

NOUS41 KWBC 261957
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 USES... PARTNERS 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 KS 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 TIN 10-22 /USE LOWERCASE/:

[HTTP://WWW.WEATHER.GOV/OS/NOTIFICATION/TIN10-2288D_DUALPOL.TXT](http://www.weather.gov/os/notification/tin10-2288d_dualpol.txt)

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

[HTTP://WWW.WEATHER.GOV/OS/NOTIFICATION/PNS10ROC_TESTBED.DOC](http://www.weather.gov/os/notification/pns10roc_testbed.doc)

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 3 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 2 VERSION NUMBER ASSOCIATED WITH KEY DATA CHARACTERISTICS. A CHART DEPICTING THESE NEW BUILD 12.1 DATA CHARACTERISTICS AND VERSION NUMBERS IS AVAILABLE AT /USE LOWERCASE/:

[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 LOWERCASE/:

[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 LOWERCASE/:

[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 LOWERCASE/:

[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
1200 WESTHEIMER DRIVE
NORMAN... OK 73069
TIM.D.CRUM@NOAA.GOV

OR

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

NATIONAL TINS ARE ONLINE AT /USE LOWERCASE/:

[HTTP://WWW.WEATHER.GOV/OS/NOTIF.HTM](http://www.weather.gov/os/notif.htm)

\$\$
NNNN