

NOUS41 KWBC 261956
PNSWSH

TECHNICAL IMPLEMENTATION NOTICE 10-39
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
356 PM EDT MON JUL 26 2010

TO: SUBSCRIBERS
-FAMILY OF SERVICES
-NOAA WEATHER WIRE SERVICE
-EMERGENCY MANAGERS WEATHER INFORMATION NETWORK
-SATELLITE BROADCAST NETWORK /SBN/ NOAAPORT
OTHER NWS PARTNERS...USERS AND EMPLOYEES

FROM: RICHARD J. VOGT
DIRECTOR...WSR-88D RADAR OPERATIONS CENTER

SUBJECT: NEW DEFINITION OF WSR-88D LEVEL II SUPER RESOLUTION DATA:
EFFECTIVE WITH WSR-88D BUILD 12.1: NOVEMBER 2 2010

EFFECTIVE NOVEMBER 2 2010 AT APPROXIMATELY 1600 COORDINATED UNIVERSAL TIME
/UTC/...THE NWS WILL INSTALL RADAR PRODUCT GENERATOR /RPG/ BUILD 12.1 ON
THE WICHITA KANSAS WEATHER SURVEILLANCE RADAR-1988 DOPPLER /WSR-88D/.
FIELD DEPLOYMENT OF BUILD 12.1 IS SCHEDULED TO BEGIN IN LATE NOVEMBER
2010.

REFER TO: IMPLEMENTATION OF WSR-88D DUAL POLARIZATION LEVEL II DATA:
EFFECTIVE NOVEMBER 17 2010 WITH DUAL POLARIZATION BETA TEST TECHNICAL
IMPLEMENTATION NOTICE /TIN/ 10-22 /USE LOWER CASE/:

[HTTPS://WWW.WEATHER.GOV/MEDIA/NOTIFICATION/TINS/TIN10-22DUAL_POL88DAAD.PDF](https://www.weather.gov/media/notification/tins/tin10-22dual_pol88daad.pdf)

REFER TO: INITIATION OF REAL-TIME WSR-88D LEVEL II DATA FROM RADAR
OPERATIONS CENTER TEST BED RADARS PUBLIC INFORMATION STATEMENT /PNS/
ISSUED JUNE 18 2010 /USE LOWER CASE/:

[HTTPS://WWW.WEATHER.GOV/MEDIA/NOTIFICATION/PDFS/PNS10ROC_TESTBED.PDF](https://www.weather.gov/media/notification/pdfs/pns10roc_testbed.pdf)

AS STATED IN THE REFERENCED TIN...WHEN THE DUAL POLARIZATION MODIFICATION
IS IMPLEMENTED AT A SITE...REFLECTIVITY DATA WILL BE PROVIDED AT 250 METER
RANGE RESOLUTION AND THE MAXIMUM COVERAGE RANGE OF DOPPLER DATA /RADIAL
VELOCITY AND SPECTRUM WIDTH/ WILL BE 300 KILOMETERS ON ALL ELEVATION
ANGLES...NOT JUST ON THE SPLIT CUTS.

THE DEFINITION OF SUPER RESOLUTION LEVEL II DATA WILL CHANGE WITH RPG
BUILD 12.1 /NOT MENTIONED IN LAST TIN/...WHICH WILL BE INSTALLED ON WSR-
88D SYSTEMS IN ADVANCE OF THE INSTALLATION OF THE DUAL POLARIZATION
RETROFIT. LEVEL II VERSION NUMBER THREE WILL CONTINUE TO BE USED FOR THIS
NEW DEFINITION OF SUPER RESOLUTION.

DEPENDING ON COMMUNICATIONS BANDWIDTH CONSTRAINTS...LEVEL II DATA FROM
SOME RADARS WILL BE PROVIDED AT REDUCED RESOLUTION OR CONTENT...WHICH WILL
BE IDENTIFIED BY THE LEVEL II VERSION NUMBER ASSOCIATED WITH KEY DATA
CHARACTERISTICS. A CHART DEPICTING THESE NEW BUILD 12.1 DATA

CHARACTERISTICS AND VERSION NUMBERS IS AVAILABLE AT /USE LOWER CASE/:

[HTTP://WWW.ROC.NOAA.GOV/WSR88D/DUALPOL/DPLEVELII.ASPX](http://WWW.ROC.NOAA.GOV/WSR88D/DUALPOL/DPLEVELII.ASPX)

THE DATA STREAM OF THE NEW SUPER RESOLUTION DATA DEFINITION WILL INCREASE IN SIZE DUE TO THE INCREASED SPATIAL RESOLUTION AND COVERAGE AREA. DATA THROUGHPUT...WORST CASE FOR A SINGLE SITE...IS ESTIMATED TO INCREASE 20 PERCENT.

SAMPLE LEVEL II DATA CREATED BY A TEST VERSION OF RPG BUILD 12.1 IS POSTED AT /USE LOWER CASE/:

[HTTP://WWW.ROC.NOAA.GOV/WSR88D/LEVEL_II/BUILD12_1INFO.ASPX](http://WWW.ROC.NOAA.GOV/WSR88D/LEVEL_II/BUILD12_1INFO.ASPX)

REAL-TIME LEVEL II DATA FOLLOWING THE NEW BUILD 12.1 SUPER RESOLUTION DEFINITION WILL BE SENT FROM THE TEST BED RADAR /KCRI/ AS /DAN1...ROP3...NOP3...NOP4 OR ROP4/ ON THE LEVEL II DATA COLLECTION NETWORK BEGINNING SEPTEMBER 13 2010. THE CENTRALLY COLLECTED WSR-88D LEVEL II DATA WILL BE ARCHIVED AT THE NATIONAL CLIMATIC DATA CENTER /NCDC/ AND AVAILABLE AT /USE LOWER CASE/:

[HTTP://HURRICANE.NCDC.NOAA.GOV/PLS/PLHAS/HAS.DSSELECT](http://HURRICANE.NCDC.NOAA.GOV/PLS/PLHAS/HAS.DSSELECT)

THE CONTENT AND FORMATS OF THE BUILD 12.1 DATA AND KEY DATA DEFINITIONS ARE DESCRIBED IN THE DRAFT RDA/RPG INTERFACE CONTROL DOCUMENT /ICD/ AVAILABLE AT /USE LOWER CASE/:

[HTTP://WWW.ROC.NOAA.GOV/WSR88D/DUALPOL/DOCUMENTATION.ASPX](http://WWW.ROC.NOAA.GOV/WSR88D/DUALPOL/DOCUMENTATION.ASPX)

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

TIM CRUM
WSR-88D RADAR OPERATIONS CENTER
NORMAN OKLAHOMA
TIM.D.CRUM@NOAA.GOV

OR

MIKE ISTOK
NWS...OFFICE OF SCIENCE AND TECHNOLOGY
SILVER SPRING MARYLAND
MICHAEL.ISTOK@NOAA.GOV

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

[HTTPS://WWW.WEATHER.GOV/NOTIFICATION/ARCHIVE](https://WWW.WEATHER.GOV/NOTIFICATION/ARCHIVE)

\$\$
NNNN