## Air Quality Mini Project - AOD-PM Webinar Series

Disclaimer: All projects suggested or completed as part of this webinar series are <u>exclusively for the purpose of learning</u> and may not be used for publications, reports or any kind of official document, presentation, or paper. NASA ARSET is not responsible for providing any kind of formal review of the research conducted as part of this webinar project. Participants are encouraged to work on this project as a team of 2-10 people but it is not mandatory and you can work individually as well. NASA-ARSET program will not assist in forming and managing project teams.

All submitted projects will be evaluated, and only selected projects will be allowed present during a special two-hour long session on Friday, November 20<sup>th</sup>, 2015 at 11:00 AM (EST).

All projects must have a satellite component. Participants are highly encouraged to use data, tools, and methods covered during this webinar series. Previously done projects and research cannot be submitted.

## **Important Dates:**

- 1. October 15, 2015: Project Title, Team Members, and other Details are Due. Enter Your Project Information (Information can be entered before the deadline)
- 2. November 10, 2015: Project Presentation (not more than 5 slides) due. Send your presentation to Brock Blevins (<a href="mailto:blevins37@gmail.com">bblevins37@gmail.com</a>) with copying (<a href="mailto:pawan.gupta@nasa.gov">pawan.gupta@nasa.gov</a>).
- 3. November 20, 2015: Project Presentation more details will follow soon.

## **Suggested Topics**

<u>PM2.5 Estimation using Satellite Data:</u> Estimate PM2.5 over certain region or place using satellite, surface and model data sets. You can use any method (or methods) to make your estimations, and can use your own PM2.5 data or download some from SPARTAN/Airnow networks or other sources. Please see the suggested resources and tools section for further details.

**Long Term Trend Analysis:** Perform long-term air quality trend analysis over certain region or place using satellite observations, while supporting results with surface measurements. Regional trends can be performed using level 3 satellite data sets as long as errors and uncertainties involved are knows and discussed.

<u>Transport of smoke, dust, and/or volcanic emissions:</u> Perform a case study analysis of certain air quality event in the region of interest. Analyze the impact of smoke or dust transport on the local and regional air quality using multiple data sets, tools and models.

**Your own project:** This air quality project is not limited to topics suggested above. If you have other ideas, you are more than welcome to define your own project.