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| **WORLD METEOROLOGICAL ORGANIZATION**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **CIMO EXPERT TEAM ON NEW REMOTE**  **SENSING TECHNOLOGIES (ET-NRST)**  **(First Session)**  Geneva, Switzerland, 22 – 25 August 2016 | **CIMO\_ET-NRST/Doc. 10**  **(15.VII.2016)**  **\_\_\_\_\_\_\_\_\_**  **ITEM: 10**  **Original: ENGLISH ONLY** |

**Workplan of the Expert Team on New Remote-Sensing Technologies (2014-2018)**CIMO-16 §5.14, 5.15, 5.16

(Version: as approved by CIMO-MG-13 in Dec. 2014; updated in March 2016)

| **No.** | **Task description** | **Person responsible** | **Action** | **Deliverable** | **Deadline for deliv.** | **Status**  **[%]** | | **Comments** |
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| 1. | **Instrument intercomparison for aerosol / volcanic ash detection.** | **Apituley**  Donovan  Ristori  (Thomas) | 1. Assist in conducting a feasibility study for an intercomparison on various techniques for aerosol/ volcanic ash detection 2. Report to CIMO MG on the findings of the study 3. Prepare a plan for such an intercomparison if feasible | 1. Report on feasibility study.  2. Plan for intercomparison | 03/2016  (draft available,March 2016)  TBD | 30 | | CIMO-16 § 5.24  In liaison with ET Inter- Comparison  Will there a need for ‘portability’ of the intercomparison? |
| 2. | **Passive microwave profilers** | **Chan**  Cucurull | 1. Survey the use of MWPs by NMHSs 2. Further develop draft guidance material on operational use of passive microwave profilers and its potential integration with satellite data. 3. Review relevant CIMO Guide chapter and develop update if appropriate | 1. Survey on MWP  2. IOM Report on MW Profilers  3. Updated CIMO Guide Chapter | 12/2015  02/2016  12/2016 | 100%  100%  0% | | CIMO-16 Doc. 5, §5.18  Note existing draft doc available from WMO secretariat |
| 3. | **Lidar Standards** | **Apituley**  Chan | 1. Provide WMO input to ISO TC146/SC5 development of a joint WMO/ISO standard on Doppler wind lidar. 2. Provide advice to CIMO MG on the merit of development of other joint WMO/ISO standards. 3. Collaborate with ISO TC146/SC5 working group on maintenance of ISO lidar standards. | 1. WMO/ISO standard on Doppler wind lidar | 1. 05/2016  2. Ongoing  3. Ongoing | 95%  (under review) | | CIMO-16, §4.6  CIMO-16, §5.22  CIMO-16, §8.3 |
| 4. | **Monitor, evaluate and report on development and implementation of new remote-sensing technologies and their operational application (excluding weather radars, radar wind profilers and lightning detection systems)** | a. **Tulley**  b. **Cucurull**  de Haan  Tulley  c. **Apituley**  Ristori  Sakai  d. **Sakai**  Apituley  Roininen  e. **Cucurull**  De Haan  Apituley  Chan  f. **Donovan**  g. **Ristori**  Apituley  Tulley  Roininen  Donovan  h. **Cucurull**  All | Review, evaluate and report on development and implementation of various new remote-sensing technologies and their potential/readiness for operational application, including path to operational use and traceability to SI, for:   1. MWR, 2. GNSS 3. Raman WV lidar 4. DIAL lidar 5. Doppler wind LIDAR 6. cloud radars 7. aerosol&volcanic ash detection 8. other (incl. simple, cheap technology) | 1. Updated reports on performance, implementation and operational use of various systems. 2. IOM or other report(s) on new RS technologies (e.g. Operational use of LIDARs) 3. Relevant CIMO Guide updates (as required) | 1.  **05/2016**  **(update only if necessary)**  2. As req  3. As req | | 30% | CIMO-16 §4.17, 5.15, 5.16, 5.17, 5.18, 5.19, 5.20, 5.21, 5.22, 7(5).3, 7(5).4  Note 1: Ensure due consideration of new technologies which are cheap and simple to operate and maintain.  Note 2: Take into account reports from previous intersessional period.  Note 3: Liaise with GRUAN on WV Lidars, etc.  Note 4: Include FTIR |
| 5. | **Review outputs of assigned CIMO Testbeds (Lindenberg, Hohenpeissenberg, Payerne, Izana)** | **De Haan**  (Berger/Beyrich, Plass-Duelmer, Ruffieux,  Cuevas) | 1. Monitor and review outputs of assigned CIMO Testbeds and Lead Centres 2. Assess need to, and develop if required, up-dates for relevant parts of CIMO Guide. | 1. Report to OPAG Chair summarizing main outputs of testbeds relevant to ET Terms of Reference 2. Revised CIMO Guide Chapters | 1. **04/2016 (depending on availability of reports)**  2. TBD | | 40% | CIMO-16, §5.15  1. Reports made available every 6 months (next reports available by 02/2016). We need to provide a summary of their outputs. |
| 6. | **Uncertainty and traceability to SI of remotely sensed atmospheric vertical profiles.** | **De Haan**  Cucurull | 1. Identify one technology (from Task 4. above, e.g. GNSS) for which SI traceability and quantification of uncertainty is tractable, and develop guidance material on this. | 1. Document or IOM Report on uncertainty and traceability of remotely sensed vertical profiles. | 12/2016 | | Ongoing | Note existing draft document at <http://www.wmo.int/pages/prog/www/IMOP/meetings/RS-NT/ET-NTTB-1/Doc%209_Traceability.doc>  CIMO-16 §5.25, 5.26 |

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