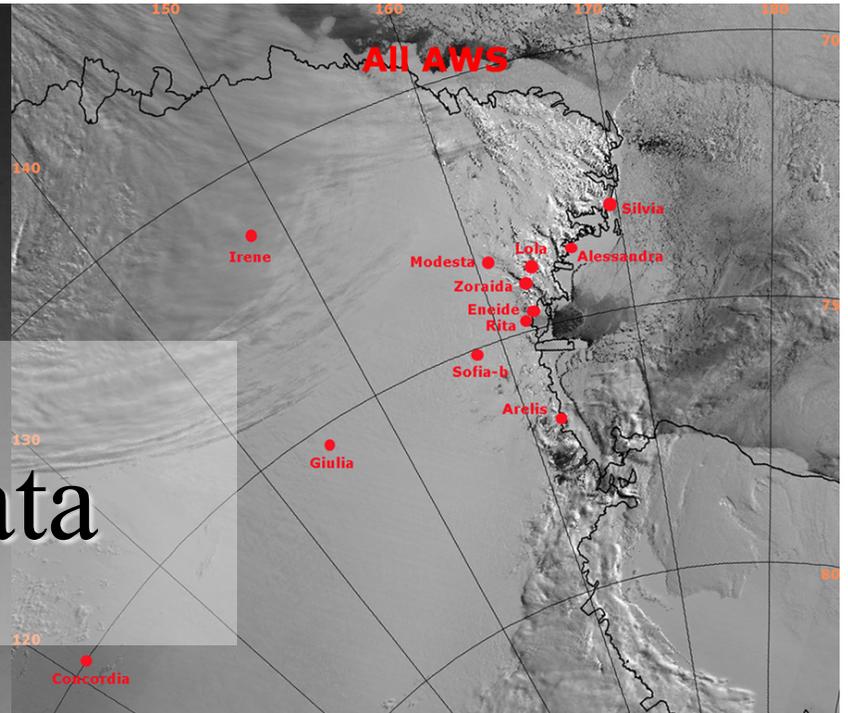


SMAA01 LIIB 110600  
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AAXX 11124  
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# METdata

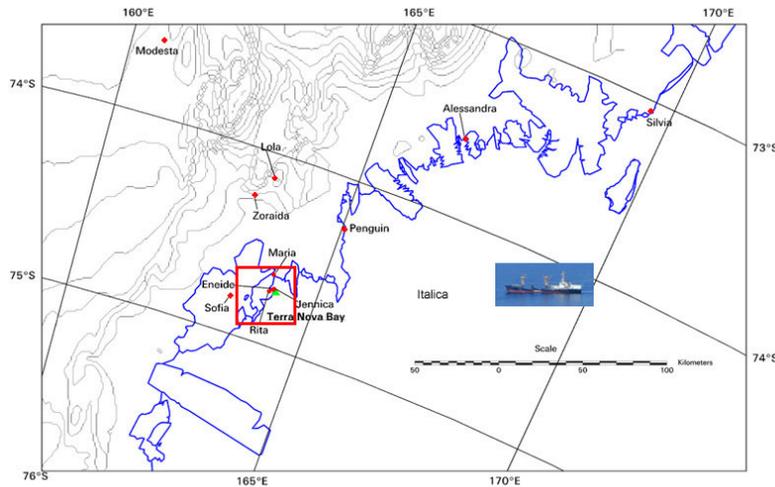
## An Integrated Software For Operational Meteorological Data

(1) L. Agnoletto, (2) L. De Silvestri, (1) A. Pellegrini  
(1) PNRA S.C.r.l, Casaccia Research Center, Rome, Italy  
(2) ENEA - ACS/CLIMOSS Casaccia Research Center, Rome, Italy

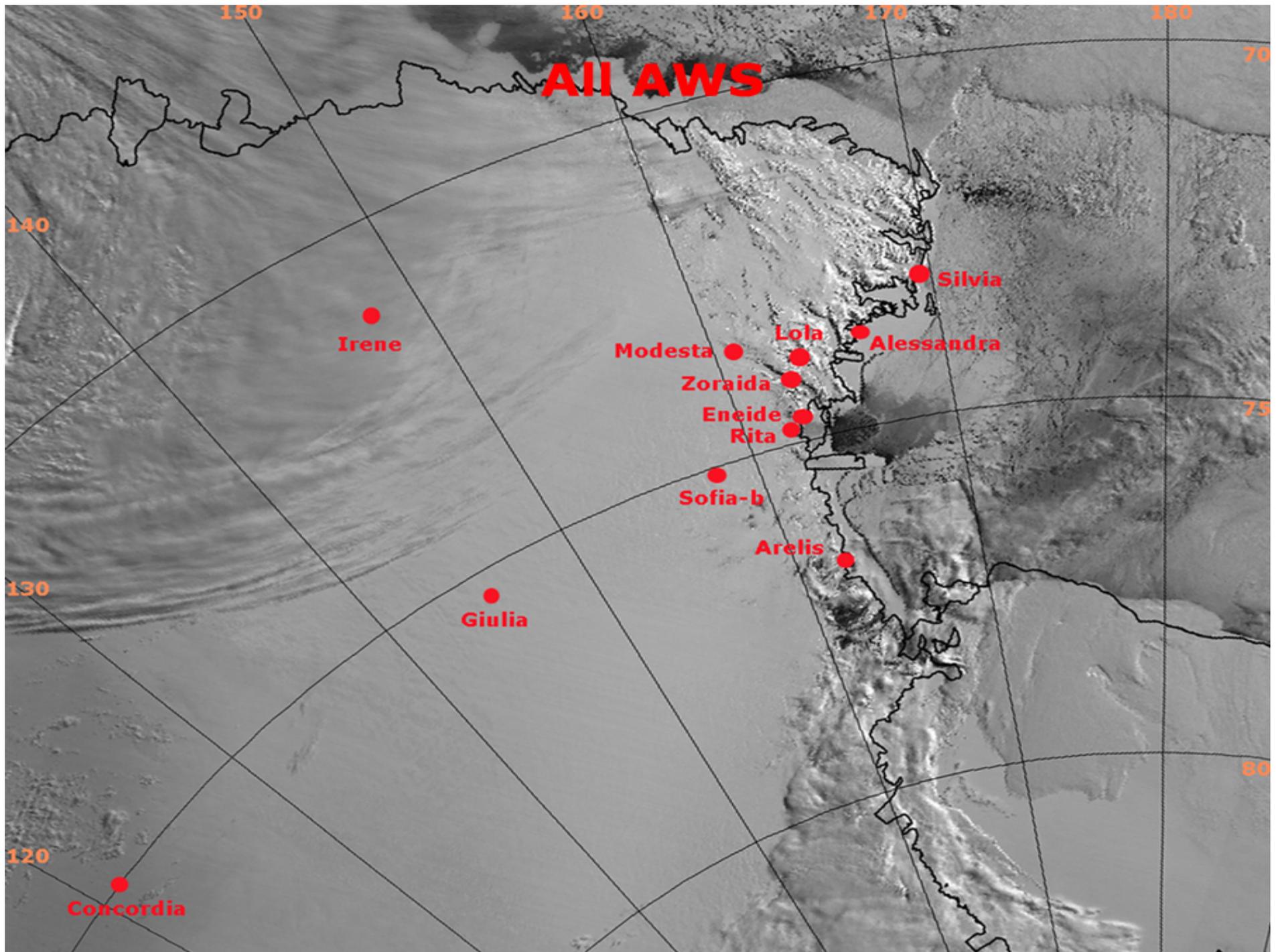




The meteorological assistance at the Italian Antarctic Station “Mario Zucchelli” is supported by a number of dedicated instruments installed nearby the airstrips. In addition, data, acquired for different purposes – e.g. research projects are used by the Operation Manager for monitoring meteorological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



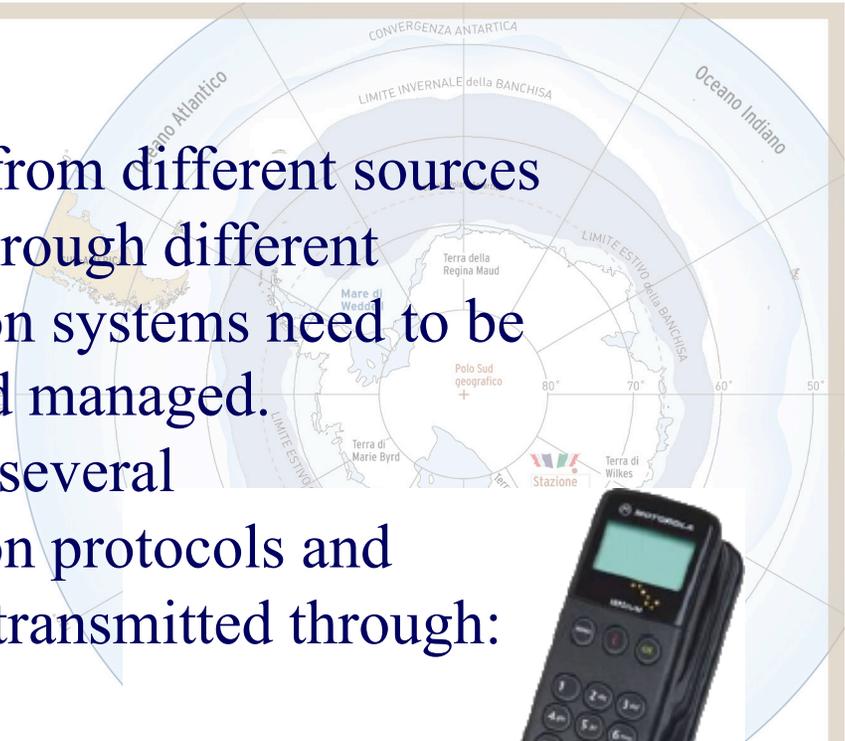
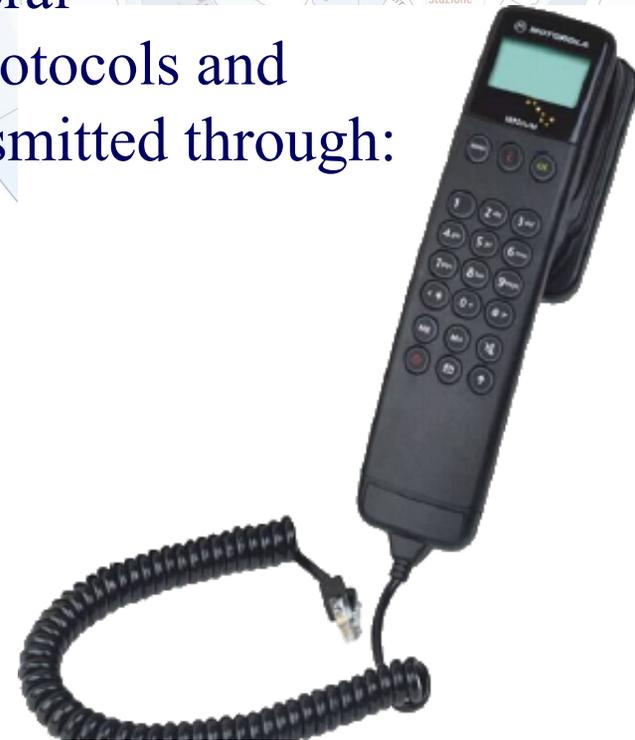
# All AWS





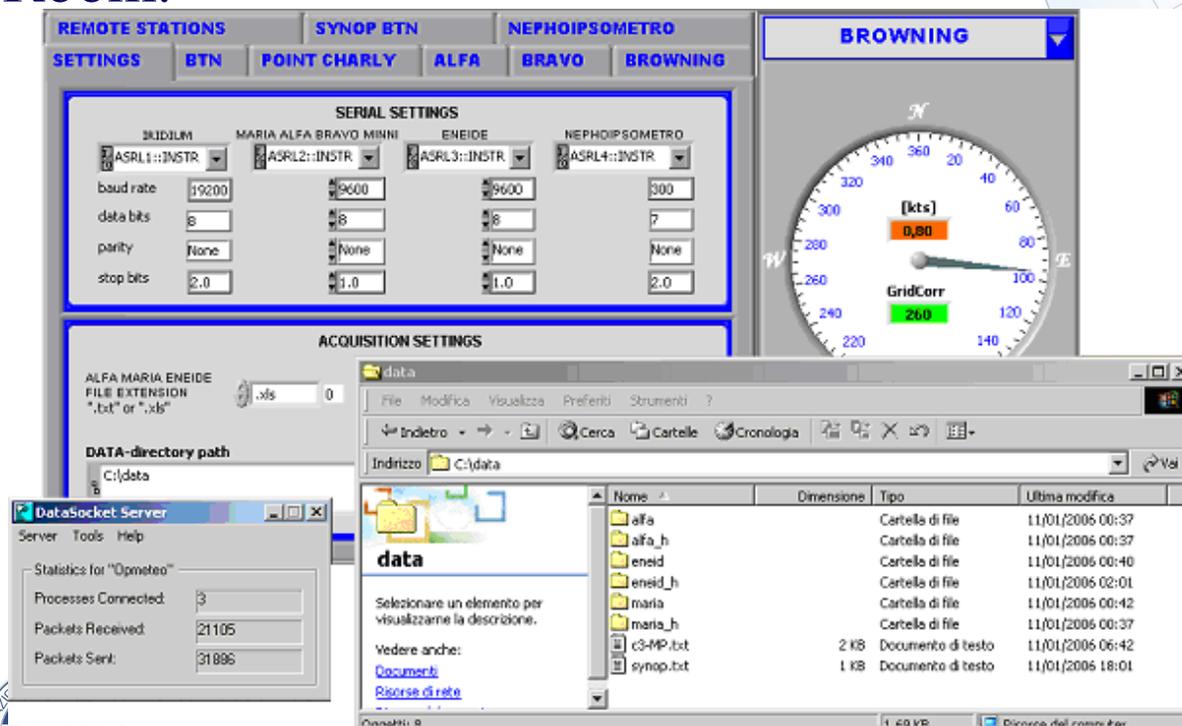
Data coming from different sources and relayed through different communication systems need to be assembled and managed. Outputs from several communication protocols and standards are transmitted through:

- wired lines
- radio-modem
- LAN
- satellite links.



In order to give the Meteo Officer a simple, easy-to-use and complete access to all observations, the renewal of the meteorological monitoring system has been carried on during the past years across the runways of the Italian Antarctic Station, and a suitable software, called the “METdata” system, was implemented and installed at Mario Zucchelli Station’s Operation Room.

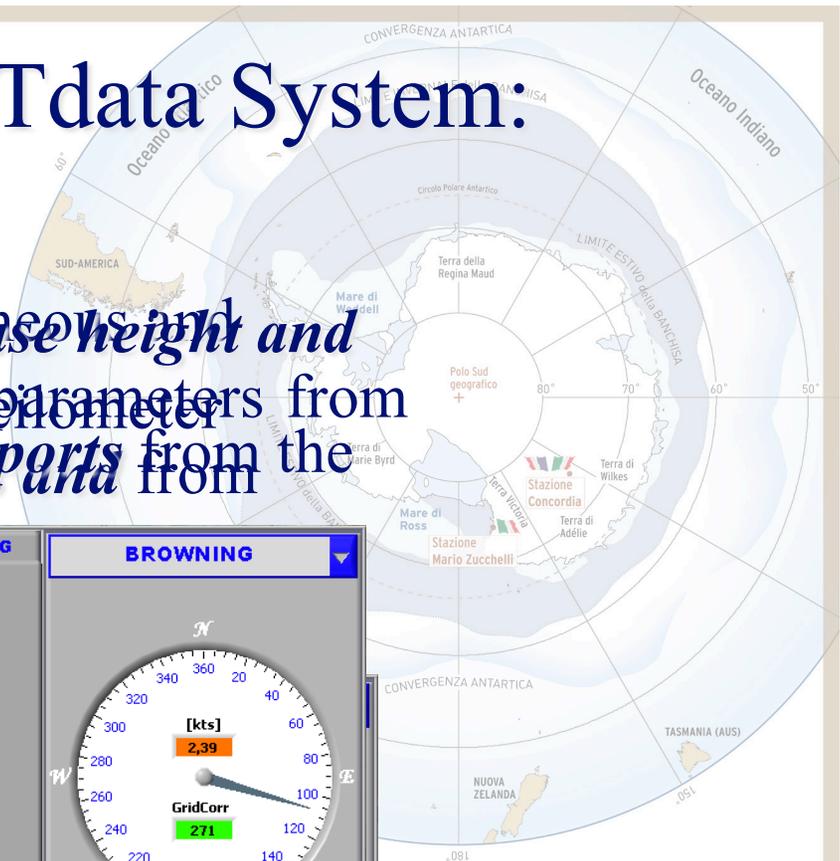
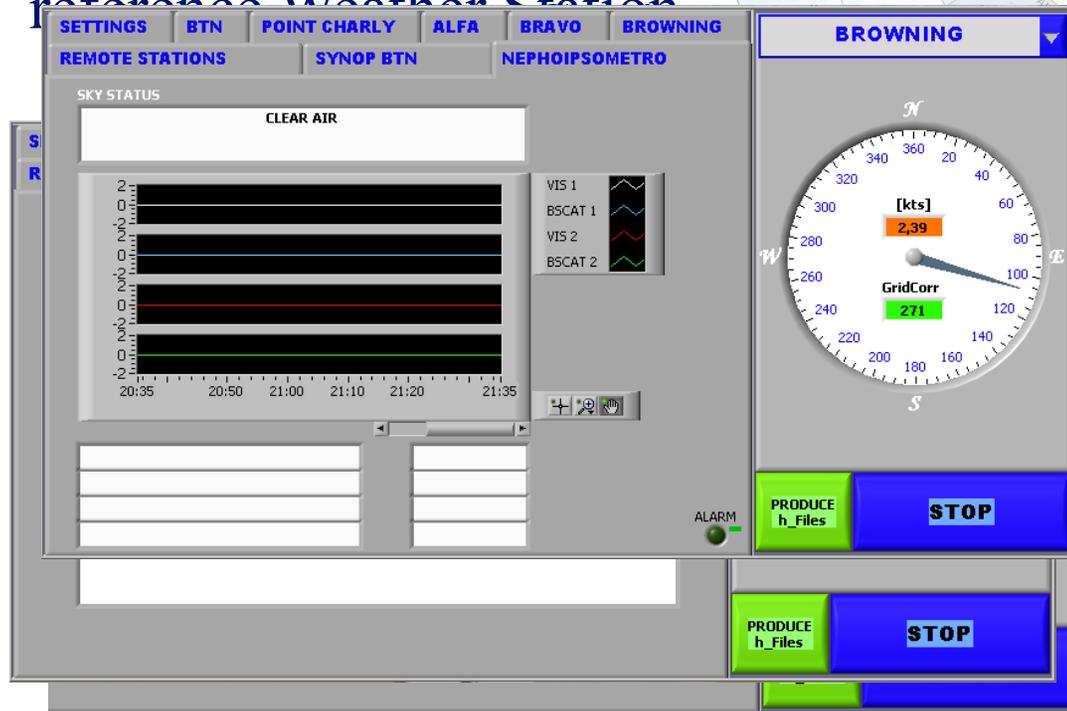
It can **acquire, display and store meteorological parameters** received from **local weather stations** (radio-modem and wired serial lines) **and from remote weather stations** (Iridium satellite terminals). Additional data are acquired by dedicated servers and managed by METdata by means of the Station’s LAN.



The software was developed in LabVIEW 7.1.0 environment.

# Functionalities of the METdata System: Visualization...

- Visualization of instantaneous wind and statistical meteorological parameters from cloud base height from ceilometer
- Visualization of Synop reports from the air-strip anemometers and from reference Weather Station



# Functionalities of the METdata System: Remote Control...



...n to re... the high plateau

Talos



*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.

**SETTINGS** **BTN** **POINT CHARLY** **ALFA** **BRAVO** **BROWNING**

**REMOTE STATIONS** **SYNOP BTN** **NEPHOIPSOMETRO**

LastUpdate: 2006-01-11 05:52 MidPoint

Pressure			
P [hPa]	P [inHg]	QNH	QFE
689.8	20,33	935.4	689.9

Wind Direction			
WD [°]	WDA10	WDA2	GridCorr
214	214	211	359

Wind Speed				
WS [kts]	WSA10	WSX10	WSA2	WSX2
10.8	8.4	10.6	9.2	12.8

Temperature	
T [°C]	TA1H
-22.8	-22.9

Relative Humidity	Snow Depth	Voltage
RH [%]	H [mm]	VOLT
61	0.84	13.3

**SELECT STATION TO CALL**  
MID POINT

**OPERATION LINE CHECK** **CAMPO METEO LINE CHECK**

**CALL THROUGH**  
 OPERATION (direct call)  
 CAMPO METEO (net call)

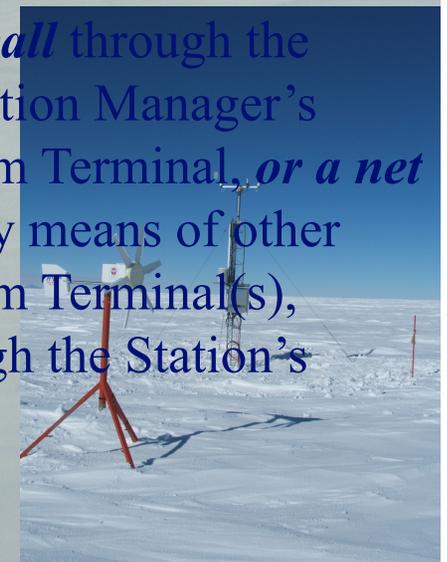
**PUSH TO CALL**

**WIND GUST ALARM** **WIND GUST VALUE [kts]**

**PRODUCE h\_Files** **STOP**

**BROWNING**

Wind speed gauge: [kts] 2,39  
GridCorr: 271



# Functionalities of the METdata System: Data Storage and Dissemination...

## Data dissemination on MZS Intranet

tempo-reale - Microsoft Internet Explorer

Modifica Visualizza Preferiti Strumenti ?

dietro → → → Cerca Preferiti Cronologia

http://192.107.99.163:8080/datiMETAR\_a.htm

	Eneide BTN	Maria POINT CHARLY
T [°C]	-0.9	-4.6
TA1H	-0.3	-4.9
TX1H	0.3	-4.6
Tm1H	-1.0	-5.3
DPT	-11.6	-18.6
RH [%]	44	32
P [Pa]	979.5	947.6
QNH	28,88	27,94
QFE	990.0	996.5
P [inHg]	979.6	947.7
WS [kts]	5.8	3.4
WSA10	5.3	3.8
WSX10	7.8	4.6
WSA2	6.2	3.4
WSX2	7.8	3.8
WD [°R]	51	276
WDA10	55	267
WDA2	53	274
SR [W/mq]	559.8	

h version

Acquired *Meteorological Data* are stored with 1 min frequency and it's possible perform 1 hour file production.

All the data are visualized on our web site and they are available upon request

Microsoft Internet Explorer

Modifica Visualizza Preferiti Strumenti ?

dietro → → → Cerca Preferiti Cronologia

http://107.99.163:8080/anemometri.htm

ENEAC CLIM OSS / A

- Dati di vento in tempo reale MZS

Dati di vento in tempo reale acquisiti ogni 5 secondi dalle stazioni di pista in pr

Microsoft Internet Explorer

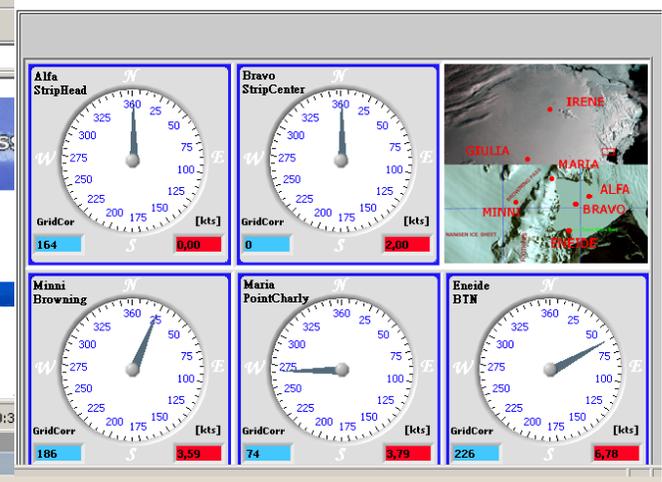
Modifica Visualizza Preferiti Strumenti ?

dietro → → → Cerca Preferiti Cronologia

http://192.107.99.163:8080/datiMETAR\_b.htm

ENEAC CLIM OSS

- Dati in tempo reale stazioni remote



# Thank You

More information and data download:

<http://www.climantartide.it>

Contact:

[andrea.pellegrini@consorzio.pnra.it](mailto:andrea.pellegrini@consorzio.pnra.it)

