A comparison of Global temperature plots

The following plots use Hammer equal area projection of a globe centred on latitude/longitude zero for the month February 2015, the latest available for all sources at the time of printing.

- RSS[1], all layers, 2.5 degree gridding, version 3.3, not the upcoming V4.

- UAH[2], all layers, 2.5 degree gridding, both version 5.6 and version 6.0 beta

- Hadcrut[3] 4, 5 degree gridding, version 4.3, mean.

The published datasets are converted without semantic change to a common database format and processed with identical code. No change is made to published values, specifically no adjustment is made for any standard reference period.

This version of the plots uses enhanced geographic mapping and a new colouring scheme intended to be relatively subtle but clear. Missing data renders as white: polar holes, high altitude land, missing data.

The intent is PDF display in page mode, not continuous. Pages then register in the same screen location as a flick book. Magnification/zoom/pan may be useful and since these are vector plots there is no loss of fidelity.

Hammer projection[4] is a compromise, not particularly aesthetically pretty but it practical, showing polar regions sensibly.

For amusement Hadcrut 4 January 1850 is included.
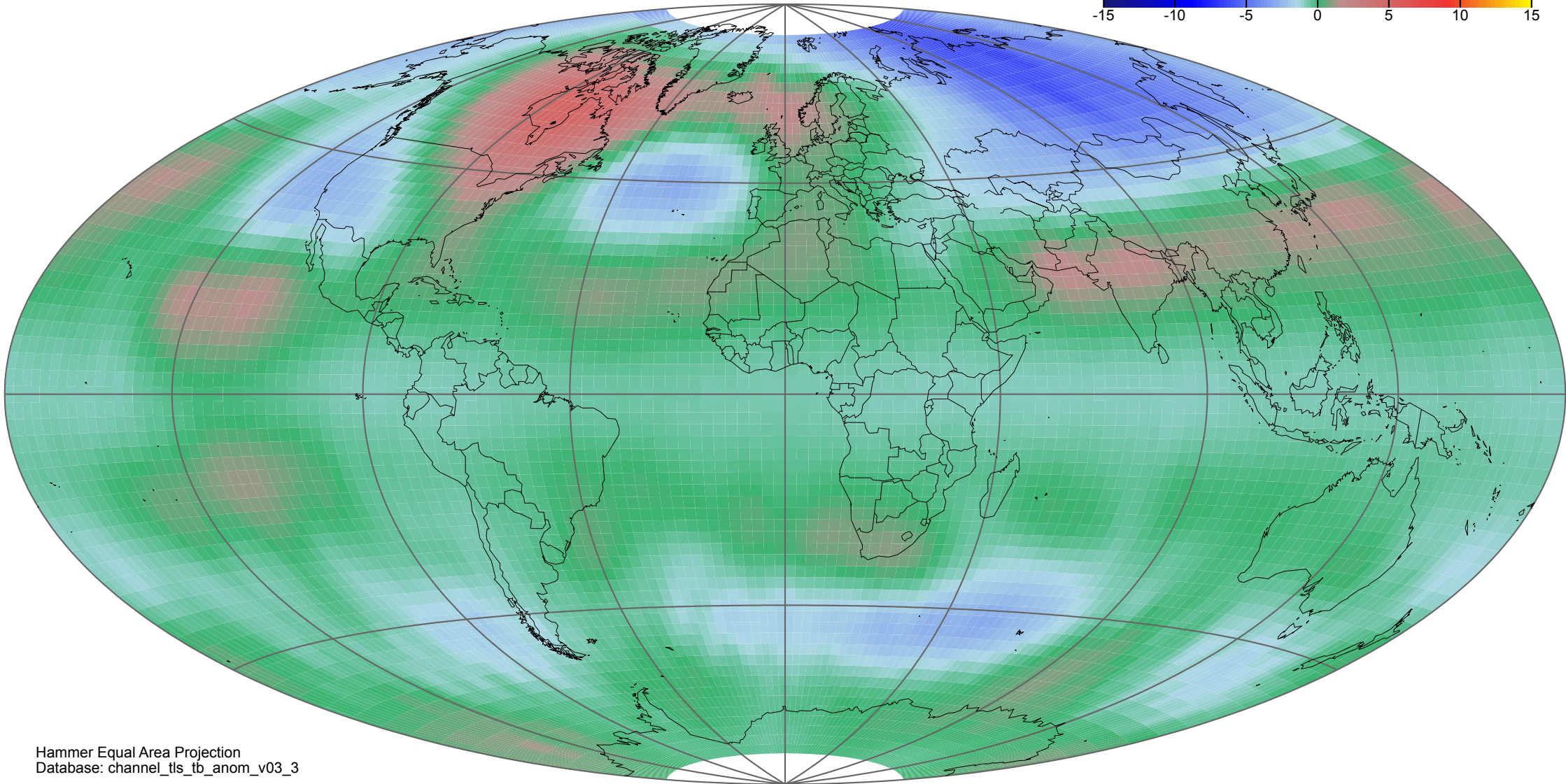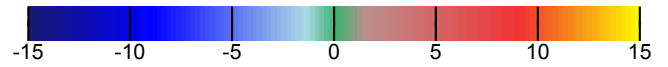
Any mistakes are mine.

Tim Channon. (http://daedalearth.wordpress.com/)

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1   Table & figure 1, http://www.remss.com/measurements/upper-air-temperature
2   Figure 7, http://www.drroyspencer.com/2015/04/version-6-0-of-the-uah-temperature-dataset-released-new-lt-trend-0-11-cdecade/
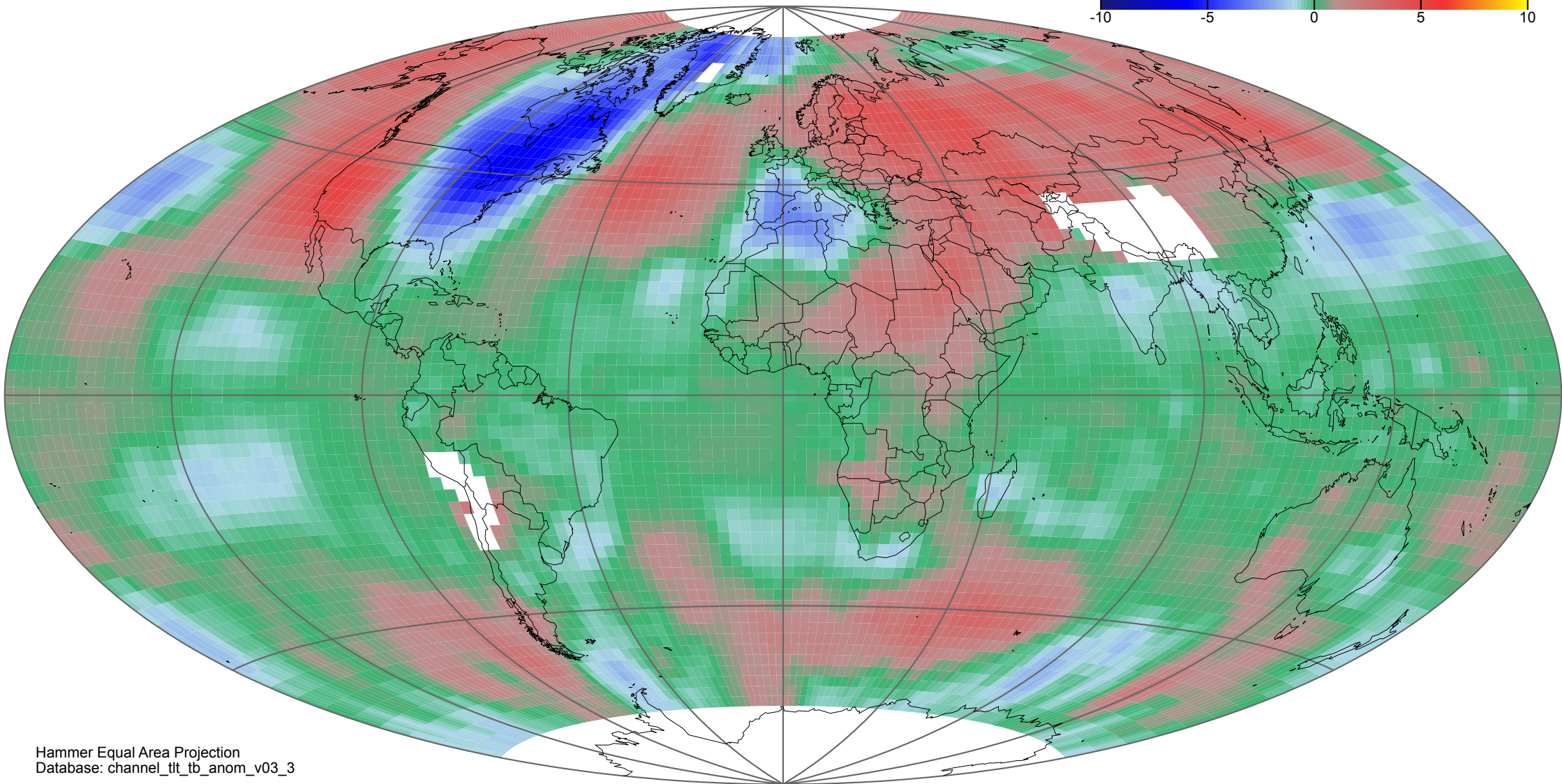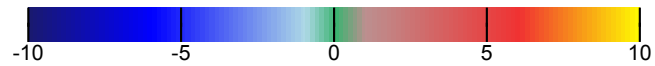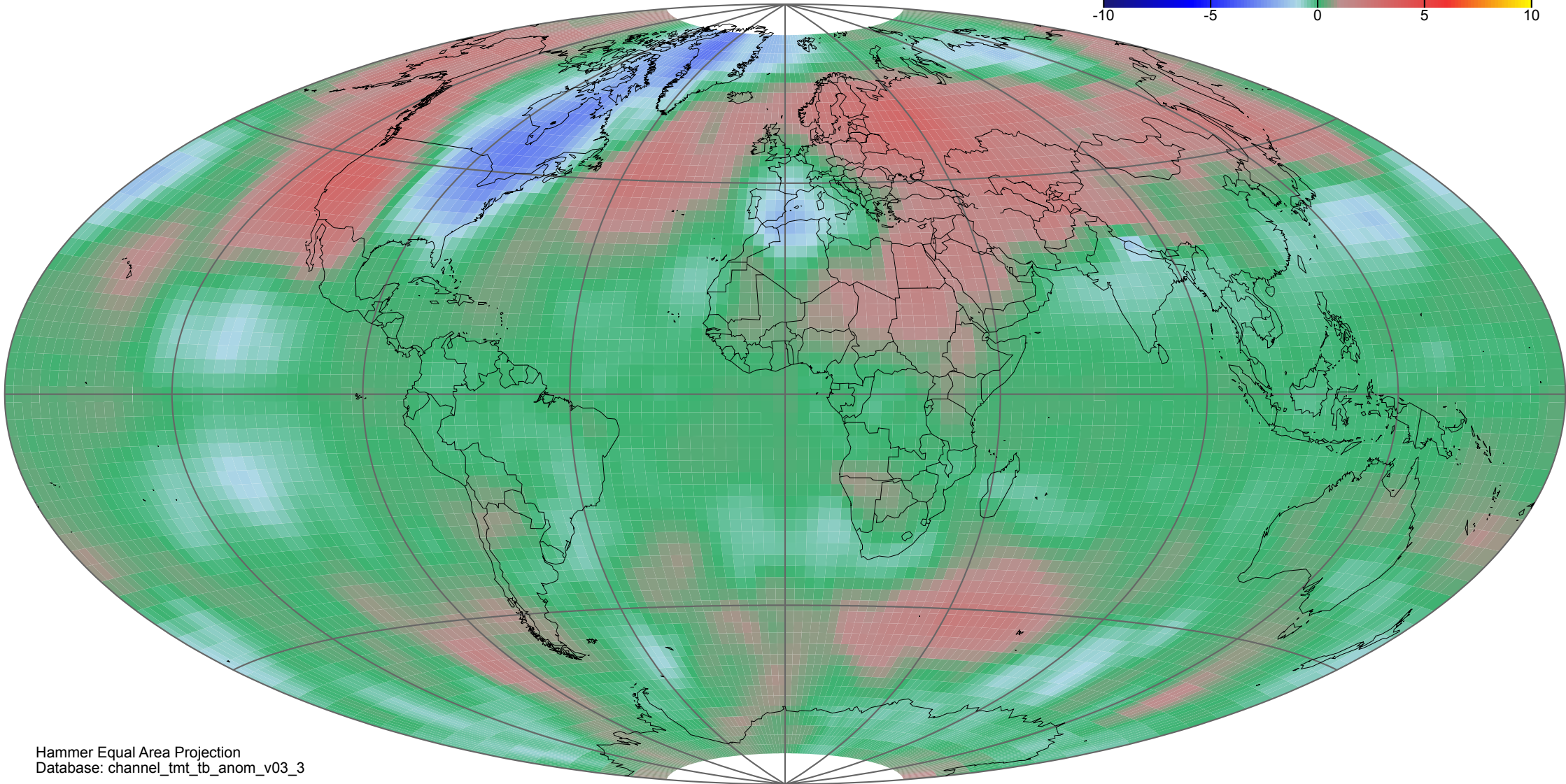3   http://www.cru.uea.ac.uk/cru/data/temperature/ or http://www.metoffice.gov.uk/hadobs/hadcrut4/
4   http://mapref.org/Hammer-AitoffProjection.html

2015-02, RSS V3.3 TLS (Temperature Lower Stratosphere)

Hammer Equal Area Projection
Database: channel_tls_tb_anom_v03_3

2015-02, RSS V3.3 TLT (Temperature Lower Troposphere)
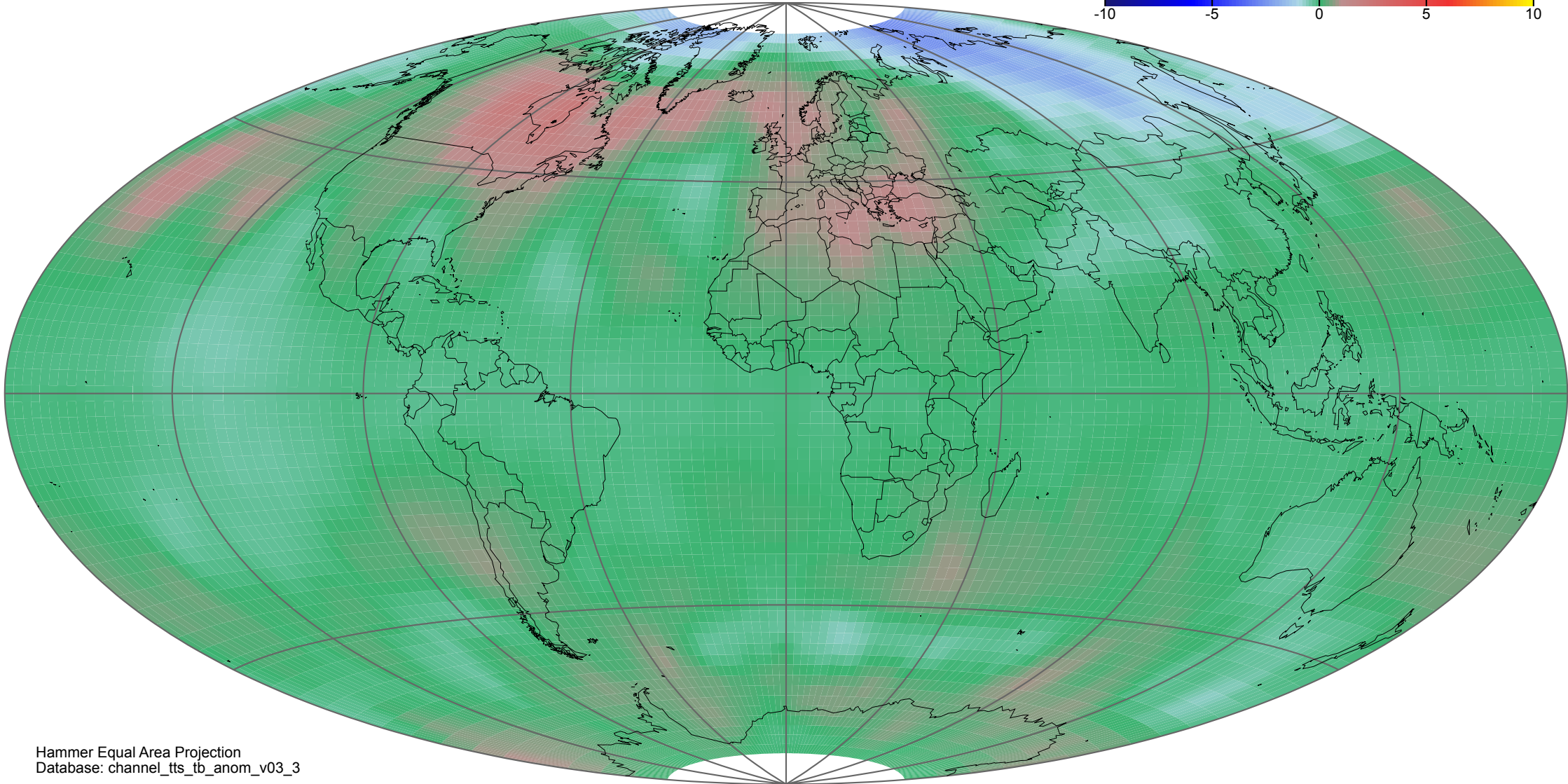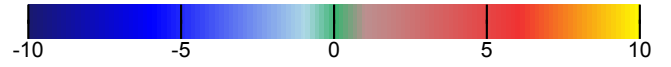
Hammer Equal Area Projection
Database: channel_tlt_tb_anom_v03_3
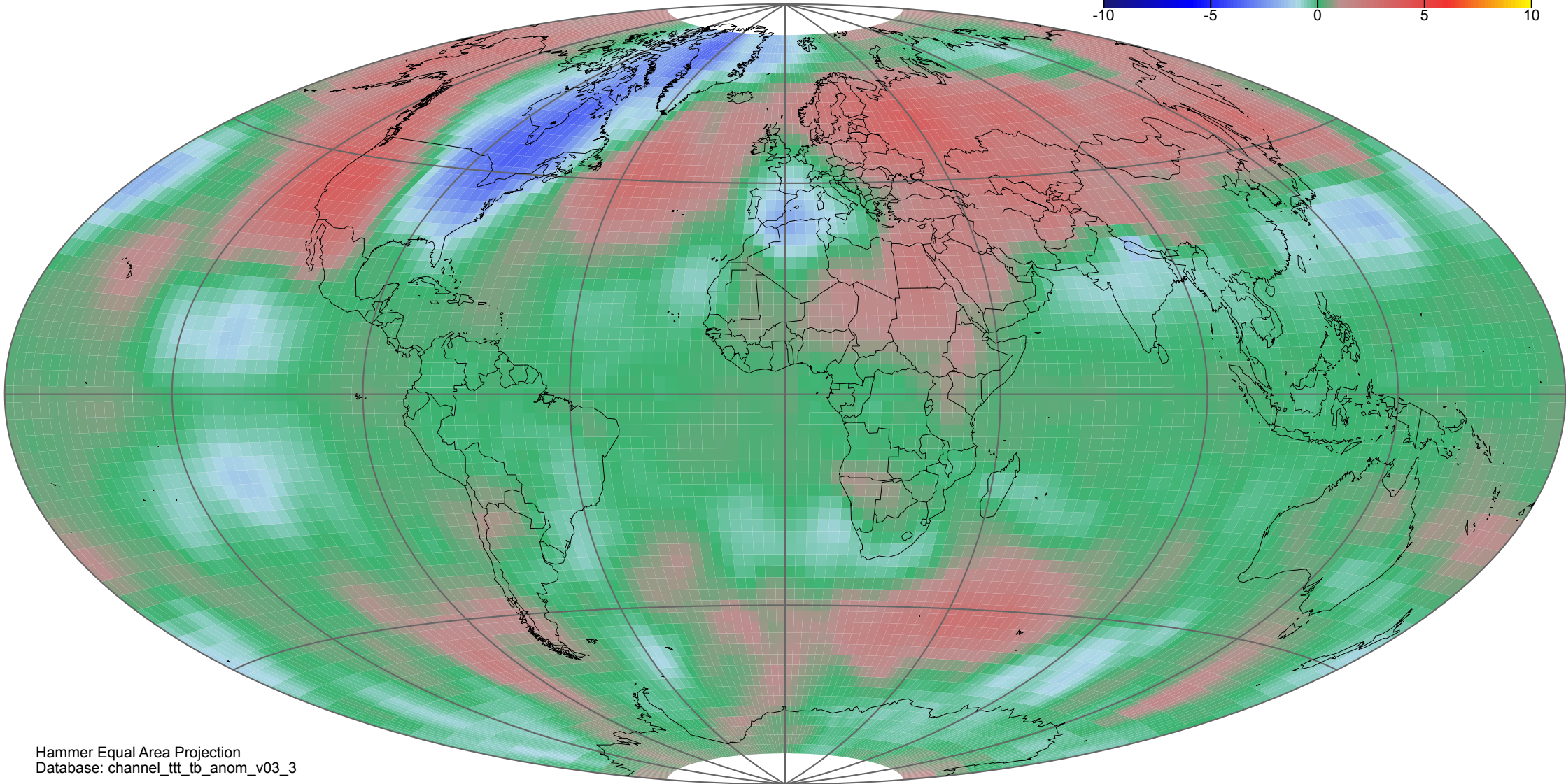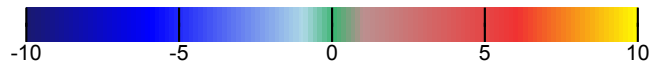
2015-02, RSS V3.3TMT (Temperature Middle Troposphere)

Hammer Equal Area Projection
Database: channel_tmt_tb_anom_v03_3
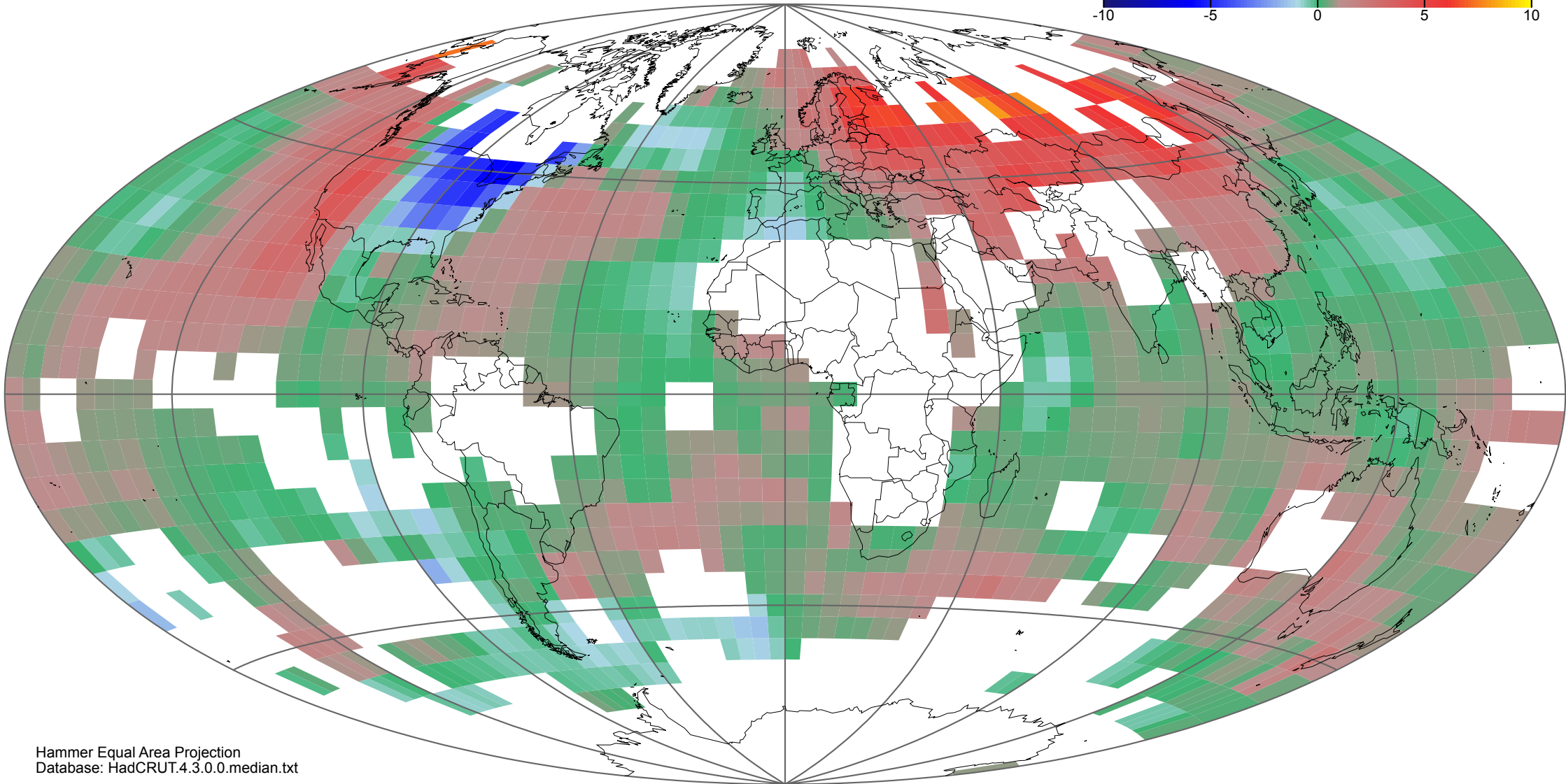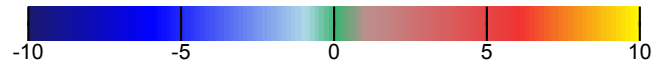
2015-02, RSS V3.3 TTS (Temperature Tropopause)

Hammer Equal Area Projection
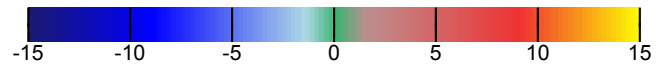Database: channel_tts_tb_anom_v03_3

2015-02, RSS V3.3 TTT (Temperature Tropical Troposphere

Hammer Equal Area Projection
Database: channel_ttt_tb_anom_v03_3
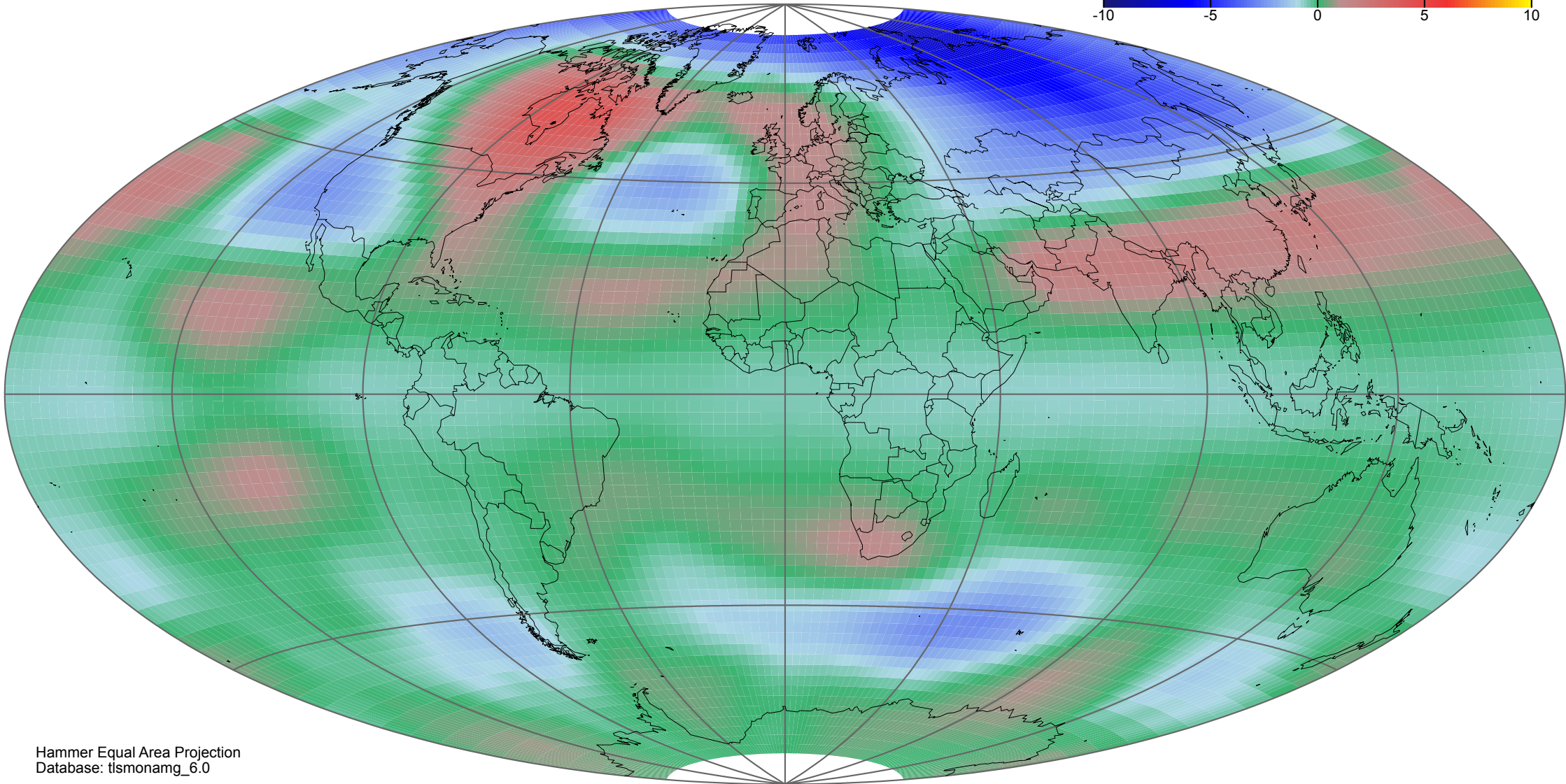
2015-02, HadCRUT V4.3 median land air / sea surface (SST)
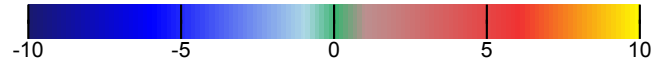
Hammer Equal Area Projection
Database: HadCRUT.4.3.0.0.median.txt

2015-02, UAH V5.6 TLS (Temperature Lower Stratosphere)
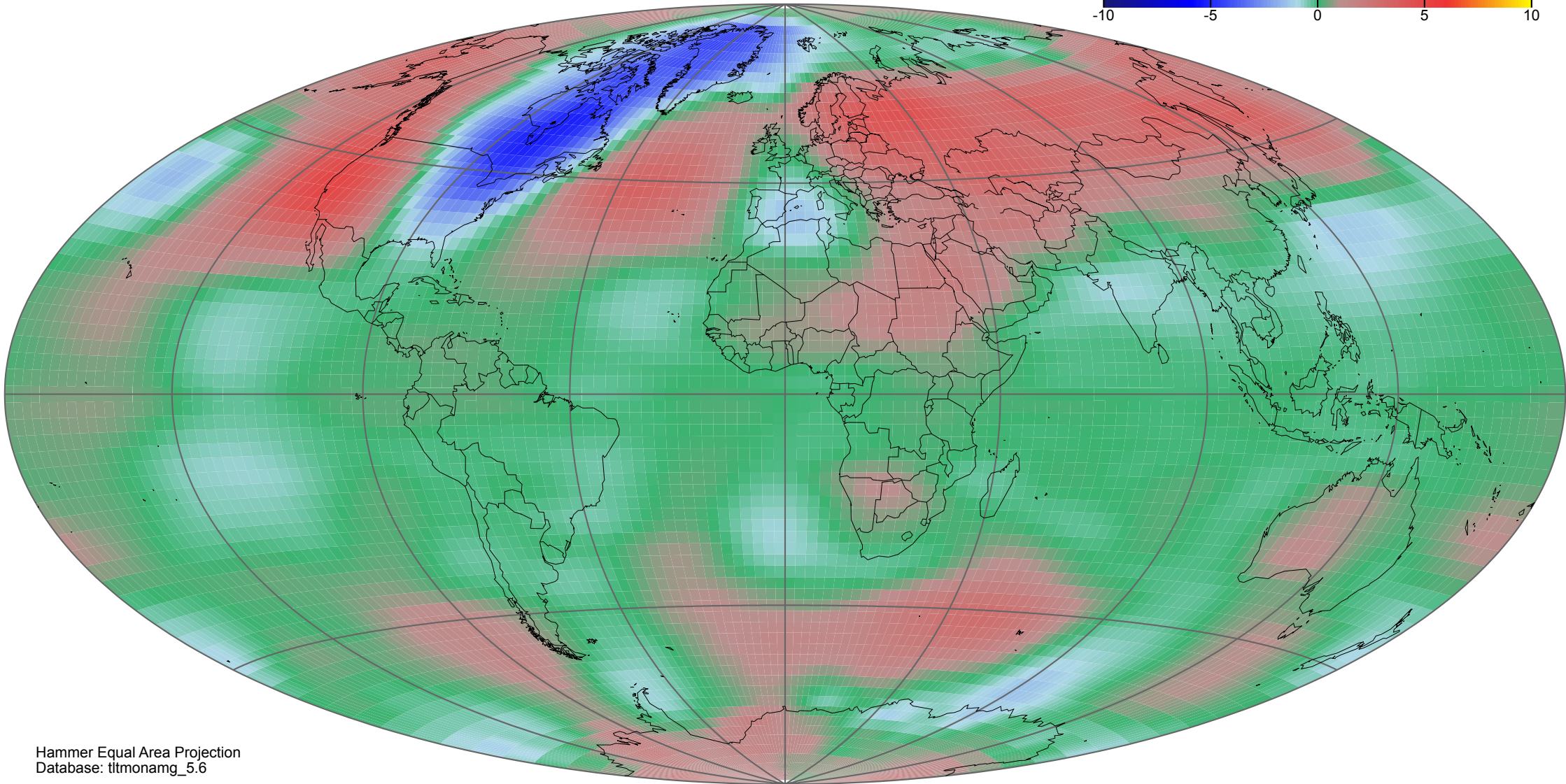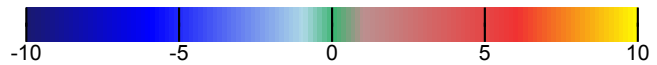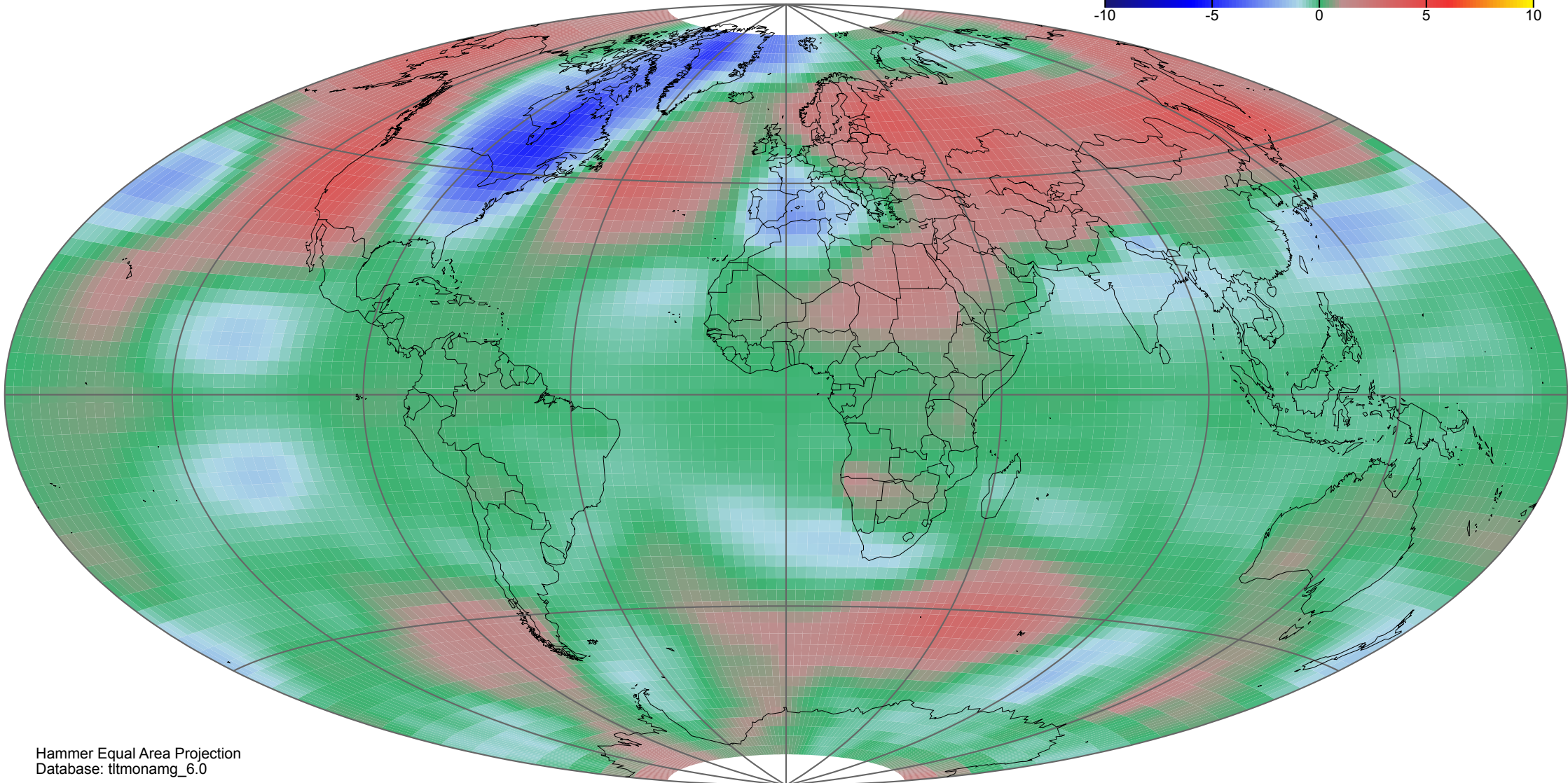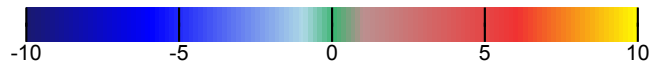
Hammer Equal Area Projection
Database: tlsmonamg_5.6

2015-02, UAH V6.0beta TLS (Temperature Lower Stratosphere)

Hammer Equal Area Projection
Database: tlsmonamg_6.0

2015-02, UAH V5.6 TLT (Temperature Lower Troposphere)
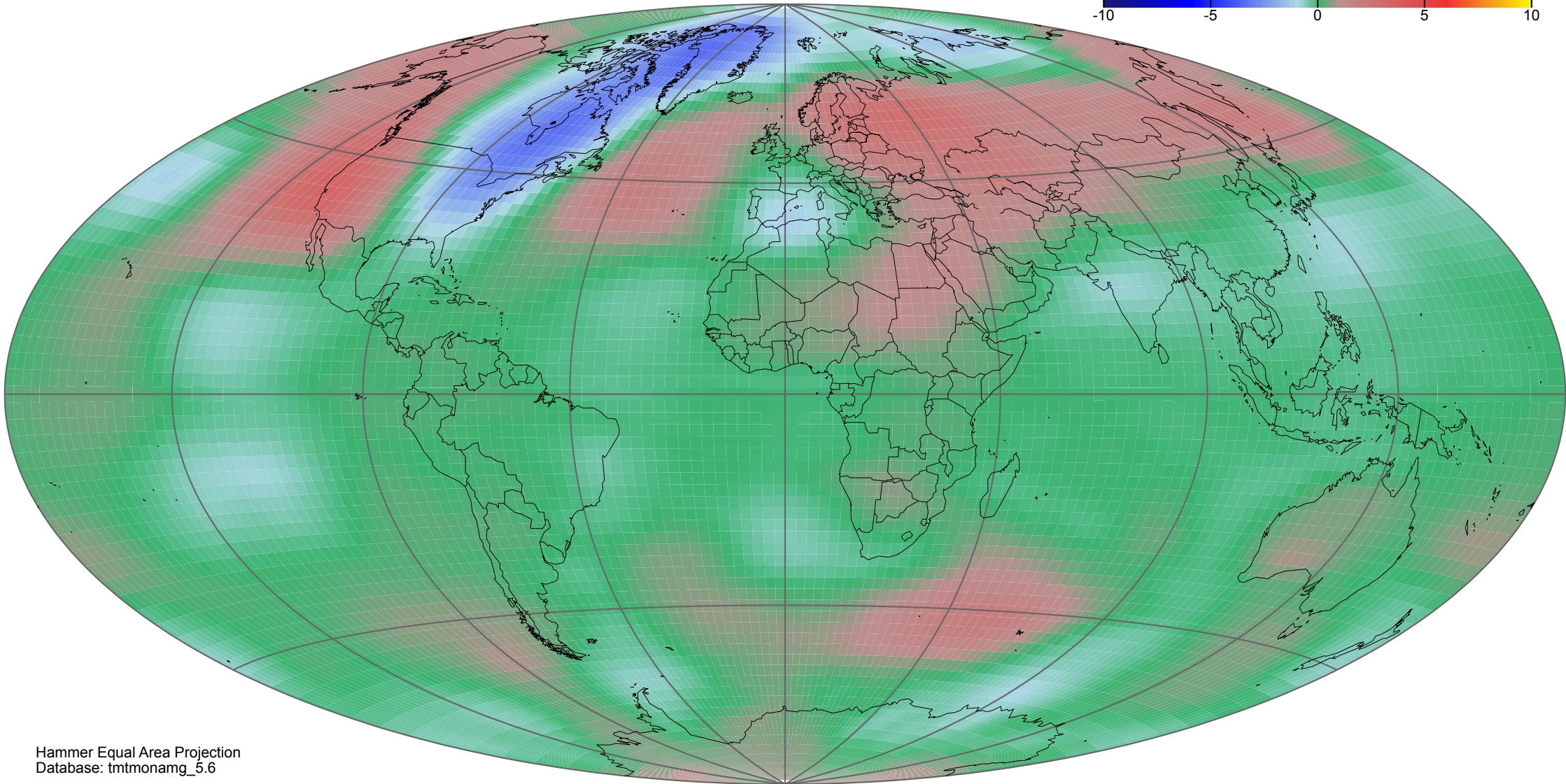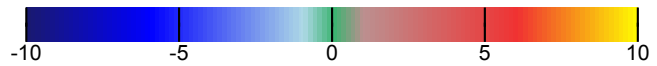
Hammer Equal Area Projection
Database: tltmonamg_5.6

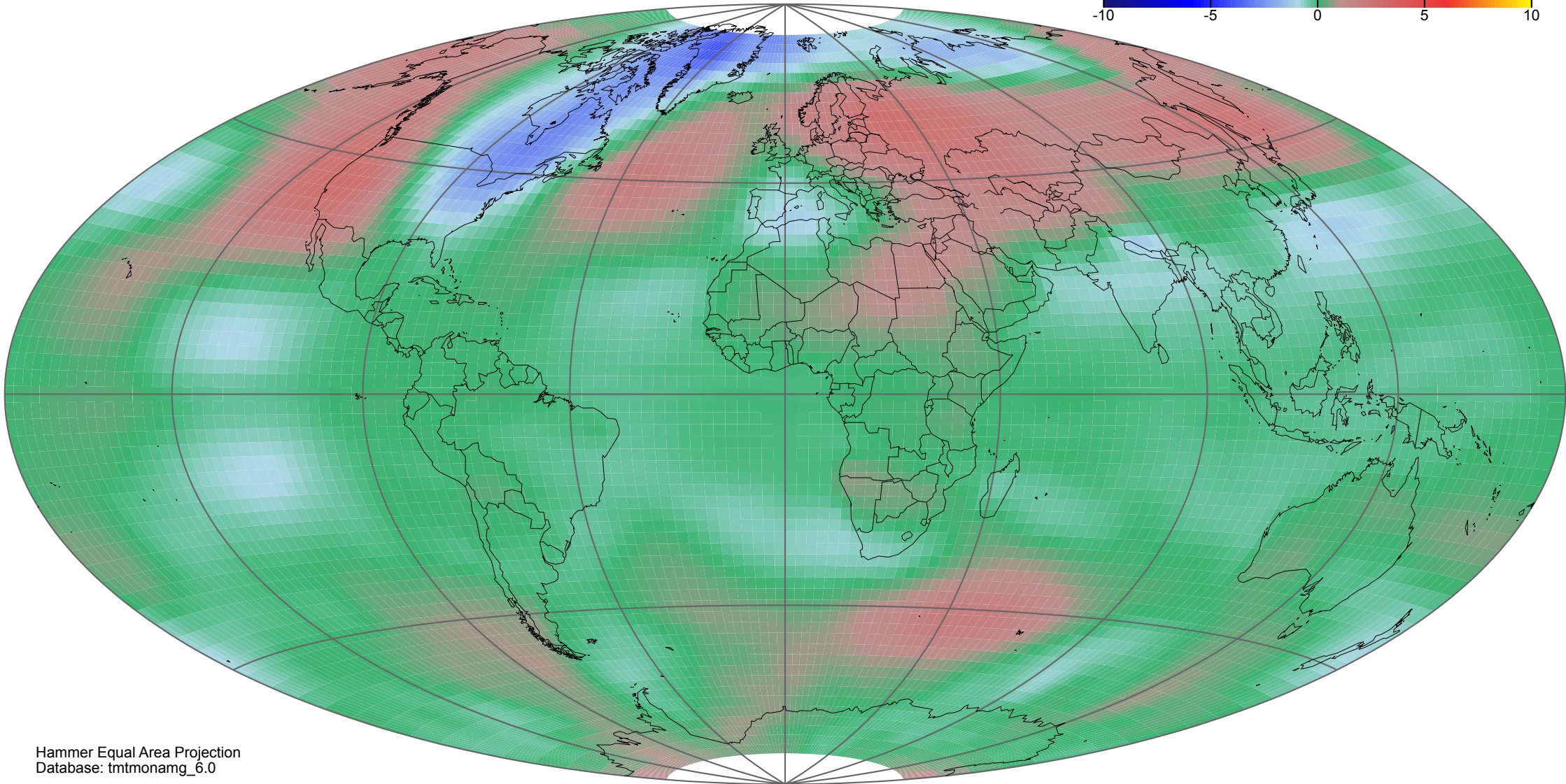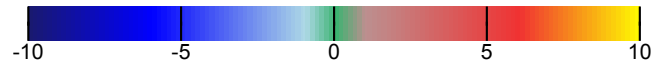2015-02, UAH V6.0beta TLT (Temperature Lower Troposphere)

Hammer Equal Area Projection
Database: tltmonamg_6.0
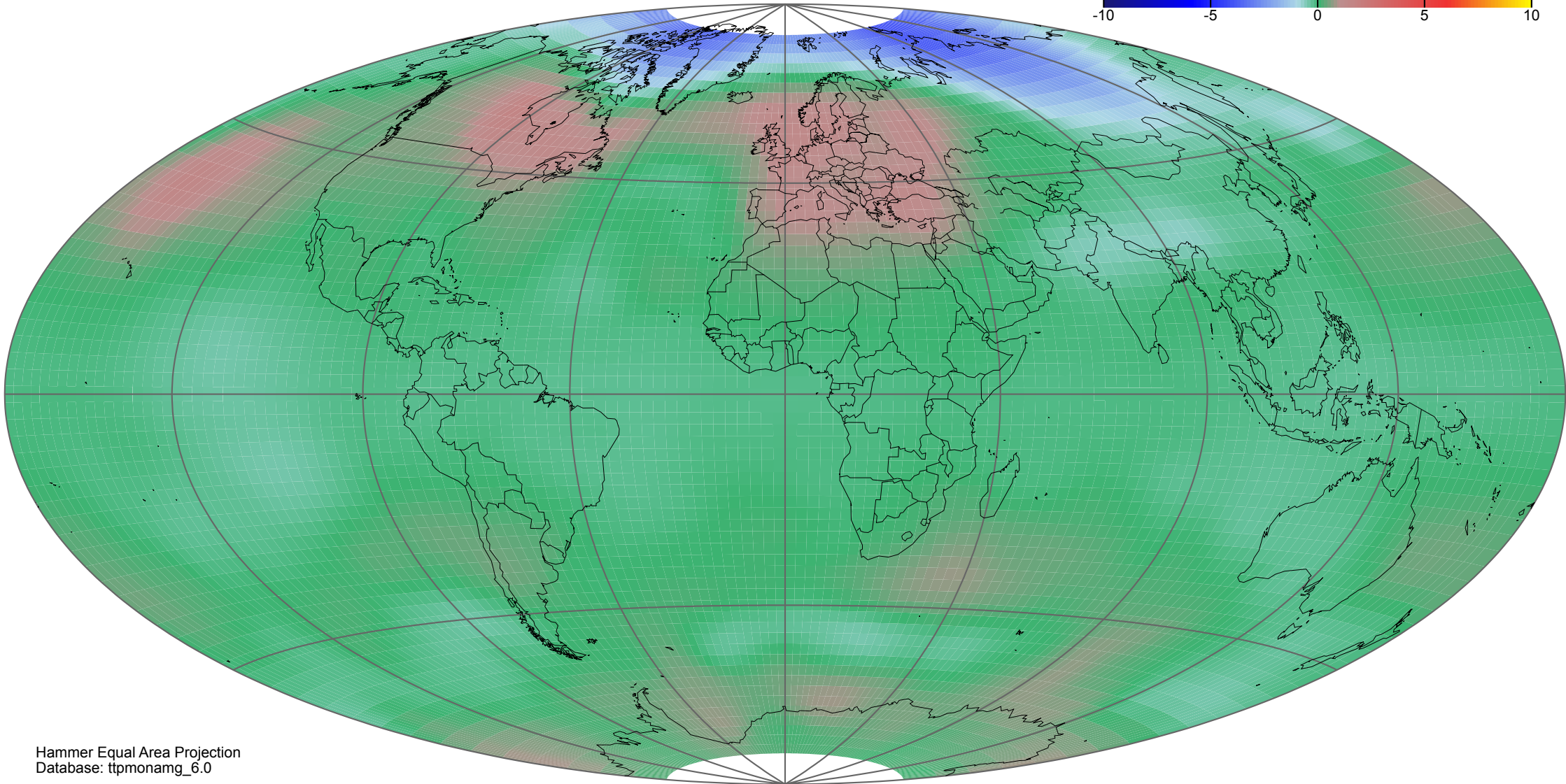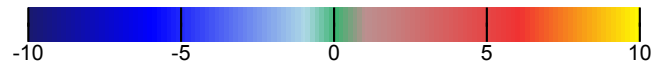
2015-02, UAH V5.6 TMT (Temperature Middle Troposphere)

Hammer Equal Area Projection
Database: tmtmonamg_5.6

2015-02, UAH V6.0betaTMT (Temperature Middle Troposphere)
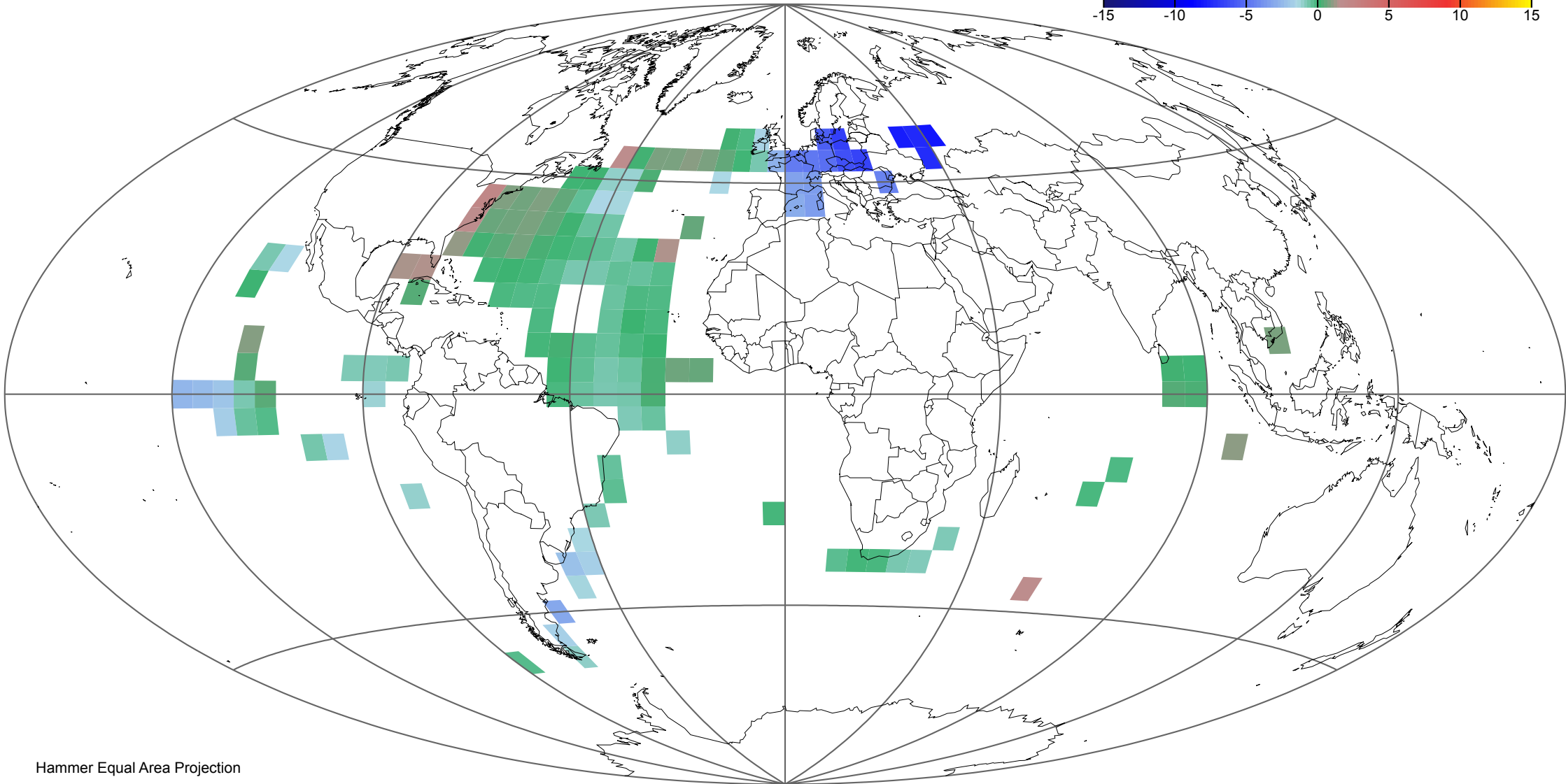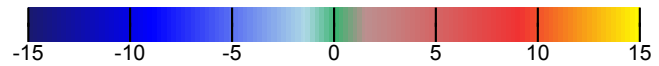
Hammer Equal Area Projection
Database: tmtmonamg_6.0

2015-02, UAH V6.0beta TTP (Temperature TropoPause

Hammer Equal Area Projection
Database: ttpmonamg_6.0

1850-01, HadCRUT.4.3.0.0.median.txt

Hammer Equal Area Projection