



On homogenising data from microwave humidity sounders

Viju O. John

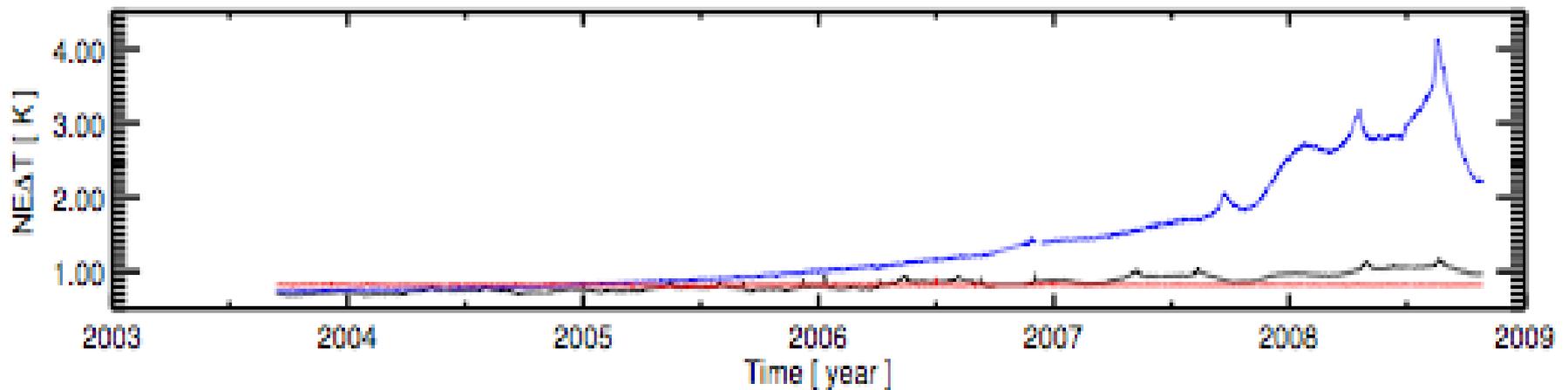
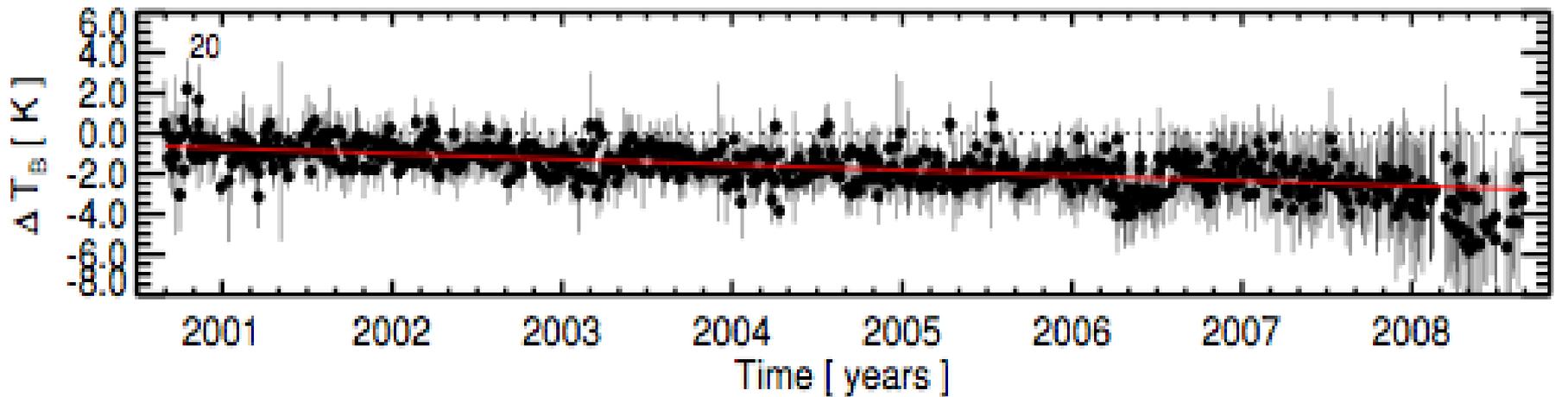
Thanks to Roger Saunders, Gerrit Holl, Ajil Kottayil, S. A. Buehler



Outline

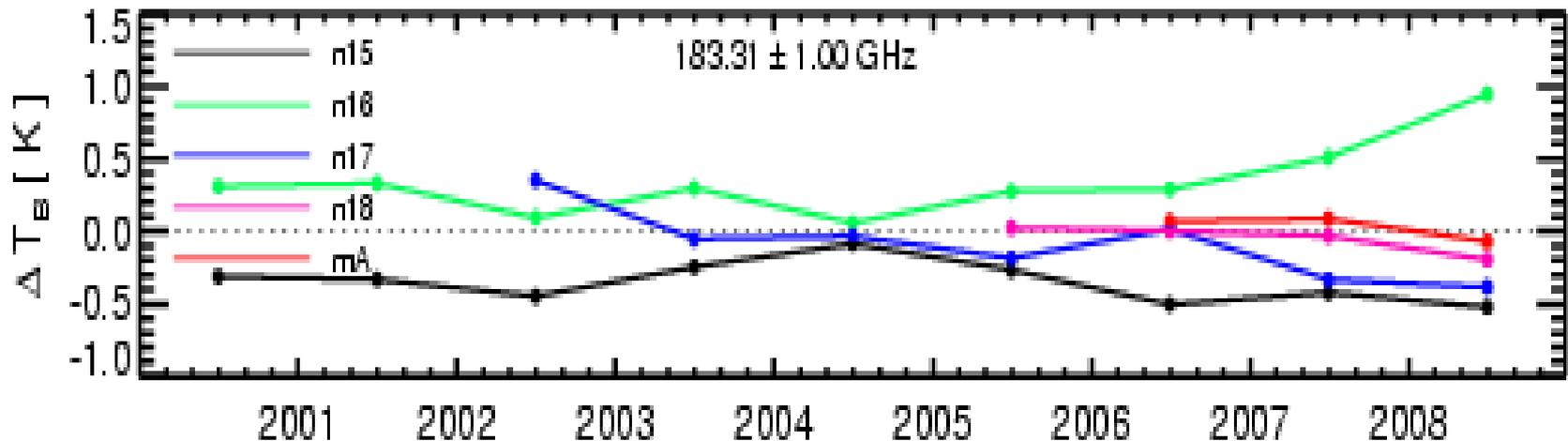
- Inter-calibration using SNO
- Time series Analysis (Motivation from Mo, 2009)
- Scan asymmetry

Drift in brightness temperature



Inter Satellite Differences

Using simultaneous nadir overpasses

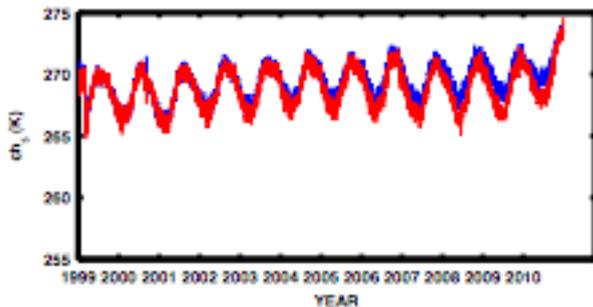
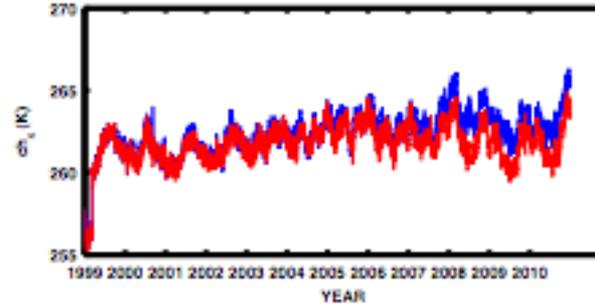
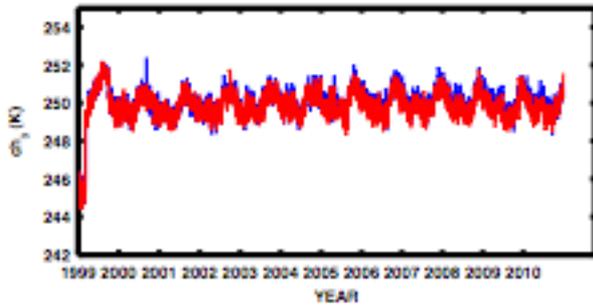
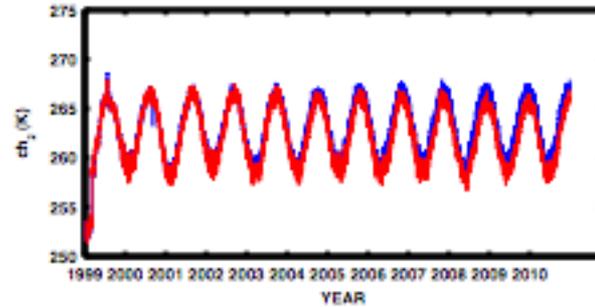
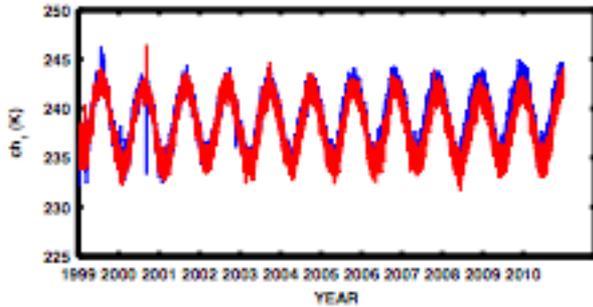


Large inter-satellite biases

Bias is not constant over time

MetOpA as reference
while inter-calibrating

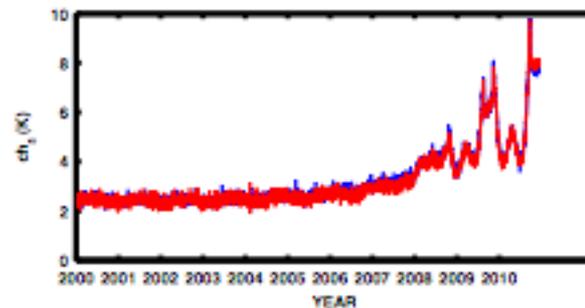
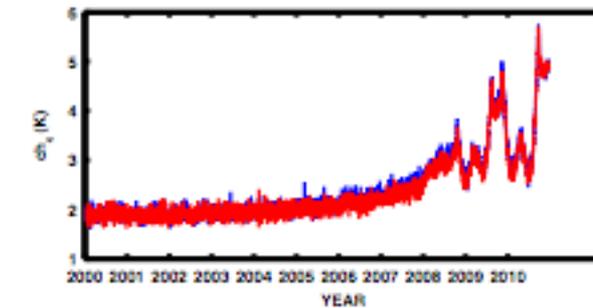
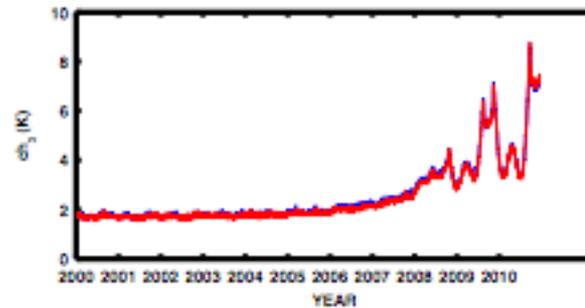
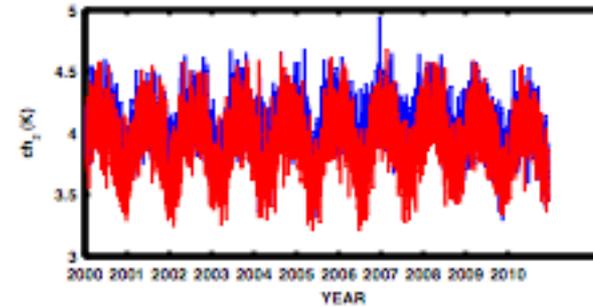
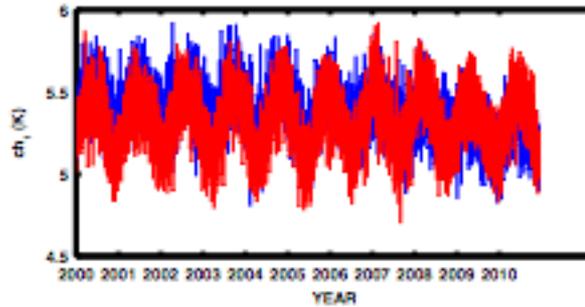
Time series



Global area weighted averages of near-nadir Tbs of NOAA-15.

Ascending and descending passes separated.

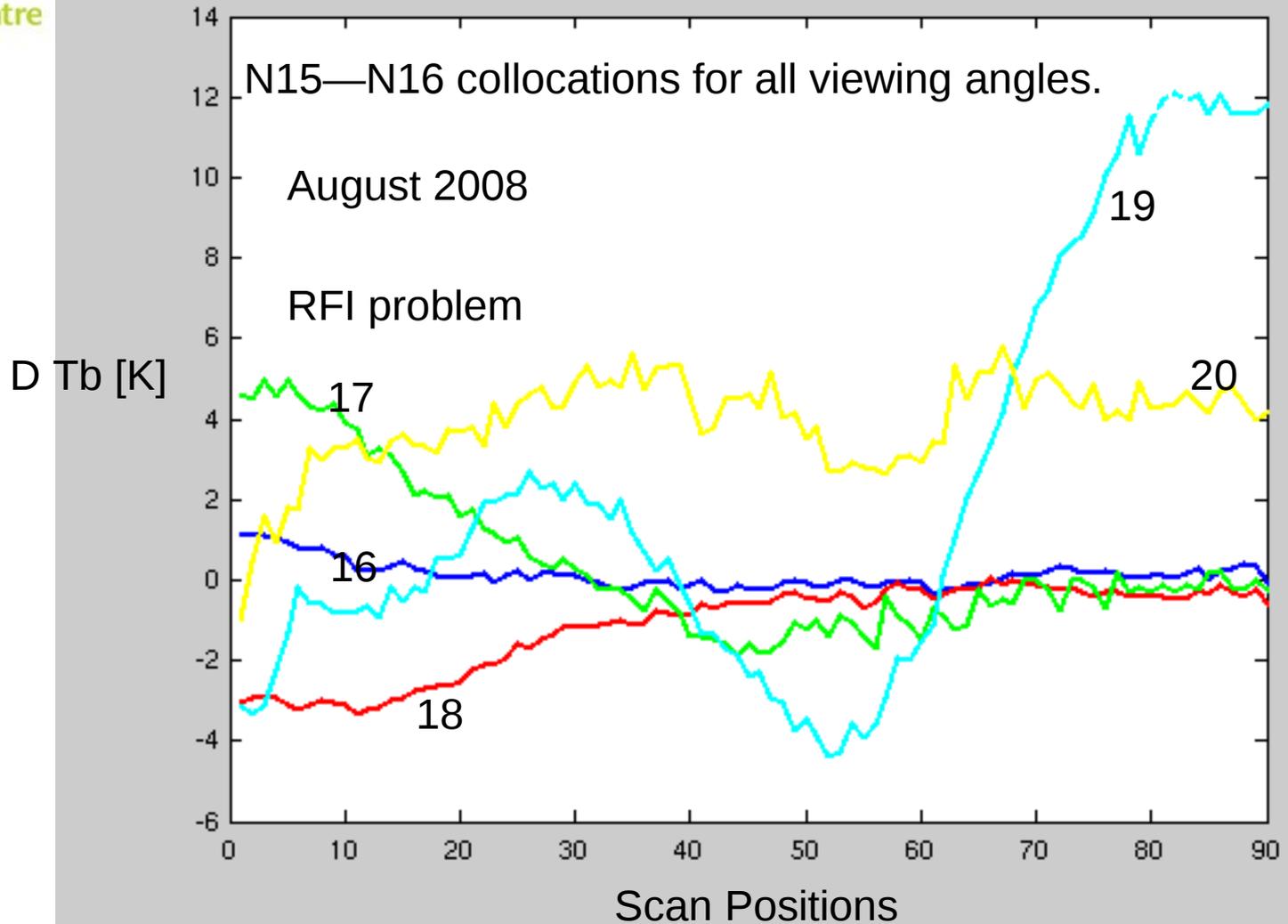
Time series



Area weighted averages of grid point standard deviations

Large noise for recent years; may not be suitable for climate monitoring

Scan asymmetry





Summary and future plans

- AMSU-B, MHS, SSM/T-2 radiance homogenisation work is ongoing...



Met Office
Hadley Centre



Questions??