

Name of research institute or organization:

Surface Meteorological Networks, MeteoSwiss, Payerne

Title of project:

Operation of a meteorological station at high altitude in the Alps

Project leader and team:

Dr. Christian Félix, head of surface networks, MeteoSwiss
Gilles Durieux and the surface networks team

Project description:

The surface network team at MeteoSwiss operates an automatic meteorological station at the Jungfraujoch Observatory and services the instrumentation for the Global Atmosphere Watch Radiation Measurements Project.

The meteorological station measures parameters such as wind, temperature, sunshine duration, pressure, relative humidity in complement to the solar radiation measurements. Meteorological bulletins are polled every 10 minutes 24 hours a day and 7 days a week and are visible for example on the MeteoSwiss webpage.

Operating a meteorological station under the harsh environmental conditions prevailing at Jungfraujoch is a challenge (see picture); all year long the accessibility of the Observatory and the presence of the custodians are very important assets for insuring a high availability of the meteorological data.

It has to be noticed that the different meteorological data measured on site, in particular the wind measurements are affected by the effect of wind channeling and the presence of very steep slopes around the measurement site.



Figure 1: Radiation measurements in August (!) 2006 at the Jungfraujoch.



Figure 2: Temperature and dew point measurements (again in August).



Figure 3: Solar radiation measurement deck

Key words:

wind, temperature, sunshine duration, solar radiation, pressure, relative humidity

Internet data bases:

http://www.meteosuisse.admin.ch/web/en/weather/current_weather.par0001.reg8.stationJUN.html

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