Frequently Asked Questions

Q1) *Our raingauge is a simple tipping bucket gauge without compensation. Do I need to prepare some kind of interface to convert pulses into a serial output (e.g. on a RS485 interface)?*

A1) No. The data acquisition system can acquire pulse output directly and will store the time stamp for each pulse. In this case you have to provide a transfer function (algorithm) how the 1-minute Rainfall Intensity (in mm/h) has to be calculated (see items g) and also j) of the Project Leader's letter).

Q2) *The raingauge is equipped with a heating (24VAC about 100VA). Should I provide a power supply (simple 230/24V transformer) for heating or is it not necessary.*

A2) In this Intercomparison only Rainfall events will be evaluated. All non-liquid precipitation events will be discarded. Therefore a heating to allow measurements of solid precipitation is NOT necessary. Technically it is possible to use the heating and you could use it, e.g. if you think it is necessary for the propper operation of the instrument. In the latter case please provide us with the power supply-transformer for heating.

Q3) *All electrical connection of the raingauge are passed on a plug at the bottom of the instrument. My question is: what is the required cable length, so i could prepare it with the appropriate connector?*

A3) An appropriate connector is not necessary; at least 2m cable are needed. Connection scheme has to be provided.
Each concrete platform for installation is provided with signal box (so high quality shielded signal cables directly connected to the data acquisition hardware) and power box (with 220V and DC voltage directly connected to power main source, separated by signal cables).

Q4) *Please let me know if it you really need our assistance for the installation of our tipping bucket instruments and when the installation is scheduled roughly.*

A4) You are *allowed* to assist the installation. We encourage you to do so, if your instrument has special requirements for the setup and installation. If you are convinced that your instrument is very easy to install, does not need any special tools and/or procedures to set it into opperation and with precise instructions given (in

English or Italian) for the installation, it is in your responsability to decide wether the local staff at the Intercomparison Site will be able to manage it without problems.

Concerning the schedule for installation it can be said that all catchment type gauges will be calibrated first at DICAT laboratory in Genoa in April and May. Each of these instruments will then be shipped to Vigna di Valle and installed there.

All non-catchment type gauges will go directly to Vigna di Valle and in this case a schedule can be set up if the date of delivery of your instrument is known.

If you intend to assist in the installation you should inform the Site Manager about it and he will inform you asap when the installation is scheduled.

Q5) *I noted that you decided NOT to use wind shields. I can understand that you want to test the sensors and not the effect of shields, but on the other hand the results obtained during the field test might not be representative for these sensors in operational use. I think that you should at least address/mention this in the report.*

A5) We will surely mention these eventual deviations from operational practices. If the setup you use operationally differs from the one that is used in the intercomparison, we ask you to deliver a description that can be used for the final report.

Q6) *Regarding item i): our sensor interface gives an asynchronous output every 12 seconds. Hence a time-synchronization (better than +/-6 seconds) is not possible. Also note that the sensor/interface cannot be polled. I expect that other instruments have similar restrictions (e.g. raw tipping bucket pulses or internal refresh rates of derived output parameters) and that this isn't a "hard" requirement.*

A6) If your instrument cannot be synchronised, we have to accept it. For this reason we are acquiring data every 10s for all instruments that are polled to get an acceptable synchronisation for 1-minute data. In your case the instrument is transmitting every 12 s and the synchronisation will still be good.

Q7) *What is the deadline for the goods for arriving at the final destination: Department of Construction, Environmental and Architectural*

Engineering University of Genova

*Viale CAMBIASO, 6 * 16145 Genoa * Italy*

Att. Dr. Luigi STAGGI (DICAT)

A7) There is no deadline. When you are ready, please send instruments as soon as possible, without forgetting to inform Mr Vuerich (Site Manager Intercomparison) and

Mr Stagi (Site Manager Laboratory) about instruments arrival as mentioned in letter Nr.1 item 2.

Q8) *Our company intends to send a technical specialist to the sites in Italy in order to accompany the setting to work procedures - what will be the time schedule for these jobs ?*

a) Genoa (calibration laboratory)

A8a) No assistance is needed for calibration in Genoa.

b) Vigna di Valle nearby Roma (test field)

A8b) Because the instruments arrival timetable is not available yet, the time schedule for installation and test at Vigna di Valle is not possible to plan. The schedule depends also on the time arrival of instruments and on the number of instruments to be tested at Genoa before yours. As soon as we will receive your PRE-ALERT arrival and after having checked the situation in Genoa Lab, we will inform you immediately about the installation period.

Q9) *Power supply unit: In order to obtain highest safety we will supply our own power supply unit. We are assuming that a power point (junction box) for 230 V AC will be available close to the sensor.*

A9) Thank you to provide us with your power supply unit. We surely have a power point for 230V close to the sensor.

Q10*) We provide a mast with a mounting plate, screw anchors and fixing screws. Is a drilling device for 12 mm holes or alternatively 10 mm holes present at the site ?*

A10) All general equipment needed the installation of meteorological sensors is available. We have a mechanical workshop inside ReSMA centre. Only if special equipment is necessary for your instruments installation, you should send it conjointly to instruments consignment.

Q11) *Which party shall take care for insurances ?*
- If to be done by manufacturers which events shall be covered: vandalism, theft others?
- Which approximate duration that will have to be considered?
- Is the test field protected ? Fences ? Supervision by guards?

A11) WMO does not take care for insurance. The risk of vandalism or theft is close to zero as the measurement field is located inside a military area protected by fences and guards. The intercomparison will last not longer than until August 2008.