

# OMI/TROPOMI Data Support from GES DISC

NASA/Goddard Earth Sciences Data and Information Services Center (GES DISC)

J. Johnson<sup>1,2</sup>, J. Wei<sup>1</sup>, J. Zang<sup>1,2</sup>, D. Ostrenga<sup>1,2</sup>, B. Vollmer<sup>1</sup>, I. Gerasimov<sup>1,2</sup>

<sup>1</sup>NASA Goddard Space Flight Center <sup>2</sup>ADNET Systems Inc.

<https://disc.gsfc.nasa.gov>

## Overview

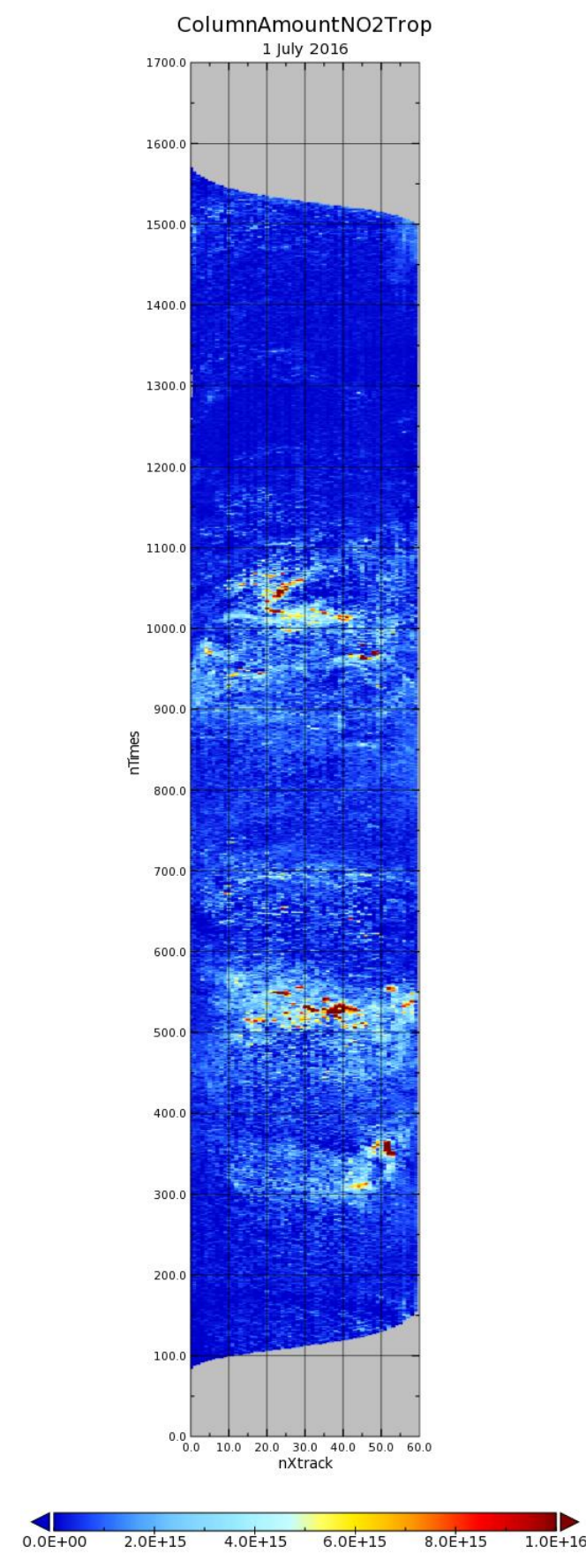
The NASA GES DISC has been the official archive center for data from the Ozone Monitoring Instrument (OMI) aboard NASA's Aura mission since 2004. In recent years, the GES DISC has been evolving and improving its data management and services in order to promote its data to be easily discovered and accessed, as well as to facilitate data "interoperability". This presentation will summarize metrics collected of OMI data usage and GES DISC data services.

In order to support the recently released Sentinel-5P/TROPOMI data from ESA at the NASA GES DISC, a new End User License Agreement (EULA) has been implemented for users accessing these data from the GES DISC.

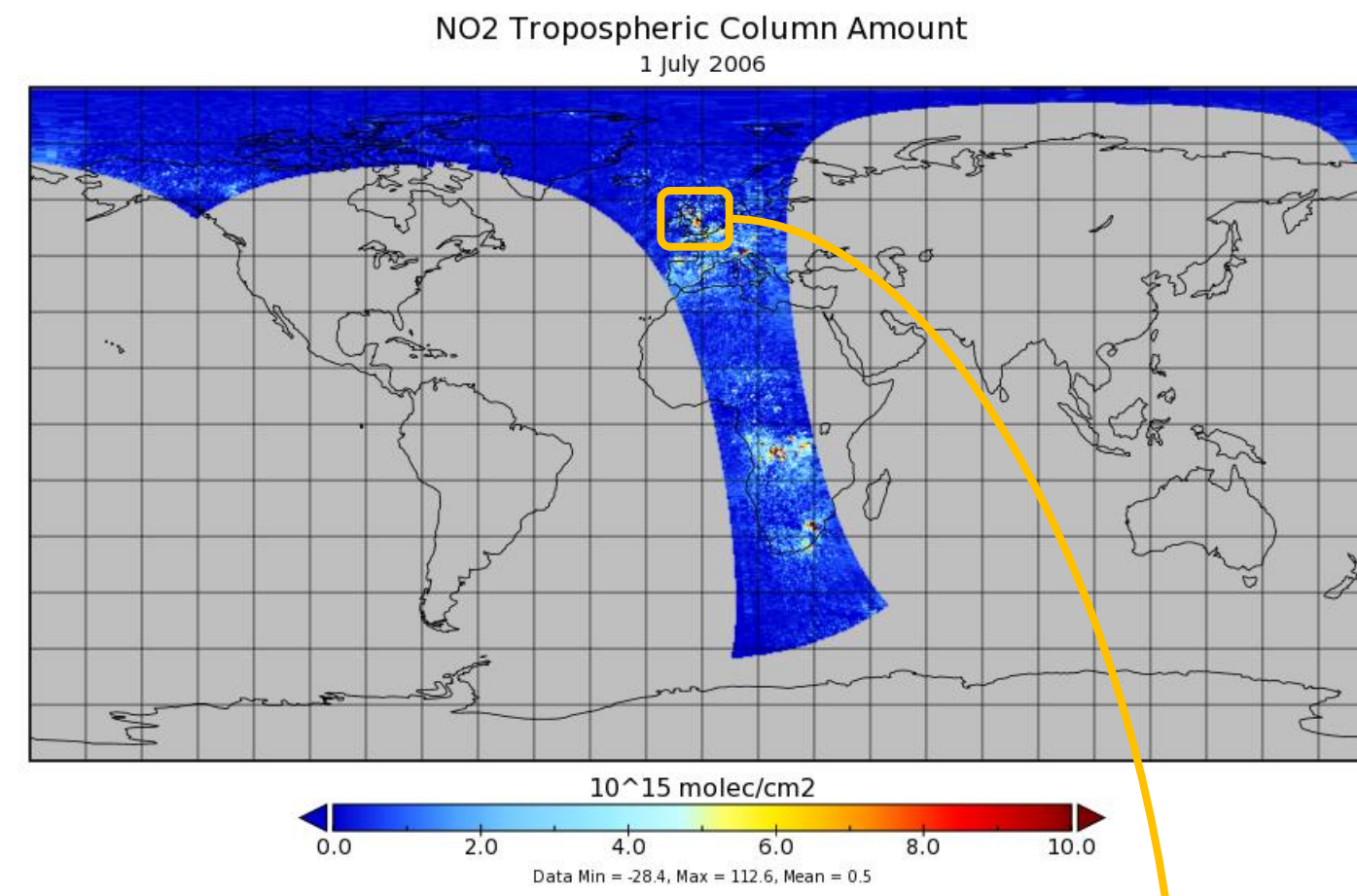
## File Format and Metadata Recommendations

The GES DISC recommends using the latest up-to-date HDF5 or netCDF4 self-describing file format, combined with the Climate Forecast (CF) metadata attributes for improved data "interoperability". Attributes Convention for Data Discovery (ACDD) metadata may also be included. Internal compression is also strongly encouraged.

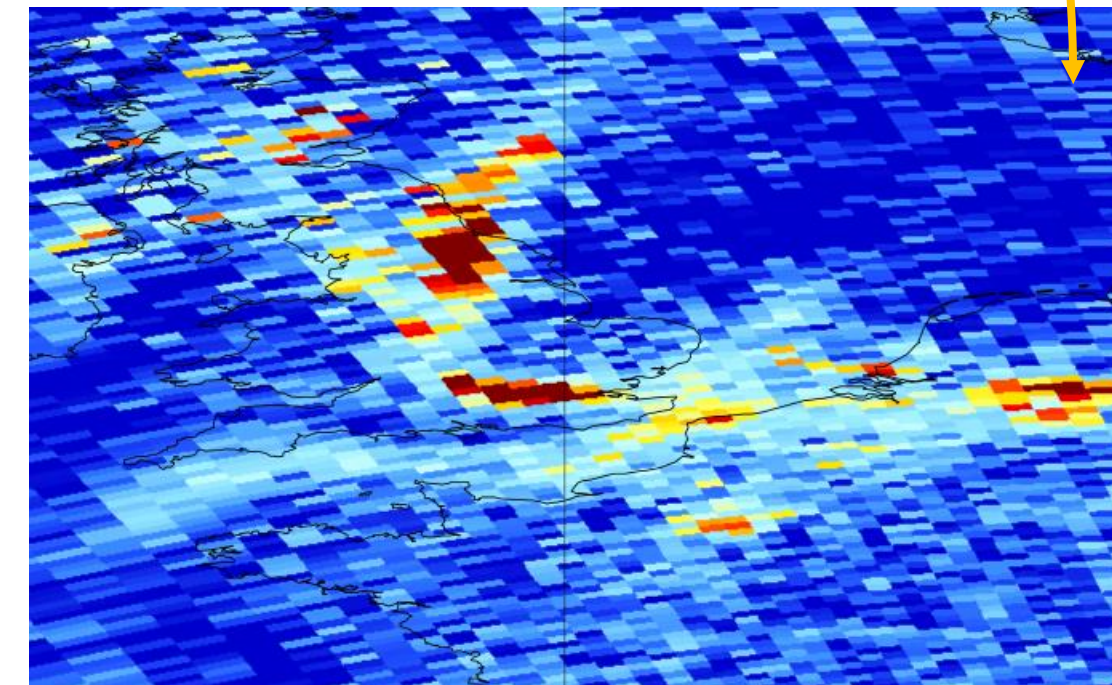
CF missing or not properly implemented  
Data shown as rectangular array, no labels



CF properly implemented  
Data geolocated, labels shown



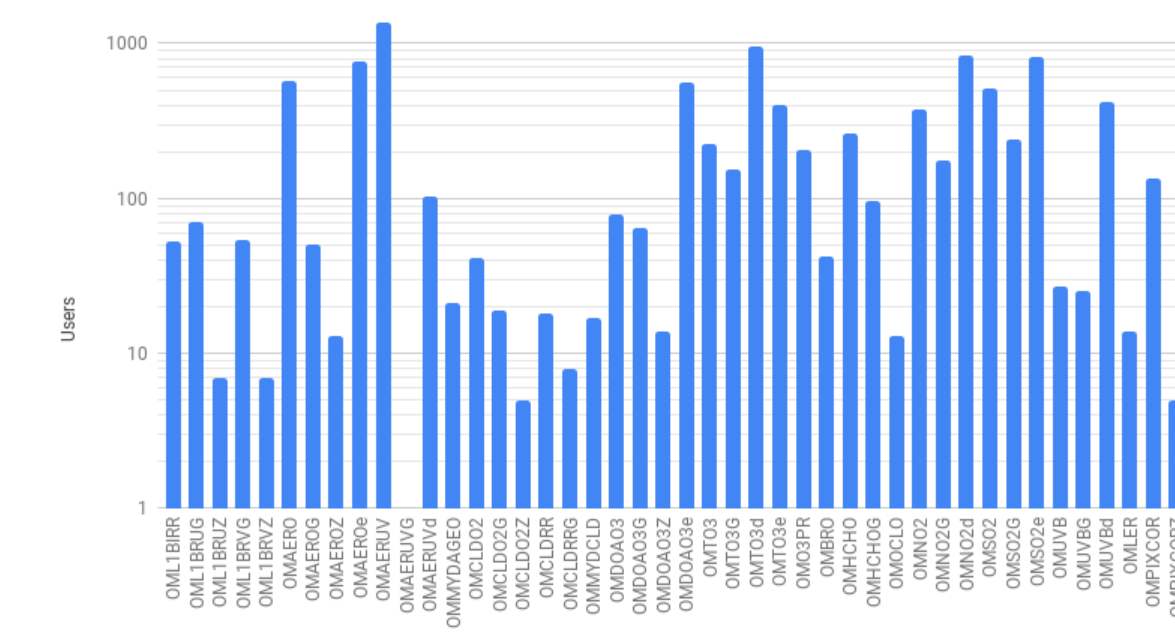
Zoomed: pixel shapes shown correctly



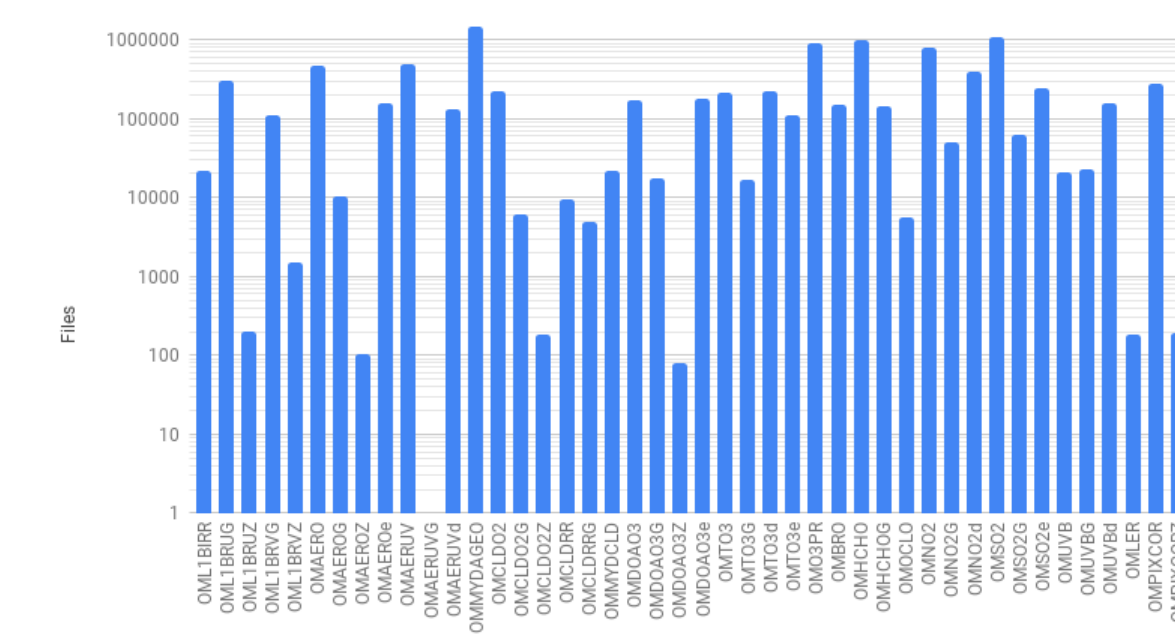
## Metrics

The NASA GES DISC collects metrics on all of its archived data products with information on data protocol/service used, number of distinct users, number of files, volume of data accessed, and location of users. This allows for insight into and patterns of data usage.

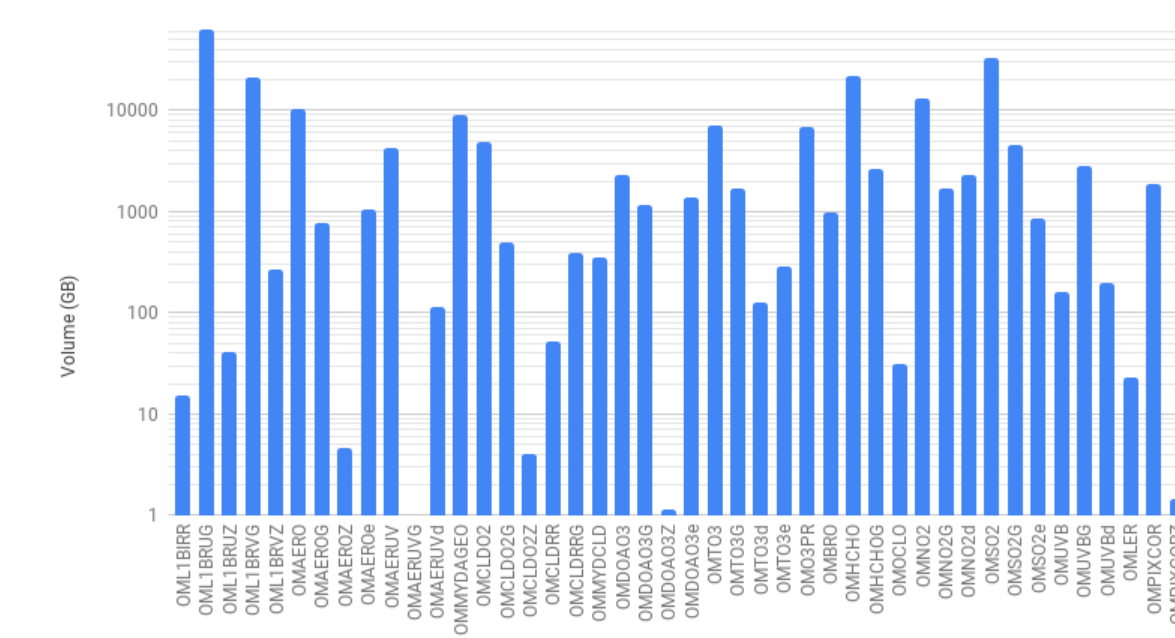
OMI Distinct Users vs. Products for 2018



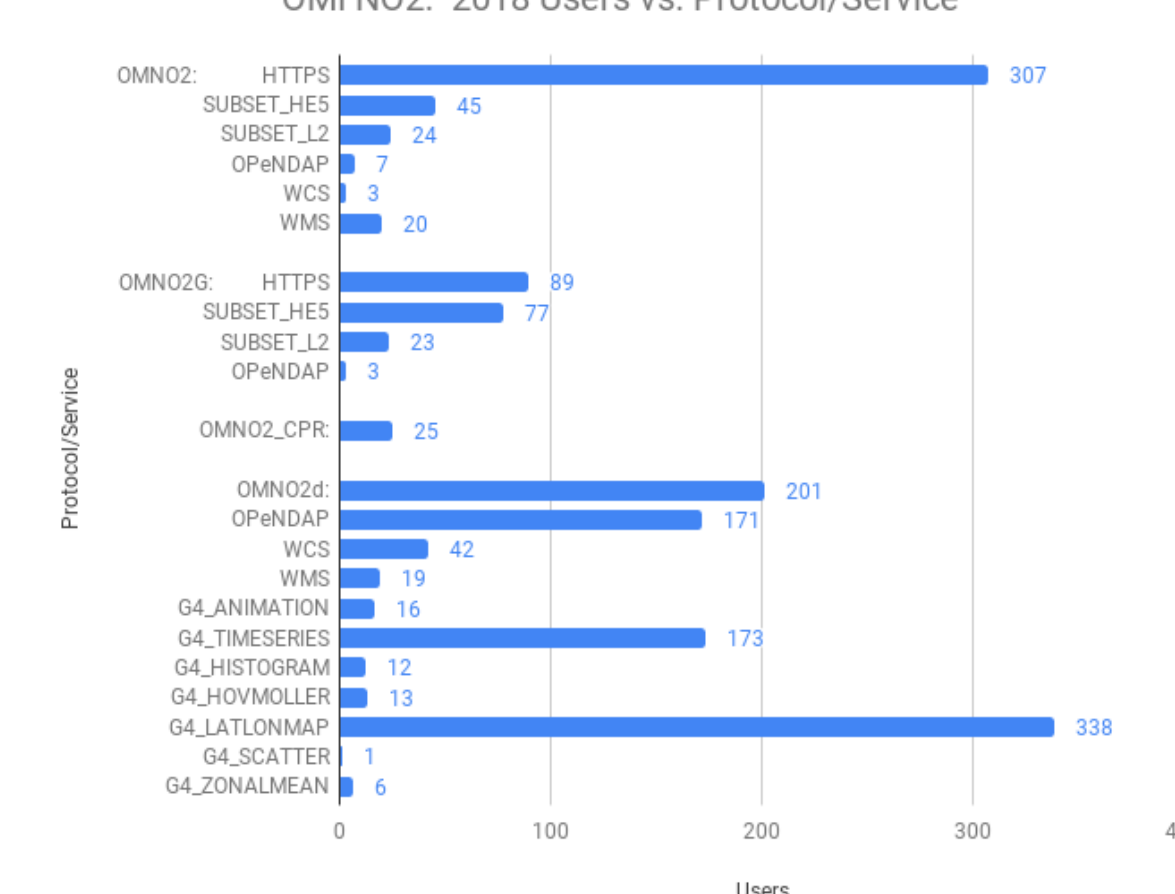
OMI Number of Files vs. Products for 2018



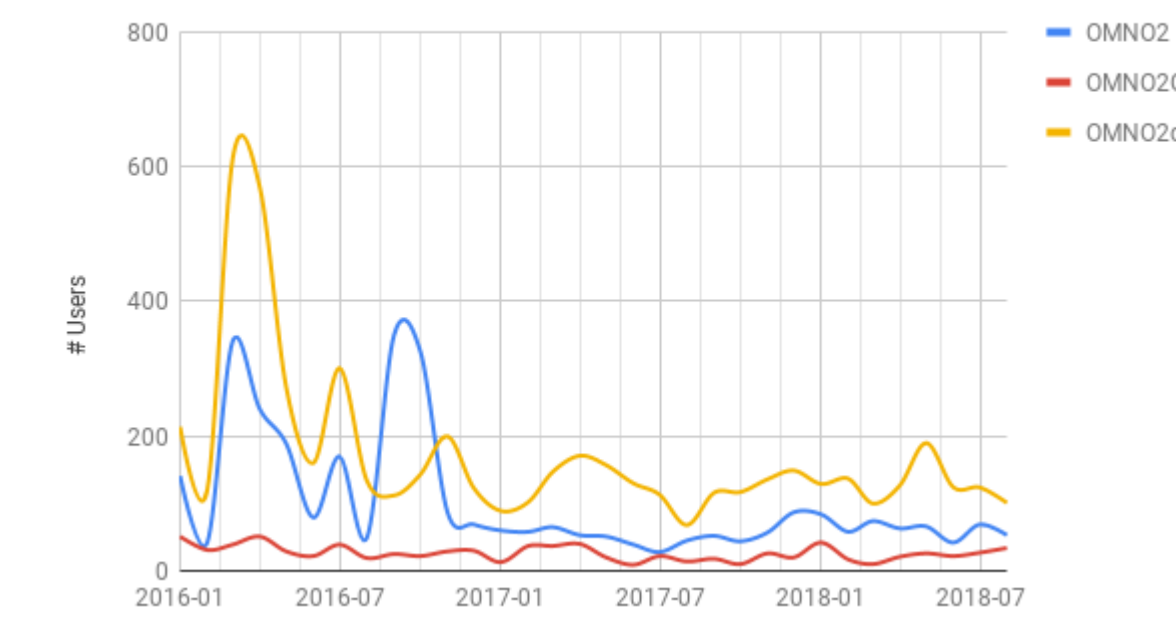
OMI Volume Distributed vs. Products for 2018



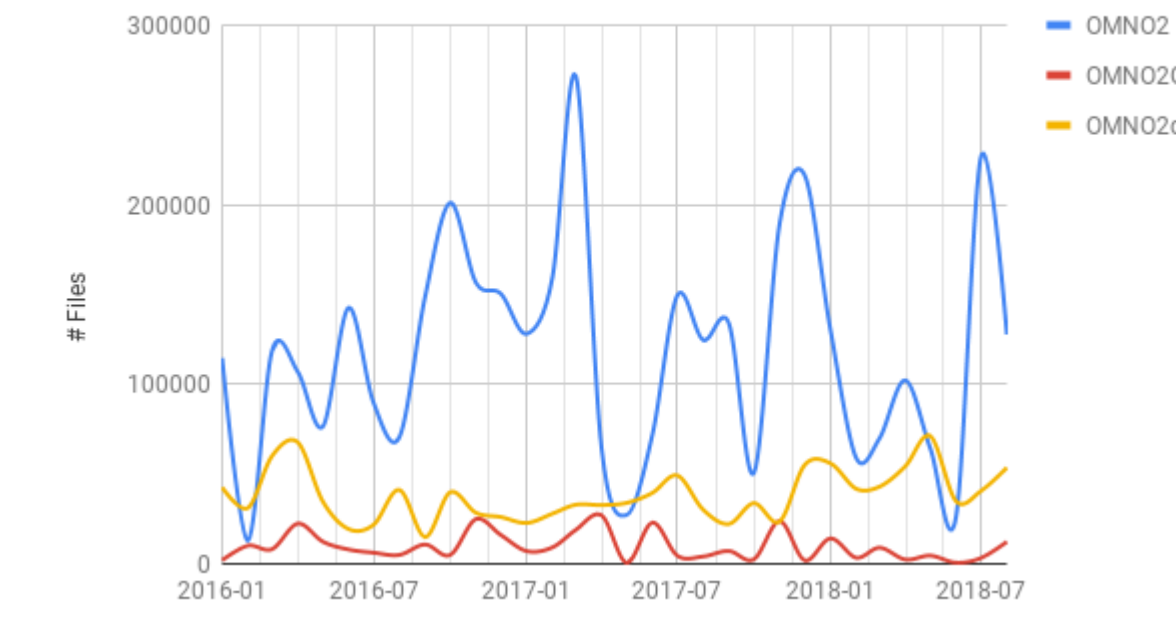
OMI NO2: 2018 Users vs. Protocol/Service



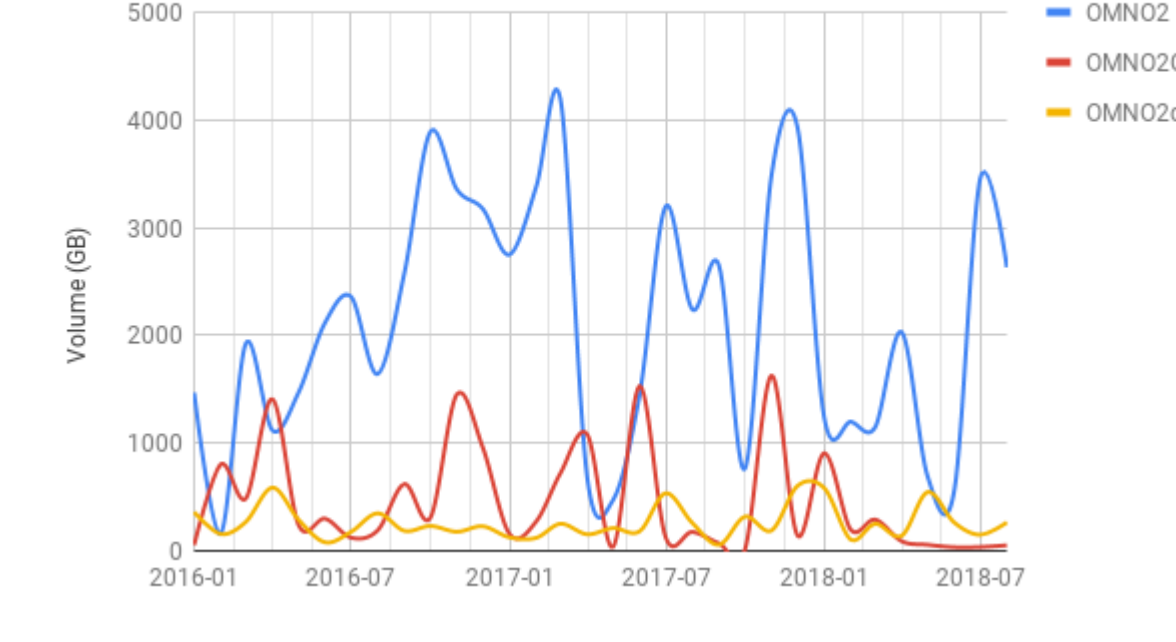
NO2 unique users for last 3 years



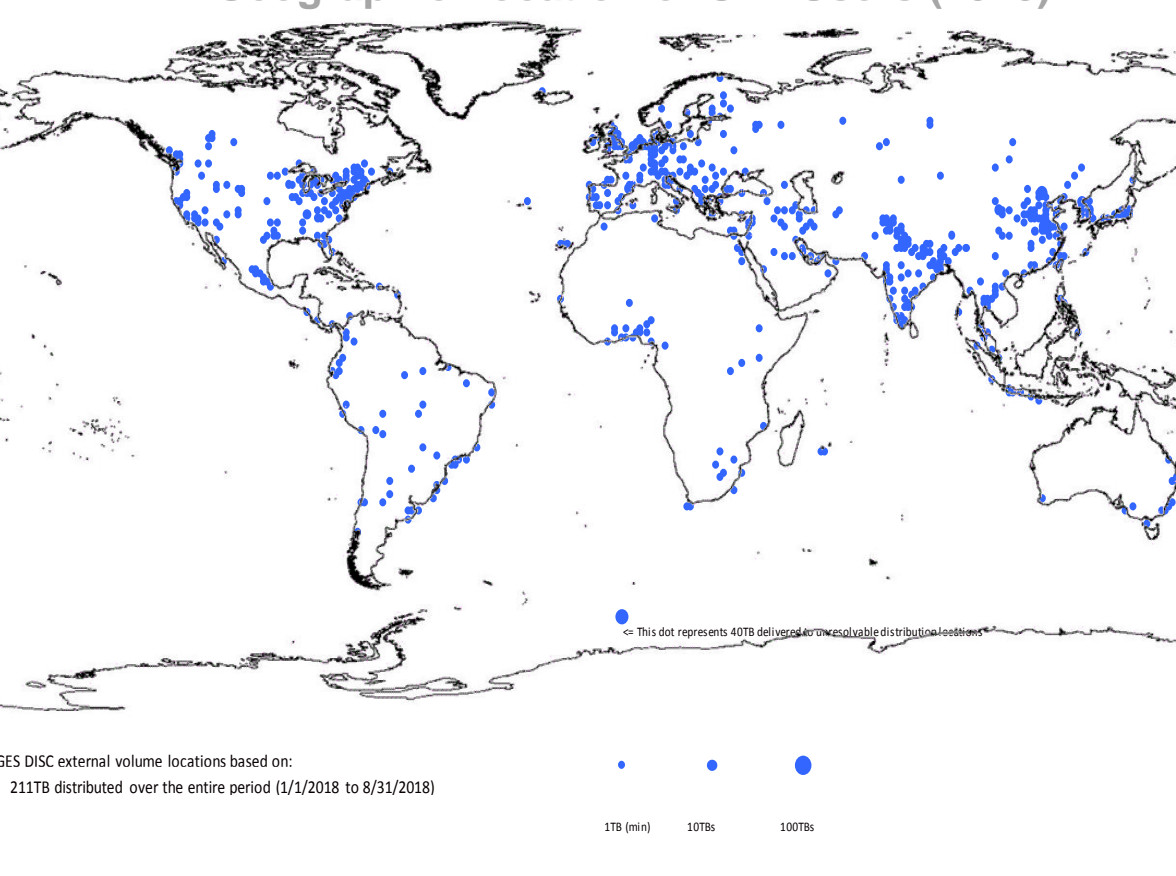
NO2 files downloaded for last 3 years



NO2 volume downloaded for last 3 years

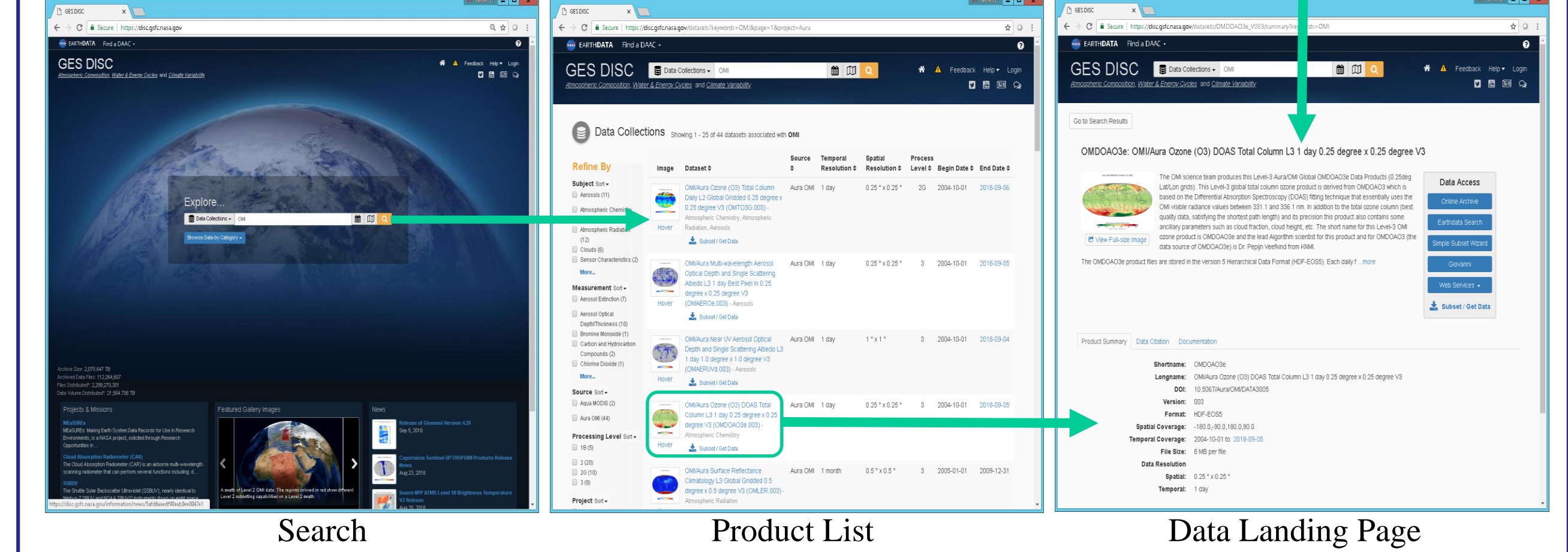


Geographic Location of OMI Users (2018)



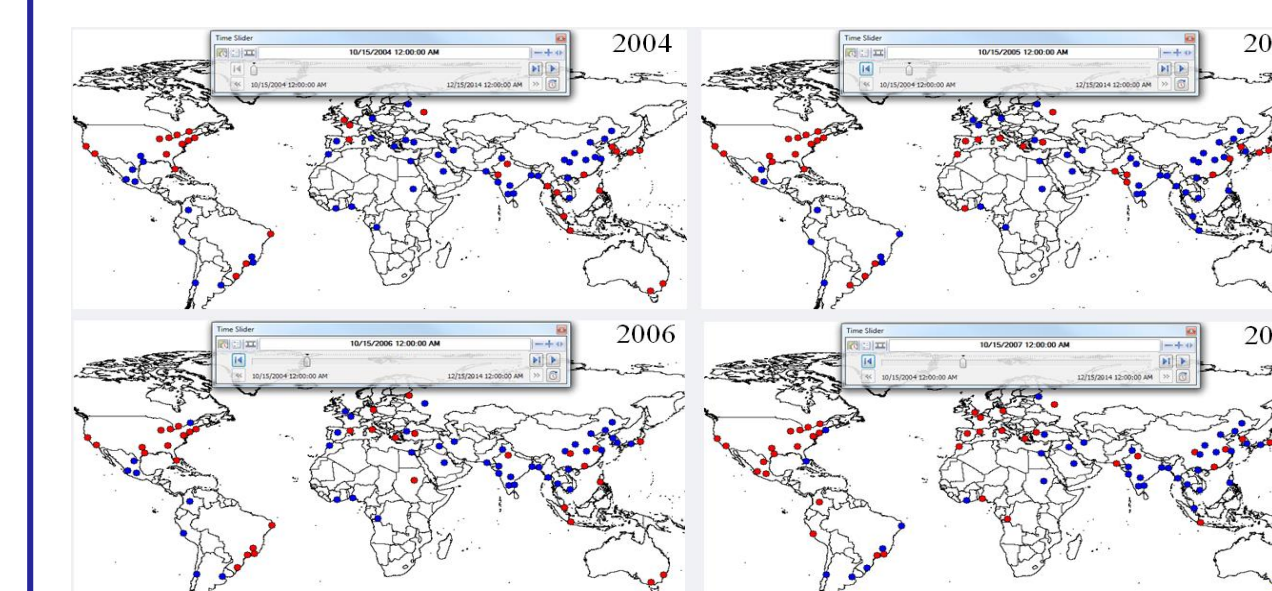
## Services

The GES DISC web site allows access to data and documentation, HOWTOs and more



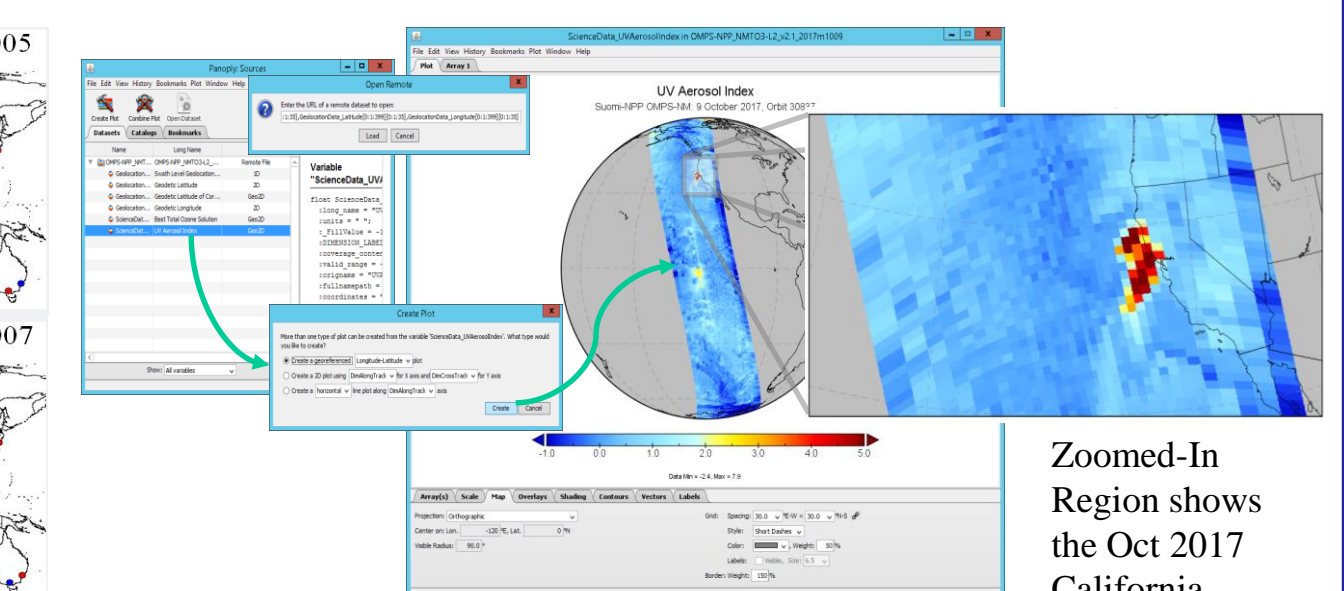
## Remote Data Access into Applications

### ArcGIS/WCS



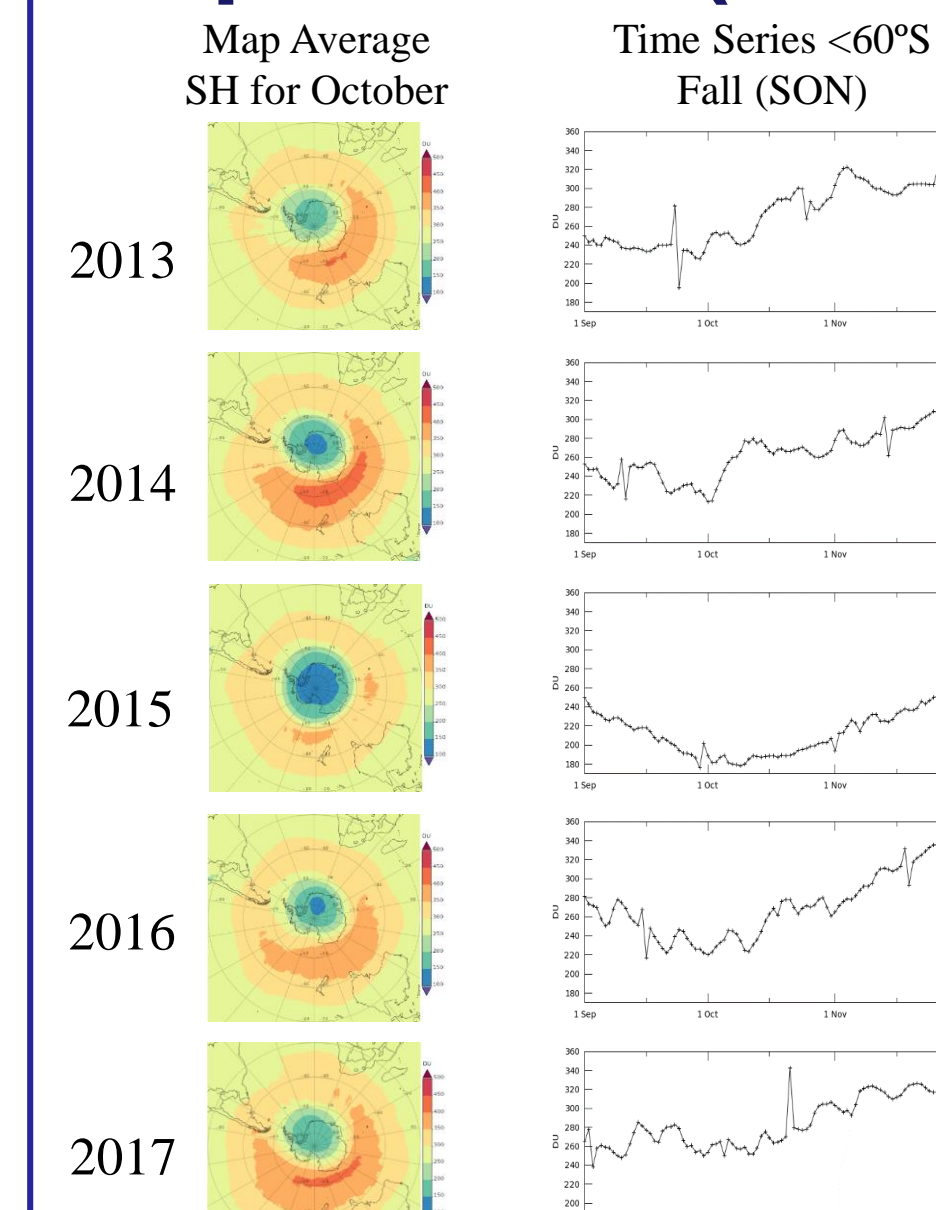
Red: positive anomaly; Blue: negative anomaly

### Panoply/OPeNDAP



Zoomed-In Region shows the Oct 2017 California wildfire

## Exploration (Giovanni)



## Subsetting

