**ESIP Air Quality Cluster Hackathon**

**Wednesday, July 21 • 11:00am – 1:30pm EDT (Part I)**

**Wednesday, July 21 • 2:30pm – 5:00pm EDT (Part II)**

**More info on Schedule Session Page:** <https://sched.co/jMOB>

 *Building a community dedicated to making Earth Observations more impactful in people’s lives.*

**Hackathon Objective:** Using EO data and innovative techniques, we seek to make progress in developing Air Quality (AQ) applications that will aid both citizens and local governments in decision-making, related to Air Quality issues.

**Hackathon Activity Summary:** After a session to orient Hackathon participants, ESIP members will join in a team with a specific use case. Research and app development will continue until final presentations at the ESIP Air Quality Cluster meeting on the 26th of August. Kickoff session activities will include team-building, familiarization with the specific challenge, discussions of research ideas, and initial exploration of available data and technology. Agenda:

* 11am-1:30pm

Welcome and Introductions (30 mins)

Team Leader and Use Case Introduction (30 mins)

Participant Q&A and team self-selection (30 mins)

ArcGIS technology familiarization webinar (60 mins) ***12:30-1:30pm EDT
Note: This segment is open to all ESIP Meeting attendees including those who are not participating in the hackathon.***

* 2:30-5pm

ArcGIS Online account registration (30 mins)

Breakout sessions for initial planning (remainder)

**Hackathon Signup:** <https://docs.google.com/forms/d/1IvtTUwo1zOX3mMtnzJvnflnmnTgsGd-LVZz5ns2X3Bc/viewform?edit_requested=true>

**Hackathon Teaming Arrangements:** Three teams will align around each of three use cases:

* For the City of Los Angeles, CA – how a local government can better reach individuals with actionable information regarding the threat of adverse air quality.
* For the family with an asthmatic family member – how to understand the risk due to air quality while gathering useful information to decide family activity.
* For the town of Cheverly, MD – how to use citizen science to build a year-long air quality baseline of localized air quality.

**Resources for ideas and data:**

* NASA SEDAC datasets on Air Quality: <https://sedac.ciesin.columbia.edu/search/data?contains=air+quality>
* NASA ASDC products on Air Quality <https://earthdata.nasa.gov/search?q=air+quality>
* NASA GES-DISC datasets on Air Quality (TBD from GES-DISC)
* ArcGIS StoryMap on Global Air Quality<https://storymaps.arcgis.com/stories/a3d0b0835b9e45b69f55e5ce94d84ddf>
* Blogpost on Air Quality datasets in the ArcGIS Living Atlas of the World<https://www.esri.com/arcgis-blog/products/arcgis-living-atlas/analytics/explore-air-quality/>
* ArcGIS Living Atlas of the World Air Quality datasets <https://livingatlas.arcgis.com/en/browse/#d=2&q=air%20quality&rgnCode=US>
* Purple Air: Real-time Air Quality Monitoring <https://www2.purpleair.com/>