

Information and Communication System at BEO Moussala

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Giulechitsa, March 2007

General Information

- Height above sea level: 2925 m;
- Location: 25° 35' E, 42° 11' N;
- Average year temperature: -3.1 Deg C;
- Lowest temperature: -31 Deg C;
- Highest temperature: +18.7 Deg C;
- Precipitations per year: 1300 mm;
- Snow cover: 8 months;
- Highest wind speed: 70 m/s;
- Average sunny days per year: 150

Technical details

- Distance between BAS and Moussala 60 km
- Type of telecommunication system VSAT
- Frequency 2.4 GH (Public frequency)
- Speed (5.5 MB/s) full duplex
- Network (16 PCs, 4 servers, 2 micro controllers)
- Real time video streaming (WMS 9 series, DVR)
- Encryption type (SSH2)
- Remote access capability through encrypted connection

VSAT



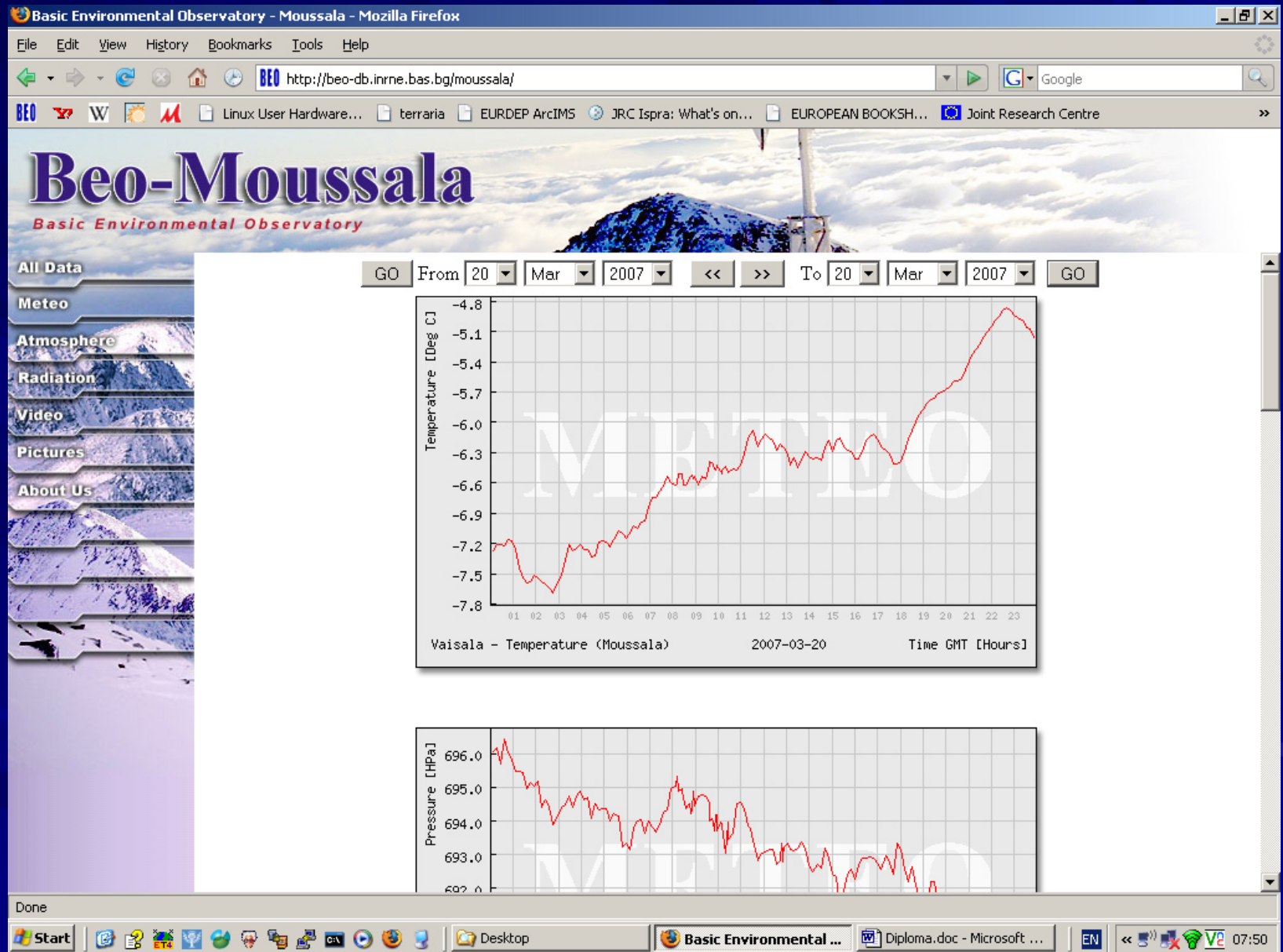
Data flow

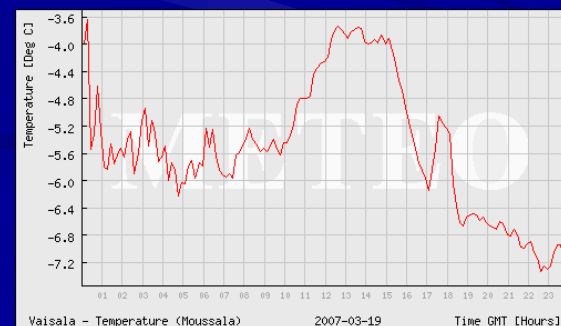
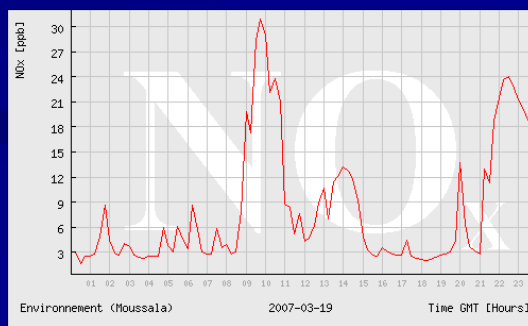
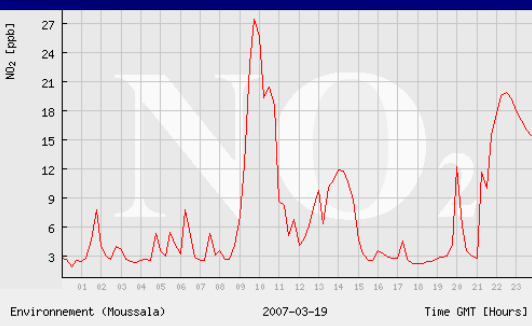
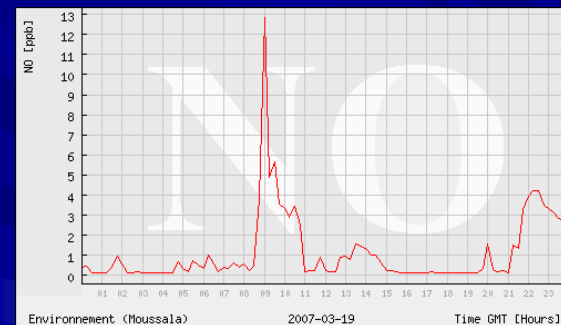
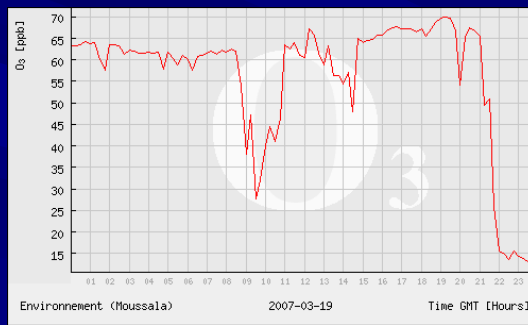
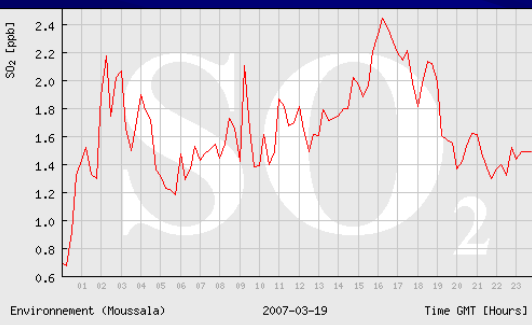
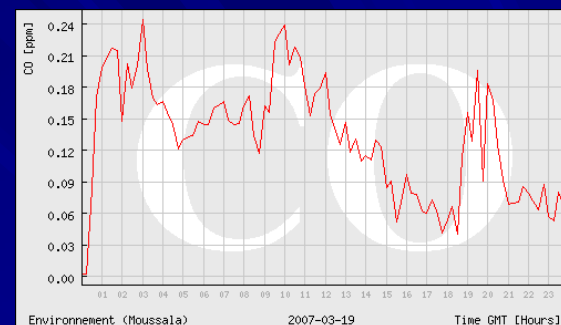
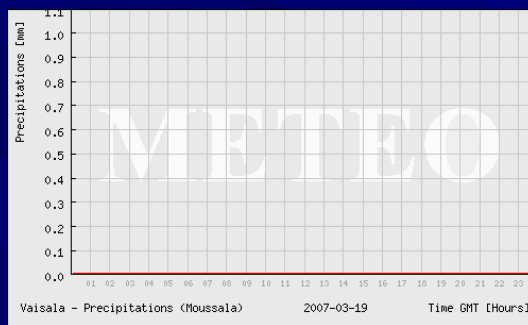
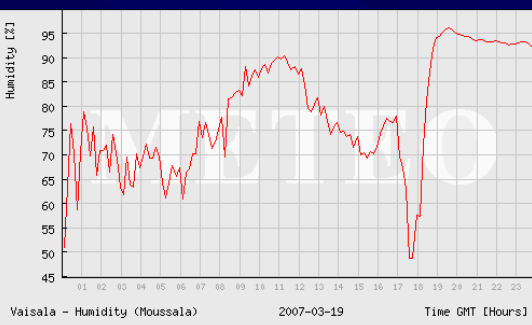
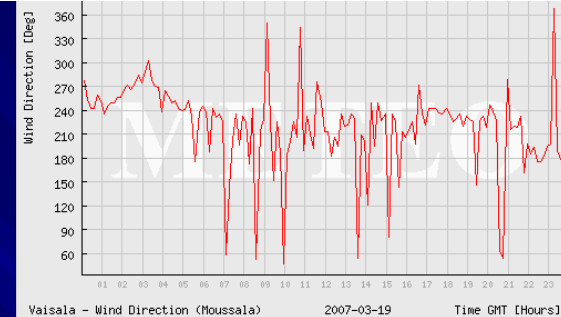
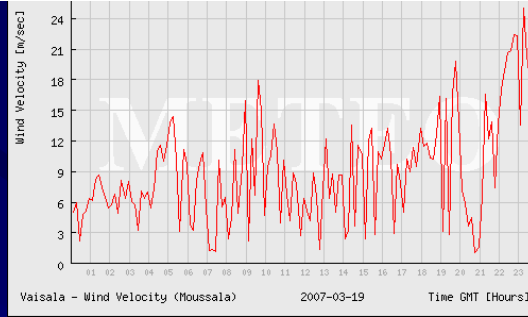
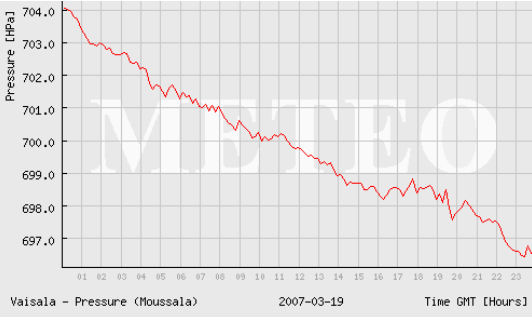
- Data acquisition
- Internet via VSAT
- Visualization
- Data accessibility
- Video Monitoring
- Remote access
- Sending data to DG-JRC Ispra

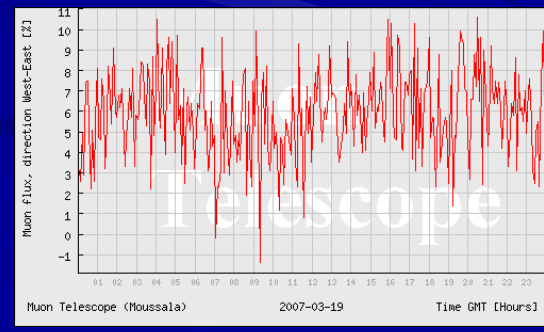
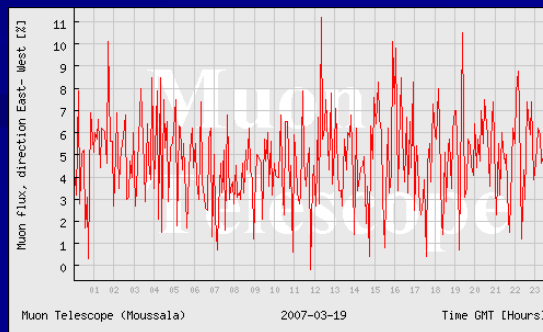
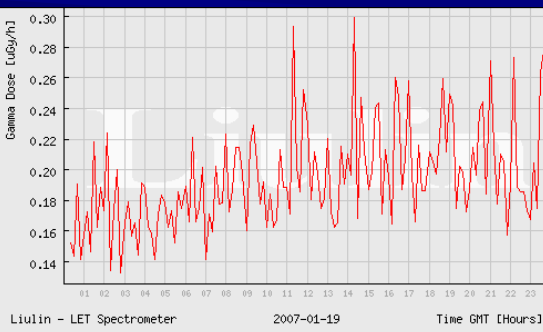
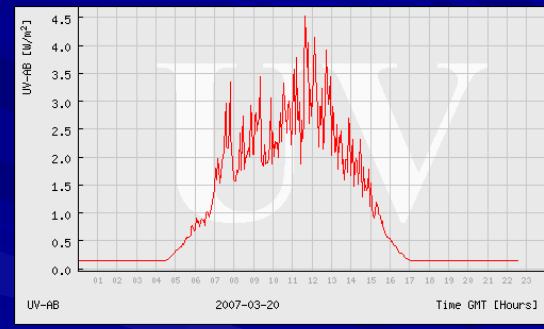
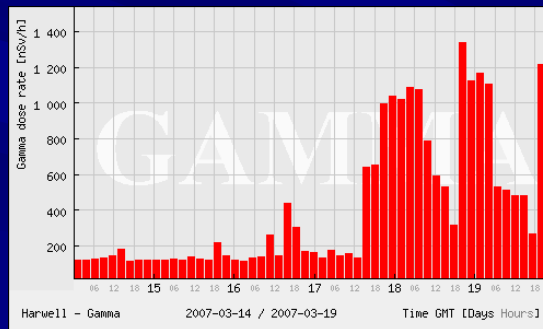
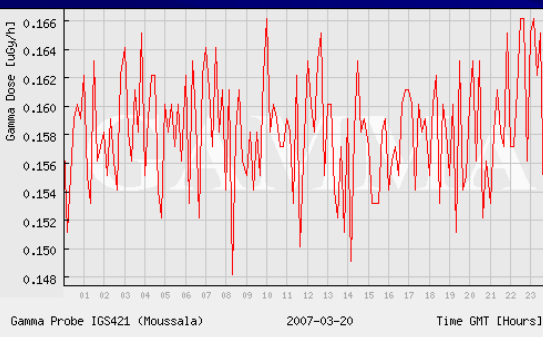
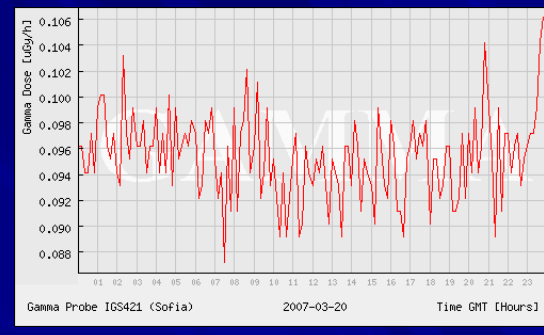
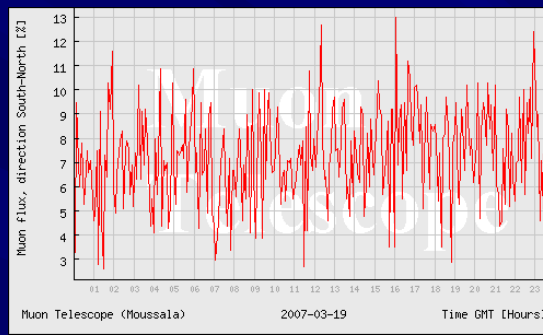
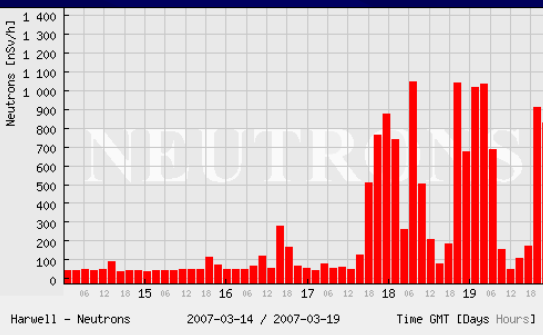
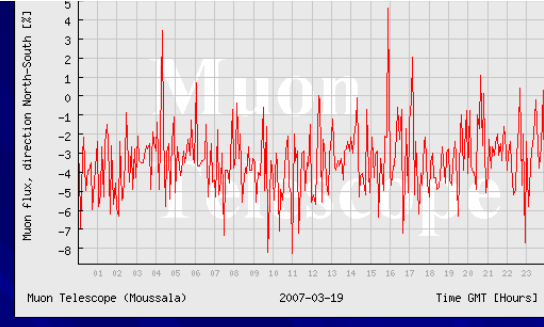
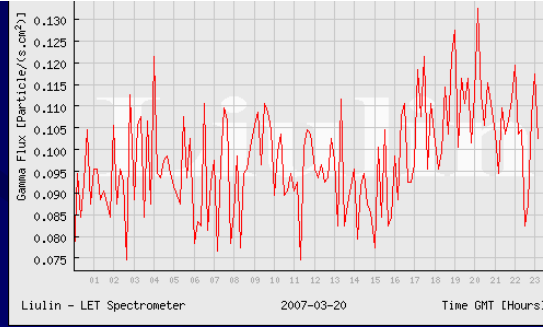
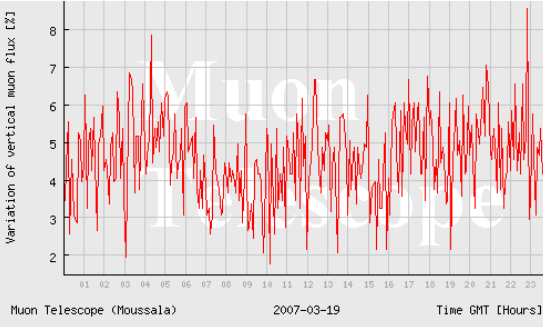
Remote access



HTTP://BEO-DB.INRNE.BAS.BG







Real-time video



Video monitoring



Improvements done

- Wireless network
- Data redundancy
- Automated daily backups
- Logging of failures (power cut and other malfunctions)
- Remote access through encrypted connection
- Automated sending of data to DG-JRC
Ispra

Work to be done

- Real-time alert system
- Proxy server for video streaming
- DAQAS
- Electronic register of all the technical activities connected to BEO-Moussala

Thank you for your attention

<http://beo-db.inrne.bas.bg/giulechitza>

Giulechitza March 2007