

**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

Ref.: 32244/2019-14 CLW/DMA

Our ref.: 32244/2019/CLW/CLPA/DMA/COS

18 December 2019

Annexes: 2

Subject: 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 2020**

Dear Sir/Madam,

I would like to draw your attention to [Resolution 23 \(Cg-18\)](#) – WMO Recognition of Long-term Observing Stations (*World Meteorological Congress: Abridged Final Report of the Eighteenth Session* (WMO-No. 1236)), which aims at highlighting the role of long-term observing stations and contributing to Members' efforts in operating and maintaining their observing stations under the most suitable conditions. To date, 140 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 to hydrological, marine and other geophysical observing sites.

Information on the WMO recognition mechanism for long-term observing stations including lists of recognized and candidate stations, recognition criteria etc. are available at <https://public.wmo.int/en/our-mandate/what-we-do/observations/long-term-observing-stations>.

I 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 criteria as per [Annex 1](#). This invitation is for candidate stations (including upper air observing stations) from the National Meteorological and Hydrological Services (NMHSs) and other station operators.

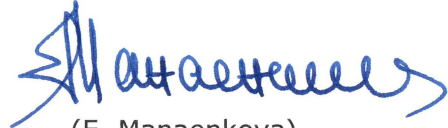
To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO

cc: Presidents of CCI, CBS, CIMO
Chairperson of GCOS-SC

The Advisory Board for the Recognition of WMO Long-term Observing Stations will assess responses and submit recommendations for consideration by the Executive Council in June 2020 (EC-72). WMO will 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.

Your response by **15 February 2020** is much appreciated. Please use one template ([Annex 2](#)) for each individual observing station.

Yours faithfully,



(E. Manaenkova)
for the Secretary-General

PROPOSED CRITERIA FOR A WMO RECOGNITION OF CENTENNIAL OBSERVING STATIONS

Ref.: 32244/2019-14 CLW/DMA

*Note: The Advisory Board for Recognition of Long-term Observing Stations reviewed the performance of the WMO recognition mechanism in November 2019. Various suggestions have been made to improve the mechanism. Those suggestions that help strengthening and/or simplifying the existing criteria and which have been applied already as good practice in previous recognition assessments have been incorporated in this call for candidate stations (highlighted below in **bold** or struck out). Other suggestions that aim at modifying the current recognition criteria will be tabled at EC-72 in June 2020 for endorsement and will be incorporated in subsequent calls for candidate stations (for details cf. Final report: Further development of the WMO mechanism for recognizing long-term observing stations, 12-14 November 2019, Hong Kong, China; posted under WMO Recognition Mechanism on <https://public.wmo.int/en/our-mandate/what-we-do/observations/centennial-observing-stations>).*

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% ~~during the last 100 years (excluding periods of armed conflicts and natural disasters).~~
- (3) The minimum historic station metadata **for the full duration of the 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) ~~The observing station has not been subject to known relocations, which have affected the climatological characteristics.~~ **Any known observing station relocation or change in the measurement technique has 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** ~~are rescued, or will be rescued in order to prevent them from deterioration of the medium (cf. Guidelines on Data Rescue).~~ Members are requested to share information of the amount of data to be rescued including related **their** plans for data rescue, if applicable.
- (6) The observing station shall be operated according to WMO observing standards **and 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 be provided for those centennial observing stations that do not meet current WMO observing standards for historic reasons, but have been measuring under unchanged conditions (e.g. cages on north-facing building facades for temperature measurements etc.) for more than one hundred years.*
- (7) The **current** environment of a ~~centennial~~ **the** observing station **has been** ~~shall be~~ 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 share the results of the siting classification for the nomination process and any future re-nomination.

- (8) The observed and measured data shall be subject to routine quality control procedures ~~as per~~ **according to** the current WMO guidelines and practices. The quality control processes as well as its results shall be well documented.
- (9) Members shall do their utmost to maintain nominated stations according to the above recognition criteria.

Desirable criteria:

- (a) Free and unrestricted data access [definition cf. [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 (*Twelfth World Meteorological Congress: Abridged final report with resolutions* (WMO-No. 827))] 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 neighbouring 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 nominations
- Station operators are invited to **consider filling in the template in English** in order to accelerate the recognition assessment.
- The correctness of the information provided in the template is under **the sole 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.

1. Current Station Information

Station name:		
Start of observations (year):		
WIGOS Station Identifier and other current station identifiers, where available:		
Station latitude and longitude¹:		
Station elevation¹ (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

2. Mandatory criteria

Criteria	Compliance (Yes/No)	References / Remarks
(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 the 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 has 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 are requested to share their plans for data rescue, if applicable.		
(6) The observing station shall be operated according to WMO observing standards and 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 should 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 are requested to share the results of the siting classification for the nomination process and any future re-nomination.		

Criteria	Compliance (Yes/No)	References / Remarks
(8) The observed and measured data shall be subject to routine quality control procedures according to the current WMO guidelines and practices. The quality control processes as well as its results shall be well documented.		
(9) Members shall do their utmost to maintain nominated stations according to the above recognition criteria.		

3. Desirable criteria

Criteria	Compliance (Yes/No)	References / Remarks
(a) Free and unrestricted data access [definition cf. 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 (<i>Twelfth World Meteorological Congress: Abridged final report with resolutions</i> (WMO-No. 827))] 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.		