

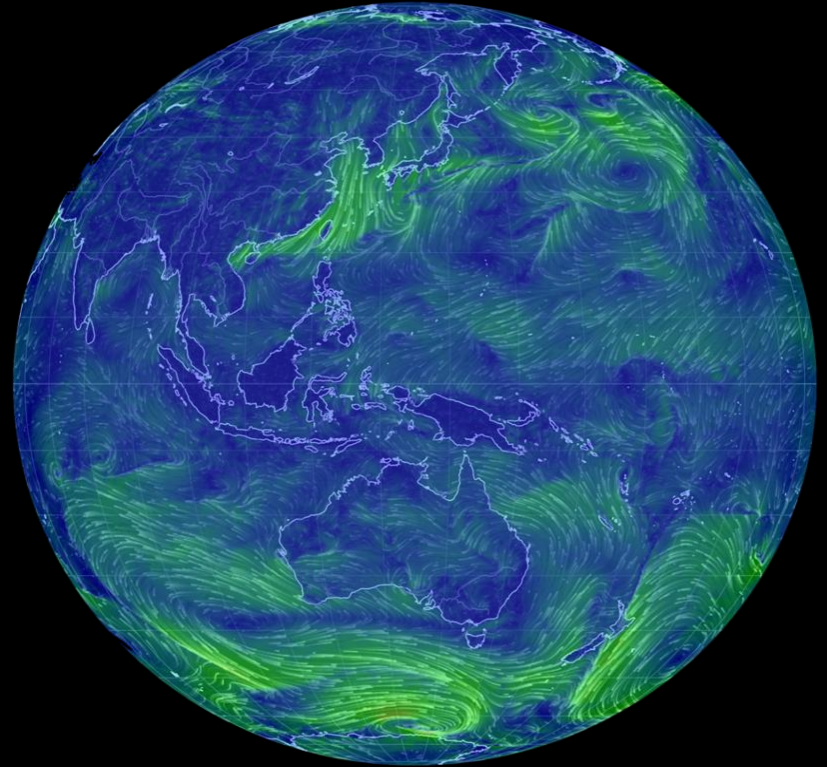
# earth 3.0

@cambecc  
@scdiggs

Argo:AST-I9 Sidney, BC, CANADA  
2018-03-13

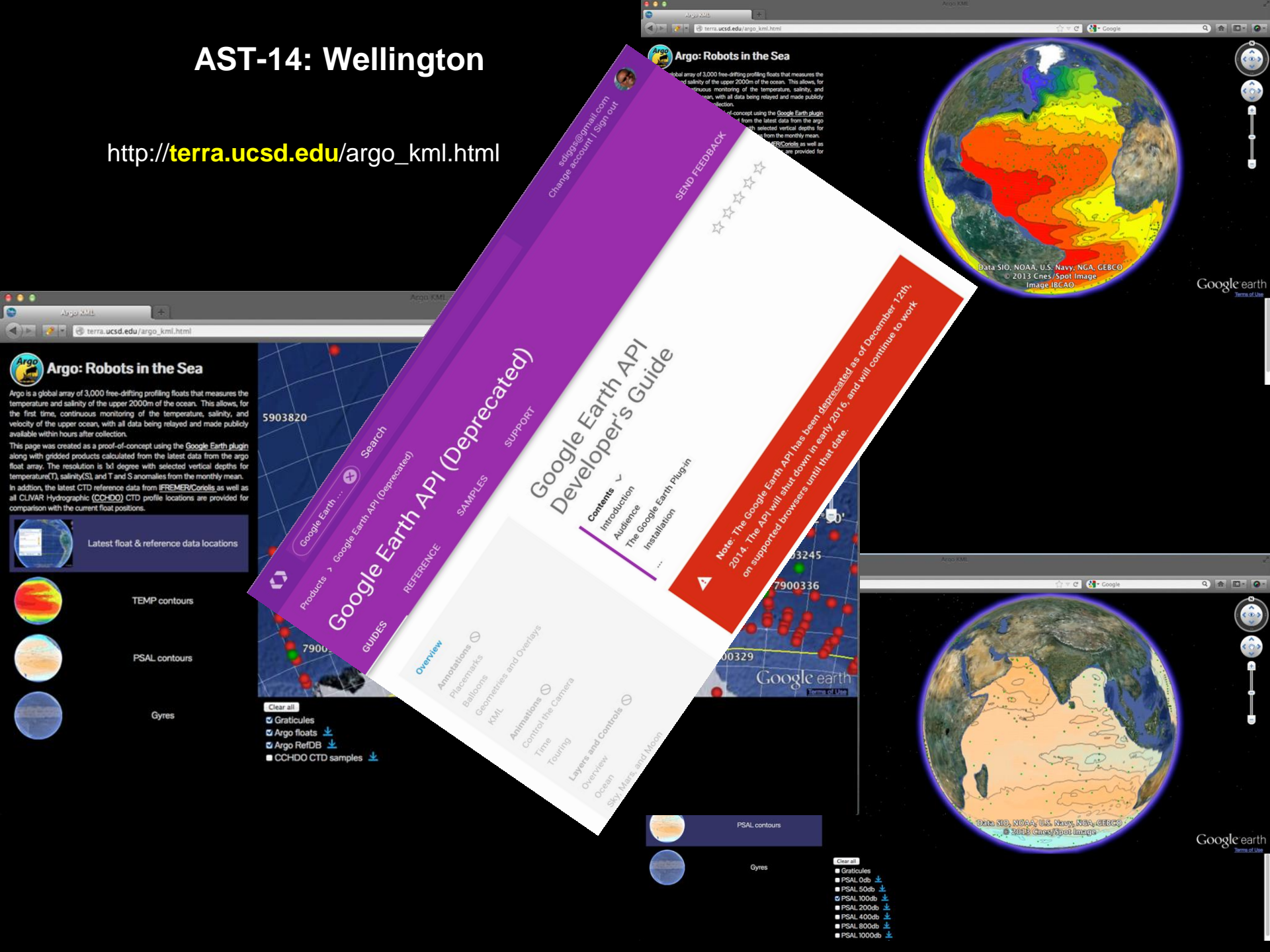


# Art and Science



# AST-14: Wellington

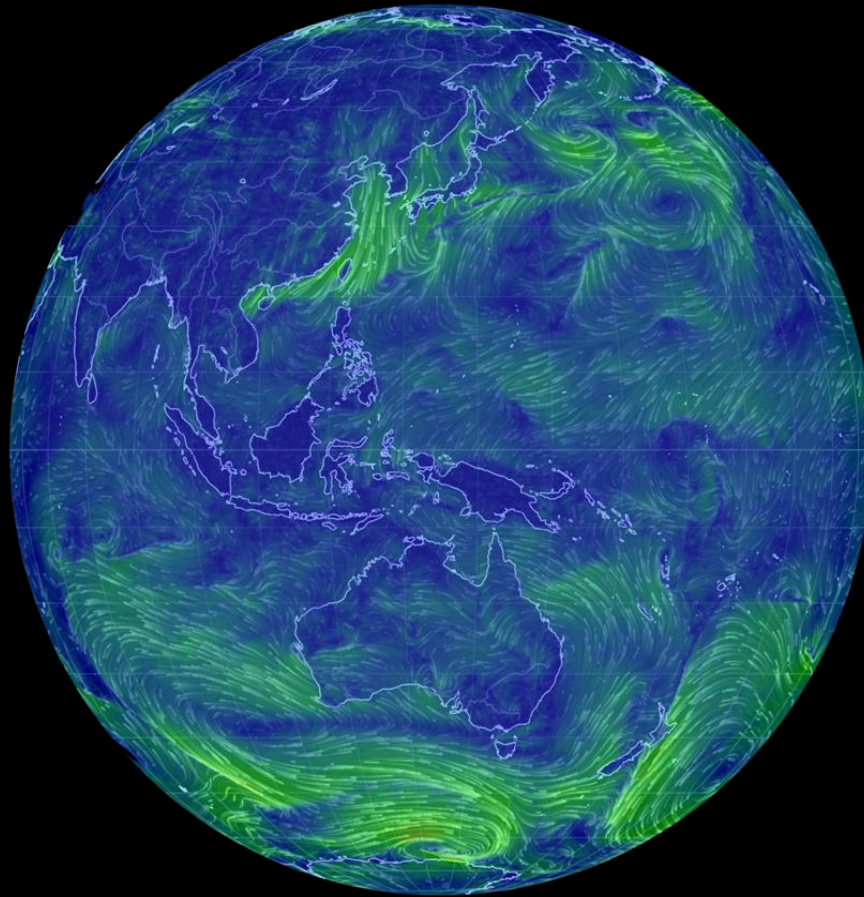
[http://terra.ucsd.edu/argo\\_kml.html](http://terra.ucsd.edu/argo_kml.html)





# Fresh Eyes





[earth.nullschool.net](http://earth.nullschool.net)





geo data

\$billions

# Audience Overview

Email Export Add to Dashboard Shortcut

Dec 9, 2013 - Aug 16, 2014

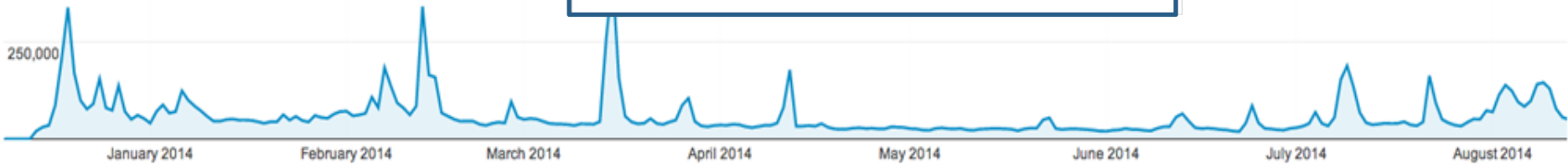


## Overview

Sessions vs. Select a metric

Sessions

500,000



Hourly Day Week Month

Sessions  
14,459,940

Users  
6,630,780

Pageviews  
19,751,146

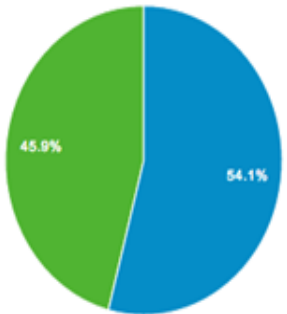
Pages / Session  
1.37

Avg. Session Duration  
00:01:41

Bounce Rate  
83.74%

% New Sessions  
45.85%

Returning Visitor New Visitor





**ATTRIBUTION OF**  
**Extreme Weather Events**  
**IN THE CONTEXT OF**  
**Climate Change**

*The National Academies of*  
**SCIENCES • ENGINEERING • MEDICINE**

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The image shows the front cover of the journal 'Nature Climate Change'. The background is a vibrant, abstract pattern of swirling green and blue lines, resembling a stylized map or a representation of climate data. At the top, a red banner contains the text 'In this issue NATURE CLIMATE CHANGE FOCUS: Society and the Pope's encyclical'. The main title 'nature climate change' is prominently displayed in the upper left, with 'nature' in a smaller, white, sans-serif font and 'climate change' in a larger, white, serif font. To the right of the title, the text 'OCTOBER 2015 VOL 5 NO 10' and the website 'www.nature.com/natureclimatechange' are printed in a small, white, sans-serif font. In the lower right quadrant, the text 'Regional climate projections' is written in a large, white, sans-serif font. The overall design is modern and visually striking, emphasizing the theme of climate change.

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headlines ● Weather TV program more »

**SPIEGEL ONLINE SCIENCE**

politics economy panorama Sports culture network world science health someday career University travel car style

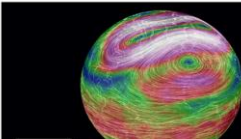
News > Science > Nature > Data read > Weather live: Storm, wind and heat of earth.multichannel.net

# DATA READ

## BLOG


Previous Post: Football was never a proletarian sport	Next post: The million behind the medals
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### Turn the Storm globe



Video ▶

In storm stay home?







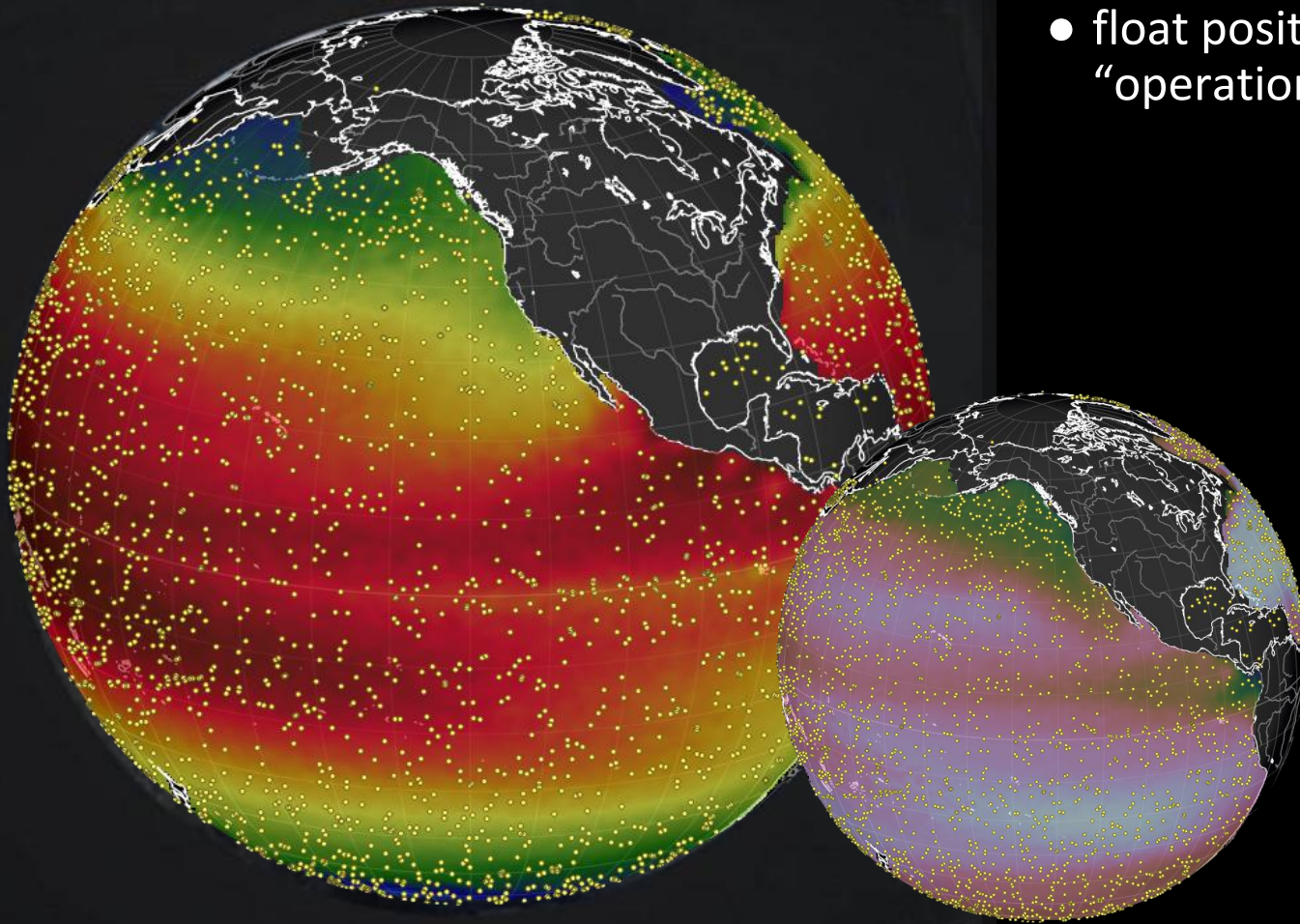
A map of North America and surrounding regions, including parts of Russia, China, and South America. A dashed black line connects a red pin in Tokyo, Japan to another red pin in Cedar Rapids, Iowa, USA. The map shows major cities, bodies of water, and geographical features. The text 'Cameron's bio' is overlaid on a dark blue box on the left side of the map.

## Cameron's bio

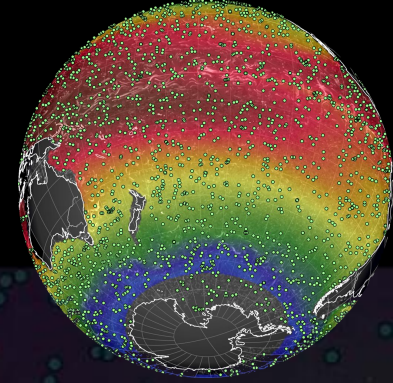
Cedar Rapids, Iowa  
Computer Eng BSc, Iowa State University  
Microsoft, Seattle  
TradingScreen, Tokyo  
Indeed, Tokyo

# AST-17 (Mar 2016)

- $\frac{1}{6}$  degree climatology (temp & sal)
- float positions for “operational” and “dead”







Date | 1970-01-01 10:00 Local  $\rightleftharpoons$  UTC

Data | Ocean Currents @ Surface + Argo Sea Temp

Scale |

Source | Argo

Control | Now  $\ll$   $-$   $<$   $-$   $>$   $-$   $\gg$   $\oplus$  Grid  $\triangleright$  HD

Mode | Air – Ocean – Chem – Particulates – **Argo**

Pressure | **2.5** – 400 dbar

Overlay | **Temp** – Temp Anom – Salinity – Salinity Anom

Floats | Planned – Recent – **Operational** – Dead – None

Projection | A – AE – CE – E – **O** – P – S – WB – W3

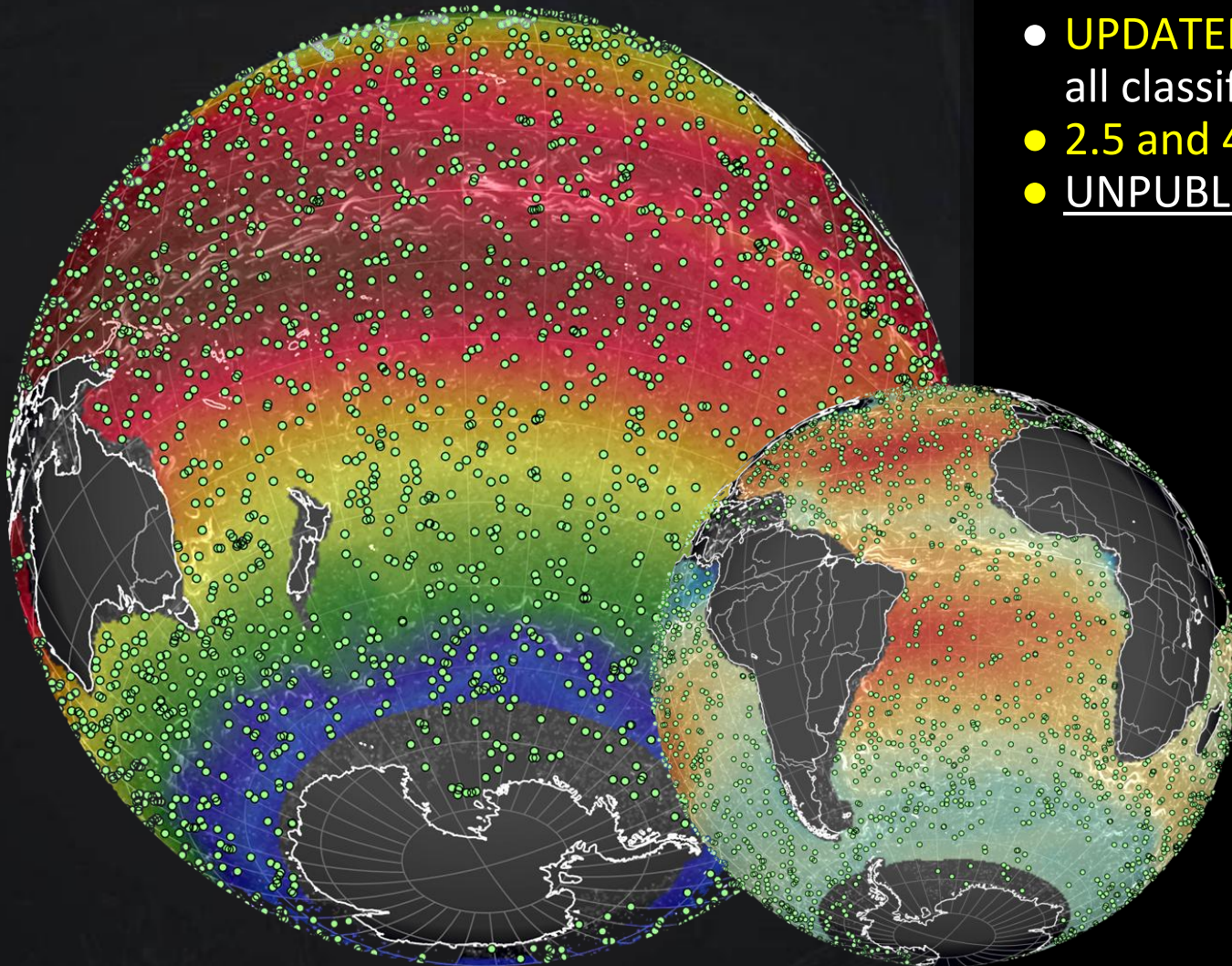
about   





# AST-18 (Mar 2017)

- 1-degree climatology (temp & sal - multi-year means)
- **UPDATED** float positions for all classifications
- 2.5 and 400 dbar only
- UNPUBLISHED (non-public)



# EARTH Hackathon

## @ SIO 2017.03.24



### Generally

- Splitting the GitHub repo to public/private 2.0 version, re-engineered “earth” code
- Exploring the use of THREDDS and ERDDAP, HTTP-push as inputs to Earth’s GAIA engine.
- Identifying and acquiring new (sea level, etc.) hourly/daily/monthly datasets for inclusion
- updating UI to accommodate new datasets

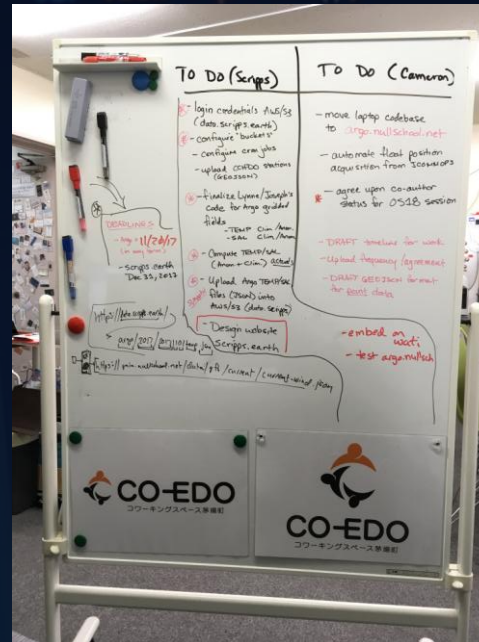
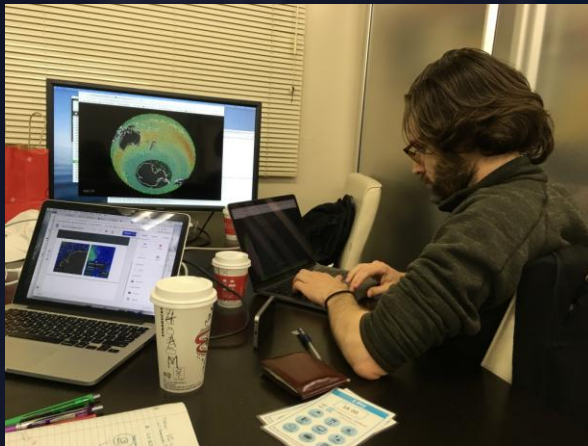
### Argo Specific

- **Automate daily (hourly?) float profile positions via JCOMMOPS API**
- **Translate monthly RG climatology to Earth JSON format**
- **Identify 7-8 AST-approved levels for TEMP/SAL for user selection and display (e.g. 2.5 to 1500 dbar)**
- Construct landing page for Argo information

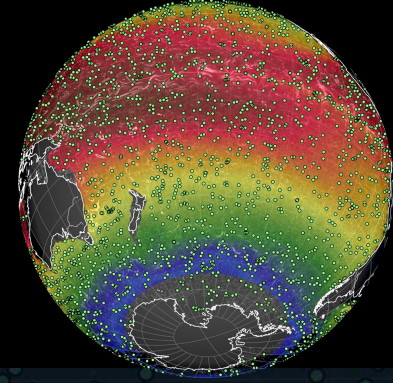




# Hackathon #2: Tokyo 3-5 Nov 2017







Date | 2017-02-01 01:00 Local  $\rightleftharpoons$  UTC

Data | Ocean Currents @ Surface + NaN

Scale |

Source | GFS / NCEP / US National Weather Service

Control | Now  $\ll$   $\leftarrow$   $\rightarrow$   $\gg$   $\oplus$  Grid  $\triangleright$  HD

Mode | Air – Ocean – Chem – Particulates – **Argo**

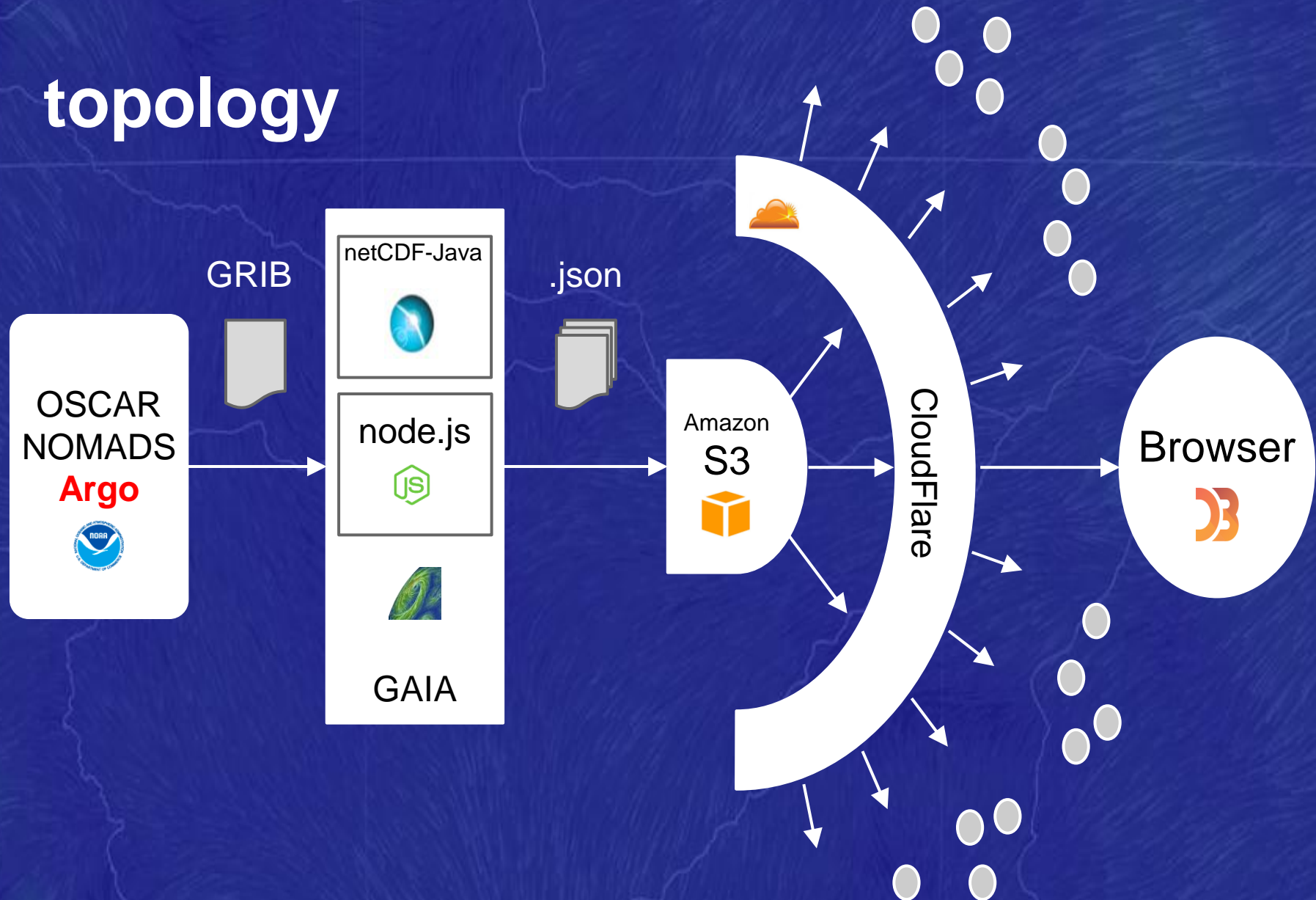
Pressure | 2.5 – 100 – 200 – 400 – 800 – 1000 – 1500 dbar

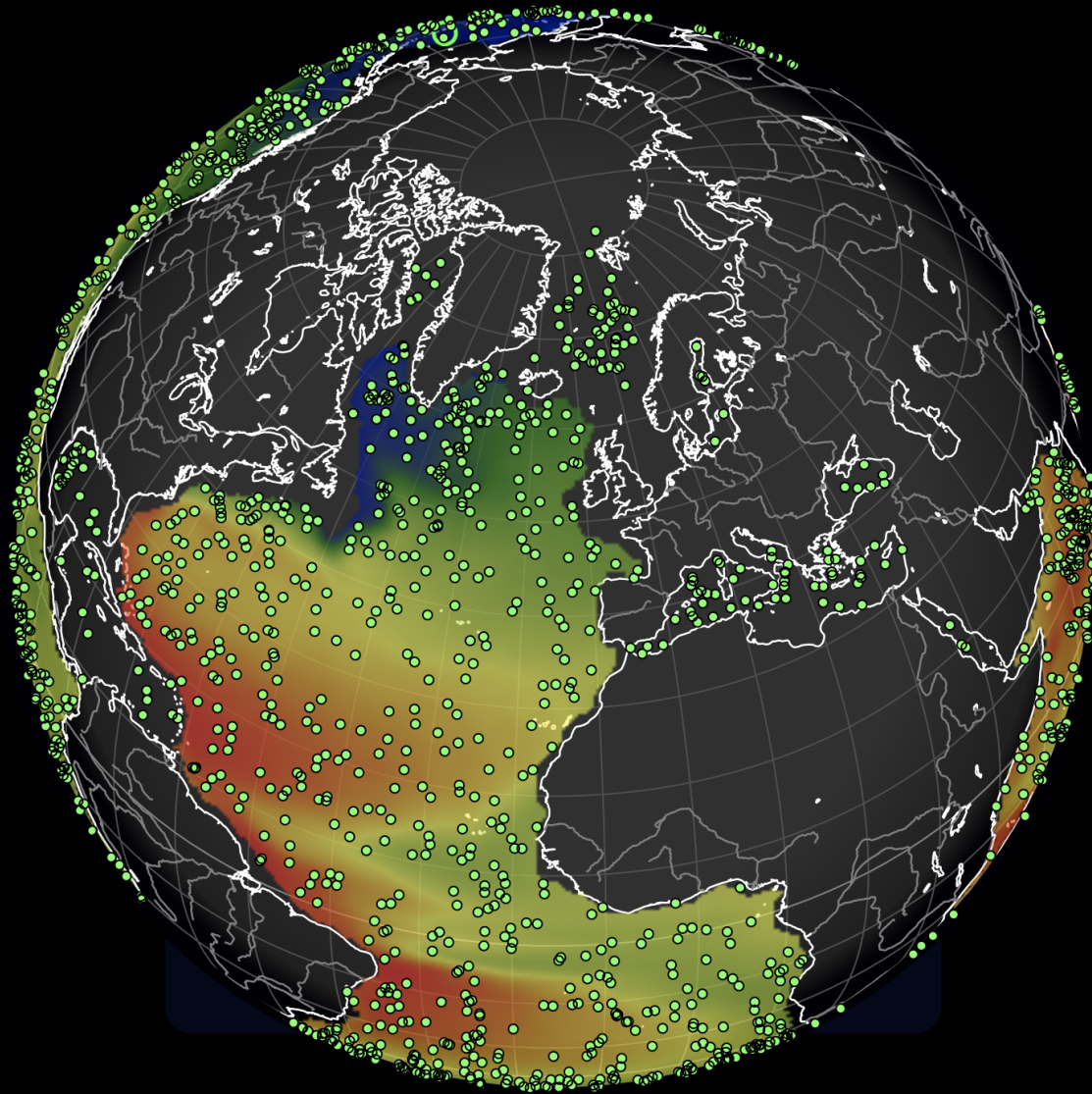
Overlay | **Temp** – Temp Anom – Salinity – Salinity Anom

Floats | Planned – Recent – **Operational** – Dead – None

Projection | A – AE – CE – E – **O** – P – S – WB – W3

# topology



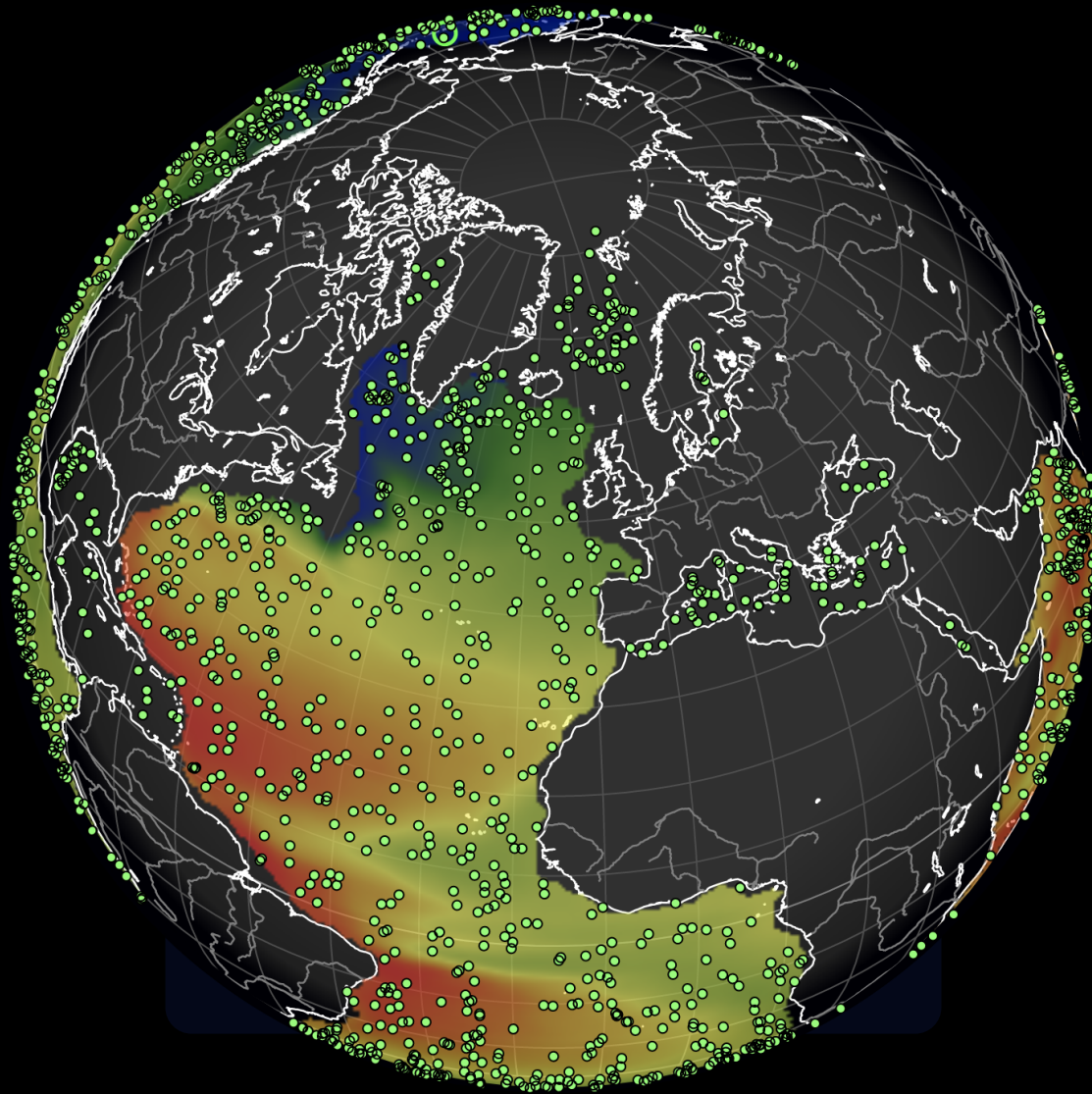


<http://data.scripps.earth/argoviz/>



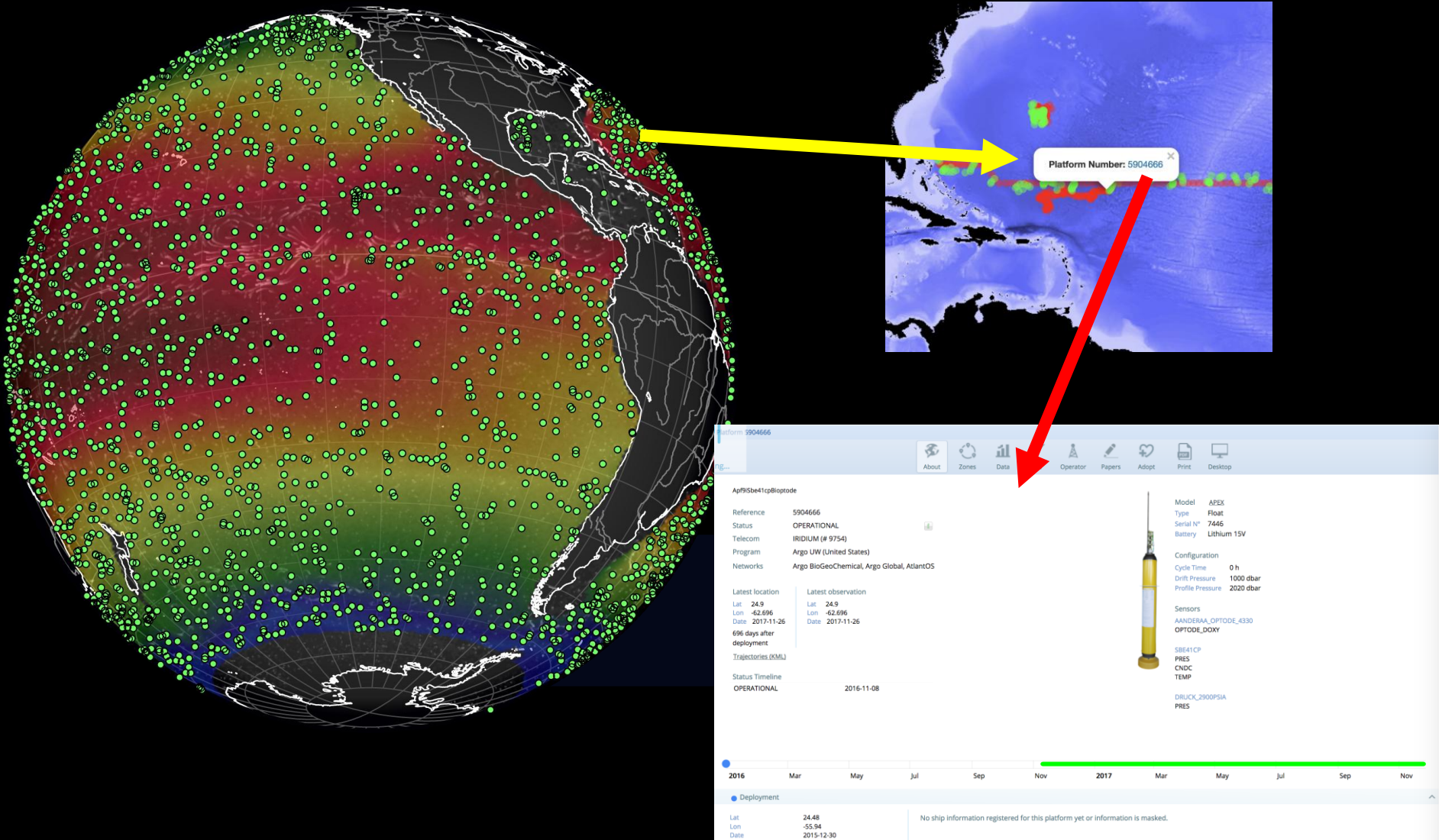


<http://data.scripps.earth/argoviz/>



<http://data.scripps.earth/argoviz/>

# Future Pro Bono Work





5

18

21

11000

19000000

5 people

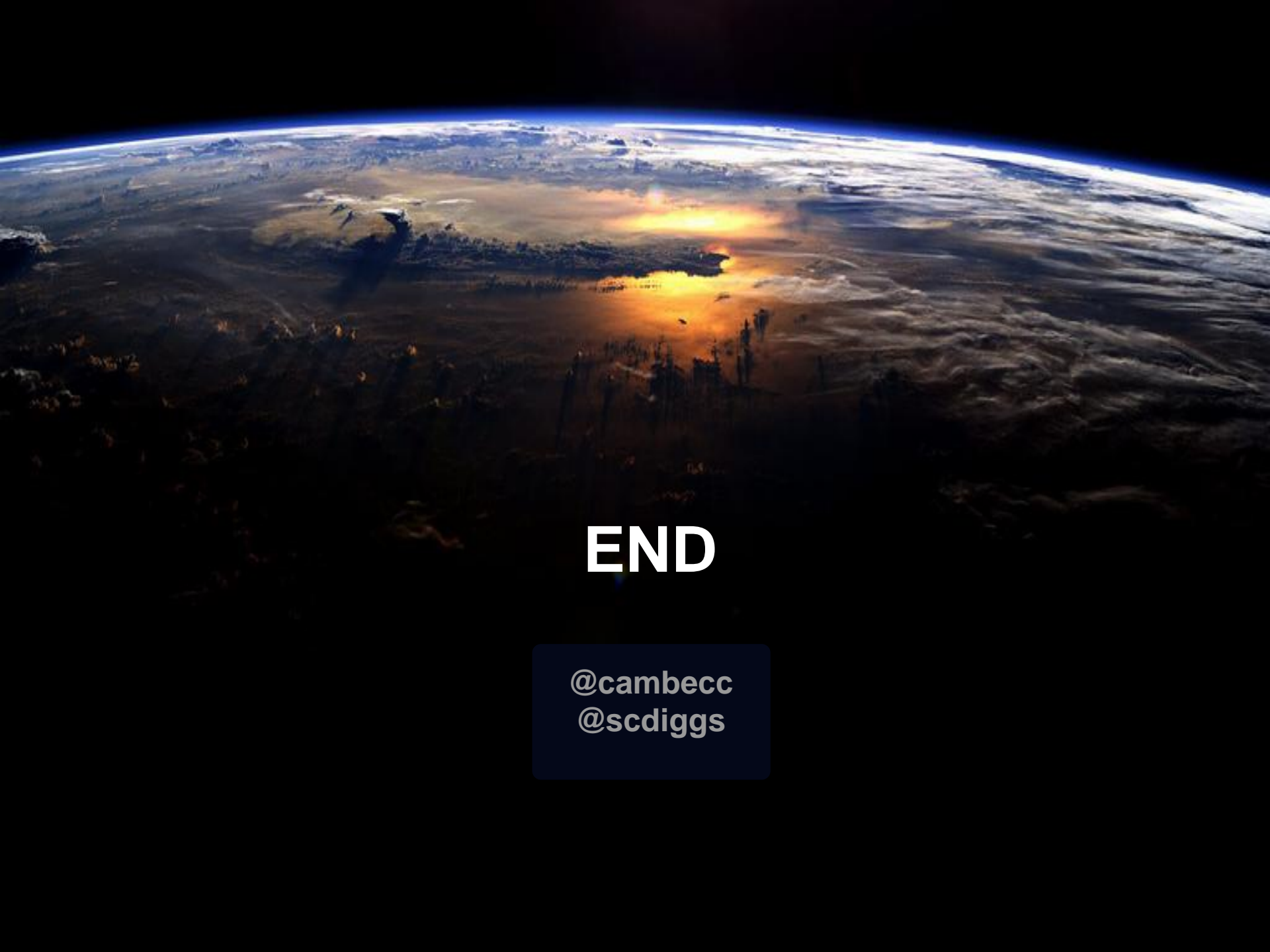
18 months

21 USD/mo

11000 USD/project

19000000 pageviews





**END**

@cambecc  
@scdiggs