

WORLD METEOROLOGICAL ORGANIZATION

**COMMISSION FOR INSTRUMENT AND
METHODS OF OBSERVATION
*OPAG-SURFACE***

**EXPERT TEAM ON REMOTE SENSING UPPER-AIR
TECHNOLOGY AND TECHNIQUES
*First Session***

Geneva, Switzerland, 14-17 March 2005

CIMO/OPAG-UPPER-AIR/
ET-RSUAT&T-1/Doc.1.2(2)

(4.XI.2004)

ITEM: 1.2

Original: ENGLISH ONLY

EXPLANATORY MEMORANDUM

1. ORGANIZATION OF THE SESSION

1.1 Opening of Session

The first session of the CIMO Expert Team on Remote Sensing Upper-Air Technology and Techniques (ET-RSUT&T) will be opened on Monday, 14 March 2005, at 10:00 a.m. at the WMO Headquarters, Geneva.

1.2 Adoption of the Agenda

The meeting will be invited to consider the provisional agenda with a view of its adoption.

1.3 Working Arrangements for the Session

The meeting will agree on details concerning the organization of its work including working hours. The documentation will be available in English only, and the meeting will be held in English.

2. REPORT OF THE CHAIRMAN

The chairman of the ET will brief the participants on the purpose and scope of the ET based on the Terms of Reference of ET approved by CIMO-XIII and CIMO Management Group. He will also submit a report on the activities carried out by the ET since its establishment.

3. GPS WATER VAPOUR MEASUREMENTS

3.1 Compatibility between different types of measurements

ET members using GPS data will provide a summary of their experience in operating/development of these complimentary systems in concert with their existing upper-air network, placing emphasis on GPS network. ET members are invited to submit their presentations to the Secretariat prior to the meeting as indicated on the CIMO/IMOP website: <http://www.wmo.int/web/www/IMOP/meetings.html>

3.2 Operational procedures of GPS water vapour networks

ET members will be invited to inform on how their country operates their GPS network, what are the results of their effort, and the operational procedures applied. ET members are invited to submit their presentations to the Secretariat prior to the meeting.

4. COMPLEMENTARY USE OF MODERN DOPPLER RADARS AND PROFILERS IN THE UPPER-AIR NETWORK

4.1 Quality and availability of remotely sensed upper wind measurements

ET members using doppler radar and/or wind profiler data will be requested to provide a summary quantifying doppler radar and/or wind profiler data quality and availability in their country for the consideration of the ET with the aim to improve quality and availability of remotely sensed wind measurements. ET members are invited to submit their presentations to the Secretariat prior to the meeting.

4.2 Suitability of modern radars and wind profilers for wider deployment in NMHSs

The meeting will review the suitability of modern radars and wind profilers for wider deployment in NMHSs and will investigate the possibility of links between manufacturers and regional project managers aimed at system integration.

4.3 Guidance material on operational aspects of wind profilers

The ET members using profiler data will inform the meeting on the nationally applied guidance material as relates to operational aspects of wind profilers for the consideration of the ET with the goal of improving existing guidance documentation. ET members are invited to submit their presentations to the Secretariat prior to the meeting.

5. OPERATIONAL USE OF LIGHTNING DETECTION METHODS

5.1 Compatibility of lightning detection remote sensing and conventional in-situ observations

The ET members using remote sensed lightning detection would brief the meeting on their experience related to the compatibility of these data with conventional in-situ observation. ET members are invited to submit their presentations to the Secretariat prior to the meeting.

5.2 Evaluation methods for operational lightning detection systems

Base on the ET members presentations, the expert meeting will be invited to address the issue of the evaluation of operational lightning detection systems with the aim to propose a standard evaluation method.

5.3 Lightning detection projects and networks

The ET members will exchange their information on different national and regional lightning detection projects and networks to monitor a progress in this area. ET members are invited to submit their presentations to the Secretariat prior to the meeting.

6. INTEGRATED PROFILING SYSTEMS AND OTHER UPPER-AIR MEASUREMENT TECHNIQUES

6.1 Projects for integration of different ground-based observing techniques

The members of the expert team will be requested to present a summary report on national and regional project set-up to integrate different ground based observing techniques together to provide improved sensing of vertical profiles of temperature, humidity, wind and cloud structure. Et members will also be invited to inform the meeting how they are integrating the data from different platform, such as lidar, radiometer, sodar, RASS, cloud radar etc, including the description of techniques used. ET members are invited to submit their presentations to the Secretariat prior to the meeting.

7. WORK PLAN

The ET meeting is invited to review the proposed Work Plan for 2003 – 2006 with a view of its adoption.

8. ANY OTHER BUSINESS

9. DRAFT REPORT OF THE SESSION

The meeting will agree on the draft Report of the Session. Members of ET are expected to provide their written inputs for the Final Report to the ET chair.

10. CLOSURE OF SESSION

It is expected to close the meeting on Thursday, 17 March 2005, late afternoon.