WMO OMM



World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация

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Secrétariat

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Наш исх.: 22736/2020/S/CMP 16 декабря 2020 г.

Приложения: 2 (только на английском языке)

Вопрос: Столетние станции наблюдений ВМО

Предлагаемые меры: Представить информацию по максимум пяти станциям

долгосрочных наблюдений (столетним станциям) для признания ВМО, как можно скорее, **но не позднее 15 февраля 2021 г.**

Уважаемый господин/Уважаемая госпожа!

Хотела бы обратить Ваше внимание на резолюцию 7 (ИС-72) «Усовершенствованный механизм признания станций долгосрочных наблюдений за климатом», которая принята с целью подчеркнуть роль станций долгосрочных наблюдений и улучшить предоставление данных наблюдений и метаданных по станциям. На сегодняшний день Всемирная метеорологическая организация (ВМО) признала 234 столетних станции наблюдений, которые охватывают все шесть региональных ассоциаций ВМО и Антарктику. Члены организовали ряд получивших высокую оценку праздничных мероприятий на национальном и местном уровнях, а также публикацию материалов в средствах массовой информации, с тем чтобы способствовать поддержанию в рабочем состоянии столетних станций наблюдений путем привлечения внимания к их важной роли в качестве катализаторов развития науки и общественного достояния. ВМО намерена продолжать реализацию инициативы в отношении столетних станций и исследует пути расширения списка признанных станций за счет включения в него гидрологических, морских станций наблюдений, а также других значимых станций геофизических наблюдений.

С информацией о механизме ВМО для признания станций долгосрочных наблюдений, включая списки признанных станций и станций-кандидатов и критерии признания, можно ознакомиться на веб-сайте.

Хотела бы обратиться к Вам с просьбой о сотрудничестве в рамках этой важной инициативы и предлагаю Вам представить информацию по максимум пяти (дополнительным) станциям долгосрочных наблюдений (станциям-кандидатам) вашей страны или территории, которые отвечают обновленным критериям, указанным в приложении І. Это приглашение предназначено для станций-кандидатов (включая станции аэрологических наблюдений) от национальных метеорологических и гидрологических служб (НМГС) и других операторов станций.

Консультативный совет ВМО по признанию станций долгосрочных наблюдений проведет оценку ответов и представит рекомендации для рассмотрения семьдесят третьей сессией Исполнительного совета в апреле 2021 г. (ИС-73). ВМО разместит на своем вебсайте и направит по электронной почте сертификаты и стандартную модель металлической/латунной таблички (для изготовления Членом при желании) для каждой признанной станции.

Постоянным представителям Членов при ВМО

Копии: Советникам по гидрологии

Буду крайне признательна за Ваш ответ, направленный **до 15 февраля 2021 г.** Просьба использовать один обновленный шаблон (приложение II; версию WORD можно загрузить с вышеупомянутого веб-сайта*) для каждой отдельной станции наблюдений.

Буду признательна, если Вы обратитесь по адресу wcdmp@wmo.int (г-н Омар Баддур, руководитель Отдела обслуживания в областях мониторинга климата и политики (МКП), и г-н Пер Хехлер, научный сотрудник, МКП) за дополнительной информацией.

С уважением,

д-р Елена Манаенкова за Генерального секретаря

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^{*} Щелкните по механизму распознавания ВМО, а затем по шаблону самооценки для номинации станций-кандидатов.

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. 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 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 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 <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 |
|--|------------------------|---------------------|
| (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 resolutions 40 and 60², or will be made available. members shall share their plans for data availability, if applicable. | | |

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