WMO SPICE Teleconference

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| Date | 30.10.2014 | Time  | 13:00 – 15:15 (UTC) |
| Purpose | SPICE |
| IOC member attendees(strike though if not attending) | R. Nitu, B. Baker, ~~J. Hendrikx, H. Liang, Y.-A. Roulet,~~ F. Sabatini, ~~V. Vuglinsky~~ |
| ~~IOC ex-officio member attendees(strike though if not attending)~~ | ~~S. Bilish (Australia) C. Smith – D. Yang (Canada), S. MacDonell (Chile) O. Aulamo (Finland~~) K. Honda (Japan)~~C. Zammit (New Zealand~~) M. Wolff (Norway) ~~M. Karzynski (Poland)~~~~TBD (Russian Fed.)~~ R. Rasmussen (USA) ~~L. Lanza (Italy)~~~~S. Morin (France) A. Uriel - S. Buisan (AEMET-Spain)~~ ~~G. Diolaiuti,~~ Antonella ~~- D. Bocchiola~~ (Italy/Nepal)~~Hyelim Kim (Rep. Korea)~~ |
| Other Attendees(optional) | I. Rüedi, M. Earle, F. Boudala, Andy Gaydos, ~~B. Goodison, J. Hoover, P. Joe,~~ J. Kochendorfer, T. Laine, ~~S. Landolt, A. Senese,~~ E. Vuerich, ~~A. Poikonen,~~ A. Reverdin, ~~Gyu-Won Lee,~~ Floor Heuvel, ~~Hee Jin, Kai Wong, L. Leppänen, H.-R. Hannula~~ |
| Distribution | All attendees, IOC (including IOC ex-officio members) |
| Moderator | M. Wolff | Recorder | **I. Rüedi** |

Meeting Records (A = Action / D = Decision / I = Information)

| **#**  | **A / I / D** | **Item Description** | **Owner** | **Due Date** |
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| 1 | **I** | General presentation of the QC & event selection:An off-line approach has been developed to test QC procedures and event selection (thresholds etc.) methods. At present there are consequently 2 parallel data streams, the one being available from NCAR (on-line) and the other one (off-line) being used for test/development purposes. It is expected/desired that in the end, there would be only one data set available from NCAR. The original data of the off-line data stream is downloaded from the NCAR archive. The off-line approach was developed to reduce pressure on NCAR avoiding to constantly ask NCAR to modify the procedures to apply to the SPICE data.Presented proposal for data flagging based on procedure used during the rainfall intensity intercomparison. | Mike |  |
| 2 | **I** | Presented details and implementation of QC processing. | Floor |  |
| 3 | **I** | Presented details and implementation of event selection procedure | Audrey |  |
| 4 | **I** | Presentation of QC and event-selection implemented at NCAR. Checks need to be done to ensure procedures are implemented similarly in the on-line and off-line approach.  | Mareile |  |
| 5 | **A** | Number of questions on the implementation on the QC and event selection procedures have to be answered/reviewed by the team. As most participating instruments are located at NCAR, US team will address these question as a priority. | Scott / Roy | 10 Nov. 2014 |
| 6 | **I/D** | Gaussian filters were developed for the reference data sets. Question is whether these filters should be applied to other instruments or not. In view of the fact that the instruments under test are meant to be used in operational networks, it was decided to analyse the data as available from the instruments and used in a operational network. In most cases that would be the unfiltered data. However, for Geonor gauges (and possible other gauges) a collection of national procedures are in use and these should be compared with each other as well as with the Gaussian filter approach at national levels. That means, that Gaussian filtered data should be available in parallel to the unfiltered data set for instruments under test. |  |  |
| 7 | **A** | Provide comments on QC procedures | All | 6 Nov. 2014 |
| 8 | **I** | Floor, Audrey, Mike and possibly Mareile will meet in Payerne 3-14 Nov. 2014. Plans for work to be carried out at this occasion was presented. | Mareile |  |
| 9 | **I** | Finalization of the R2-R3 transfer procedure will be done considering the transfer functions obtained at different sites, making use of the QC-ed data.  | Roy |  |
|  |  | **For next teleconference(s)**:* **6 November 2014**– QC-Procedures: Questions and Answers
* **13 November 2014**– TBD
* **20 November 2014:** review of results of Calibration comparison CARE, 2014
* **27 November 2014**– detailed report & discussion: Uncertainty\*
* **4 December 2014**– report from each group, planning 2015
 | Topic specific |  |

Open Actions (strike though actions that were complete since last teleconference, delete actions that were stroked through at time of previous teleconference)

| **#**  | **A / I / D** | **Item Description** | **Owner** | **Due Date** |
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| **From teleconference of 23 October 2014** |
| 2 | **A** | Craig and Samuel to follow up on data catalogue; update where necessary | Craig, Samuel | Nov 7, 2014 |
| 3 | **A** | Input from site managers required re: derivation of output data (sampling rates, processing at logger level) | Site managers | Dec 5, 2014 |
| 9 | **A** | Adding of snow occurrence information to the manual observations table of PYRAMID site  | Guglielmina | Nov 7, 2014 |
| 10 | **A** | Sending of Forni data to Craig first (in any format) and then with the right NCAR format to NCAR. | Guglielmina, Antonnela | Next week to Craig, then as soon as possible to NCAR |
| 11 | **A** | The SR50, used to select snowfall events, will be changed for a similar model at Forni site as there may be issues with their current instrument | Guglielmina, Antonnela | For season 2014/2015 |
| 12 | **A** | Sending of elevation change as a result of the change in location of the Forni site. | Guglielmina, Antonnela | At the end of the summer season |
| 17 | **I, D** | Discussion about instrument issues* SR50 at Forni will be replaced
* Jenoptik : Timo will share his results with the SPICE community as soon as available
* Median filter for processing high frequencies, suggested by Campbell Scientific for SR50, will not be implemented at Sodankylä for now as this filter could be applied afterwards.
 | Antonella, Craig, Timo |  |
| 18 | **D** | Next SoG teleconference will be in January expecting to show some preliminary results. Therefore, QC on SoG data is expected to be done by the end of the year.  | Craig, Samuel | January |
| **From teleconference of 9 October 2014** |
| 4 | **A** | Provide a first draft of the interpretation of terminology used in the project objectives, relative to SPICE specifics, to be used as a starting point for the identification of graphs and analyses to be conducted for the preparation of Data Sheets.  | Roy | Oct 30, 2014 |
| 5 | **A** | Review concept of data sheet taken into account above interpretations during teleconference | All | Early Nov. 2014 |
| 6 | **A** | Use the opportunity of the review of data availability for assessing the type of plots and analysis that needs to be conducted for meeting project objectives. E.g. developing plots to assess whether there are similarities between climates on different sites, assessment of results on a site by site basis, followed by the corroboration of results, etc | all | End of October |
| 7 | **I/A** | All project members are encouraged to publish results, from their sites, or on proposed methodologies, in the SPICE special issue and to inform the team about their plans. | All | On-going |
| **From teleconference of 25 September 2014** |
| ~~2~~ | **~~A~~** | ~~Everyone to provide missing parts, updates and feedback on report~~ | ~~All~~ | ~~15 Oct.2014~~ |
| 6 | **A** | Provide R1 data from Marshall to Kai to conduct similar analysis with respect to both Geonor and Pluvio2 of Marshall in R2 configuration. | Roy | 9 Oct. 2014 |
| 7 | **A** | Perform R1/R2 analysis for Marshall with respect to both Geonor and Pluvio2 of Marshall in R2 configuration | Kai | Dec 2014 |
| 8 | **I/A** | Update on R2-R3 analysis. Comparison on catch efficiency experienced in Marshall and Haukeliseter, more specifically on the analysis of the R3 (catch efficiency of single alter gauge vs unshielded gauge).Both measurements and model calculations suggest that the shape of the transfer curves are depending on site climatology. Typical particle sizes of the snow seems to be a possible explanation for these differences. It was suggested to classify the data after different temperatures to see how that relates to the shape of the curves.Even if sites have a typical “sort of snow”, not all events will be typical and transfer functions for single events might not follow the climatology of the station. If possible (enough data) these should be studied as well.Roy to provide input for the Reference Report on use of R3 vs R2. | Roy | Oct 15, 2014 |
| 10 | **A** | Rodica to contact site managers with requests for site descriptions for the Reference Report | Rodica | Oct 9, 2014 |
| 11 | **A** | Try to get data from the first WMO intercomparison from sites with a shielded/unshielded pair. If available, these data will be sent to Roy for further analysis | Daqing |  |
| **From teleconference of 18 September 2014** |
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|  | **A** | (resulting from Sept 18th teleconference): the Pluvio firmware version for SPICE remains 1.30.1;All Pluvios in SPICE to be reoriented with the strain gauge towards north, to minimize the temperature variation due to the solar irradiance. | All Site Managers | Nov 2014 |
|  | **A** | Establish instrument champions for all instruments under test in SPICE. A champion would be the focal point for the information regarding a particular sensor/system, and would ensure that the information is captured in the Final Report.All are invited to indicate their preference for contributing to the assessment and tracking of performance of SPICE tested sensors.Rodica to set Doodle poll for all to indicate preferences | All team members | Oct 15, 2014 |

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| **From teleconference of 7 August 2014** |
| ~~3~~ | **~~I/A~~** | ~~Encouraged all the site teams to publish results, preferably in the ATM special issue on SPICE. Final report could refer to them. Rodica should be informed of plans for such publications.In the event that only few publications are available, most of the information would then have to be directly included in the final report~~ | ~~All~~ | ~~31 Aug. 2014~~ |
| 7 | **A** | Finalization of Sodankyla meeting report is still underway. Some presentation summaries are still missing from Antonella, Leena, Niina, Arkady. | ~~Antonella, Leena, Niina,~~ Arkady, Isabelle | 31 Aug. 2014 |
| 11 | **A** | Present a Summary of methods implemented at NCAR in support of SPICE; to be demonstrated during next telecon | Roy/Andy | Next telecon |
| 12 | **A**  | Organize data analysis meetings in near future to assign duties; teams conducting parallel analysis an option | Mareile/Rodica | Sept |
| 13 | **A** | Provide a tutorial (demo and written) on how to use all features implemented at NCAR, that are expected to be used by Site Managers, and DAT members | Roy | August |
| 15 | **A** | Assess and discuss methods for tying together SoG with event selection; an NCAR or offline? | Craig | Next telecon |
| 17 | **A** | Retrieve data for R1-R2 assessment from FMI | Craig |  |
| 19 | **A** | Mike to report on uncertainty assessment of Geonors and Pluvios using John’s approach | Mike | Dec 2014 |
| **From teleconference of 20 February 2014** |
| 3 | **A** | Sites to clearly document issues on heating, as well as on all interactions with manufacturers. | All | On-going |
| 4 | **I/A** | Commissioning reports have only one entry for Data sampling frequency and data acquisition frequency. It is recommended that all sites provide both values. Site tracking form should be updated if needed to capture this information. | Audrey / Craig | 24 Feb. |
| 8 | **A** | Help raise resources for the CIMO Trust Fund to enable hiring someone for that. | All | On going |
| **From teleconference of 23 Jan. 2014** |
| 2 | **A** | Follow up with sites which have not provided the Commissioning Reports and obtain status and commitment for completion | Francesco | August 2014 |
| 12 | **A** | Site Managers to send to Rodica picture that are representative of their sites, which would be used for presentations/posters on SPICE | Site Managers | on-going |
| 20 | **A** | Develop specific recommendation for QC procedure of SoG data.  | Craig (with SoG team) | 28 Feb. 2014 |
| **From teleconference of 19 Dec. 2013**  |
| 9 | **A** | Follow-up on gauge heights (non-DFIR) | Rodica | Jan 16th |
| 14 | **A** | Contact Niina Puttonen to help with analysis of reference uncertainty using Sodankyla data, focussing on low-wind conditions | Mareile | Jan 16th |
| 16 | **A** | Send Audrey proposals for any terms to be defined | all | ongoing |
| **From teleconference of 24 Oct. 2013** |
| 2 | **A** | The SPICE report will need to provide feedback on calibration procedures as stated in Geonor manual to inform those using these gauges. Key points:* Gauge levelling
* Compare 3-wire average (requires algorithm from DAT) or individual transducers with calibration load
* Comparison impacts procedure in manual: if errors more than 0.5%, Geonor recommends correction of *A*, *f0* coefficients
* Covering of gauge orifice during calibration
 | Rodica | In the Final report |
| 8 | **A** | Status of data transfer to NCAR to be monitored and documented regularly, shared; specifics of procedures TBD | Rodica/ Audrey | On going updates |
| **From teleconference of 20 Sept. 2012** |
| 1 | **A** | Look at vertical wind profile: compare measurements with observations at different heights | John | Aug 2013 |

**Attachments:**

None.