

Status Report and ECV requirements



**GLOBAL CLIMATE
OBSERVING SYSTEM**

KEEPING WATCH OVER OUR CLIMATE



WMO



IOC

International
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- We have received over 600 comments
- Around 100 are comments related to AOPC
- Comments are assigned to members according to expertise
- Each member will receive:
 - A table with the comments to be addressed
 - A pdf of the Status Report as a reference
 - Word files to change
- Files will be sent via email

Example of table of comments

Comment id	Chapter	From page	From line	To page	To line	Category	Comment	Assessment	Response
321	Annex A: Detailed Assessment of Each ECV	3	2			table	Are the "global datasets" "starting in 1987" referred to in the section on satellites truly global datasets, or are they datasets over all ice-free sea? If it is the latter, it is questionable whether these datasets should be classed as "global".	AOPC - Liz	
807	Annex A: Detailed Assessment of Each ECV	3	2	3	3	table	Suggest numerical assessment of adequacy should be 2 because of the stated inhomogeneities. Suggest numerical assessment of availability/stewardship should be lower, perhaps 2 - 4 seems inconsistent with the commentary, particularly around data utility given the inhomogeneities which are not stated to have been addressed.	AOPC - Chiara-Liz-Phil	
823	Annex A: Detailed Assessment of Each ECV	3	2	5	27	text	References for many of the statements made would be useful here. Readers could then consult those references and learn more about the adequacy of the measurements for their application.	AOPC - Chiara-Liz-Phil	

Fill in the response box AND modify the text in the related word file using track changes
 When more than one member, I will send material to all but first member should take the lead

To be completed by the end of May

ECV Requirements

In 2017, WMO/CBS and WIGOS requested GCOS to update the application area Climate Monitoring, and to consequently update the content of the OSCAR/Requirements for this application area.

OSCAR/Requirements is the official repository of requirements for observation of physical variables in support of WMO and co-sponsored programmes.

The application for the requirements is climate monitoring, which includes:

- Climate System Monitoring, climate change detection and monitoring the impacts of and the response to climate change, especially in the terrestrial ecosystems and mean sea-level;
- Data for application to national economic development;
- Research towards improved understanding, modelling and prediction of the climate system.

ECV Product requirements are “user requirements” for climate information.

Requirements are forward looking and are defined to guide the design of the observing networks.

Requirements reflect what the totality of the observing system should be able to monitor – not what individual networks / satellites / instruments can do in isolation

Progress and timeline

ECV	Reviewed	draft0	OSCAR (NWP)	Added justification	Final	ECV Steward
Surface Wind	yes	yes	yes	yes	yes	Chiara, Liz, Phil
Precipitation	yes	yes	yes	yes	yes	Rainer, Markus
Temperature (surface)	yes	no	yes			Matilde, Liz, Phil
Pressure	yes	yes	yes	N/A	yes	Liz, Phil
Water Vapour (surface)	yes	Liz to finalize	yes	yes		Liz, Phil
SRB	yes	yes	Yes	yes	yes	Rainer, Maria
Upper-air temperature	yes	yes	yes	yes	yes	Peter, Imke
Upper-air wind	yes	yes	yes	yes	yes	Shinya
Water Vapour (Upper air)	yes	yes	yes	yes	yes	Dale, Imke
Earth Radiation Budget	yes	yes	yes	yes	yes	Maria
Clouds	no	no	yes			Nadia, Rainer
Lightning	no	no	Yes (High Res)			Steven
GHG	No (waiting for GAW)	no	no			Johanna, Dale, Paolo
Ozone	yes	yes	yes	yes	yes	Dale, Paolo
Precursors	yes	no (pending note)	no			Johanna, Paolo
Aerosols	yes	yes	no	yes	yes	Paolo

- Timeliness:
 - Threshold: does it make sense for climate applications? – Yes, as these are forward looking requirements
- Measurand: include notes on the actual measurand in these tables for upward LW and SW irradiance at the TOA that the actual measurement is radiance and not irradiance. (Maria)
- Justification: important but not feasible? If physically feasible should be kept
- Precursors: consider re-introducing tropospheric column rather than total column for NO₂. NO₂ mole fraction (not a global product, keep?). Requirements for NO₂ trop. Column? (Johanna)
- GHG: Definition poses a problem (Johanna)

Thank you



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