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:

  P_{static} (MMS- Sonde): 0.05 +/- 0.12 mb
  T_{static} (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?
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