



*CEOP / IGWCO Joint Meeting
Paris 26 February – 4 March 2006*



Link between CEOP and ABC The new Pyramid Site

Ev-K2-CNR contribution to improve the CEOP II reference sites

Gianni Tartari

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Stations at High Altitude for
SHARE ASIA
Research on the Environment



INTERNATIONAL PROJECTS (RESEARCH & MONITORING)

WORLD METEOROLOGICAL ORGANIZATION (WMO)

CEOP
 COORDINATED ENTRANCED
 OBSERVING PERIOD
 and

GAW - Global Atmospheric Watch
 WDCGG - World Data Centre for
 Greenhouse Gases

UNITED NATIONS ENVIRONMENTAL PROGRAM (UNEP)

ABC ATMOSPHERIC BROWN CLOUDS

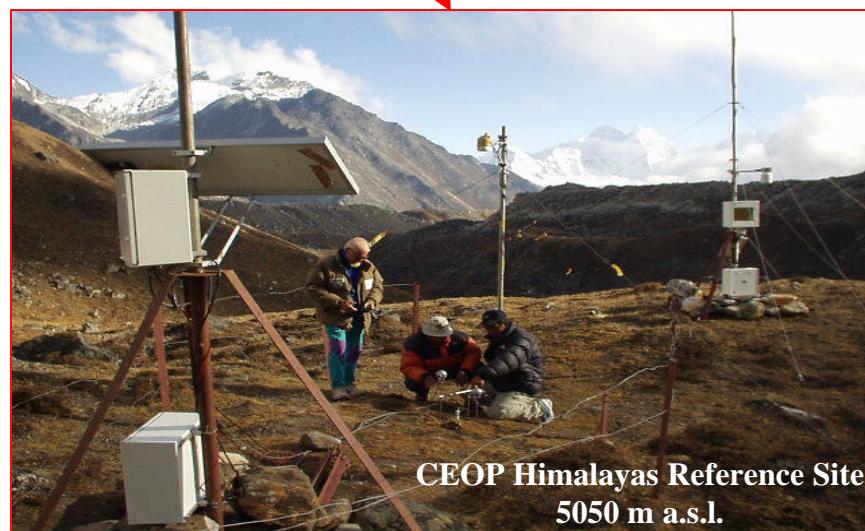
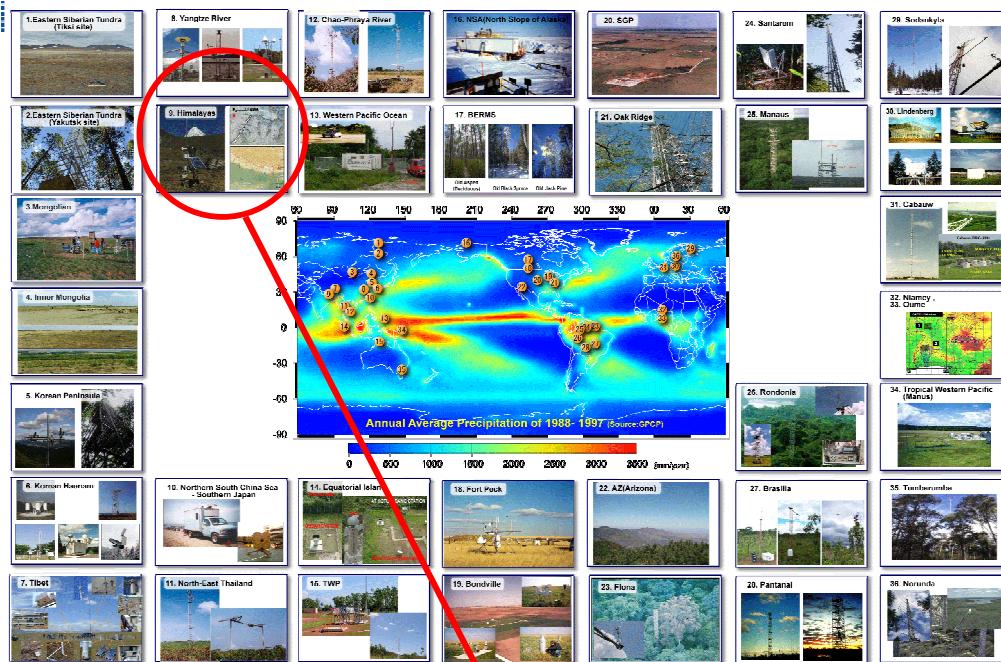
GLIMS GLOBAL LAND ICE MEASUREMENT FROM SPACE

GSN GLOBAL SEISMOGRAPHIC NETWORK

IGS INTERNATIONAL GPS SERVICE FOR GEODINAMICS

LTER LONG TERM ECOLOGICAL RESEARCH

International Cooperation for the Global Coverage

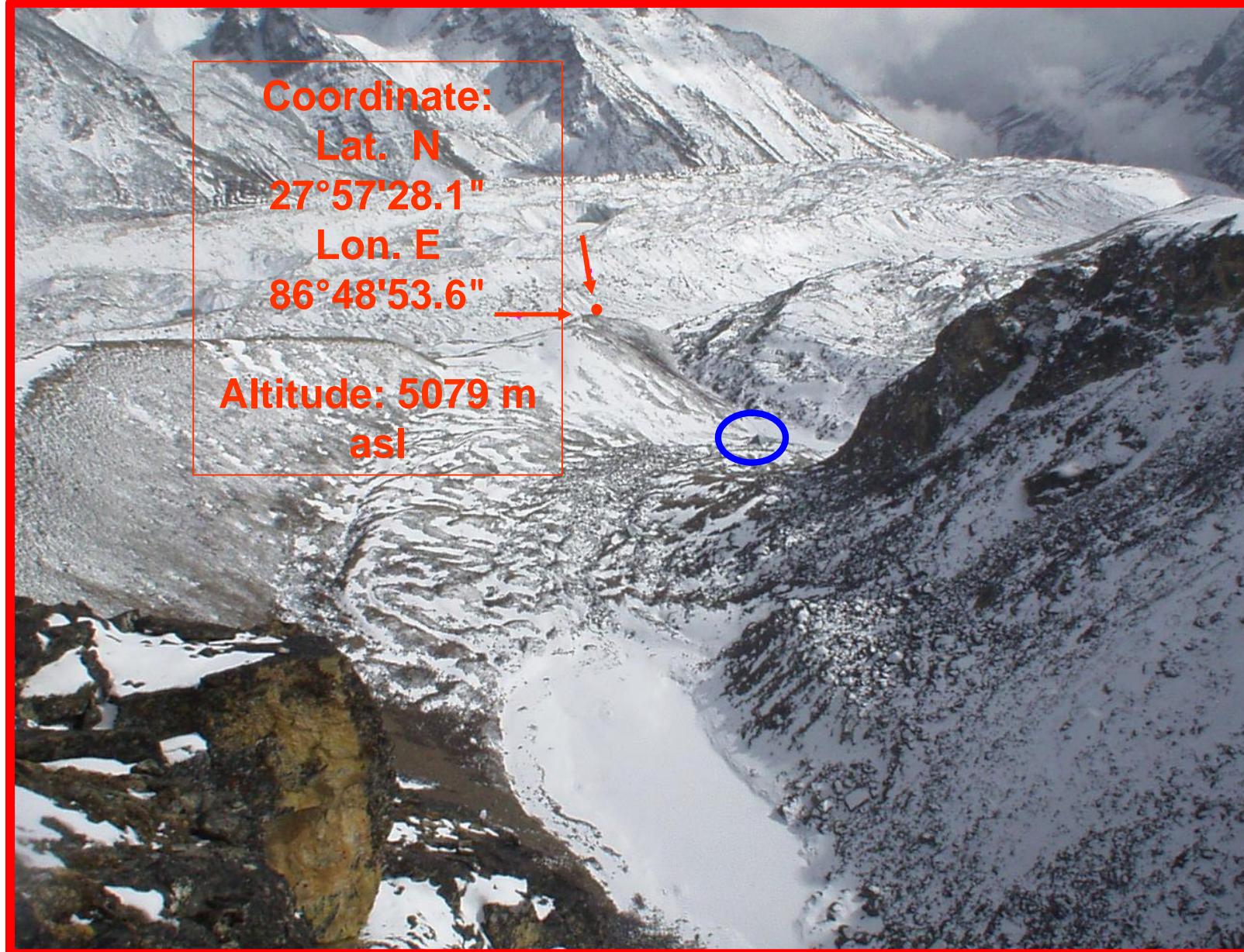


**Phase 1:
 2002-2004**

**Phase 2:
 2007-2010**









The ABC-Pyramid Complementary Site



Con il patrocinio di:
 Ministero dell'Istruzione,
 dell'Università e della Ricerca
 Ministero degli Affari Esteri

e la collaborazione di:
 Consiglio Nazionale delle Ricerche

Ev-K²-CNR

Prof. Paul J. Crutzen
 Center for Clouds, Chemistry and Climate
 Scripps Institution of Oceanography
 University of California, San Diego
 La Jolla, California 92093-0239
 USA

Prof. Veerabhadran Ramanathan
 Center for Clouds, Chemistry and Climate
 Scripps Institution of Oceanography
 University of California, San Diego
 La Jolla, California 92093-0239
 USA

Bergamo, February 24, 2006

Dear Prof. Crutzen and Prof. Ramanathan,

It is a great pleasure for me to announce, also on behalf of Ev-K²-CNR Committee President, Agostino De Polenza, and ABC-Pyramid chief scientist, Paolo Bonasoni, of CNR-ISAC, that the "ABC-Pyramid" station at the Pyramid Laboratory-Observatory near the base of Mt. Everest (Khumbu Valley, Nepal) has been successfully installed. All foreseen instruments have been operating at 5,079 m a.s.l. since February 19, 2006, and data are being continuously transmitted to Italy for quality control, archival and preliminary elaboration. This new "complementary site" is now ready to be inserted within the UNEP ABC network, to contribute to the study of the mechanisms concerning interaction between atmospheric brown clouds and the Himalaya chain and pollutant transport at these high altitude remote areas.

This achievement has been made possible thanks to the enthusiastic group of Italian scientists and technicians and their French and German partners, who worked for two months with a vital Nepali staff in Kathmandu and at the Pyramid, overcoming the difficulties posed by the altitude and adverse climatic conditions. Moreover, recognition is due for the fundamental contributions made over the past months by several individuals and institutions in planning station installation, including the Italian National Research Council (CNR) and the Royal Nepal Academy of Science and Technology (RONAST), and the other Italian and Nepali Ministries and Institutions that have supported us at every step.

Hopefully you share our enthusiasm for having successfully surmounted this first challenge, just two and a half years after the Yokohama ABC Steering Committee meeting. Our appreciation must in fact also be expressed to yourselves and the ABC Science Team for having endorsed and guided us in this endeavour. We are furthermore grateful for the commitment demonstrated by Dr. Surendra Shrestha and UNEP-Asia.

We look forward to your feedback and to being in touch regarding our next steps.

Best regards,

Gianni Tarantini
 Dr. Gianni Tarantini
 SHARE-Asia Scientific Coordinator

Encl. Feb. 23 Press Release (feel free to publish)

Ricerche Scientifiche e Tecnologiche in Alta Quota

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ABC-Pyramid Complementary Site

Scientific responsible: Dr Paolo Bonasoni, ISAC-CNR, Bologna, Italy

Black Carbon - Aerosol light absorption properties	MAAP
Aerosol optical proprieties and integral scattering coefficient	NEPH
Aerosol physical proprieties (Size distribution 15-500 nm)	DPM
Aerosol physical properties (Size distribution >300 nm)	
Aerosol chemical (Inorganic)	
Aerosol chemical (Organic)	CIMEL
UV radiation & GHG	UV-an.
Meteorology	Flasks
	Vaisala





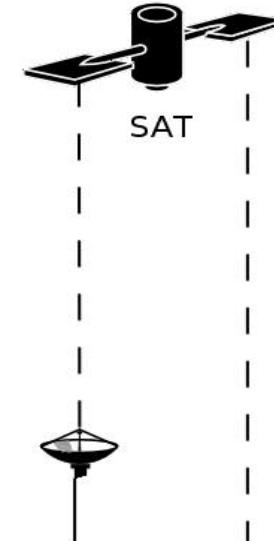
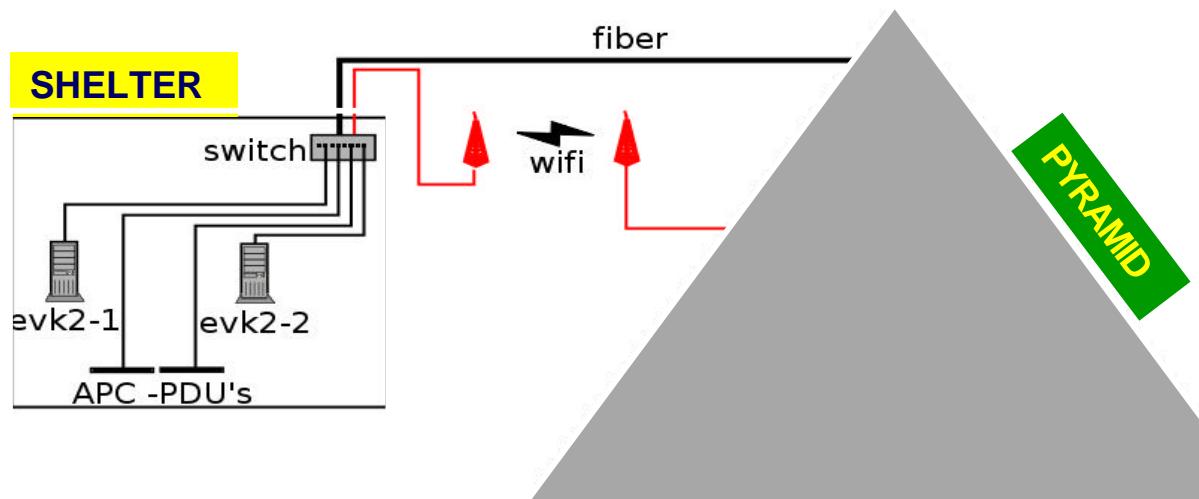
The **ABC-Pyramid** Complementary Site



The **ABC-Pyramid** Complementary Site

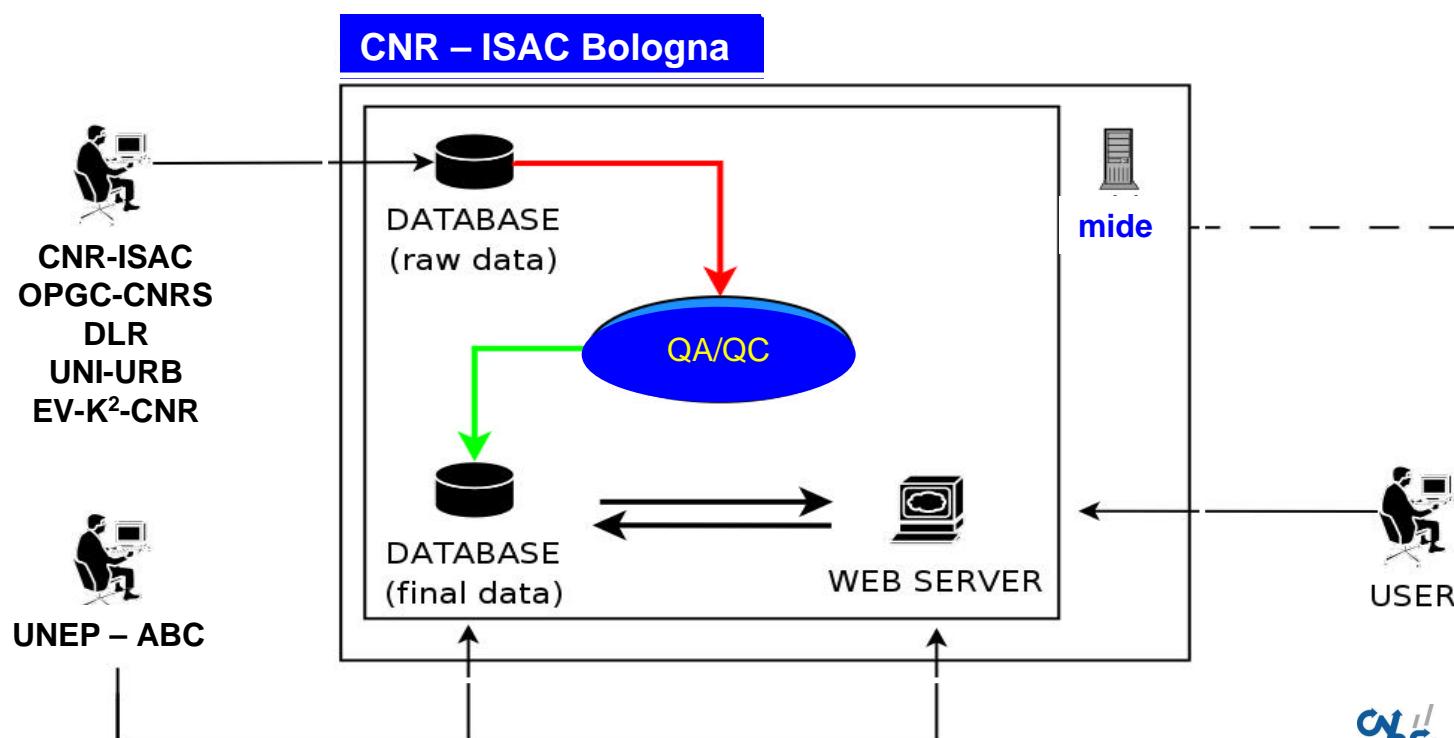


Data acquisition and communication systems



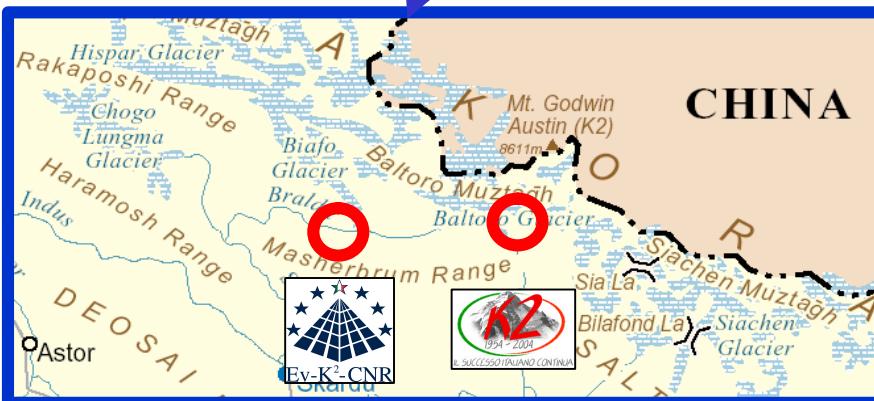
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The data are sent to the CNR Institutes where they can be accessed by different Institutions that provide QA/QC.



The remote control of the instruments will be possible from CNR and CNRS Institutes.

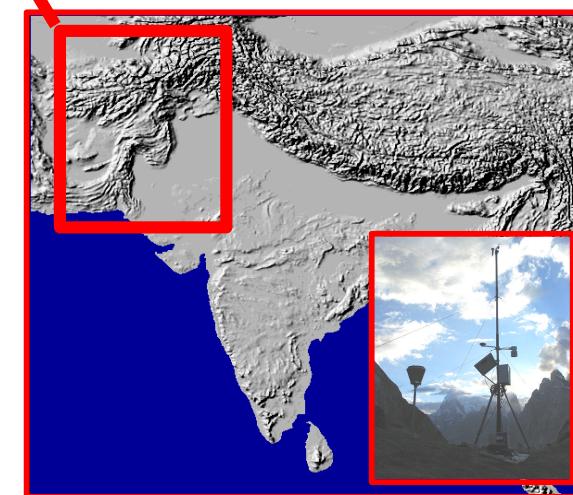




Other contributions to CEOP Phase II

AWSs in Baltistan Region, Pakistan

- **Urukas (4000 m)**
 (Baltoro Glacier), June 2004
- **Askole (3000 m)**
 September 2005



Other contributions to CEOP Phase II

New AWS (September 2006?) in Caucasus Region, Georgia



Mount Cakzbeck

Betlemi
(3670 m)

Credits for this presentation



(Comitato Ev-K²-CNR)

E. Villermoz, G.P. Verza, A. Cortinovis, M. Comi, B. Shommer,
A. Da Polenza



(CNR-ISAC)

P. Bonasoni, U. Bonafè, F. Calzolari, P. Cristofanelli, A. Marinoni,
F. Roccato, MC. Facchini, S. Fuzzi, G.P. Gobbi, F. Barnaba,
F. Angelini, D. Anfossi, P. Malguzzi, S. Trini Castelli



(CNRS)

P. Laj, JM. Pichon, H. Venzac, K. Sellegri, P. Villani



(Urbino University)

M. Maione, J. Arduini



(DLR)

A. Petzold



(ARIANET)

G. Calori



(CEM)

L. Bertolani, R. Salerno