

ATTREX2013 MMS Report

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Instrument Report

- Overall performed well with few minor problems
- Decision to keep MMS power on was a big help
- Eliminated side mounted AOA probe
- Eliminate MMS Nav grade INS and use GH LN100g
 - Poor GPS signal from community feed
 - Weight (~25 lbs) & CG & power
 - Transfer parameter delay from MMS tactical grade INS
- Noisy static pressure (cabling problem)
- Data System ceased twice on 20130214 flight – “fail-light” alarm possible with reliable downlink

Revised MMS data

- Changes from preliminary data
 - + 0.12 mb static P
 - + 0.08 K static T
 - ~ 0.0 m/s on average but +/- 1.0 m/s at time V, U
 - ~ 0.0 m/s, +/- 0.5 m/s for W

Sonde Checks

- EDW sonde: 5 ascents, 3 descents

Weighted mean and standard deviations:

Pstatic (MMS- Sonde): 0.05 +/- 0.12 mb

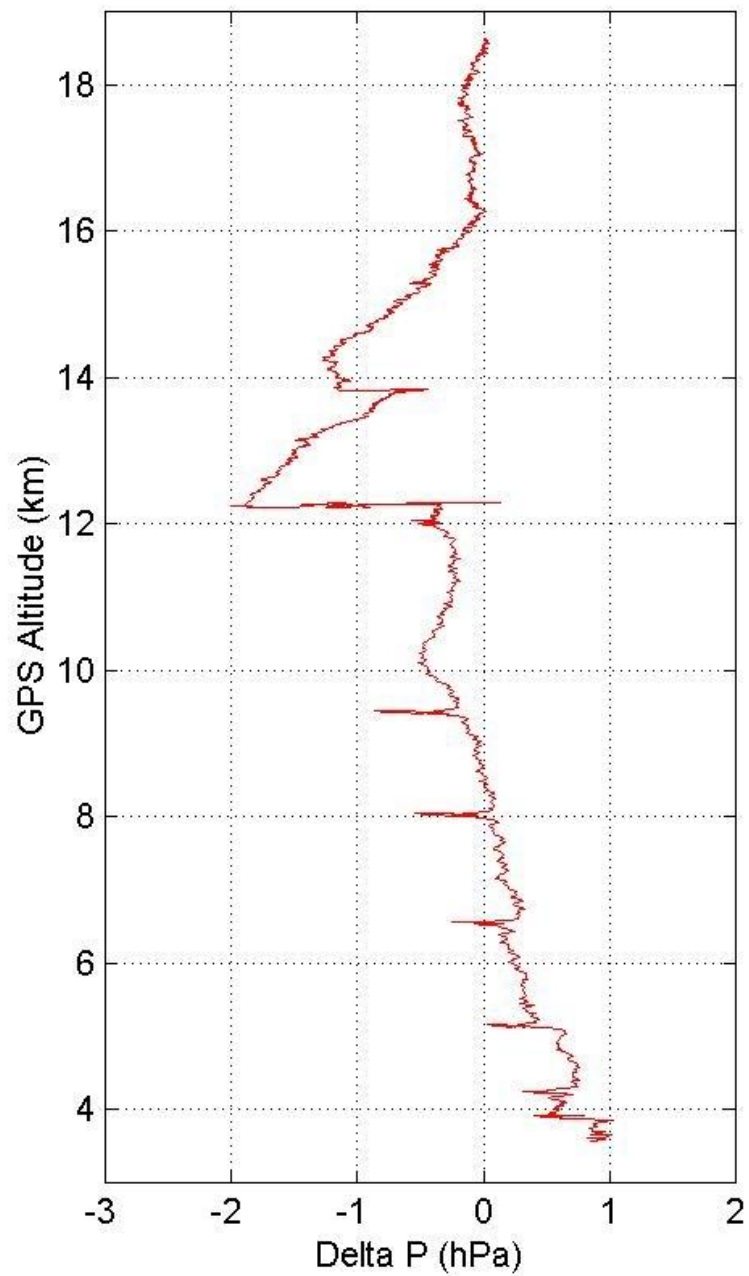
Tstatic (MMS - Sonde); 0.05 +/- 0.28 K

U wind (MMS - Sonde): -0.97 +/- 1.00 m/s

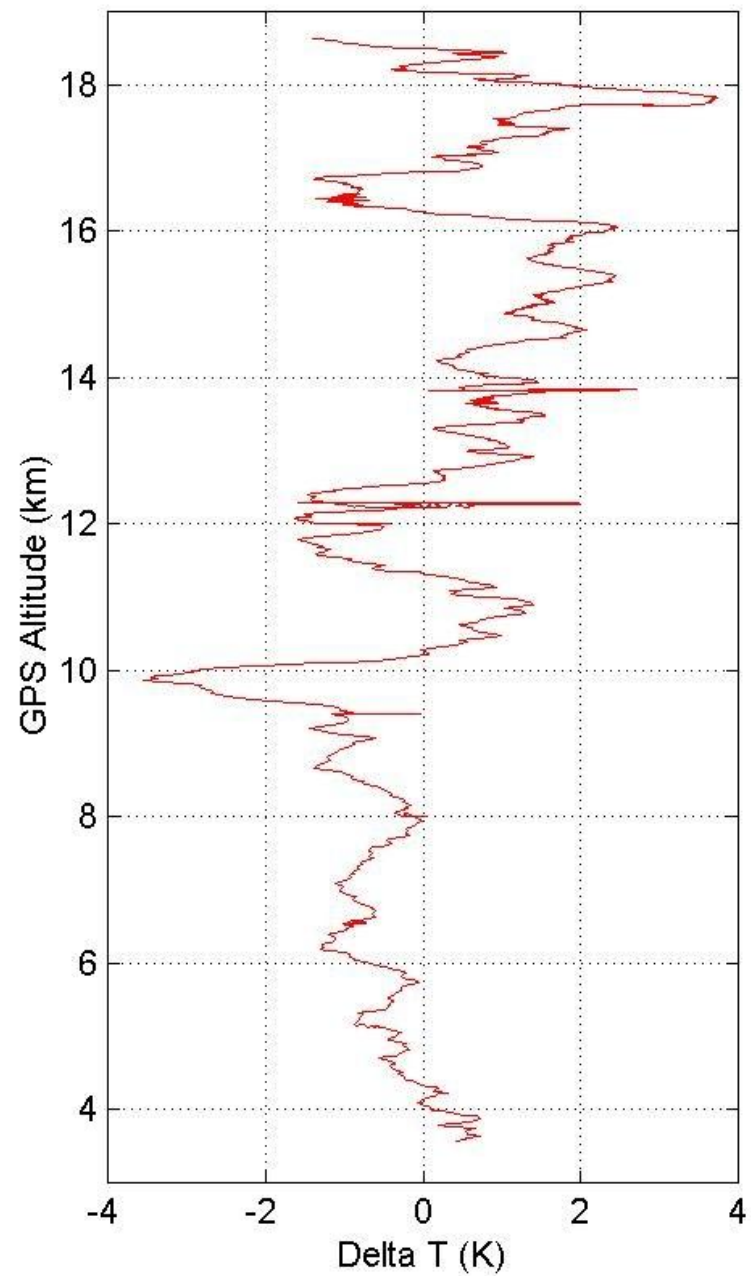
V wind (MMS - Sonde): -0.27 +/- 0.82 m/s

will MTP continue to validate MMS T
measurement ?

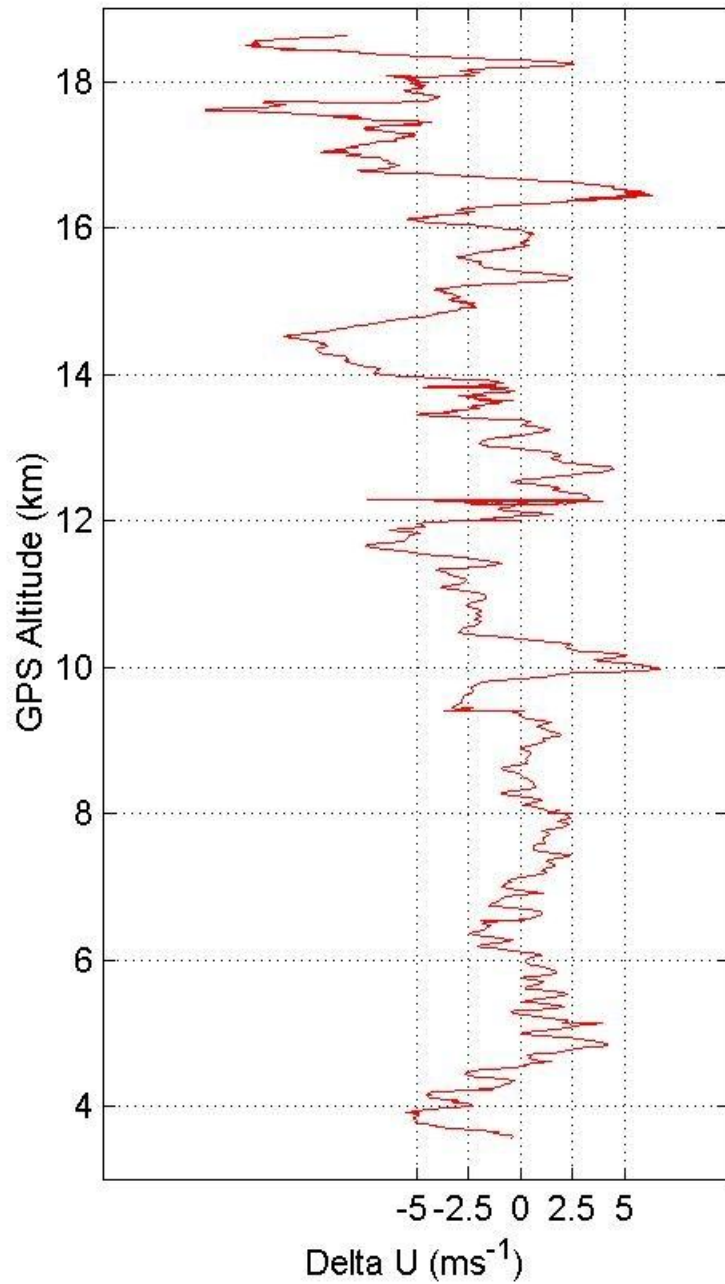
130206 1430Z MMS - EDW Ps



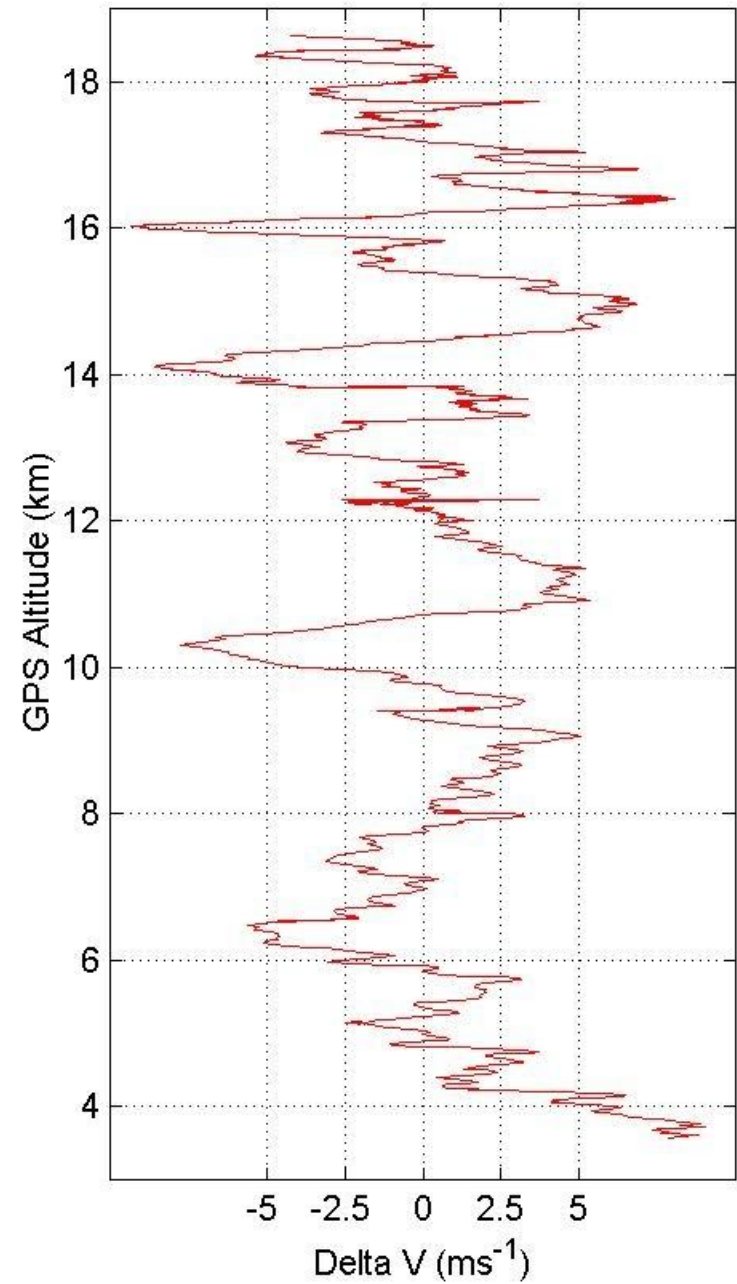
130206 1430Z MMS - EDW Ts



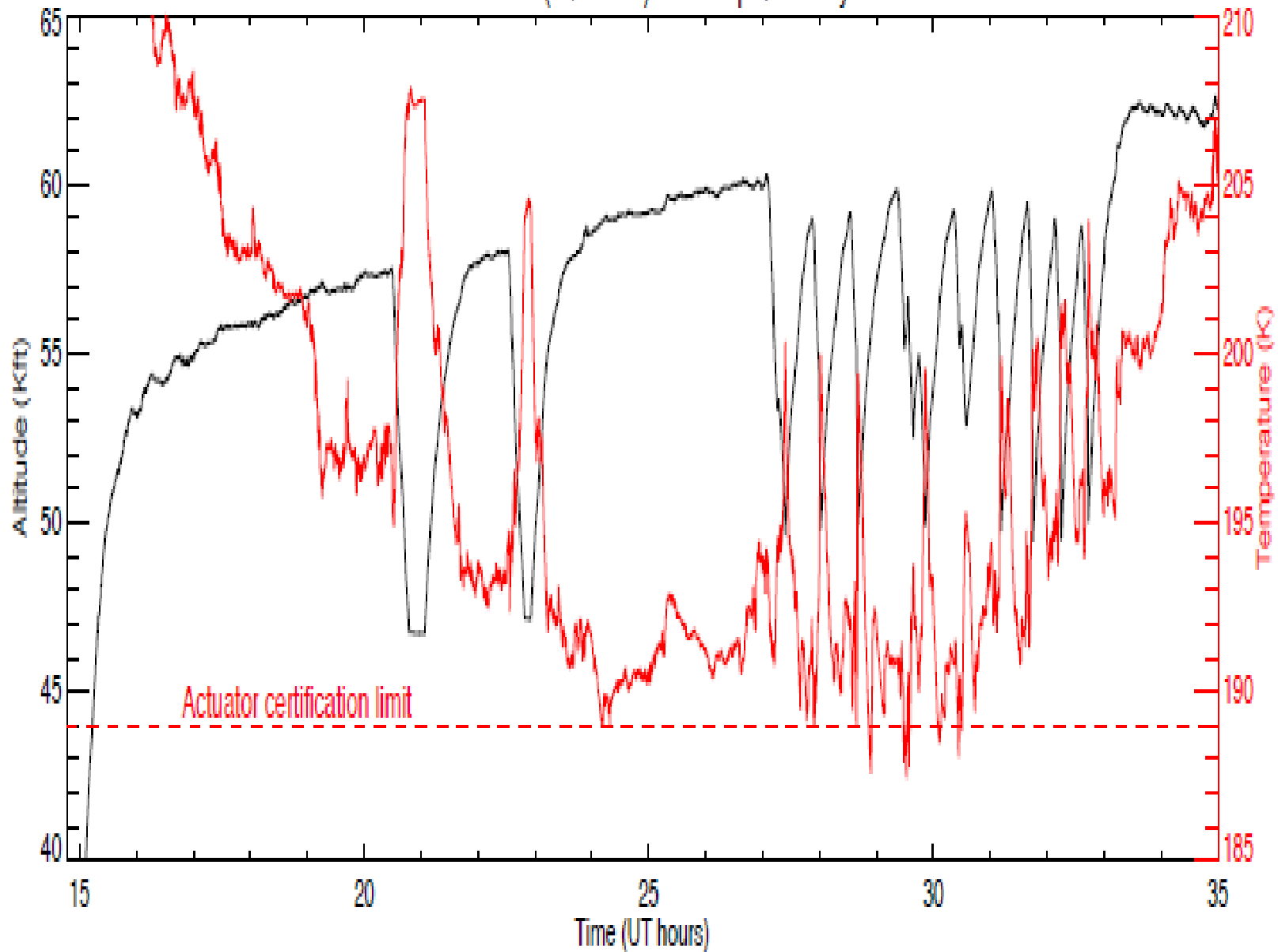
130206 1430Z MMS - EDW U wind



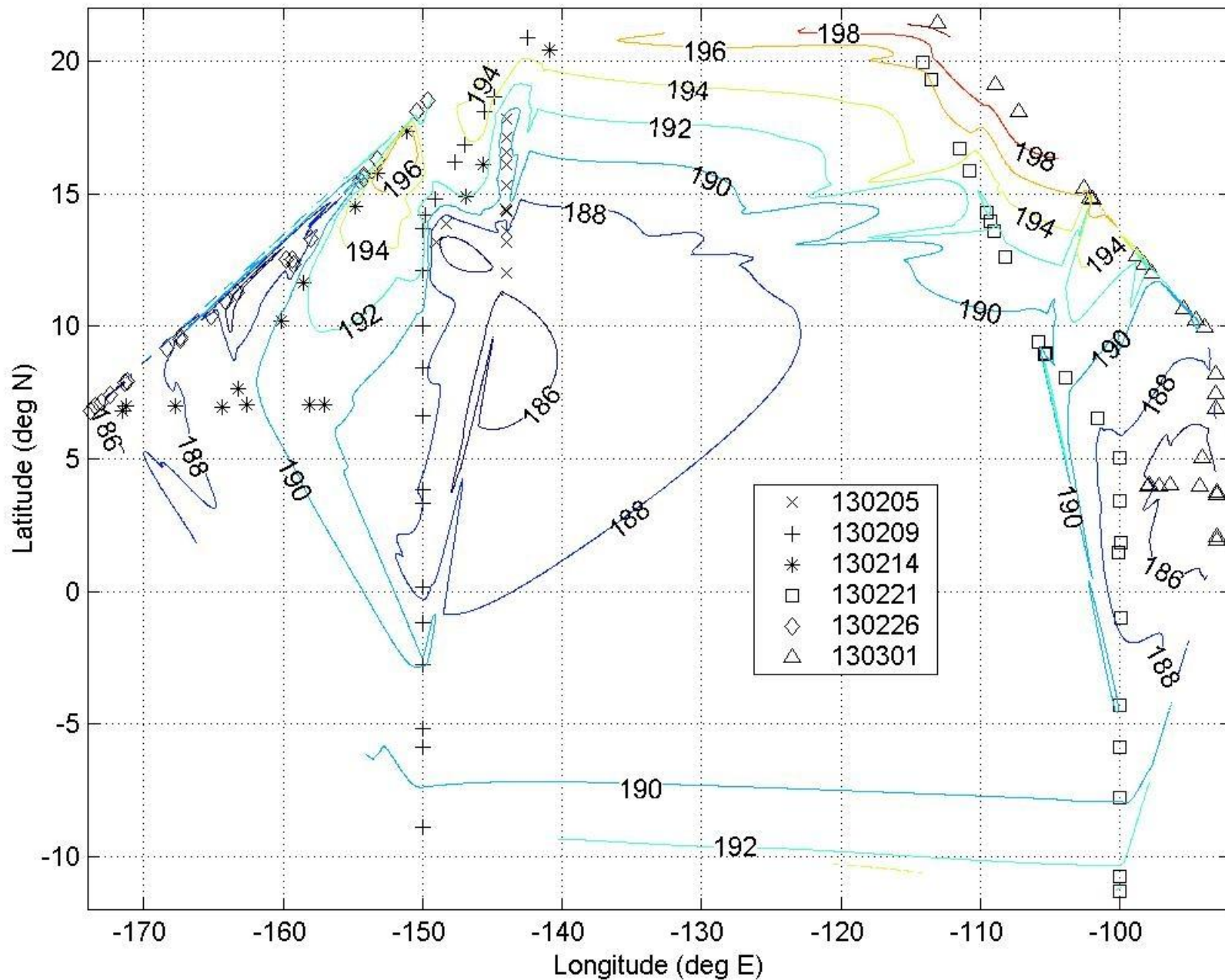
130206 1430Z MMS - EDW V wind



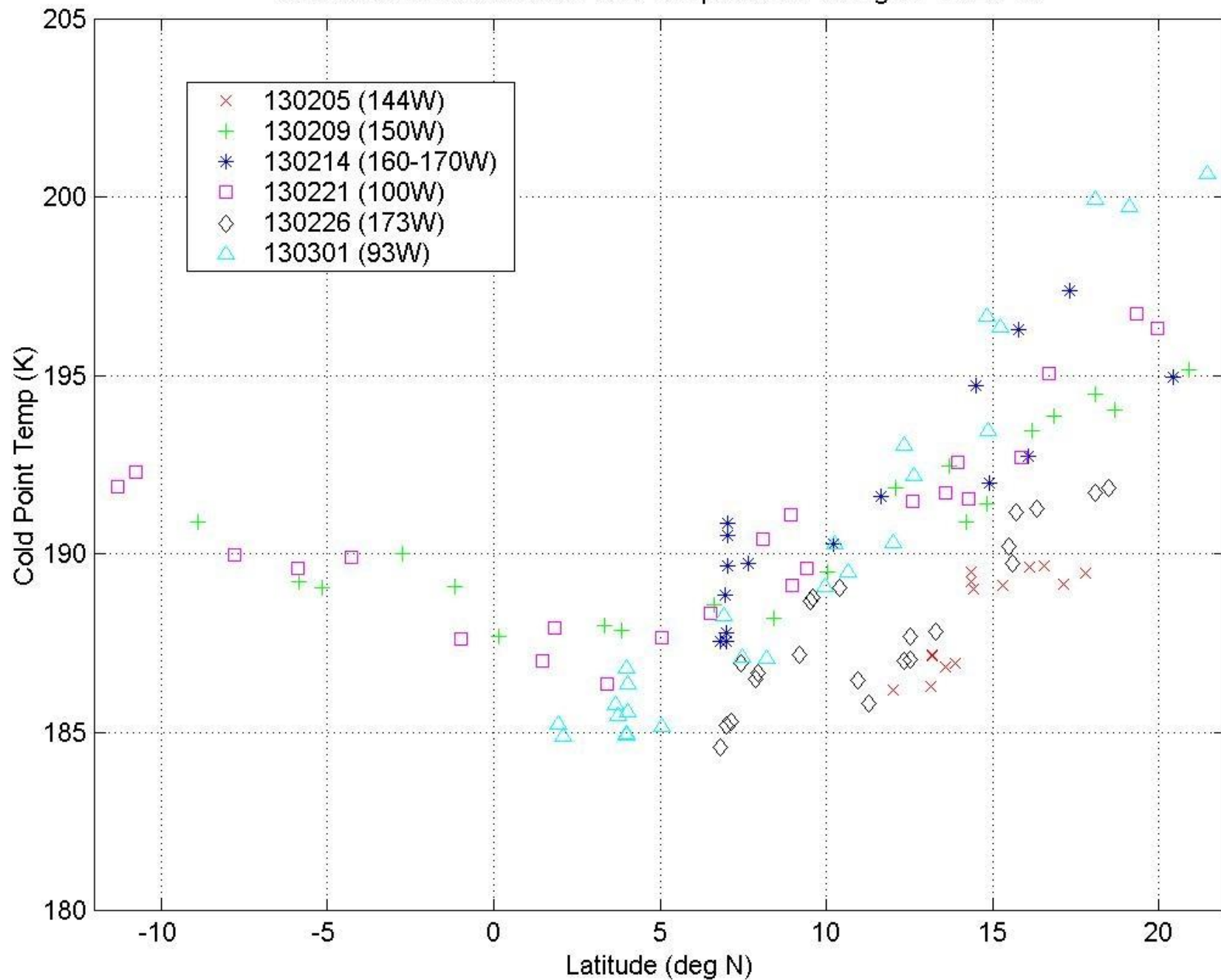
ATTREX RF02 (Feb 9-10) MMS preliminary data



Distribution of MMS Cold Point Temperatures during ATTREX-13



Distribution of MMS Cold Point Temperatures during ATTREX-13



Preps for ATTREX2014

- Resist the temptation to modify, to “improve”!
- Repair static pressure shielding problem
- Minor issues discovered during SEAC4RS ER-2
- Rain & High Humidity concerns for Guam
 - How wet inside unpressurized, unheated zone 7 on descent ?
- Assuming MMS to remain ON during profiling