Breakout Session Tasks

CrIS Trace Gas Data Users Workshop
18-19 September 2014
College Park, Maryland
Summary

• AQ Session: Dylan Millet
• GHG Session: Shawn Xiong
• (a) ID users and applications
• (b) Describe status of current CrIS products
• (c) ID validation needs
• (d) ID needed product changes/refinements
• (e) Discuss potential new products
(a) ID users and applications

• Not just *current* users of CrIS data, but also *potential* users
  – E.g., Current users of TES, MOPITT, AIRS, and IASI who will need the data to continue
  – List specific users to extent possible

• ID both *research* and *operational* users
  – “Operational” may include NOAA centers (GFDL, etc.), air quality managers/forecasters and other NRT modeling groups

• Note different needs of different user groups
  – NRT operational use
  – Long-term trend analysis
  – Field campaign support
(b) Describe status of current CrIS products

• What products exist?
• Are they available in NRT?
  – If not in NRT, can NRT be done for specific periods in support of field campaigns?
• What validation has already been performed?
• What are the known biases/issues?
(c) ID validation needs

• What past or already planned field campaigns can be used to perform the validation?
  – Also long-term data sets e.g. surface data?
  – Add to VALAR?

• What other field efforts would be needed to validate the products?
  – Keep in mind what airborne and surface instruments would actually be available.
  – Dream big – if you really need another 5 HIPPO flights, say so!

• What comparisons with past sounders are needed to make consistent data records?
(d) ID needed product changes/ refinements

• Focus on what the user needs, not retrieval algorithm changes
• What data be delivered to the user and how?
  – File compression options for AKs
  – Apply known bias corrections, etc?
  – TES “Lite” files
• What instructions need to be passed to the user?
• Are changes in the processing schedule needed for NRT processing or long-term trend analysis?
• Product testbed for trace gases?
• What about visualization?
  – Common/Community package of plotting scripts?
  – Online maps to explore the data?
(e) Discuss potential new products

- What additional products are needed to allow CrIS to continue the records of other TIR sounders?
- What new, unique products could be possible with CrIS?
- What additional products would you get if NOAA “closed the gaps” for JPSS-2?
- How could validation of these new products be performed?
- Is infrastructure sufficient to distribute the new products?