JPSS EDR

Long Term Monitoring & Product Repository

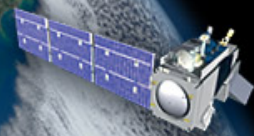Lori K. Brown

JPSS-LTM Web Development Lead

Tom Atkins, Frank Tilley, Charlie Brown, Xingpin Liu, Lihang Zhou

Presented at the 2015 STAR JPSS Science Meeting
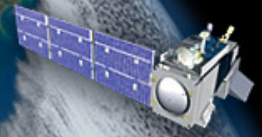
NOAA Center for Weather and Climate Prediction

College Park, MD

25 August 2015

JPSS EDR Product Repository Early Discussions

- At meetings in Fall 2014, the idea to develop a STAR JPSS program wide repository to house and share JPSS EDR product images was suggested.

- At this point, STAR ICVS had been implemented for 2 years; it seemed an ideal web interface and browsing framework for daily product information.

ICVS as an EDR Repository Platform

- Advantages of ICVS as interface for presenting EDR content:
  - Constructed and organized for browsing content that is updated daily;
  - Easy to update and edit;
  - Extensible to additional products without additional web programming;
  - Familiar to many of the prospective user groups;
  - Compliant with Section 508 and other government directives regarding web presentation and architecture;
  - Thoroughly tested and reliable across all modern browsers;
  - Interface can accommodate different content types: images, maps, charts, text, zip files, and eventually vector-based charts;
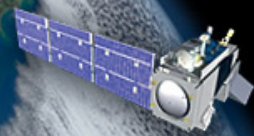 - No surprises!
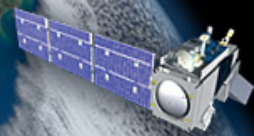
Prototype Now Online with 7 Product Groups

- Spring 2015 initiated prototyping;
- Contacted first product groups to start developing and acquiring images;
- Prototype currently houses product images from the following teams as of 8/24/2015:

Product Team	Product Images Daily	Product Dates Available	Production Stream
Soundings	598	1/1/2015 to present	automated
Land Surface Temperature	3	1/1/2015 to present	automated
Albedo	1	1/1/2015 to present	automated
Vegetation Index	3	6/20/2015 to present	automated
Active Fires	1	1/1/2015 to present	batch
Ozone	3	1/1/2015 to 7/15/2015	batch
Surface Type	4	5/1/2015 to present	automated

JPSS EDR Product Monitoring Demo

- http://www.star.nesdis.noaa.gov/jpss/EDRs/index.php
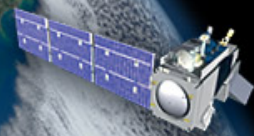
- Key features:
  - Navigate by product;
  - Navigate through products by date;
  - 'About' popup;
  - Animation:
    - Across all metrics in each product group;
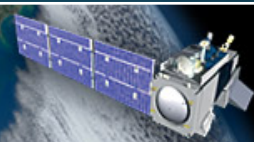   - **NEW!** Animate a selected timespan for a single product;

EDRs Are Not Quite the Same as Cal/Val Metrics

- Heavy on the maps; less emphasis on other types of 'charts'.
- Lower volume of images in most cases;

- So, we have made a few key updates to the ICVS interface to better support EDRs' presentational needs:
  - New Animation of a single product across a user-configurable time span *(**Coming soon: download the animation file**)*
  - Stricter standardization of product layout, typography, labelling, and underlying map conventions
    - The less variation in presentation, the more what users will see and focus on is the data being presented.
  - Goal: developing a shareable piece of code to generate product maps for all product teams who generate in IDL;
    - *Your mileage may vary – not all ways of producing data work well with all IDL mapping commands.*
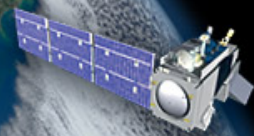
JPSS EDR Site vs. Team Sites

- Producing content for the JPSS EDR site doesn't change what you do or don't produce for your own team or product area websites.

- There may or may not be content overlap between the JPSS EDR site and other sites;

- The goal of the EDR Repository is ONE STOP SHOPPING; a little redundancy is no cause for concern.
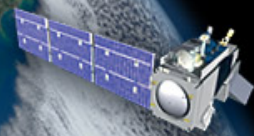
Steps to Produce & Publish EDR Products - 1

- Product Teams: figure out what you want to include on your page. Suitable content may include:
  - EDR deliverable products (at a minimum, we need these for the site);
  - Comparison products from other satellite instruments;
  - Quality measure charts, like NEΔN.
  - Usually images (.jpg, .gif, .png, but can also include .txt, .zip)
  - Please note: content for the page is ideally content that is refreshed daily.
    - Land Surface Temperature for Global Surface – 8/22/2015 – **YES**!
    - 10 day composite of anything – probably not.

- Meet with JPSS EDR to go over style guide, layout of maps, formatting preferences;

- Product Team develops a 'test set' of product images, JPSS EDR team reviews, revises, and approves.

Steps to Produce & Publish EDR Products - 2

- JPSS EDR team:
  - Establishes a directory structure on the webserver to house Team's products;
  - Develops the CSV file that lists product file descriptions and locations;
  - Add the new Product page;
  - To add or remove content, we edit the CSV file to reflect additions / changes / deletions from the product set.

- Product Teams
  - Run charts as far back as you can (we are aiming for EDRs back to Jan. 1, 2015), and write them to the specified location on STAR webserver;
  - Set the product generation script on a cron job;
  - No website to maintain, no HTML to write, just generate your products

Next Steps To Complete The EDR Repository

- Reach out to remaining product teams to start generating products;

- Work with existing teams to refine and improve product presentation, standardization, re-usable IDL script block;

- Integrate new features like new single product animation back into the STAR ICVS.