NOAA’s Climate Portal

Technical Steps to a Successful Deployment

David Herring
David.Herring@noaa.gov

Presentation to the ESIP Federation

January 7, 2009
BACKGROUND

• Public demand for climate data, services, and information is growing. Decision makers, business leaders, scientists, educators, and concerned citizens are all expressing a need for more timely data and resources to help them make more informed decisions in their lives and livelihoods.

• Thus, NOAA sees an increasing need to manage and distribute climate information in a more effective, efficient, customer-focused manner.

• The rapid evolution of Web technologies coupled with the migration of user communities on-line seeking climate resources underscore the need for a comprehensive new NOAA climate data and services Web portal.
City and state governments developing climate action plans need ready resources
GOAL:
• To develop a one-stop Web portal for discovery and delivery of NOAA’s climate information and resources.

OBJECTIVES:
• Enhance the discoverability, accessibility and usability of NOAA climate data, products, and services
• Enhance interoperability and leveraging of software products
• Implement appropriate metadata standards and requirements for climate data and products
• Promote a user-focused view of climate data and a consistent delivery of Web-based climate services across NOAA
NOAA Climate Portal Charter

VISION

• In the climate context, NOAA’s role is to be an authoritative and credible source of climate data and services for science and society, and an honest broker in its assessments of the state of the climate system and forecasts of its future.

• To succeed in this vision, NOAA’s supporting labs, centers, and partners must work collaboratively and the Portal will serve as a primary, unifying focal point.
  • Existing Web interfaces across NOAA will continue to evolve in concert with the Climate Portal, with increasing seamlessness.
  • One massive, centralized Website to host and serve all datasets and products is not practical nor doable.
  • Think: centralized access for users; decentralized process among NOAA personnel for developing & serving products & services.
Climate Portal Concept
Centralized Access, Decentralized Process

Data & Services Page
For Peers & Users

Climate Education Page
For Educators, Students & Publishers

Climate Science Magazine
For Public Continuum, Media & Peers

Climate Portal Page
For everyone

Climate Progress Page
For Policy Leaders & Peers

NOAA Data, Models, & Services

Climate Science Community
Partnerships

Audience Expert
Subject Expert
Medium Expert

NOAA Comm, Ed Council, Public Affairs, Leg Affairs, etc.

Public facing
Internal Collaborations
Program Management

Project Organization

Roles & Responsibilities

- Executive sponsorship
- Establish direction & priorities
- Approves requirements
- Oversees technical development
- Manages cost, schedule & scope
- Resolves cross-cutting issues
- Provides routine status to Exec Team & elevates issues as needed
- Executes WBS (work breakdown structure) tasking
- Provides cross-walk with other teams as needed

Executive Mgt Team

Eileen Shea

Coordination / Governance Team

Neal Lott (NCDC) & Jim Boyd (CSC)

User Testing Team
Ron Jones (NWS)

Data, Products & Services Team
Jason Marshall (CSC)

Development Team
TBD

Web Design Team
Dave Estlinger (CSC)
June ‘08: Initial meeting to discuss ideas & interested players

August ‘08: Kickoff workshop in Asheville, NC, to set scope

September – November ’08:
• Governance, Design, Data/Metadata & User Testing Team efforts underway
• Core users identified
• Charter completed; concept presented to NOAA CIO Council
• Requirements documents development underway
• Selected for “in-core” funding beginning in FY11

December ‘08:
• Agreement on prototype design
• Continued work on requirements documents
• Continued development of case studies and user scenarios for prototype
Deliverables

Phase 1 (FY09) Prototype:
• NOAA Climate Portal Homepage
• Data & Services section
• Climate Science magazine
• FGDC/ISO-compliant metadata for data / products
• Technical documentation sufficient to manage and evolve the initial version of the portal into the future
• Tests designed & implemented for both internal “tire kicking” and external user feedback
• Targeting public rollout (upon approval) in September ’09

Phase 2 (FY10):
• Expansion of each section developed in Phase 1 with added datasets, products, and services
• Development of Education and Climate Science Progress sections
Next Steps

• Finalize and baseline portal requirements document
• Development Team begins work
• User testing … ongoing and often!
• Stand up portal infrastructure at NCDC
• Secure FGDC metadata from participating offices for Phase 1 data / products
• Alpha and Beta reviews
• Continue enhancements of functionality and content
• On-line release to public (~ September 2009)
Some very preliminary designs...
Monitoring the Ocean's Carbon Balance

The idea seemed simple enough: the more carbon dioxide that people pumped into the atmosphere by burning fossil fuels, the more the oceans would absorb. Is the ocean's uptake of carbon changing its carbon cycle? After 30 years of observations, NOAA found a surprising answer. Read more...

Climate Change to Bring More Extreme Weather to High Plains?
The summer of 2008 shattered all previous records for the number of days exceeding 100°F. Read more...

This Design Features Four Headlines
This blurb describes the fourth item in this stack of recent news articles about NOAA’s exciting climate research. Read more...
NOAA Improves Historical Hurricane Tracks Dataset

December 19, 2008

The historical hurricane track dataset now has twice the precision of the previous version, in both time and space. There can be up to four lines of text in these descriptors.

Climate Change Brings More Extreme Weather to Great Plains

December 2, 2008

The summer of 2008 shattered all previous records for the number of days exceeding 100°F. There can be up to four lines of text in these descriptors, which is 1-2 sentences.

This is the Third Headline Out of Four Headlines

November 21, 2008

This blurb describes the third item in this stack of recent news articles about NOAA's exciting climate research. There can be up to four lines of text in these descriptors.
NOAA is a leading provider of climate data and services to the nation and the world. Click above to key in Search terms or, to browse, select from among the Datasets listed below left. Click the ‘+’ button above to display Advanced Search features.

Click on a ship transect of interest to preview the data, or return to the menu to make another selection.