

Stakeholder's Workshop on the Acquisition, Use, and Archival of WSR-88D Level II Data

14-16 February 2001
Boulder, Colorado

1. Background

In an attempt to begin addressing the long-term needs for WSR-88D base (Level II) data archival, and to provide real time access to base data for use in a variety of applications including research, education, decision support systems, and operational numerical weather prediction, the Center for Analysis and Prediction of Storms (CAPS) at the University of Oklahoma joined forces in 1998 with the University Corporation for Atmospheric Research (UCAR) Unidata Program, the University of Washington, the National Severe Storms Laboratory, and the WSR-88D Operational Support Facility (now the Radar Operations Center) to establish the Collaborative Radar Acquisition Field Test (CRAFT). The principal goal of CRAFT has been to demonstrate, in a minimally expensive manner, the real time compression and internet-based distribution of WSR-88D base data from multiple radars with a view toward nationwide implementation. The initial test bed of six radars, located in and around Oklahoma, has been delivering real time base data since early 1999 with virtually no interruptions. In late summer 2000, another 7 radars were added, and now 16 are delivering data in real time via the Internet. The NCDC is ingesting and automatically archiving base data from 14 of these 16 radars, via the internet, and more details can be found on the CRAFT web pages at <http://geosciences.ou.edu/~kkd/craft.htm> and <http://www.unidata.ucar.edu/projects/craft/index.html>.

The National Oceanic and Atmospheric Administration recently provided significant funding to bring additional radars into the CRAFT infrastructure, to move the communications links to the Internet2/Abilene network, and to improve data compression techniques and conduct initial tests in data mining. Further, initial tests soon will begin to add other surveillance radar systems, especially those operated by the Federal Aviation Administration.

2. Purpose of Workshop

The planned availability of real time base data from the entire NEXRAD network brings unprecedented opportunity to the research, operations, commercial, and academic communities. But it also brings a number of challenges, including the availability of tools for accessing, viewing, processing, and exploring the data, especially large data sets that cover long periods of time; policy and procedures issues; security and reliability issues; and Open Systems compatibility issues.

In light of the importance of these and other issues to the entire atmospheric and hydrological sciences communities, a WSR-88D Level II Data Stakeholder's Workshop will be held in Boulder, Colorado on February 14-16, 2001. As the follow-on to a more technically-oriented workshop held one year ago in Oklahoma, *the principal goal is to identify, discuss, and develop strategies for addressing key issues in the context of a community plan for the real time distribution and utilization of WSR-88D Level II data.* The plan will be published in the *Bulletin of the American Meteorological Society*, and will serve as the framework for associated research and development activities as well as provide input toward policy decisions.

3. Venue and Dates

The Workshop will begin with an icebreaker in the Damon Room of the NCAR Mesa Laboratory on the evening of 14 February 2001. Workshop sessions will be held on 15-16 February 2001 at the NOAA David Skaggs Research Center, 325 Broadway, Boulder, Colorado.

4. Format

As shown in the agenda below, the Workshop will begin with a series of invited presentations that overview the history, status, and future plans of WSR-88D base data acquisition and archival. Next, several agencies and the private sector will overview their needs and requirements for base data in a panel format (panelists to be determined), and then a list of key challenges and issues, both technical and administrative, will be presented in plenary for subsequent consideration by thematic break-out groups organized as follows:

- Data Discovery, Short-Term Data Servers and Long-Term Archival including Compression and Quality Control
- Technical Aspects of Real Time Data Delivery Including Formats, Visualization, and Analysis Tools
- End-User Needs, Policy and Planning

Each break-out group, chaired by an appropriate expert and having a rapporteur, will be provided in advance with the list of issues and challenges for discussion. After adding to the list as appropriate and possibly prioritizing the items, each group will identify obstacles and determine needs and requirements as well as appropriate solution strategies, timetables, collaborative relationships, and funding requirements. The chair of each break-out group will organize this input for presentation in a subsequent plenary session, where additional comments will be sought. Considerable flexibility exists in the day-2 agenda to accommodate special topics and presentations.

5. Documentation

The outcome of the Workshop will be a report to the community, similar in some respects to the USWRP Prospectus Development Team reports, that is targeted for a broad audience including policymakers, operational meteorologists, educators, and researchers. Because the topics to be addressed range from highly technical (data compression, quality control) to administrative, the report will seek a middle ground so as to be appealing and useful at many levels. To ensure broad availability to all stakeholders, the report will be published as a meeting summary in the *Bulletin of the American Meteorological Society*. The report also will be made available on the web, and readers will have an opportunity to provide comments and questions.

6. Travel Arrangements and Local Accommodations

Blocks of rooms have been reserved at the hotels listed below. All participants are responsible for their own travel costs, and no formal registration is required. We do, however, ask that you confirm your plans to attend -- **NO LATER THAN 9 FEBRUARY 2001** -- by sending email to kkd@ou.edu or lmiller@ucar.edu.

Golden Buff Lodge
1725 28th St.
Boulder, CO 80302
\$64.00/night
1-800-999-2833
"CRAFT Workshop" UCAR/Unidata group # 314925

Regal Harvest House
1345 28th St.
Boulder, CO 80302
\$90.00 government rate/night or \$99.00/night standard rate
303-443-3850
"CRAFT Workshop - UCAR/Unidata"

7. Maps and Directions

For those of you unfamiliar with Denver International Airport (DIA), Boulder, and routes between, the following maps should be of value.

DIA-Boulder Routes:

<http://www.ucar.edu/ucar/diamap.html> and <http://www.scd.ucar.edu/info/maps/>

Map of Boulder:

http://www.joss.ucar.edu/joss_psg/policies/boulder_map.gif

8. Sponsorship

This workshop is sponsored by the National Science Foundation through a Grant provided to the University Corporation for Atmospheric Research. Additional support is being provided by the Center for Analysis and Prediction of Storms at the University of Oklahoma, and the National Oceanic and Atmospheric Administration.