Surface Temperature Initiative

Databank Working Group Terms of Reference

Effective: 31st January 2014

1. Initiative background

The International Surface Temperature Initiative (ISTI), endorsed by the WMO Commission for Climatology at its 15th session, was launched at a meeting at the UK Met Office, Exeter, in September 2010. To meet the requirements placed on climate science in the 21st Century, it is necessary to create a suite of high-quality and high-resolution data-products, with openness, transparency, verification, and user tools. Such a range of estimates, and common framework, would aid decision-making at national and international scales and inform adaptation strategies. The Initiative should encompass: data rescue and digitisation; an open, transparent and comprehensive databank with versioning and provenance tracking; a data-portal for multiple products estimating local, regional and global scale changes; a common benchmarking and assessment exercise; and platforms for data download, intercomparisons and visualization.

These terms of reference encompass the Databank Working Group's (DWG) responsibilities associated with development, management, versioning, and provenance tracking, consulting, and access to a transparent and comprehensive databank.

2. Databank Working Group purpose

2.1 The Databank Working Group exists to promote the development and maintenance of a global databank of surface temperature data and other surface meteorological variables consisting of openly accessible and traceable data and metadata.

2.2 Strategic guidance for DWG efforts will be provided by the ISTI Steering Committee as defined in the Steering Committee's Terms of Reference.

2.3 Implementation of activities associated with development and maintenance of the Databank is the responsibility of the DWG and its task teams and will be described in a DWG Implementation Plan for the Databank as part of the overarching initiative Implementation Plan. The DWG will assess its progress against this Implementation Plan and will be responsible for updating the Implementation Plan as required.

2.4 The DWG has ultimate responsibility for the Databank website (currently at http://www.gosic.org/GLOBAL_SURFACE_DATABANK/GBD.html/), its data content, and other mirror websites.

2.5 The DWG will work in partnership with other working groups of the International Surface Temperatures Initiative to support the overall objectives of this program.

3. DWG Strategic Responsibilities

3.1 The DWG will be responsible for data collection and development activities including provenance and version control associated with establishing and maintaining Stage 0 through Stage 3 data within the Databank.

3.2 DWG members will serve as focal points within their respective WMO region to acquire new sources of data. These data can be provided in Stage 0, Stage 1, or Stage 2 formats.

3.3 The DWG will maintain guidelines for data submission and other communication tools to facilitate the data submission by external parties to a central collection center.

3.4 As resources permit, the Stage 0 through Stage 2 data will be processed into a collated merged Stage 3 global product.

3.5 Development of quality controlled (Stage 4) and bias corrected (Stage 5) data will not be the responsibility of the DWG. Criteria for assessment of quality control and bias correction methodologies will be established by the Benchmarking Working Group (BWG). The BWG will be responsible for validating Stage 4 and Stage 5 data derived from the Databank.

3.6 The DWG will collaborate with the BWG by providing Stage 4 and 5 formatting and submission guidance and will be responsible for integrating these value added data products back into the Databank.

3.7 The DWG version control and provenance practices will be applied to all data from Stage 0 through Stage 5.

3.8 The DWG will partner with other organizations for hosting of the Databank, assuring data security and broad global open access. The Databank will continue to be hosted by GOSIC (Global Observing Systems Information Center; http://gosic.org/). A minimum of one mirror site will be maintained as resources allow.

4. Task Team support to the Databank Working Group

4.1 Activities of the DWG will be supported by Task Teams charged with developing solutions to targeted issues associated with priorities established by the DWG.

4.2 Task teams will consist of members of the DWG with relevant expertise and may include other experts not serving as part of the DWG.

4.3 Task teams may be initiated at any time and may be disbanded once all objectives are met. Task Teams will have their own terms of reference.

4.4 At the present time there are two Task Teams

- Data rescue
- Data merging

4.5 The DWG will consider verbal or written reports from Task Team chairs at each meeting.

4.6 Task Teams will publish written reports summarizing minutes from teleconferences on the International Surface Temperatures Initiative website (http://www.surfacetemperatures.org/) within four weeks of each teleconference.

5. Reporting

5.1 The DWG shall report to the International Surface Temperatures Initiative Steering Committee through its Chair during steering committee conference calls that occur at a minimum quarterly.

5.2 The DWG Chair or a designate will report in person when face-to-face meetings or workshops requiring an update from the DWG of the ISTI are held.

- Any member of the DWG is allowed to represent the working group at such meetings to reduce costs, travel, and overheads.
- Telecommunication reporting by the chair (e.g Webex or Skype) shall be considered adequate in lieu of in-person attendance by a working group member.

5.3 The DWG will respond in a timely manner to additional reasonable reporting requests from the ISTI Steering Committee.

5.4 Defined outputs from the Implementation Plan will be reported to the ISTI Steering Committee and posted on the web (http://www.surfacetemperatures.org/) upon completion.

6. Mode of operation

6.1 The DWG will communicate primarily through regular teleconferences occurring at least three times a year or as deemed necessary by committee members.

- Approved minutes from these calls will be posted as soon as possible thereafter and at a minimum within four weeks through

www.surfacetemperatures.org or another open access web-based portal.

6.2 Where a quoracy (one third) of DWG members are in attendance at a scientific conference a face-to-face members side-meeting may be held in lieu of a teleconference.

- Regardless, side-meetings are encouraged and a brief summary from any such meeting should be reported to the Group at its next meeting.

6.3 If deemed necessary by a simple majority vote, funding will be sought for a dedicated meeting of the DWG.

6.4 An email list will be maintained by the Chair or a designate to facilitate discussion.

7. Membership

7.1 Membership will consist of at a minimum one individual from at least four WMO regions plus the Chair of the DWG. The membership is open to a representative from every WMO region.

7.2 The Chair of the International Surface Temperatures Initiative Steering Committee will serve as a member of the DWG on an ex-officio basis.

7.3 Additional members are considered at the discretion of the DWG Chair or under the advisement of working group members.

7.4 Membership will be reconsidered on a bi-annual basis or at the request of individual Committee members or the Initiative sponsors.

7.5 Members are expected to make all reasonable efforts to attend teleconferences and provide relevant input by email in advance in the event of non-attendance.

7.6 The DWG is an entirely voluntary commitment so there are no explicit workload requirements, beyond reasonable expectations of discharging the activities detailed in these terms of reference or efforts volunteered and documented in agreed meeting notes.

7.7 Current membership is detailed in Annex A.

8. Terms of reference revision

8.1 Terms of reference and membership will be revised no later than three years from the version date of this document.

- Revision can be requested by a 1/3 vote of DWG members.

Annex A

Membership (current 1/31/14)

Jay Lawrimore (NOAA NCDC, USA, Chair)
John Christy (University of Alabama, Huntsville, USA)
Waldenio Gambi de Almeida (CPTEC/INPE, Brazil)
Byron Gleason (NOAA NCDC, USA)
Meaghan Flannery (Australia Bureau of Meteorology)
Kenji Kamiguchi (Japan Meteorological Agency)
Albert Klein-Tank (KNMI, Netherlands)
David Lister (Climatic Research Unit, East Anglia, UK)
Albert Mhanda (ACMAD, Niger)
Matt Menne (NOAA NCDC, USA)
Colin Morice (UK Met Office, Exeter, UK)
Vyacheslav Razuvaev (Russian Research Institute of Hydrometeorological Information)
Jared Rennie (CICS-NC/NOAA NCDC, USA)
Madeleine Renom (IFFC, University of the Republic, Montevideo, Uruguay)
Matilde Rusticucci (Univ of Buenos Aires, Argentina)
Vlad Shaimardanov (Russian Research Institute of Hydrometeorological Information)
Jeremy Tandy (UK Met Office, Exeter, UK)
Steve Worley (National Center for Atmospheric Research, USA)
Peter Thorne (NERSC, Norway, Chair, Surface Temperatures Initiative Steering Committee, ex officio)