Plans for the 3rd International A-Train Symposium 2017

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Objectives of the Symposium

- The A-Train satellites -- Aqua (2002), Aura (2004), PARASOL (2004), CALIPSO (2006), CloudSat (2006), GCOM-W1 (2012) and OCO-2 (2014) -- bring together a rich array of instruments and observing strategies to better understand Earth's changing environment and climate.

- Combined measurements from the A-Train have enabled interdisciplinary studies that significantly advance our understanding of many complex and connected processes in the atmosphere, ocean, and land.

- The Symposium will emphasize science capabilities and advancements realized through the A-Train multi-sensor system, and provide insight into the possible role of future constellations.

Symposium Logistics

- Symposium Dates: 11-14 April 2017
- Venue: Pasadena Convention Center, Pasadena, CA
- Expected participation: 500 – 1000 Scientists
- Website under development
- First announcement distributed “Soon”
- Abstract acceptance dates: September 30 – November 30, 2016
- Organizing Committee: Elizabeth Juvera, Hal Maring, Charles Trepte, Steven Platnick, Deborah Vane, Matthew Lebsock, Graeme Stephens, Didier Tanre, Pierre, Tabary, Jerome Riedi, Jacques Pelon, Lazaros Oreopoulos, Bryan Duncan, Howard Barker, Tobias Wehr, David Crisp

Engaging the A-Train Science Community

- Lead Scientists in the A-Train community are being engaged to:
  - Act as emissaries to their teams to solicit support and interest
  - Identify session topics for the symposium
    - Key science return from constellations
    - Lessons learned for future Earth science missions
  - Symposium organization
    - Special sessions
    - Breakout meetings (?)
    - Invited speakers
  - Provide science input for abstract acceptance and classification (oral/poster)

Examples of Topics

- What types of science are enabled measurements by instruments on the A-Train or future constellation?
  - Temporally coincident, or nearly temporally coincident data
  - New types of “Earth System” measurements not imagined/impractical at time of spacecraft formulation
  - Replacements/Upgrades for instruments that failed
- What kinds of tools are needed to exploit multi-satellite data?
  - Assimilation and mass balance models for transport of reactive gases and greenhouse gases
  - Land surface models that can exploit soil moisture, SIF, and other parameters
- What role will constellations play in the next decade?

Approach

- Initiated interactions with a small subset of the A-Train science community, focusing on science team leaders
  - This is a very busy group, but some feedback was provided immediately
  - I anticipate that “deputies” will be identified from each team

- Next steps:
  - Identify “Science Themes” supported by existing and future constellations
  - Identify leads for each theme
  - Set up a regular series of telecons to solicit additional input
  - Report progress in regular Organizing Committee telecons