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OPAG-SURFACE

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**JOINT CIMO EXPERT TEAM ON
SURFACE-BASED INSTRUMENT INTERCOMPARISONS
AND CALIBRATION METHODS**

ITEM: 5.1

First Session

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AND

**INTERNATIONAL ORGANIZING COMMITTEE (IOC) ON
SURFACE-BASED INSTRUMENTS INTERCOMPARISONS**

First Session

Trappes, France, 24-28 November 2003

**An invitation from the Italian Meteorological Service (IMS) to host
the WMO Field Intercomparisons of Rainfall Intensity (RI) Gauges**

(Submitted by Mr L. Lanza, University of Genoa)

Summary and purpose of document

This document provides background of the IMS invitation to host the Field Intercomparisons of Rainfall Intensity Gauges.

Action proposed

The meeting is invited to take into account information presented in this document when discussing a place for the Field Intercomparisons of Rainfall Intensity Gauges.

An invitation from the Italian Meteorological Service (IMS) to host the WMO Field Intercomparisons of Rainfall Intensity (RI) Gauges

1. Gen. Roberto Sorani, the Permanent Representative of Italy with for WMO in his letter, reference No. RGPM-RP-43/6755/G8-1/OMM-CIMO/ET, dated 20 October 2003, informed the WMO Secretary-General Italian Meteorological Service (IMS), being aware of the importance of a "Precipitation Measurement Intercomparison", is considering the possibility to host Field Intercomparison of Rainfall Intensity Gauges at its test site of Experimental Department of Meteorology in Vignia di Valle (Rome).
2. Brief information on the Experimental Department of Meteorology is in Annex.



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ReSMA is constituted by an Headquarter, a meteorological station and six instrumental equipped emplacements with power supply, lighting, data transfer connection and real time control. The Experimental Department of the Italian MetService in Vigna di Valle is responsible for the test of instruments in the field of meteorological observation.



The ozone control in Vigna di Valle is one of the main activities regarding special meteorological observations and measurements. There are two special instruments used to analyse the atmosphere to measure the ozone quantity. The oldest is the DOBSON 047 and the newest is the BREWER which takes UV measure too.

The Experimental Department of Meteorology assures the quality of measurements and observations coming from the net of the Service, by instrumentation management and testing, develops the fit methodologies for the control, sampling and verification of new instrumentations introduced in national area and manages the mobile support for national territory demands and out area operations. The meteorological station works H24, produces CLIMAT, METAR and CREX messages and makes ozone measurement and meteorological sounding.



One of ReSMA new instruments is the S.O.D.A.R. MFAS which allows us to make wind shear and turbulence research and to study the wind profile up to 1000 m with resolution of 10 m. It will be carried among UMM instrumentations.



A barometric chamber allows to test and calibrate different instruments. A calibration bench is used to set the pyranometer.



In one of the experimental emplacements available in the ReSMA area there is a collector for dry and wet deposition. The collector for the wet deposition is opened automatically by using the signal of a precipitation detector. For the analysis of precipitation coming from many sampling Italian stations there is a modern chemical laboratory.



Among the other, measures of sunshine duration, global and UV radiation are effected.



A Meteorological Movable Unit (UMM) is available to provide a meteorological technical support in every area of the nation. It is entirely equipped with the best portable meteorological and technical devices and it has an appropriate telecommunication system to receive and provide every kind of meteorological information. The UMM has a portable apparatus to launch sounding balloons and an own telecommunication system to receive and plot the atmosphere data.



Many instruments are tested and data comparison allows to know the performances of standard and experimental devices as is being for VAISALA WWS 425 and GILL Wind Master PRO.