

WORLD METEOROLOGICAL ORGANIZATION

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COMMISSION FOR BASIC SYSTEMS
OPEN PROGRAMME AREA GROUP ON
INTEGRATED OBSERVING SYSTEMS

ITEM: 11.2

**INTER PROGRAMME EXPERT TEAM ON
OBSERVING SYSTEM DESIGN AND EVOLUTION
(IPET-OSDE)
*First Session***

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GENEVA, SWITZERLAND, 31 MARCH – 3 APRIL 2014

PREPARATION FOR THE FORTHCOMING CBS MEETINGS

MECHANISM FOR KEEPING TRACK OF ADDITIONS TO THE VISION FOR THE GOS IN 2025

(Submitted by the Secretariat)

SUMMARY AND PURPOSE OF DOCUMENT

The document provides for information on existing mechanism for keeping track of additions to the Vision for the GOS in 2025.

ACTION PROPOSED

The Meeting is invited to note the information contained in this document when discussing how it organises its work and formulates its recommendations.

References: Vision for the Global Observing System in 2025 –
http://www.wmo.int/pages/prog/www/OSY/WorkingStructure/documents/CBS-2009_Vision-GOS-2025.pdf

Suggestions for addition in a future revised version of the Vision for the (WI)GOS
<http://www.wmo.int/pages/prog/www/OSY/Documentation/Vision2025.html>

Appendix: A. List of issues recorded by the ET-EGOS/IPET-OSDE for keeping track of additions to the Vision of the GOS in 2025

DISCUSSION

The Vision for the Global Observing System (GOS) in 2025 was approved by EC-LXI (Geneva, 2009) and provides high-level goals to guide the evolution of the GOS in the coming decades.

The fifth Session of the Expert Team on the Evolution of the Global Observing System (ET-EGOS), Geneva, December 2009, has noted a couple of issues which should be considered by the Team and monitored, as well as other observing capabilities that might have been omitted in the Vision for the GOS in 2025. Since then, the former ET-EGOS (and now the IPET-OSDE) has maintained (is maintaining) a list of such issues at the following webpage:

<http://www.wmo.int/pages/prog/www/OSY/Documentation/Vision2025.html>

The issues currently recorded on this webpage are also listed in Appendix A.

This web page provides for a simple mechanism of recording proposed additions to the Vision.

Meanwhile, the OPAG IOS is initiating discussions for producing a new Vision of the WI(GOS) in 2035/2040/2045. Exact title and time frame remains to be decided. The new Vision will be discussed by the IPET-OSDE-1 under agenda item 11.3.

APPENDIX A

**SUGGESTIONS FOR ADDITION IN A FUTURE REVISED VERSION OF THE
VISION FOR THE (WI)GOS**

The following elements have been identified as possible addition in a future revised version of the Vision for the (WI)GOS:

Element/ Station type	Geophysical variables	Comment	Ref.
Cloud Radars	Cloud structure (top, bottom), vertical velocities of cloud constituents, aerosol	Including surface-based cloud radar (as opposed to precipitation radars); and cloud/aerosol lidars satellite missions. Note that the 2025 vision already includes Doppler wind lidar on LEO for measuring Wind, aerosol, and cloud-top height [and base]	ET-EGOS-5, para 6.2.5
Cloud Radars	Clouds	In addition to Precipitation Radars that are well addressed, CBS has suggested to include Cloud Radars into the Operational pathfinders and technology demonstrators	CBS-XIV, 2009, Section 6.1.14 of the General summary
Lidars	Clouds, aerosols	CBS suggested including Cloud and aerosol lidars in the Operational pathfinders and technology demonstrators. The Vision mentions Doppler lidar , which is too restrictive.	CBS-XIV, 2009, Section 6.1.14 of the General summary
Radio-occultation constellation	Temperature, humidity, electron density	The current Vision calls for at least 8 GNSS RO receivers; it would be more appropriate to specify a minimum number of occultations per day.	ET-SAT-7 Final report Section 6.3
Multi-angle, multi-polarization visible/infrared imagery	Albedo, aerosols	The current Vision only calls for an “IR dual angle view imager”; the potential of multi-angle and multi-polarization sensors should be recognized for proper monitoring of albedo and aerosols.	ET-SAT-7 Final report Section 6.3
Limb sounders for atmospheric	Stratospheric ozone and GHG	The current Vision only calls for “including high spectral resolution	ET-SAT-7 Final report Section

composition		UV sounder on geostationary orbit and at least a UV sounder on am + pm orbit". This does not provide a precise enough reference for planning. Distinction should at least be made between nadir and limb sounders. More detailed requirements should be expressed by the relevant scientific community,	6.3
Geostationary constellation, maximum longitude separation	Many variables, including cloud products, atmospheric motion vectors, stability, lightning, etc.	The maximum separation of 70 degrees will not be achieved under current plans. Suggestion to consider 70 ° as a <i>desirable target</i> instead of a <i>strict maximum</i> , unless the 70 ° value can be justified by quantitative impact studies. Such justification is presently not available.	ET-SAT-7 Final report Section 6.3
Ocean acoustic tomography	Ocean temperature, Currents		ET-EGOS-5, para 6.2.5