

## ROYAUME DU MAROC

Secrétariat d'Etat auprès du Ministre de  
l'Équipement,  
du Transport, de la Logistique et de l'Eau,  
Chargé de l'Eau

DIRECTION DE LA METEOROLOGIE NATIONALE



المملكة المغربية  
كتابة الدولة لدى وزير التجهيز والنقل  
واللوجستيك والماء،  
المكلفة بالماء  
مديرية الأرصاد الجوية الوطنية

## SEASONAL FORECAST OUTLOOK for North Africa

*February-March-April 2018 issued January 2018*

Seasonal forecast outlook for North Africa RCC domain is based on the ARPEGE-Climat coupled model output jointly with seasonal forecasts issued from ECMWF, UK Met-Office and IRI. The ARPEGE-Climat v5.2 coupled model is running at MAROC-METEO super-computer each month to elaborate seasonal ensemble forecasts. Sets of 27 forecasts are initialized by 9 atmospheric analysis, taken from ECMWF database, and 3 ocean analysis (PSY2G3R4) issued from MERCATOR center.

We also try to exploit the sources of predictability contained in the sea surface temperature (SST) by statistical methods when it is possible. We note, however, that this influence is not the same from one region to another or throughout all the year.

### **NB:**

- 1. New: Multi-model probabilistic forecasts from EUROSIP and WMO LC-LRFMME*
- 2. All dynamical forecasts are experimental.*

### **Synthesis:**













































The analysis of current circulation, sea surface temperature, ENSO phenomenon and dynamical/statistical models outputs show probably for February-March-April 2018:

- For temperature:
  - ✚ Normal to above normal condition over Morocco, Algeria, Tunisia and Libya.
  - ✚ Above normal conditions over Egypt.
- For precipitation:
  - ✚ Normal to below normal conditions over Morocco, Algeria and Tunisia.
  - ✚ Near normal conditions over Libya and Egypt.

**NB: Precipitation forecasts are given for September to May (the main rainy season). Temperature forecasts are given for January to December.**

**Tables summarizing seasonal forecast for February-March-April 2018**

**1. Temperature Seasonal Forecast**














































<b>Model/multi-model</b>	<b>Morocco</b>	<b>Algeria</b>	<b>Tunisia</b>	<b>Libya</b>	<b>Egypt</b>
<b>ARPEGE-Climat</b>					
<b>ECMWF</b>	 N  Elsewhere	 N&W  Elsewhere		 SE  Elsewhere	 E  Elsewhere
<b>UK Met-Office</b>	 S  Elsewhere	 to 	 to 	 Almost Libya	
<b>EUROSIP</b>				 N  Elsewhere	 N&E  Elsewhere
<b>LRF-NMME</b>	 Elsewhere  S	 Elsewhere  SE	 Almost Tunisia	 NE  Elsewhere	 Almost Egypt
<b>IRI</b>		 SE  Elsewhere		 SW  Elsewhere	
<b>Synthesis</b>	<b>Probably normal to slightly above normal conditions</b>	<b>Probably normal to above normal conditions</b>	<b>Probably normal to above normal conditions</b>	<b>Probably normal to above normal conditions</b>	<b>Probably above normal conditions</b>

**Legend**

 Below-Normal    Normal    Above-Normal    No special scenario

N :North ; S:South ; W:West ; E:East ; C:Center

## 2. Precipitation Seasonal Forecast

Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
<i>ARPEGE-Climat</i>		 Almost Algeria			 Almost Egypt
<i>ECMWF</i>	 Atlantic coast  Elsewhere	 W  Elsewhere			 to 
<i>UK Met-Office</i>	 S&Coast  Elsewhere	 to 		 Almost Libya	 to 
<i>EUROSIP</i>	 Almost Morocco				
<i>LRF-NMME</i>	 to 	 S  Elsewhere	 N  Elsewhere	 S  Elsewhere	 S  Elsewhere
<i>IRI</i>	 N&W  Elsewhere	 N&S  Elsewhere	 N  Elsewhere	 C  Elsewhere	
<b>Synthesis</b>	<b>Probably normal to below normal conditions</b>	<b>Probably normal to below normal conditions</b>	<b>Probably normal to below normal conditions</b>	<b>Probably near normal conditions</b>	<b>Probably near normal conditions</b>

### Legend



N :North ; S:South ; W:West ; E:East ; C:Center