**Attachment 1**

**Proposed criteria for a WMO recognition of 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 shall contain actual or derived geographical coordinates including elevation, identified meteorological element(s) and its unit(s) as well as the observing schedule.

(4) The observing station has not been subject to known relocations*,* which have affected the climatological characteristics.

(5) All historic observational data and metadata 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 plans for data rescue, if applicable.

(6) The observing station shall be operated according to WMO observing standards.

(7) The environment of a centennial observing station shall be classified according to the siting classification defined in the Guide to Meteorological 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 current WMO guidelines and practices. The quality control processes as well as its results shall be well documented.

(9) Members shall do their utmost tomaintain nominated stations according to the above recognition criteria.

**Desirable criteria:**

(a) Free and unrestricted data access [definition cf. Resolution 40 (Cg-XII); http://www.wmo.int/pages/about/Resolution40\_en.html], should[[1]](#endnote-1) 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.*

1. World Meteorological Congress to decide whether access *shall* be granted (and the criterion to be moved to the list of mandatory criteria). [↑](#endnote-ref-1)