



## **Google-Earth files of MeteoSwiss**

MeteoSwiss provides free of charge files for displaying its surface stations on Google Earth. An installed Google Earth on the PC/Mac is therefore required, which can be obtained through <http://earth.google.com>.

Upon execution of the KML-file Google Earth will start automatically and the stations will show up.

Besides the spatial display of the sites MeteoSwiss provides additional information for each station of the automated network together with the current measurements of the previous 72h (except snow, which goes back up to 4 weeks). The graphs are updated hourly, however the data is neither controlled or corrected and may contain gaps. The KML-files will be updated from time to time to keep in progress with changes to the stations. Therefore we advise you, in order to have the newest version, to download the new files every few months.

MeteoSwiss provides no guarantee as to the accuracy and content of the service. MeteoSwiss does not guarantee and may not be held liable for the completeness of the service.

It is possible, that the same station is member of different measurement system networks. The measured data of all stations are available from MeteoSwiss. Please see our data portal for further information about obtaining the data:

[http://www.meteoswiss.admin.ch/web/en/services/data\\_portal.html](http://www.meteoswiss.admin.ch/web/en/services/data_portal.html)

ATTENTION: Due to the spatial inaccuracy of Google Earth the stations can be found sometimes up to 150m away from the markers, however the markers have the correct coordinates. This is a Google Earth related problem.

### **a) Automatic stations**



#### **SwissMetNet stations**

These are the automatic stations of the latest generation. They measure almost all meteorological parameters and transfer them every 10 minutes into the [data warehouse](#) (DWH). Upon selecting a station the diagrams of different meteorological parameters (temperature, sunshine duration, air pressure, precipitation, relative humidity and windspeed/wind direction) from the last 72 hours are displayed automatically. If there is also an OBS station available then also the snow heights are displayed from the last four weeks. From this type of station, data are available in the following temporal resolution: 10min, hourly, daily, monthly and yearly. The start date of the automatic station (hourly data) can be found in the individual station bubbles.

Further information about SwissMetNet is available on (in German only): <http://www.meteoschweiz.admin.ch/web/de/klima/messsysteme/boden/swissmetnet.html>



### **ANETZ stations**

These are the predecessors of the SwissMetNet stations. They also measure almost all meteorological parameters and transfer them every 10 minutes into the data warehouse (DWH). The remaining ANETZ stations will be upgraded to SwissMetNet stations.



### **ENET stations**

These stations are the members of the former supplementary network. The wind speed and wind direction are measured at all stations; at some stations also other parameters are available. The data is transferred to the DWH on an hourly basis. The ENET stations are due for a replacement with SwissMetNet stations between 2009 and 2012 as part of SwissMetNet Phase II. These stations display only the wind speed and wind direction of the last 72 hours. From this type of station data are available in the following temporal resolution: 10min, hourly, daily, monthly and yearly. The start date of the automatic station (hourly data) can be found in the individual station bubbles.



### **Mobile stations**

At sites where the old station has to be removed before installing the new SwissMetNet station, the measurements are continued with a mobile station during this period for providing continuous data (for 3 months approx.). The same parameters like at a SwissMetNet station are delivered every 10 minutes to the DWH. Mobile stations are more sensitive to failures and errors.

## **b) Observation stations**



### **OBS stations**

At the manually operated observation stations the weather is observed and noted down daily according to WMO regulations. At most OBS stations (except: Alpnach, Col du Gd.St.-Bernard, Emmen / Rathausen, Jungfrauoch, Lausanne, S. Bernardino, Schaffhausen, Thun, Vaduz and Vicosopprano /Löbbia) the snow height is also measured daily. Upon selecting a station the diagram of the last four weeks is displayed automatically.



### **OBS stations with instruments (daily at 6am, 12am and 6pm UTC)**

At the OBS stations with instrument measurements of meteorological parameters (e.g. minimum and maximum temperatures, precipitation, air pressure) are conducted three times a day. At all these stations also the snow height is measured, transmitted and displayed for the last four weeks upon selection of a station. All measured parameters are available in daily, monthly and yearly resolution.

## c) Precipitation stations



### NIME Precipitation stations

At some of the precipitation stations the snow height is also measured daily. The data is transmitted to MeteoSwiss at the end of each month. Therefore the data of the current month are only available digitally in the following month. Snow data is only available as a copy of the original paper and not digitally. The values are neither checked nor corrected. Precipitation data is available in a daily, monthly and yearly resolution.

**More information about the ground level monitoring stations can be found on:**

**[http://www.meteoschweiz.admin.ch/web/en/climate/observation\\_systems/surface.html](http://www.meteoschweiz.admin.ch/web/en/climate/observation_systems/surface.html)**

**For obtaining measurement data please contact us on: [dataservice@meteoswiss.ch](mailto:dataservice@meteoswiss.ch)**