

METEOROLOGY DATA AVAILABLE ON THE INTERNET FOR AGROMETEOROLOGY AND GENERAL DATA APPLICATION

COST ACTION 718

Meteorological applications for agriculture

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The following list of Countries and Web Site addresses for National Meteorology Centres, Universities, Research Centres and Private Companies, that have created Web Pages containing Meteorological data and who also maintain them renewing data, will allow the user to easily locate weather data in real time. This listing particularly includes weather data obtained from Automatic Weather Stations (AWS), Analysis and Forecast Maps of the Numeric Models applied in different countries, and data Maps about observations in very near real time. In addition, there are Tables available with meteorological parameter data and climatological and statistical data obtained from AWS, as well as some historical files.

All of this data can be applied directly for those who are interested in Agrometeorology and Meteorology in general.

One look at the results of this search on the Internet reveals the uniformity of the available data. It also reveals that there are basically several provider countries where the available data actually feeds many others, as opposed to those that just show an austere display of internal products.

This list of Countries and Organisations with available On-line Web-Page information follows an English alphabetical order so there is a concordance between English and Spanish versions.

Numerous Web Pages are not included, even though they have been reviewed, since they do not contain data or are not renewed.

Agromet or Agrofax Services are also mentioned although they are not found on line.

This document should take into considered the continual changes affecting the Internet network.

Madrid, September 2001

EUROPE

AUSTRIA

- **Central Institute for Meteorology and Geodynamics**

Initial address: [<http://www.zamg.ac.at/>]

Specific address: [<http://www.zamg.ac.at/markt/prodwet.htm>]

Content: Informs on the AGROFAX system and a list of fax numbers.

Specific address: [http://www.zamg.ac.at/akt_wetter_frm.htm]

Content:

- Allows Temperature, Relative Humidity and Rainfall data downloading onto diskette and CD-ROM as well as their extreme and mean values. A Password is required for entry.
- List of files that allows Significant Weather (SIGWX), Temperature (T), Relative Humidity (RH), Wind and Pressure (P) Data Tables to be accessed in the main synoptic hours of some important European-area cities in: Scandinavia/Iceland, Benelux, France, United Kingdom, Spain/Portugal, Italy/Mediterranean Area, Germany/Switzerland, Austria, Western Europe, America/Canada, Southern Asia.

Updated: Every 6 h.

Specific address: [http://www.zamg.ac.at/akt_sat_frm.htm]

Content: Latest Meteosat Satellite Image, with colour enhancement.

Links: [http://www.zamg.ac.at/markt/zamg_links.htm]

Contacts: e-mail: [dion@zamg.ac.at], [klag@zamg.ac.at]
Tel.: +431 36026 (01 36 0 26 2301)
Fax: +431 369 1233 (01 36 0 26 2673)
Address: Zentralanstalt für Meteorologie und Geodynamik
A-1190 Vienna, Hone Warte 38

- **AustroControl**

Initial address: [<http://www.austrocontrol.at/index.html>]

- **Meteodata Wetteranalysen**

Initial address: [<http://www.meteodata.at/>]

- **Universität Graz, Institut für Geophysik, Astrophysik und Meteorologie (IGAM)**

Initial address: [<http://www.kfunigraz.ac.at/igamwww>]

- **European Private Weather Station**

Initial address: [http://meineseite.i-one.at/ntp_x]

BELGIUM

- Royal Institute of Belgium, KMI
- Royal Meteorological Institute of Belgium, RMI

Initial address: [<http://www.meteo.oma.be/IRM-KMI/Welcome.html>]

Specific address: [<http://www.meteo.oma.be/IRM-KMI/climate/climate.html>]

Content:

- Agromet-Fax Service offering information at H+36 for 21 areas of Belgium and Forecasts to D+10 for 4 representative areas.: [http://www.meteo.oma.be/IRM-KMI/imapro/agrofax_fr.html]
Subscriber Service (Tel.: 016 310923).
Updated: Daily.
- Metagri Service contains Snow Depth information and the State of the Soil of various cities:
[http://www.meteo.oma.be/IRM-KMI/climate/neige_nl.html]

Specific address: [<http://www.meteo.oma.be/IRM-KMI/climate/climate.html>]

Content:

- Data Tables on P, Wind, T, RH, e, Rainfall and the Number of Days of Rainfall, which includes several means, referring entirely to the previous month, as well as historic values. In addition, Deviation Maps of Tnormal and Rainfall.
Updated: Monthly.
- Data Tables available with T, Rainfall, Days of Rainfall, Sunshine, corresponding to the previous season of the year, last year and the 4 seasons of the year as well as mean and historic values for the past 5 years.
Updated: Every three months.

Specific address: [<http://www.meteo.oma.be/IRM-KMI/Welcome.html>]

Content:

- Data Tables containing decoded weather information about Belgium and main cities around the world. Updated: Every 6h.
- Written weather Reports for different intervals ahead for Europe, Belgium and local areas.
- Telephonic Forecast for the public (Tel.: 0900 27003) at
[http://www.meteo.oma.be/IRM-KMI/forecast/0900_fr.html], which offers a national Forecast from day D to D+5 as well as regional and local Reports.
- Meteosat and NOAA Satellite Images at
[<http://www.meteo.oma.be/IRM-KMI/imapro/meteosat.html>], [<http://www.meteo.oma.be/IRM-KMI/imapro/noaa.html>]
- National Radar Image in real time at
[<http://www.meteo.oma.be/IRM-KMI/imapro/radar.html>]
- National Lightning Discharge Chart at
[<http://www.meteo.oma.be/IRM-KMI/imapro/safir.html>]
- Direct access to the ECMWF Web Page: [<http://ecmwf.int/>]

Contacts: e-mail: [rmi_info@oma.be], [webmaster@oma.be]
Tel.: 02 3730525

- **Agricultural Research Centre**

Initial address: [<http://www.cragx.fgov.be/>]

Specific address: [<http://www.cragx.fgov.be/cgi-html/index.html>]

Content:

- A Password is required. It has a daily agroclimatic Data Base since 1989 for entry.

Links:

- To Web Pages at Belgium Universities, Foreign Universities, Foreign Agronomic Research Centres and International Institutions at
[<http://www.cragx.fgov.be/autres.engl.htm>]

Contacts: e-mail: [cra@cragx.fgov.be]
Tel.: 32 (0) 81/626555
Fax: 32 (0) 81/626559
Address: Services Administratifs
rue de Liroux, 9
B-5030 Gembloux

- **Soil Service of Belgium. Service Pédologique de Belgique, (KBC).**

Initial address: [<http://www.bdb.be/>]

Specific address: [<http://www.bdb.be/weer/weerfr.html>]

Content:

- Data Tables with the following variables: T, Rainfall, Cloudiness, Significant Weather, RH, Sunshine, Wind, P, Tmin. soil, Variability Index for very short, short and medium terms.

Updated: Daily

Contacts: e-mail: [wboon@bdb.be]
Tel.: 016 310922
Fax: 016 224206

- Agromet-fax Service, for subscribers. Offers detailed Forecast from H+36 to D+10.

Updated: Daily

Contacts: e-mail: [info@bdb.be], [agrofax@bdb.be]
Tel.: 016 310923
Fax: 016 224206
Address: W. De Croylaan, 48
3001-Heverlee

- **Bilder Europa (MeteoServices)**

Initial address: [<http://www.meteoservices.be/menu.html>]

Content:

- Cloud Forecast Maps, Rainfall, Wind Areas, T, to H+12, for Europe. Possibility of interactive access to other forecast periods, but not found on line.

Updated: Every 12 h.

Contacts: Tel.: 0900 35 987 / 0902 88 765

BULGARY

- **National Institute of Meteorology and Hydrology (NIMH)**

Initial address: [<http://www.meteo.bg>]

Specific address: [<http://www2.meteo.bg>]

Content:

- Interactive National Chart with points in the main cities which give T, Td, Tmin, Cloudiness, RH, Visibility, P and Wind.
Updated: Every hour.

Specific address: [<http://weather.meteo.bg/indexen.html>]

Content:

- Short term Forecast for Bulgaria and the Balkans. Forecast of T from day D to D+7.
- Forecast for European and African capital cities.

Specific address: [<http://195.96.235.5/bul/index.html>]

Content: Monthly Data Report.

Contacts: e-mail: [office@meteo.bg], [latin.latinov@meteo.bg]
Tel.: +359 2 9753986 / 9753987
Fax: +359 2 9880380 / 9884494
Address: 66 Tsarigafsko Chaussee,
Sofia- 1784 Bulgaria

CROATIA

- **Meteorological and Hydrological Service, Zagreb**

Initial address: [<http://www.tel.hr/dhmz/>]

Content:

- Data Tables having T, RH, Wind, Rainfall, Drought Index, Moisture Index, Growth Index, Fire Forecast Index for some 30 cities throughout the country.
- Data Table of P, Wind, T and Significant Weather values for some 30 cities throughout the country.
Updated: Daily.
- Weather Report to H+12 for the Adriatic area including RH, Wind, P, extreme T Meteograms.
Updated: Daily.
- National Radar Image in real time.

Contacts: e-mail: [dhmz@cirus.dhz.rh]
Tel.: +385 1 4565617
Fax: +385 1 4565757

CZECH REPUBLIC

• Czech HydroMeteorological Institute (CHMI)

Initial address: [<http://www.chmi.cz/indexe.html>]

Specific address: [<http://www.chmi.cz/meteo/ok/infklime.html>]

Content:

- Climatological data calculated between 1961 and 1990.
- Tables with T, Total Rainfall and Sunshine for some 20 cities throughout the country.
- Annual T and Rainfall Charts.
- Climatological data with extreme and mean T and Rainfall for the years 1998 and 1999.

Contacts: e-mail: [wolek@chmi.cz]

Tel.: 02 44032200 / 02 4019062

Specific address: [<http://www.chmi.cz/aktinfe.html>]

Content:

- Meteorological Forecast to H+24.
- Cloud Cover Thickness.
- Meteosat Satellite Images. Files from D back to D-6.
- NOAA Satellite Images. Files from D back to D-6.
- National Radar Image in real time. Record of the last 12 h.
- Forecast Charts of the ALADIN Model.

Links:

- To the National Meteorological Service Web Pages of the WOM and to International Meteorological Organisations and Weather Radar Information at: [http://www.chmi.cz/meteo/rad/_gorn/links.html]

Contacts: e-mail: [radar@chmi.cz]

Tel.: +420 2 44033241

Fax: +420 2 44032442

• Pocasi Nrejstoik

Initial address: [<http://pocasi.apexnet.cz/rejstrik.htm>]

DENMARK

• The Danish Meteorological Institute, (DMI)

Initial address: [<http://www.dmi.dk/eng/index.html>]

Specific address: [<http://www.dmi.dk/vejr/index.html>]

Content:

- National Significant Weather Chart. The last 4 Images from the National Radar: Updated Every 2 h.
- The last 4 images from the Meteosat Satellite: Updated Every 6 h.
- Forecast Table of SIGWX symbols, Tmin and Tmax. to D+6.

Specific address: [<http://www.dmi.dk/vejr/eng/dmi-servicetlf-uk.html>]

Content:

- Telephone Number Listing to obtain data from short and medium term synoptic and marine Weather Reports as well as Reports from various areas within the country.
Updated: Daily.

Contacts: [http://www.dmi.dk/finddmi_uk/tjsteder_uk.html]
e-mail: [DJF@agrsci.dk]
Tel.: +45 8999 1900
Fax: +45 8999 1919
Address: Danish Institute of Agricultural Sciences
P.O. Box 50, DK- 8830 Tjele

- **Danish Institute of Agricultural Sciences (DIAS), Ministry of Food, Agriculture and Fisheries.**

Initial address: [http://www.agrsci.dk/index_uk.shtml]

Content: Data Base on DIAS publications by various authors on farming related subjects.

Contacts: e-mail: [DJF@agrsci.dk]
Tel.: +45 8999 1900
Fax: +45 8999 1919
Address: P.O. Box 50,
DK- 8830 Tjele

FINLAND

- **The Finnish National Weather Service, The Finnish Meteorological Institute. (FMI)**

Initial address: [<http://www.fmi.fi/en/index.html>]

Specific address: [<http://www.fmi.fi/ENG/weather.html>]

Content: Significant Weather Forecast Chart for today, day D and the following days D+1 and D+2.

Specific address: [<http://www.fmi.fi/weather/local.html>]

Content:

- SIGWX, Tmax and Tmin for Helsinki to D+5. T, P and RH Meteograms. Data from the latest observation in Helsinki.

Specific address: [<http://www.fmi.fi/weather/rain.html>]

Content:

- Radar Image and its equivalent in Rainfall for the day in course. Updated: Every 3 h.
- Meteosat Satellite Image, with IR colour enhancement of Scandinavia and Europe and their respective Loops.

Specific address: [http://www.fmi.fi/weather/climate_2.html]

Content:

- Climatological statistics from the 1961-1999 period.

Specific address: [<http://www.fmi.fi/weather/abroad.html>]

Content:

- Significant Weather Chart of Europe for today, with SIGWX, T and Wind.
Updated: Daily.

Contacts: Tel.: +358 9 19291
 Fax: +358 9 179581
 Address: P.O.B. 503
 Vuorikatu,24
 FIN-00101 Helsinki

• **Meteosat 7 Pictures**

Initial address: [<http://www.pp.clinet.fi/~ode/satelite.htm>]

Content: Meteosat and Goes Satellite Global Composition Images.

Contacts: None

• **AWS in Vantaa**

Initial address: [<http://www.vaisala.com/weather>]

• **The Current Weather in Turku**

Initial address: [http://at8.abo.fi/cgi-bin/en/get_weather.cgi]

FRANCE

• **Météo-France**

Initial address: [http://www.meteo.fr/e_index.html]

Specific address: [<http://www.meteo.fr/meteonet/plan.htm#>]

Content:

- ◆ For France, its regions, its provinces and main cities:
 - Interactive Map showing by clicking on it : SIGWX symbols, T and Wind, in such a way to obtain morning/afternoon Maps from day D to D+3.
 - Latest Meteosat Satellite Image IR, VIS channels.
- ◆ For French overseas Lands : Polynésie, Antilles, Guyane, Mayotte, Réunion, Nouvelle Calédonie :
 - Weather Forecast Bulletins for today.
- ◆ For Europe and many main cities :
 - Data Table with SIGWX, T and Wind values from day D to D+3.
 - The latest Meteosat Satellite Image available. Also Satellite Image Looping.
 - Climatological Data Tables for each country and some local regions.
- ◆ For many main cities all around the world:
 - Global Satellite Image. Updated : Every 6h.
 - Global Forecast Satellite Image to H+24, with colour enhancement.

- Interactive World Map, providing average climatological parameters: Tmean, Rainfall, Number of rainy days > 2.5 l, Meteograms with Monthly Tmin, Tmax, rainfall, Absolute Temperatures, Number of rainy days.

Specific address: [<http://www.meteo.fr/meteonet/temps/france/obs/frobse.htm>]

Content:

- Interactive Map where it is shown by clicking on it: the 4 latest meteorological observations for France and its regions: SIGWX symbols, T, Wind, P, Visibility. Updated: Every 6h.
- Meteosat Satellite Image, IR, VIS with colour enhancement.
- ◆ A Password is required:
 - Satellite Image every 30 min.
 - Radar Image.
 - Probabilistic Weather Forecast Report.

Specific address: [<http://www.meteo.fr/meteonet/temps/activite/mont/mont.htm>]

Content:

- Interactive Map allows by clicking on main French Mountains to obtain a Data Table with: SIGWX symbols, T, Winds, Isozero Level.
- The latest Meteosat Satellite Image IR, VIS with coloured enhance.
- Snow Weather Bulletins for today and tomorrow.
- Avalanche Risk Bulletin.

Specific address: [<http://www.meteo.fr/meteonet/services/espro/secteur/agr.htm>]

Content: There are some specific agrometeorological products available on line but a Password is required:

- Weather Forecast Report to H+36 by an "Atmogram". Updated: Every 3h.
- Weather Forecast Report from day D to D+7 for France and its regions. Updated: 3 times a day.
- Weather Forecast Reports from day D to D+5 for European and Northern Africa countries.
- Radar Images in real time.
- Meteosat Satellite Image Looping for European area.
- Probabilistic Weather Forecast from day D+4 to D+9.
- Forecast Satellite Image to H+24 for Europe and Northern Africa.
- The latest Meteosat Satellite Image, IR with coloured enhance. Updated: Every 6h.
- Atmo-Service
- Weather Forecast Bulletin for medium-range.
- Professional Weather Forecast Bulletin.
- Météoflash Service.
- Colchique Service, providing statistic data.
- Climatological Surveys.

Specific address: [<http://www.meteo.fr/meteonet/services/rep.htm>]

Content:

- Listing to accede to Telephone, Minitel and Mobile Phone Services available On Line but a Password is required:
 - ◆ Telephone Services:
 - Le Point Météo 0 892 680000
 - La Météo Départementale 0 892 6802XX
 - La Météo Des Cinq Continents 0 899 700808
 - Le Portail Météo 0 892 680808

- **L'Institut Technique des Céréals et des Fourrages**

Initial address: [http://www.itcf.fr/voir_ailleurs/service_meteo.html],
[<http://webcam.montagnes.org/france/pyrenees>],
[<http://meteo.chamonix.org/>], [http://www.belhorizon.com/snow_and_weather_report.htm]

- **La Météo sur la Toile**

Initial address : [<http://www.obs-hp.fr/www.meteo.html>]

- **Links to Météo-France:**

Météorologie Agricole: [http://www.centrefrance.tm.fr/iam/Partenaires/mf/mf_mp/mf6.htm]

Bulletin du Jour- France Météo online: [<http://www.chez.com/francemeteo/bull.htm>]

Cernet: Météo: [http://www.cer.fr/infos_ext/meteo/meteo.htm]

GERMANY

- **The Deutscher Wetterdienst**

Initial address: [<http://www.dwd.de/>]

Specific address: [<http://www.dwd.de/forecasts/deufm.htm>]

Content:

- SFC Frontal Analysis Chart for Europe. The 4 latest Significant Weather Charts for Germany and its regions.

Specific address: [<http://www.dwd.de/forecasts/satfrm.htm>]

Content:

- The 4 latest Satellite Meteosat Image for Europe, IR with coloured enhance.
Updated: 6 h.

Specific address: [http://www.dwd.de/services/gflw/lw_home.html]

Content: Service AGROMET-Online. (Password is required).

Contacts: e-mail [info@agro.com]

Specific address: [<http://www.dwd.de/products/products.html>]

Content: A publicity-listing of meteorological products.

Specific address: [<http://www.dwd.de/forecasts/agrfrm.htm>]

Content: Evaporation National Chart.

Updated: Daily

Links: [<http://www.dwd.de/world.html>]

Contacts: e-mail: [web.administrator@dwd.de]

- **Deutsches Klimarechenzentrum (DKRZ)**

Initial address: [<http://www.dkrz.de/index-eng.html>]

Specific address: [<http://www.dkrz.de/cgi-bin/weatherstation>]

Content:

- Meteograms for the variables: T, Visibility, Wind, P for the past 24 h for the day in course obtained from the Automatic Weather Station at DKRZ.
Updated: Every 10 min.

Specific address: [<http://www.dkrz.de/wetter/prognosen/>]

Content: Rainfall and T Forecast Maps at H+6, H+12 for the current day.

Links:

- A long list of links to Web Pages coming from Germany, Europe and the rest of the world at the following specific addresses:
[<http://www.dkrz.de/sat/sat.html#wetterstation>], [http://www.dkrz.de/info/meteo_institut.html],
[<http://www.dkrz.de/forschung/project/datenkatalog/>].

Contacts: e-mail: [sekretariat@dkrz.de], [beratung@dkrz.de], [data@dkrz.de],
[Kommunifation@dkrz.de]
Tel.: +49 4041173 334 / +49 4041173 275
Fax: +49 4041176 270
Address: Deutsches Klimarechenzentrum
Bundesstrasse 55, D-20146 Hamburg, Germany

• Landensanstalt fuer Pflanzenbau und Pflanzenschutz Rheinland-Pfalz, Mainz

Initial address: [<http://194.162.208.37/index1.htm>]

Specific address:

[<http://www.agrarinfo.rpl.de/pflanzenbau/Wetterdaten/Auswah | AMM.htm>]

Content:

- Interactive Map for some 30 German cities offering agrometeorological data for the past 14 days including T (at 2 m, 20 cm, -5 cm and -20 cm), RH, Rainfall and Wind.
- Data Table with Tmax, Tmin, Tmean for the past 14 days for each city.
- Data Table with monthly means values of T (at 2 m), T (at -5 cm), Rainfall and Sunshine for the year in course. The same for the years 1998 and 1999.

Specific address:

[http://www.agrarinfo.rpl.de/lpp_mainz/Wetterdaten/agmetis/agmetis.htm]

Content: Offers a data downloading service: AGMETIS.

Contacts: e-mail: [uzollfrank.lppmainz@agrainfallfo.rpl.de]
Address: Amtsgerichtsplatz, 1
55276 Oppenheim

• Wetter, Wolken, Kilma (Bernhard Mürh, Universität für Karlsruhe)

Initial address: [<http://www-imk.physik.uni-karlsruhe.de/~muehr/wetter.html>]

Content:

- Latest Meteosat Satellite Images, IR, VIS and WV channels, with colour enhancement, from various Centres covering areas of Europe, Africa, Asia and America.

- Climatic Classification of Köppen.
- Interactive Table providing Isohyet Charts with Rainfall mean values corresponding to the 1961-1990 period in the Karlsruhe area. Isohyets Charts for the same period in Germany, identified by areas as well as accumulations for winter and summer.

Links:

- Interactive Table with Web Pages in order of Meteorological Parameters and Subject Matter as: Analysis Charts, Forecast Charts, Charts with Variables Observed, Climatic Data, Tropical Meteorological Data, Tornadoes.
Updated: Depending on the product.

Specific address: [<http://www-imk.physik.uni-karlsruhe.de/~muerh/wetter.html#Rad>]

Content: Links to Web Pages for Radar Information around the world.

Specific address: [http://www-imk.physik.uni-karlsruhe.de/~muerh/Frame/Sat/index_d.html]

Content:

- Satellite Images, IR, VIS and WV channels from all the continents.

Specific address: [<http://www-imk.physik.uni-karlsruhe.de/~muerh/archive.html>]

Content: Satellite Image Files.

Specific address: [<http://www-imk.physik.uni-karlsruhe.de/~muerh/anaprog.html>]

Content:

- Table Interactive that shows Analysis and Weather Forecast Charts for some meteorological variables: Z Geopotential 850 Hpa, Rainfall and extreme T, for all around the world.

Specific address: [<http://www-imk.physik.uni-karlsruhe.de/~gmueller/met.html>]

Content:

GEORGS WETTERZENTRALE web page: [<http://www.wetterzentrale.de/>], and
TOPKARTEN web page, [<http://www.wetterzentrale/topkarten/>].

Contacts: e-mail: [info@wolkenatlas.de]

• Weather Radar for the University of Karlsruhe

Initial address: [<http://www.radar-info.de>]

Content:

- Looping Radar Images + Radar Images in real time + Historical Image Files.
- Forecast Analysis Chart for Europe to H+12.
- Rainfall Forecast Maps for Europe to H+24 and H+36.
- Significant Weather Chart of Central Germany along with a written Report for days D and D+1.
- Significant Weather Table by symbols for days D to D+4 along with their own Reports.
- Isohyet Maps obtained from Radar data.

Links: To Web Pages with Radar data: [<http://www.radar-info.de/links.html>]

Contacts: e-mail: [gysi@radar-info.de]
Tel.: 0721 971 4030
Fax: 0721 971 4031

Address: Dr. Hermann Gysi
Heckenrosenweg 10
76149 Karlsruhe

• **Donnerwetter-Internet Wetterservice**

Initial address: [<http://donnerwetter.de/super.htm>]

Content:

- Meteorological data for Germany and its regions. Given for each are: SIGWX, T, RH from day D to D+10.
- Agrometeorological data Table with T (at –2 cm through –20 cm) and Rainfall.
- Significant Weather Chart of Germany for the hour nearest real time.
- Meteosat Satellite Images, IR and VIS channels with colour enhancement.

Contacts: e-mail: [service@donnerwetter.de]
Tel.: 0228 9767971
Fax: 0228 9767972
Address: Im Bonnet 19
53299 Bonn

• **Freie Universität Berlin, Institut für Meteorologie**

Initial address: [<http://www.met.fu-berlin.de/de/wetter/>]

Specific address: [<http://www.met.fu-berlin.de/wetter/wetterkarte/>]

Content: Real time meteorological variables taken from the University's Weather Station containing Wind, P, T, and RH data.

Specific address: [<http://www.wetterzentrale.de/>]

Content:

- Meteosat Satellite Images, IR, for the area of Europe.
 - Map of Europe with current T for the hour nearest real time.
 - Map of Europe with Lightning Discharges recorded from 00Z for the day in course.
 - SFC Front Analysis Chart.
 - T Forecast Map for today and H+12 for Europe and Atlantic areas.
 - Group of SFC Forecast Maps for H+12 to H+72 for Europe and Atlantic areas obtained from the AVN and MRF Models.
- Updated: Daily

Contacts: e-mail: [www@met.fu-berlin.de]

• **Berlin Weather Radar**

Initial address: [<http://www.met.fu-berlin.de/wetter/radar/index.html>]

Content: Current National Radar Image.

Updated: Every 15 min.

Contacts: e-mail: [www@www.met.fu-berlin.de]
Tel.: 0190 270 642
Fax: 0190 270 642

• **MeteoGraphics (Advanced Weather Software and Solutions)**

Initial address: [<http://www.meteo-graphics.de/>]
Specific address: [http://www.meteo-graphics.de/wetter/we_index.html]

Content:

- Temperature Map in real time for many cities in Europe.
- Temperature Map in real time for many cities in Germany.
- Temperature Map for hours H, H+3 and H+6.
- SFC Pressure Map in real time for Europe.
- SFC Wind Map in real time for Europe.

Updated: Every hour.

Contacts: e-mail: [contact@meteo-graphics.de]
Tel.: +49 30 600 98 400
Fax: +49 30 600 98 444
Address: Gradestrasse 50, 12347 Berlin

• **Wetter24**

Initial address: [<http://www.wetter24.de/>]

Content:

- Significant Weather Chart and T Map for various cities, Wind Map, Cloud Map with colour enhancement, Rainfall Map for the last 12 h. Radar Composition and Satellite Image with colour enhancement all for Germany in real time
- Meteorological data for Germany separated into regions (North, South, East and West) that includes SIGWX, T, Wind, Rainfall and Cloudiness measured in very near real time.
- The same data for Europe.

Updated: Every hour.

Contacts: Tel.: 0190 900 095 / 0190 270 645
Fax: 0190 770 143 / 0190 770 143

• **MC-Wetter**

Initial address: [<http://www.mc-wetter.de/>]

Content:

- Meteorological data that consists of T and SIGWX in very near real time through an Interactive List of German cities.

Updated: Every hour.

Contacts: Tel.: 0190 336 622
Fax: 0190 770 142 / 0190 770 143

• Universität Bonn, Meteorological Institute

Initial address: [<http://www.meteo.uni-bonn.de/index.en.html>]

Specific address: [http://www.meteo.uni-bonn.de/english/e_links.html]

Content:

- Links to Web Pages with meteorological data for Germany.

Contacts: e-mail: [miub@uni-bonn.de]
Tel.: +49 228 735190
Fax: +49 228 735188
Address: Auf dem Hügel 20, D
53121 Bonn

• Segel und Surfvetter Nordsee / Ostsee (MMC)

Initial address: [<http://www.mmc.de/indexneu.shtml>]

Specific address: [<http://www.mmc.de/sky/uebersicht.shtml>]

Content:

- Latest Meteosat Satellite Images, IR and VIS channels in near real time.
- List of links to Radar Web Pages around the world.

Specific address: [<http://www.mmc.de/busi/deutschland.php3>]

Content:

- Interactive Map for Germany and many of its cities showing SIGWX, Tmin and Tmax forecasts.

Specific address: [<http://www.mmc.de/reiseneu/euro.php3>]

Content:

- Interactive Map giving meteorological data for today and Weather Forecast data to D+4, (SIGWX, Tmin and Tmax) for areas of Europe and North Africa including regions for each country.

Updated: Daily.

Contacts: e-mail: [mmc@mmc.de]
Tel.: +49 89 962760
Fax: +49 89 96276 151
Address: Communication GmbH
Münchener Strasse 101j
AGROB-Medeinpark 85737 Ismaning

• StadtKlima / Urban Climate

Initial address: [<http://www.urbanclimate.net/>]

Content:

- Interactive List of links which, according to Meteorological subjects, grants access to web pages throughout the world, mainly in Europe and America: (The weather in European cities and cities around the world, real-time data of meteorological parameters, Satellite Images, Analysis and Forecast Charts, Climatic Data).

Contacts: e-mail: [matzarak@uni-freiburg.de]
Tel.: +49 0 761 203 6921
Fax: +49 0 761 203 6922
Address: Universität Freiburg, Meteorologisches Institut, Arbeitsgruppe
StadtKlima und Luftreinhaltung
Hebelstr. 27
79805 Freiburg, Germany

- **Diverse Links zu Wetter und Naturgewalter (Thomas Sävert)**

Initial address: [<http://www.saevert.de/>]

Content:

- Meteorological data about Germany, Switzerland, Austria and Europe, including latest Meteosat Satellite Image with colour enhancement and Radar Image available for the area, as well as a Lightning Discharges Chart recording discharges from 00Z for the current day, offered by the Universität für Karlsruhe.

Updated: Depending on the product.

Specific address: [<http://www.saevert.de/2dienste.htm>]

Content:

- Links to web pages around the world.

Contacts: e-mail: [wetter@saevert.de]

- **WetterKarte für Österreich (Schweiz, Deutschland, Italien, Frankreich und Grossbritannien): METEODATA Wetteranalyse**

Initial address: [<http://www.meteodata.net/>]

Content:

- Significant Weather Charts of Europe, Switzerland, Germany, Italy, France, Great Britain, and their regions, including SIGWX and T Forecasts for today and a written Weather Report.

Updated: Daily.

Contacts: e-mail: [meteodata@meteodata.com]

- **Die Wetterseite der Uni Stuttgart. Rechenzentrum Uni Stuttgart**

Initial address: [<http://www.uni-stuttgart.de/Wetter/wetter.html>]

Content:

- Meteosat Satellite Images obtained from Météo-France and Nottingham.
- Written Weather Reports for Germany, its regions and main cities, for today.
- Weather Forecasts through a link List connecting with other German centres and other ones which contain information about Europe.

Contacts: None

- **St. Augustin, GMD, SchoB Birlinghoven-Wetterstation**

Initial address: [<http://borneo.gmd.de/Wetter/index.html>]

Content:

- Weather Station data being made up of meteorological variables in real time.
- Meteograms for the next variables: T, RH, P and Wind for the past 24 h available at the moment you enter with this web page.
- Listings for each variable with measurements taken every 20 minutes for the previous day.
- Interactive Listing with T Meteograms from 1-01-2001 and with extreme values recorded each day.

Contacts: None

- **Brixen, Weter-und Videostation**

Initial address: [<http://www.acs.it/brixen/weather/>]

Content: Meteograms for T, Rainfall and Wind Intensity for the previous day and the current day.

Updated: Every hour.

Contacts: e-mail: [info@acs.it]
Tel.: 0472 836200
Address: ACS DATA SYSTEMS
Brennerstr. 72
I-39042 Brixen

- **Meteorologisches Institut der Albert-Ludwig-Universität Freiburg**

Initial address: [<http://www.mif.uni-freiburg.de/station/index.htm>]

Content:

- Real-time meteorological variables and their Meteograms for the previous day and the current day being: T, e, RH, Wind, Global Radiation, P and Rainfall.

Specific address: [<http://www.mif.uni-freiburg.de/c&a-info.htm>]

Content:

- Radar Images obtained from Zürich ETH.
- Radar Images obtained from MeteoSchweiz.
- T and Rainfall climatological data from the 1990-2001 period.

Contacts: e-mail: [matzarak@uni-freiburg.de]

- **Institut für Meteorologie und Klimatologie, IMUK, Hannover**

Initial address: [<http://www.muk.uni-hannover.de/meteo/>]

Content:

- Data Tables with climatological data from 1-01-2000 to 30-04-2000, for the variables: Sunshine, T, Rainfall, and associated Meteograms.

Specific address: [<http://www.muk.uni-hannover.de/meteo/messreihe/beispiel.html>]
Content: Charts for the variables: Sunshine, T and Rainfall obtained in the month 07-1997.

Specific address: [<http://www.muk.uni-hannover.de/meteo/messreihe/>]
Content:

- Front Analysis Forecast Chart for Europe for day D+1 obtained from CNN.
- Map of Europe on Meteosat Satellite Image with colour enhancement, obtained from ZAMG (Austria).
- Link to the web page [<http://www.wetterzentrale.de>], where some Models and Radar and Satellite Images are available.

Updated: Daily.

Contacts: e-mail: [Micha@physik-der-atmosphaere.de],
[www@muk.uni-hannover.de]
Tel.: +49 511 762 3232
Address: Herrenhäuserstr. 2
300419 Hannover

• **Köln-Wahn Klimastatistik. Universität zu Köln, Bereich Meteorologie. Institut für Geophysik und Meteorologie (IGM)**

Initial address: [<http://www.uni-koeln.de/math-nat-fak/geomet/meteo/>]

Content:

- SFC Analysis Charts with Significant Weather and Winds >30KT, for Europe, corresponding to main synoptic hours.
- SFC Significant Weather Chart beside Wind and Cloud Cover, corresponding to selected European cities, during the previous main synoptic hour.
- T Maps for Europe for the last synoptic hour.
- Accumulated Rainfall Maps for the previous 12 and 6 hours.
- Tmax Maps, measured at 18Z in Europe, for the interval (06Z – 18Z).
- Tmin Maps, measured at 06Z in Europe, for the interval (18Z – 06Z).
- Maps of Snow Depth and Sea Temperature during the previous synoptic hour.

Updated: Every 6 hours.

Specific address:

[http://www.uni-koeln.de/math-nat-fak/geomet/meteo/winfos/wetterkarten_world.html]

Content:

- SFC Analysis and Observation Chart, including T + P + SIGWX at the main synoptic hours, for the continents: Arctic, Antarctica, Africa, Asia, Australasia and America.
Updated: Every 6 hours.
- Climatological statistics: Rainfall Anomalies Charts in Germany from the 1851-2000 period, and T Anomalies in Central Europe from the 1761-2000 period, per year and per season, according to Baur.
- Climatological statistics: Monthly Maps of Rainfall, P, Cloud Cover and T from 1994 to 2000, corresponding to Köln/Wahn, getting access to them by an Interactive Table.
- Last Meteosat Satellite Image, IR with coloured enhance, of the Northern Atlantic and European areas. Looping with the images from the previous 12 hours, obtained from the IGMK at the Universität für Köln.

- Radar Images every 15 minutes, obtained from the Universität für Berlin.
- Radar Images obtained from RMI, Belgium.
- Radar Images obtained from KNMI, Netherlands.
- Latest Radiosond Explorations for many European cities, provided by the University of Barcelona.
- Links to web pages that offer Forecast Maps of Europe obtained from several broadcasting centres of weather data in Germany and from other more general centres at:
[<http://www.uni-koeln.de/math-nat-fak/geomet/meteo/links/index-e.html>]
- Forecast Maps from ECMWF, NCEP and MRF Models.
- Analysis and Forecast Charts obtained from Met-Office.

Specific address:

[<http://www.uni-koeln.de/math-nat-fak/geomet/meteo/Klimastatistik/Wahn/index-e.html>]

Content:

- Monthly statistical Maps from the 1994-2000 period of the variables: Rainfall, P, Cloud Cover and T.

Updated: Monthly.

Contacts: e-mail: [vermert@meteo.uni-koeln.de]
 Tel.: +49 221 470 3682
 Fax: +49 221 470 5161
 Address: Universität zu Köln. Institut für Geophysik und Meteorologie
 Secretariat Meteorologie
 Kerpener Str. 13 1. Stock, Zimmer 26
 50937 – Köln

• **Meteorologisches Institut der Universität München, MIM**

Initial address: [<http://www.meteo.physik.uni-muenchen.de>]

Content:

- Real-time meteorological parameters: T, Wind, Radiation, P, obtained from the AWS at the Universität für München.

Updated: Every 15 min.

- Weather Station data files concerning the period 1998 to today.

Links: [<http://www.meteo.physik.uni-muenchen.de/adressen.html>]

Contacts: e-mail: [meso@meteo.physik.uni-muenchen.de]
 Tel.: +49 89 2394 4384
 Fax: +49 89 2394 4182

• **Magdeburg, Wetterstation WETTINET (Werner-von-Siemens-Gymnasium)**

Initial address: [<http://siemens.sn.uni-magdeburg.de/WVSG/Wetter>]

Content:

- Real-time meteorological parameters from the WETTINET Weather Station: T, P, Wind, Illuminance and Rainfall.

Specific address: [<http://www.wettinet.de/wetterdaten/wetterdaten.htm>]

Content:

- Same weather station data as in the address above.
- Meteograms of T, P, RH, Illuminance, Wind, Rainfall parameters for the current day.
- Monthly daily data files of T, P, and RH variables and their extreme diary values from the month 12-1996 to 11-2000 shown on Charts and a Summary Table of monthly climatological data.

Specific address: [http://www.wettinet.de/links/eng/links_dt.htm]

Content:

- Interactive links from a List of AWS throughout Germany. All of them give a connection error, but the list is interesting.

Contacts: e-mail: [team@wettinet.de], [wettinet@siemens.md.st.schule.de]

- **Leibniz- Institute of Atmospheric Physics e.V at University for Rostock. Kühlungsborn- IAP-Wetter**

Initial address: [http://www.iap-kborn.de/messungen/index_e.htm]

Content:

- Meteograms of the variables T, P, RH and Wind for the current day with data collected at the IAP Weather Station.

Updated: Daily.

Links: [http://www.iap-kborn.de/links/index_e.htm]

Contacts: None

- **BITÖK (Bayreuther Institut für Terrestrische Ökosystemforschung)**

Initial address:

[<http://www.bitoe.uni-bayreuth.de/AktuelleKlimadaten/OkobotGart/DE.html>]

Content:

- Meteograms of T, P, RH, Wind and Sunshine for the last 5 and 20 days obtained from the Ökologisch-Botanischen Garde Bayreuth Weather Station.

Updated: Daily.

Contacts: e-mail: [webmaster@bitoe.uni-bayreuth.de]

- **Baden and Meer (Strandaktuelle Informationen für Nord und Ostsee)**

Initial address: [<http://www.bsh.de/aktdat/bm/Badem&Meer.htm>]

Content: Temperature available on a Net-Map in real time for some cities in this German region.

Contacts: e-mail [webmaster@bsh.d400.de]

Tf: +49 0 403190 3190

Address: Bernhard-Nocht-Straße 78
20359 Hamburg

- **Technische Universität Dresden, Institut für Hydrologie und Meteorologie**
Initial address: [<http://frsww0.forst.tu-dresden.de/ihm/homepage.htm>]

- **Deutsches Fernerkundungsdatenzentrum DFD**
Initial address: [<http://www.dfd.dlr.de/index.html>]

- **European Weather Satellite Station**
Initial address: [<http://www.castrop-rauxel.netsurf.de/homepages/markus.brylka/wxsat.htm>]
[<http://www.jabdahshome.de/~markus.brylka/wxsat/>]

- **Leipziger Institut für Meteorologie**
Initial address: [<http://www.uni-leipzig.de/~meteo/>]

- **Universität Marburg, Fachbereich Geographie**
Initial address: [<http://www.uni-marburg.de/geographie/welcome2.html>]

- **Universität Trier, Abteilung Klimatologie**
Initial address: [<http://www.geographie.uni-trier.de:8080/~w3klima/index.html>]

- **Universität Würzburg, Geographisches Institut- Arbeitsgruppe Klimaforschung**
Initial address: [<http://www.uni-wuerzburg.de/geographie/klimaforschung/index.html>]

- **Das Geographische Institut der Rheinischen Friedrich-Wilhelms- Universität Bonn**
Initial address: [<http://www.giub.uni-bonn.de/>]

- **FOCUS Online Weather Forecast**
Initial address: [<http://www.focus.de/G/GR/gr.htm>]

- **Wetter.de**
Initial address: [<http://www.wetter.rtl.de>], [http://www.wetter.rtl.de/index_ok.html],
[<http://www.wetter.de/>]

- **WetterOnline**
Initial address: [<http://www.wetteronline.de/>], [<http://www.wetteronline.de/eurorad.htm/>],
[<http://www.reisewetter.de/>]

- **Universität ULM**
Dirección inicial: [<http://meteosat.e-technik.uni-ulm.de/meteosat/>]

- **Aktuelle Satellitenbilder**
Initial address: [<http://www.dfd.dlr.de/products/latest.html.de#we>]

- **Datenbank Europa**
Initial address: [<http://www.asg.physik.uni-erlangen.de/europa/indexde.html>]

- **Satellite Data Information Services**
Initial address: [<http://isis.dlr.de/>]

- **Poldirad (The Polarization diversity Doppler Radar al DLR Oberpfaffenhofen)**
Initial address: [<http://www.pa.op.dlr.de/poldirad/>]

- **Postdam Institute for Climate Impact Research**
Initial address: [<http://www.pik-potsdam.de/>]

- **Meteofax Wetterdienste GmbH**
Initial address: [<http://www.meteofax.de/>]

- **Wetter24**
Initial address: [http://www.meteo-graphics.de/wetter/we_zustand_tempzone_brd.html]

- **General-Anzeiger Online**
Initial address: [http://www.general-anzeiger-bonn.de/wetter/body_wet.html]

- **Avalanche Services (Eidgenössischen Institut für Schnee-und Lawinenforschung in Davos)**
Initial address: [<http://www.slf.ch/avalanche/avalanche-de.html>]
- **msn.de**
Initial address: [<http://www.wetter.msn.de/>]

- **Wetterleuchten**
Initial address: [<http://www.wetterleuchten.de/>]

- **Wetterlinks.de**
Initial address: [<http://www.wetterlinks.msn.de/index1.html>]

- **Diebestenlinks.de**
Initial address: [<http://www.diebestenlinks.de/Reisen/Wetter/index.html>]

- **Klimadiagramme**
Initial address: [<http://www.klimadiagramme.de/>]

- **Segelwetter, wetterinfos weltweit, Forecast Worldwide**
Initial address: [http://www.bluewater.de/links_we.htm]

- **AGRO-NET On Line**
Initial address: [http://agromet.claas.com/claas_en/index.de.html]

- **European Weather Stations.**
Initial address: [<http://www.cartografik.de/stationen/index2.html>]

GREECE

- **National Observatory of Athens, (Programme TELEFLEUR, TELEmatics assisted handling of Flood Emergencies in Urban Areas)**

Initial address: [<http://www.noa.gr/~telefleu/>]

Content:

- Analysis and Forecast Charts to H+48 from the BOLAM2000 Greek Model for Mediterranean areas at all atmospheric levels for the following variables: Rainfall accumulated in the latest 3 and 6 h., Wind at 10m. Temperature at 2m., Snow Cover.
Updated: Every 6 h.
- Interactive National Map by way of Meteograms offers Weather Forecast for several cities in Greece and Cyprus obtained from the BOLAM Model.
Updated: Every 6 h.
- Analysis and Forecast Maps to H+48 from the MM5 Greek Model for Mediterranean areas at all atmospheric levels for the next variables: PSL + Top Cloud T, Wind (at 10 m), Rainfall accumulated in 6 h and Z Geopotential.
Updated: Every 6 h.
- Data from weather observations in surface for the Southern Italy and Greece that includes: T, Wind and Significant Weather in real time. List of the latest METARs from many Greek cities.
Updated: Every hour.
- Lightning Discharges Chart for Europe from 00Z for the current day, provided by the University of Karlsruhe.
Updated: Every hour.
- Meteosat Satellite Image, IR, for the Northern Hemisphere from the University of Dundee.
- Global Models at this Web Page: [<http://www.wetterzentrale.de/topkarten/>], which are: AVN, JMA, ECMWF, ENS, MRF, NOGAPS and UKMO by Interactive Tables which allow a large number of Analysis and Forecast Charts through the entire vertical atmosphere as well as Weather Observation Data and Satellite and Radar Images.

Contacts: e-mail: [agouvar@galaxy.meteo.noa.gr]
Tel.: +30 1 349 0194
Fax: +30 1 349 0120
Address: Lofos Ninfon, Thission,
11810 Athens, Greece

- **National Observatory of Athens**

Initial address: [<http://www.noa.gr/index.html>]

Specific address: [<http://www.noa.gr/Issues/Weatheren.html>]

Content:

- Analysis and Forecast Charts to H+48 coming from the NOA (National Observatory of Athens) TELEFLEUR Programme for the Mediterranean area at the Web Site above.
- Meteograms for the last 24 h obtained from the Panteli Area Weather Station (Long. +23.86, Lat.: +38.05) for these variables: Temperature, Global Horizontal Irradiance, Diffused Horizontal Irradiance, Relative Humidity, Illuminance, Pressure, Rainfall, maximum and mean Wind (at 10 m).

Specific address: [http://www.meteo.noa.gr/climate/geninfo_mainframe.htm]

Content:

- Data Table of monthly measurements relative to the 1931-1960 and 1961-1990 periods for the variables: T, mean Rainfall, average Number of Days of Rainfall, mean RH, mean Sunshine, mean Tmax, mean Tmin and mean Cloudiness. (This Web Page does not allow data downloading in .pdf or .rtf formats).

Contacts: Tel.: +301 3490102 / +301 3490131
Fax: +301 3490140
Address: P.O. Box 20048
Thissio, 11810 Athens

• **Institute for Environmental Research and Sustainable Development (IERSD)**

Initial address: [<http://www.meteo.noa.gr/>]

Content:

- Annual and Monthly Weather Report in Table format with data obtained from the 1931-1960 and 1961-1990 periods including the variables: T, mean Tmax, mean Tmin, mean Rainfall, etc., as well as mean Sunshine which can be downloaded in the .pdf and .rtf formats.

Contacts: None

• **National Technical University of Athens**

Initial address: [<http://www.ntua.gr/>]

Specific address: [<http://www.hydro.ntua.gr/meteo/en/>]

Content:

- Real time weather data variables measured at the NTUA Weather Station: T, RH, Wind, P, Rainfall, Solar Radiation, Sunshine.
Updated: Every 10 min.
- Statistics for the past 24 h for the variables: T, P, RH, Wind, Sunshine.
- Meteograms for the past 24 h for the variables: T, P, RH, Rainfall, Solar Radiation, Wind.
- Historical files from the NTUA Weather Station by e-mail after filling out non-pre-paid request form.
Updated: Every 10 min.

Specific address: [<http://www.chi.civil.ntua.gr/meteo/>]

Content:

- Real time weather and hydrological data for variables measured at the NTUA Weather Station: T, RH, Wind, P, Rainfall in 10 min., Rainfall for the past 24 h, Rainfall Intensity, Solar Radiation, Sunshine, Reflectivity, Liquid Water Content, Energy Flow.
Updated: Every 10 min.
- Links to On-line Weather Reports of a general nature made available by the Web Servers.
- Latest Meteosat Satellite Image, IR with colour enhancement, from Météo-France for the European area, Looping Satellite Image for the past 24 h.
- Interactive Map of Europe allowing T, Wind, Heat Index, Cold Air Pockets, RH, Visibility and Dew Point, but without giving the moment or the period of time they correspond to. Data comes from The Weather Underground, Inc.

- Lightning Discharge Chart with discharges recorded in Europe from 00Z for the current day granted by the University of Karlsruhe (Germany).

Specific address: [<http://www.chi.civil.ntua.gr/meteo/english/index2-en.html>]

Content:

- Real time weather conditions observed at the NTUA Weather Station and parameters obtained in the Disdrometer.
- Statistics data obtained with the variables measured for the past 24 h at the Weather Station, the Disdrometer, and their respective Meteograms.
- Annual Statistics for : T, RH and Rainfall with data corresponding to the period from 12-1998 to 08-2000.
- Links to other Web Pages (National Technical University of Athens, Water Resources, Hydraulic and Maritime Engineering of NTUA, Page of Professor M.A. Mimikou, National Data Bank of Hydrologic and Meteorological Information, etc.).

Contacts: e-mail: [meteo@hydro.ntua.gr]
 Tel.: +30 1 7722017 / +30 1 7722006
 Fax: +30 1 7722028
 Address: 28 OkTovriou (Patision) 42,
 10682 Athens Greece

HUNGARY

- **Hungarian Meteorological Service. Országos Meteorológiai Szolgálat (OMSZ)**

Initial address: [<http://www.met.hu/>]

Specific address: [<http://213.16.96.42/index.phtml>]

Content:

- Weather Forecast for Hungary (Budapest and its main cities) for today, day D, to d+5 by a Data Table containing: SIGWX, T, Wind.
- Brief Weather Forecast Report.
- Last measured data in each main city.
- Latest Digital sky Images, Satellite Images and Radar Image.

Specific address: [<http://213.16.96.42/magyarorszag.phtml>]

Content: Weather Forecast for short-range and medium-range detailed for Hungary, in Bulgaria and main cities, provided by a Data Table containing:

- Last measured data in the last synoptic hour for the past month every 6h.
- Interactively, there's meteograms with forecast parameters to D+1: T and Rainfall.
- Climatic data.
- Digital sky Images every 30 min.

Specific address: [<http://213.16.96.42/europa.phtml>]

Content: For all European and Northern Africa countries it is possible by clicking on their own Maps to obtain:

- Data Table with a detailed daily forecast from day D to D+5, including SIGWX, Wind, T values.
- The last measured data and also there's data from the past.

Specific address: [<http://213.16.96.42/muholdkepek.phtml>]

Content:

- The 4 latest Meteosat Satellite Images, IR with enhanced colour for Europe, every 6h.

Specific address: [<http://213.16.96.42/radarkepek.phtml>]

Content: The 4 latest Radar Images at main synoptic hours, for Hungary.

Contacts: e-mail [mets@met.hu]
Tf: (1) 36 1 346 4600
Fax: (1) 36 1 346 4669

- **Eötvös Loránd University, Department of Meteorology, Budapest**

Initial address: [<http://nimbus.elte.hu/index.html>]

Content:

- Links to Web Pages allowing weather information for Hungary, Europe and the rest of the world.

Contacts: e-mail [meteon@nimbus.elte.hu]
Tf / Fax: +36 1 209 0555 / +36 1 209 6645
Address: H-1518 Budapest, P.O. Box 32

ISLAND

- **The Icelandic Meteorological Office**

Initial address: [<http://www.vedur.is/>]

Specific address: [http://www.vedur.is/english/index_eng.html?]

Content:

- National weather Report for today and tomorrow beside a Table having information of Wind and Cloud Cover from 10 cities.
- The 4 latest Meteosat Images, IR with coloured enhance, from Météo-France.

Updated: Daily

Contacts: e-mail [office@vedur.is], [climate@vedur.is], [webmaster@vedur.is]
Tf: +354 5 600 600
Fax: +354 5 528 121
Address: Bustadavegur 9
IS-150 Reykjavik, Iceland

- **THEYR Internet Weather**

Initial address: [<http://theyr.is/cg/cny/>], [<http://theyr.com/cg/cny/NA>]

IRELAND

• Weather Ireland

Initial address: [<http://www.ireland.com/weather>]

Content: Weather forecast Report for today in Ireland.

Specific address: [<http://www.ireland.com/weather/europe.htm>]

Content: Significant Weather Forecast Chart in Europe for today and tomorrow.

Specific address: [<http://www.ireland.com/weather/sat.htm>]

Content:

- Meteosat Satellite Image, IR with colour enhancement, from Accuweather Web Server.

Specific address: [<http://www.ireland.com/weather/climate.htm>]

Content:

- Statistic Tables obtained from the 1961-1990 period allowing monthly mean values about T, RH, Sunshine, Rainfall and Wind parameters for 15 Irish cities.

Specific address: [<http://www.ireland.com/weather/world.htm>]

Content:

- Table with information of SIGWX + T corresponding to the previous day in a great number of cities around the world.

Updated: Daily.

Contacts: None

• Irish Farmers Journal Interactive

Initial address: [<http://www.farmersjournal.ie/weather/index.html>]

• Irish Meteorological Society

Initial address: [<http://homepage.eircom.net/~kcommins/MetSoc/links.html>]

• Ireland On-line

Initial address: [<http://interactive.iol.ie/today/weather/weather.cfm>]

• Ireland Information 2001. Ireland Weather Forecasts and Satellite Maps

Initial address: [<http://homepages.iol.ie/~discover/meteo1.htm>]

ITALY

• Italian Air Force Meteorological Service

Initial address: [<http://www.meteo.difesa.it/>]

Content:

- Weather Forecast Bulletin for today and tomorrow.
- Climatological and Statistical Data Base concerning the 1961-1990 period, for many Weather Stations, grouped into provinces or counties.

- The latest Meteosat Image by IR, VIS and WV channels, from the North Atlantic area and Europe.

Updated: Daily

Contacts: e-mail [Info@meteo.difesa.it]
 Fax: +39 6 9129 3254
 Address: Ufficio Generale per la Meteorologia
 Aeroporto di Centocelle
 Via Papiro, 365 00175 Rome

- **UCEA- Ufficio Centrale de Ecologia Agraria**

Initial address: [<http://www.politicheagricole.it/Ucea/>]

Content:

- Agrometeorological data that may be obtained by Stations or by Variables: Within a wide National Network for the past 24 h including T (at 2 m) , T (at -10 cm), Radiation, P, RH, Wind and Rainfall. Data from the day before: Tmin, Tmax, Rainfall and, Radiation. Data from the past 10 days: Tmin, Tmax, daily Rainfall and Agrometeorological Statistics for the past 10 days. Significant pluviometer readings for the year in course.
- Agrometeorological Forecast Bulletin from day D to D+3 including SIGWX, Total Rainfall, Cloudiness, T (at 2 m), Wind, P, Snowfall, Z Geopotential, calculated using the DALAM Model.
- National Agrometeorological Report; Monthly Magazine from 12-1996 to today, with Agroclimatic Variable Data Tables that include: Tmax, Tmin, RH, P, Radiation, Wind, T (at -10 cm), ET, Hsoil, extreme T values + Maps and Charts of some of these parameters.

Contacts: e-mail: [ucea@flashnet.it]
 Tel.: 06 6793376 / 6793804
 Fax: 06 69941564
 Address: Ufficio Centrale di Ecologia Agraria, UCEA
 Via de Caravita, 7/a 00816 Roma

- **Laboratorio per la Meteorologia e la Modelistica Ambientale**

Initial address: [<http://www.lamma.rete.toscana.it/ita/lammahome.html>],

[<http://www.lamma.rete.toscana.it/eng/index.html>]

Specific address: [<http://www.lamma.rete.toscana.it/ita/teleril/index.html>]

Content:

- Not available on line but announces the existence of products obtained with surface data collected by the NOAA/AVRHR, LANDSAT-TM, or ERS-SAR satellites such as: Tsoil Map = LST, Green Index Map = NDVI, Cloud Cover Map.

Specific address: [<http://www.lamma.rete.toscana.it/itapubfire/index.html>]

Content:

- Structural and Meteorological Fire Risk Maps. A Password is required.

Contacts: e-mail: [constantini@lamma.rete.toscana.it]

Specific address: [<http://www.lamma.rete.toscana.it/previ/ita/giu0m.html>]

Content:

- Significant Weather Forecast Maps for today, tomorrow and the next weekend in La Toscana Region.
Updated: Daily.

Specific address: [<http://www.lamma.rete.toscana.it/ita/clima/index.html>]

Content:

- Interactive Chart of La Toscana and its main cities, giving for each one: Termopluviometric Diagram, Rainfall, Climatic Index, Type of Climate and some extreme values. The Data Serie is referred to the 1956-1996 period.

Specific address: [<http://www.lamma.rete.toscana.it/previ/ita/rams/ramsdemo.htm>]

Content:

- RAMS REGIONAL ATMOSPHERIC MODELING SYSTEM= Operative Model at Lamma Center for the last 20 years.

Specific address: [<http://www.lamma.rete.toscana.it/previ/ita/index.html>]

Content: Meteosat Satellite Image, IR channel with colour enhancement, from the North Atlantic area and Europe.

Updated: 30 min.

Specific address: [<http://www.lamma.rete.toscana.it/ita/>]

Content: Meteosat Satellite Image, IR channel with coloured enhance, from Italy beside a 6-hour looping view.

Updated: 30 min.

Contacts: e-mail [info@lamma.rete.toscana.it]
Tf: 055 897621
Fax: 055 8969521
Address: Via A. Einstein 35/b
50013 Campi Bisenzio Firenze

● ARPA- Servizio Agrometeorologico Regionale Emilia- Romagna

Initial address: [<http://www.smr.arpa.emr.it/>]

Specific address: [<http://www.smr.arpa.emr.it/Frames/agroframe.html>]

Content:

- Agrometeorological Bulletin of Emilia-Romagna area along with Maps that contain Tmax., Tmin., Rainfall, ETP, Daily Thom Index Map, Hydro-Climatic Balance Map, from day D to D+7, even also a Fenologic Events Table.

Specific address: [<http://www.smr.arpa.emr.it/Frames/previframe.html>]

Content:

- Weather Forecast Bulletin to H+72 for the Emilia-Romagna Region.
- T Table for some cities in the region.

Specific address: [<http://www.smr.arpa.emr.it/Frames/radarframe.asp>]

Content: The 4 latest Radar Images + Local Radar information Bulletin.

Contacts: e-mail [smr@smr.arpa.emr.it]
Tf: +39 051 284740
Fax: +39 051 284664
Address: Viale Silvani, 6 40122 Bologna

● **Servizio Agrometeorologico della Regione Toscana, ARSIA, Centro Operativo Regionale**

Initial address: [<http://www2.arsia.toscana.it/Meteo/Default.htm>]

Content:

- Regional Weather Report from day D to day D+2, with Significant Weather Chart of the region and written explicative Report.
- Regional Report for La Toscana and local areas + Significant Weather Forecast Charts for today, Day D to D+2.
- Table containing Extreme T Forecast for today and tomorrow for a good number of Italian cities.
- Satellite Images, IR and VIS channels with colour enhancement.
- Latest Radar Image for La Toscana Region.
- Lightning Discharge Charts with discharges produced in Europe from 00Z for the day in course from the University of Karlsruhe (Germany).
- FAX-ON-DEMAND Service, (050 / 8006222). Weather Report by Telephone and Fax.

Updated: Daily.

Contacts: e-mail: [meteoarsia@cpr.it], [posta@arsia.toscana.it]
Tel.: 050 800611
Fax: 050 503220
Address: Centro Operativo Regionale
Recapito Territoriale di Pisa
Via Roma, n.3

● **Servizio Agrometeorologico Regionale de la Sardegna**

Initial address: [<http://www.sar.sardegna.it/pagina.html>]

Specific address: [<http://agrometeo.sar.sardegna.it/agroclimatologia.html>]

Content:

- Data Table containing information from the previous day : Tmin, Tmax, Tmean, Tscf , Rainfall, RH, Global Radiation and Wind (at 10m and 2m) from some 30 Weather Stations.
- Data Table with Temperature, Rainfall and daily Climatological Statistic Parameters.
- Interactive Map with Tmax, Tmin, Tmean, Tscf, Tsoil, Rainfall, RH, Global Radiation and Wind (at 10 m and 2 m) from several cities of La Sardegna area for the past 7 days.
- Monthly Meteorological and Agrometeorological Weather Summary with T and Rainfall Maps.
- Rainfall statistics from all AWS in the province.
- Mean T (at -10 cm) Map for the 7-day period one month prior to the current month.
- Distribution Maps of Thermal Summary values with bases 0 °C and 10 °C and their corresponding Table. Updated: Daily.
- Data Satellite applications: Vegetation Index Map from years 1997 and 1998 by months, and Soil Use Map for the Corine-Land Cover Project.
- Subject Map with Soil Characteristics (Altimetry, etc.) and Crop Distributions (olive, wine, etc.).
- International Agrometeorological Data available in several Reports:

For Europe: European Union Report (Mars Project).
For the USA: USDA Report = Weekly Weather and Crop Report.
For other countries.

- Links to some Web Pages with Agrometeorological information in Italy, and other countries and Organisms.

Contacts: None.

• **Centro Agrometeorologico Regionale D´Abruzzo; MM5- Università dell´Aquila**

Initial address: [<http://www.arssa.abruzzo.it/car/>]

Specific address: [<http://www.abruzzo.it/car/agrometeo/index.htm>]

Content:

- Interactive Map with many cities from the d´Abruzzo Region that shows for each one of them a Data Table with information from the 10 latest days: Wind max., Tmin., Tmax., RH, Rainfall, Radiation.
- Accumulated Rainfall Maps referred to some months in 1999.

Specific address: [<http://www.arssa.abruzzo.it/car/bollettino.html>]

Content:

- Weather Forecast Bulletin from day D to D+2 and a Tendency to D+5. Table with T forecast from day D to D+2 for several cities of the Region, elaborated with the MM5 Model.
Updated: Daily.

Specific address: [<http://www.arssa.abruzzo.it/car/maps.htm>]

Content:

- Allows Weather Forecast Charts from D+2 to D+4, at the main synoptic hours showing: P + Wind, Cloudiness, T at 2m., RH, Total Rainfall, Convective Rainfall, Tsoil, T at 16cm.
Updated: Daily.
- Map and an Interactive Table providing: Cloudiness, Rainfall, Tmax., Tmin., RH and Wind, from day D+2 to D+4, for many cities of the L´Aquila, Terano, Pescara and Chieti Regions.

Contacts: e-mail [car@arssa.abruzzo.it]

Tf: +39 0873 919 708 / +39 0873 919 644

Fax: +39 0873 919 610

• **Servizio Agrometeorologico Regionale. Ente Regionale di Sviluppo Agricolo della Lombardia**

Initial address: [<http://www.ersal.lombardia.it/>]

Specific address: [http://www.ersal.lombardia.it/sar/S.A.R_bollettino_meteo.html]

Content:

- Weather Forecast Regional Bulletin and Significant Weather Charts from day D to D+4, and a Trend from D+5 to D+7.
Updated: Daily.
- Table with Tmin. and T (measured at 13h.) for some cities and zones classified by altitude.
Updated: Daily.

Specific address:

[http://www.ersal.lombardia.it/sar/S.A.R_bollettino_AGROmeteo.htm]

Content:

- Agrometeorological Bulletin that summarize information about the 7 latest days and a Data Table having: Tmax., Tmin., Tmed., Total Rainfall, RH, ETP, for several cities at the Lombardia Region. Isotherms and Isoyets (accumulated weekly Rainfall) accompanied by reports explaining these maps, the fenologic situation and the real crops. A Weather Forecast Tendency from day D to D+6. Updated: Weekly.
- Agrometeorologic Bulletin that contains a monthly summary Report corresponding to the previous month, and an explanation about the real crops. Updated: Monthly.
- Total Rainfall Isoyets Maps from the week before for the Region. Updated: Weekly.
- Weather Forecast Report dedicated to the Tourism, and a fortnightly Tendency.

Contacts: e-mail [ersalsar@tin.it], [info@ersal.lombradia.it]
Tf: 0039 02 217621
Fax: 0039 02 26410459

• ASSAM. Centro Operativo di Agrometeorologia- Regione Marche, (COA)

Initial address: [<http://meteo.regione.marche.it/assam/default.htm>]

Specific address:

[<http://meteo.regione.marche.it/assam/meteoassamprevisioni.htm>] or
[<http://www.provincia.tn.it/meteo/>]

Content:

- Significant Weather Forecast Charts from H+12 to H+72, for the Region. Updated: Daily.
- Meteorological Table for the Marche Region with a Report having SIGWX symbols from day D to D+4.

Contacts: e-mail [calmc@cronosnet.com]
Tf: +39 733 217 067
Fax: +39 733 217 010
Address: Piazza della Repubblica, 11
Trescia (MC)

• Bollettino Agrometeo- Regione Piemonte

Initial address: [<http://www.regione.pmn.it/>]

Content: Agrometeorological Bulletin for the Region from day D to D+4.

Updated: Daily.

Contacts: e-mail [agricoltura@regione.piemonte.it],
[meteoidro@regione.piemonte.it]

• **Istituto Agrario San Michele all'Adige**

Initial address: [<http://www.ismaa.it/>]

Specific address: **MeteoTrentino**: [<http://www.ismaa.it/html/ita/meteo/previsio.html>]

Content:

- Weather Report for the Trentino province with a Data Table including Tmax, Tmin and Rainfall for the past 24 h.
- Significant Weather Charts and a written Report for the day D to D+2 and a Trend to D+4.
Updated: Daily.
- Weekly Agrometeorological Report with Rainfall, ETo and Thermal Evolution Chart of the previous week.
Updated: Weekly.
- Monthly Weather Analysis for the previous months of the current year, written in day-to-day detail. Rainfall and Tmean Data Table with the mean value from the 1983-1995 period. Some meteorological events.
Updated: Monthly.
- Data Tables with T, accumulated Rainfall and Snow Depth as well as synoptic data for the past 24 h from several Weather Stations. Comparative Weather Station Thermal Profiles at different altitudes.
Updated: Daily.
- Data Tables from several Weather Stations in the province with Tmax, Tmin, Tmean, RH, Total Rainfall and Wind for the past 24 h from the last midnight to the latest hour.
Updated: Daily.

Specific address: [<http://www.ismaa.it/html/ita/meteo/tempo.html>]

Content:

- Weather Report for all regions and provinces.
Updated: Daily.

Specific address: [http://www.ismaa.it/html/ita/meteo/img_sat.html]

Content: Meteosat and NOAA Satellite Images, by IR, VIS and WV channels.

Contacts: Tel.: +39 4616 15 111
 Fax: +39 4616 50 872
 Address: Via Edmondo March, 1
 38010 S. Michelle all Adige
 Trento- Italy

• **Consorzio ITA. (Consorzio italiano per il Telerilevamento in Agricoltura)**

Initial address: [<http://www.itacon.it/>]

Specific address: [http://www.itacon.it/DATI/CARTINE/cartine_agrometeorologiche.htm]

Content:

Agrometeorological Maps of Italy for 1999, by months for the variables: Rainfall, Tmean, ETP, AW and ETR, Available in a Statistic Yearbook for 1997.

Contacts: e-mail: [ita@itacon.it]
 Tel.: +39 06 8841327

Address: Via Lovanio 24 00198 Roma

● **Centro Meteo- Idrologico della Regione Liguria (CMIRL)**

Initial address: [<http://www.cmirl.fisica.unige.it/index.html>], [<http://www.meteoliguria.it/>]

Specific address: [<http://www.cmirl.fisica.unige.it/frmeteo.html>],
[<http://www.cmirl.fisica.unige.it/frprev.html>]

Content:

- Written Report on the current synoptic situation + SFC Analysis Chart with Cloudiness and colour enhancement.
- Weather Report for the Liguria Region.
- Latest Meteosat Satellite Image, IR with colour enhancement, for the Italian area, shown in analogic and digital format. Meteosat Satellite Image Historical data files, IR with colour enhancement of the Italian area from the day before and today.
- Written Monthly Summaries and Mean Parameter Maps for the European area from the USA NCEP Model for the years 1998, 1999 and 2000.

Specific address: [<http://www.cmirl.fisica.unige.it/AGRO/agro.html>]

Content:

- Agrometeorological Weather Forecast to D+7. A Password is required.

Specific address: [<http://www.cmirl.fisica.unige.it/frclima.html>]

Content:

- Tables of Maximum Wind Velocity calculations, Mean Wind Speed, Maximum Snow Depth, for 50 and 1000- year Cycle Periods.
- Wind and Snow Maps.

Specific address: [<http://www.cmirl.fisica.unige.it/MAP/BOLAM/Bolamis.htm>]

Content:

- Weather Charts from BOLAM Model.

Specific address: [<http://www.cmirl.fisica.unige.it/frlink.html>]

Content:

- Links to European Web Pages and NOAA, separating data depending on the type of meteorological product in the following fields: Meteorological Observations, Europe Weather, Lightning, Meteorological Model Outputs, Satellite Images, Radar, Italian Meteorological Sites, European Weather Services, World Wide Weather Services, Other Meteorological Sites.

Contacts: e-mail: [ratto@ge.infn.it], [solari@scostr.unige.it]

Fax-On Demand: 010 5960121
010 5960145

● **CESI Meteo**

Initial address: [<http://meteo.cesi.it/>]

Initial address: [<http://meteo.cesi.it/start.asp#>]

Content:

- Latest Meteosat Satellite Image, IR with colour enhancement along with written Weather Report for the current day.
- Links to all the WMO Meteorological Services.

Specific address: [<http://meteo.cesi.it/Miracle/sospeso.htm>]

Content:

- Satellite Image Forecast for H+12 in b/w and colour, obtained with the MIRACLE codex (Model Infrared Radiances of Cloudiness Evaluation) from the MEPHYSTO Limited Area Meteorological Model.

Contacts: e-mail: [paoloferrari@cesi.it]

• Nimbus Web

Initial address: [<http://www.nimbus.it/>]

Specific address: [<http://www.nimbus.it/italiameteo/previpiemonte.htm>]

Content:

- Weather Report for the Piemonte and Valle d'Aosta Italian Regions, for day D to D+2. The latest Meteosat Image, IR, from Nottingham.

Specific address: [<http://www.nimbus.it/italiameteo/previlombardia.htm>]

Content:

- Weather Report for the Lombardia Region, for day D to D+2. The latest Meteosat Image, IR, from Nottingham.

Specific address: [<http://www.nimbus.it/italiameteo/previtoscana.htm>]

Content: Weather Report for the La Toscana Region, for day D to D+2.

Specific address: [<http://www.nimbus.it/italiameteo/italiameteo.htm>]

Content:

- Interactive Table that provides Weather Reports from several Regions beside Snow Weather Information. Weather Bulletins by e-mail are free in this web page:
[<http://www.nimbus.it/italiameteo/iscrizionebollettino.htm>]

Specific address: [<http://www.nimbus.it/italiameteo/previitalia.htm>]

Content: Weather Report for the Italian area and days D, D+1, D+2.

Specific address: [<http://nimbus.it/internet/meteocruscotto.htm>]

Content:

- The latest Meteosat Image, IR, from Nottingham.
- Frontal Surface Analysis and Forecast Analysis Charts, from MetOffice.

Updated: Diaria.

Contacts: e-mail [info@nimbus.it]

Tf: +39 011 7976200

Fax: +39 011 6689200

Address: Società Meteorologica Italiana Onlus
Via G.Re 86 10146 Torino

● **Università di Genova, Facoltà di Ingegneria, Istituto di Idraulica**

Initial address: [<http://www.idra.unige.it/>]

Specific address: [<http://www.diam.unige.it/~meteo/cambiaso/>]

Content:

- Meteorological Information in real time about the following parameters: T, RH, P, Rainfall in the last 30 min., Solar Radiation, Tsoil.
Updated: 30 min.
- Weather Information of maximum, minimum and average values of these parameters: T, Tsoil, RH, P, Wind, Total Solar Radiation, Total Rainfall, from 00Z to 12Z in the current day. Data Table with values obtained every 30 min. from 00Z in the current day and the day before.
- Interactive List with Data Tables including dairy Rainfall data from 1990 to 2000, measured in the Villa Cambiaso Weather Station.

Address: Istituto di Idraulica, Facoltà de Ingeneria
Via Montallegro, 1
16145 Genova

● **Università di Modena e Reggio Emilia, Osservatorio Geofisico**

Initial address: [<http://www.ossgeo.unimo.it/>]

Specific address: [<http://www.ossgeo.unimo.it/servizio/index.html>]

Content:

- Weather Report for the Apenino Emiliano area from day D to D+6.
Updated: Daily.
- Weather Report for Módena and province, not updated.
- Data Table with real time values from several Weather Stations in the Módena province. Historical data files from Weather Station measurements taken in the previous 2 months.
- Climatological data calculated over long time periods, some from 1860 and later.
- Links to Web Pages containing Satellite Images, Diverse Model Maps and other Italian Weather Reports.

Contacts: e-mail: [maurob@Rainfallbow.unimo.it]
Tel.: +39 059 2055306
Fax: +39 059 2055306

● **Agenzia Regionale per la Prevenzione e Protezione Ambientale del Veneto (ARPAV). Servizio Meteorologicalalo Regionale. Centro Meteorologicalalo de Teolo. Centro Valanghe de Arabba.**

Initial address: [<http://www.arpa.veneto.it/indice.htm>]

Content:

- Written Weather Report with Tmax, Tmin and Rainfall data observed for the previous 2 days. SFC Front Analysis Chart for Europe . Significant Weather Forecast Charts for the Veneto Region.
Updated: Daily.
- Weekly Agrometeorological Report for the 7 provinces of Belluno, Padova, Rovigo, Treviso, Venice, Verona and Vicenza.
Updated: Weekly.

- Weekly Agrometeorological Report for the 7 provinces above divided into 27 areas. Download possibility in .pdf format.
- Written data of the general synoptic situation and the Risk of Avalanche along with Snow Data Table with Tmax, Tmin and Snow Depth, from the previous day at several Weather Stations in the Dolomites and Italian Alps.

Contacts: e-mail: [cmt.agromet@arpa.veneto.it], [cva@arpa.veneto.it]

Specific address: [http://www.arpa.veneto.it/teolo/html/finale_it/rete.html]

Content:

- Data Table with Tmax, Tmin, Rainfall and RH for the past 3 days from several Veneto Weather Stations.

Updated: Daily.

Contacts: Tel.: 049 9998111
 Fax: 049 9925622
 Address: Centro Meteorologicalalo di Teolo
 Via Marconi, 55
 35037 Teolo (PD)

● **Meteo-INFN Bari, Dipartimento Interateneo de Fisica. Università e Politecnico de Bari**

Initial address: [<http://sunba2.ba.infn.it/>]

Content:

- Meteosat Satellite Images, IR, VIS and WV channels, IR with colour enhancement. An IR Meteosat Satellite Image Forecast for H+24, with colour enhancement, (from Météo-France. Meteosat Images from the previous day. Real time weather conditions and Meteorological parameter data from the Bari Weather Station.
- ECMWF Forecast Charts from day D+3 to D+6 for Europe, Analysis Charts, Wind and T and Rainfall Maps for the Italian area, Europe and Northwest Europe.
- With the NOGAPS Model: Forecast Charts for days D, D+1 to D+5. Front Analysis Forecast Chart for the current day (from CNN). T, Rainfall and RH Forecast to D+10 for the European area. T Map from 00Z today, (from Wetterzentrale Page observations in Karlsruhe, Germany).
- MRF Model Forecast Charts from day D+1 to D+6. Analysis Charts, Winds Charts, T Charts, Rainfall Charts, for the Italian, European and Northwestern Europe areas.
- NOGAPS Model Forecast Charts for day D and day D+1 to D+6. Also a Mountain Forecast.
- AVN Model (from MettOffice): SFC Frontal Analysis Charts and Forecast Analysis Charts for day D, day D+1 to D+5. Frontal Analysis Forecast Chart for today (from CNN). A Forecast about T, Rainfall and RH to D+10, over tRH European area. T Observations Chart (at 00Z today), (from the Wetterzentrale web page, in Karlsruhe, Germany).

Updated: Daily.

Contacts: e-mail: (Webmaster) [Raffaele.Luzzi@ba.infn.it]

● **Meteo di Brescia On Line**

Initial address: [<http://meteo.numerica.it/ovest.html>], [<http://www2.bresciaonline.it/welcome.html>]

Content:

- Interactive Table with observation data in real time for many Italian cities not just the Brescia region in decoded language.
- Weather conditions in real time from the Nicola Gelfi Observatory in Brescia Castello.
- Climatological Report from August to November, 1998.

Specific address: [<http://meteo.numerica.it/sat/sat.html>]

Content:

- Meteosat Satellite Images, IR, VIS channels with IR colour enhancement, from Nottingham, over Italian and European areas. Meteosat historical Images from the previous day.
- Historical Maps of the AVN Model (Met-Office) for the past 10 days.

Updated Daily

Links connecting directly to Weather Bulletins for Northwest, Northeast, MiddleSouth, Monti Bresciani and Brescia local areas: [<http://meteo.numerica.it/ponte.html>]

Contacts: e-mail: [meteo@numerica.it]

• La Citta del Volo

Initial address: [<http://www.lacittadelvolo.com/meteo1ita.html>]

Specific address: [<http://www.lacittadelvolo.com/meteo1.html>]

Content:

Multi-interactive Page with the following Meteorological data:

- Synoptic Chart with Plotting of Italy and South Eastern Greece. Aeronautical data from Italy and the rest of the world.
- Weather data for the Piemonte Region. List of Web Page Links to several Meteorological centres in Italy and some Web Servers around the world.
- SFC Analysis Charts obtained from observations, that includes Significant Weather at a specific Z hour during the day.
- Front Analysis Forecast Chart for D+1, (from CNN).
- Latest Meteosat Satellite Image, IR, for the Northern Hemisphere.
- Links to several Meteorological Centres in Europe and several Web Servers around the world. Web Page connections that contain all the European and American Numeric Models: (BRACKNELL, ECMWF, DWD, AVN, MRF, MASS, DALAM, LAMBO, NLMOC, NOGAPS). Meteosat Satellite Images for today. Cloud Forecast Images from the MASS Model every 3 h for today, Interactive Climatology for cities around the world.
- Charts of European and American Models: (BRACKNELL, ECMWF, DWD, AVN, MRF, MASS, DALAM, LAMBO, USAFE EUR, NOGAPS, ETA, ENS, JMA, HIRLAM, FNMOC, IGMF, NCEP-MCP, ALADIN and LILAM)

Specific address: [<http://www.lacittadelvolo.com/ttee.htm>]

Content:

- Weather data for Southern Piemonte, Liguria and the Blue Coast. Latest Meteosat Satellite Image, with colour enhancement, along with the Forecast to D+4. Cloudiness Forecast Table to D+4.

Updated: Daily.

Contacts: e-mail: [info@lacittadelvolo.com]
Tel.: +39 0 348 5112929

Fax: +39 0 171 602002
Address: La citta del Volo
Corso Giolitti 27 12100-Cuneo

• **Prefettura di Messina. Centro Operativo della Protezione Civile**

Initial address: [<http://www.prefettura.messina.it/prevmet.html>]

Content:

- Analysis Chart for Europe for today (from Bracknell).
- Analysis Forecast Chart for Europe for D+1 (from Bracknell).
- Latest Significant Weather Chart for the latest Z hour available.
- Meteosat Satellite Images, IR and VIS in b/w with colour enhancement for Italy and Europe. Meteosat Forecast Images. Image Looping for the past 12 h. Latest NOAA Satellite Image available with colour enhancement. IR Image composition with colour enhancement and Front Analysis Chart with some SIGWX symbols for Europe for today (from The Wetterzentrale web page).

Updated: Daily.

Contacts: e-mail: [meteo@prefettura.messina.it]

• **Meteo89**

Initial address: [<http://www.meteo89.it/index.htm>]

Specific address: [<http://www.meteo89.it/previsioni.htm>]

Content:

- Latest Meteosat Satellite Image, IR with colour enhancement.
- Significant Weather Chart of Italy for D+2, D+3, D+4 and a Trend, with Forecast Reports.
- Analysis and Forecast Chart for H+6, H+24, H+36 from the HIRLAM Model.
- Analysis of the synoptic situation and its next evolution.
- Access to the available fields corresponding to the Numeric Models HIRLAM, ECMWF, AVN, MRF, NOGAPS, NCEP, and the high-resolution Models (BOLAM, ETA2000, MM5, LAMBO, ALADIN, CNMCA, ENS, ETA, UKMO, RAMS, SKIRON).
- Radiosond Explorations for Italy and the rest of the world, (even though at the moment when this document is being prepared there is an URL ERROR for the entire list).
- Available Images from the regional Radar at four Radar Centres in Italy and an Interactive List to obtain the Radar Images from the different European Meteorological Centres.
- Maps and climatological data for Italy.
- Meteosat Looping Image relative to the last 24 h and the last 7 days from several European sources.

Updated: Daily.

Specific address: [<http://www.meteo89.it/carte.htm>]

Content:

- Interactive Tables to accede to Maps for all the Numeric Models for Europe, the Northern Hemisphere and other areas around the earth.

Specific address: [<http://www.meteo89.it/sat.htm>]

Content:

- Satellite Images of Europe, Africa, the Northern Hemisphere, Russia, America and Asia from Meteosat, NOAA, GOES and GMS Satellites
- Historic data files from Nottingham University, Dundee Satellite Receiving Station and Eumetsat.

Specific address: [<http://www.meteo89.it/radar.htm>]

Content:

- Everything above related to Radar and Radiosond Explorations.

Specific address: [<http://www.meteo89.it/dati/dati.htm>]

Content:

- Historic climatological statistic data files for Italian and European cities.
- Links to other Data Centres around the world.
- Statistical Data from Friuli Venezia Giulia, obtained from an Interactive Table with several Italian cities even at different time intervals.

Specific address: [<http://www.meteo89.it/bolet.htm>]

Content:

- National and regional Weather Reports for Italy, Snow Weather Reports.

Specific address: [<http://www.meteo89.it/clima1.htm>]

Content: Climatic data already mentioned.

Specific address: [<http://www.meteo89.it/links.htm>]

Content: Links to mainly Italian and European Web Pages.

Contacts: None

- **MeteoSpezia**

Initial address: [<http://www.meteospezia.it/>]

Content:

- T, RH, mean Rainfall values at 1 hour intervals from 00Z of the day in course as well as extreme and mean values at the moment when this web page is consulted.
- T and Rainfall Charts observed in the past 10 days at the La Spezia Station.
- T and Rainfall Data Files from 2000-02-01.

Contacts: None

- **Meteotrentino**

Initial address: [<http://www.provincia.tn.it/meteo/>]

Content:

- Weather Report for the Trento province with extreme T and Rainfall values for the past 24 h in several cities along with Significant Weather and Forecast Charts for day D, D+1, D+2 and a written Trend to D+4.

Updated: Daily.

- Snow Weather Report on the current Landslide Risk and Snow Depth Maps observed for the past 24 h as well as Avalanche Risk Map.
 - Agrometeorological Report, (not updated).
 - Meteorological parameters measured in the last 24 h from several provincial AWS: T, Rainfall, Snow, and their corresponding Meteograms.
 - Real time Data Table for several cities in the province.
 - Latest Meteosat Satellite Images for Europe and North Atlantic areas.
- Updated: Depending on the product.

Contacts: e-mail: [meteotrentino@provincia.tn.it]
 Tel.: 0461 494877
 Fax: 0461 238305
 Address: Ufficio Neve Valanghe e Meteorologia/ Ufficio Idrologico/ Istituto Agrario di S. Michele all'Adige
 Via Galilei, 24 38100 Trento

● Centro Geofisico Prealpino, Varese

Initial address: [<http://www.astrogeo.va.it/meteo.htm>]

Content:

- T and RH observation at 07Z for several cities in the province of Varese.
- Meteorological explanation of the current synoptic situation and the latest Meteosat and NOAA Satellite Images.
- Forecasts from day D to D+5 with their own Front Analysis Charts.
- Interactive Map of Europe with Radiosond Explorations for European cities provided by the University of Barcelona.

Updated: Daily for data.

Contacts: e-mail: [astrogeo@astrogeo.va.it]

● Euroweather

Initial address: [<http://www.euroweather.net/>]

Specific address: [<http://www.euroweather.net/observer.php>]

Content:

- Meteosat Satellite Images, IR, for Europe and North Atlantic areas.
- SFC Front Analysis Chart + IR Image with colour enhancement for Europe, from the Met-Office.
- Significant Weather Chart for Europe including: T (at 2 m) + P + SIGWX for the latest main synoptic hour provided by the Universität für Köln.

Specific address: [<http://www.euroweather.net/current/>]

Content:

- Links to Web Pages for Weather Centres in Switzerland, Austria and Germany that offer European data in near real time.

Specific address: [<http://www.euroweather.net/forecast/>]

Content:

- List of links to all European countries and some Web Servers.

Specific address: [<http://www.euroweather.net/images/>]

Content:

- Access to Meteosat and NOAA Satellite Images and Radar Images for Europe.

Specific address: [<http://www.euroweather.net/maps/>]

Content:

- Links through a complete List of all available maps from: USAFE/OWS, CNMA, MeteoServices, EuroseekerWeather, IGMK (Universität für Köln) and Technicom Weather.
- Links to Output for Limited Area Models: DALAM, MASS, MEPHYSTO, ALADIN.
- Links to Output for Models: MRF, AVN, ECMWF,
- Links to Synoptic and Fronts Charts from several Meteorological Centres in Europe.
- Links to T and Rainfall Maps.

Specific address: [<http://www.euroweather.net/snow/>]

Content:

- Links to American Data Banks and Web Servers that interactively offer statistical data from many European cities.

Contacts: e-mail: [info@euroweather.net]

• **RAMSAT**

Initial address: [http://web.tiscalinet.it/ramsatmeteo/home_ns.htm]

• **MC LINK**

Initial address: [<http://www.mclink.it/>], [<http://www.mclink.it/meteo/maps.htm>]

• **Servizio Idrografico e Mareografico Nazionale**

Initial address: [<http://www.dstn.it/simn/index.html>]

• **MeteoSud**

Initial address: [<http://www.meteosud.it/>]

• **Meteo.it**

Initial address: [<http://meteo.it/>]

• **MeteoItalia**

Initial address: [<http://www.meteoitalia.it/>]

• **Servizio Meteomont. Comando Truppe Alpine**

Initial address: [<http://meteomont.sail.it/>]

• **Nevelandia**

Initial address: [<http://members.xoom.it/nevelandia/>]

• **MeteoVerona**

Initial address: [<http://www.meteoverona.3000.it/>]

- **By Never**

Initial address: [<http://users.telemail.it/NEVER/>]

- **brrrr...ma che freddo che fa**

Initial address: [<http://www.geocities.com/Yosemite/Falls/5511/>]

- **MeteoOverlord**

Initial address: [<http://utenti.tripod.it/Fede5/index.html>]

- **MeteoProspero. Webcam**

Initial address: [<http://www.meteoprospero.com/webcam.htm>]

- **IlMeteo**

Initial address: [<http://www.ilmeteo.it/index2.htm>]

- **MeteoNordEast.com (Weather Forecast Service)**

Initial address: [<http://www.meteonordest.com>]

- **MeteoMagna**

Initial address: [<http://www.meteoromagna.com>]

- **MW Net**

Initial address: [<http://web.tiscali.it/meteoweb/index.html>]

- **Unione Meteorologicalala del Friuli Venezia Giulia**

Initial address: [<http://www.umfvg.adriacom.it/>]

- **GQ online**

Initial address: [<http://www.mailgate.org/mailgate/it.scienza.meteo/index.html>]

- **Meteo by Roberto Rivara**

Initial address: [<http://www.ciaoweb.net/r.rivara/>]

- **GianMarco, Centro Servizi Internet**

Initial address: [<http://www.gianmarco.it/link/meteo/index.htm>]

- **KW Meteo**

Initial address: [<http://www.kwmeteo.kataweb.it/>]

- **Il Clima**

Initial address: [<http://www.ilclima.com/statistica>]

- **3B Meteo**

Initial address: [<http://www.3bmeteo.com/>]

- **Corpo Forestale dello Stato. Servizio meteomont coordinamento per il Veneto**

Initial address: [<http://www.cadorenet.it/cfsbelluno/meteomont/>]

- **Meteorologicalalando**

Initial address: [<http://www.Meteorologicando.com>]

- **ARPA Friuli- Venezia Giulia. Regional Meteorological Observatory / Radar Meteorology**

Initial address: [<http://www.osmer.fvg.it/>]

- **L'Ansa**

Initial address: [<http://ansa.it/settori/meteo/meteoggi.shtml>]

- **Meteo-Weather-ABC Tutti I Siti Italiani**

Initial address: [<http://www.abcitaly.com/descsi/meteo.html>]

- **Navigare nella Rete con Elbacom**

Initial address: [<http://www.elbacom.it/internet/dir/meteolinks.htm>]

LATVIA

- **Valsts Hidrometeorologijas Parvalde**

Initial address: [<http://www.meteo.lv/>]

LITHUANIA

- **Lithuanian HydroMeteorological Service**

Initial address: [<http://www.meteo.lt/English/>]

Specific address: [<http://www.meteo.lt/English/forecast.htm>]

Content:

- Significant Weather Chart with SIGWX symbols and Tmax. forecast, for today in several cities in Lithuania.

Updated: Daily.

Contacts: e-mail [lhmt@meteo.lt]

Fax: (370-2) 724160

Address: 6 Rudnios Street
LT-2600 Vilnius Lithuania

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

- **HydroMeteorological Institute**

Initial address: [<http://www.meteo.gov.mk/>]

NETHERLANDS

• KNMI Weather Radar

Initial address: [<http://weerkamer.nl/radar/>]

Specific address: [<http://weerkamer.nl/>]

Content:

- Table Data containing SIGWX , T and Wind symbols for Holland from D+1 to D+5.
 - National Radar Looping Images in real time.
 - Satellite Meteosat Images Looping, IR with coloured enhance, in real time.
 - Interactive Map that connects to 12 main cities Automatic Weather Station from Holland offering a Table with T, Wind and Rainfall data.
- Updated: Hourly.

Specific address: [<http://weerkamer.nl/prometeo/>]

Content:

- Agrometeorological Information that requires a Password.
- Radar Information that requires a Password.

Contacts: None.

• Meteoplaza

Initial address: [<http://www.meteoplaza.com/nl/>]

• European Weather

Initial address: [<http://www.weather.vwkweb.nl/>]

• Vereniging voor Weerkunde en Klimatologie

Initial address: [<http://www.vwkweb.nl/>]

• MeteoConsult

Initial address: [http://www.weer.nl/index_ns.html] , [<http://www.vakantieweer.nl/weer/vakantie/>]

• ITC Satellite Images and Data Sets

Initial address: [<http://www.itc.nl/~bakker/satellite.html>]

• Meteonet

Initial address: [<http://www.meteonet.nl/>]

• Hert Weer in Europese Lander

Initial address: [<http://www.ou.nl/open/dja/weer/landen.html>]

• Weer Pagina

Initial address: [<http://weer.pagina.nl/>]

• WeatherPage Leiden

Initial address: [<http://www.euronet.nl/users/kneve/>]

• **StartZoek- Weer & Verkeer**

Initial address: [<http://www.startzoek.nl/subs/weerverkeer.asp>]

• **Cool Weer Links**

Initial address: [<http://www.svwebworld.com/weer/linkseng.htm>]

• **Hoevekerk Weer Service**

Initial address: [<http://weerbericht.hoevekerk.com/>]

NORWAY

• **Norwegian Meteorological Institute**

Initial address: [<http://www.dnmi.no/>]

Specific address: [http://www.dnmi.no/Klima/eng_index.html]

Content: Annual mean T Graphics calculated from data series corresponding to 9 cities in the 1868-1996 period.

Specific address: [http://www.dnmi.no/varsel/eng_index.html]

Content:

- Significant Weather National Chart.
- Data Table with SIGWX symbols for several zones in the country, from day D+1 to D+4.
Updated: Daily.
- Satellite Meteosat Images, IR and VIS channels, from North Atlantic area and Europe.
Updated: 6h.

Contacts: e-mail [webedition@dnmi.no], [webmaster@dnmi.no]

Tf: + 47 22 963000

Fax: + 47 22 963050

Address: P.O. Box 43, Blindern
0313- Oslo

• **Norwegian Institute of Air Research (NILU)**

Initial address: [<http://www.nilu.no/niluweb/>]

Specific address: [<http://www.nilu.no/niluweb/services/zeppelin/>]

Content:

- Meteogram recording information for the last 7 days at the Zeppelin Weather Station (Svalbard) and referred to these variables: RH, T and Wind.

Links: List of Centres, Scientific and Norwegian Research Institutes at:

[http://www.niva.no/engelsk/lenker/links_e.htm]

Contacts: e-mail: [nilu@nilu.no]

Tel.: +47 63 89 80 00

Fax: +47 63 89 80 50

Address: P.O. Box 100
NO-2027 Kjeller Norway

• **Geophysical Institute, University of Bergen**

Initial address: [http://www.gfi.uib.no/index_e.html]

Specific address: [http://www.gfi.uib.no/varsel/middle_and_right_e.html]

Content:

- Interactive Chart with weather data in real time for the most relevant Norwegian cities: T, Td, P, Wind and SIGWX.
- Significant Weather Chart and Weather Forecast for the current day from the Norwegian Meteorological Institute (DNMI).
- Connection to the ECMWF Web Page for Forecast Charts from day D+3 to D+6.
- Forecast Charts obtained from ICM from H+0 to H+48, at 12-hour intervals with the following parameters: Extreme T, T + Current Lines., Rainfall, P + Wind, Fog + RH, Cloudiness.
(ICM = Interdyscyplinar Centrum Modelowania Matematycznego Komputerowego = Interdisciplinary Center for Mathematical and Computational Modeling).

Updated: Daily.

Contacts: e-mail: [webedition@gfi.uib.no]
Tel.: +47 55 58 26 02
Fax: +47 55 58 98 83
Address: Geophysical Institute
Allégaten 70 5007 Bergen

• **TromsO, Current Weather**

Initial address: [<http://www.cs.uit.no/cgi-bin/weather/EN>]

Content:

- Meteorological parameters List measured in real time: T, RH, P, Solar Radiation and Wind from the Weather Station at the University of TromsO.
- Significant Weather Chart.
- T, RH, P and Wind Meteograms for the past 24 h along with a 3-hour-Webcam Image associated with their corresponding charts.
- Availability of a Data Base from 01-1993 with the same daily information.
- Meteograms with identical information for the past 7 and 31 days.

Specific address: [http://www.cs.uit.no/cgi-bin/make_stormcast.html.sh]

Content:

- Historical Satellite Image data file from the TromsO Satellite Station from 1992 to 1999.

Updated: the Weather Station: Every 10 min.; The Data Base: Daily.

Contacts: Tel.: +47 77 684044
Fax: +47 77 689003
Address: Kirkegardsveien 60 TromsO

POLAND

• Institute of Meteorology and Water Management (IMGW)

Initial address: [<http://www.imgw.pl/>]

Specific address: [<http://www.imgw.pl/meteo/wstep.html>]

Content:

- Significant Weather Chart with Tmax forecast for today, and data on several cities in an Interactive Map.
- Written Weather Report for days D, D+1 and D+2 for Europe and Poland.

Contacts: e-mail: [ekspartyzy@imgw.pl]
Tel.: +48 22 8341651
Address: Podlesna 61 01-673 Warszawa

PORTUGAL

• Instituto de Meteorología

Initial address: [<http://www.meteo.pt/>]

Specific address: [<http://www.meteo.pt/obs.html>]

Content:

- Observations Data Table for the past 24 h for some continental Portuguese cities and the Islands of Madeira and Azores.
Updated: Daily

Specific address: [<http://www.meteo.pt/extremos.html>]

Content: Extreme T and Rainfall for the past 24 h.

Specific address: [<http://www.meteo.pt/sat.html>]

Content:

- Looping Meteosat Satellite Images, IR with colour enhancement, for Europe and North Atlantic areas.
Updated: Every 6 h.

Specific address: [<http://www.meteo.pt/informacaoClimatica/Meses/Meses.htm>]

Content:

- T and Rainfall monthly climatic Data from 09-2000 to the current month when this web page is consulted.

Contacts: e-mail: [webmaster@meteo.pt]
Tel.: (351) 218483961
Fax: (351) 218402370
Address: Instituto de Meteorología
Rua C ao Aeroporto 1700 Lisboa

ROMANIA

- **National Institute of Meteorology and Hydrology**

Initial address: [<http://www.inmh.ro/>]

Content:

- Significant map of the country including T forecast at 12 Z for the day in course for many Romanian cities. Significant Weather Charts for D+1, D+2 and D+3.

Contacts: e-mail: [webmaster@meteo.inmh.ro]
Tel.: +40 1 2303116
Fax: +40 1 2303143

- **University of Bucharest, Faculty of Geography**

Initial address: [<http://www.geo.unibuc.ro/eng.html>]

Content:

- Meteorological data with today's values and a Table including SIGWX, T, Wind and RH forecast for days D, D+1 and D+2 in the cities of Bucharest and Constanta.
- Connection to The Weather Channel Page.

Contacts: e-mail: [steriec@geo.unibuc.ro]

RUSSIA

- **Russian Federal Service for Hydrometeorology and Environmental Monitoring, (Roshydromet)**

Initial address: [<http://www.mecom.ru/roshydro/pub/eng/book/index.htm>]

- **Weather Forecast for Russia. Space Monitoring Information Support (SMIS)**

Initial address: [<http://smis.iki.rssi.ru/>]

- **Russia's Weather Server**

Initial address: [<http://meteo.infospace.ru/>]

- **Meteo-BXOD**

Initial address: [http://mhmb.hydromet.ru/txt/about_w.htm]

- **GIS Meteo**

Initial address: [<http://www.gismeteo.ru/weather/eindex.htm>]

- **Data Bases**

Initial address: [<http://mapmak.mecom.ru/edbase.htm>]

SLOVAKIA

- **Slovak HydroMeteorological Institute**

Initial address: [<http://www.shmu.sk/>]

SLOVENIA

- **HydroMeteorological Institute of Slovenia, Ljubljana**

Initial address: [<http://www.rzs-hm.si/lang.en/>]

Specific address: [<http://www.rzs-hm.si/lang.en/#NAPOVEDI>]

Content:

- Significant Weather National Chart that includes Tmax., Tmin., and forecast values for the days D+1 and D+2.
- Data Table with forecast meteorological parameters for the Adriatic Coast, showing them in morning/afternoon time intervals for today.
- Data Tables with Sums of T, Tsoil (at 5 and 10 cm), T at 2m, forecast of Sunshine, Rainfall and Wind for day D+1.

Updated: Diary.

Specific address: [<http://www.rzs-hm.si/lang.en/#DATA>]

Content:

- Table with meteorological information from some AWS containing: SIGWX, T and Wind symbols.
- Table with meteorological information from some European cities containing: SIGWX, T, RH, Wind and P.

Updated: 1 h.

Contacts: Tf: +386 1 436 27 84
Fax: +386 1 486 17 13
Address: Vojkova 1b, 1000 Ljubljana, Slovenia

SPAIN

- **Instituto Nacional de Meteorología, INM**

Initial address: [<http://www.inm.es/>]

Content:

- Climatological information by selecting the "Comunidades Autónomas" regions or their main cities interactively to access to monthly normal values referred to the 1961-1990 period including: Annual Monthly Tmean, Monthly Tmean max., Monthly Tmean min., Monthly Mean Rainfall, Monthly Mean RH, Mean Number of Snowy Days, Monthly Mean Number of Stormy Days, Monthly Mean Number of Foggy Days, Monthly Mean Number of Frozen Days, Monthly Mean Number of Days with Clear Sky.
- Meteorological information summarized in the following addresses below in this paragraph:

Specific address: [<http://www.inm.es/web/infmet/predi/mapgen.html>]

Content:

- SIGWX Forecast National Chart for today.

- Weather Forecast Report in Spain for today
- Tmax. and Tmin. from main cities in each province for today.
- Interactive National Map allowing to see where main Spanish cities are and their corresponding forecast Tmax. and Tmin. for day D+1.

Specific address: [<http://www.inm.es/web/infmet/predi/ccaa.html>]

Content:

- Interactive Map which offers a written Forecast Report for each “Comunidad Autónoma” region for today day D beside a Table containing Tmax. and Tmin. in several cities for the following day D+1.

Specific address: [<http://www.inm.es/web/infmet/predi/prov.html>]

Content:

- Interactive Map which offers for each province its own written Forecast Report along with Tmax. values forecast for today.
- Identical possibility to obtain a written Forecast Report for each province for day D+1 that includes some Tmax. and Tmin.

Specific address: [<http://www.inm.es/web/infmet/predi/ulvip.html>]

Content:

- UVI Index Forecast National Map for days D and D+1.

Specific address: [<http://www.inm.es/cgi-bin/aviso/consultaaviso.cgi>]

Content:

- Risk Events Bulletins provided by the Instituto Nacional de Meteorología being valid at the moment you enter with this web page.

Specific address: [<http://www.inm.es/web/infmet/tobsr/tiayer.html>]

Content:

- Interactive selection by choosing a “Comunidad Autónoma” region and its Map showing on it : Tmax. and Tmin., Sunshine, Rainfall collected for the last 24 h in main cities.
- Information about UVI max. Index measured at the available stations along with some Tables displaying hourly data from the day before D-1. Also Graphics with data series from the current year.

Specific address: [<http://www.inm.es/web/infmet/modnum/ceppm.html>]

Content:

- Forecast Charts obtained from the ECMWF Model (Bracknell) from day D+3 to D+6 only including PSL and Z Geopotential/500 HPa, referred to North Atlantic, Northern Hemisphere, Southern Hemisphere and Tropical Belt areas.

Specific address: [<http://www.inm.es/web/infmet/modnum/hirlam.html>]

Content:

- Forecast Charts obtained from the INM-HIRLAM Model from H+12 to H+48 showing the following meteorological parameters: P/Cloudiness, Accumulated Rainfall, T/Wind at 850 HPa., RH/Wind at 700 HPa, Z Geopotencial/T at 500 HPa, T/Wind in SFC.

Specific address: [<http://www.inm.es/web/infmet/rayos/rayos.html>]

Content:

- Lightning Discharges National Chart recorded in 6-hour intervals.

Specific address: [<http://www.inm.es/web/infmet/radar/radar.html>]

Content:

- National Composition Radar Image (Rainfall Intensity) besides Radar Images from the past 24 hours by 30- minute intervals and their looping.

Specific address: [<http://www.inm.es/web/infmet/satel/meteose.html>]

Content:

- Meteosat Satellite Images, IR channel every 6h. from Europe area and Earth Global Composition.

Specific address: [<http://www.inm.es/web/infmet/prode/prode.html>]

Content:

- NDVI Index National Map.

Updated: Depending on the product, from 30- minute to 24-hour intervals.

Contacts: Tf: 34 91 5819630
Address: Instituto Nacional de Meteorología
Camino de las Moreras, S/N
Madrid-28040

• Observatori Meteorològic de Sort

Initial address: [<http://www.svt.es/meteosort/>]

Content:

- Weather Forecast for the Pirineo and Pre-Pirineo Leridano regions and Andorra, that contains a Data Table with: T, Tmax., Tmin., RH, Rainfall, Wind, P, T soil min., Tsoil at different depths, all of them measured at 7Z today. An interactive way to accede to the last Thermohygrograph and Microbarograph Graphics. A Weather Report for day D to D+2.
- Meteorological Data Base with information recorded from 1998-05-19.
- T and Rainfall Monthly Graphics from the past one-year. Accumulated Rainfall Graphics from 1986, (it can be recorded in an Excel format). Monthly Extreme T Graphics. Ozone Level Graphics for the current year.
- SFC Analysis Charts from The MetOffice, from D+1 to D+5. Forecast Charts at 850, 700 and 500 hPa levels, to H+36 and H+48. Forecast Analysis Charts from H+30 to H+72, obtained from the German DWD Model.

Updated: Diary.

Links: At the web page [<http://www.svt.es/meteosort/links.htm>]

Contacts: e-mail [meteosort@svt.es]
Tf: 676 277033
Fax: 973 620775
Address: Ramón Baylina i Cabré
Observatori Meteorological de Sort / Escola de Caiac
25560 Sort, Lleida

• Departament d'Astronomia i Meteorologia

Initial address: [http://www.am.ub.es/DAM_ES.html]

Specific address: [<http://www.infomet.fcr.es/metdata/metdata.shtml>]

Content:

- Table with weather information in real time about these parameters: T, RH, P, Rainfall, Wind, Global Total Solar Irradiation, Diffuse Total Solar Irradiation, Global UV Solar Irradiation, UV Index, for Barcelona city.
- Meteograms from T/RH, P, Intensity/Address Wind, and Diffuse Global Solar Radiation / Total UV Solar Radiation parameters, from the last 2, 5, 10 and 20 days.
- Table with extreme values on the current day, recorded from 00Z to the moment you enter with this web page.
Updated: 10 min.

Specific address: [http://www.infomet.fcr.es/mass/pluja_l.gif]

Content:

- Forecast Rainfall Charts for Catalunya using the MASS Catalanian Mesoscalar Model.

Contacts: e-mail [secre@am.ub.es]
Tf: 34 93 4021125
Fax: 34 93 4021133
Address: Martí i Franquès, 1
08028-Barcelona

• Infomet (Servidor de Información Meteorológica)

Initial address: [<http://www.infomet.fcr.es/>]

Content:

- Weather Forecast Bulletins for the Catalanian region provided by the Servei de Meteorologia de Catalunya (SMC) and the Instituto Nacional de Meteorologia (INM).
- Interactive Table to obtain Forecast Maps from H+00 to H+36, or to D+5, making use of the following Numeric Models: MAS, MASS-WAM, HIRLAM, AVN, MRF, ECMWF, UKMO, DWD, ETA, in SFC, at 500 Hpa and 700 HPa atmospheric levels.
- Current Significant Weather composed by a four- map mosaic that shows T, Rainfall, RH and Wind for the Catalanian region. Another four-map mosaic with T, SIGWX, RH and Wind for Europe.
- Significant Weather Charts with T, RH, Wind, SIGWX, Tmax., Tmin., beside a mosaic composition and a Table with decoded weather information coming from many European cities.
Updated: Diary.

Specific address: [<http://www.infomet.fcr.es/raob/>]

Content:

- Interactive Map showing the profile of the latest Radiosond Exploration obtained in many European cities.
Updated: Every 12 h.

Specific address: [<http://www.infomet.fcr.es/meteosat/>]

Content: Meteosat Satellite Images, IR VIS and WV channels for Europe and the Iberian Peninsula.

Specific address: [<http://www.infomet.fcr.es/noaa/>]

Content: Images provided by NOAA in IR and VIS channels for the Iberian Peninsula.

Specific address: [<http://www.infomet.fcr.es/llamps/>]

Content:

- European Map of Lightning Discharges produced during the day, granted by the University of Karlsruhe (Germany).

Updated: Every hour.

Specific address: [http://www.infomet.fcr.es/p_altres/]

Content:

- Links to Web Pages to accede to Weather Forecasts for the Catalanian region or its local areas, provided by different sources.
- Avalanche Risk Forecast in the Catalanian Pyrenees.

Updated: Daily.

Links: At [<http://www.infomet.fcr.es/enllacos/>]

Contacts: e-mail: [consultes@infomet.am.ub.es]

Tel.: +34 934021125

Fax: +34 934021133

Address: Departament d'Astronomia i Meteorologia
Universitat de Barcelona
Diagonal 647, 08028- Barcelona

● **Servei de Meteorologia de Catalunya, (SMC)**

Initial address: [<http://www.gencat.es/servmet/>]

Content:

- Written Weather Report for Catalunya for days D, D+1 and D+2 with Significant Weather Chart.

Updated: Every 8 h.

- Medium-term Weather Report for Catalunya for days D+3, D+4, D+5 and D+6.

- Hail Risk Map for Catalunya.

Updated: Daily.

- Latest Meteosat Satellite Image.

Specific address: [<http://www.gencat.es/servmet/anuaris/anuaris.htm>]

Content:

- Real time Weather Data from 51 Automatic Weather Stations. Data from the previous year for 138 Automatic Weather Stations. Monthly and annual summaries referred to the years 1997, 1998 and 1999.

Links: At [<http://www.gencat.es/servmet/smc/clinksmc.htm>]

Contacts: e-mail: [wsmc@correu.gencat.es]

Tel.: +34 934445000

Fax: +34 934198709

● **IVIA- Institut Valencià d'Investifacions Agràries**

Initial address: [<http://www.ivia.es>]

Specific address: [<http://www.ivia.es/estacion/>]

Content:

- Data Table with ETo and Rainfall daily values from the previous day and the previous week concerning the Comunidad de Valencia and its tRHee provinces and many of its cities.
- Monthly Data Tables for the past year: ETo, Rainfall, coming from some local areas. ETo and mean Rainfall Data Tables for every month of the year in these local areas. Percentage Comparison Table between the real and mean monthly values.

Updated: Weekly or monthly.

Contacts: e-mail: [fjuste@ivia.es]

● **Riegos de Navarra, S.A.**

Initial address: [<http://www.riegosdenavarra.com/>]

Specific address: [<http://www.riegosdenavarra.com/sar/cliport.htm>]

Content:

- Daily and monthly Report of Tmax, Tmin, Tmean, RH, Solar Radiation, Wind and Rainfall on an Interactive Data Table for several Agroclimatic Weather Stations within the Comunidad de Valencia.
- Interactive Data Tables for 7 Agroclimatic Weather Stations in the Navarra region showing: T, RH, Rainfall, Wind, Solar Radiation, Net Radiation, Soil Heat Flow, Tsoil, Active Radiation Photosynthetically, Leaf Moisture.

Updated: Daily or weekly.

Contacts: e-mail: [riegosdenavarra@riegosdenavarra]

Tel.: +34 948 238404 / +34 948 238408

Fax: +34 948 243217

Address: Ctra. Sadar s/n Edificio "El Sario"
31006- Pamplona Navarra

● **Consejería de Agricultura y Medio Ambiente de Extremadura. Diputación General de Producción, Investigación y Formación Agraria**

Initial address: [<http://www.juntaex.es/consejerias/home.html>]

Specific address: [<http://www.juntaex.es/consejerias/aym/riegos/principal.htm>]

Content:

- Daily values from 11 Agroclimatic Weather Stations containing: Tmax, Tmin, RH, Solar Radiation, Solar Heat Flow, Tsoil, Rainfall, ETo, referred to Crop Reference, to Grass and to Alfalfa for the previous week.

Updated: Daily.

Contacts: e-mail: [jbaselgay@aym.juntaex.es]

● **Darrera, S.A. División de Meteorología**

Initial address: [<http://www.darrera.com/>]

Specific address: [<http://www.darrera.com/utills.html>]

Content:

- Davis Weather Station Network in the Catalunya region with climatological data Tables containing T, RH, P, Rainfall and Wind values from 1993 to the current date depending on the case.

Contacts: e-mail: [info@darrera.com]
 Tel.: +34 934 734532
 Fax: +34 934 735 708
 Address: Darrera, S.A.
 c/ de l'Església, 5-7-9
 08950 Esplugues de Llobregat Barcelona

- **Naval European Meteorology and Oceanography Center, Rota**

Initial address: [<http://www.nemoc.navy.mil/>]
 Specific address: [<http://www.nemoc.navy.mil/metoc/about1.htm>]
 Content:

- Weather Forecast from day D to D+4 along with Tmax and Tmin Forecast Data Table and the latest Meteosat Satellite Image.
- Significant Weather Forecast Chart to H+36 for Europe.
- Radar Images from Southeast Spain with the possibility of looping Images and displaying the areas closest to Rota.

Specific address: [<http://www.nemoc.navy.mil/metoc/special.html>]
 Content:

- Meteosat Satellite Images, IR, VIS and WV channels for the North Atlantic, Western Europe and Mediterranean areas.

Contacts: e-mail: [lastname1srintil@nemoc.navy.mil]
 Example: [PeteSmithsmithp@nemoc.navy.mil]
 Address: NaveurMetoccen Rota SP
 PSC 819 Box 31
 FPO AE 09645-3200

- **Pluviómetros de CLABSA (Catalunya)**

Initial address: [<http://www.clabsa.es/>]

- **Red de Estaciones Meteorológicas Automáticas de Galicia**

Initial address: [<http://www.siam-cma.org/meteorologia/datosestacions.htm>]

- **Dirección General de Protección Civil, España**

Initial address: [<http://www.proteccioncivil.org/linksweb0.htm>]

- **Observatorio Astronómico Nacional**

Initial address: [http://www.oan.es/servicios/info_astr.html#meteosat]

- **Meteored.com**

Initial address: [<http://www.meteored.com>]

- **Navegar.com**

Initial address: [<http://www.navegar.com/meteo/es/default.asp>]

- **Centro Astronómico Hispano Alemán**

Dirección inicial: [<http://www.caha.es/WDXI/wdxiFrames.html>]

- **Junta de Andalucía. Consejería de Agricultura y Pesca**

Dirección inicial: [http://www.cap.junta-andalucía.es/estaciones_agroclimaticas/indice.jsp]

- **Meteotemp**

Initial address: [<http://www.meteotemp.es>]

- **Sam-Meteo**

Initial address: [<http://www.sam-meteo.com>]

- **Anticición.com**

Initial address: [<http://www.anticiclon.com/>]

- **Diario Sur. Canal Meteo**

Initial address: [<http://www.diariosur.es/canalmeteo/>]

- **Mapa Isibàric de TV3**

Initial address: [<http://www.tvcatalunya.com/eltemps/prev/isob.html>]

- **Nosaltres. Com/ El Cercador de VilaWeb**

Initial address: [<http://vilaweb.com:8000/vialweb/plsql//actualitat.temes?tema=57343>]

- **Asociació Catalana d'Observadors Meteorològics**

Initial address: [<http://www.acom.es>]

- **TSC:Meteosat:Imágenes JPEG**

Initial address: [<http://www.tsc.upna.es/cgi-bin/meteosat?es>]

- **IAC Weather Satellite Images and Movies**

Initial address: [<http://www.iac.es/weather/tiempo.html>]

SWEDEN

- **Uppsala Universitet, Department of Earth Sciences, Meteorology**

Initial address: [<http://www.met.uu.se/eng/index.html>]

Specific address: [<http://www.met.uu.se/drizzle/weatherdata.html>]

Content:

- Meteograms with T, Wind, P, Rainfall, Tsoil at different depths and Global Radiation recorded for the past 24 h.
- Data Table of observations from several Swedish cities and Iceland: SIGWX, T, RH, Wind, P, provided by the Zentralanstalt für Meteorologie und Geodynamik in Vienna.

- Weather and Radar Data from Göteborg.
- Meteosat Satellite Images, IR, VIS and WV channels from the University of Nottingham and NOAA Images granted by the University of Dundee.
- Interactive Map of Europe allowing the latest Radiosond Exploration of many European cities, from the University of Barcelona.
- European Surface Analysis Chart from the University of Köln and the Met-Office (Bracknell). T Analysis Chart in Europe from the Freie Universität in Berlin. Plotting of Scandinavian observations from the University of Karlsruhe.
- Weather Forecasts Reports from several Web sources.
- Monthly Reports of Meteorological observations in Uppsala from 1997 to 2000.

Links: Connection to the Roger Brugge Web Page (Department of Meteorology, University of Reading), [<http://www.met.rdg.ac.uk/~brugge/bi.html>]

Updated: Depending on the product.

Contacts: e-mail: [info@met.uu.se]
 Tel.: +46 18 471 7184
 Fax: +46 18 55 11 24
 Address: Department of Earth Sciences, Meteorology
 Uppsala University
 Geocentrum Villavägen 16 S-752 32 Uppsala

- **REAB, Radar Electronics AB**

Initial address: [<http://www.reab.se/weather/radar01.gif>]

- **Baltex Radar Data Centre**

Initial address: [<http://www.smhi.se/brdc/>]

SWITZERLAND

- **Uppsala Universitet, Department of Earth Sciences, Meteorology**

Initial address: [<http://www.meteoschweiz.ch/de/>], [<http://www.sma.ch/de/>],
 [<http://www.meteoswiss.ch>], [<http://www.meteosuisse.ch/>]
 Specific address: [<http://www.meteosuisse.ch/fr/Prevision/IndexPrevision.shtml>]

Content:

- T National Map in real time for many cities: Updated: Every hour.
- Significant Weather Forecast Chart including Tmax and Tmin for day D+1. Forecast SIGWX Table from day D+2 to D+5. Updated: Daily.
- Local Forecast Maps for the Davos and Gstaad areas including SIGWX symbols and T at three points on the vertical. Updated: Daily.
- Decoded Weather Data Table: T, Wind, SIGWX for some cities in Europe. Updated: Every 12 h.
- Front Analysis Chart and Synoptic Plotting Chart both of Europe corresponding to 12Z from the previous day. Updated: Daily.
- National Radar Image in real time.

- Looping of the 4 latest Meteosat Images, IR with colour enhancement, for Europe and North Atlantic areas. Latest NOAA Image.

Specific address: [<http://www.meteosuisse.ch/fr/Donnees/Tabelles/IndexTablelles.shtml>]

Content:

- Interactive Map for Swiss that gives us updated measurements taken in real time: T, Sunshine, Rainfall, Wind, P. Updated: Every 30 min.
- Latest Radiosond Exploration measured in these cities: Payerne, Munich, Stuttgart, Nancy, Lyon, Milan, Udise, Innsbruck, Paris. Updated: Every 12h.
- Latest Radar Image Product (Rainsat) for Swiss. Updated: Every hour.

Specific address: [<http://www.meteosuisse.ch/fr/Professionnels/Aviation/IndexAviation.shtml>]

Content:

- Agrometeorological local Information from today, day D, to D+5 including SIGWX symbols, Tmin., Tmax..
But, if you want accurate information for some local areas: Plateau Romand-Jura, Bassin Lémanique, Valais Central, Bern-Mittelland, Zürich-Ostschweiz, Basel-Nordwestschweiz, Sud delle Alpi, there is a Contact Telephone Service for customers: 0900 162 666.
- Free Phenological Bulletin. Updated: Every 15 days.

Contacts: e-mail: [websupport@sma.ch]
 Tel.: +41 1 2569111
 Fax: +41 1 2569278
 Address: Krähbühlstrasse 58
 Postfach 514 CH-8044 Zürich

• Doppler Radar of ETH Zürich

Initial address: [http://www.radar.ethz.ch/radar_e.html]

Content:

- Latest Radar Image of Switzerland.
- Radar Image Looping formed by groups of 6, 12 or 18 images.
- Other Radar products: Echotops, Doppler Images, Vertical Wind Profile.
- Interactive Data Table to accede to 10 Studies on significant Swiss meteorological situations from 1992 to 2000.

Updated: At least every 15 min.

Contacts: e-mail: [schmid@atmos.umnw.ethz.ch],
 [hirter@atmos.umnw.ethz]

• Wetterprognosen für die Schweiz und Europa (SF DRS ON LINE)

Initial address: [<http://www.sfdrs.ch/sendungen/meteo/>]

Content:

- Significant Weather Charts with a few amount of SIGWX symbols for European and Swiss regions for the day in course.

- T Forecast Chart for today. A List of regions and cities from Europe and Switzerland and their T in real time.
 - Forecast Wind Maps for today in Switzerland.
 - SFC Frontal Forecast Analysis for today in Europe.
 - Radar Image in real time in Switzerland.
- Contacts: E-mail [sfdrs@sfdrs.ch]

• **Winterthur (Schweiz), Wetterstation. Zürcher Hochschule Winterthur**

Initial address: [<http://meteo.zhwin.ch>]

Content:

- Meteorological parameters measured in real time at the AWS Winterthur: T, RH, P, Solar Radiation, Wind, Rainfall.
- Meteograms with values measured diary and monthly at the AWS, from 1997-01 to the current day when the web page is consulted.

Updated: 10 min.

Contacts: E-mail [eduard.Ygamp@zhwin.ch]
 Tf: +41 0 52 267 73 45
 Fax: +41 0 52 267 73 68

• **Institut für meteorologie, Klimatologie und Fernerkundung, Departement Geographie, Universität Basel**

Initial address: [<http://www.mcrlab.unibas.ch>], [<http://www.gib.unibas.ch/>]

• **FG Meteo UniBasel: Links-Wetterinfos**

Initial address: [http://www.gib.unibas.ch/fg/m_links.htm]

• **Universität Bern, departement Geographie, Geographisches Institut und Gruppe für Klimatologie (KLIMET)**

Initial address: [<http://www.giub.unibe.ch/>]
 [<http://www.giub.unibe.ch/Klimet/index.html>], [http://www.giub.unibe.ch/~mpfister/wetter_0.html]

• **Eidgenössische Technische Hochschule Zürich (ETHZ) - Institute for Atmospheric and Climate Science / Institut für Atmosphäre und Klima**

Initial address: [<http://www.iac.ethz.ch/>]

• **The Swiss National Point in Contact (NPOC)**

Initial address: [<http://www.vision.ee.ethz.ch/npoc/>]

• **Swiss NCCR-Climate**

Initial address: [<http://www.nccr-climate.unibe.ch>]

• **WestWind.ch-6000 Weather Links for Europe**

Initial address: [<http://www.westwind.ch>]

- **Meteoradar**

Initial address: [<http://www.meteoradar.ch/>]

- **Schnee und Eis**

Initial address: [<http://meteoradar.ethz.ch/schnee/schnee.html>]

- **European Avalanche Services. Eidgenössischen Institut für Schnee-und Lawinenforschung in Davos.**

Initial address: [<http://www.slf.ch/>]

- **MeteoNorm. Global Meteorological Database**

Initial address: [<http://www.meteotest.ch/berphomod/windp.html>]

- **NZZ Online**

Initial address: [<http://www.nzz.ch/wetter/radar.html>]

- **Meteocom. Meteorage**

Initial address: [<http://www.meteocom.ch/>]

- **KZU-GG: Links**

Initial address: [<http://www.kzu.ch/facg/gg/links/linkserdsat.html>]

TURKEY

- **Turkish State Meteorological Service**

Initial address: [<http://www.meteor.gov.tr>]

Specific address: [<http://www.meteor.gov.tr/english/forecast/forecastmaster.htm>]

Content:

- Significant Weather Forecast Charts for Turkey from day D+1 to D+3.
- Wind Forecast Maps for Turkey from day D+1 to D+3.
- Interactive Map dedicated to Weather Information in Turkish Holiday Resorts including: Current Conditions in surface, Weather Forecast from day D to D+3: SIGWX, Tmin., Tmax.
- The latest Weather Information from some cities in the world.
- Data Table with these parameters: T, RH, SIGWX, Wind and Visibility for many Turkish cities.

Specific address: [http://www.meteor.gov.tr/index_eng.htm]

Content: Meteosat Satellite Images, IR and VIS channels with colour enhancement.

Specific address: [<http://www.meteor.gov.tr/webler/radar/radarmaster.htm>]

Content: Radar Images.

Contacts: e-mail: [info@meteor.gov.tr]

Tel.: +90 312 3597545

Fax: +90 312 3593430

● **Bogazici University, Kandilli Observatory and Earthquake Research Institute**

Initial address: [<http://boun.edu.tr>]

Content:

- Interactive Data Table allowing all the Analysis and Forecast Charts from H+00 to H+144.
- Latest Meteosat Satellite Image, IR with colour enhancement for the Mediterranean area. Looping of Meteosat Satellite Images.

Contacts: e-mail: [anteplio@fatin.koeri.boun.edu.tr]

UNITED KINGDOM

● **The Meteorological Office, Bracknell**

Initial address: [<http://www.met-office.gov.uk>]

Specific address: [<http://www.met-office.gov.uk/weather/europe/uk/ukforecast.html>]

Content:

- Significant Weather Charts for the United Kingdom for days D, D+1 and D+2.
- Interactive Maps for 13 areas accompanied by a Weather Forecast Report with Tmax and Tmin included.

Specific address: [<http://www.met-office.gov.uk/weather/europe/europeforecast.html>]

Content:

- Interactive Map of Europe with main cities activated whose data are also accessed through an interactive Data Table. Each city has a Data Table available with SIGWX, Tmax and Tmin forecast from D+1 to D+5.

Specific address: [<http://www.met-office.gov.uk/weather/index.html>]

Content:

- Interactive World Map to access to Forecast Data from selected cities on every continent showing SIGWX, Tmax and Tmin from D+1 to D+5.

Specific address: [<http://www.met-office.gov.uk/weather/charts/animation.html>]

Content:

- Looping of SFC Front Analysis and Forecast Charts for days D, D+1 and D+2.

Updated: Daily.

Links: Connecting to sites using Mett-Office data:

[<http://www.met-office.gov.uk/corporate/links/modata.html>]

Connecting to sites from other National Meteorological Services:

[<http://www.met-office.gov.uk/corporate/links/nms.html>]

Contacts: e-mail: [enquiries@meteo.gov.uk]

Tel.: +44 0 1344 855680 0845 300 0300

Fax: +44 0 1344 855681 0845 300 1300

Address: Met-Office
London Road Bracknell
Berkshire RG12 2SZ UK

- **Nottingham University, Meteosat Web Page**

Initial address: [<http://www.nottingham.ac.uk/meteosat/>]

Content:

- List of files with Meteosat Satellite Images for the past 24 h.
- Latest Meteosat Satellite Image of the D2 earth area.
- Looping of Meteosat Satellite Images, IR, for the past 24 h for the D2 earth area.

Links: At [<http://www.nottingham.ac.uk/meteosat/infos.shtml>]

Contacts: Tel.: +44 0 115 9515151
 Fax: +44 0 115 9513666
 Address: The University of Nottingham
 University Park, Nottingham NG/ 2RD

- **University of Reading, Department of Meteorology**

Initial address: [<http://www.met.rdg.ac.uk/>]

Specific address: [<http://www.met.rdg.ac.uk/Data/general.html>]

Content:

- Monthly Statistical Agroclimatic Summary with recorded data at the Reading Weather Station from 1995 to 2000.

Specific address: [<http://www.met.rdg.ac.uk/Weather/>]

Content:

- Meteograms with T, Solar Flow and Wind values for today, the day before and the previous week and year from the University of Reading Weather Station.
Updated: Every 10 days.
- Data in real time containing: T, Tmean, Wind and Mean Wind from 00Z for the day in course.
Updated: Every 15 min.

Specific address: [<http://www.met.rdg.ac.uk/radar/realtine/>]

Content:

- Radar Image Historical Data files for the past 6 months, through Charts of daily evolution from the radar signal, (Chilbolton Radar). Real time Images for the current day and the previous day.
Updated: Every 15 min.

Specific address: [http://www.met.rdg.ac.uk/Data/Global/current_images/]

Content:

- Meteosat Satellite Images, IR and VIS, IR channels, showing loopings of Global Composition Images including all continents for the past 6 hours.
Updated: Every 30 min.

Specific address: [<http://www.met.rdg.ac.uk/Data/Global/climate>]

Content:

- Forecast Maps for T, Rainfall, Soil Moisture.
- Weather Forecasts for day D+5 for Europe and the USA.
Updated: Daily.

Links: At [<http://www.met.rdg.ac.uk/Links/weblinks.html>],

[<http://www.met.rdg.ac.uk/~brugge/jobsites.html>]

Contacts: e-mail: [infosec@met.reading.ac.uk]
Tel.: +44 0 118 931 8954
Fax: +44 0 118 931 8905
Address: University of Reading
Early Gate, P.O. Box 243, Reading RG6 6BB UK

• Roger Brugge's Page

Initial address: [<http://www.met.rdg.ac.uk/~brugge/>]

Content:

- A very complete Interactive List allowing Analysis Maps, Forecast Maps, Observation Maps, Plots, Satellite and Radar Images, Synoptic Weather Reports, Aeronautical Forecasts, Radiosond Explorations, Real time Data and Climatological Data, etc. to be obtained for the United Kingdom.

Contacts: e-mail: [brugge@met.rdg.ac.uk]

• The University of Birmingham

Initial address: [<http://www.bham.ac.uk>]

Specific address: [<http://www.bham.ac.uk/geograhpy/met/uk.htm>]

Content:

- SFC Analysis Chart in the hour nearest real time. Meteosat Satellite Images, IR and VIS channels.
- Meteosat Satellite Image, IR with colour enhancement.
- SFC Analysis Chart.

Links: Connections to Web Sites in the United Kingdom.

Specific address: [<http://www.bham.ac.uk/geograhpy/met/weather.htm>]

Content:

- List of several meteorological parameters on the vertical: Geopotential, Vorticity, Thickness, Vertical Speed, T, RH, Wind, Divergence, Total of Totals, Precipitable Water for day D-1 obtained from the German DWD Model.
Updated: Daily.
- Analysis Maps and Forecast Analysis from H+00 to H+120 with an associated looping from the Met Office. Synoptic Analysis Maps and some Forecast Weather Charts from day D to D+10 from the MRF and ECMWF Models.
- Links connecting to Web Pages that offer Weather Analysis and Forecast Charts for the United Kingdom, Europe and the rest of the world.

Contacts: e-mail: [a.t.vel@bham.ac.uk]

• University of East Anglia, Climatic Research Unit, Norwich

Initial address: [<http://www.cru.uea.ac.uk>]

Specific address: [<http://www.cru.uea.ac.uk/cru/info/>]

Content:

- Thermal Anomaly Chart from 1850 to 2000. Thermal Anomaly Chart for the past millennium. Chart of the Number of Strong Wind Days/year for the 1880-2000 period. (All of them referred to Tmean obtained for the 1961-2000 period).

Specific address: [<http://www.cru.uea.ac.uk/cru/data/>]

Content:

- Monthly mean PSL Dataset for the 1873-1995 period.
- T Dataset for the 1851-2000 period.
- Northern Atlantic Oscillation Dataset, 1821-1997.
- Southern Oscillation Index Dataset, 1866-1997.
- Global Rainfall Dataset for the world, 1900-1998.
- Regional Climatological Datasets for: Europe, Great Britain, the British Isles, The USA, Southern Asia and Southern Africa for the 1961-1990 period.
- UK Climatological Datasets for the 1961-1990 and 1901-1995 periods.
- Daily and Monthly Observation Datasets that are part of the MEDALUS Project, (Mediterranean Climatology).
- Links to Web Pages containing Climatological Datasets: IPCC Data Distribution Centre, The Hadley Centre, The UK Climate Impacts Programme, The ECLAT-2 Project- An EU Concerted Action Initiative.
- Climate Monitor Online Dataset that includes interactive Web Pages with monthly summaries for the 1998-1990 period.

Links: At [<http://www.cru.uea.ac.uk/cru/links>]

Contacts: e-mail: [cru@uea.ac.uk]
Tel.: +44 1603 592722
Fax: +44 1603 507784
Address: University of East Anglia
Norwich NR4 7TJ UK

• ICCUK

Initial address: [<http://www.nbu.ac.uk/iccuk/>]

Specific address:

[<http://www.nbu.ac.uk/iccuk/indicators/ClimateHydrologySeaLevelAndAirPollution.htm>]

Content:

- Chart of the Mean Tyear for Central England for the 1900-2000 period.
- Chart of the Number of Hot Days ($T \geq 20$ °C) for the 1900-2000 period.
- Chart of the Number of Cold Days ($T < 0$ °C) for the 1900-2000 period.
- Chart of the Percentage of Winter Rainfall and Rainfall Gradient in England.
- Chart of the North Atlantic Oscillation for the 1900-2000 period.
- Chart of the Number of Days/year of dry and moist soil the 1900-2000 period.
- Chart of Tropospheric Ozone during summer in rural areas for the 1980-2000 period.
- Phenological Chart for the 1950-2000 period.

Contacts: None

• The UK Environmental Change Network

Initial address: [<http://www.ecn.ac.uk/index.html>]

Specific address: [http://www.ecn.ac.uk/moo_aws/moo_aws.html]

Content:

- Meteograms with Tmean, Total Mean Rainfall, Mean Wind and Mean Solar Radiation measured at the Moor House Weather Station.

Updated: Every hour.

Specific address: [http://www.ecn.ac.uk/Database/get_sandm.asp?st=TE]

Content:

- Interactive Data Base by first selecting the city with a Weather Station, then selecting the meteorological or climatological parameter: Mean Rainfall, Number of Days with T < 0 °C and Number of Rainy Days, etc. Each Weather Station has a different antiquity. Graphic display of the results.

Updated: Every 10 days.

Contacts: e-mail: [ECNCCU@CEH.AC.UK]

Tel.: 015395 32264

Fax: 015395 34705

Address: Centre for Ecology and Hydrology
Merlewood Research Station
Grange-over-Sands Cumbria. LA11 6JU

• Fair Isle Weather Station (Shetland)

Initial address: [<http://www.zetnet.co.uk/sigs/weather/>]

Content:

- Monthly diary Dataset for the 1995-1999 period, including an Annual Summary Report for the 1995-1998 period.
- Monthly and yearly Climatological Dataset for the 1974-1998 period which provides: T, Rainfall, Sunshine, Cloudiness and RH, P, Wind, Number of Rainy Days, Snow, Hail, Wind Gusts, Thunderstorms.
- Climatologic data from other AWS in Scotland for the 1951-1980 period, showing the parameters: Rainfall, Sunshine, T, Number of Days of Snow.

Updated: Montly.

Contacts: E-mail [weatherman@zetnet.co.uk]

• Online Weather

Initial address: [<http://www.onlineweather.com/index.html>]

Specific address: [http://www.onlineweather.com/British_isles/index.html]

Content:

- Interactive Significant Weather Map for the United Kingdom including Tmax Forecast from day D to D+3. Data given by regions as well as more detailed Data Tables and a List of cities with T and Significant Weather.
- Forecast Maps for the United Kingdom from several Meteorological Centres around the world.

- Medium and Long term Forecast Maps to D+15 from NOAA/CIRES.
- Interactive List of links with access to European Radar Data.
- Lightning Discharge Maps of Discharges recorded in Europe and the North Atlantic areas for the current day.
- Meteosat Satellite Images, IR, VIS and WV channels for Europe and North Atlantic areas, as well as Global Compositions and other great earth areas.

Specific address: [<http://www.atlasweather.com/v4/world/index.html>]

Content:

- Interactive World Map that connects to great regions in all continents to obtain Synoptic and Significant Weather Charts beside Meteorological Weather Bulletins from day D to D+5 along with the last Satellite Images.

Contacts: None

- **BBC Weather Centre**

Initial address: [<http://www.bbc.co.uk.weather/index.shtml>]

Content:

- For the United Kingdom, Interactive Map allowing: Maps for T, P, Wind, Meteosat Satellite Image, IR with colour enhancement, Radar Image and Looping Meteosat Satellite Image with colour enhancement for the past 6 and 24 h. Weather Forecast from day D to D+3.
- Interactive World Map that provides: Significant Weather Chart, SFC Analysis Map and Air Thermal Distribution Map on every continent and every country.
- Data Tables for several English cities with T, RH, Wind, P and Visibility data in real time as well as Tmax and Tmin forecasts from day D to D+4.

Contacts: None

- **Climatological Observers' Link (Brugge's Page)**

Initial address: [<http://www.met.reading.ac.uk/~brugge/bulletin.html>]

- **Jersey Airport Meteorological Department**

Initial address: [<http://www.jerseymet.gov.je/>]

- **NERC Satellite Station, Dundee University**

Initial address: [<http://www.sat.dundee.ac.uk/>]

- **Remote Imaging Group**

Initial address: [<http://www.rig.org.uk/index.html>]

- **Scottish Meteorological Society**

Initial address: [<http://www.sais.gov.uk/>]

- **Scottish Avalanche Information Service (SAIS), University of Glasgow**

Initial address: [<http://www.sais.gov.uk/>]

- **ITN Online**

Initial address: [<http://itn.co.uk/weather.shtml/>]

- **ITV Teletext**

Initial address: [<http://www1.teletext.co.uk/weather/home.asp>]

- **Scotland Weather Information**

Initial address: [<http://www.geo.ed.ac.uk/home/scotland/scotweather.html>]

- **Current Weather**

Initial address: [<http://www.west-cheshire.ac.uk/weather/current.htm>]

- **The UK Weather Information Site**

Initial address: [<http://www.weather.org.uk/resource/britwx.htm>]

- **Guardian Unlimited**

Initial address: [<http://www.guardian.co.uk/weather>]

- **PEYC Weather**

Initial address: [<http://www.peyc.org.uk/weather.html>]

- **Dave's Links Weather**

Initial address: [http://www.lainesworld.com/weatherlynx/index_full.htm]

- **Weather Reports and Weather Images**

Initial address: [<http://www.geo.ad.ac.uk/home/weather.html>]

- **Ant Veal's UK Weather Centre**

Initial address: [<http://www.greatweather.co.uk/>]

- **Charts**

Initial address: [<http://www-cheshire.ac.uk/weather/charts.htm>]

- **The Weather Information Site: Recent and Current Observational Data For The British Isles**

Initial address: [<http://www.weather.org.uk/obs.htm>]

- **Links (Highland Gliding Club)**

Initial address: [<http://www.highglide.co.uk/links.htm#weather>]

- **British Homing World-Weather Stations**

Initial address: [<http://www.pigeonracing.com/weather.htm>]

- **Dave Lane's NW UK Weather Page**

Initial address: [<http://www.d.lane.btinternet.co.uk/weather.html>]

- **Weather Web Sites**

Initial address: [<http://www.newi.ac.uk/buckleyc/weather.htm>]

- **UK Weather Links**

Initial address: [<http://www.vorticity.org/weather/main.html>]

- **Professional Services. The Weather Resource Page**

Initial address: [<http://www.sevenoaks.demon.co.uk/weather.htm>]

- **Caving.Org.UK- Weather Information**

Initial address: [<http://www.caving.org.uk/weather/>]

- **UK Synop Reports**

Initial address: [<http://www.freenetpages.co.uk/hp/weather2/home.html>]

- **Anglia Weather**

Initial address: [<http://www.angliaweather.co.uk/radar.gif>]

- **The Month Head**

Initial address: [<http://www.themonthhead.co.uk/>]

- **Snow Forecast**

Initial address: [http://www.snow-forecast.com/glo_eurasia_anim.htm]

- **Atmosphere, Weather and Climate Information (The King's School)**

Initial address: [<http://atschool.eduweb.co.uk>]

- **Booty Meteorological Information Source: Links**

Initial address: [<http://www.booty.demon.co.uk/metindex.htm>]

- **PA Weathercentre, UK and Europe**

Initial address: [<http://www.paweathercentre.com/index.html>]

- **Philip Layton's Met Page, Weather Diary**

Initial address: [<http://ds.dial.pipex.com/phil.layton/meteo.htm>]

- **Remote Imaging Group Rickmansworth, Hertfordshire**

Initial address: [<http://www.rig.org.uk/index.html>]

- **Richard Adam's Weather page**

Initial address: [<http://www.ukweather.freemove.co.uk/>]

- **Tawfield, Bracknell, Climatological Information**

Initial address: [<http://www.booty.demon.co.uk/metinfo/wxdata/climintro.htm>]

- **Weather. Links to sources of information.**

Initial address: [<http://www.itadvice.co.uk/weatherjack/wx.htm>]

- **Weather Hotlist**

Initial address: [<http://space.rice.edu/~rss/weather/weather.html>]

- **Wells Cathedral School Weather Watchers, weekly data from Wells**
Initial address: [<http://atschool.eduweb.co.uk/wellscs/geog/weath10.html>]

- **Northamptonshire Grammar School Weather Centre: Links**
Initial address: [<http://www.brixworth.demon.co.uk/weather3.htm>]

- **Bablake Weather Station**
Initial address: [<http://bws.users.netlink.co.uk/>]

- **Bidston Observatory, Weather Station, Wirral, UK**
Initial address: [<http://www.pol.ac.uk/appl/met.html>]

- **Bollington Automatic Weather Station. NorthWest Weather**
Initial address: [<http://www.argonet.co.uk/users/jim.matt/index2.html>]

- **East Sussex Weather Stations**
Initial address: [<http://www.cpes.susx.ac.uk/es/meteo/index.html>]

- **Cairn Gorm AWS, Edingurg, Lothian**
Initial address: [<http://www.phy.hw.ac.uk/resrev/aws/weather.htm>]

- **Cambridge Weather, AWS**
Initial address: [<http://www.uk.research.att.com>]

- **Canterbury, Weather Station**
Initial address: [<http://www.cj4386.demon.co.uk/weather/weather.htm>]

- **Corsock Weather Station, AWS Galloway, Scotland**
Initial address: [<http://www.corsock.com/>]

- **Clifton, AWS Bedfordshire**
Initial address: [<http://www.crosswinds.net/~cliftonweather/index.html>]

- **Clogwyn Weather Station**
Initial address: [<http://www.firsthydro.co.uk/weather/current/clogwyn.asp>]

- **Crowthorne Weather Station, Berkshire UK**
Initial address: [<http://www.lyneside.demon.uk.co/weather.htm>]

- **Draycote Water Sailing Club, Weather Station**
Initial address: [<http://www.draycotewater.co.uk/weather/>]

- **East Sussex Weather Stations: Newhaven, Saltdean and University of Sussex**
Initial address: [<http://www.cpes.susx.ac.uk/es/meteo/>]

- **Fair Isle Shetland**
Initial address: [<http://www.northisles-weather.co.uk/>]

- **Felsted School, Weather Station, Dunmow, Essex**
Initial address: [<http://atschool.eduweb.co.uk/felsted/weather/weath.html>]

- **Hazelrigg, Weather Station, Lancashire**
Initial address: [<http://www.es.lancs.ac.uk/hazelrigg/>]

- **Hockley heath, Weather Station, Solihull, UK**
Initial address: [<http://www.geocities.com/CapeCanaveral/Lab/6799/homesta.htm>]

- **Isle of Man, Meteorological Station**
Initial address: [<http://www.gov.im/airport/met/Welcome.html>]

- **Lamberis Weather Station, Snowdonia Weather Stations Project**
Initial address: [<http://www.firsthydro.co.uk/weather/current/lamberis.asp>]

- **Llansadwrn, Weather Station**
Initial address: [<http://www.l-sadwrn.dircon.co.uk/>]

- **Loughborough University, Meteorological Station**
Initial address: [<http://info.lboro.ac.uk/departments/gv/climate/index.html>]

- **Moor House, AWS, Pennines, UK**
Initial address: [http://www.ecn.ac.uk/online_aws/index.asp]

- **Fpitsford Hall Weather Station, Pitsford, Northamptonshire**
Initial address: [<http://www.brixworth.demon.co.uk/weather.htm>]

- **Pitroddie Weather Station, Scotland**
Initial address: [<http://www.personal.dundee.ac.uk/~taharley/britweather.htm>]

- **Reigate. Weather Station**
Initial address: [<http://www.reigate.demon.co.uk/localwxobs.html>]

- **Royston Weather Station, Hertfordshire, UK**
Initial address: [<http://www.iceni.org.uk/index/extremes25.htm>]

- **Sarn Weather Station, Lleyn Peninsula, N Wales**
Initial address: [<http://www.llyn-wales.couk/llyn-weather-detail.html>]

- **Sittingbourne, Weather Station, Kent**
Initial address: [<http://web.bham.ac.uk/ggy4atv3/sittingbourne.htm>]

- **Stoke-on-Trent Weather Station**
Initial address: [<http://www.coyney.demon.co.uk/>]

- **University of Birmingham (The Weather Facility)**
Initial address: [http://www.uea.ac.uk/~e870/weather_welcome.shtml]

- **University of York, AWS**

Initial address: [<http://www.amp.york.ac.uk/external/weather/current1.html>]

- **West Cheshire College Weather Pages, AWS**

Initial address: [<http://www.west-cheshire.ac.uk/weather/>]

- **Workington Weather Station, Cumbria**

Initial address: [<http://freespace.virgin.net/bob.g4uyi/index.htm>]

YUGOSLAVIA

- **Federal HydroMeteorological Institute**

Initial address: [<http://www.meteo.yu/>]

Content:

- Meteorological Data measured in Belgrade city in real time including: T, Wind, RH, Visibility, P.

Updated: Hourly.

Contacts: e-mail [webmaster@meteo.yu]

Tf: + 381 11 646 555

Fax: + 381 11 646 369

Address: Bircaninova, 6

P.O. Box 604

11001 Belgrade

OTHER METEOROLOGICAL WEB PAGES IN A BROAD SENSE:

- **Worldclimate**

Initial address: [<http://www.worldclimate.com/>]

- **Weather About**

Initial address: [<http://www.weather.about.com/science/weather/>]

- **Wunderground**

Initial address: [<http://www.wunderground.com/global/Y.html>]

- **Intellicast**

Initial address: [<http://www.intellicast.com>]

- **Datameteo**

Initial address: [<http://www.datameteo.com/>]

- **Tehnicom Weather. ETA 2000 Weather System**

Initial address: [<http://www.vreme.tehnicom.net/>]

- **Weatherbase**

Initial address: [<http://weatherbase.com/>]

- **Weatherlabs**

Initial address: [<http://www.weatherlabs.com/>]

- **Landings.com**

Initial address: [<http://www.landings.com/landings/pages/wthr/weather-europe.html>]

- **ALDIS Lightning Statistics**

Initial address: [http://www.aldis.at/english/statis_f.html]

- **Links to other Home Pages**

Initial address: [<http://www.lthe.hmq.inpg.fr/catch/links.html>]

- **La Page Météo**

Initial address: [<http://www.mygale.org/eclipse99/meteo/photosat.htm>]

- **World Weather**

Initial address: [<http://sun7.bham.ac.uk/kingsj/wwea.html>]

- **Weather Online**

Initial address: [<http://www.weatheronline.com/wxtool.html>]

- **Bookmarks for John Ernst**

Initial address: [<http://opwx.db.erau.edu/~ernstj/bookmarks.html>]

- **Plotted Charts**

Initial address: [http://www.homepage.dtn.ntl.com/angus.mcgugan/plotted_charts2.htm]

- **EarthWatch Weather On Demand**

Initial address: [<http://www.erathwatch.com/index.html>]

- **World Meteorological Organization**

Initial address: [<http://www.wmo.ch/>]

- **Eumetsat**

Initial address: [<http://www.eumetsat.de>]

- **Eumetnet**

Initial address: [<http://www.eumetnet.eu.org/>]

- **ECOMET**

Initial address: [<http://www.meteo.oma.be/ECOMET/>]

- **NOAA**

Initial address: [<http://weather.noaa.gov/weather/ccworld.html>]

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