

The A-Train: A unique view of the Earth System The A-Train: A unique view of the Earth System

L Stephens Graeme^{1*}

Graeme L Stephens^{1*}

¹JPL

¹JPL

The A-Train provides a unique view of the Earth system through the eyes of different sensors each viewing different aspects of the evolving system. When combined, these observations have provided a number of unexpected new capabilities that are now revealing new insights on the composition of the atmosphere, the movement of water through the planets water cycle with links to the climate system through the influence of water on the Earth's energy balance. This talk will highlight a number of new emerging findings that are a direct consequence both of the diversity of data types and the combination of sensor data. Emphasis on how these collated observations are advancing our understanding of key processes of the Earth system, how this understanding is influencing the development of weather and Earth system models, and the promise of an even more expanded view of Earth with the expected new additions to the A-Train.