

Current status of operations of North Africa RCC-Network

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Moroccan Meteorological Office



WMO OMM

World Meteorological Organization

Organisation météorologique mondiale

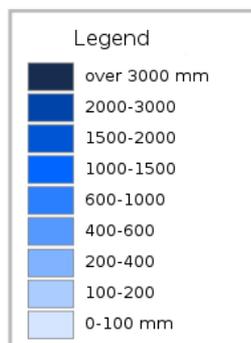
WMO International Workshop on Global
Review of RCC Operations, Pune, India,
12 – 14 November 2018

NA RCC-Network Background

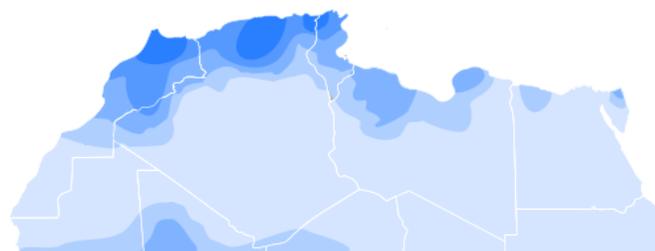
Target region : North Africa

Main season(s)/parameters: precipitation in winter season and temperature in summer season.

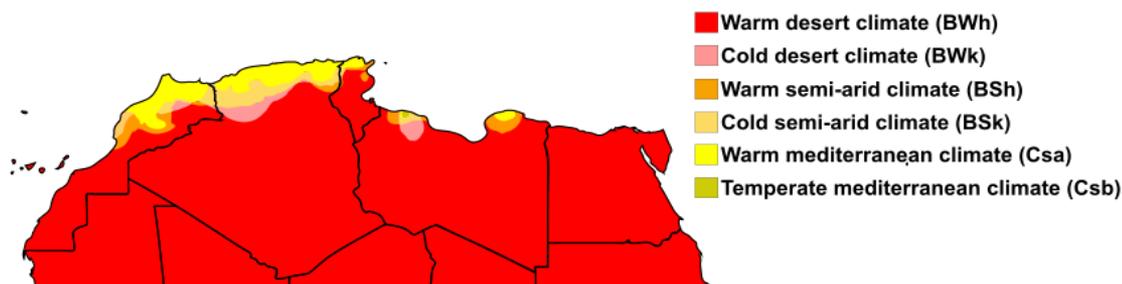
*Main forcing:
NAO, MAO, etc*



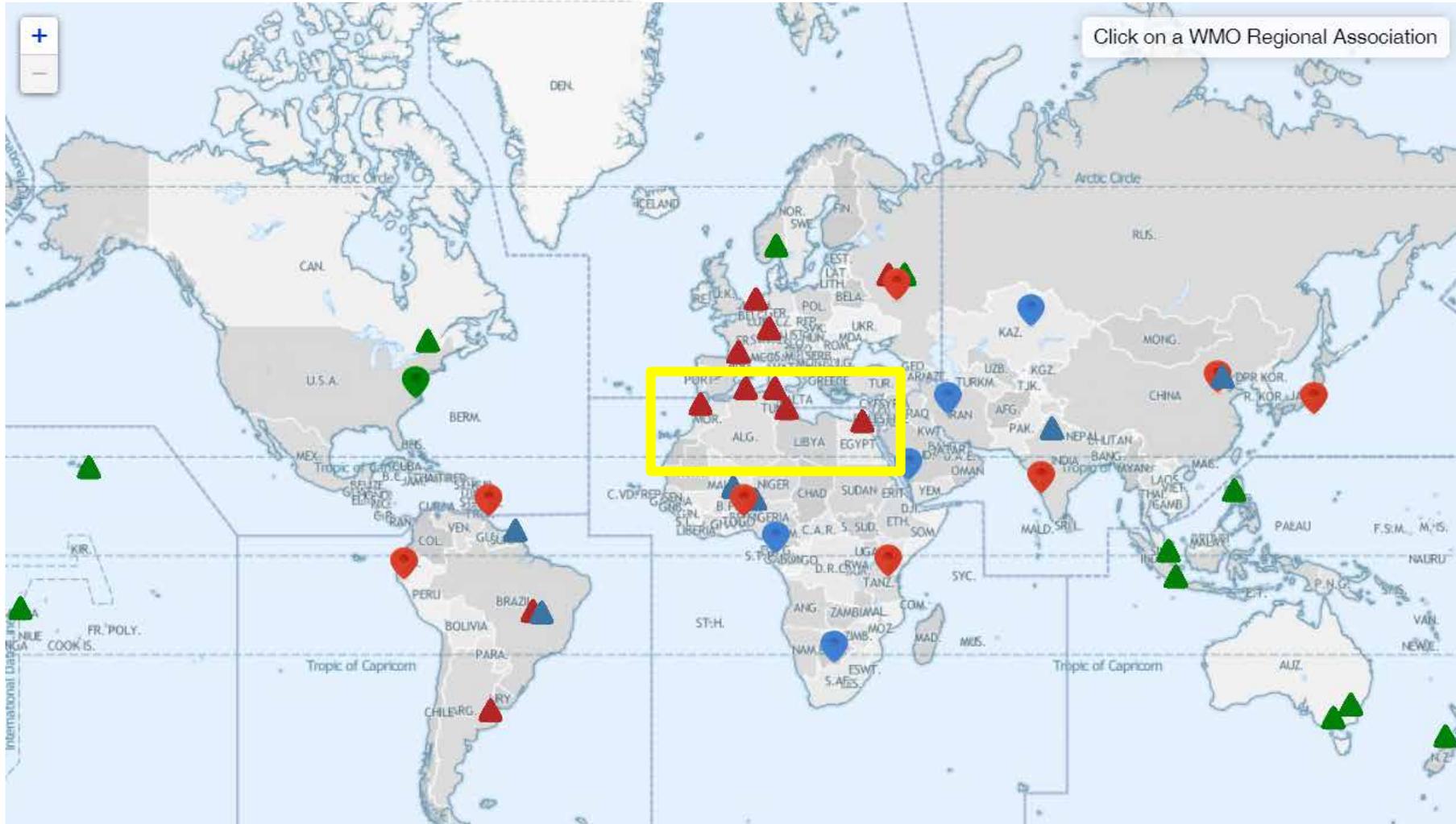
Average Annual Precipitation



Africa map of Köppen climate classification



NA RCC-Network Background



NA RCC-Network Web Portal

Accessing North Africa RCC-Network products:

- Website:
 - <http://rccnara1.marocmeteo.ma>
 - <http://www.rccna.net>
- Links to :
 1. Links to all RCC nodes
 2. News and Meeting information
 3. Documents
 4. Contact details
 5. Links to important relevant sites



The screenshot shows the homepage of the North Africa Regional Climate Centre (NAIRCC) network. At the top, there is a navigation bar with links for Home, Moroccan Node, Algerian Node, Tunisian Node, Libyan Node, and Egyptian Node. The main content area is divided into several sections:

- Climate Products:** Includes links for Long Range Forecast, Seasonal Outlook, Model Prediction, Statistical forecast, and Verification (hindcasts).
- Climate Monitoring:** Includes links for Climate Monitoring and Watch, historical reference, and climatology.
- Data Services:** Includes a link for Climate Database (station).
- Training:** Includes links for Training by Egypt and Training by Libya.
- Research & Dev:** Includes a link for Climate scenarios.
- Documents:** Includes links for Implementation Plan, Focal Points, and Contact.

On the right side, there is a map of North Africa and a 'Country' section with links for Morocco, Libya, Algeria, Egypt, and Tunisia. Below that is a 'WMO Regional Climate Centres in RA I' section with logos for ACMAD, GRI, and SDC. A 'News & Events' section features a red banner for 'PRESANORD-13 will be held in Cairo, Egypt, from 26 to 29 November 2018, and hosted by the Egyptian Meteorological Authority (EMA)' and another for 'PRESANORD-10, Rome, ITALY from 21 to 23 November 2016'. A 'Links' section at the bottom right provides links to the WMO web site, WMO RCC website, WMO GPC website, Lead Centre for Long Range Forecast Verification System, Lead Centre for Long Range Forecast Multi-Model Ensemble, and GCOS Surface Network Monitoring Center (GSNMC).

RCC Operations: Mandatory Functions

1. Operational Data Services

<http://rcc-network.meteo.dz/>

Data Services Products:

∅ Develop quality controlled regional climate datasets:

Station Hourly, daily and monthly **quality controlled** data

Gridded data not yet pursued.

∅ Provide climate database and archiving services, at the request of NMHSs

No need has been expressed by any country of the region so far.

Météo-Algérie
الديوان الوطني للأرصاد الجوية
Office National de la Météorologie

Regional Climate Center (North Africa)
Office National de la Météorologie



Home LRF CM DS

NORTH AFRICA
Regional
Climate Center
Network

DATA SERVICES

Data current day ▾

Database ▾

Others Data ▾

Database: Monthly data

Parameter
Temperature ▾
Country
Algeria ▾
Year
2018 ▾
Month
January ▾

Country: Egypt
Date: January/2018

Station	T. mean	Dev	Extreme values of Temperature (1/10°C)						Number of days beyond thresholds				
			Max.		Min.		Min. Abs. >= to						
			Max. Abs.	Date	Mean	Min. Abs.	Date	bellow 0°	25°	30°	35°	40°	
Mersa Matruh	143	-5	188	0	0	102	0	0	0	0	0	0	0
Alexandria	146		187	0	0	109	0	0	0	0	0	0	0
El Arish	134		191	0	0	84	0	0	0	0	0	0	0
Helwan													
Minya	130	-24	201	0	0	69	0	0	0	0	0	0	0
Asswan	159		223	0	0 - %-4093	0	0	0	0	0	0	0	0
Siwa	135	-11	192	0	0	120	0	0	0	0	0	0	0
kharga													

RCC Operations: Mandatory Functions

1. Operational Data Services

Welcome to Algerian Node Database

Country: / / Date: / / Network:

Country: TUNISIA
Date: 09/11/2018/ Network: 21:00:00

Station	Rain (mm)	Temperature (°C)	Humidity (%)
Beja	-999	-999	0
Bizerte	-999	13.9	72
Djerba Mellita	-999	16.6	70
El Borma	-999	-999	0
Gafsa	-999	13.3	19
Jendouba	-999	13.1	65
Kairouan	-999	16.5	79
Kebili	-999	-999	0
Kelibia	-999	15.9	73
Medenine	-999	15.8	68
Monastir-Skanes	-999	16.6	65
Nabeul	-999	15.9	85
Remada	-999	17.3	14
Sfax El-Maou	-999	15.8	68
Sidi Bouzid	-999	-999	0
Siliana	-999	-999	0
Tabarka	-999	12.4	75
Thala	-999	10.6	26
Tozeur	-999	15.8	-8888

[Home](#)



Public Data

- Observation by city
- Forecast by city
- World observation by city
- Meteosat Image
- Monthly climatic data

Public Data / Observation by city

OBSERVATIONS BY CITY

Today is : 09/11/2018
Observation of : 09/11/2018 at 2200

City	T	WD	Speed	Pressure	Moisture (%)	Nebulosity	Weather
TUNIS	18	W-NW	14	1017	83	4	x
BIZERTE	14	w	44	1018	83	7	x
NABEUL	16	N	16	1017	90	/	x
KELIBIA	16	w	4	1017	82	/	x
ZAGHOUAN							
TABARKA	12	w	34	1020	85	/	x
BEJA							
JENDOUBA	12	E	10	1018	85	/	x
LE KFF							
SILIANA	17	CALME	0	1017	78	0	x

Public data / Monthly Weather Information

MONTHLY WEATHER INFORMATION

Month :

NOVEMBER

Ville	Température moyenne (°C)		Pluviométrie		Insolation (heures)
	Minimale	Maximale	Quantité (mm)	Nombre de jours	
BIZERTE	10,7	19,9	84	13	168
TUNIS_CARTHAGE	11,3	20,5	54	10	174
NABEUL	13,3	20,4	45	10	129
TABARKA	11,4	19,7	135	14	126
KAIROUAN	10,3	21,6	28	6	207
MONASTIR	11,9	20,8	35	6	189
SFAX	10,6	21,4	21	4	210
JERBA	13,7	21,3	33	5	213
TOZEUR	11,1	21,7	10	3	201

Webmaster



RCC Operations: Mandatory Functions

2. Climate Monitoring

<http://www.meteo.tn/htmlen/donnees/rcc.php>

- *Key climate monitoring products and their operational schedules:*
 - Maps of monthly mean temperature
 - Maps of monthly total precipitation
 - Maps of mean sea level pressure
 - Maps of mean sea surface temperature
 - Maps anomalies of temperature, precipitation, slp and sst

Updated on monthly basis

- *Climate diagnostics including analysis of variability and extremes;*

Suspended since October 2017 for monthly bulletins and 2016 for annual ones.

RCC Operations: Mandatory Functions

2. Climate Monitoring

<http://www.meteo.tn/htmlen/donnees/rcc.php>

- *Target Variables* : temperature, precipitation, sea level pressure, sea surface temperature
- *Historical reference climatology (including space/time resolution):*

The climatology is available at station level for mean, maximum and minimum temperatures, and precipitation at monthly time scale over 1981-2010.

- *Regional climate watch advisories*

Monthly standard precipitation index with scales, 1, 3, 6, 9, 12 and 24 months are used to assess drought conditions.

- *Major constraints, if any*

No Feedback from Tunisia node about this aspect.

RCC Operations: Mandatory Functions

2. Climate Monitoring

<http://www.meteo.tn/htmlen/donnees/rcc.php>

Climate Monitoring Products:

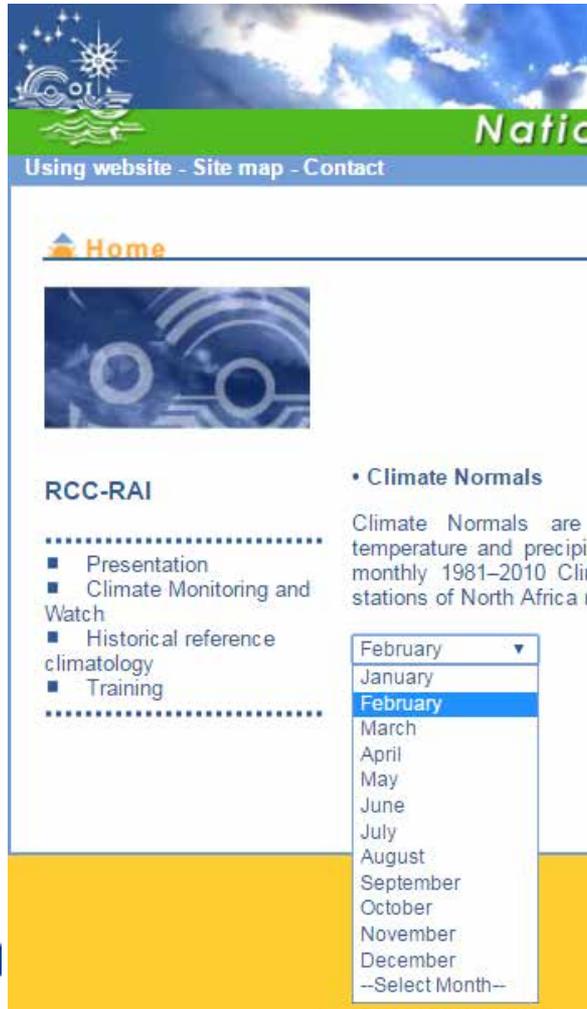
Ø Maps of means/ anomalies of many variables: T,RR,SLP,SST

Ø Monthly, Seasonal and annual bulletins

Ø Extreme events

Ø Climate watches

Ø Historical reference climatology



The screenshot shows the RCC-RAI website interface. At the top, there is a navigation bar with 'Home', 'Using website - Site map - Contact', and 'Natio'. Below this is a 'RCC-RAI' section with a list of menu items: 'Presentation', 'Climate Monitoring and Watch', 'Historical reference climatology', and 'Training'. A 'Climate Normals' section is also visible, with a dropdown menu for selecting a month, currently set to 'February'. The dropdown menu lists months from January to December, with 'February' selected.

Month : October
 Period of Record : 1981-2010

Tmean: Mean Temperature, Tmax: Maximum Temperature, Tmin:Minimum Temperature
 PCP: Precipitation

Country	Stations	Tmean (°C)	Tmax (°C)	Tmin (°C)	PCP (mm)
TUNISIA	TABARKA	21.1	26.2	15.8	89.7
	BIZERTE	20.6	25.8	15.7	64.1
	TUNIS-CARTHAGE	21.1	26.4	16.6	50.8
	KELIBIA	21.0	24.7	17.7	89.3
	JENDOUBA	20.3	26.8	13.9	45.6
	NABEUL	19.7	22.2	16.1	42.7
	SILIANA	20.6	25.1	14.0	28.1
	KAIROUAN	21.8	27.7	16.8	43.4
	THALA	15.9	21.1	11.7	36.6
	MONASTIR-SKANES	22.1	26.2	18.3	63.1
	GAFSA	21.2	27.2	15.4	17.4
	TOZEUR	23.6	29.1	18.4	9.2
	GABES	23.2	27.4	18.6	29.4
	DJERBA MELLITA	23.5	27.7	19.3	37.3
MEDENINE	24.6	29.2	18.4	19.5	
REMADA	24.8	29.0	17.8	11.4	
EL BORMA	23.8	28.1	16.5	3.9	
MOROCCO	DAKHLA	22.4	25.9	19.7	5.2
	TANGER (AERODROME)	19.6	24.1	15.7	79.4
	LARACHE	20.1	24.0	15.8	52.4
	AL HOCEIMA	19.5	23.3	15.7	33.5
	OUJDA	18.2	25.5	12.4	25.6
	TAZA	19.5	25.4	14.5	30.7
	RABAT-SALE	18.9	24.3	14.3	39.7
	FES-SAIS	18.4	25.3	12.1	43.8
	MEKNES	18.0	24.0	12.8	32.3
CASABLANCA	19.8	23.8	16.3	28.4	
NOUASSEUR	19.4	26.0	13.8	26.3	

RCC Operations: Mandatory Functions

3. Long Range Forecasting

<http://rccnara1.marocmeteo.ma/morrocoannode.php>

- *The seasonal predictions are provided with update on a monthly basis consist of monthly bulletins which are elaborated using inputs from the international LRF centres. Also, at the beginning of the main rainy season during the outlook forum PRESANORD, an outlook bulletin for the main rainy seasons (NDJ and DJF) is elaborated with a consensus among the countries and the outlook bulletin is prepared by the DMN and published on the RCC-Net web site.*
- *At the end of the rainy season a verification of the outlook is undertaken using input from most of the NA countries in the framework of MedCof, whereis a simple verification was done using maps by the LRF node prior to PRESANORD 9.*

RCC Operations: Mandatory Functions

3. Long Range Forecasting

<http://rccnara1.marocmeteo.ma/morrocoannode.php>

- *The NA RCC-Network node on LRF participate to the elaboration of the PRESANORD program and ensure the elaboration of the consensus statement and its publication through the RCC web site. It should also be mentioned here it contributes to the ARABCOF.*
- *Since 2016 the verification of the forecasts is done in the framework of the MedCof with inputs from most of the NA countries;*

RCC Operations: Mandatory Functions

3. Long Range Forecasting

<http://rccnara1.marocmeteo.ma/morrocoannode.php>

- *For feed back assessment, only the email is available at this stage. A plan to make a survey is scheduled during the next PRESANORD. "Currently DMN is working with Agriculture ministry in order to use seasonal forecast in the crop growth monitoring system. No user feed back assessed yet".*
- *The quality of seasonal forecast is low to be used with a high confidence in planning activities in major sectors like water use. There is a real need to have close collaboration with research institutions to develop this aspect and get funding for that.*

RCC Operations: Mandatory Functions

3. Long Range Forecasting

<http://rccnara1.marocmeteo.ma/morrocoannode.php>

LRF Products:

- Ø Regional seasonal prediction maps
- Ø Climate Outlook Bulletin
- Ø Climate consensus statement
- Ø Model verification
- Ø Issuance:

medcof.aemet.es/index.php/models-skill-over-mediterranean

Variable:

Detrend:

Period:

Show

MEDITERRANEAN AREA

Area: MEDITERRANEAN AREA Lead-Time: 1 Detrend FALSE / Weighted *

FORECAST SYSTEM	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ	DJF
Car	0.10	0.11	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
QFSv2	0.02	0.12	0.11	0.11	0.13	0.21	0.22	0.18	0.19	0.20	0.13	0.01
Outlook	0.01	0.11	0.11	0.11	0.20	0.22	0.18	0.19	0.20	0.13	0.01	0.04
IRIv2	0.11	0.11	0.12	0.12	0.09	0.11	0.19	0.11	0.11	0.11	0.11	0.11
IFS	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
S4	0.02	0.12	0.11	0.11	0.21	0.22	0.18	0.19	0.20	0.13	0.01	0.04

Correlation: GPCCGM2D 1997-2009

Regional Correlation - PRECIPITATION RATE

* p-val == 0.05 # 0.05 == p-val == 0.10 (nBootstrapping = 1000)

Area: MEDITERRANEAN AREA Lead-Time: 1 Detrend FALSE / Weighted *

FORECAST SYSTEM	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ	DJF
Car	-0.05	-0.07	-0.05	-0.06	-0.09	-0.05	-0.04	-0.04	-0.04	-0.02	-0.02	-0.03
QFSv2	-0.11	-0.12	-0.11	-0.11	-0.16	-0.16	-0.14	-0.12	-0.06	-0.11	-0.09	-0.08
Outlook	-0.09	-0.12	-0.11	-0.12	-0.13	-0.13	-0.14	-0.14	-0.11	-0.18	-0.19	-0.11
IRIv2	-0.10	-0.14	-0.12	-0.09	-0.09	-0.16	-0.19	-0.06	-0.12	-0.16	-0.19	-0.15
IFS	-0.09	-0.13	-0.16	-0.07	-0.11	-0.11	-0.03	-0.05	-0.06	-0.06	-0.11	-0.09
S4	-0.07	-0.12	-0.12	-0.06	-0.14	-0.06	-0.08	-0.06	-0.02	0.04	-0.12	-0.07

Correlation: GPCCGM2D 1997-2009

Regional Ranked Probability Skill Score - PRECIPITATION RATE

* p-val == 0.05 # 0.05 == p-val == 0.10 (nBootstrapping = 1000)

Area: MEDITERRANEAN AREA Lead-Time: 1 Detrend FALSE / Weighted *

FORECAST SYSTEM	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ	DJF
Car	0.04	0.06	0.04	0.05	0.09	0.09	0.02	0.03	0.02	0.01	0.02	0.01
QFSv2	0.05	0.06	0.03	0.07	0.08	0.02	0.04	0.05	0.03	0.02	0.01	0.03
Outlook	0.05	0.06	0.03	0.07	0.08	0.02	0.04	0.05	0.03	0.02	0.01	0.03
IRIv2	0.05	0.06	0.03	0.07	0.08	0.02	0.04	0.05	0.03	0.02	0.01	0.03
IFS	0.05	0.06	0.03	0.07	0.08	0.02	0.04	0.05	0.03	0.02	0.01	0.03
S4	0.05	0.06	0.03	0.07	0.08	0.02	0.04	0.05	0.03	0.02	0.01	0.03

Correlation: GPCCGM2D 1997-2009

Regional Ranked Probability Skill Score - PRECIPITATION RATE

* p-val == 0.05 # 0.05 == p-val == 0.10 (nBootstrapping = 1000)

Issuance at the beginning of the current month (before the 10th day)

RCC Operations: Mandatory Functions

4. Training/Guidance in the use of RCC products

- *Thanks to MedCof, the training of North Africa countries staff is ensured with the coordination of DMN LRF node. Also guidance material is made available through the MedCof website with links in the NA RCC-Network web site.*
- *There is a link in the NA RCC-Net web site to all training materials of MedCofs and others.*
- *There is a real difficulty in involving in the MedCof training initiatives, the nodes of training, Egypt and Libya, to some extent because of their countries political problems.*

NA RCC–Network products use: DMN MOROCCO

Please cite the products you are using from NA RCC-Network, if any :

Function/service	Products/links
Operational Data Services	Daily and monthly RR and Tm data particularly for Algeria stations to better create gridded data over Morocco.
Climate Monitoring	No. We however asked them to make a plot of the observed terciles for RR and Temp at seasonal time scale for the verification of the LRF monthly bulletins, ...
Long Range Forecasting	Yes
Highly Recommended Functions	What is provided by DMN, on the NA RCC-Net web site, is out of date.

Do you connect monthly to the NA RCC-Network web site ? **YES, as a coordinator to check the availability of products.**

When did you connect the last time to NA RCC-Network web site ? **11/2018**

NA RCC–Network products use: INM Tunisia

Please cite the products you are using from NA RCC-Network, if any :

Function/service	Products/links
Operational Data Services	NO
Climate Monitoring	The National Institute of Meteorology as a node of climate monitoring function in the North Africa RCC, we use these products to verify the seasonal forecasts of MEDCOF and PRESANORD forums.
Long Range Forecasting	NO
Highly Recommended Functions	NO

Do you connect monthly to the NA RCC-Network web site ? YES

When did you connect the last time to NA RCC-Network web site ? 11/2018

NA RCC–Network products use: Algeria, Libya and Egypt

Please cite the products you are using from NA RCC-Network, if any :

Function/service	Products/links
Operational Data Services	
Climate Monitoring	NO RESPONSE
Long Range Forecasting	RECIEVED YET
Highly Recommended Functions	

Do you connect monthly to the NA RCC-Network web site ? **NO, from web site log files.**

When did you connect the last time to NA RCC-Network web site ? **???**

SWOT analysis for NA RCC-Net

Main Strengths	Weaknesses
<ol style="list-style-type: none"> 1. <i>Availability of expertise in climate services in the different institutions acting as nodes.</i> 2. <i>Different climate products accessible through a single web platform</i> 	<ol style="list-style-type: none"> 1. <i>Difficulty to get responses from some nodes and even radio silence from some, except Tunisia node.</i> 2. <i>Poor awareness of the new global producing centers products.</i> 3. <i>Automatic elaboration of some products with no expertise added value.</i>
Opportunities	Threats
<ol style="list-style-type: none"> 1. <i>Continuous growth of user needs for climate services in particular those related to climate change.</i> 2. <i>Cooperation with international organizations in particular other RCCs.</i> 	<ol style="list-style-type: none"> 1. <i>No REAL client for RCC-Network products</i> 2. <i>Poor cooperation between nodes</i> 3. <i>Sustainability of the RCC-Network because of lack of personal and budgetary constraints in some nodes.</i> 4. <i>Current products not evolving to continue meeting users' needs in the future. (Product Life Cycle)</i>

Way Forward

This is one of my expectations from this Workshop !!!

- Ø Improve collaboration between NA RCC-Net nodes.
- Ø Identify clearly and Develop/improve the climate products needed by NMHSs in North Africa
- Ø Evaluate the use of NA RCC-Network products
- Ø Develop cooperation with neighboring RCCs
- Ø Sub-seasonal prediction is always one of the main product users are asking for, but its quality in North Africa is very low to be useful. There is a real need to undertake more research to improve the sub-seasonal prediction.

Thank you Merci شكرا

NA RCC-Net Focal points:

Mr Rachid SEBBARI; Email : sebbari@gmail.com for RCC Node on Long Range Forecasting

Mme Soumaya BEN RACHED; Email: soumaya@meteo.tn for RCC Node on Climate Monitoring

Mr Lotfi HALIMI ; Email: lotfi.halimi@gmail.com for RCC Node on Climate Data

Dr. Ashraf SaberZakey; Email: azakey@gmail.com and

Mr. AbduerzakK. Etumi; E-mail : abetumi@ittnet.net for RCC Node on Training



WMO OMM

World Meteorological Organization

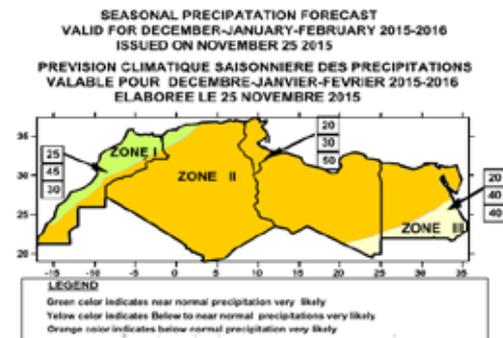
Organisation météorologique mondiale

NA RCC Node on Long Range Forecasting

The RCC Node on Long-range Forecasting provides operational services related to seasonal to inter-annual forecasts by interpretation of products from Global Producing Centres (GPCs), generating relevant regional and sub-regional products, and consensus statements on regional and sub-regional forecasts.

Service overview :

- Ø Regional seasonal prediction maps based on GPC products for National Meteorological Services in the region,
- Ø Monthly Climate Outlook Bulletin analyzing and interpreting GPC products,
- Ø Climate consensus statement based on annually PRESANORD outlook forum,
- Ø Model verification,
- Ø Graphs and maps of GPCs model performances.



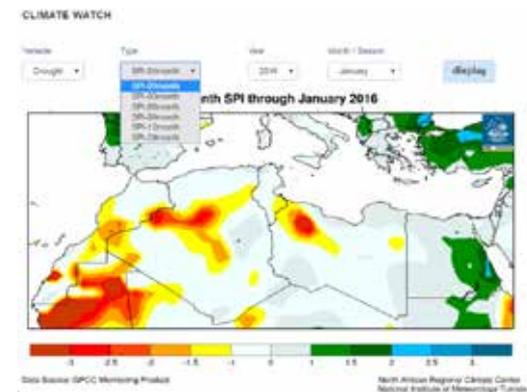
In terms of research & development in the area of climate change and climate forecasting, the DMN has developed a long expertise during the last 25 years; and is putting the competence of its experts at the disposal not only of the northern Africa countries but also of the entire **African continent**.

NA RCC Node on Climate Monitoring

The RCC Node on Climate Monitoring provides operational services for monitoring the climate system by undertaking climate diagnostics, generating historical reference climatologies at regional and sub-regional levels, and implementing a regional climate watch.

Service overview :

- Ø Monthly, seasonal and annual maps of standard climate parameters (T,RR,SLP,SST) (mean and anomalies) for the entire region,
- Ø Monthly, Seasonal and annual monitoring bulletins,
- Ø Extreme events,
- Ø Implementation of Climate watches for drought
- Ø Historical reference climatology for standard climate parameters.



NA RCC Node on Data Services

The RCC Node on Climate Data provides operational data services to support climate services on long-range forecasting, climate modeling and climate monitoring by developing quality controlled regional data sets and providing database, archiving and data rescue services.

Service overview :

- Ø Develop quality controlled regional climate datasets on hourly and daily observations,
- Ø Provide climate database and archiving services, at the request of NMHSs.

Month : October
Period of Record : 1981-2010

Tmean: Mean Temperature, Tmax: Maximum Temperature, Tmin:Minimum Temperature
PCP: Precipitation

Country	Stations	Tmean (°C)	Tmax (°C)	Tmin (°C)	PCP (mm)
TUNISIA	TABARKA	21.1	26.2	15.8	89.7
	BIZERTE	20.6	25.8	15.7	64.1
	TUNIS-CARTHAGE	21.1	26.4	16.6	50.8
	KELIBA	21.0	24.7	17.7	89.3
	JENDOUBA	20.3	26.8	13.9	45.6
	NABUL	19.7	22.2	16.1	42.7
	SILIANA	20.6	25.1	14.0	28.1
	KAIRDJAN	21.8	27.7	16.8	43.4
	THALA	15.9	21.1	11.7	36.6
	MONASTIR-SKAIES	22.1	26.2	18.3	63.1

NA RCC Nodes on Training

The RCC Nodes on Training provide training resources for RCC Users in interpretation and use of NA RCC-Network climate products including organisation of training seminars.

NA RCC-Network Structure

NA RCC-Network Coordinator :
Direction de la Météorologie Nationale, DMN; Morocco

RCC Node on Long Range Forecasting :
Direction de la Météorologie Nationale, DMN; Morocco

RCC Node on Climate Monitoring :
Institut National de la Météorologie, INM; Tunisia

RCC Node on Data Services :
National Meteorological Office, ONM; Algeria

RCC Node on Training :
Egyptian Meteorological Authority, EMA (Lead); Egypt and National Meteorological Centre, NMC (Co-lead); Libya

Local points :

RCC Node on Long Range Forecasting :
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Background

WMO RCCs are regional institutions mandated to deliver high-quality regional-scale products, for example, by using data and products from GPCs and other global centres and incorporating regional-scale information. They provide online access to their products to NMSs and other regional users, including the Regional Climate Outlook Forums. At the same time, they provide regional data, products and feedback to GPCs and associated lead centres for respective verification and product optimization of the global-scale information.

WMO Regional Association I has established different RCCs in Africa in each of the Regional Economic Communities (RECs). The RCC-Network for Northern Africa has been formally designated as WXMO RCC in May 2017. Each of the five countries of the region, from west to east : Morocco, Algeria, Tunisia, Libya and Egypt, contributes to this RCC acting as a node and ensure one of the mandatory functions of an RCC.

WMO RCC Terminology

A Regional Climate Center multifunctional centre that fulfils all required functions of a RCC for the entire region, or for a sub-region to be defined by the Regional Association may be designated by WMO as a 'WMO Regional Climate Centre' (WMO RCC).

A group of centres performing climate-related activities that collectively fulfill all the required functions of an RCC may be designated by WMO as a 'WMO Regional Climate Centre Network'. Each centre in a designated WMO RCC-Network will be referred to as a 'Node'. A Node will perform, for the region or sub-region, one or several of the mandatory RCC activities (e.g. Long-range forecasts, climate monitoring, climate data services, training).

For more information about RCCs, please visit : <http://www.wmo.int/pages/prog/wcp/wcasp/rcc/rcc.php>



WMO Regional Association I (Africa)

North Africa Regional Climate Centre Network

(WMO NA RCC-Network)

Web portal: www.rccna.net

Serving National Meteorological Services
in enhancing climate services.

