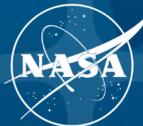




# The Field Campaign Explorer

**Geoffrey Stano, Navaneeth Selvaraj, Yuling Wu, Will Ellett, Manil Maskey, and Sara Graves**

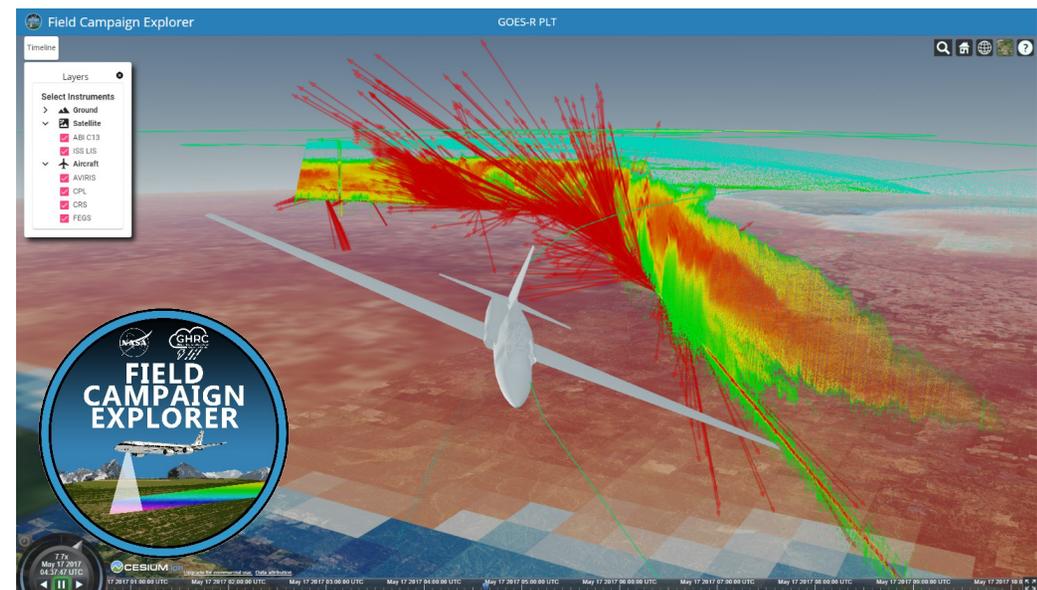


# What Is the Field Campaign eXplorer (FCX)?



## • Design

- Cloud-based
- Three-dimensional data exploration
  - Visualization
  - Analysis
- Coincident display of multiple datasets

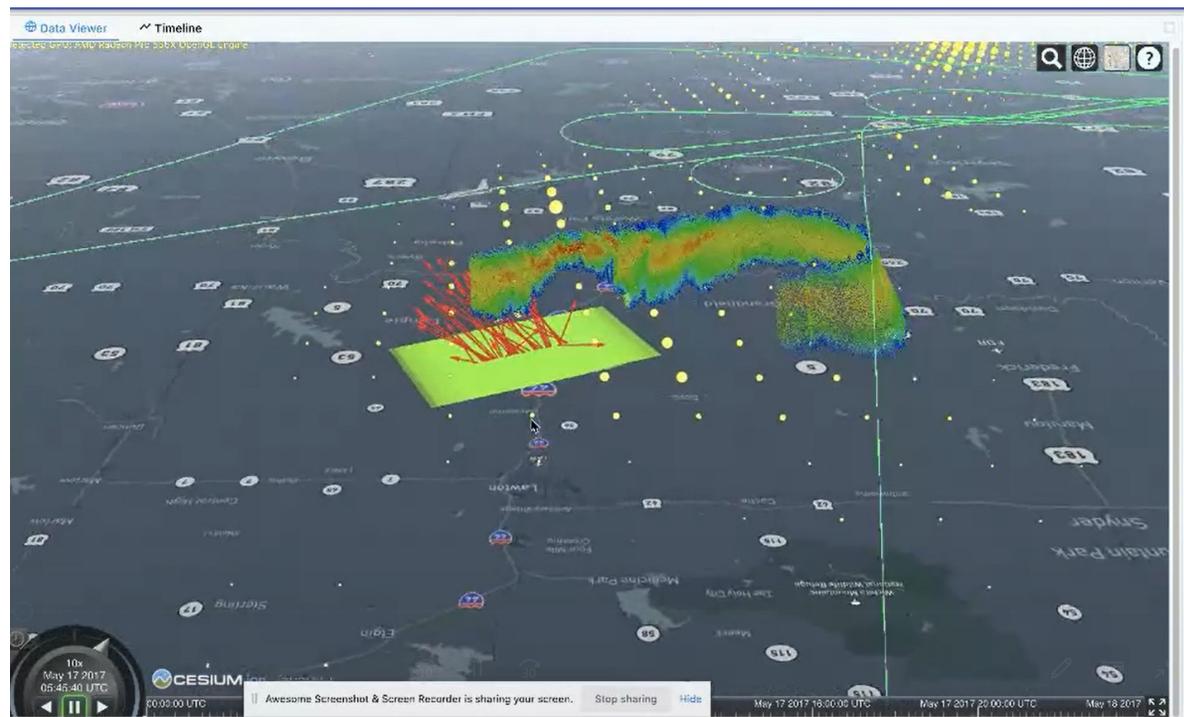


FCX Link: <https://ghrc.earthdata.nasa.gov/fcx/index.html>

# Why Create FCX?

## • Field Campaign Challenges

- Multiple data platforms
  - Ground-, airborne, and satellite-based
- Variety of variable fields and dimensions
  - Point observations
  - Two-dimensional (horizontal and vertical)
  - Three-dimensional
- Multiple data formats
  - Raw observations
  - Derived datasets
  - Model output



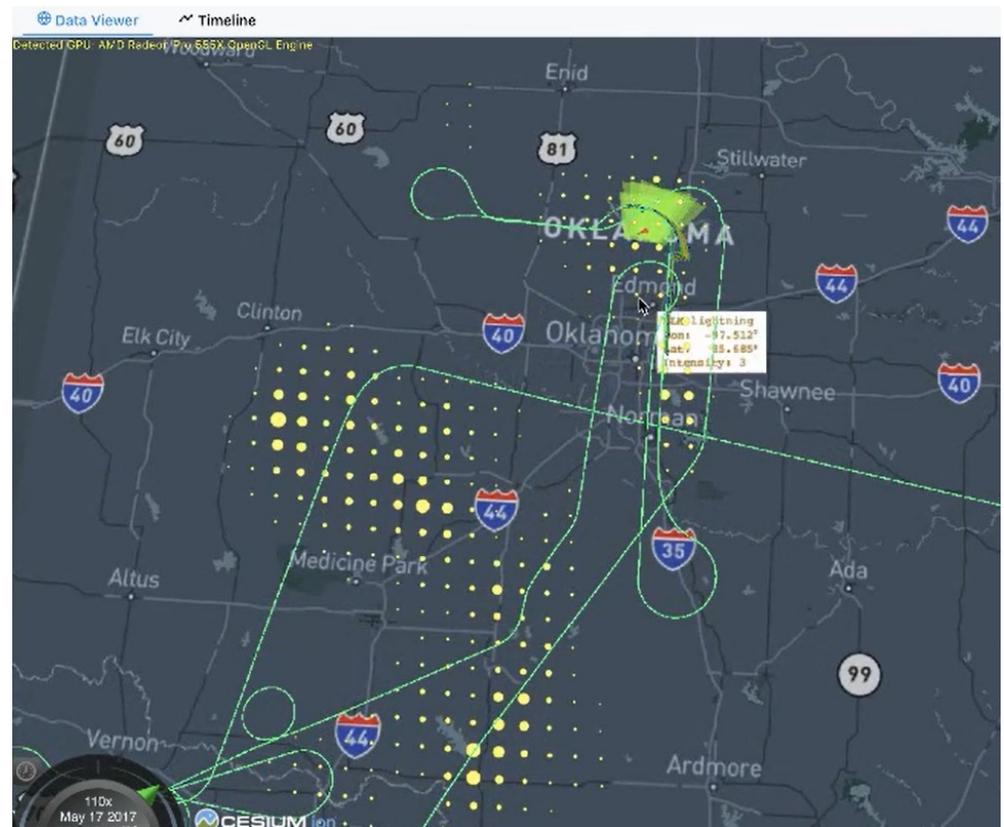
# Goals for FCX

- **Goals**

- Answer science questions tied to a campaign
- 3D interactive data visualization and interrogation
- Data subsetting and download
- Reduce time to do “Science in the Cloud”

- **Extendable architecture**

- Not limited to field campaign data
- Preparing for open source release



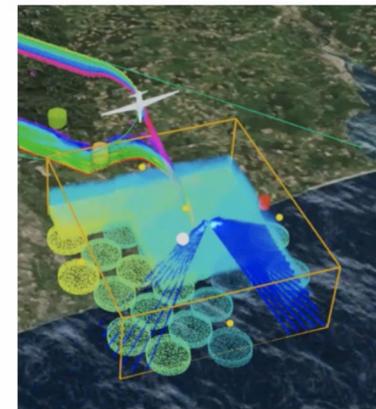
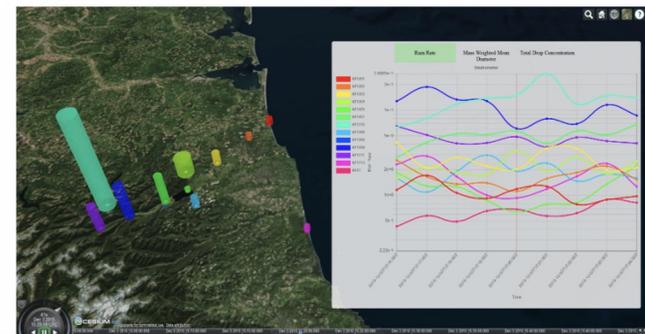
- **Continued FCX development**

- Web page integration and analysis tools
- Work from Jupyter notebook templates to build visualizations
- Three-dimensional subsetting tool

- **Adding new campaigns**

- IMPACTS – Most recent
- OLYMPEX – Precipitation science
- HS3 – Hurricane science

## Data Analysis



3D Data Subsetting



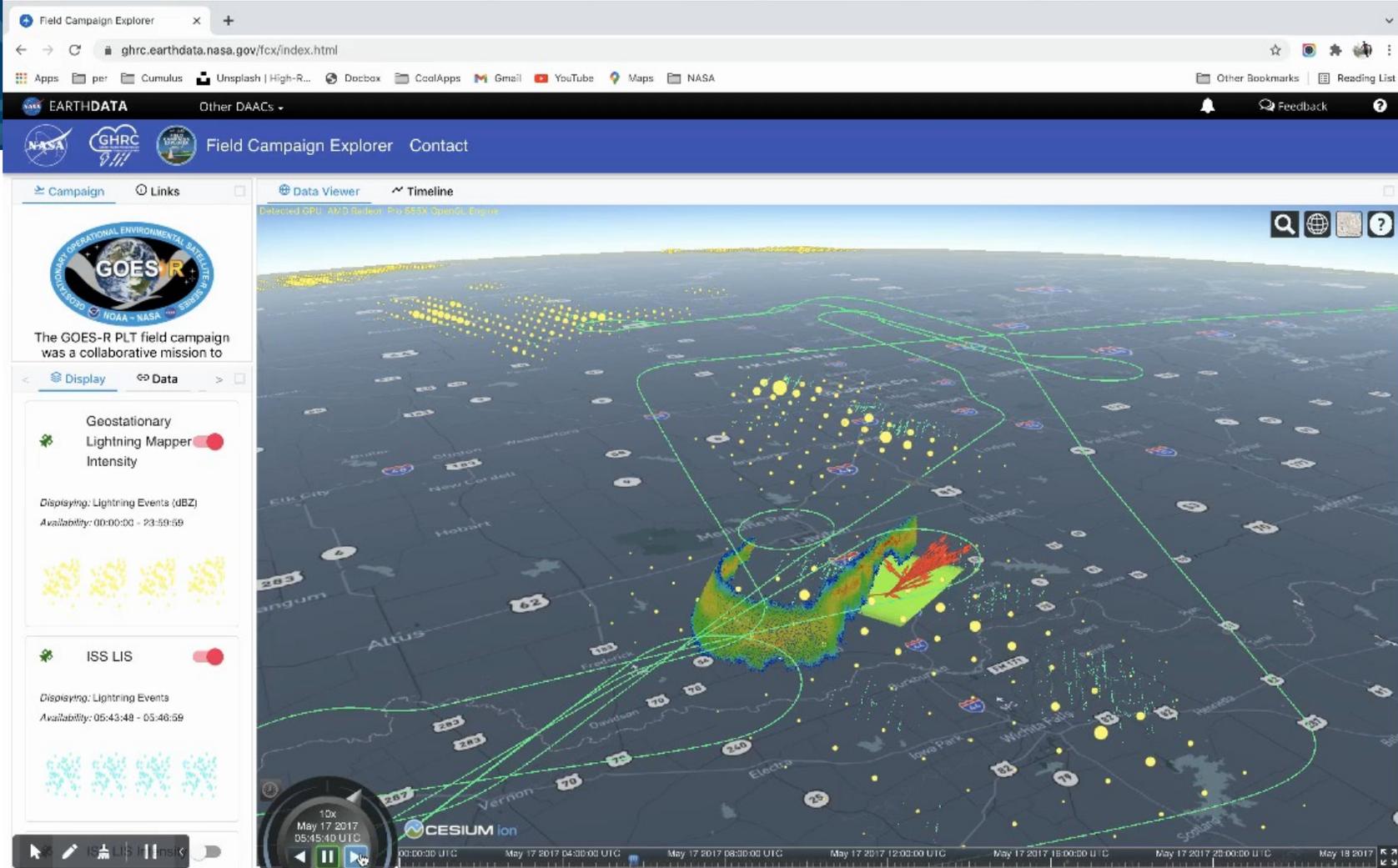
# Video Backup



4/7/22

Global Hydrometeorology Resource Center

6



4/7/22

102<sup>nd</sup> Annual American Meteorological Society Conference