

METdata

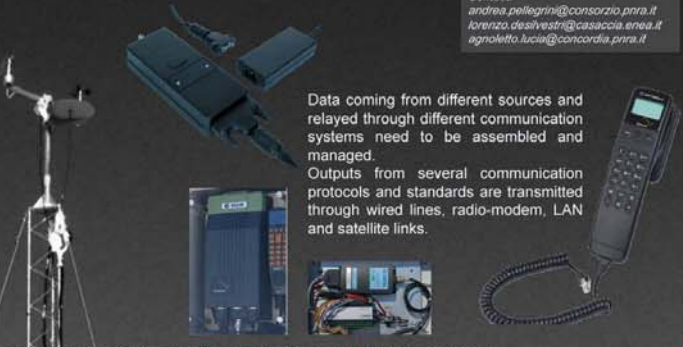
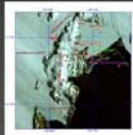
An Integrated Software For Operational Meteorological Data

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The meteorological assistance at the Italian Antarctic Station "Mario Zucchelli" is supported by a number of dedicated instruments; in addition, data, acquired for different purposes – e.g. research projects – are used by the Operation Manager for monitoring meteorological conditions.



Data coming from different sources and relayed through different communication systems need to be assembled and managed. Outputs from several communication protocols and standards are transmitted through wired lines, radio-modem, LAN and satellite links.

In order to give the Meteo Officer a simple, easy-to-use and complete access to all observations, a suitable software, called the "METdata" system, was implemented and installed at Mario Zucchelli Station's Operation Room.



Visualization of instantaneous and statistical meteorological parameters from the air-strip anemometers and from reference Weather Stations



Visualization of Synop reports from the reference Weather Station



Cloud base height and cloud layer depth from Ceilometer

The software was developed in LabVIEW 7.1.0 environment. It can acquire, display and store meteorological parameters received from local weather stations (radio-modem and wired serial lines) and from remote weather stations (Iridium satellite terminals). Additional data are acquired by dedicated servers and managed by METdata by means of the Station's LAN.

Data call to remote AWS via Iridium (Sitry, MidPoint and Talos Dome)

Data dissemination on MZS Intranet



Redundant system for the remote station data call



In order to avoid possible loss of data due to poor satellite link, it's possible to force a direct serial data call through the Operation Manager's Iridium Terminal, or a net call by means of other Iridium Terminal(s), through the Station's LAN.

Acquired Meteorological Data are stored with one min frequency and it's possible performe one hour file production



More information and data download:
<http://www.climantartide.it>

Funded By



Italian National Antarctic Research Programme

The Image: AWS Maintenance, October 2005