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PNSWSH

Service Change Notice 18-19 Updated  
National Weather Service Headquarters Silver Spring MD  
1115 AM EDT Wed May 16 2018

To:           Subscribers:  
              -NOAA Weather Wire Service  
              -Emergency Managers Weather Information Network  
              -NOAAPort  
              Other NWS Partners, Users and Employees

From:         Allison Allen  
              Chief, Marine, Tropical and Tsunami Services Branch

Subject: Updated: Format for the Reconnaissance Vortex Data Message  
Changing on or around June 1, 2018

Updated to correct the implementation date of the format change for the  
Reconnaissance Vortex Data Message from on or around May 15, 2018, to on  
or around June 1, 2018.

After soliciting comments during the 2017 hurricane season, the Office of  
the Federal Coordinator for Meteorology (OFCM) Working Group for Tropical  
Cyclone Operations and Research Forum (WG/TCORF), has approved changes to  
the Reconnaissance Vortex Data Message format beginning on or around June  
1, 2018. This product is transmitted from NOAA and Air Force Hurricane  
Hunter aircraft.

This product is issued under the following Advanced Weather Interactive  
Processing System (AWIPS) and World Meteorological Organization (WMO)  
headers:

AWIPS Header	WMO Header
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MIAREPNT2	URNT12 KNHC/KWBC/KBIX
MIAREPPN2	URPN12 KNHC/KWBC/KBIX

The format changes will enhance the utility of the Vortex Message by  
including important parameters previously not provided, or provided  
optionally in the comment section, and improving the organization of the  
message.

Changes to the Vortex Message include:

The current format has a formal entry only for inbound wind maxima, with  
any outbound wind maxima appearing in the comment section. In the new  
format, Items L through O comprise a new mandatory outbound wind maxima  
section to simplify data decoding and to ensure that no data are missed.  
The new outbound wind maxima section appears in a similar format to the  
inbound maxima data (Items H through K).

The latitude and longitude will be listed in decimal degrees instead of

degrees and minutes to better accommodate NOAA's National Hurricane Center (NHC) and other users' needs.

The new message format includes a new tropical cyclone center data block section (Items C through G). The surface wind reported by dropsonde at the system's center is now given in Item E. Center/eye shape and size characteristic lines are moved up to Items F and G from Items L and M.

The current message lacks most wind observation times; the proposed format appends the observation times to the bearing and range location Items.

To better collect similar data together, the inbound maximum surface and flight-level wind block (Items D through G in the current format) is shifted downward to Items H through K.

A comparison of the current and new format is provided below.

Current format:

```
URNT12 KNHC 241133
VORTEX DATA MESSAGE    AL162016
24/11:12:50Z
10 deg 58 min N
082 deg 46 min W
700 mb 2927 m
90 kt
144 deg 5 nm
253 deg 78 kt
158 deg 8 nm
977 mb
10 C / 3042 m
18 C / 3045 m
NA / NA
CLOSED
C20
12345 / 7
0.02 / 1 nm
AF301 0616A OTTO    OB 13
MAX OUTBOUND AND MAX FL WIND 108 KT 349 / 14 NM 11:17:00Z CNTR DROPSONDE
SFC WIND 210 / 11 KT
```

New format:

```
URNT12 KNHC 241133
VORTEX DATA MESSAGE    AL162016
24/11:12:50Z
10.97 deg N 082.77 deg W
700 mb 2927 m
977 mb
210 deg 11 kt
CLOSED
C20
90 kt
144 deg 5 nm 11:07:00Z
```

253 deg 78 kt  
158 deg 8 nm 11:07:30Z  
95 kt  
314 deg 5 nm 11:17:00Z  
033 deg 108 kt  
349 deg 14 nm 11:17:30Z  
10 C / 3042 m  
18 C / 3045 m  
NA / NA  
12345 / 7  
0.02 / 1 nm  
AF301 0616A OTTO OB 13  
MAX FL WIND 108 KT 349 / 14 NM 11:17:00Z

Current format definition can be found at:

<https://www.ofcm.gov/publications/nhop/FCM-P12-2017.pdf>

Under Figure 5-3, page 5-6.

New format definition:

Date and Time of Fix  
Latitude and Longitude of Vortex Center Fix  
Minimum Height at Standard Atmospheric Level  
Minimum Sea-Level Pressure from Dropsonde or Extrapolation  
Dropsonde Center Wind Speed and Direction  
Eye Character  
Eye Shape/Orientation/Diameter  
Estimate of Maximum Inbound Surface Wind Observed  
Bearing, Range and Time of Wind observed in Item H  
Maximum Inbound Flight-Level Wind  
Bearing, Range and Time of Wind observed in Item J  
Estimate of Maximum Outbound Surface Wind Observed  
Bearing, Range and Time of Wind observed in Item L  
Maximum Outbound Flight-Level Wind  
Bearing, Range and Time of Wind observed in Item N  
Maximum Flight-Level Temp/Pressure Altitude Outside Eye  
Maximum Flight-Level Temp/Pressure Altitude Inside Eye  
Dewpoint Temp/Sea Surface Temp Inside Eye  
Fix Determined By (Codes for Observation Type)  
Navigation Fix Accuracy/Meteorological Accuracy  
Aircraft ID, Mission Number, Cyclone Name, and Observation Number

End Remarks include: Maximum Flight-Level Wind, Bearing, Range and Time.

For questions regarding this notice, please contact:

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National Service Change Notices are online at:

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

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