

1 **Surface Temperature Initiative**

2
3 **Databank Working Group Data Merge Task Team Terms of Reference**

4
5 Effective: 1 May 2014

6
7 *1. Initiative background*

8
9 The International Surface Temperature Initiative (ISTI), endorsed by the WMO
10 Commission for Climatology at its 15th session, was launched at a meeting at the UK
11 Met Office, Exeter, in September 2010. To meet the requirements placed on climate
12 science in the 21st Century, it is necessary to create a suite of high-quality and high-
13 resolution data-products, with openness, transparency, verification, and user tools.
14 Such a range of estimates, and common framework, would aid decision-making at
15 national and international scales and inform adaptation strategies. Among the
16 activities of the ISTI is development and maintenance of a global databank of in situ
17 climate data led by the Databank Working Group (see DWG Terms of Reference). A
18 fundamental aspect of the databank development activities is dataset construction
19 through the use of innovative merging algorithms. The DWG recommended the
20 creation of a Task Team specifically dedicated to data merging development and
21 maintenance activities.

22
23 These terms of reference encompass the DWG Data Merge task team responsibilities
24 associated with data merge design, algorithm development, versioning, and periodic
25 and operational updating of the merged dataset.

26
27 *2. Data Merge Task Team purpose*

28
29 2.1 The Data Merge Task Team (DMTT) exists to develop methods, algorithms, and
30 processes for bringing together individual sources from the Stage 0 through
31 Stage 2 data into a merged Stage 3 dataset.

32
33 2.2 The DMTT shall establish procedures for ensuring the integrity, provenance, and
34 maintainability of Stage 0 through Stage 2 data.

35
36 2.3 The DMTT shall ensure that adequate documentation exists of the merge
37 procedure used in creating the stage 3 product to build user confidence in its
38 veracity.

39
40
41 *3. DWG Strategic Responsibilities*

42
43 3.1 In cooperation with the broader DWG, the DMTT works to identify and acquire
44 sources of data.

45

- 1 3.2 The DMTT has in its discretion the ability to rely on sources which consist of
2 multiple data sources which have been previously merged. Examples include
3 data sets developed by NOAA and the UK Met Office.
4
- 5 3.3 The DMTT will select sources for inclusion in the Stage 3 dataset and will
6 establish the relative priority of each source based on factors such as quality,
7 length of record, etc. as described in Rennie et al (accepted).
8
- 9 3.4 The DMTT will tailor existing peer-reviewed methods for removal of duplicates
10 and data merging practices while also developing and publishing new
11 methodologies in the peer reviewed literature.
12
- 13 3.5 The DMTT will maintain technical documents describing the merging
14 methodology. These documents will be provided on the ISTI Databank website.
15
- 16 3.6 A recommended merged dataset using the optimum set of algorithms as
17 determined by the DMTT will be provided on the ISTI Databank website.
18
- 19 3.7 Alternative versions of merged datasets using other possible algorithm decisions
20 will be provided.
21

22

23 *4. Reporting*

24

- 25 4.1 All methods used in creating the Stage 3 recommended merged dataset and its
26 variants will be approved by the ISTI DWG.
27
- 28 4.2 The DMTT shall report to the International Surface Temperatures Initiative
29 Databank Working Group through the task team lead during Working Group
30 conference calls.
31
- 32 4.3 The DMTT lead or a designate will report in person when face-to-face meetings
33 or workshops requiring an update from the task team are held.
- 34 ○ Any member of the DMTT is allowed to represent the working group
35 at such meetings to reduce costs, travel, and overheads.
 - 36 ○ Telecommunication reporting by the lead (e.g Webex or Skype) shall
37 be considered adequate in lieu of in-person attendance by a task team
38 member.
39
- 40 4.4 The DMTT will respond in a timely manner to additional reasonable reporting
41 requests from the DWG or ISTI Steering Committee.
42
- 43 4.5 Defined outputs from the Implementation Plan will be reported to the ISTI
44 Steering Committee and posted on the web
45 (<http://www.surface temperatures.org/>) upon completion.
46

1 *5. Mode of operation*

2
3 5.1 The DMTT will communicate on a regular basis (weekly or biweekly) in person
4 and through teleconference/webex technologies.

- 5 ○ Meeting notes will be maintained on an internal wiki.

6
7 5.2 The DMTT will appoint a task team lead by mutual consent on a biannual basis.

8
9 5.3 Meetings with the full DWG will be held as needed.

10
11 5.4 An email list will be maintained by the task team lead or a designate to facilitate
12 discussion.

13
14
15 *6. Membership*

16
17 6.1 Membership is open to any representative of the DWG or other ISTI working
18 groups.

19
20 6.2 Membership will typically consist of four or more scientists from the Lead Data
21 Center (initially NOAA's NCDC) and other volunteer members from the DWG.

22
23 6.3 Additional members are considered at the discretion of the DWG Chair or under
24 the advisement of task team members.

25
26 6.4 Membership will be reconsidered on a bi-annual basis or at the request of
27 individual task team members or the Initiative sponsors.

28
29 6.5 Members are expected to make all reasonable efforts to attend meetings and
30 provide relevant input by email in the event of non-attendance.

31
32 6.6 Current membership is detailed in Annex A.

33
34 *7. Terms of reference revision*

35
36 7.1 Terms of reference and membership will be revised no later than three years
37 from the version date of this document.

- 38 ○ Revision can be requested by a 1/3 vote of task team members.

1 **Annex A**

2

3 **Membership (current 4/15/14)**

- 4
- 5 Jay Lawrimore (NOAA NCDC, USA)
- 6 Byron Gleason (NOAA NCDC, USA)
- 7 Matt Menne (NOAA NCDC, USA)
- 8 Colin Morice (UK Met Office, Exeter, UK)
- 9 Jared Rennie (CICS-NC/NOAA NCDC, USA, Chair)
- 10 Peter Thorne (NERSC, Norway)
- 11 Blair Trewin (Australia BOM)
- 12 Claude Williams (NOAA NCDC, USA)

13