

SGP MWR Inter- Comparison Study IOP

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- **Date: 10/1/2006–11/1/2006**
- **6 MWRs at the SGP CF**
- **Comparison of brightness temperatures**
- **Assessment of hardware**
- **Verification of calibration**

MOTIVATION (1)

MWRs AGE:

1. MWR 004 (SGP-E14) 1992
2. MWR 010 (SGP-C1) 1993
3. MWR 011 (SGP-BF1) 1993
4. MWR 012 (SGP-BF5) 1993
5. MWR 018 (SGP-BF6) 1995
6. MWR 021 (NSA-C2) 1996

Last inter-comparison was in 1996!

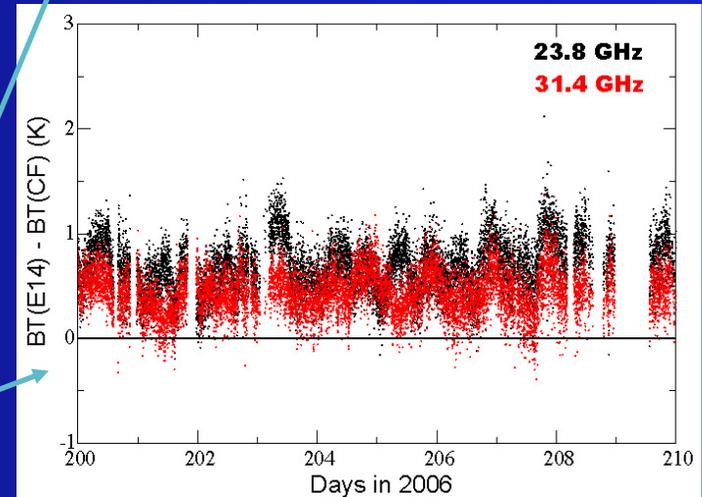
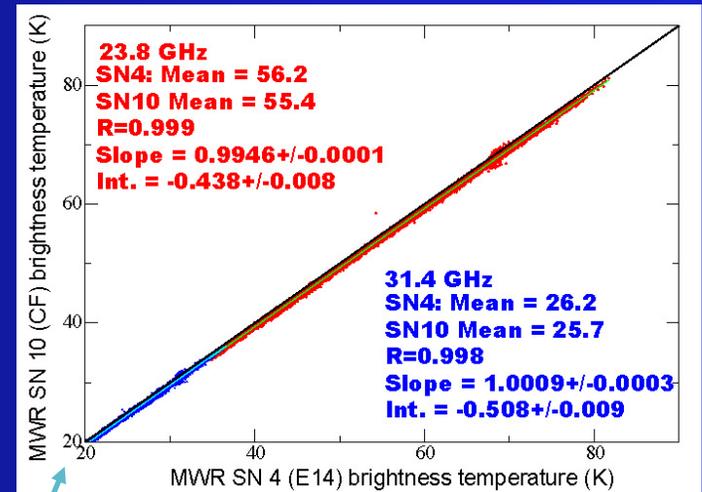
Comparison of 3 MWRs in Mattioli et al., 2005 (2003 data)

MOTIVATION (2)

MWR's LOCATIONS AND HARDWARE

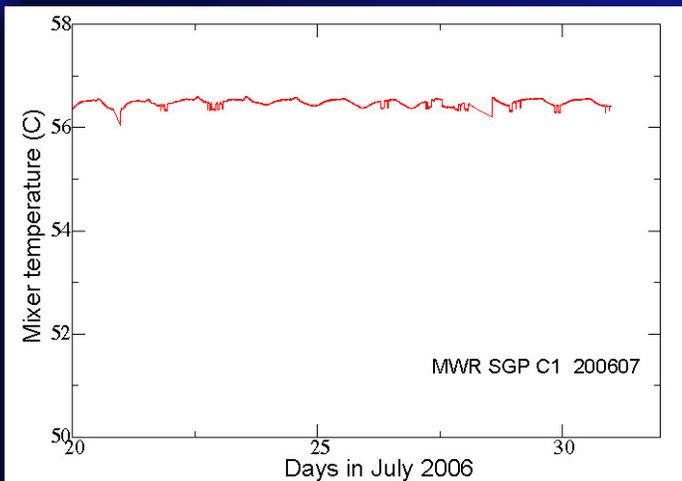
- No RS launches for SN 11, 12, 18, 21
- Bias (~ 0.5 K) between SN 04 and 10 at SGP-CF.

07/2006, N= 27958.
Clear-sky only

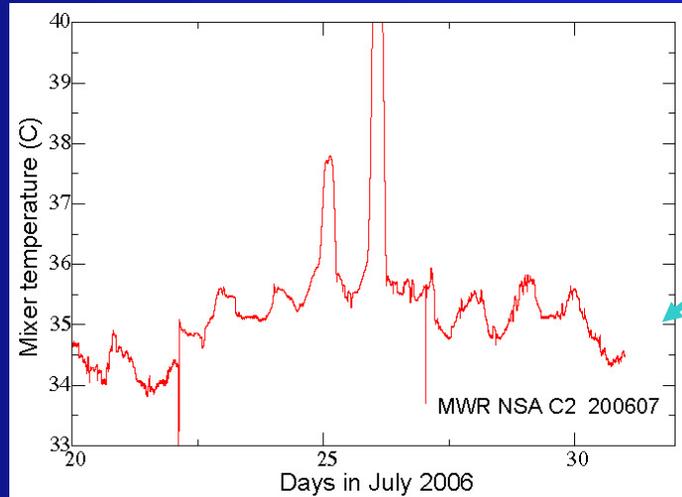
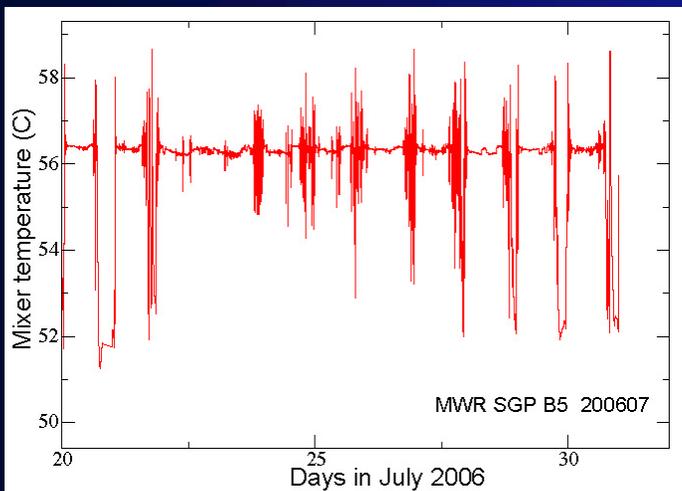


MOTIVATION (3)

SN 10



SN 12



SN 21

CONCLUSIONS

What we want to achieve:

- Assess repeatability of MWR measurements
- Identify hardware issues that may be affecting measurements
- Examine calibration procedures; Perform LN₂ calibration for reference; Review calibration algorithms