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| **WORLD METEOROLOGICAL ORGANIZATION**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **COMMISSION FOR INSTRUMENTS AND**  **METHODS OF OBSERVATION**  **CIMO MANAGEMENT GROUP**  **Thirteenth Session**  Offenbach, Germany 7 – 9 December 2014 |  | CIMO/MG-13/Doc. 3.1(3)  (27.XI.2014)  \_\_\_\_\_\_\_  ITEM: 3.1  Original: ENGLISH |

**WORK PLAN OF THE CIMO EXPERT TEAM ON INSTRUMENT INTERCOMPARISONS (ET-II)**

(Submitted by B. Hartley and E. Vuerich)

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| **Summary and purpose of document**  This document provides information on the proposed Work Plan for Expert Team on Instrument Intercomparisons. |

**Action proposed**

The Meeting is invited to note the structure and content of the draft Work Plan, and to approve the Workplan as well as the establishment of Task Team to carry out the feasibility studies. The meeting is also invited to consider supporting the organization of a workshop related to the Aerosol/Volcanic Ash Intercomparison

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**Appendix:** Draft Workplan of ET-II

**WORK PLAN OF THE CIMO EXPERT TEAM ON INSTRUMENT INTERCOMPARISONS (ET-II)**

1. **INTRODUCTION**

The proposed Work Plan for the Expert Team on Instrument Intercomparisons is contained in the Appendix for the consideration and approval of the CIMO Management Group.

1. **INSTRUMENT INTERCOMPARISONS FEASIBILITY STUDIES**

2.1 ET-II is proposing to establish 2 Task Teams to carry out the intercomparisons feasibility. The proposed compositions of the Task Teams are as follow:

***Task Team Upper-Air Intercomparison:***

* Rolf Philipona (Switzerland)
* Masatomo Fujiwara (Japan)
* Tim Oakley (United Kingdom)
* Holger Vömel (USA)
* Alexander Häfele (Switzerland).

***Task Team on Aerosols-Volcanic Ash Intercomparison:***

* Florence Besson (France)
* Jean-Luc Lampin (France)
* Philippe Keckhut (France)
* Pablo Ristori (Argentina)

2.2 The Project Leader of the Task Team on Aerosols and Volcanic-Ash Intercomparison is proposed to organize a 3-day workshop in April/May 2015 to develop ideas and to make strategic choices for the intercomparison. The Management Group is invited to consider supporting this workshop. This workshop would be following an intense period of brainstorming by e-mail which would have included, among others:

* Which targets (in-situ aerosols, volcanic ash, horizontal shooting toward artificial targets, clouds… ?
* How to know the targets ? A known reference instrument does not exist. Using LOAC radiosonde under captive balloon ? Other ?
* What are we looking for ? Detection ? Identification ? Concentration ?
* What parameters are measured ? What algorithms ?
* How many sites where comparing instruments ? Single spot ? One or more sites for aerosols and one single area for ash ? Where ?
* Interferences among instruments which use the same wavelength.

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**APPENDIX: Workplan of ET-Instrument Intercomparisons (2014-2018)**

| **No.** | **Task description** | **Person responsible** | **Action/Milestone** | **Deliverables** | **Deadline for deliver.** | **Status** | **Comments** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | **WMO Solid Precipitation Inter-Comparison Experiment (SPICE)** | **R. Nitu**  E. Vuerich | 1. Monitor progress of SPICE 2. Incorporate guidance material from SPICE Final Report into updates of CIMO Guide | 1. Report to OPAG Chair  2. Updated CIMO Guide | 1. as req. 2. 2016 |  | CIMO-16 4.11, 4.21-22, 4.31, 7(7).6, 8.7  Final Report of SPICE due in 2016 |
| 2. | **Outcomes of the national China solid precip intercomparison** | **Guo Yatian** | 1. Share results and outcomes of China solid precipitation intercomparison | Document on China intercomparison outcomes | Mid 2015 |  |  |
| 3. | **Liaison with other ETs, RAs and communities (BSRN, GAW, WCRP, etc.) on results of and intentions for intercomparisons** | **E. Vuerich,**  M. de Haij,  A. Lilja  with support of all | 1. Liaise with other CIMO ETs and external communities on plans/on-going/completed instrument intercomparisons 2. Collect links to published reports of national/regional intercomparisons   3. Coordinate updates of relevant CIMO Guide chapters related to inter-comparisons with these groups and CIMO Editorial Board as required | 1. Report to OPAG-A Chairs regarding plans for intercomparisons  2. List of relevant web links and ongoing projects  3. Update of relevant CIMO Guide Chapters | 1. CIMO MG sessions 2. Yearly in April 3. as required |  | CIMO-16 4.11, 4.28, 4.29, 4.30, 4.31, 4.33 |
| 4. | **Priorities for future intercomparisons** | **B. Santoso**?  with support of all | Assess priorities for future CIMO intercomparions | 1. Proposal of priority for next intercomparison (this inter-sessional period) 2. Updated prioritized list of future intercomparisons | 1. Dec. 2015, 2. Dec. 2017 |  | CIMO-16, 4.29, 4.33, 7(12).6  Use CIMO-approved shortlist as the basis |
| 5. | **WMO  Radiation Intercomparisons** | **W. Finsterle**   1. B. Santoso ?? | 1. Monitor progress of International Pyrheliometer Comparison XII (28 Sept. – 16 Oct. 2015 2. Monitor progress of International International Pyrgeometer Comparison II (in tandem with IPC XII) 3. Ensure that final reports of intercomparisons are published as an IOM report 4. Liaise with Regional Radiation Centres on plans for reg. rad. interc. 5. If applicable assist in coordination of a regional radiation comparison | 1. Report to OPAG Chairs 2. Report to OPAG Chairs 3. IOM Report 4. Report to OPAG Chairs 5. Report to OPAG Chairs | 1. CIMO-MG 2016 2. CIMO-MG 2016 3. 2016 |  | CIMO-16 4.11, 4.23-25, 4.29,4.31 |
| 6. | **Instrument Intercomparison for upper air measurements** | **R. Philipona** & Task Team | Carry out feasibility study | 1. Propose TT membership 2. Proposal(s) plan for conducting an intercomparison | 1. Nov. 2014 2. 2015 |  | CIMO-16 4.11, 4.27, 4.28, 4.29,4.31, 4.33, 7(12).5 |
| 7. | **Instrument Intercomparison for volcanic ash/aerosol detection** | **F. Besson**, M. de Haij, & Task Team | Carry out feasibility study | 1. Propose TT membership 2. Proposal(s) plan for conducting an intercomparison | 1. Nov. 2014 2. 2015 |  | CIMO-16 4.11, 4.28, 4.29,4.31, 5.24 |