaly correlation - DJF from November



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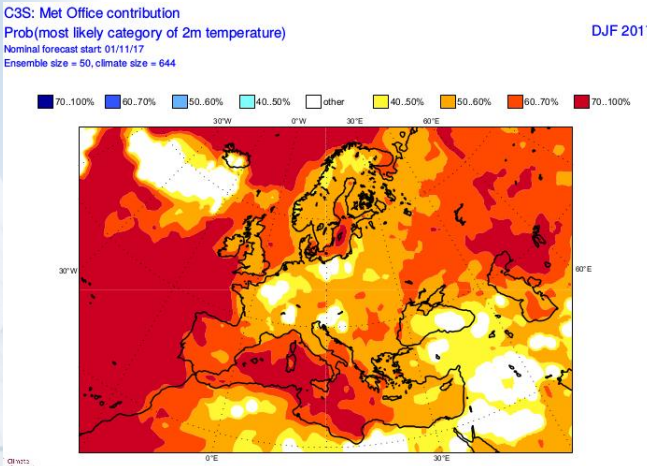
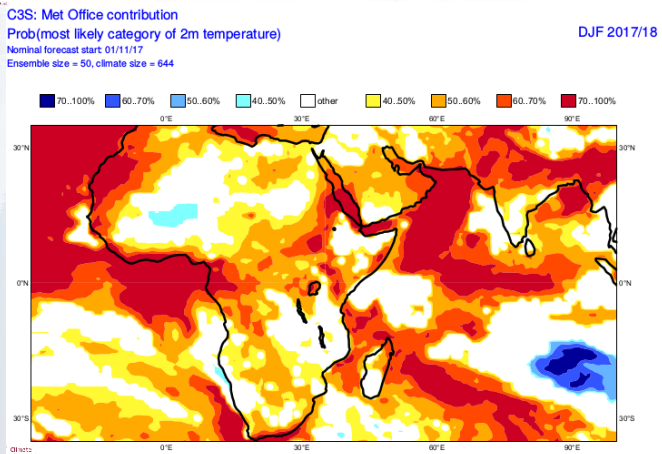
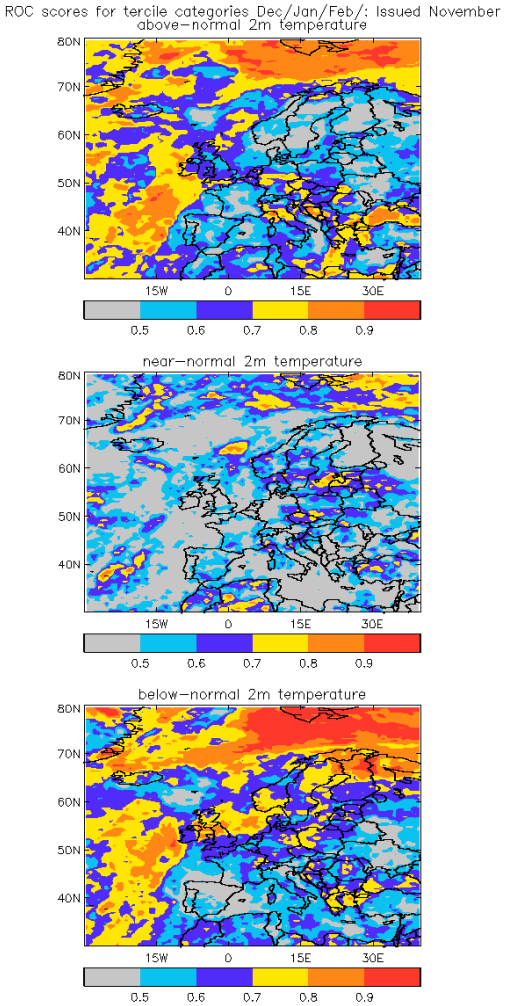
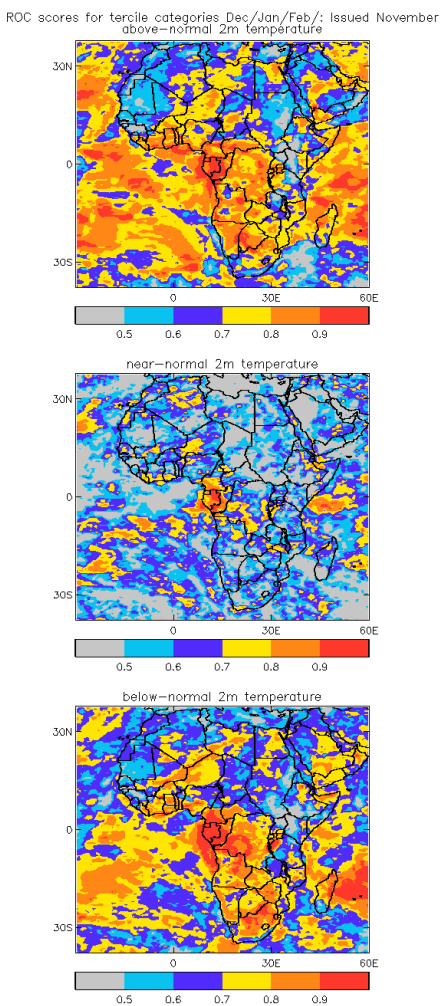
T2m - UKMO

ROC area DJF from November

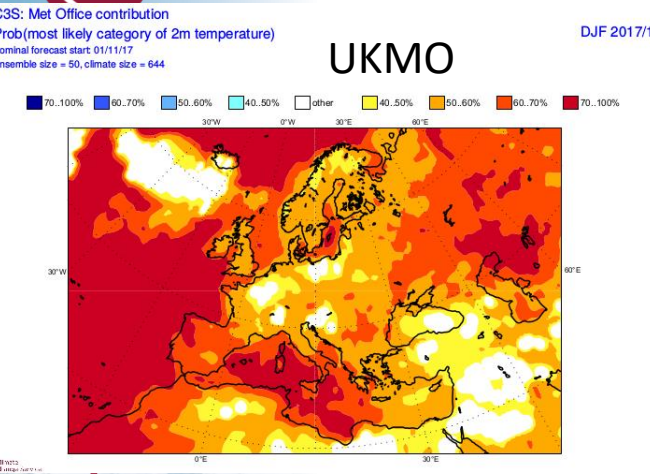


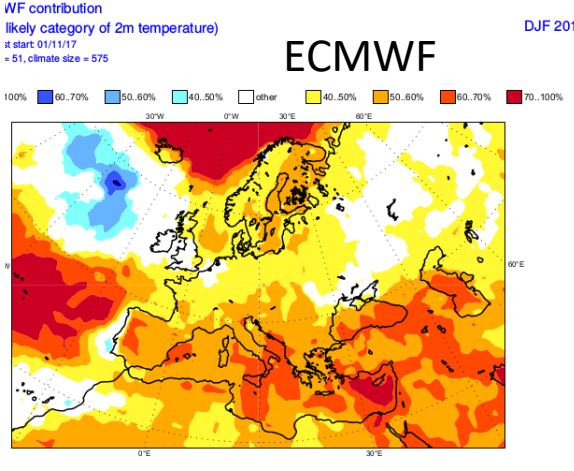


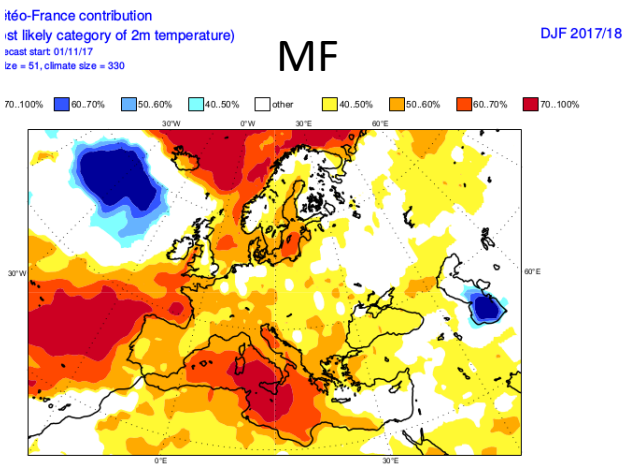


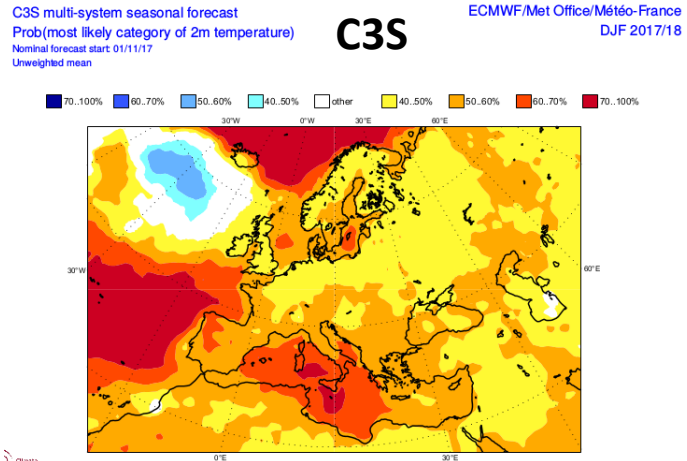


Precipitation-DJF from November 2017









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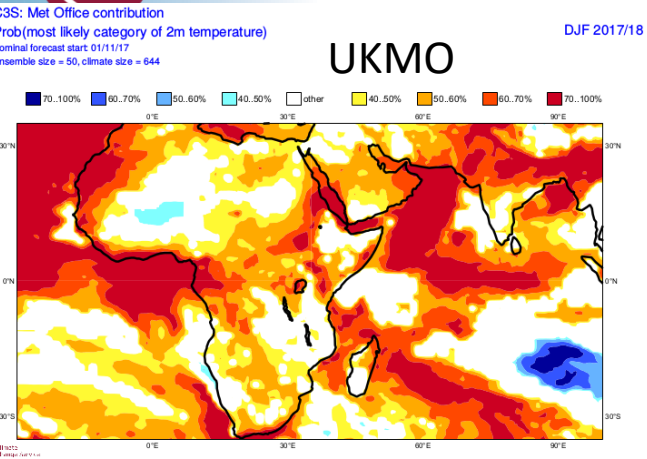
Precipitation-DJF from November 2017



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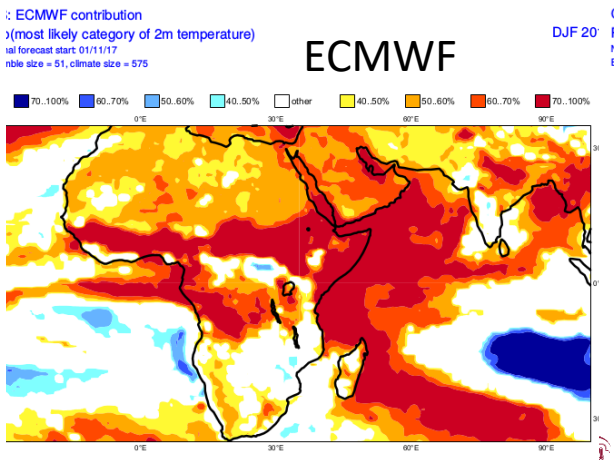
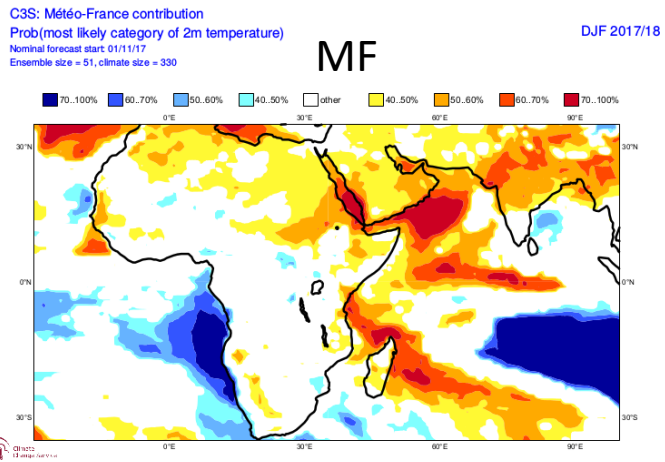


ECMWF



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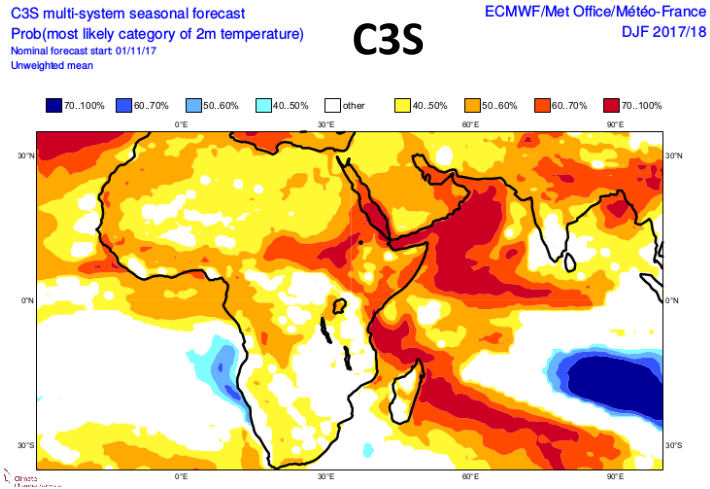

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Precipitation-DJF from November 2017

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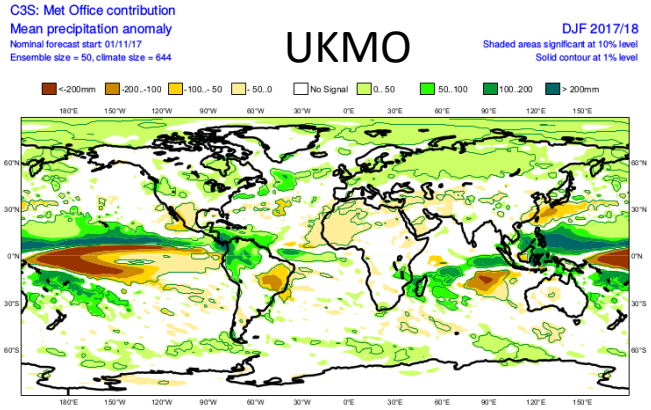

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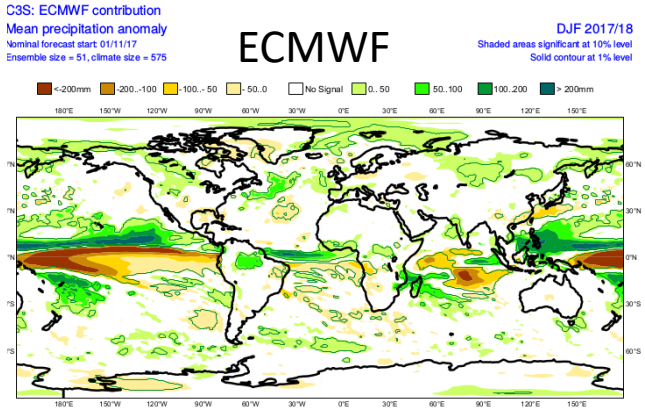

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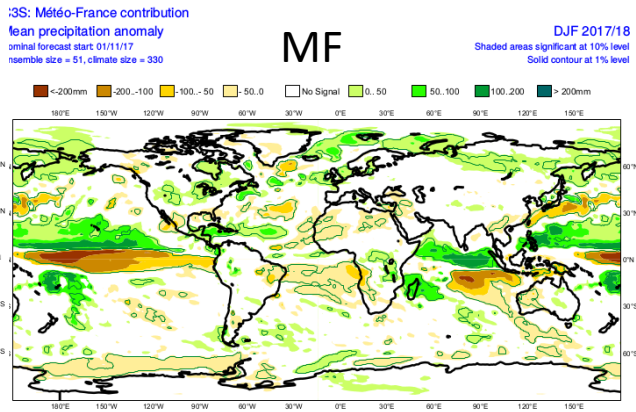

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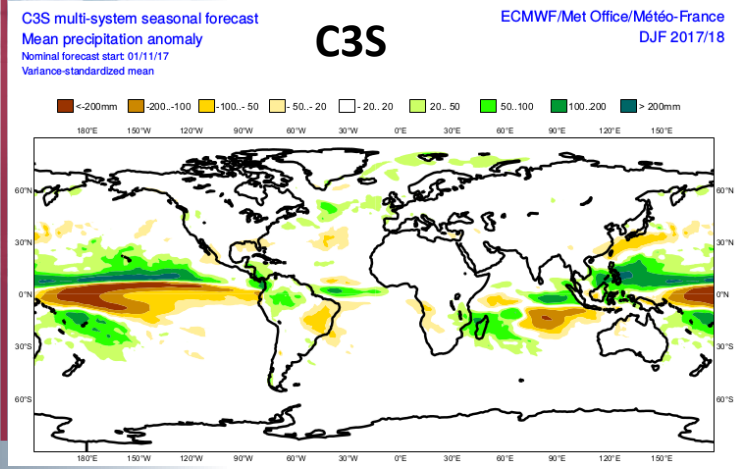
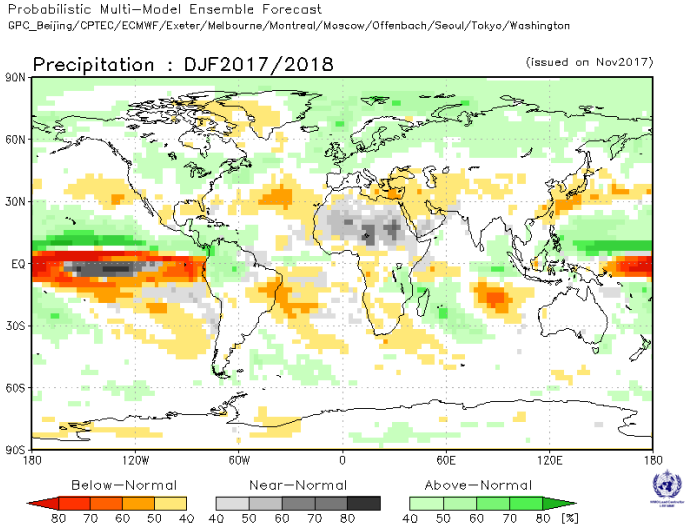


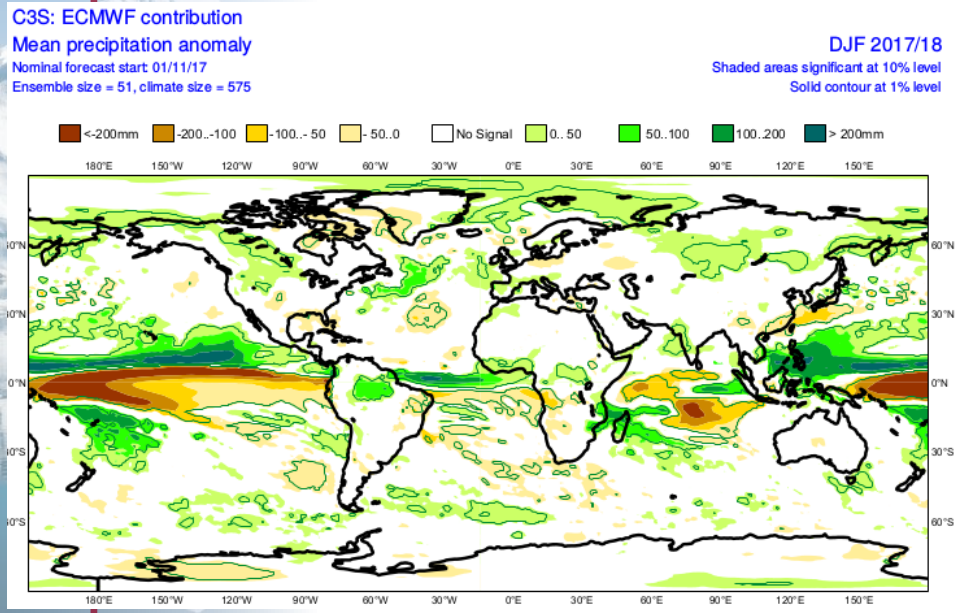
GSCU



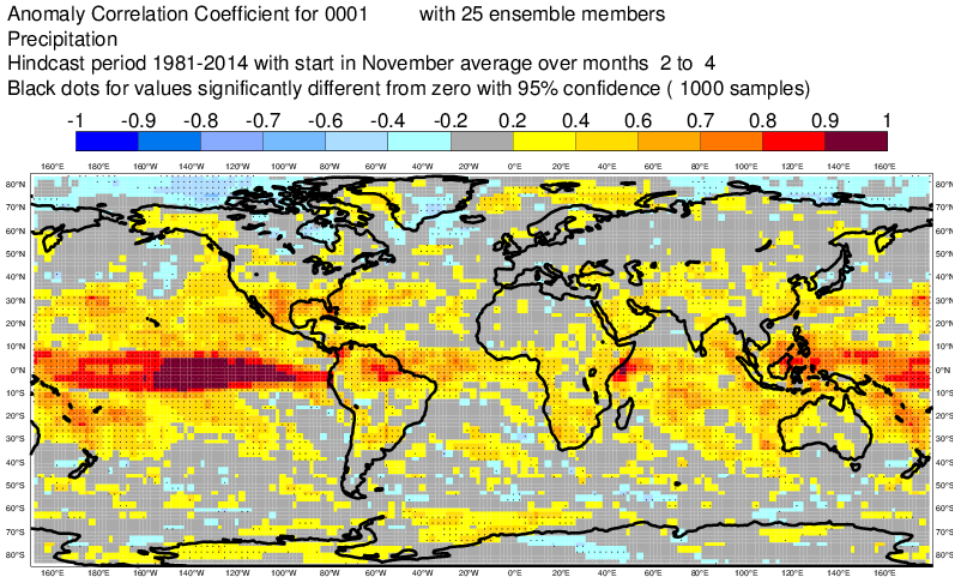
Precipitation - ECMWF

Climate Change

Ensemble mean - DJF from November 2017



Anomaly correlation - DJF from November



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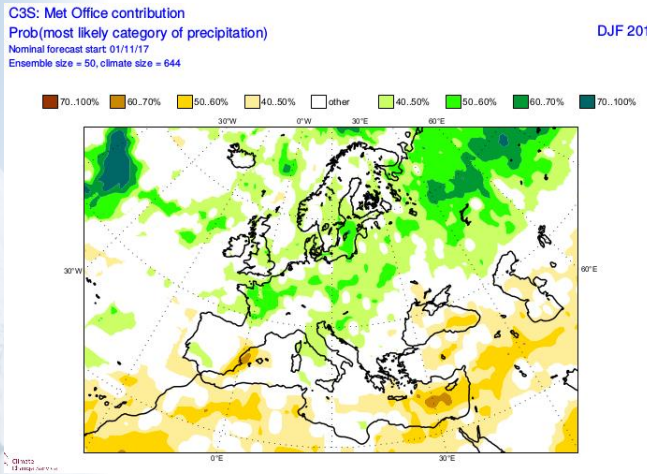
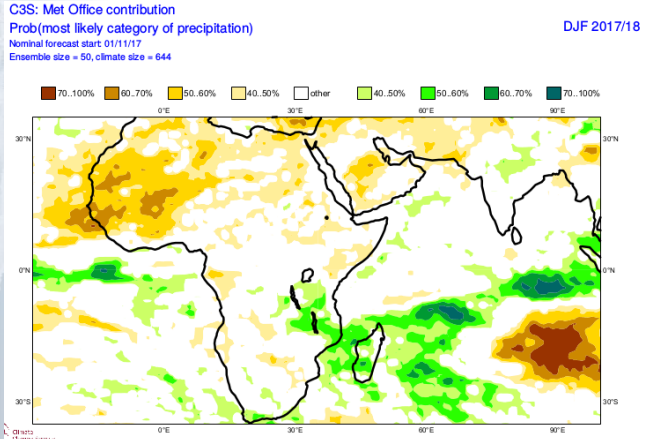
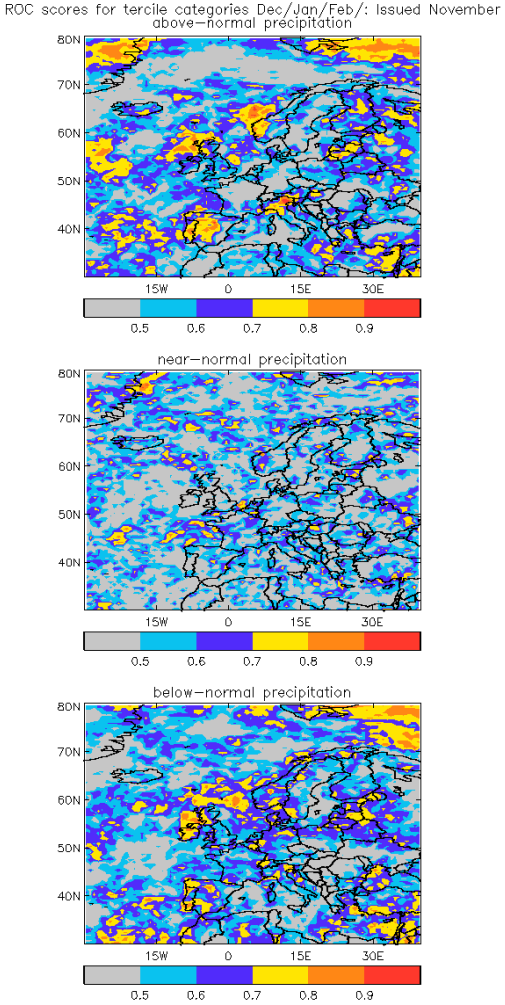
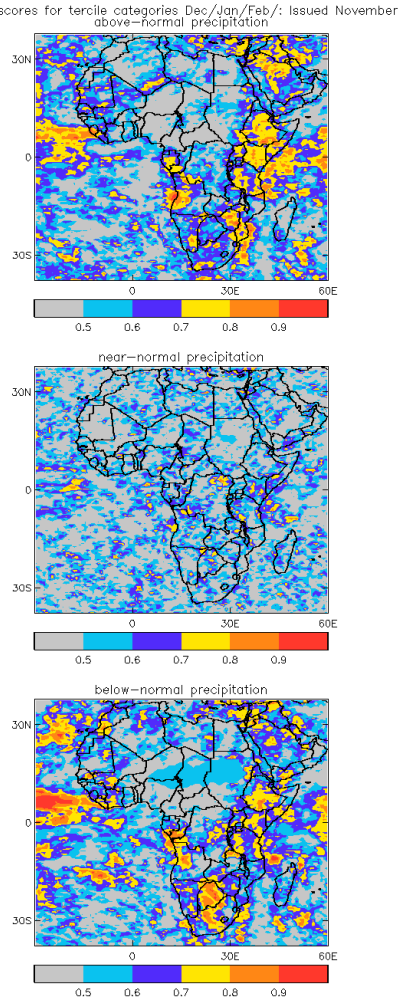
Precipitation - UKMO

ROC area DJF from November









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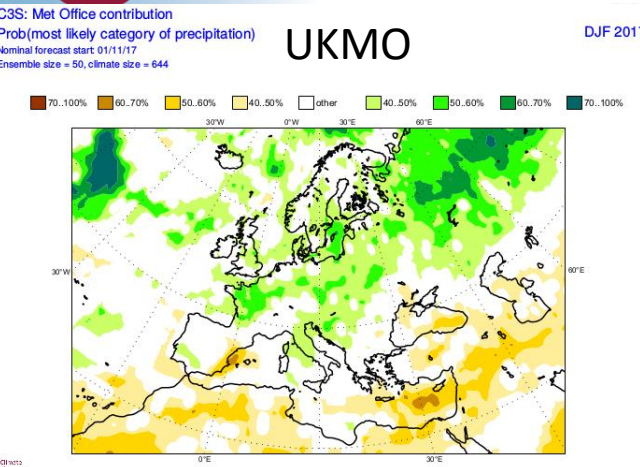

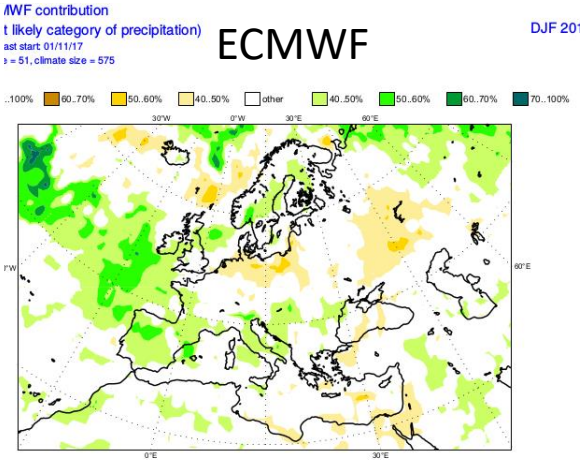

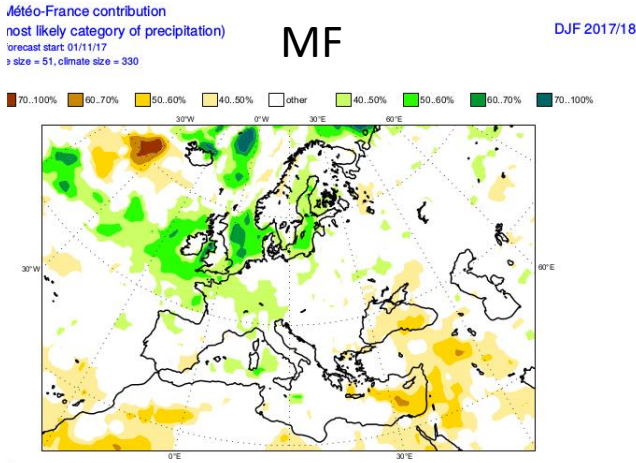

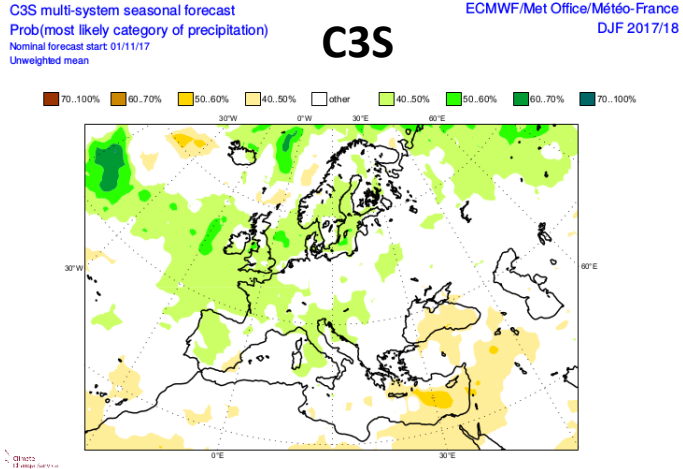

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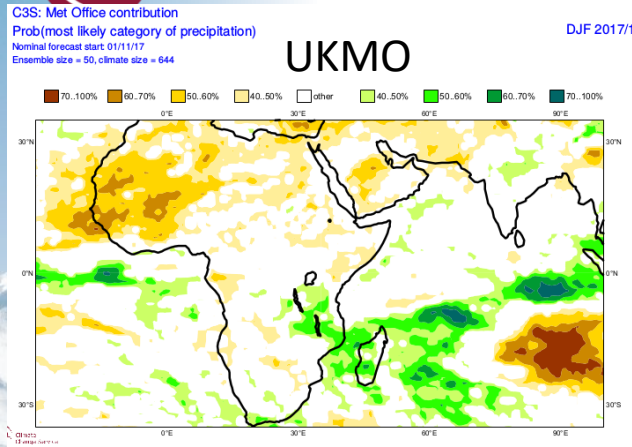

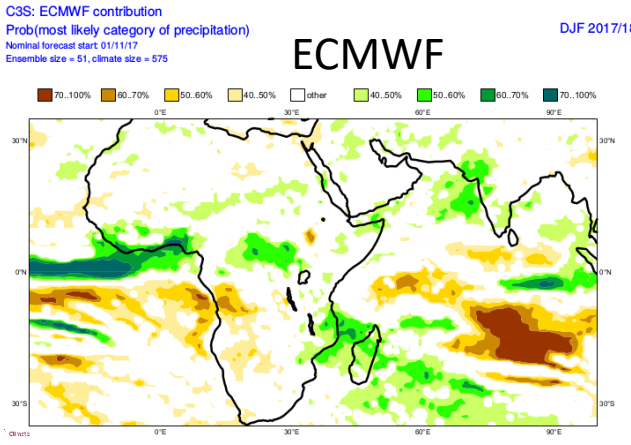

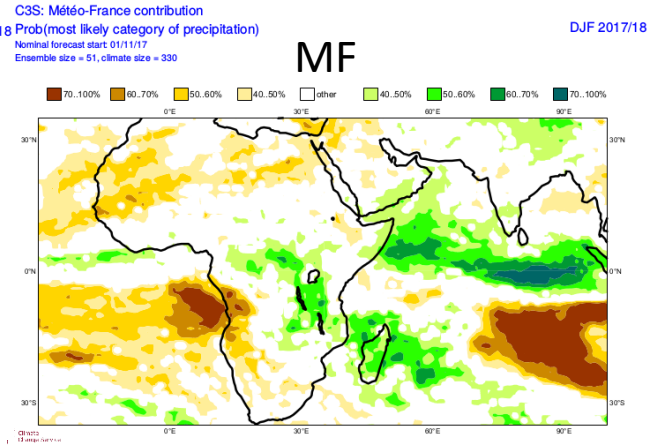

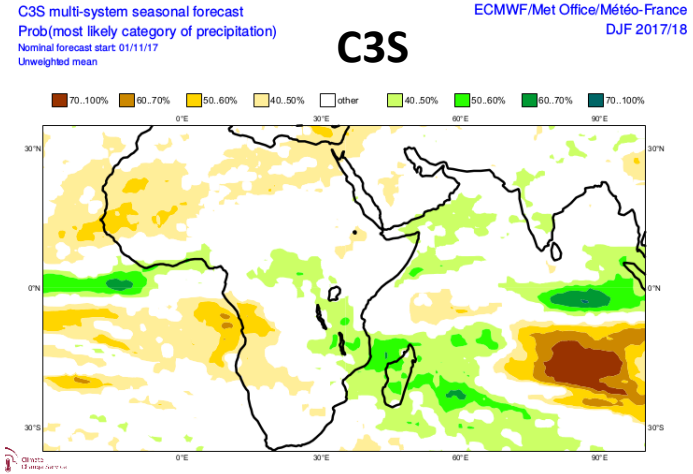

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Thank you

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Anomaly correlation - DJF from November