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PNSWSH

Technical Implementation Notice 12-26, Corrected
National Weather Service Headquarters Washington DC
305 PM EDT Mon Oct 1 2012

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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: Corrected: 2012 Dates for Termination of Automated Radiotheodolite Tracking (ART) and Radio Direction Finding Radiosondes (RDF) with Installation of Radiosonde Replacement Systems (RRS)

Corrected to include the code 045208 established for the new radiosonde in service at these three sites.

Three Upper Air (UA) sites are scheduled to begin RRS service in the next 4 months in 2012.

STATION NAME	WMO #	STN ID	RRS START ON/ABOUT
CARIBOU	72712	KCAR	15 June 2012
GUAM	91212	PGUM	26 July 2012
BARROW	70026	PABR	30 Aug 2012

The NWS UA observations will gather meteorological data from Global Positioning System (GPS) radiosondes of a new type: the Vaisala RS92-NGP. The assigned equipment code is 045208. The leading 04 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, 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 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, 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, please 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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National Technical Implementation notices are online at:

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

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