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Site report: Xilinhot , China
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Summary and Purpose of Document

This document contains an overview of the measurement programme at the CRN Site Xilinhot with respect to GRUAN requirements, and addresses the questions to be discussed in this session.

1. Which of your existing radiosonde launches already meet the mandatory requirements (GCOS121:once weekly best production quality radiosonde, once monthly stratospheric water vapour; recommended twice daily), and which additional launches need to be instigated or augmented?

China GTS1 digital radiosonde has been launched twice daily 00/12 LST since November 2004. Duo to 2 types for China GPS radiosondes participating in 2010 Yangjiang high quality international radiosonde intercomparison, and it is possible for CMA to choose better one to replace current GTS1 radiosonde.

2. Which ground based measurements can you provide in addition to the mandatory GPS total water vapour column (microwave, FTIR, lidar) and how can you use these additional observations to make sure that measurement uncertainty estimates will be consistent?

GPS receiver for integrated water vapor is in operation since 2008, we have carried out the comparison between GPS/MET integrated water vapor and radiosonde humidity, and 2-3 staff will be responsible for the comparison.

3. Do you have any limitations regarding the development of GRUAN launch protocols for routine and reference sonde launches (e.g. the use of autosonde launchers)?

There should be no limitations.

4. Do you have any limitations regarding the development of uniform GRUAN data processing schemes for remote sensing observations?

There should be no limitations. But it will need the relevant manufacturers help, so it is suggest that the uniform data format should be provided early.

5. What local analysis can you provide to assure that measurements uncertainties will be consistent across the network (analysis of redundant observations either dual sonde launches or sonde + remote sensing observations)?

Based on Dual sonde launches relative system error and measurements uncertainties can be calculated. The comparison results between GPS/MET integrated water vapor and radiosonde humidity also can be done every day.

6. For sonde observations: Can you provide all raw data for central archiving?

Yes.

7. For remote sensing observations: Will you be able to archive all raw data for

possible future reanalysis and reprocessing?

It depends on CMA data policy. We need to know which kind of remote data, then we will consult with relevant department of CMA and make the decision. So we suppose that GRUAN should provide the lists of remote data category firstly.

8. What help do you need from the Lead Centre / WGARO / GCOS Secretariat in moving forwards?

The recommendation for reference sonde, the mandatory requirements for sonde comparison launch such as fixed launch time, the uniform data format for both sonde and remote sensing instrument, the recommendation lists and requirements for remote sensing instrument, and especially the uniform data evaluation method.

9. Will you be able to host local intercomparison campaigns (yet to be scheduled)?

Yes. Actually we have carried out China GPS radiosonde comparison, and we will host 2010 Yangjiang high quality international radiosonde intercomparison.

10. Are there any special infrastructure needs that should be addressed?

Currently there is no stratospheric water vapour observation, it is supposed that help should be needed from GRUAN committee. And we want to know requirements for reference sonde, and what kind of sonde can be used as reference sonde? Are there any recommendations for reference sonde from GRUAN committee?