Surface temperatures initiative

AOPC XVI
February 8th 2011
At the last session of CCI the UK delegation tabled a proposal to undertake a new suite of analyses of surface temperature records.

The proposal stressed the need to consider a range of space and time scales and the necessity of methodologically independent approaches.

It also stressed the importance of reaching out to statisticians, metrologists and others to gain from their insights.
The meeting envisaged an international program with oversight representation from several disciplines and regions answering to relevant sponsors on an annual basis. Working groups would also be set up to undertake distinct aspects of the work. Scientifically, key aspects were:

- A fundamental databank effort that held as much data as possible that was traceable back to the fundamental measurement record wherever possible with strong provenance metadata
- Multiple, redundant, datasets using distinct approaches
- A common benchmarking exercise against synthetic analogs to the databank where the answer is known a priori
- Data serving access and visualization
Databank

Proposed International Land Meteorological Databank

Stage 0 Data
Digital image and hard copy

Stage 1 Data
Keyed in native format

Stage 2 Data
Converted to common format

Stage 3 Data
Consolidated master database

Benchmark analogs

Metadata Database
Machine readable format
Product creation and benchmarking
Providing help and advice to end users
Subsequent progress

• A steering committee has been set up and groups to consider databank and benchmarking aspects instigated.
• Databank group has instigated subgroups to consider:
  - data rescue
  - provenance tracking / version control
• Initial data for the databank are in the process of being posted on WDC-A website under .org domain.
• Zooniverse discussions regarding crowdsourcing of imagery recovered over the past decade but not yet keyed.
• Interest from NIST in undertaking an independent analysis
• Berkley group engaged (they were already working this issue ‘under the radar’) and invited to NCDC meeting.
• Benchmarking group set up.
Issues to discuss

• Should this effort answer formally to GCOS?
• We need to define a group for access and visualization but have yet to find a volunteer to take on chairing and populate the group.
• Rescuing data is two-fold problem. Need help on both but particularly making the argument to release archives to help push forward incipient climate services. Much of the data is withheld but otherwise would be readily available.
• Momentum needs to be built and maintained and importance stressed within WMO.