

Earth Science Information Partners



Partners

- **NASA**
- **NOAA**
- **EPA**
- USGS
- DOE
- NSF
- Industry
- Others??

Facilitator and advisor for the **Earth science information** community

Promote **efficient flow of Earth Science data** from collection to end-use

ESIP History

- 1998 - ESIP Formed by NASA in Response to a NRC Recommendation for “Community Involvement” in EOSDIS.
- 2003 - Evolved Plan to Become a Broad-Based Inter-Disciplinary Collaborative Forum (Cyberinfrastructure) for the Earth Science Information Community.
- 2004 - NOAA/NESDIS Becomes Second Strategic Partner.
- 2007 - EPA becomes Third Strategic Partner.
- 2003-2007 - Membership Grows from 24 to 103 Entities.

Collaboration & Interoperability

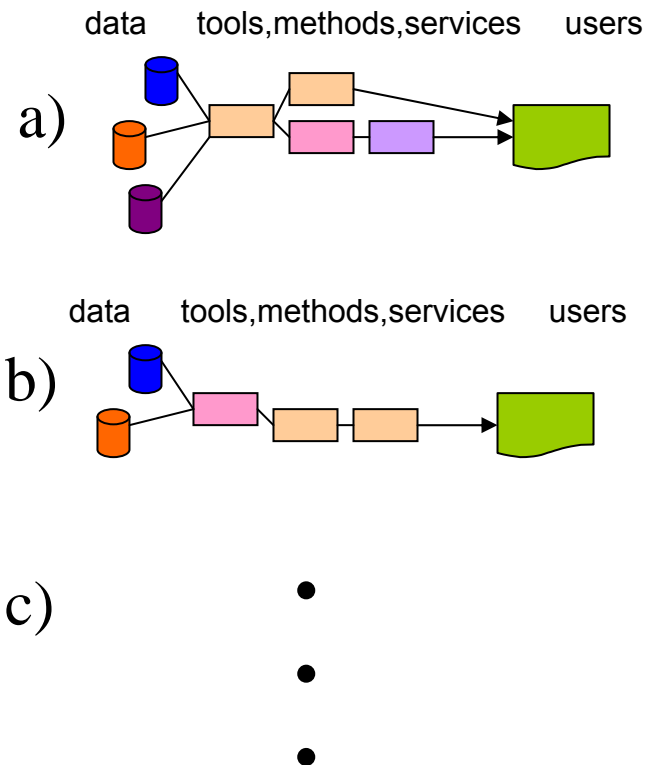
- Provide Neutral Turf where Major Earth Observing Agencies Can Work Together with Other Community Interests to Advance Key National Objectives
- Provide a Broad-Based Community-of-Practice where Strategic Partners can Seek Advice, Generate New Collaborations and Cultivate New End-Users.
- Provide a Forum in which Inter-Agency, Inter-Disciplinary, Interoperability Problems can be Addressed and Resolved.
- Provide an Earth Information Exchange where the Products and Services of all ESIP Members can be Easily Found and Acquired.

ESIP Air Quality Cluster

The objective of the ESIP Air Quality Cluster is to connect air quality data consumers with the providers of those data by:

- bringing people and ideas together on how to deliver ES data to AQ researchers, managers and other users
- facilitate and demonstrate the information **flow of from data providers to air quality consumers**

AQ Cluster brings together groups and *builds links* among them in order to achieve an effective use of data in decision-making that could not be achieved by any organization acting on its own.



AQ Cluster aids in *reuse* of data, processing tools and other services so that projects, programs and agencies avoid the burden of developing those capabilities or establishing connections to them.

ESIP, GEOSS Interoperability Experiments, Demos

The screenshot shows the OGC Network website interface. At the top left is the OGC logo with the text 'Open Geospatial Consortium, Inc.' and 'NETWORK'. To the right are navigation links: 'OGC® Home | OGC Network™ | OGC User™ | OGC Forum'. Below this is a dark blue navigation bar with links: 'networks | topics | tools | compliance | learn | help'. On the left side, there is a 'User login' section with fields for 'Username: *' and 'Password: *', a 'Log in' button, and links for 'Create new account' and 'Request new password'. Below that is a 'Navigation' section with links for 'recent posts', 'categories', and 'sources'. Further down is an 'other news' section with a list of news items. The main content area on the right shows a breadcrumb 'Home » networks' and a title 'GEOSS Workshops with GWS Demonstrations'. Below the title is a subtitle 'The Workshop Series : "The User and the GEOSS Architecture"'. A table follows, listing workshop details.

When	Where	Conference	OGC Lead	Demo Theme
July 2005	Seoul, Korea	IGARSS05	GMU	Tsunami recovery
October 2005	South Africa	AfricaGIS	CSIR	Wildfire response
May 2006	Beijing, China	FIEOS	U. Nottingham	Wind Energy
July 2006	Corsica, France	ISEIM	U. Nottingham	Wind Energy
July 2006	Denver, US	IGARSS06	GMU & Wash Univ.	Air Quality
Sept 2006	Goa, India	ISPRS Comm IV	UCL	Disease spread
November 2006	Santiago, Chile	GSDI-9	CIESIN	Poverty Reduction
April 2007	Hawaii, USA	IEEE System of Systems (SoS)	CSIRO	SoS for GEOSS
June 2007	San Jose, Costa Rica	ISRSE	Univ of New Mexico	Sustainable Agriculture
July 2007	Barcelona, Spain	IGARSS07	Washington Univ.	Biodiversity in Mediterranean

The Air Quality Web Landscape (*not comprehensive*)

NASA Programs/Projects

- REASoN (Friedl, Moe)
 - WRAP (Ambrosia, Sullivan)
 - EDAC (Morain, Benedict, Hudspeth)
 - LAITS (Di, Yang)
 - AQ Web Infrastructure (Husar, Falke)
- ACCESS (Lindsay, Maiden)
 - Giovanni (GSFC – Kempler)
- DECISIONS (Friedl)
 - 3D AQS (Hoffman, Engel-Cox)
 - RS for BlueskyRAINS (Sullivan, Raffuse)
 - Aura in AQ Forecasting (McHenry)
- AIST (Moe)
 - SAMITS (Falke)
 - Sensor Web Architecture & Demo (Mandl)
- DAACS
- Geoscience Interoperability Office (Bambacus, Cole)

EPA Programs/Projects

- AMI (Young, Keating)
- GEO (Young, Washburn, Lyon, Foley)
- AirNOW (Wayland, Dickerson)
- AirQuest
- OAQPS (Scheffe, Frank, Dimmick, Solomon, Pace)
- IDEA (w/ NASA, NOAA) (Szykman)
- HTAP (Keating)
- Remote Sensing Gateway (Paulson, Walter)
- Environmental Science Connector (Kapuscinski)

NOAA Programs/Projects

- Air Quality Forecasting (NESDIS)
- NGDC (Haberman, Kozimor)
- Hazard Mapping System (Ruminski)

Forest Service Programs/Projects

- Bluesky (Larkin, Goodrick)
-

Mediators

- DataFed (Husar)
- Unidata (Domenico, Ramamurthy)
- CDE (Ambrosia, Sullivan)
- Giovanni (Kempler, Leptoukh)
- LAITS (Di)
- RSG (Paulson)
- NEISGEI (Falke)

Portals / Catalogs

- Earth Information Exchange (ESIP)
- Earth Observation Portal (GEO)
- Geospatial One Stop
- Earth Science Gateway (NASA)
- Environmental Science Connector (EPA)
- Global Change Master Directory (GCMD)
- ECHO (NASA)
- LEAD (NSF)

Interoperability Efforts

- GALEON
- NASA GIO – DAACS
- ESIP
- OGC GSN (demos)
- OGC OWS testbeds
- GEOSS

State

- Aura in AQ Forecasting (Lamb, Vaughan)
- RPOs

International

- KMNI
-

ESIP Summer Meeting

www.esipfed.org/events

July 17-20

Madison, Wisconsin

July 19: AQ Focused Sessions

- AQ Interoperability Demos
 - open to demonstrations supporting or interested in supporting interoperability efforts
- Applying Service-Oriented Architecture Concepts to USGEO Near-Term Opportunities
 - help the Air Quality and Drought communities identify, design, (and perhaps build???) tools needed in both communities.
- AQ Cluster
 - Future plans and activities for coordinating the air quality cluster support to interoperability activities

Proposed ESIP AQ Dataset Wiki Pages

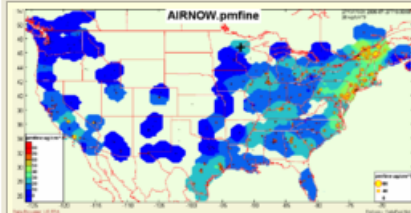
Structure Metadata | User-provided Metadata | Dataset Discussion

AIRNOW

This wiki page is the collaboration workspace for the federated dataset [AIRNOW](#)

Page Contents: [Structured metadata](#) | [User-provided metadata](#) | [Frequently Asked Questions](#) | [Dataset Discussion](#)

Structured Metadata



AirNOW Surface Monitoring Data for PM2.5 and Ozone

Provided by [EPA](#): [Source](#) | [Citation](#) | [Lineage](#)

AIRNOW is a cooperative State-EPA program to gather and distribute near-realtime PM2.5 and ozone data over the US data from several hundred sites located mostly in urban areas.

Parameters: PM2.5, PM10, Ozone

Data Access and Processing : [WMS](#) | [WCS](#) | [Service Workflow](#)

Viewers: [DataFed Viewer](#) | [Google Earth](#) | [Console](#)

Domain: Aerosol | **Platform**: Network | **Method**: Point | **Type**: POINT

User-provided Metadata

[Contents](#) [hide]

- 1 [User-provided Metadata](#)
- 1.1 [AirNOW FAQ's](#)
- 1.2 [Lineage](#)
- 1.3 [Websites](#)
- 1.4 [Papers](#)
- 1.5 [Automatic Searches](#)

[AirNOW FAQ's](#)

[Lineage](#)

METAR US

This wiki page is the collaboration workspace for the federated dataset [METAR_US](#)

Page Contents: [Structured metadata](#) | [User-provided metadata](#) | [Frequently Asked Questions](#) | [Dataset Discussion](#)

Structured Metadata



[[DatasetTitle]]
Provided by
METAR US
Data Access
Viewers: []
Console]
Domain: Mete

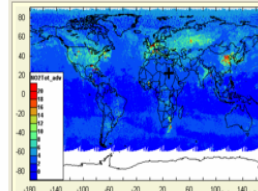
User-Contribut

OMI AI G

This wiki page is the collaboration workspace for the federated dataset [OMI_AI_G](#)

Page Contents: [Structured metadata](#) | [User-provided metadata](#) | [Frequently Asked Questions](#) | [Dataset Discussion](#)

Structured Metadata



[[DatasetTitle]]

Provided by [NASA](#): [Source](#) | [Citation](#) | [Lineage](#)

This Aura-OMI total column product is generated by the NASA OMI science team, based on the enhanced TOMS version-8 algorithm, 13x24 km res. It is provided by the NASA Giovanni Data Portal. Parameters: TOMS Absorbing Aerosol Index; Total NO2; Tropospheric NO2; Total Ozone; UV Reflectance

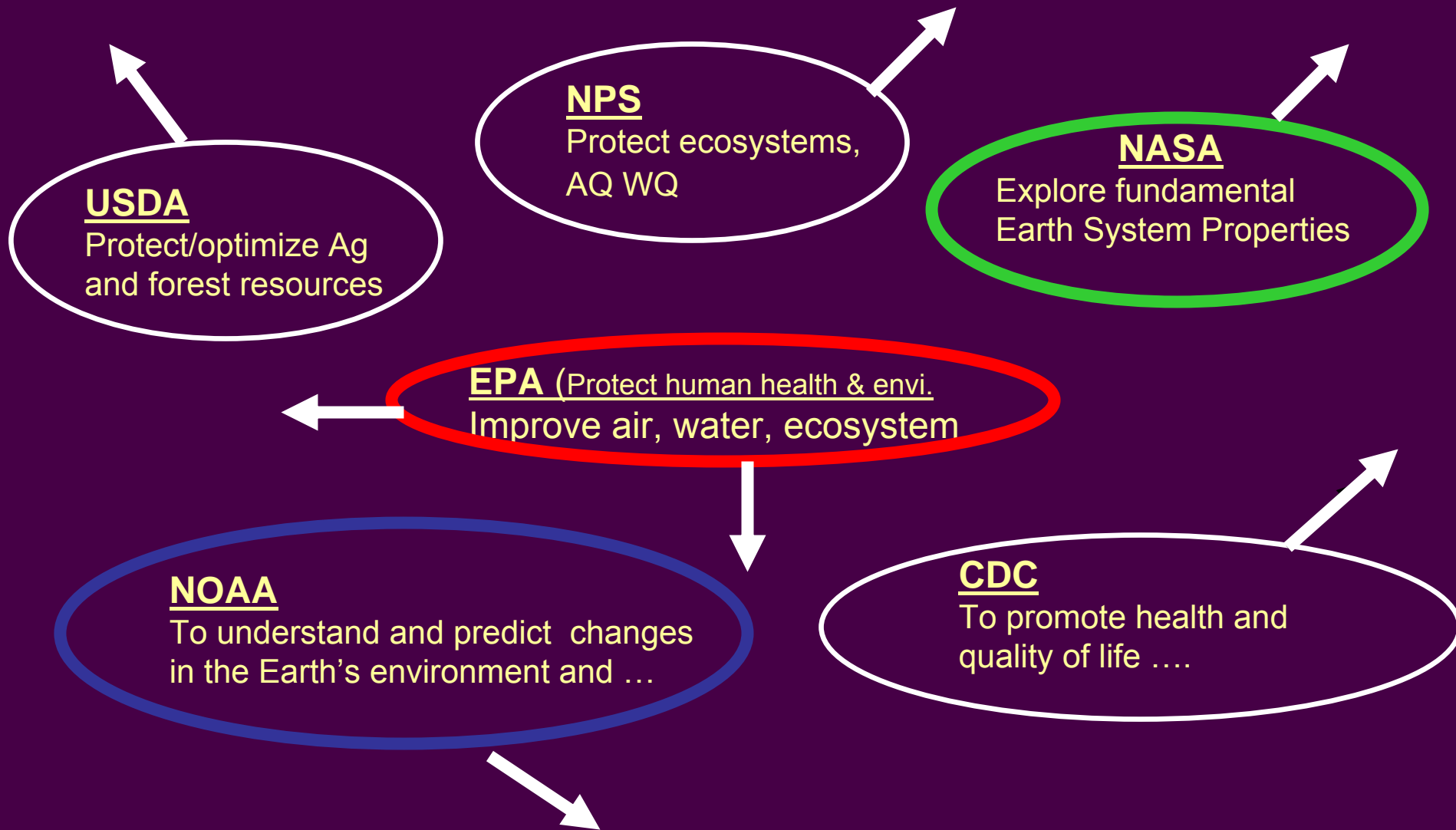
Data Access and Processing : [WMS](#) | [WCS](#) | [Service Workflow](#)

Viewers: [DataFed Viewer](#) | [Google Earth](#) | [Console](#)

Domain: Aerosol | **Platform**: Satellite | **Method**: RemoteSens | **Type**: GRID

Apparent divergences?

Organizations have different missions



Stars aligned?

Confluence ...

