

NOUS41 KWBC 171230  
PNSWSH

TECHNICAL IMPLEMENTATION NOTICE 08-97  
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC  
730 AM EST WED DEC 17 2008

TO: SUBSCRIBERS:  
-FAMILY OF SERVICES  
-NOAA WEATHER WIRE SERVICE  
-EMERGENCY MANAGERS WEATHER INFORMATION NETWORK  
OTHER NWS PARTNERS...AND NWS EMPLOYEES

FROM: KEVIN SCHRAB  
CHIEF... OBSERVING SERVICES DIVISION  
OFFICE OF CLIMATE WATER AND WEATHER SERVICES

SUBJECT: CALENDAR YEAR 2009 IMPLEMENTATION OF RADIOSONDE  
REPLACEMENT SYSTEM /RRS/ WITH TERMINATION OF OPERATIONS  
OF RADIOTHEODOLITE TRACKING /ART/ AND RADIO DIRECTION  
FINDING RADIOSONDES /RDF/

NWS WILL CONVERT 14 UPPER AIR /UA/ SITES TO RRS TECHNOLOGY IN 2009.  
THE FIRST SITE ON THIS SCHEDULE IS OAKLAND CALIFORNIA ON  
FEBRUARY 2 2009. FOUR SITES IN ALASKA CONCLUDE THIS RRS SCHEDULE.

SID	STATION NAME	OUTAGE DATES
72493	OAKLAND CA	30 JAN 2009
72250	BROWNSVILLE TX	19 FEB 2009
72597	MEDFORD OR	05 MAR 2009
72456	TOPEKA KS	26 MAR 2009
74494	CHATHAM MA	16 APR 2009
72632	WHITE LAKE MI	30 APR 2009
72747	INTERNATIONAL FALLS MN	14 MAY 2009
72520	PITTBURGH PA	28 MAY 2009
72501	UPTON NY	11 JUN 2009
72518	ALBANY NY	09 JUL 2009
70200	NOME AK	23 JUL 2009
70261	FAIRBANKS AK	06 AUG 2009
70361	YAKUTAT AK	20 AUG 2009
70398	ANNETTE AK	04 SEP 2009

EACH UPPER AIR SITE WILL BE OUT OF SERVICE FOR ABOUT 10 DAYS. WHEN NWS  
UA OBSERVATIONS RESUME THE RRS WILL BE GATHERING METEOROLOGICAL DATA  
FROM GLOBAL POSITIONING SYSTEM /GPS/ RADIOSONDES.

THE NWS DESCRIBES THE RRS RELEASE POINT LOCATION WITH THE NATIONAL  
GEODETIC SURVEY /NGS/ OPUS SOLUTION. THIS IS A DATUM COMBINATION THAT  
RELIES ON NORTH AMERICAN DATUM OF 1983 /NAD83/ FOR LATITUDE AND  
LONGITUDE WHEREAS THE RELEASE POINT ELEVATION IS BASED ON NORTH AMERICAN  
VERTICAL DATUM 1988 /NAVD88/ WITH THE GEOID03 MODEL. BY CONTRAST THE  
GPS RADIOSONDE FLIGHT INFORMATION OF LATITUDE AND LONGITUDE AND ALTITUDE

WILL RELY ON THE WORLD GEODETIC SYSTEM 1984 /WGS84/ STANDARD.

BE ADVISED WITH RRS CONVERSION PARTS OF THE UPPER AIR CODED MESSAGES WILL BE SIGNIFICANTLY LONGER. NWS HAS COORDINATED WITH ITS PARTNERS ON THE LONGER LENGTH OF THESE MESSAGES.

THE FORMAT OF THE MESSAGES WILL BE THE SAME WMO FORMAT FOR CODED UPPER AIR MESSAGES USED WITH THE MICROART LEGACY SYSTEM. THE NUMBER OF LEVELS IN THE CODED MESSAGES WILL BE TWO TO THREE TIMES GREATER FOR THE TTBB AND TTDD. AS A RESULT TWO CATEGORIES OF AWIPS TEXT PRODUCTS WILL INCREASE IN SIZE: SGL AND ABV. THE NUMBER OF LEVELS IN THE TTAA...TTCC...PPBB AND PPDD PARTS WILL BE RELATIVELY UNCHANGED. THESE CHANGES REFLECT UPDATED CODING PRACTICES AND HIGHER RESOLUTION LEVEL SELECTION CRITERIA. THE MAXIMUM SIZE LIMITS OF THE PARTS OF THE CODED MESSAGES ARE AS FOLLOWS:

TTAA: 15 LEVELS  
TTCC: 10 LEVELS  
TTBB: 135 LEVELS  
TTDD: 40 LEVELS  
PPBB: 40 LEVELS  
PPDD: 40 LEVELS

IN ADDITION THE 31313 MESSAGE INDICATOR ASSOCIATED WITH VARIOUS PARTS OF THE MESSAGE WILL BE INCLUDED WITH EACH PART OF THE THERMODYNAMIC MESSAGE PARTS.

FOR ADDITIONAL INFORMATION ON THE MESSAGE REQUIREMENTS...REFERENCE WMO 306: MANUAL ON CODES: INTERNATIONAL CODES: VOLUME 1.1 PART A- ALPHANUMERIC CODES AND WMO 306: MANUAL ON CODES: REGIONAL CODES AND NATIONAL CODING PRACTICES: VOLUME II. USERS CAN FIND INFORMATION ON THE LEVELS SELECTION CRITERIA USED IN NWS CODING SOFTWARE ONLINE AT /USE LOWERCASE LETTERS/:

[HTTP://WWW.UA.NWS.NOAA.GOV](http://WWW.UA.NWS.NOAA.GOV)

IF YOU HAVE QUESTIONS OR FEEDBACK...PLEASE CONTACT:

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NWS NATIONAL TECHNICAL IMPLEMENTATION NOTICES ARE ONLINE AT /USE LOWER CASE/:

[HTTP://WWW.WEATHER.GOV/OS/NOTIF.HTM](http://WWW.WEATHER.GOV/OS/NOTIF.HTM)

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