

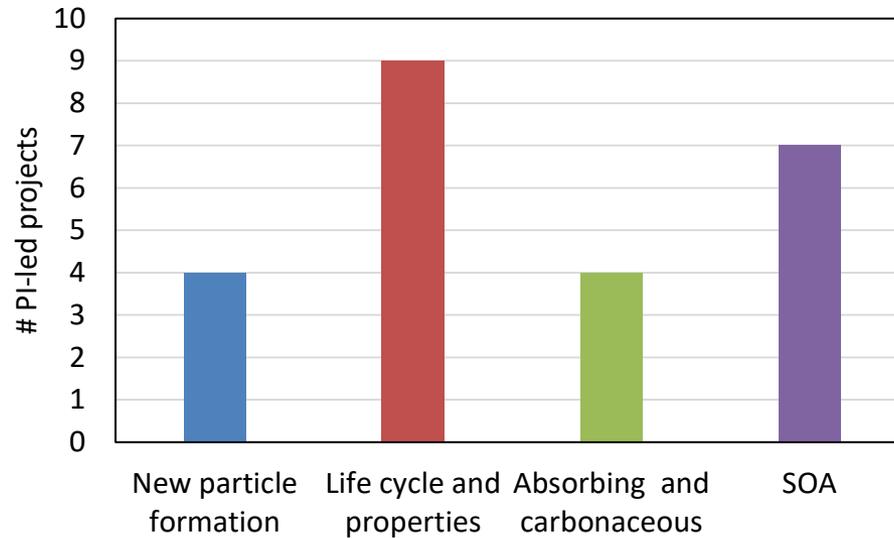
Aerosol Processes Working Group (aka APWG)



June 26, 2020; DOE ASR/ARM PI Meeting

Who are we?

Current research areas for APWG PIs



Aerosol Life Cycle Working Group research areas include:

1) new particle formation

2) effects of aerosol composition, mixing state, and physical properties on growth, aging, and removal processes

3) direct and indirect radiative effects of optically absorbing aerosols; and

4) understanding and predicting secondary organic aerosol concentrations and properties.

Recent and planned ARM field deployments with an “aerosol processes” component



1. Southeast US Deployment of the AMF3 (**SEUS**)
2022 – 2027, Southeastern US
2. Surface Atmosphere Integrated field Laboratory (**SAIL**)
Sep 2021 – Jun 2023, Crested Butte, CO
3. Tracking Aerosol Convection Interactions Experiment (**TRACER**)
Apr 2021 – Apr 2022, Houston, TX
4. Multidisciplinary Drifting Observatory for the Study of Arctic Climate (**MOSAIC**)
Sept 2019 - Oct 2020, Arctic Sea (research ship)
5. Measurements of Aerosols, Radiation, and Clouds Over the Southern Ocean (**MARCUS**)
Oct 2017 – April 2018, Southern Ocean (research ship).
6. Aerosol and Cloud Experiments in the Eastern North Atlantic (**ACE-ENA**)
June – Feb 2018, Azores.
7. Layered Atlantic Smoke Interactions with Clouds (**LASIC**)
June 2016 – Oct 2017, Ascension Island.
8. Holistic Interactions of Shallow Clouds, Aerosols, & Land-Ecosystems (**HI-SCALE**)
April – Sept 2016, ARM SGP site.

Today's agenda



11:00-11:10 Introduction (Jim Smith & Nicole Riemer)

11:10-11:45 1-minute madness poster talks by session participants

11:45-11:55 Presentation by aerosol translator John Shilling

11:55- 12:35 Breakout session summaries

- ARM Aerial Instrumentation Update and Discussion (Fan Mei)
- Shortwave-absorbing aerosols and their interactions with the large-scale environment (Paquita Zuidema)
- Surface Atmosphere Integrated field Laboratory (SAIL) Campaign (Daniel Feldman)
- Aerosol and Cloud Experiments in the Eastern North Atlantic (Jian Wang)
- AMF3 Southeast United States Deployment (Chongai Kuang)
- TRACER update (Chongai Kuang)

12:35-13:00 Closing discussion

Topics for discussion



- Aerosol Measurement Science Group Community Input
 - Follow up on Allison McComiskey's presentation on Monday:
 - Discussion on "IOP sampling mode"
- Aerosol Processes WG-relevant topical virtual sessions in the fall
 - Who is planning to organize one?
 - Lessons learned from virtual meetings so far (this one or others) to make these a success?