

**Experimental Instant Messaging (IM) During Significant Weather and Hydrologic Events  
Service Description Document (SDD)  
September 2007**

**Part I - Mission Connection**

**a. Service Description** - Instant Messaging (IM) is a real-time, Internet-based method of electronic communication. Utilizing a software device known as a “chat client”, multiple users can send messages to each other in forums known as “chat rooms.” NWS operational personnel use this technology to instantaneously send and receive hazardous hydrometeorological information to and from their core partners in the media and emergency response communities. Because of its real-time nature and ease of use, IM lends itself extremely well to significant weather and hydrologic.

IM is utilized by NWS operational personnel to share critical warning decision expertise and other types of significant weather information essential to the NWS’s mission of saving lives and property. This information is exchanged in real-time with the media and emergency response community, who in turn play a key role in communicating the NWS’s hazardous weather messages to the public. IM also provides media and emergency response partners with the ability to communicate significant event reports *back* to NWS operational personnel, who in turn utilize the information to make effective warning decisions. NWS partners can also use IM as an efficient means of seeking clarifications and enhancements to the communication stream originating from the NWS during a fast-paced significant weather or hydrologic event. Feedback processes such as these are crucial to maintain and improve our agency’s warning performance.

The National Oceanic and Atmospheric Administration (NOAA) Policy on Partnerships in the Provision of Environmental Information commits NOAA and NOAA’s National Weather Service (NWS) to the use of Internet-accessible, vendor-neutral forms for the provision of data and products, as follows:

“To advance the environmental information enterprise, NOAA will provide information in forms accessible to the public as well as underlying data in forms convenient to additional processing, to the extent practicable and within resource constraints. NOAA will make its data and products available in internet-accessible, vendor-neutral form and will use other dissemination technologies, e.g. satellite broadcast, NOAA Weather Radio, and wireless, as appropriate. Information will comply with recognized standards, formats, and metadata descriptions to ensure data from different observing platforms, databases, and models can be integrated and used by all interested parties.”

IM as a communication medium complies with the policies outlined above.

**b. Product Type** – Experimental.

**c. Purpose** – IM provides NWS operational personnel with a quick, efficient means of exchanging hydrometeorological information with media partners, emergency management officials, and other members of the hazard response community. IM fosters an effective two-

way flow of time-sensitive information between the NWS and its partners during periods of hazardous weather, as well as during other significant natural and human-induced events.

**d. Audience** - The target audience for this experimental service includes broadcast media partners, emergency managers and other members of the hazards response community, and Amateur Radio Emergency Services (ARES)/Radio Amateur Civil Emergency Services (RACES) Skywarn Net Ham Operators. These constituents play a critical role in helping the NWS achieve its mission of protecting life and property.

**e. Presentation Format** – Information exchanged between NWS forecasters and partners is displayed via an IM client.

**f. Feedback Method** – User feedback is extremely important in our effort to improve the quality and usefulness of products and services. Comments on significant weather collaboration using IM will be collected using web survey forms. Web addresses of these forms is detailed in [Part II, b.](#)

## Part II – Technical Description

**a. Format and Science Basis** – IM is a synchronous real-time method of communication. Multiple users can send messages to each other via a server in what is called a "chat room". The messages are composed and sent via software called a chat client. This client also displays the responses from the other users in the chat group. Because of its real-time nature, this form of communication lends itself well to the sharing of significant weather reports and information on both natural and man-made disasters between the NWS and members of the hazards community. Such communication between the groups will facilitate enhanced documentation of hazardous weather events, in turn directly improving the NWS's tornado, severe thunderstorm, flash flood and winter storm performance (GPRA) goals. Beyond instant communications, the chat room medium provides the capability of archiving all transcript logs, thus helping to improve the quality of data input into Storm Data.

**b. Availability** – The IM Chat will *initially* be provided by a limited number of NWS offices across the continental United States, primarily those located in the central, southern, eastern, and small part of the western portions of the country.

In the Southern, Central, and Western Regions, as of September 2007, this includes Weather Forecast Offices and River Forecast Offices in the following states: Alabama, Arizona, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, Tennessee, Texas, Wisconsin, and Wyoming.

Feedback from these areas will be collected through October 31, 2007. Please submit your comments on the appropriateness of this form of information exchange using the survey posted at: <http://www.weather.gov/survey/nws-survey.php?code=imchat>

In the Eastern Region, as of September 2007, this includes the following four Weather Forecast Offices: WFOs Binghamton, NY, Mt. Holly NJ, Charleston, WV and Blacksburg, VA.

For these areas feedback will be collected through December 31, 2008. Please submit your comments on the appropriateness of this form of information exchange using the survey posted at: <http://www.weather.gov/survey/nws-survey.php?code=imchater>

It is expected that the number of offices providing IM services will increase and eventually encompass all geographic sections of the country as the national IT infrastructure allows. The initial decision by local NWS offices to provide IM is largely contingent on expressions of interest and/or need by media and emergency response partners.

The IM program will be activated during significant weather events as well as natural and man-made disasters, depending on staffing and workload. Participants of IM, in these respects, agree to follow established rules and standards of behavior.

**c. Additional Information** – IM chat sessions are stored in log formats. These chat logs are considered official NWS documents and are subject to Freedom of Information Act (FOIA) requests. Chat sessions are public records and participants agree that their comments may be posted on NWS web sites and used in post-event surveys and assessments.