Atmospheric System Research Program Update

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2017 ARM User's and ASR PI Joint Meeting
Tysons Corner, VA

Outline

- New working groups
- Other program new
- Reporting requirement updates
- Funding news
  - DOE FOA 0001430 and 0001431 selections
  - DOE FOA 0001638 updates
  - Prospective FOAs in 2017 (for FY2018 funding)
- Meeting details

Atmospheric System Research (ASR) program

The ASR program utilizes the long-term cloud, aerosol, precipitation, and meteorological datasets from the Atmospheric Radiation Measurement (ARM) Climate Research Facility, targeted field campaigns, laboratory studies, and process models to address key uncertainties in processes associated with clouds and aerosols that affect the Earth's radiative balance and hydrological cycle and limit the predictive ability of regional and global models.

Priority research areas are aerosol processes, warm boundary-layer processes, convective processes, and high-latitude processes.

The ASR program supports research at the national labs as well as through grants to universities and other research institutions.

New ASR working groups and co-chairs

- Aerosol Processes Working Group
  - Nicole Riemer, University of Illinois
  - Jim Smith, University of California, Irvine
- Warm Boundary Layer Processes Working Group
  - Rob Wood, University of Washington
  - Yunyan Zhang, Lawrence Livermore National Laboratory
- Convective Processes Working Group
  - Anthony del Genio, NASA Goddard Institute for Space Studies
  - Adam Varble, University of Utah
- High Latitude Processes Working Group
  - Gijs de Boer, University of Colorado

Working group reorganization goals

- Focus on specific regimes with
  - Outstanding questions and large uncertainties in regional and global models
  - DOE-supported observations
- Recognize that cloud, aerosol, land, and precipitation processes as well as interactions between processes are important in each regime
- Recognize that some small-scale aerosol processes need to be considered independent of the high-latitude, warm boundary-layer, and convective processes regimes
- Improve connection between ASR priority research areas, working groups, and FOAs – also across CESD.
- Encourage PIs to develop new models for interaction and collaboration within working groups

Working groups should…

- Encourage **communication** and **collaboration** between research teams
- Provide **opportunities** for leveraging separate projects into broader results
- Provide **motivation**
- Be **flexible**
- Add **value** to PIs and the ASR program (and the program managers)

Working groups should not…

- Be burdensome

Working group meetings and other plans

- We are exploring ideas for new ways of having future topical working group meetings
- Some form of a proposal process through the working groups
- 1 or 2 working group meetings a year (i.e. not all working groups will get a meeting every year)
- A few options
  - Formal workshop hosted by DOE in the DC area with program manager attendance
  - Small topical meeting organized by a small team of PIs (likely without program manager attendance)
  - Small topical meeting appended to another meeting

Brainstorm and bring ideas to your working group chairs – preferably before Friday

ASR website and communication updates are planned

- Add new working groups to website
  - Working group pages with descriptions and contact information
  - Working group tags for highlights and publications
  - Potential updates: linking highlights and publications with project pages
- Update ASR program and info pages throughout the year
- Archive outdated pages
- Developing a plan for new email lists for ASR and WGs
- New format of ASR newsletter has been released
  - New format makes it easier for recipients to update mail preferences
  - More stories
  - Note that newsletter includes request for you to submit your noteworthy accomplishments

Update project pages with co-investigators

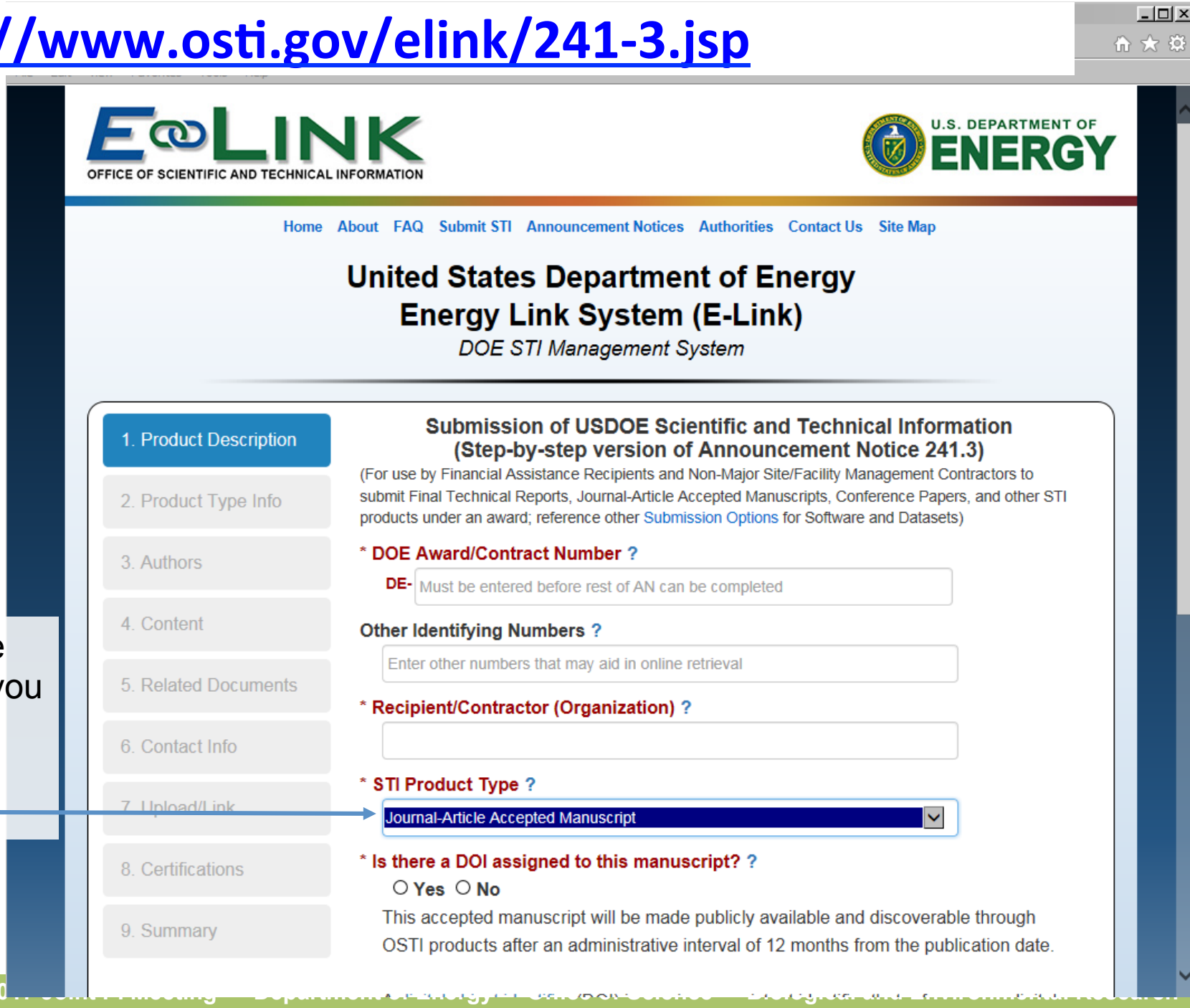
Send email to Shaima.Nasiri@science.doe.gov and Rolanda.Jundt@pnnl.gov

Program reporting updates

- Please submit research highlights once an article has been accepted for publication. (42 ASR highlights since May 2016)
- Submit grant progress reports through the PAMS website.
  - PIs must fill in the web form
  - You may upload supplementary information (e.g. figures) as a PDF. If entire report is uploaded as a PDF, we have been instructed to reject it and ask you to resubmit
- Submit publication information to OSTI* https://www.osti.gov/elink/241-3.jsp once an article is accepted.
- All DOE-funded articles will be fully accessible at https://www.osti.gov/pages 12 months after publication.
- Submit final reports to OSTI*. Final reports are public documents.

* Future plans are for this functionality to be integrated with PAMS

https://www.osti.gov/elink/241-3.jsp



Options are different if you select Final Technical Report

https://www.osti.gov/pages

ASR FY2016 research call FOA 0001430

- In 2015, ASR issued a targeted research call covering four topical areas:
  - **Boundary layer clouds or mixed-phase clouds**
  - **Ice cloud processes**
  - **Aerosol life cycle processes**
  - **Convective processes using results from ARM campaigns**
- 101 applications received by 1/20/2016 due date
- 5 review panels met in late March, 2016 (joint with 1431)
- ~$10M was available in FY16 funds for these proposals
- 19 Lead PIs:

  Ann Fridlind, Betsy Andrews, Catherine Naud, Courtney Schumacher, Daehyun Kim, Daniel Knopf, David Mechem, Delphine Farmer, Graham Feingold, Guang Zhang, Hugh Morrison, Jose Jimenez-Palacios, Kara Sulia, Marcus van Lier-Walqui, Richard Ferrare, Roger Marchand, Sasha Madronich, Timothy Garrett, Yolande Serra

ASR FY2016 data products call FOA 0001431

- ASR issued a call for innovative proof-of-concept data products using ARM data
  - 2 years of support
- 26 applications received by 1/13/2016 due date
- 5 review panels met in late March, 2016 (joint with 1430)
- ~$1.8M was available in FY16 funds for these proposals
- Lead PIs:

  Derek Posselt, Dmitri Moisseev & Ewan O'Connor, Jessica Kleiss & Evgueni Kassianov, Minghua Zhang, Norm Wood, Sonia Kreidenweis,

ASR FY2017 research call FOA 0001638

- ASR issued a targeted research call covering four topic areas:
  - **Convective cloud processes**
  - **Boundary-layer cloud processes**
  - **Secondary organic aerosol (SOA) processes**
  - **ASR-relevant processes using results from the AWARE, HI-SCALE, and/or LASIC ARM campaigns**
- 74 applications received by 11/22/2016 due date
- 3 review panels met in early February
- Available funding depends on FY2017 appropriations (between $4M and $10M)
- We will not be able to complete all funding recommendations until we have FY2017 budget numbers. Some decisions may not be made until May.

Prospective FOAs in 2017 (for FY2018 funding)

- For FY2018 we plan another ASR topical research call later in calendar 2017 (early fall).
  - We anticipate it will be targeted topically to complement research areas funded in FY 2017 and new working groups
- Other cross-discipline calls, e.g. in collaboration with the CESD modeling programs are under consideration

  The details – and possibilities – are subject to appropriated funds (as always)

A few meeting announcements and reminders

- This year there are no formal evening sessions.
  - Sign-up sheets for informal evening meeting rooms are at the registration table
- Upload session presentations after the meeting at https://asr.science.energy.gov/meetings/stm/2017/agenda
- Breakout session reports from session chairs are due by Monday, 17 April
  - concise narrative discussing key findings, decisions, issues, needs, and/or future plans and action items
  - Serve as a record/reminder for participants and program managers of the discussion that results from the presentations during the meeting
  - Reports will be uploaded by the session organizer at https://asr.science.energy.gov/meetings/stm/2017/agenda