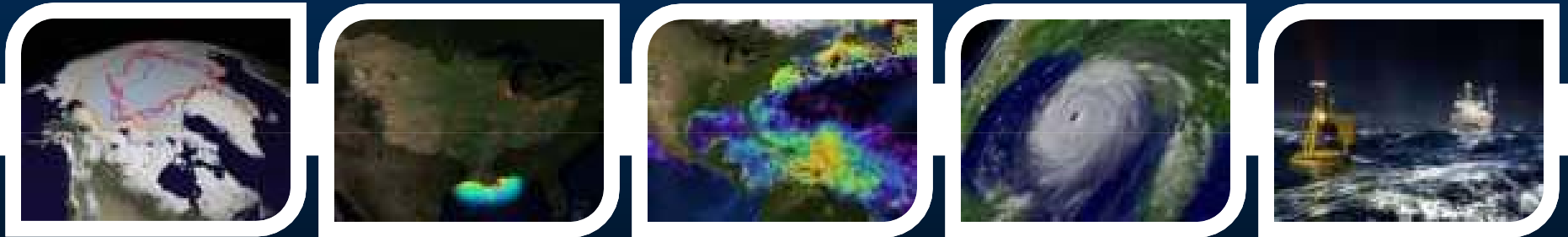


STAR Seminar – October 14, 2009

STAR Data Engages the Public

How are you using your data?



Lori K. Brown
STAR Webmaster
Lori.Brown@noaa.gov

Dan Pisut
NOAA Environmental Visualization Lab
Dan.Pisut@noaa.gov



Ultra

Cool Sexy

Weather

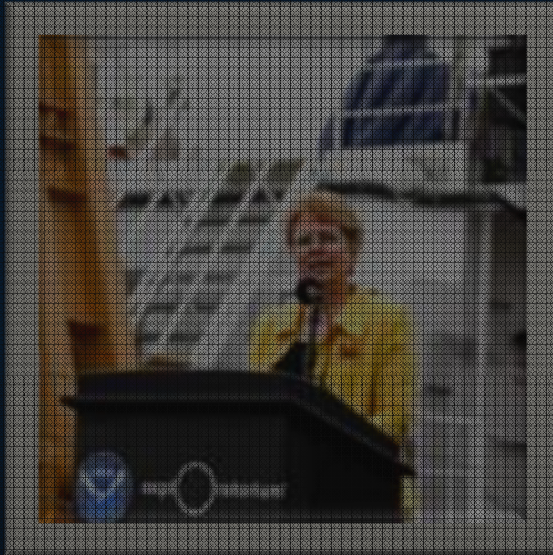
A New Mission: Communicate!



***NOAA** can only achieve its mission objectives and value to society through transparent and positive **engagement** with stakeholders and partners. Collaboration, consultation, and **communication** define NOAA's way of doing business.*

- NOAA Annual Guidance Memorandum
Principle #4

Dr. Lubchenco co-founded three organizations that communicate scientific knowledge to the public, policy makers, the media and industry: (1) The Leopold Leadership Program (teaches environmental scientists to be effective communicators), (2) COMPASS (the Communication Partnership for Science and the Sea, communicates marine sciences); and (3) Climate Central.



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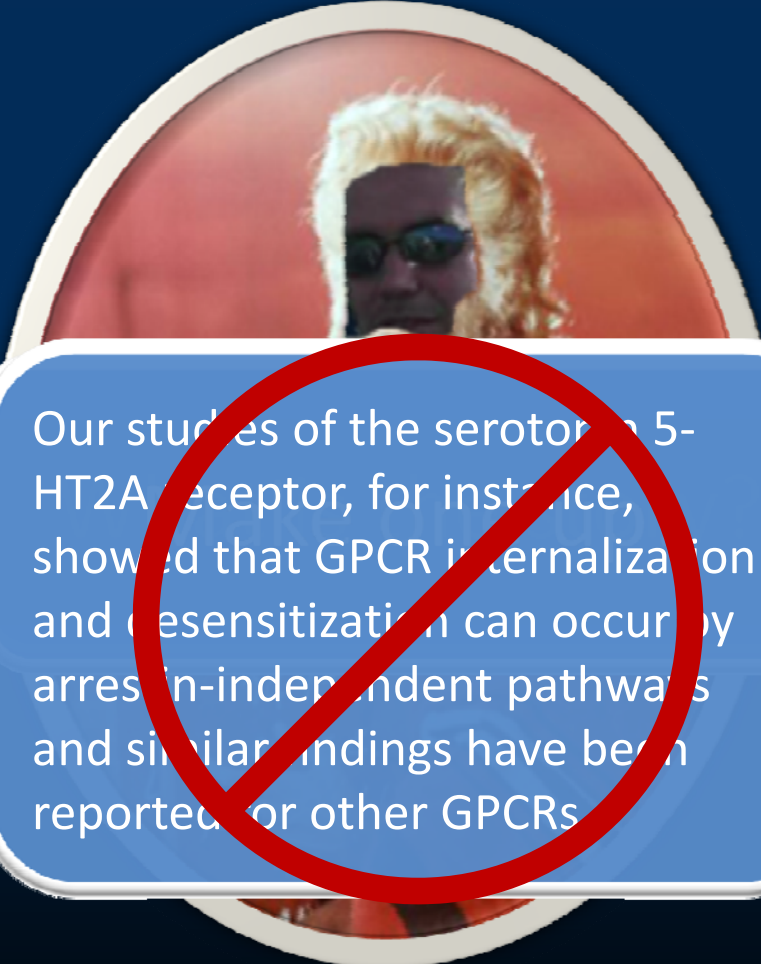
1. Enhancing NOAA's climate services
 - *Climate in your backyard*
2. Supporting comprehensive marine spatial planning
3. Ensuring the sustainability of marine fisheries
4. Strengthening Arctic science and stewardship
5. Sustaining satellite-based earth observations



Thoughts on Successful Communication

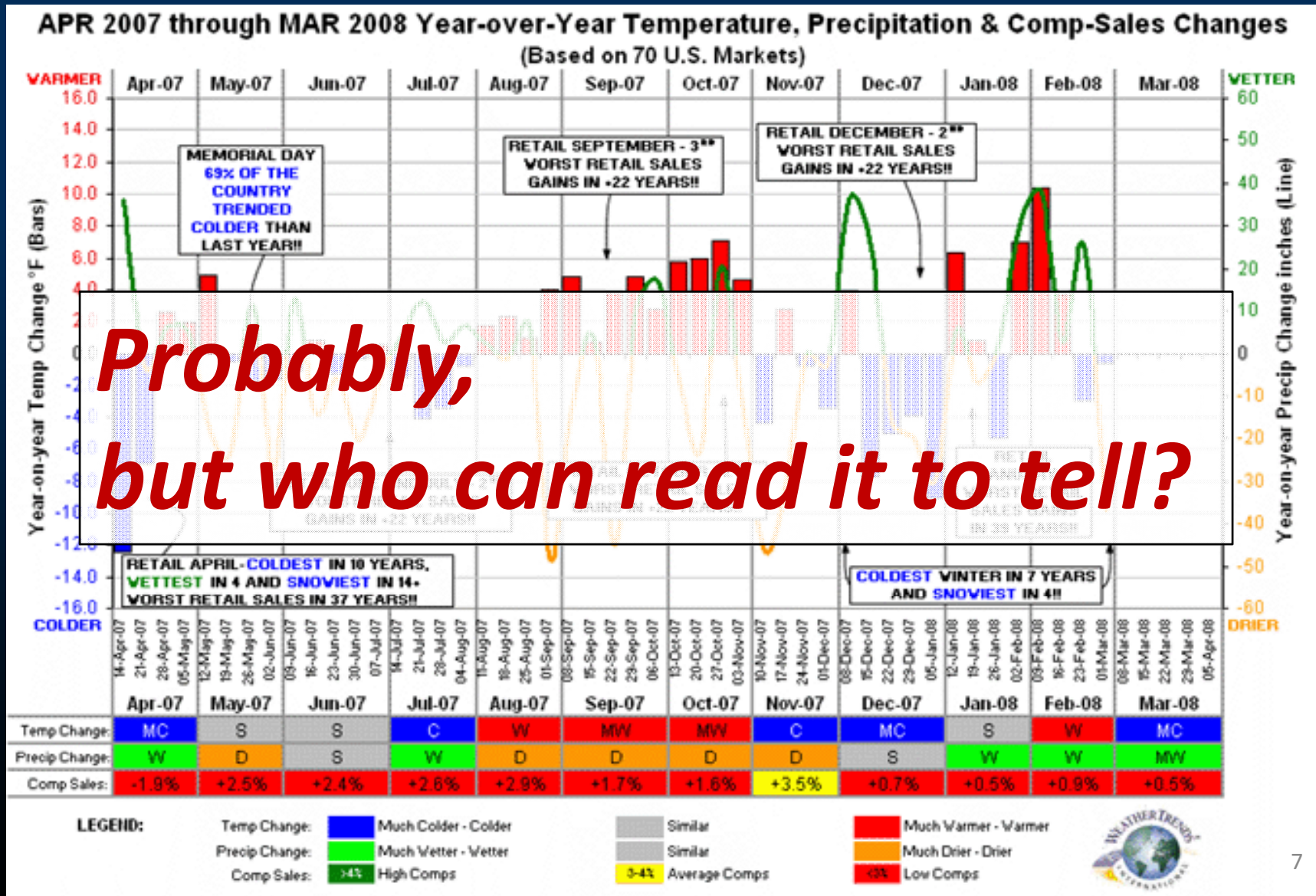
Thou shalt...

1. Know your audience!
 - It is bigger, and less technical than you think.
2. Make it interesting
3. Stick to *a* single topic sentence
4. Make it timely
5. Make it concise & understandable
6. Show how your scientific work:
 - Impacts the rest of the world;
 - Relates to other research;
7. Supply pictures!



Our studies of the serotonin 5-HT_{2A} receptor, for instance, showed that GPCR internalization and desensitization can occur by arrestin-independent pathways and similar findings have been reported for other GPCRs

Is there important and valuable science here?



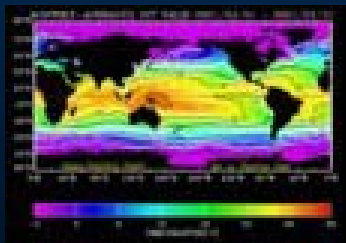
**Probably,
but who can read it to tell?**

What are potentially good news items?



- Current/significant events
 - Arctic ice concentration on Sept 12th was 3rd lowest ever

- Major discoveries
 - VORTEX yields insight into tornado structure
 - What part did GOES play?



- Interesting windows into science
 - Major upwelling event off S. America
- Improvements in science products
 - Increased resolution (e.g., geo-magnetic anomalies)
 - New satellite product goes operational



- Newsworthy science is science with a clear & immediate impact

How do you get your story out?



Make people tell YOUR story

It used to be this...

Content driven by public affairs & press releases



- Mainstream media outlets with science sections published science news from press releases, cultivated long-term relationships with organizational sources.

Now it's this...

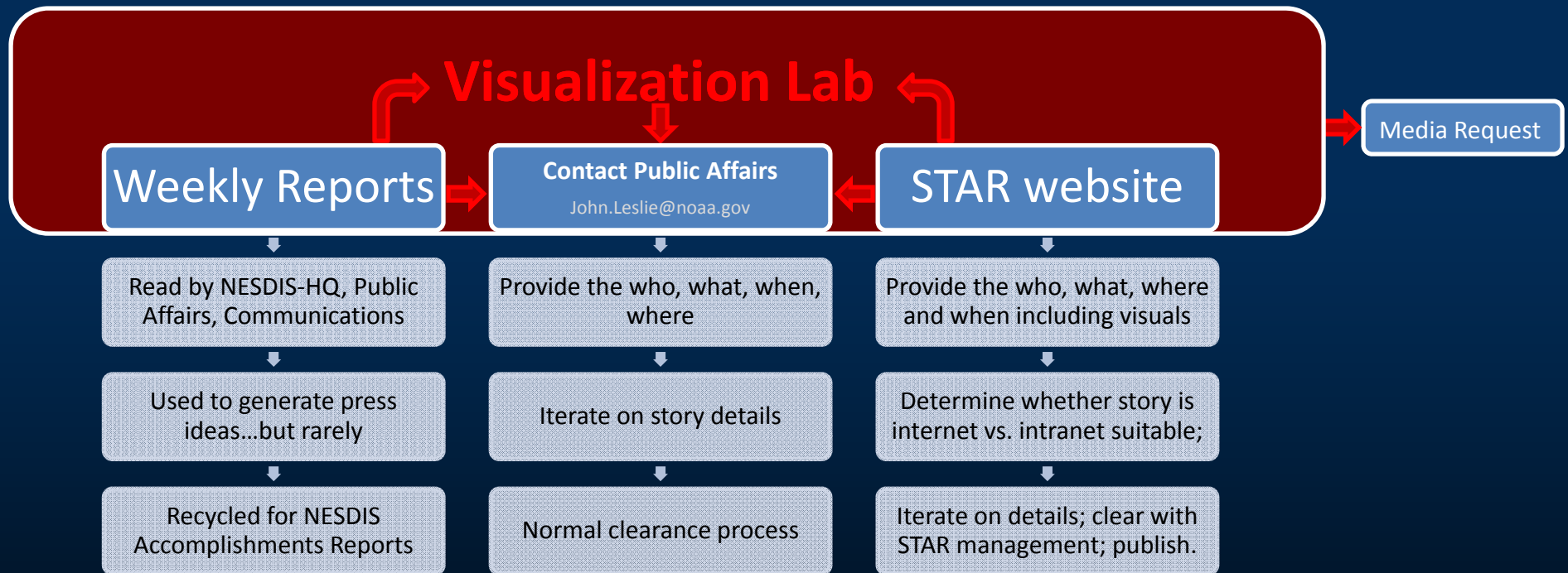
Content driven by science writers searching the web



- Bloggers on scientific topics find and publish news themselves, using Google to search sources across the web.
- Why is this model better for us?
 - Scope to expand detail presented far beyond the constraints of mainstream news outlets;
 - Provides valuable feedback to us about how to tell our story better, more effectively.

So how do people find your story?

There's more than 1 way to skin a cat



*The responsibility is almost always on the **subject expert** to initiate these processes...how else can we know if something is happening?

A well produced news item on a moderately important event, provided to us in a finished form stands a better chance of getting published than a news item that is seemingly more important but which isn't produced with a coherent and well-written story and good supporting images.

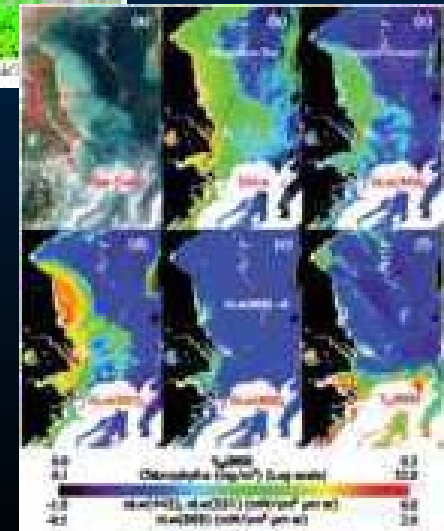
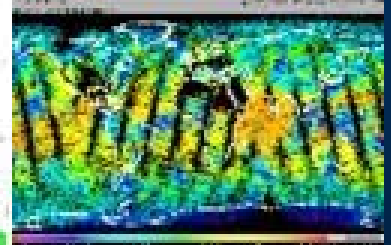
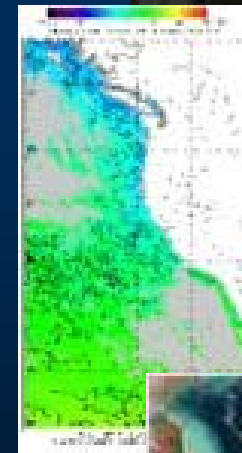


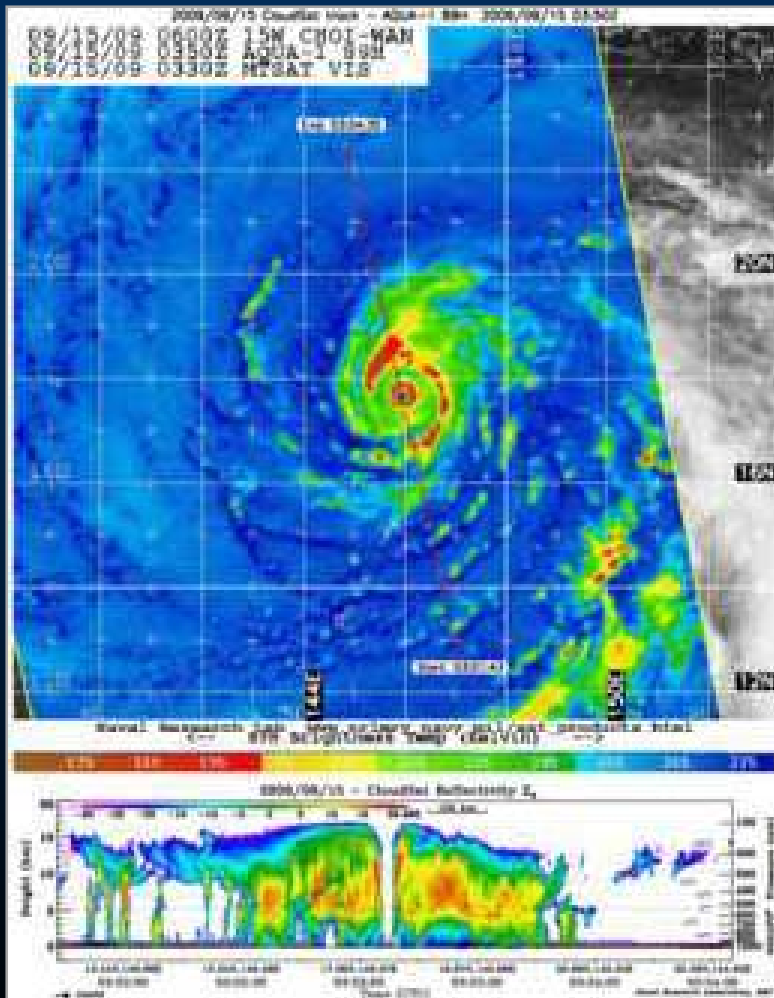


Effectively Using the STAR Internet

Turning STAR Accomplishments into Web-Ready News Items

- Every few weeks, I get an image or a phrase in an e-mail from a STAR scientist or Division chief, with the message “please put this on the web”.
- Usually the ‘this’ is an interesting atmospheric phenomenon, a scientist receiving an award, a prestigious publication accepting a STAR paper, etc. Totally newsworthy. Good stuff!
- Sometimes I’m able to develop the news item, chase down some details, write 15 e-mail queries to participants, etc. But not always.
- Just like for NESDIS & NOAA public affairs, the more web-ready your story is when submitted, the more readily it can be published. I need more than a phrase or an image to publish your news item on the STAR website.





- Original caption for this image and chart:

Top: Eyewall crossing of Typhoon Choi-Wan on 9-15-2009, showing CloudSat groundtrack (red line) overlaid upon Advanced Microwave Scanning Radiometer (AMSR-E) 89 Gigahertz brightness temperatures (colors; with yellow/red denoting regions of high ice scattering in the eyewall and feeder bands). Bottom: CloudSat reflectivity along the groundtrack plotted against height. Red colors denote regions of high radar reflectivity, corresponding to high water content and large hydrometeors. The vertical region of zero reflectivity denotes clearly the eye of the storm.

- Revised to:

Top: Eye overpass image of Typhoon Choi-Wan Showing CloudSat Path, 9-15-2009
Bottom: Chart Plotting Reflectivity Against Height

Guidelines for Science Writing for a More General Audience

- Having considered who your audience is, what does this suggest about communicating with them effectively?
 - Minimize technical jargon, and define important terms as needed;
 - Don't make assumptions about your readers' specific scientific knowledge;
 - Label images, charts, and graphics in clear and terse descriptive language
 - If you **MUST** use technical jargon:
 - Define it – it can always be placed in a sidebar or linked to a fuller explanation on another page.
 - Write in short paragraphs or bullets.
 - Start from a single, clear, active topic sentence.
- Following these guidelines doesn't mean 'dumbing down' your stories, or excluding technical content.
 - Space on the web is **CHEAP!**
If you want to write a full-on, more detailed and technical piece about the work or award being discussed in a news piece, that's great! We can post that too, as well as producing the kind of short, focused, news piece this talk is about.



Requirements for a Story Submission

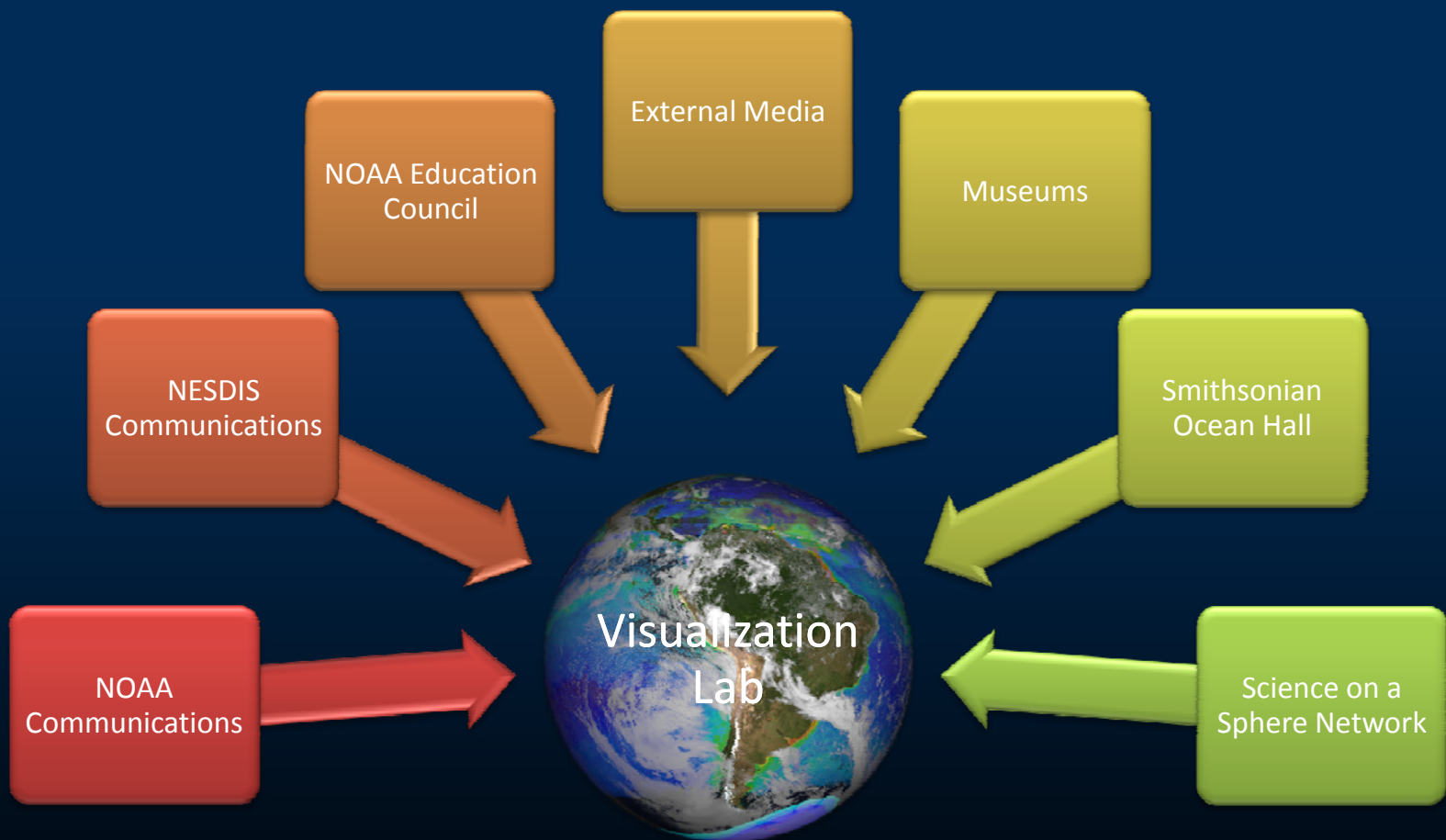
- ~100 words that conform to the guidelines discussed above:
 - Story should be anchored by a single clear, active topic sentence / title.
 - Tell a story in plain language that
 - Demonstrates the value /importance of the scientific work to the non-scientific world,
 - Is ideally related to STAR's and/or NOAA's mission and priorities.
 - Supporting materials / longer versions are welcome accompaniments of the short story.
 - Think of your story submission as a minimally technical abstract on the value and interest of the work being discussed.
 - If the news is, “our new product is better”, quantify it – how much better?
 - Give credit to participants / team that produced the work and any graphics.
- Include one or more images to support your story.
For a news story, good images are:
 - Visually interesting
 - Illustrate your story in a way that is clear even to non-experts
 - Are legible at 300 pixels (less than 4 inches) across.
 - We can link to larger versions of images, but prefer to use a page-suitable size in line with the story as well.
 - Some images we will want to improve through the VisLab; may not be necessary for all, however.

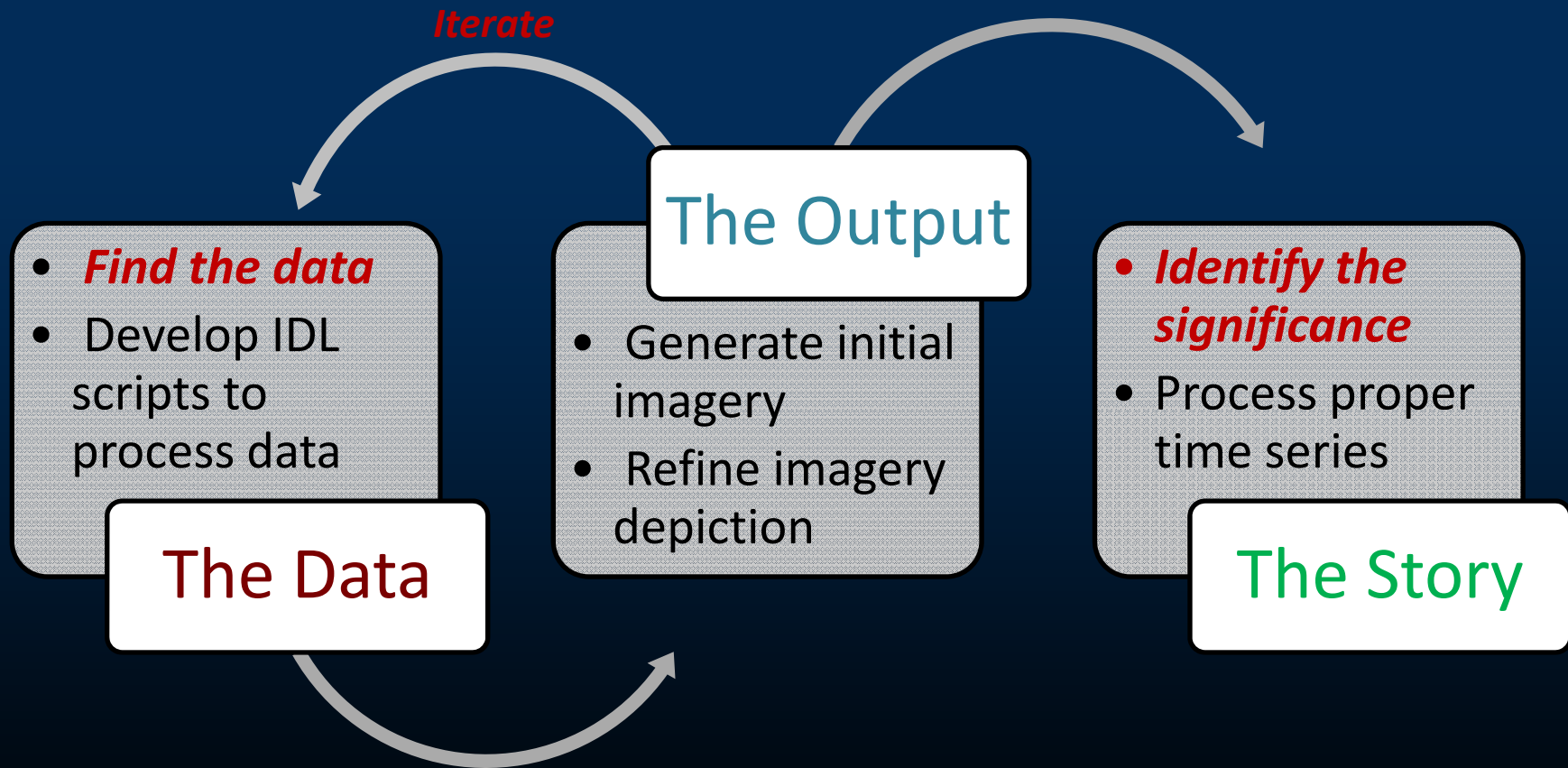




Effectively Using the Visualization Lab

Let us help your communication goals





**Need your input in process*

Streaming video

Daily images

High definition downloads

Extensive exportable database

Upcoming improvements (soon)

- “Share this” for video and images
- Email signup for updates
- Multiple versions of a single resource
- iGoogle Images



www.nnvl.noaa.gov



Ongoing

- Daily satellite images
- Support of NOAA's media requests
- Development of visualization productions that highlight satellite science
- Support of the Smithsonian Ocean Hall



Present

- Developing enhanced capability to process, visualize, and store high resolution data
- New visualization techniques and more diverse topics to enhance public understanding of Earth sciences.
- Collaborating and expanding the Lab throughout the NOAA Line Offices

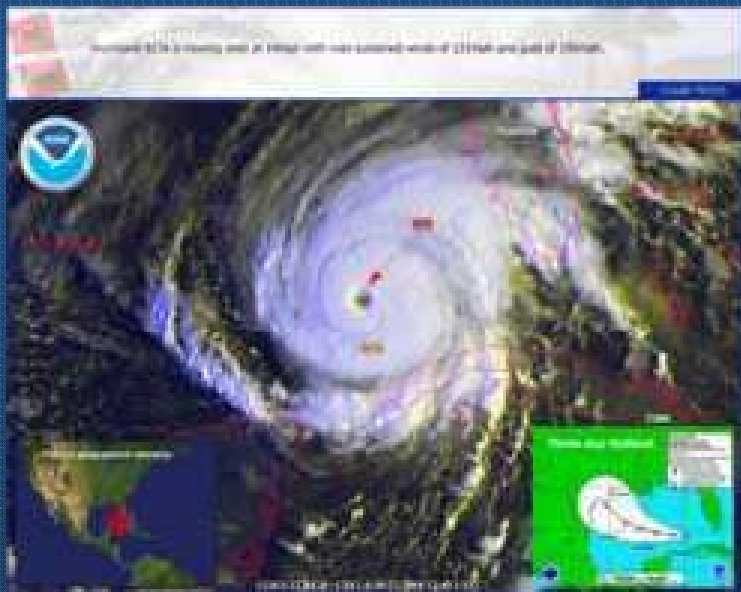


Future

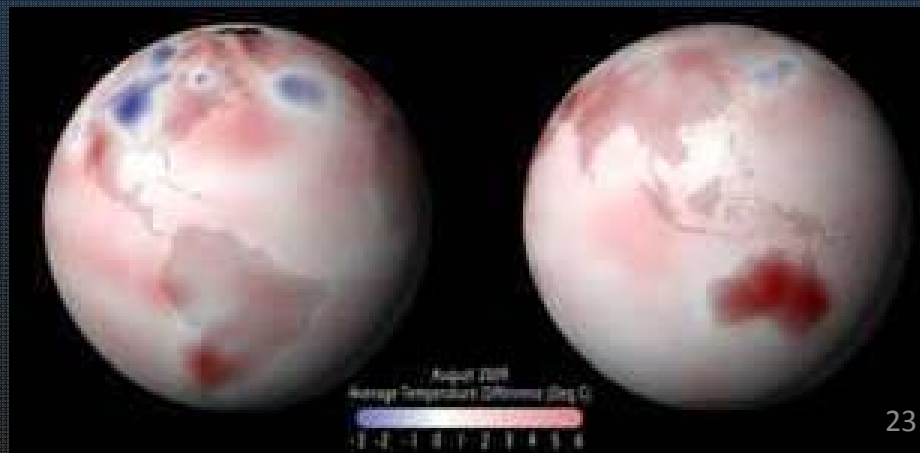
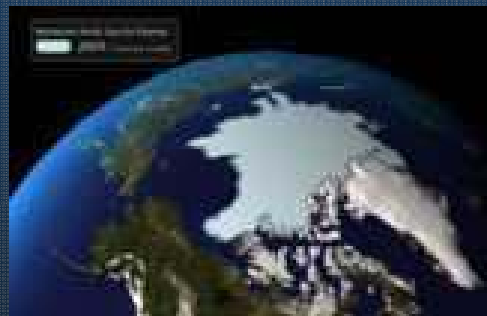
- Daily images/animations for NOAA and Climate Watch
- Visualization of 3-D observation and model data
- Interactive exploration of data visualizations online
- SSMC Science on a Sphere development

Redefining "Significant Imagery"

OSEI Daily Images

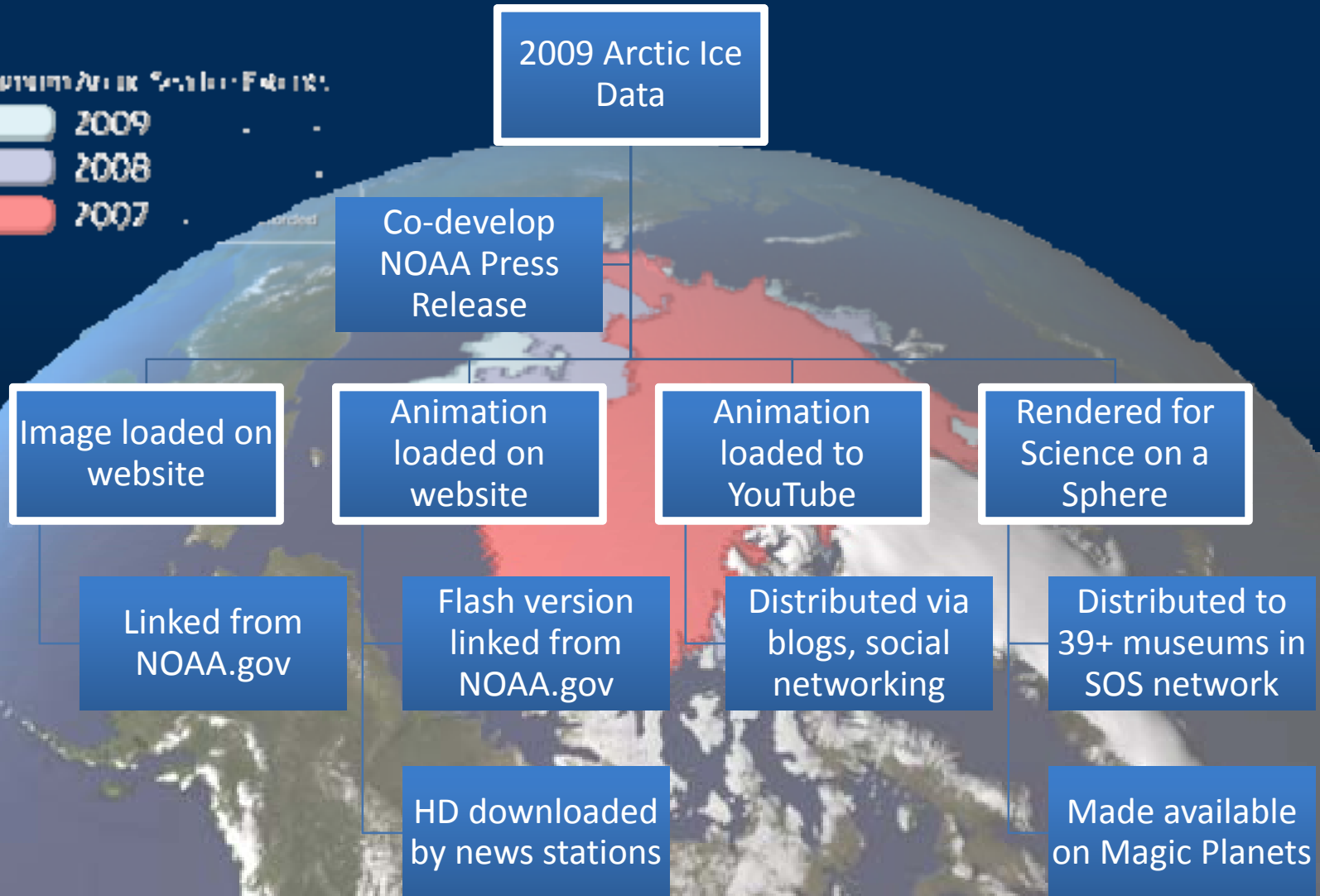
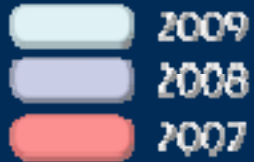


New NOAA Image of the Day



The Life of a Visualization

Minimum Arctic Sea Ice Extent:



Conclusions

- Communication is a newly elevated NOAA priority.
- Involve Lori & Dan early & often when you think an event or activity is potentially newsworthy.
- Tell your story with brevity, clarity, and plain language and include a clear and compelling visual.
- Use Dan & Lori to get your story out to the appropriate government and non-government communications channels.
- When drafting items, think about how to map the science activity to NOAA's priorities and tell it as a *STORY!*
- If you write it, we will use it.

