



The third MEDARE Workshop on Building Mediterranean long-term and homogenized climate datasets, Istanbul, Turkey on 27-28 Sep 2012

A. A. Mahmoud, Egypt



10/10/2012

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MEDARE
Mediterranean
Data
REscue
02/17/1998
72108
9620001014464



Where we are ?





MEDARE
Mediterranean
DATA
REscue
023701000
920000101000

Egyptian Meteorological Authority (EMA) Front View



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MEDARE
MEDiterranean
DATA
REscue
02/11/1998
02/2005/11/1998



Agenda

- **A brief history**
- **Observation Networks**
- **Hourly Data Description**
- **Daily Data Description**
- **Efforts made to fill gaps or extend time series back.**



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MEDiterranean
DATA
REscue
2005-2014



A brief history of Meteorology in Egypt

- *Meteorological activity started in Egypt in 1829*
- *Meteorological Department has been established in the Survey Agency in 1900*
- *Weather observing started to take place in aviation purposes in 1934*
- *A royal decree issued for the establishment of Meteorology in 1947*
- *a public body to has been converted Department of Meteorology Presidential decree in under (EMA)1971.*





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MEDiterranean
DAta
REscue
02/11/1998
02/2008/11/1998



Agenda

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2007-2012
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Observation Networks

- Regional Synoptic Basic Network (RBSN)
- Agro-Met Network
- Global Upper Air Network (GUAN)
- Global Climate Observing System (GCOS)
- Radiation Network
- Marine Network
- Ozone Network
- Air Pollution Network



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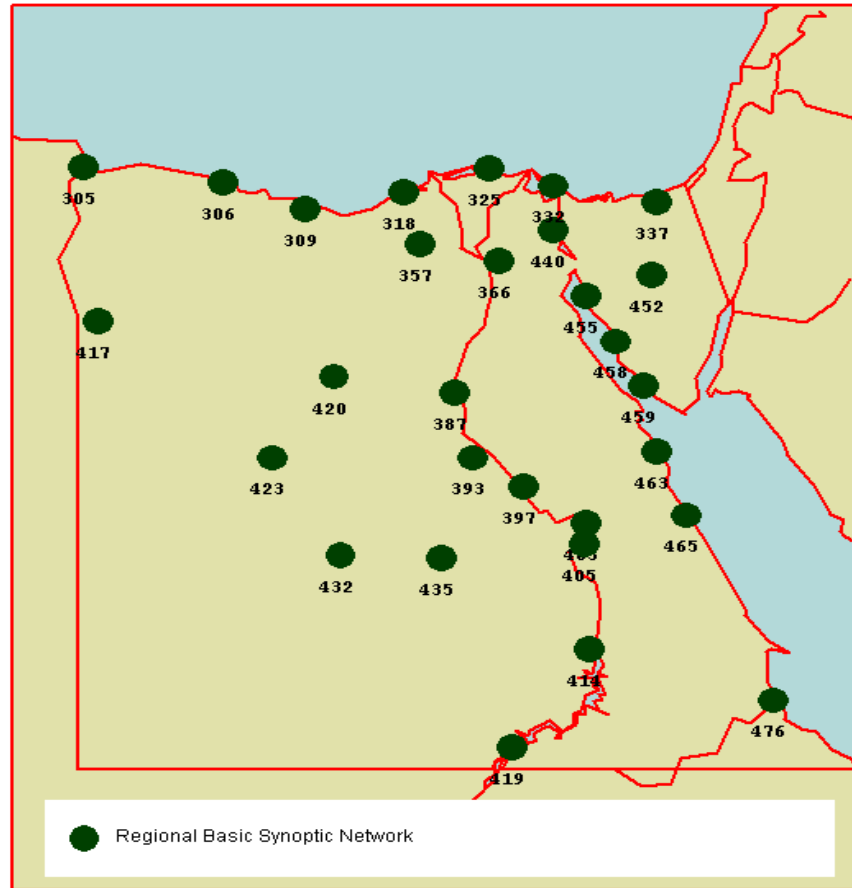


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DAta
REscue
INITIATIVE
WMO
NO.2009/0101/04.1

Regional Synoptic Basic Network (RBSN) (29 stations)



EGYPTIAN METEOROLOGICAL AUTHORITY



Mercator Conformal Projection. Scale 1: 12 KMS. Monday 02 Apr(04), 2012 at 08h58:21 By M.A. Bekhit



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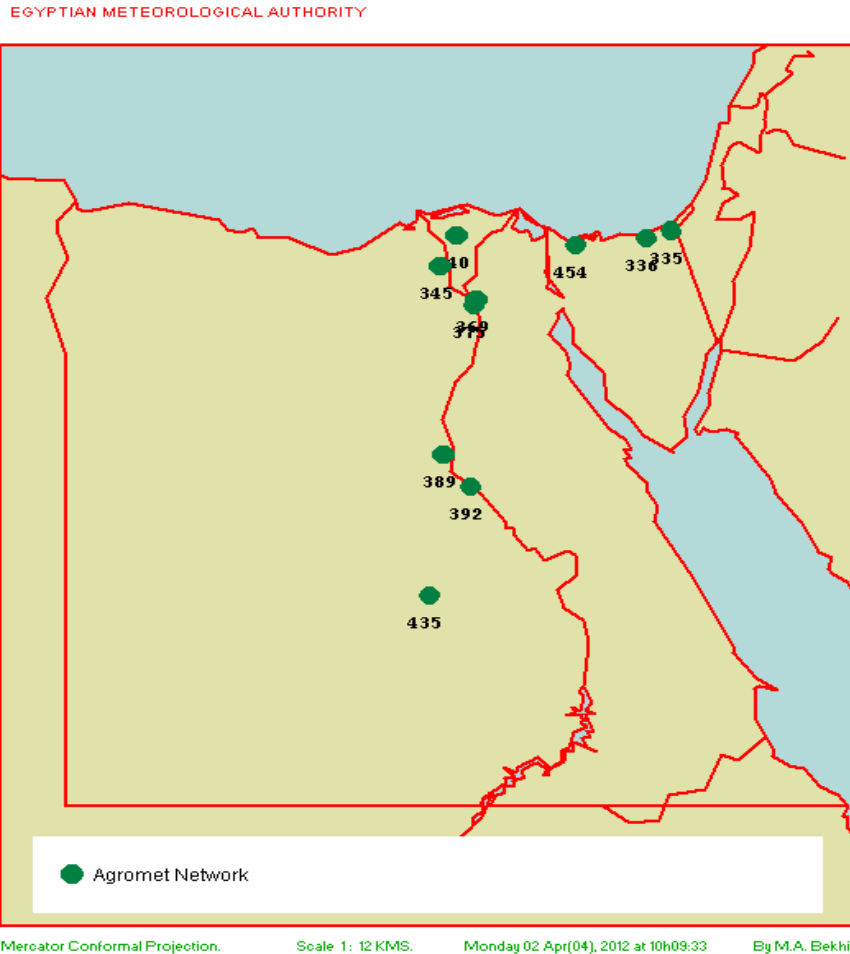


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02/10/2012
07:59:59
9520051101464

Agromet Network (10 stations)



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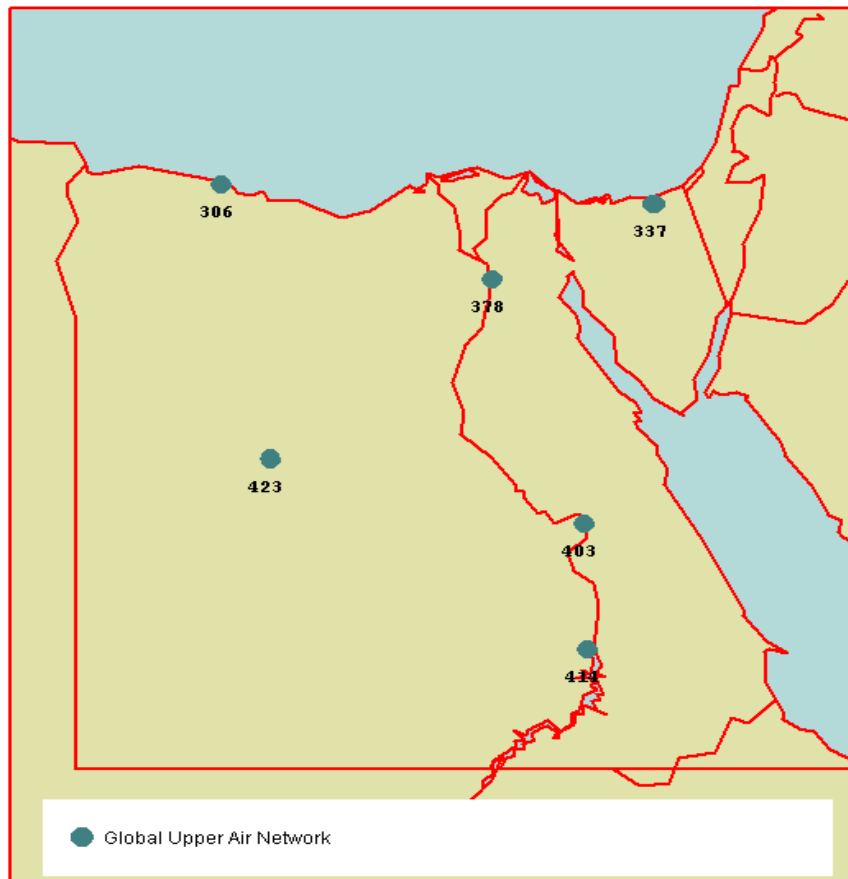


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DAta
REscue
02/10/2004
02/10/2004

Global Upper Air Network (GUAN) (6 stations)



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Mercator Conformal Projection. Scale 1: 12 KMS. Monday 02 Apr(04), 2012 at 10h00:24 By M.A. Bekhit



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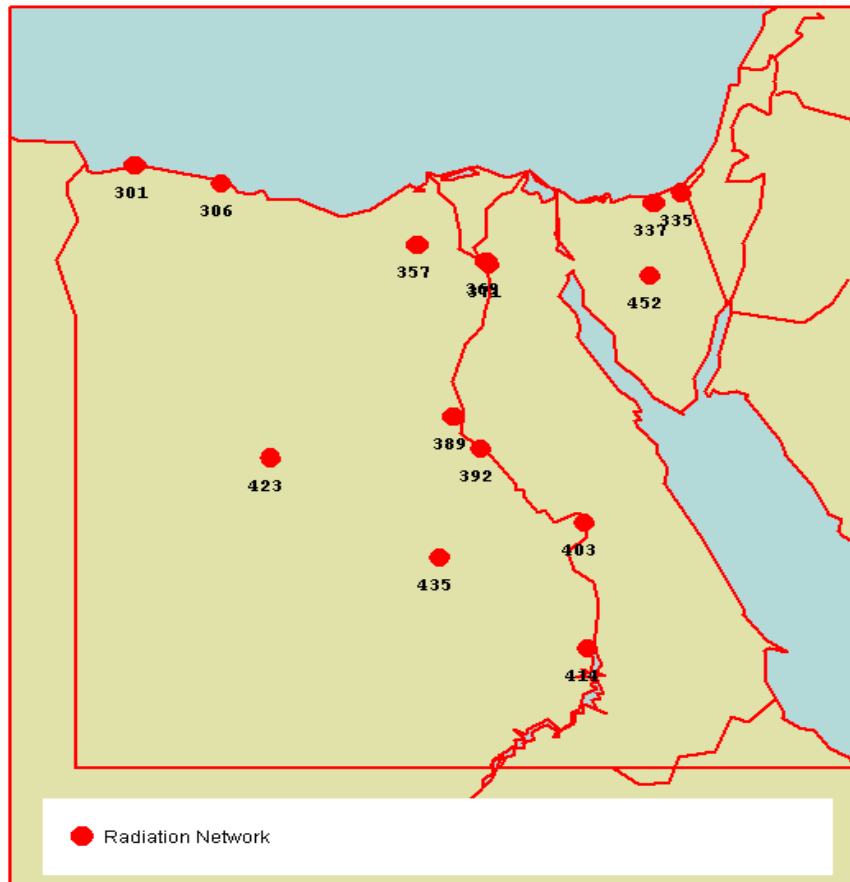


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REscue
023750000
72500
96200010101000

Radiation Network (13 stations)



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Mercator Conformal Projection. Scale 1: 12 KMS. Monday 02 Apr(04), 2012 at 10h03:23 By M.A. Bekhit



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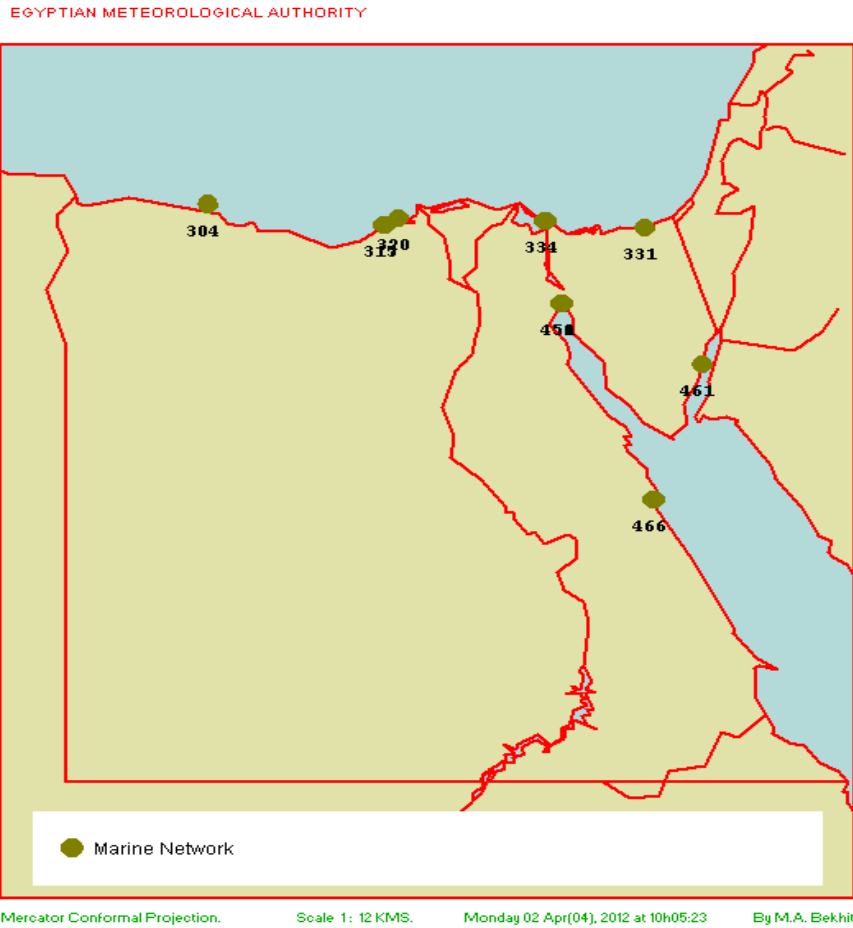
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DAta
REscue
02375496
72308
952005101484

Marine Network (8 stations)



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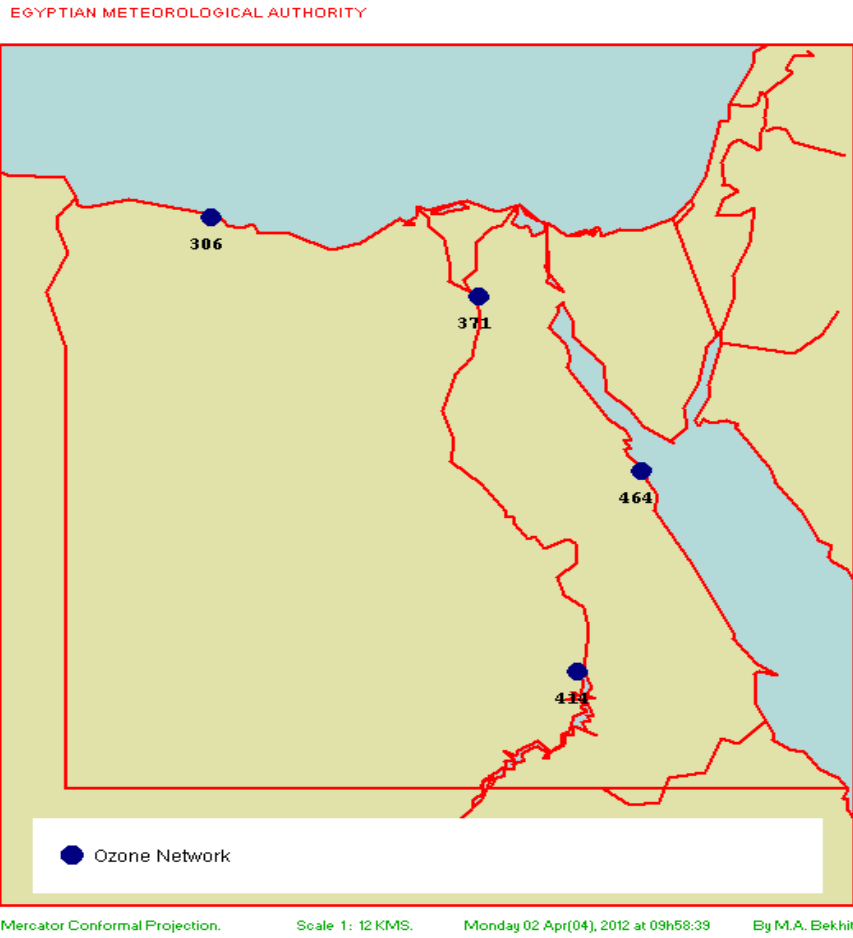


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REscue
02/2004-2014
02/2004/10/14/64

Ozone Network (4 stations)

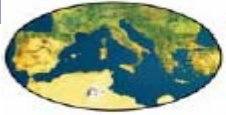


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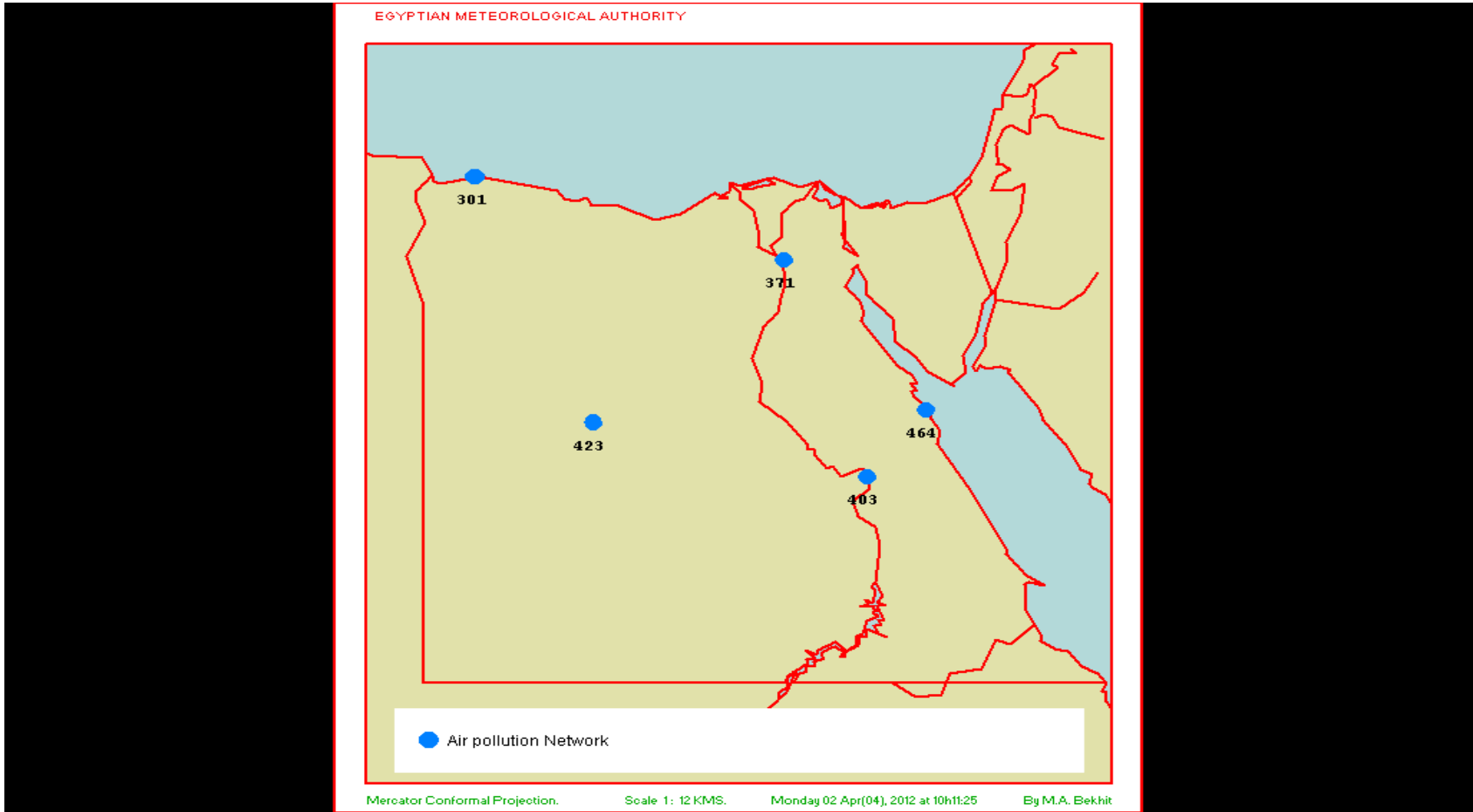


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DAta
REscue
02/11/2008
77308
9520051014841

Air Pollution Network (5 stations)



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2007-2012
WMO/WHO/UNEP



Agenda

- A brief history
- Observation Networks
- **Station Set**
- Hourly Data Description
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- Efforts made to fill gaps or extend time series back



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DAta
REscue
02017-1146
72008
962000101464



Station Set

- Network Distribution
- Metadata
- Data Statistics



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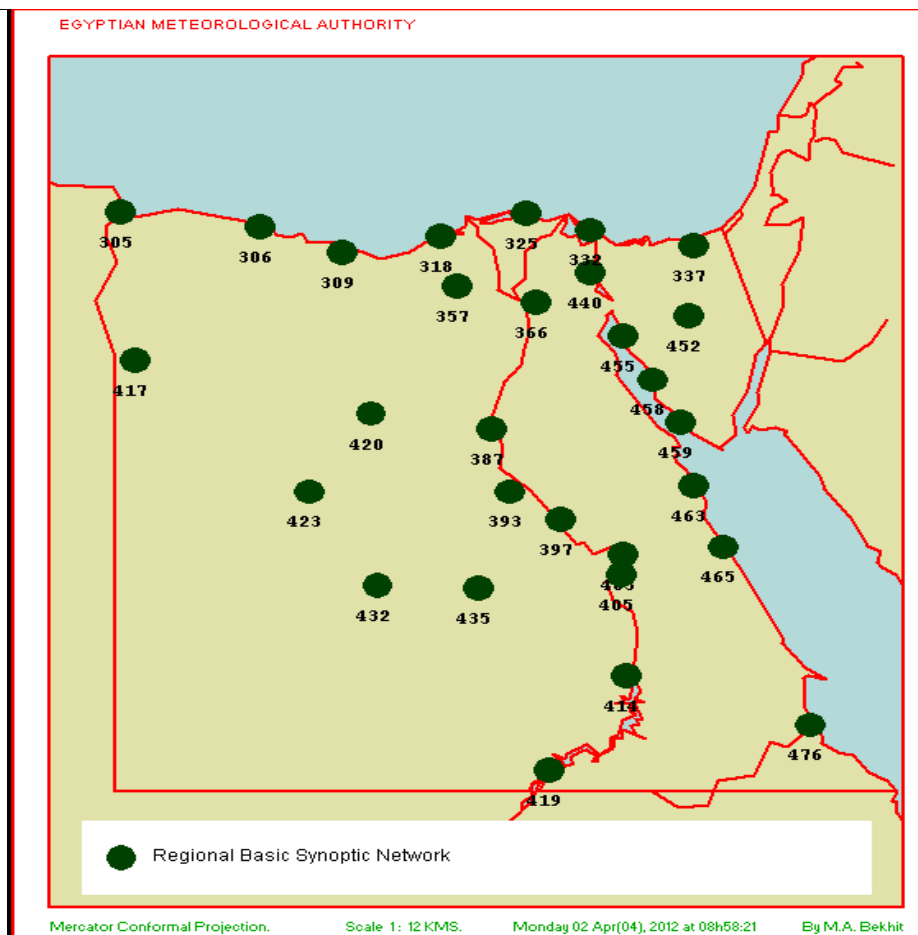
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Network Distribution (28 stations)





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Metadata(1/5)

id_wmo	station_name	first_open_date	beg_date	latitude	longitude
62305	SALLOUM (N)		1992/1/11	31.57	25.133
62306	MERSA MATRUH	1947/1/5	1919/1/1	31.35	27.217
62306	MERSA MATRUH	1947/1/5	1947/2/1	31.333	27.217
62309	DABAA	1947/13/7	1950/1/1	30.933	28.467
62309	DABAA	1947/13/7	1990/1/1	30.933	28.467
62318	ALEXANDRIA/NOUZHA	1941/1/10	1992/19/12	31.183	29.95
62318	ALEXANDRIA/NOUZHA	1941/1/10	1949/1/1	31.2	29.95
62325	BALTIM	1961/14/3	1961/7/12	31.55	31.083
62332	PORT SAID/ELGAMIL	1978/12/12	1995/15/10	31.283	32.233

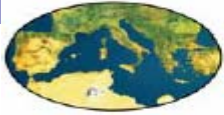


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Metadata(2/5)

id_wmo	station_name	first_open_date	beg_date	latitude	longitude
62332	PORT SAID/ELGAMIL	1978/12/12	1978/12/12	31.283	32.233
62337	EL ARISH (A.P.)	1979/1/6	1998/18/2	31.083	33.833
62337	EL ARISH (A.P.)	1979/1/6	1979/1/6	31.083	33.833
62337	EL ARISH (A.P.)	1979/1/6	1995/1/2	31.083	33.833
62357	WADI EL NATROON	1945/20/3	1987/5/9	30.4	30.2
62357	WADI EL NATROON	1945/20/3	1945/1/1	30.4	30.367
62366	CAIRO (A.P.)	1947/1/1	1910/1/1	30.133	31.4
62387	MINYA	1939/1/1	1910/1/1	28.083	30.733
62393	ASYUT	1944/1/1	1910/1/1	27.05	31.016



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Metadata(3/5)

id_wmo	station_name	first_open_date	beg_date	latitude	longitude
62403	KENA2	1913/10/10	1913/10/12	26.167	32.717
62403	KENA2	1913/10/10	1964/11/11	26.183	32.733
62403	KENA2	1913/10/10	2000/4/4	26.32	32.75
62405	LUXOR	1944/1/1	1910/1/1	25.666	32.7
62414	ASSWAN	1954/1/1	1910/1/1	23.966	32.783
62417	SIWA	1949/10/12	1910/1/1	29.2	25.316
62419	ABU SIMBEL	1973/1/3	1910/1/1	22.2	31.616
62420	BAHARIA	1957/1/1	1910/1/1	28.333	28.9
62423	FARAFRA	1953/1/2	1910/1/1	27.05	27.966



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Metadata(4/5)

id_wmo	station_name	first_open_date	beg_date	latitude	longitude
62432	DAKHLA	1956/1/1	1910/1/1	25.483	29
62435	KHARGA (AGM)	1955/1/1	1910/1/1	25.45	30.533
62440	ISMAILIA (A.P)	1960/1/1	1910/1/1	30.6	32.25
62452	NEKHEL	1962/1/4	1910/1/1	29.716	33.733
62455	RAS-SEDR	1976/1/4	1910/1/1	29.6	32.7
62458	ABU REDIS	1961/1/11	1910/1/1	28.9	33.2
62459	EL TOR (M.)	1957/1/1	1910/1/1	28.233	33.617
62463	HURGHADA (A.P.)	1969/1/1	1910/1/1	27.15	33.716
62465	KOSSEIR	1954/1/1	1910/1/1	26.133	34.3



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Metadata(5/5)

id_wmo	station_name	first_open_date	beg_date	latitude	longitude
62476	SHALATEEN	1910/1/1	1910/1/1	23.131	35.582

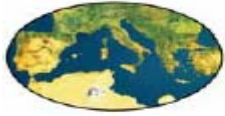


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Data Statistics (Daily)

- **Statistics per Station: see file**
medare_statistics_summary_1968_2010_daily.xls
- **Statistics per Station per Month: see file**
medare_statistics_month_summary_1968_2010_daily.xls
- **Statistics per Station per Year: see file**
medare_statistics_annual_summary_1968_2010_daily.xls





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Data Statistics (Hourly)

- **Statistics per Station: see file**
medare_statistics_summary_1968_2010_hourly.xls
- **Statistics per Station per Month: see file**
medare_statistics_month_summary_1968_2010_hourly.xls
- **Statistics per Station per Year: see file**
medare_statistics_annual_summary_1968_2010_hourly.xls





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DAta
REscue
2007-2012
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Agenda

- A brief history
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REscue
INITIATIVE



Hourly Data Description

- Record type: **Delimited**
- Field separator: **comma**
- Record Length: **28 Byte**
- Record Fields:
 1. ID_WMO: **liii**
 2. Date: **YYYYMMDDHH24**
 3. Hourly Mean Sea Level Pressure: **mb**
- Number of Records: **8596389 (1968-2010)**
- First Digitized Data: **1950**



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DATA
REscue
2011-2014
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Daily Data Description

- Record type: **Delimited**
- Field separator: **comma**
- Record Length: **80 Byte**
- Record Fields:
 1. ID_WMO: **IIIII**
 2. Date: **YYYYMMDD**
 3. Daily Max. temperature **C**
 4. Daily Min. temperature **C**
 5. Daily Rainfall: **mm**
- Number of Records: **364986 (1968-2010)**
- First Digitized Data: **1950**



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- A brief history
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Efforts made to fill gaps or extend time series back

- Starting from 1974, insertion of online data
- During 1970s, EMA digitized surface data (hourly and daily) for time interval: 1973-1968
- During 1980s, EMA digitized surface data (hourly and daily) for time interval: 1950-1959
- During 1990s, EMA digitized surface data (hourly and daily) for time interval: 1960-1967 (except 1964, 1965 for daily)





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MEditerranean
DAta
REscue
2011-2014
WMO/1000/1000



EMA Needs Cooperation With MEDARE

- Need of training in the whole array of DARE (DAta REscue) methods:
 - Recovery
 - Digitization
 - Quality Control
 - Homogenization



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DATA
REscue
02177-1000
72000
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Thank you



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