



Committee on Earth Observation Satellites

TanSat

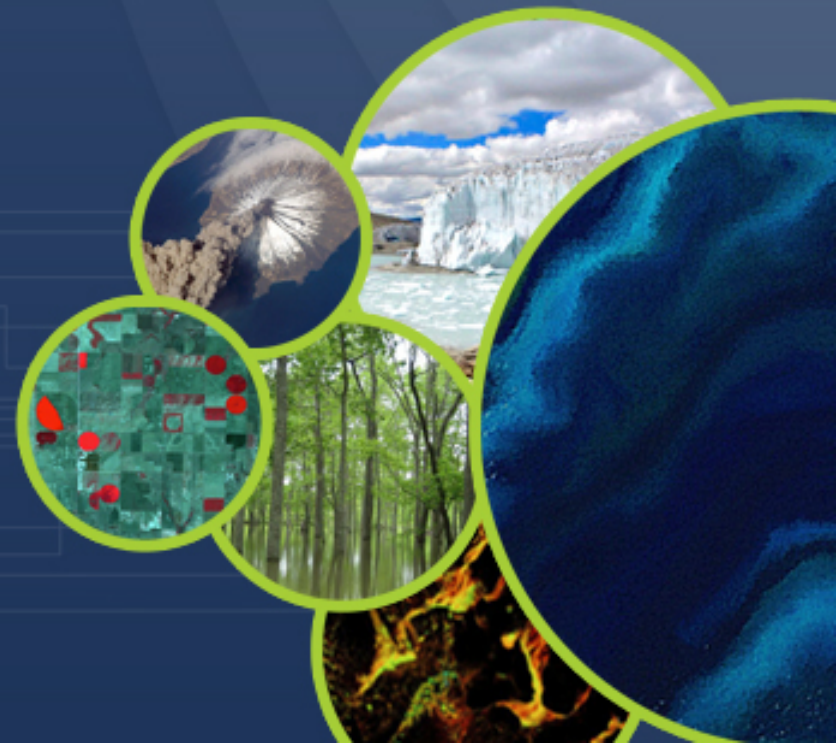
David Crisp, NASA/JPL, CEOS AC-VC

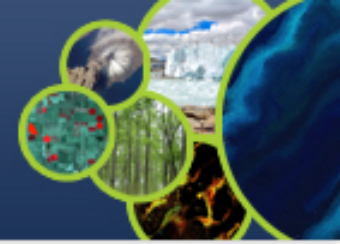
for Yi Liu (CAS)

CEOS AC-VC

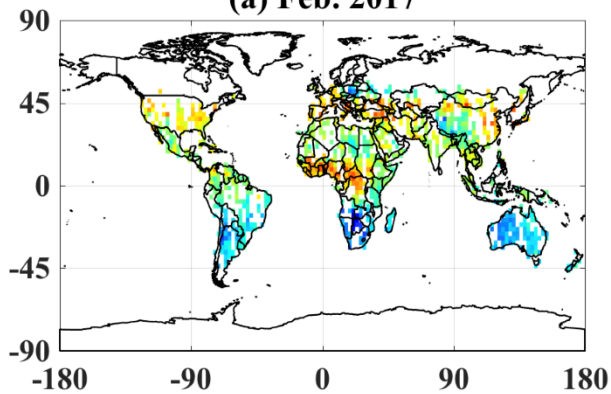
College Park, MD, USA

2-4 May 2018

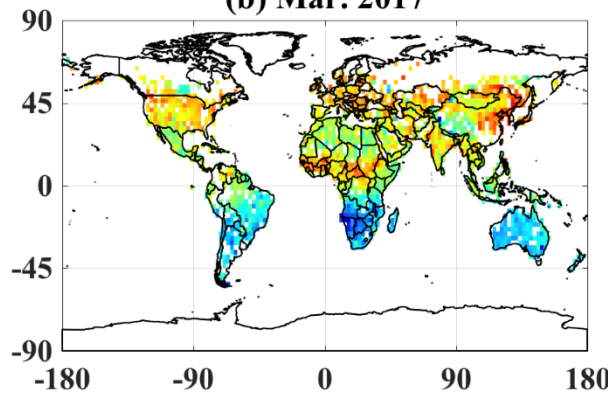




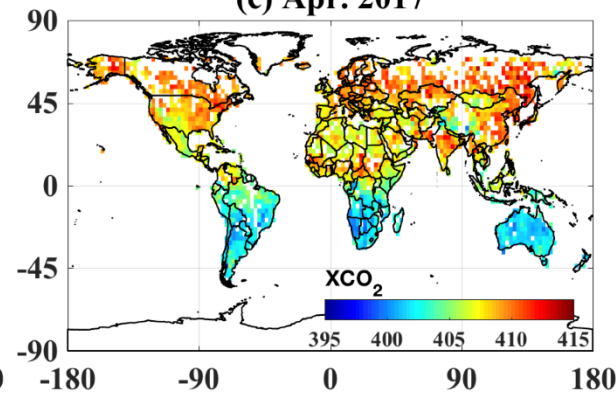
(a) Feb. 2017



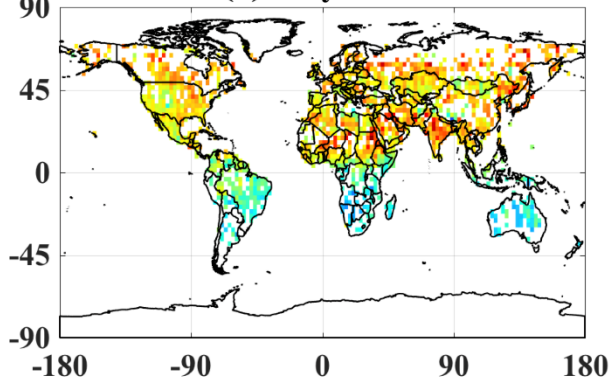
(b) Mar. 2017



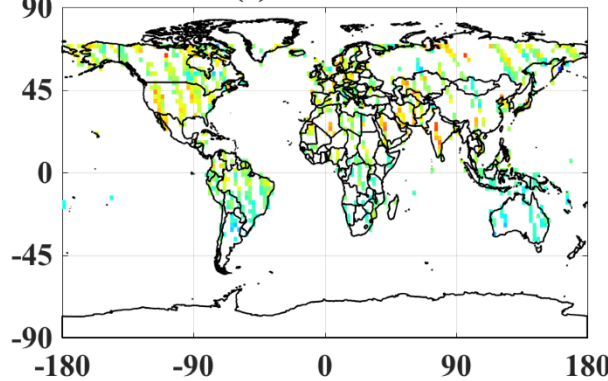
(c) Apr. 2017



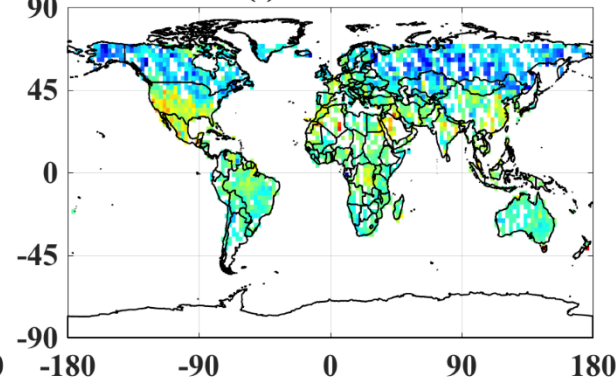
(d) May. 2017



(e) Jun. 2017

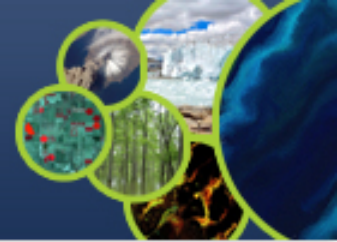


(f) Jul. 2017

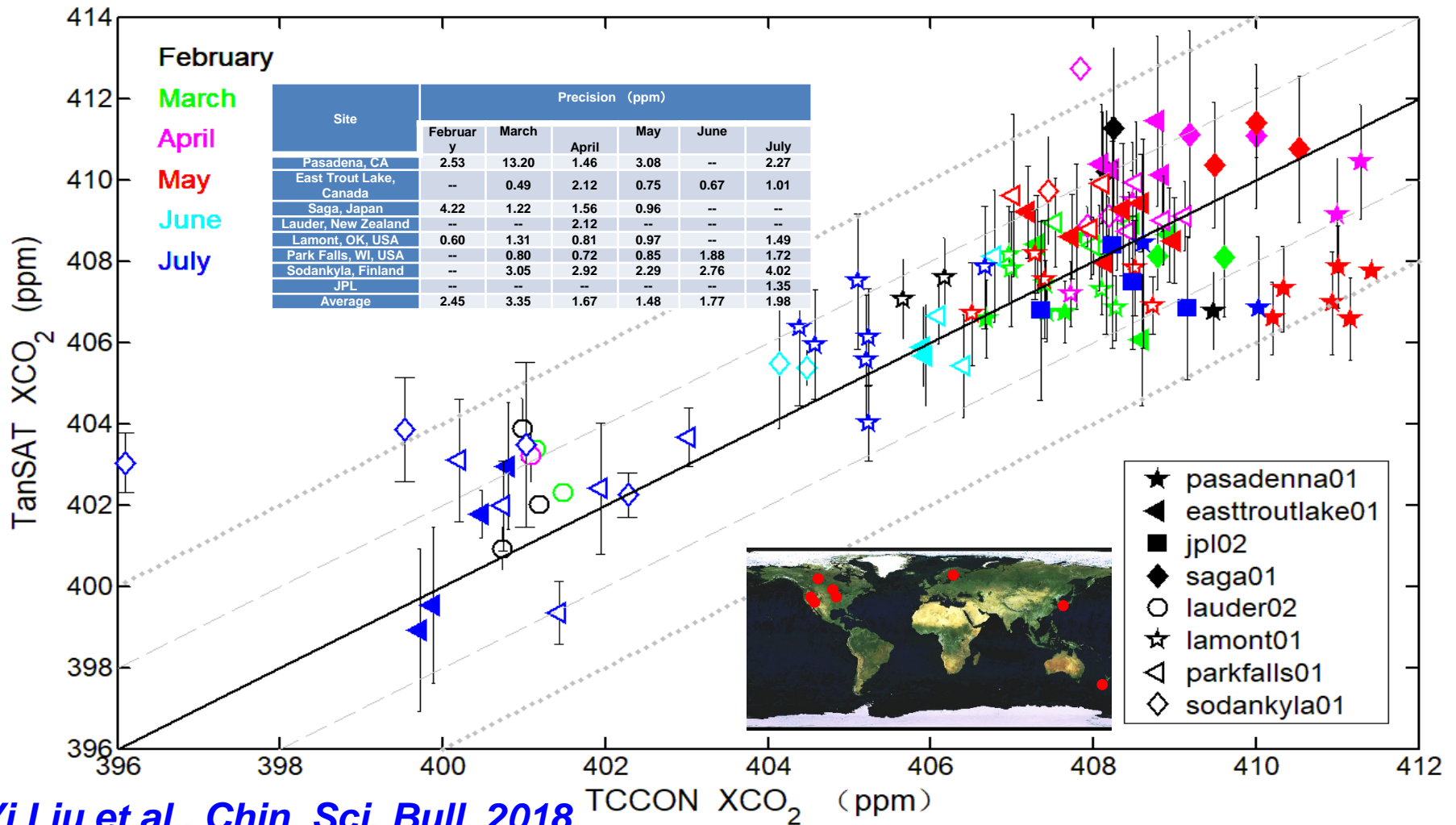


Longitude (°)

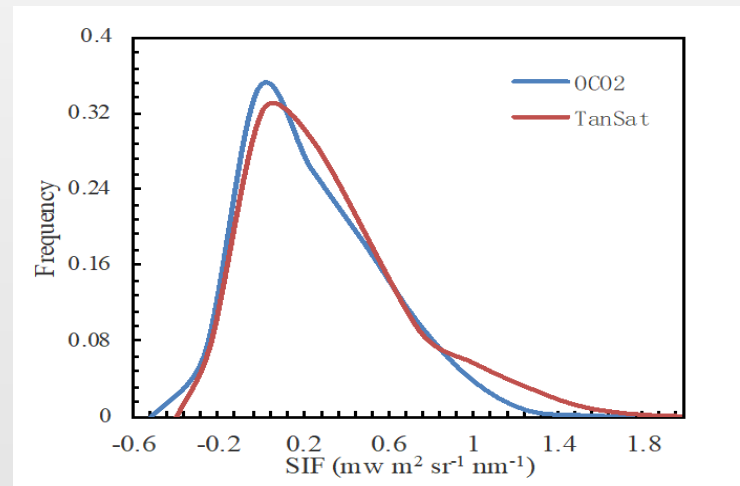
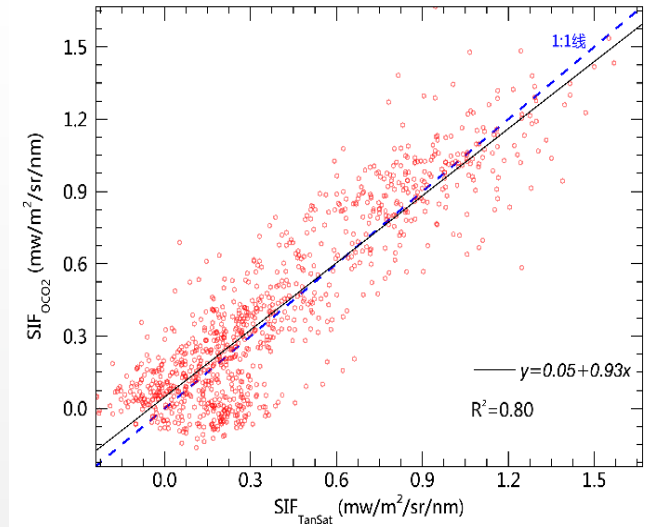
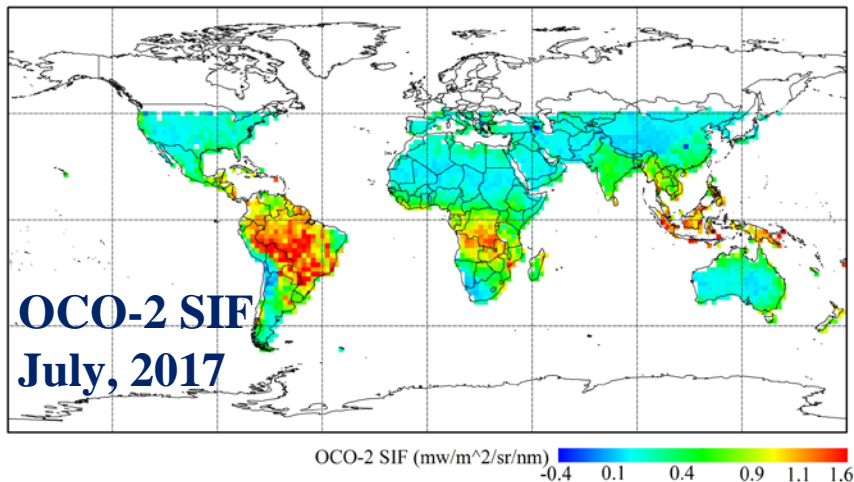
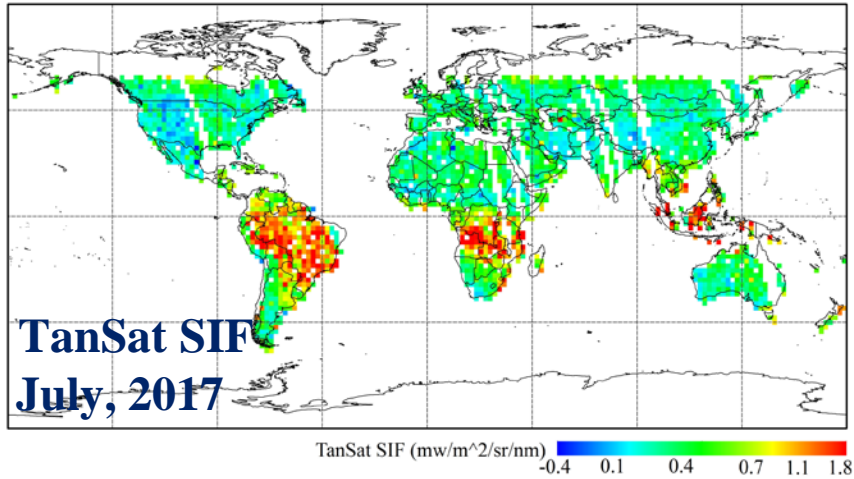
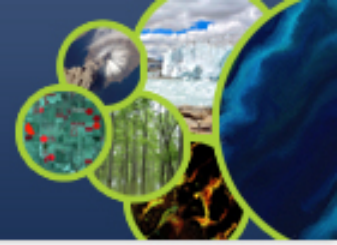
TanSat XCO₂ validation against TCCON

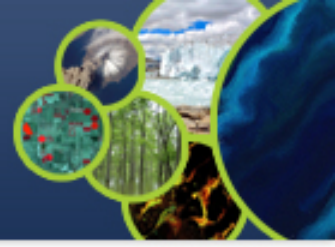


TanSat .VS. TCCON



Global terrestrial SIF map from TanSat observations

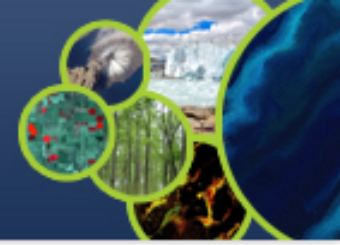




- The TanSat Team published the first global maps of XCO₂ over land as a 3-page News and Views article in Advances in Atmospheric Sciences

<https://link.springer.com/article/10.1007/s00376-018-7312-6>

- Two dot-plot maps were shown:
 - Nadir mode observations for April 2017
 - Nadir mode observations for July 2017
- Here, I've compared those results to the OCO-2 v8 dot plot maps for the same months
 - Global
 - North America zoom
 - Eurasia/Africa zoom



TanSat Data Service Home TanSat Data Images Documents 中文

TanSat
In order to study the global distribution of CO₂, global CO₂ detection satellite (satellite data) project program was established by the address "981" plan.

Main observation mode Side-scan observation mode Target observation mode

Data Search

L1 Data	L2&L3 Product	Image
<ul style="list-style-type: none"> H500013A Sample Data H500013B Calibration Data CAR11A Pixel Data H500013B Science Data 	<ul style="list-style-type: none"> CAR112 Aerosol Parameter CAR112 Cloud Mask H500013 Standard CO₂ H500013 Monthly Product 	<ul style="list-style-type: none"> CAR112 Aerosol Image CAR112 Cloud Mask H500013 Standard CO₂ H500013 Monthly Image

National Satellite Meteorological Center
China Meteorological Administration
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First Global Carbon Dioxide Maps Produced from TanSat Measurements

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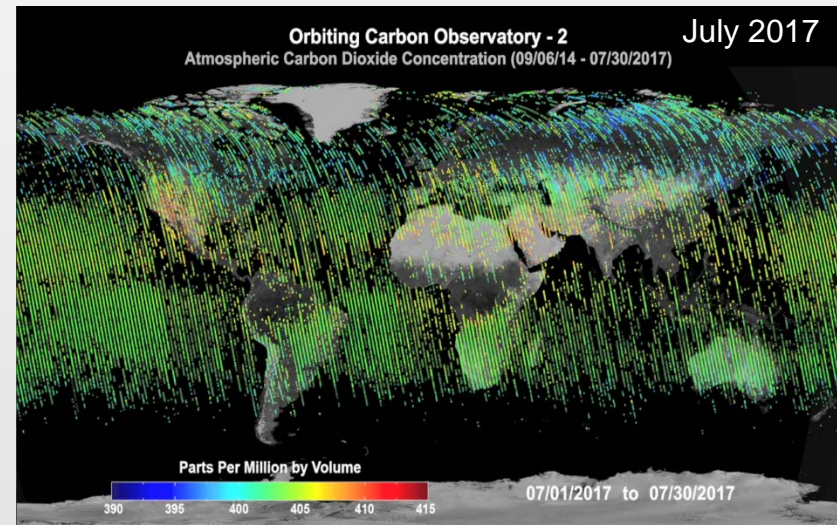
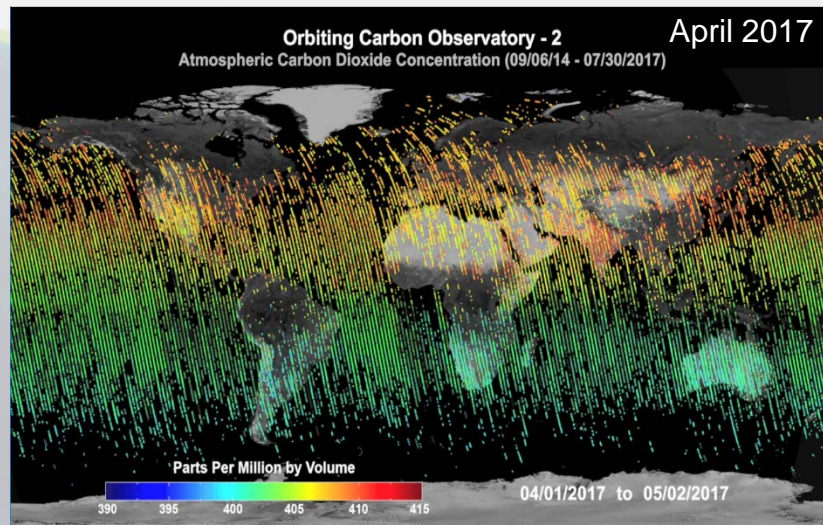
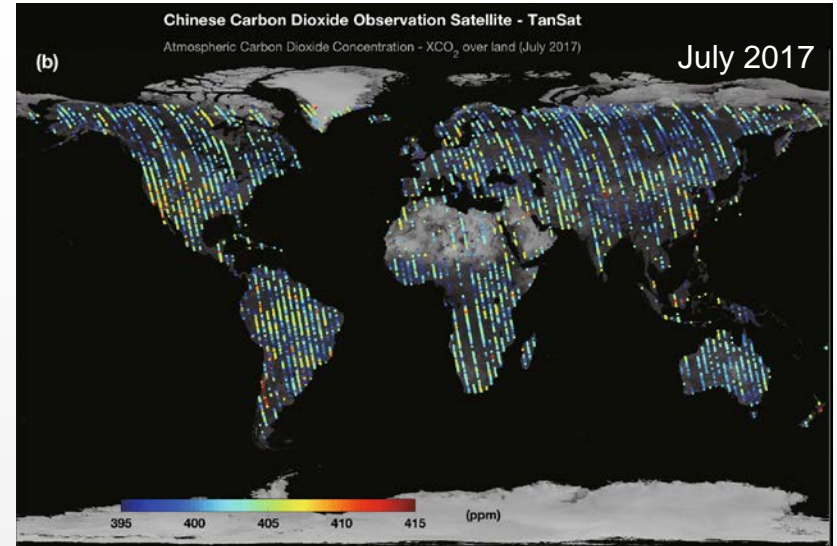
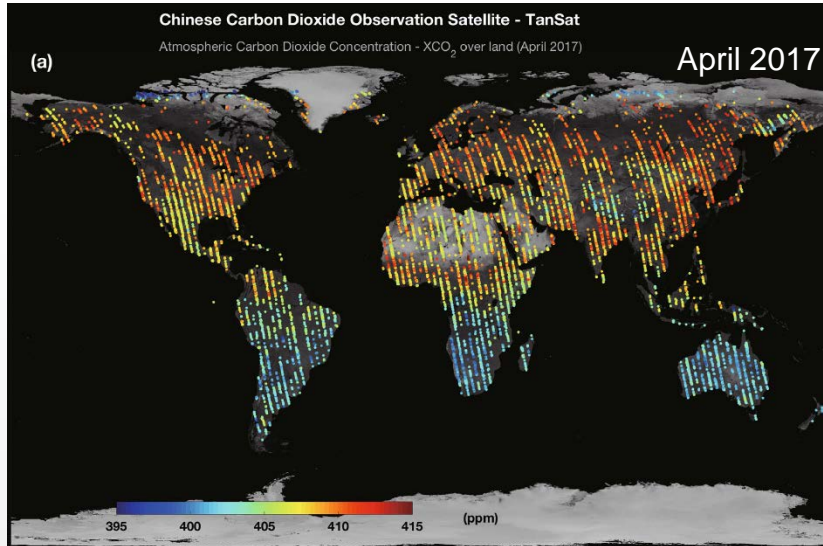
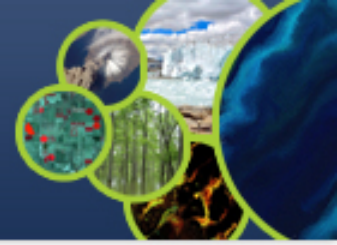
(Received 28 December 2017; revised 1 February 2018; accepted 13 February 2018)

Citation: Yang, D. X., Y. Liu, Z. N. Cai, X. Chen, L. Yao, and D. R. Lu, 2018: First global carbon dioxide maps produced from TanSat measurements. *Adv. Atmos. Sci.*, 35(6), 621–623, <https://doi.org/10.1007/s00376-018-7312-6>.

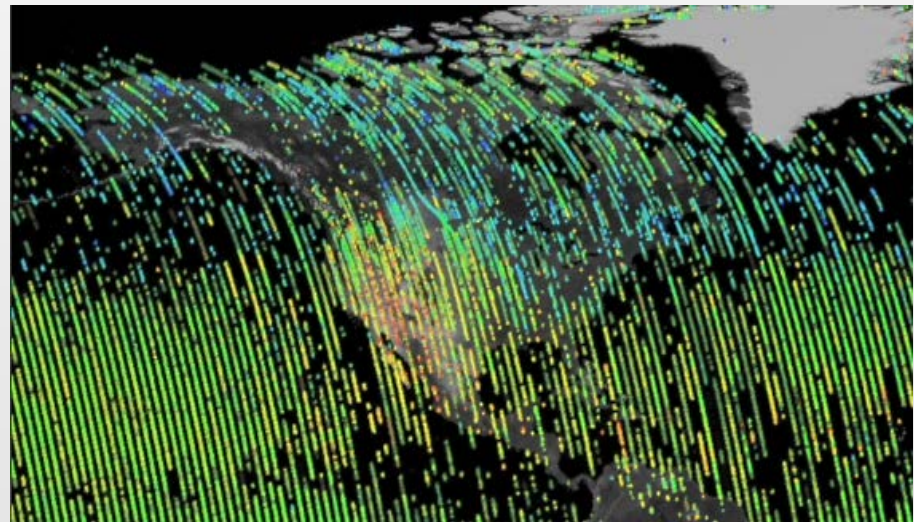
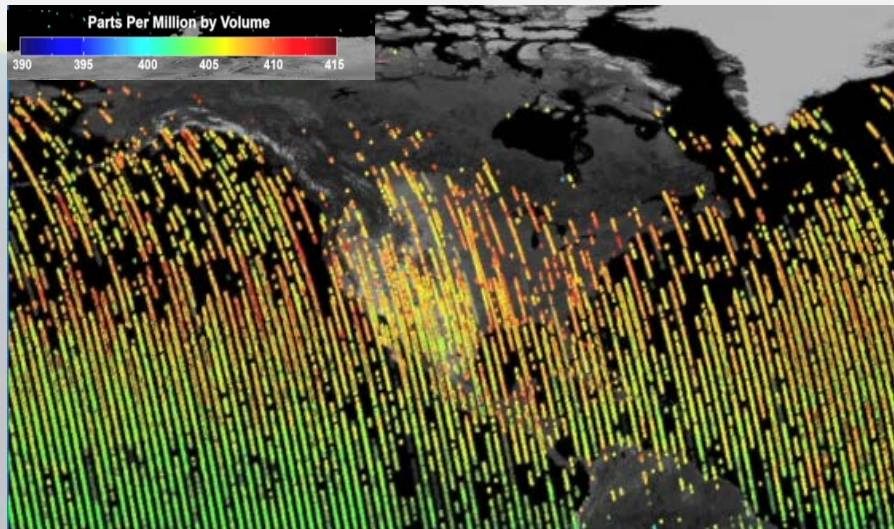
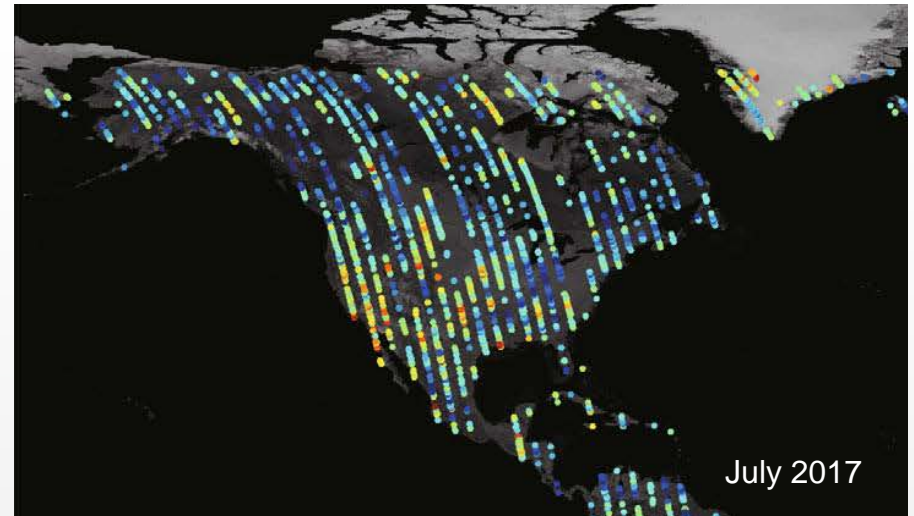
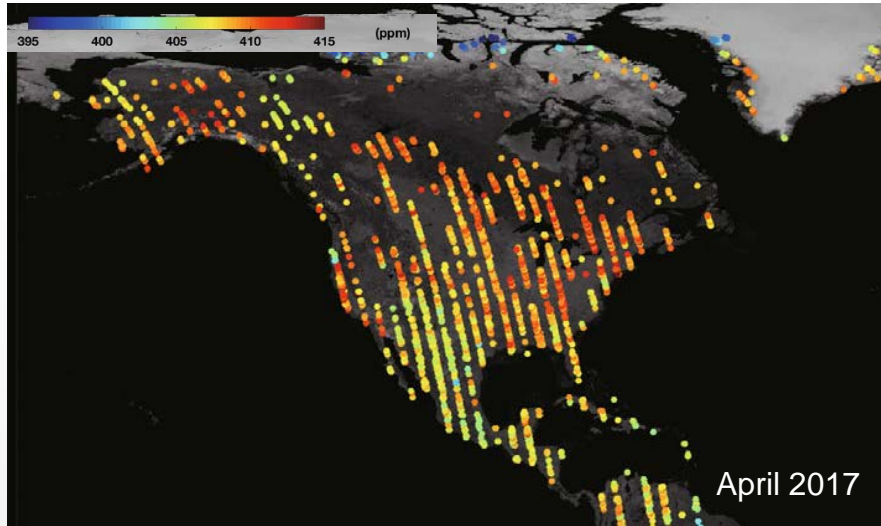
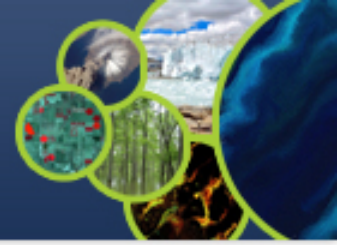
or see:

<https://link.springer.com/article/10.1007/s00376-018-7312-6>

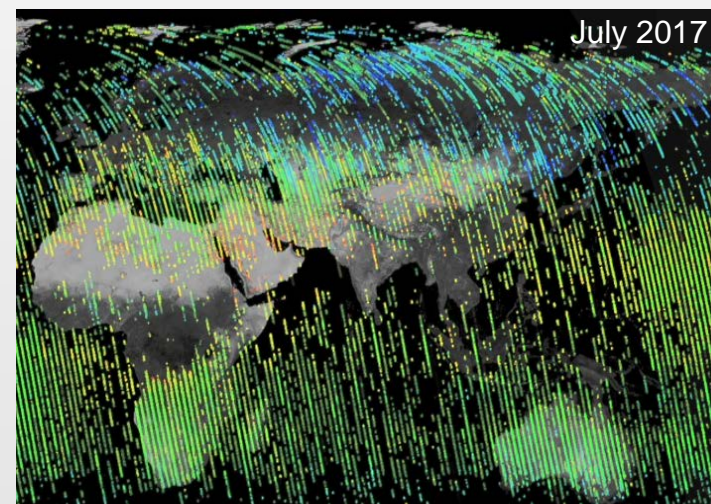
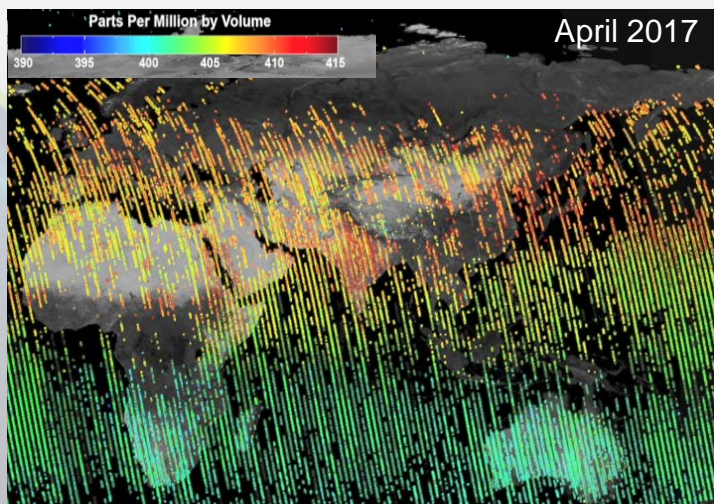
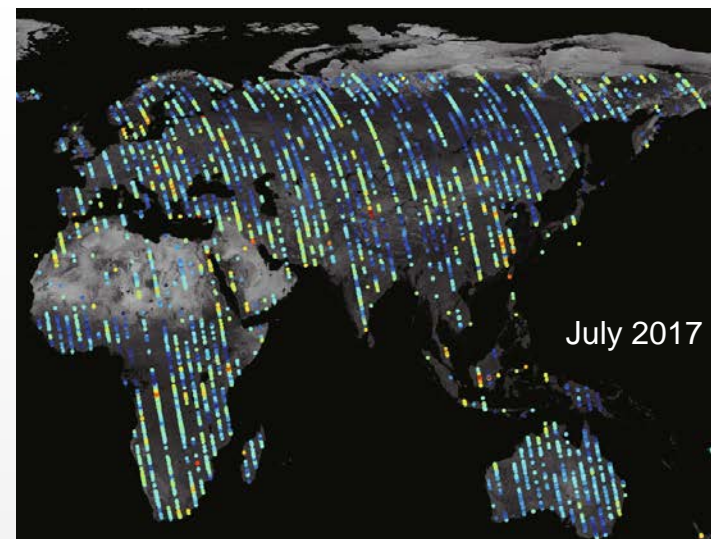
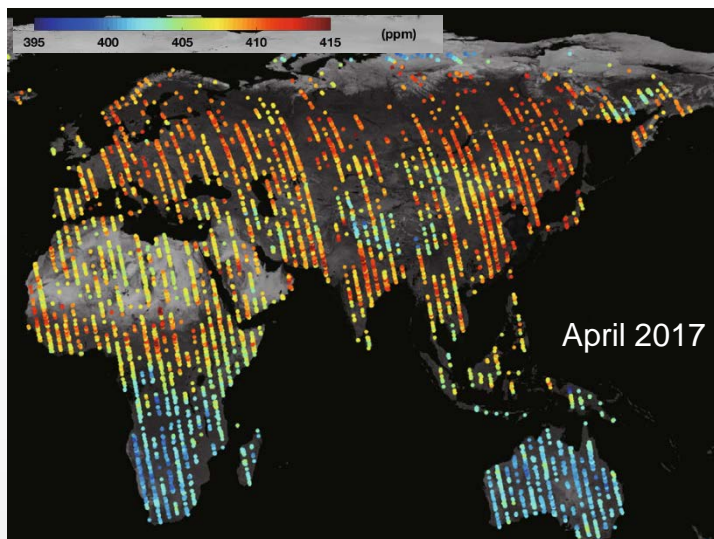
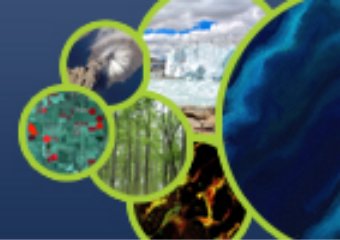
TanSat (top) vs OCO-2 (bottom)

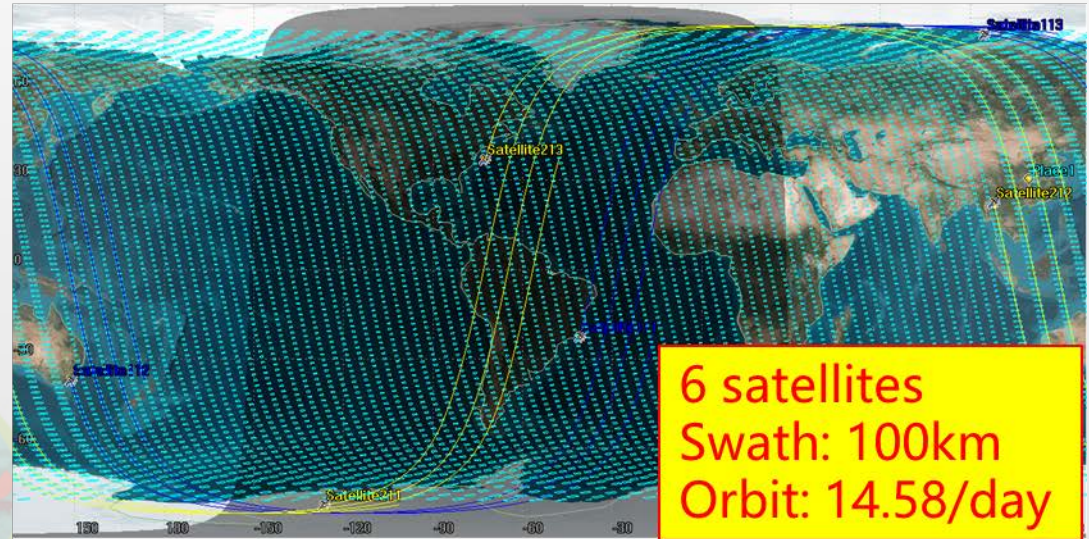
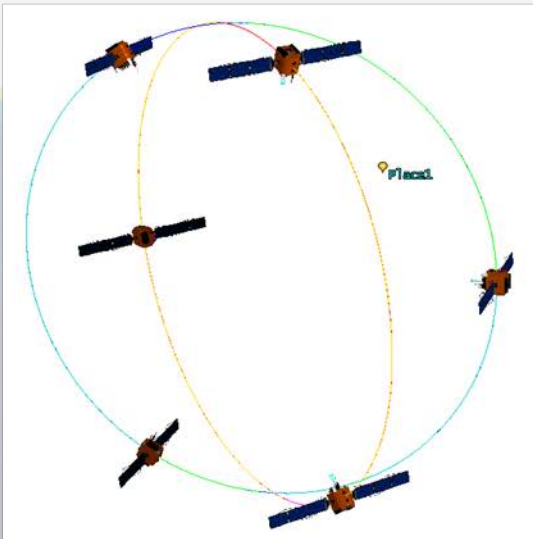
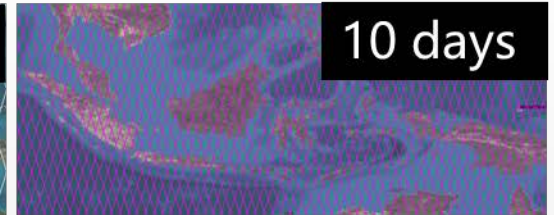
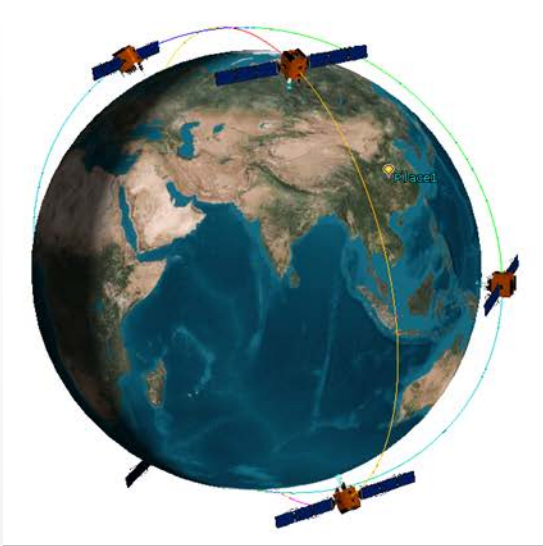


TanSat (top) vs OCO-2 (bottom)



TanSat (top) vs OCO-2 (bottom)







- **TanSat L1b Data is available from October 23, 2017**

➤ **GEO China site:**

FTP Access Service:ftp://58.215.62.138

➤ **CMA FY data site:**

<http://satellite.nsmc.org.cn>

- **TanSat L2 Data will be released soon**
- **on the same website**