

National Weather Service  
Service Description Document (SDD)  
Experimental Product  
December 2003

## **NWS web services via wireless technologies**

### **Part 1 - Mission Connection**

#### **1. Service Description:**

NWS is responsible to make its weather, water and climate information widely available to taxpayers using commonly accepted standards and technologies. One of the most widely accepted, available and cost effective means of accomplishing this objective is the use of web services via the internet, and NWS has implemented corporate wide HTTP based web services under the leadership of the NWS CIO's office. This service has allowed users instant access to current NWS information via industry standard web browsers and internet connections.

A rapidly evolving technology in the United States today is the ability to access internet content via wireless devices such as Personal Digital Assistants (PDA) and Cell Phones. This is done using a set of industry standards known collectively as Wireless Access Protocol (WAP). Use of these technologies allows web content to be displayed on the small screens and keyboards usually associated with portable devices. WAP applications usually require reformatting of web content so it can be displayed on the small screen. In the case of textual information, this can be a simple task, but considerable thought must be given to redesign of graphical and image information is required to make it usable on portable devices. Additionally, special consideration must be given to user interaction with the device, since input is done through keypads, stylus or other devices much different than the typical desktop PC.

Given these objectives and constraints, NWS Central Region will provide web services on an experimental basis which will provide customers with wireless devices the ability to retrieve NWS warnings, forecasts and observations which are in text format and with approved PDDs. This provides wireless internet users the ability to access standard NWS text information at minimal cost to NWS. This service will be made available on a "pull" basis only, NWS will not provide services that "push" content to wireless users on any type of schedule or event basis.

#### **2. Purpose/Intended Use:**

Providing NWS text products in formats suitable for display on wireless devices allows access of this information to a wide audience in many mobile settings. This experimental service is intended to duplicate text content already provided by the NWS, simply reformatted for wireless devices.

#### **3. Audience:**

This service is intended to meet a wide range of needs for customers with wireless internet capability. Provision of this service permits access to current NWS weather information from any location with wireless internet service, and could include emergency management, transportation,

recreational, commerce and general weather information users.

#### **4. Presentation Format:**

Selected NWS warning, forecast and observational text products will be reformatted to fit the smaller screens of portable devices, using Wireless Markup Language (WML).

#### **5. Feedback Method:**

We are always seeking to improve service based on customer feedback. Therefore, users of this experimental service are asked to complete the survey located:

<http://www.crh.noaa.gov/survey>. Comments are compiled through February 28, 2004 and will be evaluated by the appropriate NWS program managers. Feedback is also obtained through the Webmaster E-mail.

Technical questions may be addressed via e-mail to: [Thomas.Schwein@noaa.gov](mailto:Thomas.Schwein@noaa.gov)

### **Part 2 - Technical**

#### **1. Format and Science Basis:**

Wireless Markup Language (WML) is a formatting language defined as part of the industry wide Wireless Access Protocol (WAP), used for formatting web content for display on portable devices. It can be implemented on a large variety of WAP compliant servers, received on WAP compliant devices and transmitted across a wide variety of communications networks, including the internet. By design, WML does not require the use of any proprietary software, hardware or communication components, rather, these components must be compliant with the WAP standards in order to send and receive content.

#### **2. Availability:**

This service will be available 24 hours/day, seven days a week.

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