

NOUS41 KWBC 071426
PNSWSH

Technical Implementation Notice 13-13
National Weather Service Headquarters Washington DC
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 -NOAA Weather Wire Service
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FROM: Kevin Schrab
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 Office of Climate, Water, and Weather Services

SUBJECT: Three Alaska Sites to Terminate their Automated
 Radiotheodolite Tracking (ART) and Radio Direction
 Finding Radiosondes (RDF) upon Installation of the
 Radiosonde Replacement System (RRS) Starting
 August 20, 2013

Three Upper Air (UA) sites in Alaska are scheduled to begin RRS
service in the next four months in 2013.

STATION NAME WMO # STN ID RRS START ON/ABOUT

KOTZEBUE	70133	PAOT	20 Aug 2013
MCGRATH	70316	PAMC	30 Aug 2013
COLD BAY	70350	PACD	24 Sep 2013

These UA sites may be out of service for as long as 10 days. The
NWS UA observations will gather meteorological data from Global
Positioning System (GPS) radiosondes of a new type, the LMS-6.
The assigned equipment code is 48208. The leading 4 indicates a
correction is applied for solar and infrared exposure. The 08
suffix indicates automatic satellite navigation. This code
appears immediately after the heading, 31313, in the TTAA, TTBB,
TTCC and TTDD messages.

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; 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 of 1984 (WGS84) standard.

Parts of the UA coded messages will be significantly longer with
RRS conversion. 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 UA 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, the SGL and ABV categories of AWIPS text products will increase in size. 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, see the WMO 306 Manual on Codes (International Codes): Volume I.1 Part A, Alphanumeric Codes, and Volume II Regional Codes and National Coding Practices. Users can find information on the levels selection criteria used in NWS coding software online at:

<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:

<http://www.weather.gov/os/notif.htm>

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