**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)

| **No.** | **Task description** | **Person responsible** | **Action** | **Deliverable** | **Deadline for deliv.** | **Status****[%]** | **Comments** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | **Instrument intercomparison for aerosol / volcanic ash detection.** | **Apituley**DonovanRistori | 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 | 12/2015TBD |  | CIMO-16 § 5.24In liaison with ET-IIMay need to involve seismologists communityWill 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 Further develop draft guidance material on operational use of passive microwave profilers and its potential integration with satellite data.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
 | 1/2. IOM Report on MW Profilers3. Updated CIMO Guide Chapter | 12/201512/2016 |  | CIMO-16 Doc. 5, §5.18Note 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. 06/2015 2. Ongoing3. Ongoing |  | CIMO-16, §4.6CIMO-16, §5.22 CIMO-16, §8.3 |

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| 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 HaanTulleyc. **Apituley**RistoriSakaid. **Sakai**ApituleyRoininene. **de Haan**CucurullApituleyChanf. **Donovan**g. **Ristori**ApituleyTulleyRoininenDonovanh. **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)
 | 1.1 12/20151.2 06/20172. As req3. As req |  | 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).4Note 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. 6 monthly1. 06/2017
 |  | CIMO-16, §5.15 |
| 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 |  | 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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