MWR Inter-Comparison IOP

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OVERVIEW

- DATE: 10/1/2006–12/1/2006
- 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

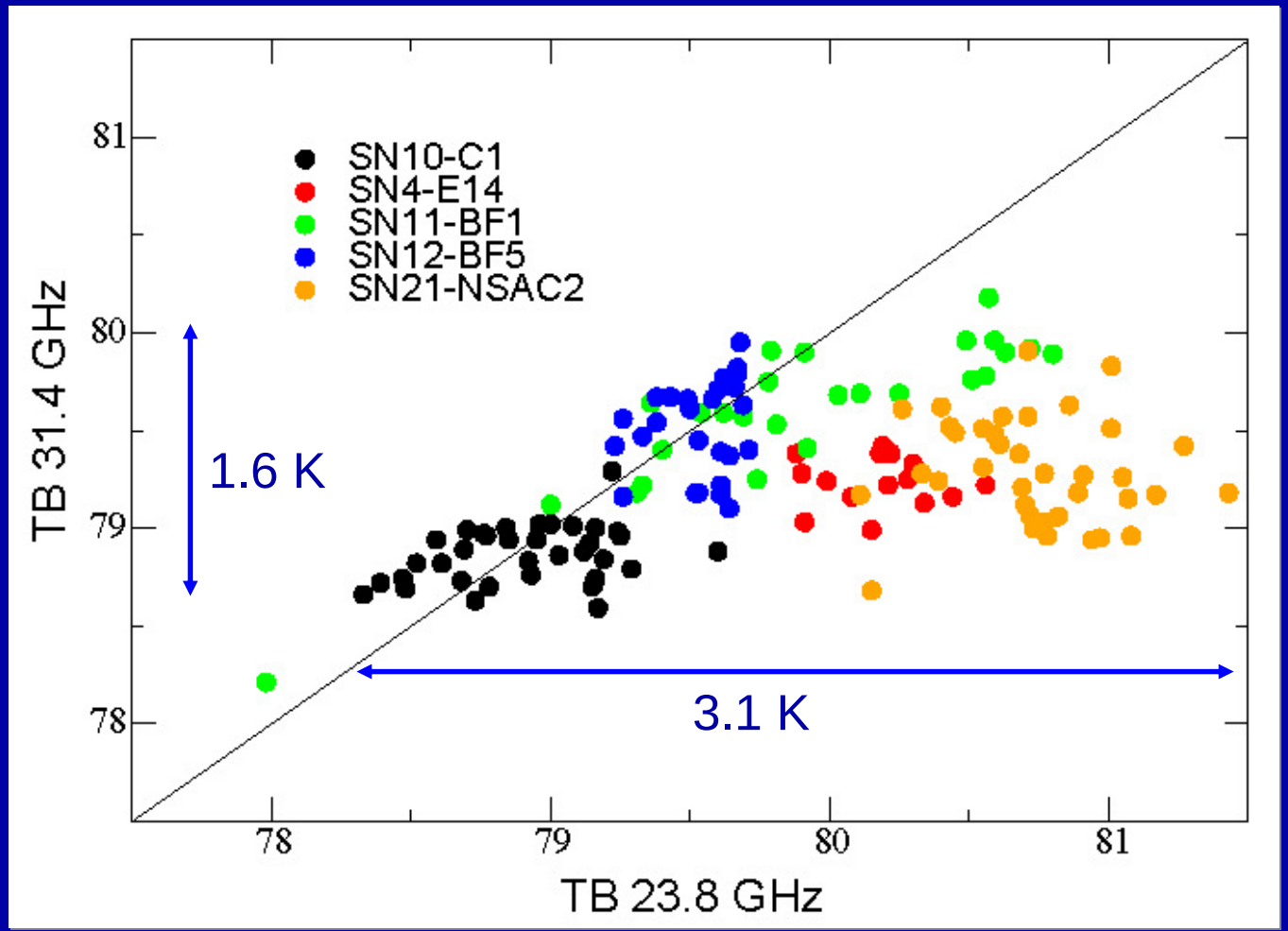
- **No RS launches for SN 11, 12, 18, 21**

- **Numerous hardware problems**
  - **SN 12 (SGP/BF5) and 21 (NSA/C2) back from vendor (thermal control problems)**
  - **SN 18 (SGP/BF1) recent analog and digital board failure**
  - **SN 16 (TWP/C1) recent digital board failure**
  - **SN 15 (TWP/C2) electrical failure**

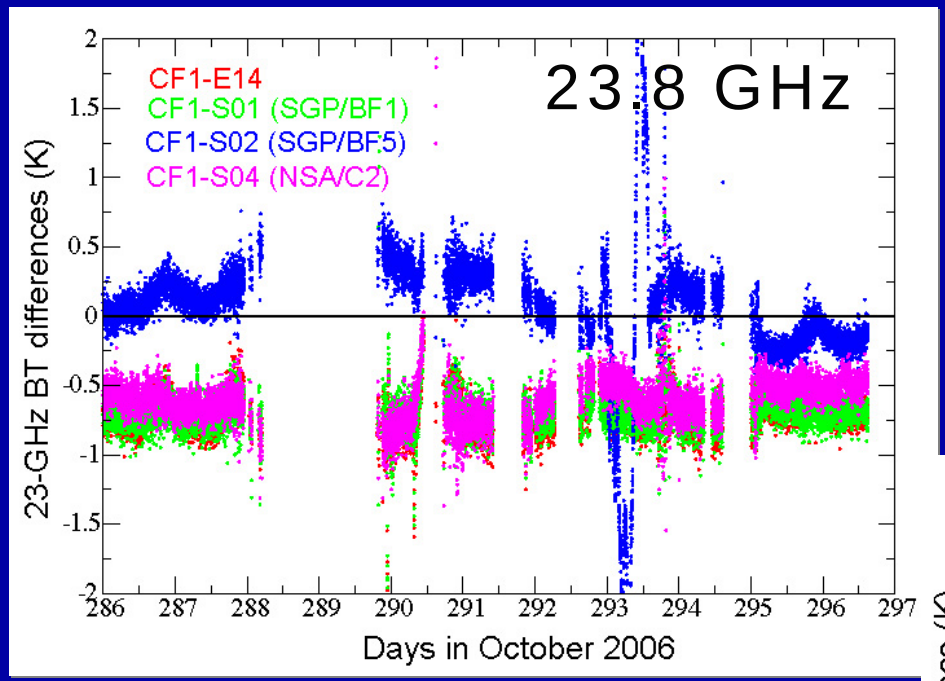
SGP CF

LN_2 calibration

LN_2 calibration results 10/19/2006



Differences between brightness temperatures computed from tip curves

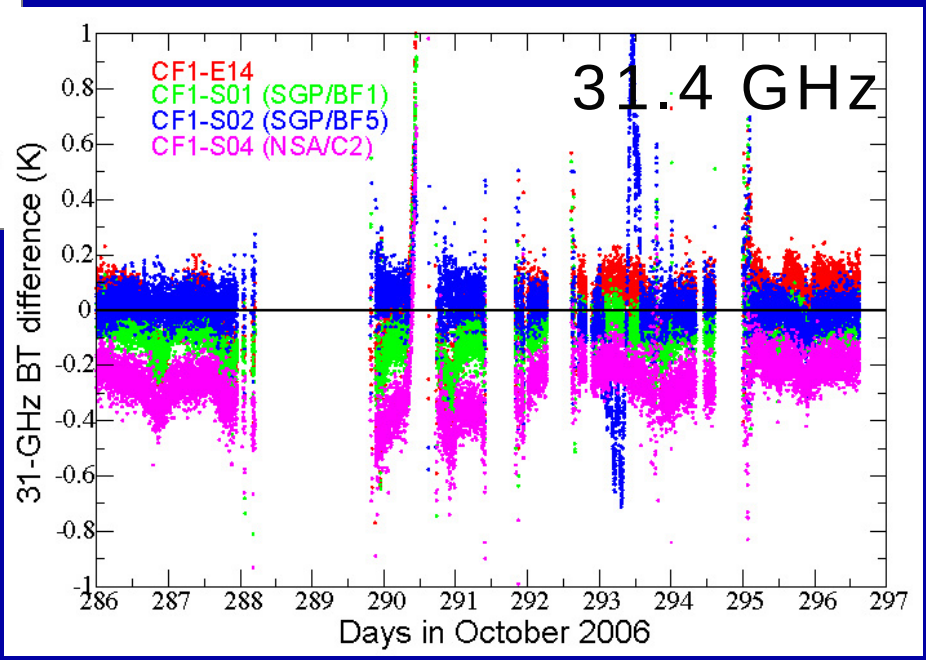


CF – E14

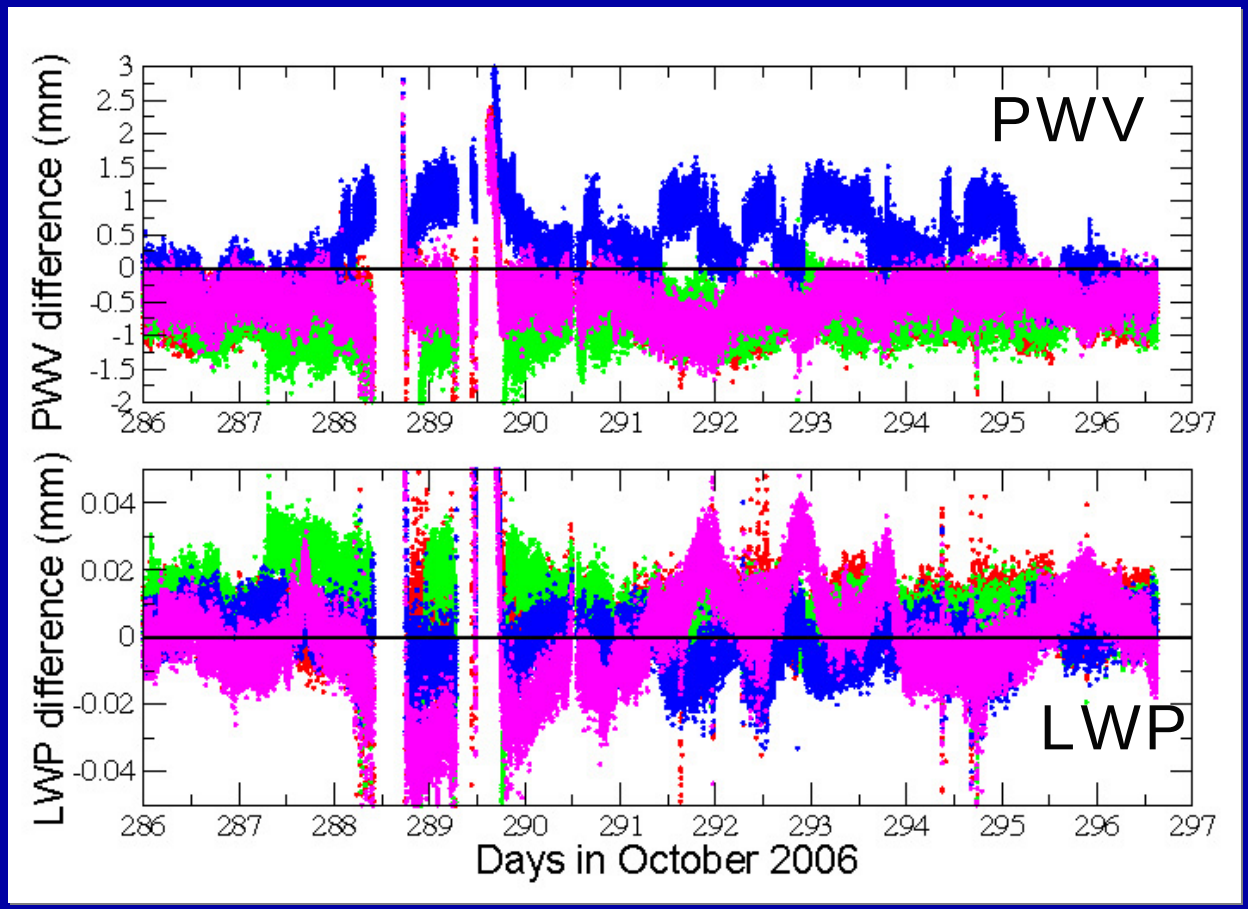
CF – BF1

CF – BF5

CF – C2



Differences between retrieved PWV and LWP



CF – E14

CF – BF1

CF – BF5

CF – C2

CONCLUSIONS

- **Analysis of IOP data under way**
- **SN 21 was removed on 10/25 and replaced with SN 18**
- **SN 18 data will be added to analysis**
- **From preliminary analysis possible issue with the 23.8-GHz channel**