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PNSWSH

Technical Implementation Notice 13-14 Corrected
National Weather Service Headquarters Washington DC
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From: Kevin Schrab
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Office of Climate, Water and Weather Services

Subject: Corrected: The first of three Alaska Upper Air Sites will Terminate its Automated Radiotheodolite Tracking (ART) and Radio Direction Finding Radiosondes (RDF) Upon Installation of the Radiosonde Replacement System (RRS) on August 20, 2013

Corrected for proper World Meteorological Organization (WMO) Numbers for McGrath and Cold Bay and to increment this Technical Implementation Notice (TIN) to 13-14.

Three Upper Air (UA) sites in Alaska are scheduled to begin RRS service on or after August 20, 2013:

| Station Name | WMO # | STN ID | RRS Start On/About |
|---|---|---|---|
| Kotzebue | 70133 | PAOT | August 20, 2013 |
| McGrath | 70231 | PAMC | August 30, 2013 |
| Cold Bay | 70316 | PACD | September 24, 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) Online Positioning User Service (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 Global Positioning System (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 Advanced Weather Interactive Processing System (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:

https://www.weather.gov/notification/archive

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