

Session Title: Panel – Real-time Data and Interpretation

Moderator: Carrie McDougall

Note taker: Lexie Brown

Panelists: Dan Pisut – NOAA Visualization Lab

Maurice Henderson – NASA Goddard

Patrick Rowley - Nauticus

Steve Albers – NOAA ESRL

General Notes:

- Dan Pisut
 - Real-time data available in many forms from NOAA Visualization Lab
 - Timely, less interpreted data = real-time data
 - Explained, less frequent data = interpreted datasets
 - Can provide color scale data, other forms of interpretation
 - Satellite data to climate models – lots to choose from
 - Analyzed products could be developed to come out monthly
 - Can also provide specific interpretive/analyzed datasets
 - Interested in looking at ways to automate what happens on the sphere
 - Pop-up boxes, graying out data except for focal areas, arrow annotation
- Maurice Henderson
 - More than 75% of you are doing some live presentations on the sphere
 - How many are using real-time data in presentations?
 - A lot of hands went up!
 - What does SOS community need from NASA in terms of data?
 - NASA already collects petabytes of data
 - Recent successes:
 - Sea Ice dataset is now available to everyone (2 day lag)
 - View of the sun that is near real-time (4 day lag)
 - Archived data is time-stamped so you know when it is from
 - “Real-time” means when you pull up a clip, you see the latest available data without you having to do anything (time lag depends on dataset)
 - Need permission for SOS team to push data to your server in order to provide you with real-time data and most recent data

- Patrick Rowley
 - Most programming with real-time data is for 4-6th grade students
 - Developed “Weather World” program that uses real-time satellite infrared and water vapor imagery
 - Start with POES and GOES satellites to show students where data is from
 - Used no color enhanced satellite images
 - Live presentations most of the year
 - Mostly tourists → show them local weather so they can see where they are
- Steve Albers
 - Use real-time weather as a primary dataset
 - Likes no color enhanced data because it is the view an astronaut would see
 - Uses maps of global temperature that update hourly (images)
 - Shows real-time jet stream in Northern Hemisphere
 - Display weather forecasts (NOAA models)
 - On website: find real-time data by category
 - Looking for feedback on improvements and datasets the network wants
- Questions:
 - Comment: Museums that are most successful first ask what they want visitors to experience, learn, and feel; then they figure out what data would be the best to achieve those goals.
 - Michael Starobin: NASA administration is motivated to put out defined products (full featured program, nuggets of clips, programs that include curriculum support) for SOS but need feedback to show its being used!
 - Maurice: Administration is motivated, but we need to show that it is being used
 - Heather Barnes: People stay past regular presentation to see real-time datasets
 - Genuine interest in real-time data
 - Useful to be able drill down to local aspects of real-time datasets
 - Have observed quite a few visitors that cannot distinguish between real-time data, visualizations, and old data
 - Maurice: lots of new datasets in the pipeline
 - Lots of interest in a variety of real-time datasets
 - Sarah: Sometime visitors are then disappointed if rest of datasets are not real-time
 - People interested in volcanoes, fires in datasets

Recommendations to NOAA (Office of Education, Earth System Research Laboratory, National Visualization Laboratory):

- Lots of interest in more real-time datasets and more variety among them (mostly directed toward NASA and NOAA Visualization lab)

Actions/Next Steps:

<i>Action/Next Step</i>	<i>Responsible Network Member/Institution</i>
More real-time data on a variety of topics	? NASA Goddard and NOAA Visualization Lab

Research Questions for Further Exploration: