

**WMO OMM**

World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

Secrétariat

7 bis, avenue de la Paix – Case postale 2300
CH 1211 Genève 2 – Suisse
Tél.: +41 (0) 22 730 81 11
Fax: +41 (0) 22 730 81 81
wmo@wmo.int – public.wmo.int

Our ref.: 22736/2020/S/CMP

16 December 2020

Annexes: 2 (available in English only)

Ref.: 22736/2020-18 S/CMP

Subject: WMO Centennial Observing Stations

Action required: Submit information for WMO recognition of up to five long-term (centennial) observing stations at your earliest convenience **but not later than 15 February 2021**

Dear Sir/Madam,

I wish to draw your attention to [Resolution 7 \(EC-72\)](#) – Upgraded Recognition Mechanism for Long-Term Climate Observing Stations, which aims at highlighting the importance of long-term observing stations and strengthening the provision of their station metadata and observational data. To date, 234 centennial stations have been recognized by the World Meteorological Organization (WMO) covering all six WMO Regional Associations and Antarctica. A number of well received national and local celebration events and media activities have been organized by Members to help maintain in operation the centennial observing stations by raising their profile as a science enabler and societal treasure. WMO is committed to continue the centennial stations initiative and is exploring ways to broaden the recognition mechanism to hydrological, marine and other significant geophysical observing sites.

Information on the WMO recognition mechanism for long-term observing stations, including lists of recognized and candidate stations and recognition criteria, are available on [the website](#).

I would like to seek your collaboration on this important initiative and invite you to submit information of up to five (additional) long-term observing stations (candidate stations) of your country or territory, which meet the upgraded criteria as per [Annex I](#). This invitation is for candidate stations (including upper air observing stations) from National Meteorological and Hydrological Services (NMHSs) and other station operators.

The Advisory Board for the Recognition of WMO Long-term Observing Stations will assess responses and submit recommendations for consideration by the seventy-third session of the Executive Council in April 2021 (EC-73). WMO will post on its website, and provide by email, certificates and a standardized model for a metal/brass plate (to be manufactured by the Member if desired) for each recognized station.

To: Permanent Representatives of Members with WMO

cc: Hydrological Advisers

Your response **not later than 15 February 2021** is much appreciated. Please use one updated template ([Annex II](#); a WORD version can be downloaded from the above [website](#)*) for each individual observing station.

I should be grateful if you could contact wcdmp@wmo.int (Mr Omar Baddour, Head, Climate Monitoring and Policy Services Division (CMP) and Mr Peer Hechler, Scientific Officer, CMP, for further information.

Yours faithfully,



Dr Elena Manaenkova
for the Secretary-General

Ref.: 22736/2020-1.8 S/CMP

* Click on WMO Recognition mechanism and then click on Self-assessment template for nomination of candidate stations

UPGRADED CRITERIA FOR WMO RECOGNITION OF CENTENNIAL OBSERVING STATIONS

Note: EC-72, in September 2020, endorsed upgraded recognition criteria, which aim at strengthening the provision of station metadata and observational data of WMO Centennial Observing Stations (Resolution 7 (EC-72)). The upgraded recognition criteria are provided below (modifications highlighted in bold and/or strikethrough) and are reflected in the updated self-assessment template (Annex 2).

An additional note has been added to the introductory notes on the self-assessment template: Station operators shall assign a WIGOS Station Identifier to all nominated stations and populate OSCAR (<http://oscar.wmo.int>) with the minimum station metadata according to criterion 3 below.

Mandatory criteria

- (1) The observing station was founded at least 100 years ago, observing at least one meteorological element since then, and is in operation as an observing station at the date of nomination.
- (2) Periods of inactivity of the observing station shall not exceed 10%.
- (3) The minimum historic station metadata for the full duration of station operation shall contain actual or derived geographical coordinates including elevation, known changes of station name and/or station identifier, identified meteorological element(s) and its unit(s) as well as the observing schedule(s).
- (4) Any known observing station relocation or change in the measurement technique have not significantly affected the climatological time-series data. *Note: Documented data homogenization for the observing station is considered compliant with criterion 4.*
- (5) All historic observational data and metadata have been digitally archived or will be rescued. Members ~~are requested to~~ **shall** share their plans for data rescue, if applicable.
- (6) The observing station shall be operated according to WMO observing standards according to the Manual on the WMO Integrated Global Observing System (WMO-No. 1160) and the Guide to Instruments and Methods of Observation (WMO-No. 8). *Note: Explanatory information ~~should~~ **shall** be provided for those stations that do not meet current WMO observing standards.*
- (7) The current environment of the observing station has been classified or will be classified according to the siting classification defined in the Guide to Instruments and Methods of Observation (WMO No. 8). Members ~~are requested to~~ **shall** share **(i) the results of metadata attached to the siting classification in the appropriate WMO metadata repository (currently OSCAR) or (ii) their plans to classify the observing station, if applicable** for the nomination process and any future re-nomination.
- (8) The observed and measured data shall be subject to routine quality control procedures according to current WMO guidelines and practices. The quality control processes as well as its results shall be well documented. **Note: A brief description of the routine quality procedures at the observing station shall be included in the References/Remarks column.**
- (9) Members shall do their utmost to maintain nominated stations according to the above recognition criteria.

(10) Historic observation data and metadata have been made available for scientific research, consistent with [Resolution 40 \(Cg-XII\)](#) - WMO Policy and Practice for the Exchange of Meteorological and Related Data and Products Including Guidelines on Relationships in Commercial Meteorological Activities, and [Resolution 60 \(Cg-17\)](#) - WMO Policy for the International Exchange of Climate Data and Products to Support the Implementation of the Global Framework for Climate Services, or will be made available. Members shall share their plans for data availability, if applicable.

Desirable criteria:

~~(a) Free and unrestricted data access [definition cf. Resolution 40 (Cg-XII)], should be granted to the data including respective metadata.~~

~~(b) Observing station time series data should be subject to quality control.~~

~~(c) Observing station time series should be subject to homogeneity testing and homogenization, if applicable. *Note: Important for any centennial observing station is that the distribution of its observed data allows testing homogeneity and that possible breaks in the series are distributed in a way that the time series can be homogenized. A sufficient number of neighboring stations will facilitate the homogenization procedure. It is fundamental to preserve the original data before any further treatment. In case of homogenization the original as well as the homogenized series shall be stored.*~~

WMO CANDIDATE CENTENNIAL OBSERVING STATION SELF-ASSESSMENT TEMPLATE

Important notes:

- Please send the filled-in template (one template for one observing station) to wcdmp@wmo.int
- Station operators are encouraged to provide sufficient information in the 'References/Remarks' column to facilitate the assessment by the Advisory Board. Station operators are encouraged to attach additional documentation and photos to be made available publicly, however, this additional information is not core to the assessment.
- Information in the self-assessment template **MUST BE TYPED** (handwritten information cannot be processed). A WORD version of the template can be downloaded from <https://public.wmo.int/en/our-mandate/what-we-do/observations/centennial-observing-stations> -> WMO Recognition Mechanism -> WMO letters inviting nomination
- Station operators are invited to consider filling the template in English in order to accelerate the recognition assessment.
- The correctness of the information provided in the template is the responsibility of the station/network operator. The Advisory Board performs its assessment based on the completed template considering additional global information. The information provided by the station operator in the template will be made available publicly for user review.
- Station operators shall assign a WIGOS Station Identifier to all nominated stations and populate OSCAR (<http://oscar.wmo.int>) with the minimum station metadata according to criterion 3 below.

Current station information

Station name		
Start of observations (year)		
WIGOS Station Identifier and other current station identifiers, where available		
Station latitude and longitude ¹		
Station elevation ¹ (meter above MSL)		
Country/Place		
WMO Region		
Institution		
Name of contact person		Email address

¹ Cf. *Guide to Instruments and Methods of Observation* (WMO-No. 8) – *Coordinates of the station*

Mandatory criteria

Criteria	Compliance (Yes/No)	References / Remark
(1) The observing station was founded at least 100 years ago, observing at least one meteorological element since then and is in operation as an observing station at the date of nomination.		
(2) Periods of inactivity of the observing station shall not exceed 10 %.		
(3) The minimum historic station metadata for the full duration of station operation shall contain actual or derived geographical coordinates including elevation, known changes of station name and/or station identifier, identified meteorological element(s) and its unit(s) as well as the observing schedule(s).		
(4) Any known observing station relocation or change in the measurement technique have not significantly affected the climatological time-series data. <i>Note: Documented data homogenization for the observing station is considered compliant with criterion 4.</i>		
(5) All historic observational data and metadata have been digitally archived or will be rescued. Members shall share their plans for data rescue, if applicable.		
(6) The observing station shall be operated according to WMO observing standards according to the <i>Manual on the WMO Integrated Global Observing System</i> (WMO-No. 1160) and the <i>Guide to Instruments and Methods of Observation</i> (WMO-No. 8). <i>Note: Explanatory information SHALL be provided for those stations that do not meet current WMO observing standards.</i>		
(7) The current environment of the observing station has been classified or will be classified according to the siting classification defined in the <i>Guide to Instruments and Methods of Observation</i> (WMO-No. 8). Members shall share (i) the metadata attached to the siting classification in the appropriate WMO metadata repository (currently <i>oscar</i>) or (ii) their plans to classify the observing station, if applicable.		

Criteria	Compliance (Yes/No)	References / Remark
<p>(8) The observed and measured data shall be subject to routine quality control procedures according to current WMO guidelines and practices. The quality control processes as well as its results shall be well documented.</p> <p><i>Note: A brief description of the routine quality procedures at the observing station shall be included in the references/remarks column</i></p>		
<p>(9) Members shall do their utmost to maintain nominated stations according to the above recognition criteria.</p>		
<p>(10) Historic observation data and metadata have been made available for scientific research, consistent with resolutions 40 and 60², or will be made available. members shall share their plans for data availability, if applicable.</p>		

² Resolution 40 (Cg-XII) – WMO Policy and Practice for the Exchange of Meteorological and Related Data and Products Including Guidelines on Relationships in Commercial Meteorological Activities; Resolution 60 (Cg-17) – WMO Policy for the International Exchange of Climate Data and Products to Support the Implementation of the GFCS