
**GCOS STEERING COMMITTEE
TWENTY-SEVENTH SESSION**

GCOS SC-27, 28–31 October 2019
Paris, France

Global Surface Reference Network

(Submitted by the GCOS Secretariat)

Summary and Purpose of Document:

The document informs about the Global Surface Reference Network (GSRN) and suggests a way forward in establishing it.

Action Proposed:

Adopt the draft Decision 8.3.

DRAFT DECISIONS

Draft Decision 8.3 (SC-27)

1. The GCOS Steering Committee emphasizes the importance of implementing the GSRN report.
2. The GCOS Steering Committee asks the GCOS Secretariat to:
 - a. Present the proposed GSRN for approval to relevant WMO programmes and to the Bureau International des Poids et mesures (BIPM)
 - b. Work with the relevant WMO programme and with the PR of countries to identify one or more offers to host and staff appropriately the proposed Lead Centre
 - c. Work with the relevant WMO programme and with the PR of countries to identify a list of suitable sites for an initial GSRN
 - d. Present a draft decision to the upcoming 72nd session WMO Executive Council, in June 2020.

Background

1. GCOS and the WMO Integrated Global Observing System (WIGOS) both recommend that networks should be part of a tiered system: reference, baseline and comprehensive networks. This tiered network concept is included in the Manual on WIGOS¹.
 2. In 2017, AOPC agreed² on the creation of a task-team to scope a potential Global Surface Reference Network (GSRN), which was then endorsed during the GCOS Steering Committee at its twenty-fifth Session. The GSRN is the surface equivalent of the GCOS Upper Air Reference Network (GRUAN)³, which at the 17th Session of the WMO Congress (Cg-17) was recognized as a WIGOS implementation project.
 3. The Commission of Climatology expressed an interest in the GSRN and the 17th Session of the Commission for Instruments and Methods of Observation stated its support to the GSRN⁴.
 4. The report⁵ produced by the GSRN Task Team was approved by GCOS and published in 2019. It provides a proposal for the establishment of a GSRN, with the support of the GCOS programme, relevant programmes at WMO and the Bureau International des Poids et Mesures (BIPM).
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¹ WMO-No. 1160, Appendix 2.1, Principle 7.

² 22nd Session of the GCOS/WCRP Atmospheric Observation Panel for Climate (AOPC-22), Exeter, United Kingdom, 27–31 March 2017, GCOS-207, WCRP-7/2017, pub. WMO, 2017.

³ <https://www.gruan.org/>

⁴ CIMO, 17 Decision 27 WMO, 2018 (WMO-No. 1227)

⁵ GCOS-226: GCOS Surface Reference Network (GSRN): Justification, requirements, siting and instrumentation options. World Meteorological Organization (WMO); United Nations Educational, Scientific and Cultural Organization (UNESCO); Intergovernmental Oceanographic Commission (IOC); et al. - WMO, 2019