Joint EUSTACE and GlobTemperature
User Workshop
Lisbon, Portugal, 27 – 29 November 2017

Session 1: EUSTACE Overview and Science Highlights

Questions:
- Is there also a dataset with a spatial resolution of 0.05°?
  Analysis over land is done at 0.05°, but the final EUSTACE-products will be at 0.25°.
- Is there just one model for land?
  For over land three models were developed: one with surface temperature for night *and* day (besides several other input parameters), one model with only surface temperature during the night and one with only the surface temperature during the day. The last two were developed since not always the surface temperatures for day and night are available
- How are extremes represented by the used models?
  See later presentations.
- How to deal with in-situ uncertainties and uncertainties in the match-up database?
  The uncertainties related to the instruments will be the same for the stations, but other uncertainties will be independent.
- Is wind speed also considered for the estimation of the air temperatures?
  No. (often not available or not homogeneous)
- When is a data set for validation really independent? The temperatures of various stations may show a high spatial correlation. Wouldn't it be better to have independent periods?
  The measurement at stations can be considered independent, but it was not clear whether this is also true for the uncertainties. There was some further discussion on this point, but no clear conclusion. The length of the time series for satellite data also limit the possibilities to pick out periods for independent validation.
- Wouldn't it be better to use another definition of average temperature (Tmean)?
  There are indeed different ways to define the average temperature. In EUSTACE it is defined as the average of the minimum and maximum temperature, because of practical reasons. This definition is also used by several users. Most important is to state clearly how it is defined.