

National Weather Service Product Description Document (PDD)

RIDGE - Radar Integrated Display with Geospatial Elements

Part 1 - Mission Connection

1. Product Description:

NWS is responsible to make its weather, water and climate information widely available to taxpayers using commonly accepted standards and technologies. Currently, the NWS provides weather radar information for all Weather Service Doppler Radars (WSR 88-D) in the United States on the NWS Internet page.

The National Weather Service Southern Region, working in cooperation with North Central Texas Council of Governments, has developed a method to display radar images more efficiently than the previous method. These radar images, call RIDGE (Radar Integrated Display with Geospatial Elements), allows the radar image to be combined with geospatial elements such as topography maps, highways, and county boundaries. This not only produces a better image, but provides additional reference information for users to understand where they are located. RIDGE also adds the ability to overlay polygon warnings issued by the National Weather Service Forecast Offices.

2. Purpose/Intended Use:

The purpose of the radar images and polygon warning images are to provide potentially life saving and property damage reduction information to the public in a more efficient manner.

3. Audience:

This service is intended to meet a wide range of needs for customers. Any person with Internet access and a need to view weather radar information will have the ability to utilize this product.

4. Presentation Format:

The images are in GIF format, a common image format that can be viewed on all Internet browsers. These images also have a world file associated with them, which is important for GIS users. The world file (ascii text file) tells GIS software where the image is placed on a map, which enables GIS users to incorporate the radar image into any other GIS data layer. The looping feature of the pages utilizes a Java plug-in. The Java Plug-in allows the use of multiple image formats which include GIF and PNG which maintain clarity when zoomed. Using this applet also allows continuity in the transition from the current radar image to the new RIDGE images.

On both the static image webpage and loop webpage, the user can select which overlays are displayed through the use of check boxes located below the image. The static pages contain javascript which enables the user to determine both azimuth and distance from a feature that the user selects by clicking on the image.

5. Feedback Method:

Comments will be compiled through July 30, 2005 and will be evaluated by the appropriate NWS Radar Program Team. Feedback will be obtained through the survey available on each RIDGE page.

<http://weather.gov/survey/nws-survey.php?code=ridge2>

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Webpage architecture questions may be addressed to: Dennis.Cain@noaa.gov

Geospatial Information questions may be addressed to: Keith.Stellman@noaa.gov

Part 2 - Technical

1. Format and Science Basis:

The radar images will be generated using Microsoft Visual Basic .NET technology to compose the image. Tcl/tk programming is used to maintain webpages, and coordinate the generation of images. The radar information will come directly from WSR-88D Radar Product Generation (RPG) Level III files via the NOAA Port Feed (NRS). Geospatial elements are derived from GIS files available from the United States Geographical Service (USGS), and basic overlay files available with ArcView 9.x.

2. Availability:

This service will be available 24 hours/day, seven days a week by visiting the website www.srh.noaa.gov/ridge/. All radars and polygon warning layers are currently available.

3. Additional Information: This experimental service will be tested at all National Weather Forecast Offices.