Criteria for GAW sites

Box 9. Essential Characteristics of a GAW Regional or Contributing Station

- 1. The station location is chosen such that, for the variables measured, it is regionally representative and is normally free of the influence of significant local pollution sources.
- 2. There are adequate power, air conditioning, communication and building facilities to sustain long term observations with greater than 90% data capture (i.e. <10% missing data).
- 3. The technical support provided is trained in the operation of the equipment.
- 4. There is a commitment by the responsible agency to long term observations of at least one of the GAW variables in the GAW focal areas.
- 5. The GAW observation made is of known quality and linked to the GAW Primary Standard.
- 6. The data and associated metadata are submitted to one of the GAW World Data Centres no later than one year after the observation is made. Changes of metadata including instrumentation, traceability, observation procedures, are reported to the responsible WDC in a timely manner.
- 7. If required, data are submitted to a designated data distribution system in near-real-time.
- 8. Standard meteorological *in-situ* observations, necessary for the accurate determination and interpretation of the GAW variables, are made with known accuracy and precision.
- 9. The station characteristics and observational programme are updated in the GAW Station Information System (GAWSIS) on a regular basis.
- 10. A station logbook (*i.e.* record of observations made and activities that may affect observations) is maintained and is used in the data validation process.

Box 10. Essential Characteristics of a GAW Global Station

In addition to the characteristics of Regional or Contributing stations, a GAW Global station should fulfil the following additional requirements, namely

- 11. Measure variables in at least three of the six GAW focal areas (see item 4 above).
- 12. Have a strong scientific supporting programme with appropriate data analysis and interpretation within the country and, if possible, the support of more than one agency.
- 13. Make measurements of other atmospheric variables important to weather and climate including upper air radio sondes at the site or in the region.
- 14. Provide a facility at which intensive campaign research can augment the long term routine GAW observations and where testing and development of new GAW methods can be undertaken.