



# Agenda and Meeting Objectives

## Minutes of the TIM

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**Jet Propulsion Laboratory, California Institute of Technology**

**for the OCO-2 Science Team**

**December 11, 2018**



# Agenda

Time	Topic	Discussion Lead	Duration
2:00	Welcome and Meeting Objectives	Crisp	15
2:15	Breaking Through the 1 ppm Accuracy Barrier	Worden	15
2:30	On-orbit Calibration and Cross Calibration of GOSAT, OCO-2, S5p, GOSAT-2, OCO-3, and GeoCarb	Kuze, Landgraf, Crisp	15
2:45	Solar Flux and ABSCO updates	Crisp, Payne	15
3:00	Level 2 Algorithm Updates	Fisher, Crisp	15
3:15	Cross Validation of GOSAT, OCO-2, S5p, GOSAT-2, OCO-3, and GeoCarb Data Products	Osterman, Wennberg, Keil	15
3:30	Lessons Learned from the OCO-2 Flux MIP	Crowell, Basu, Schuh	15
3:45	Coordination efforts (Cal/L2/Val/Flux) needed to support future XCO2 and CH4 constellations	Crisp, Kuze, Crowell, All	15
4:00	Operating Missions Status and Plans (GOSAT, OCO-2, S5p, GOSAT-2)		15
4:15	OCO-3 Launch and Early Operations Plans	Crisp	15
4:30	GeoCarb Status	Crowell	15
4:45	Joint Publication Discussion and Plans		15
5:00	Adjourn		



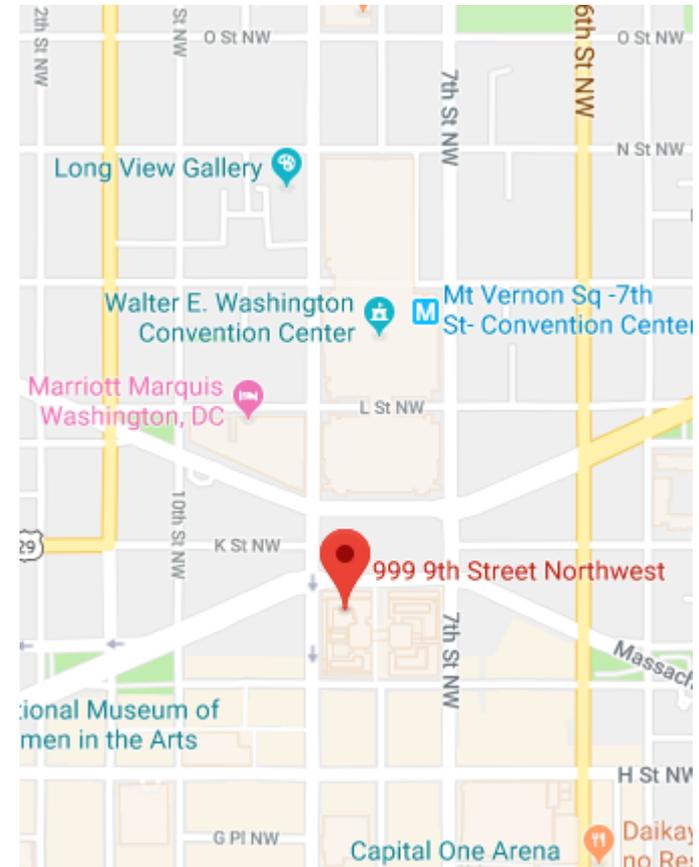


# Logistics

The Annual OCO-GOSAT Technical Interchange Meeting (TIM) at AGU has been scheduled for 2-5 PM on Tuesday, December 11, 2018.

## Location

- Renaissance Washington DC Downtown Hotel
- 999 9th St NW, Washington, DC 20001
  - 2 blocks south of convention center
- Room: Grand South

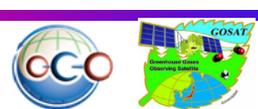




# Objectives of the TIM

Coordination of:

- 1) Efforts to cross calibrate measurements from these missions using on-orbit observations of the Sun, Moon, and surface vicarious calibration sites, such as Railroad Valley, Nevada;
- 2) Opportunities to compare and/or exchange information about updates in top-of-atmosphere solar fluxes, gas absorption coefficients, and other critical inputs to our retrieval algorithms;
- 3) Comparisons of radiative transfer forward models and retrieval algorithms;
- 4) Efforts to cross validate the data products from these missions against standards such as TCCON, AirCore, aircraft (ACT America, ATom, CONTRAIL, IAGOS) and in situ surface flask and tower networks;
- 5) Ongoing and planned efforts to derive CO<sub>2</sub> and CH<sub>4</sub> fluxes from space-based XCO<sub>2</sub> and XCH<sub>4</sub> estimates;
- 6) Coordination efforts needed to support future constellations of greenhouse gas satellites (all of the above plus multi-satellite OSSEs).



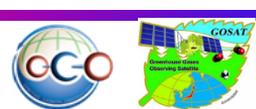


# Mission Status Reports

- 1) Status of GOSAT, OCO-2 and Sentinel 5p
- 2) Plans for reprocessing of the GOSAT and OCO-2 data, the release of S5p products, and efforts to compare these products;
- 3) Status and plans for the on-orbit checkout of GOSAT-2 and near-term needs/advantages for coordination with other missions;
- 4) Plans for the launch and deployment of OCO-3 on the International Space Station and multi-mission coordination needs/advantages;
- 5) Status and near-term plans of the MicroCarb and GeoCarb Missions and multi-mission coordination needs/advantages; and

We have requested that these reports focus on:

- Efforts that require data or close coordination between / among two or more of these missions; and
- Efforts that will allow us to reduce the regional scale bias below the current levels (0.6-1 ppm for XCO<sub>2</sub>, 6-15 ppb for XCH<sub>4</sub>)





# The Venue

The TIM was convened in a very large room with a U-shaped table that comfortably seated the ~50 participants



A WebEx link provided opportunities to call in





# Call for Contributions to a Special Issue on Remote Sensing of CO<sub>2</sub> and CH<sub>4</sub>



*remote sensing*

IMPACT  
FACTOR  
3.406

## *Special Issue*

### Remote Sensing of Carbon Dioxide and Methane in Earth's Atmosphere

#### *Special Issue Editor:*

**Dr. Prabir K. Patra**

Japan Agency for Marine-Earth Science and Technology

**Dr. David Crisp**

Jet Propulsion Laboratory, California Institute of Technology

**Dr. Thomas Lauvaux**

Pennsylvania State University

**Website:** [www.mdpi.com/si/18603](http://www.mdpi.com/si/18603)

**Submission Deadline:** 31 May 2019

Carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) are the two most important greenhouse gases that have led to a significant fraction of the increase in earth's surface temperature in the past 100 years. This Special is dedicated to the past progress and new developments in satellite remote sensing of long-lived greenhouse gases, with a focus on CO and CH<sub>4</sub>.



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