

NOUS41 KWBC 152010
PNSWSH

PUBLIC INFORMATION STATEMENT...COMMENT REQUEST
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
410 PM EDT MON MAR 15 2010

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

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

SUBJECT: SOLICITING COMMENTS BY APRIL 20 2010 ON NWS PLANS
FOR AN OPERATIONAL FIELD TEST OF AVSET CONTROLLED
WSR-88D VOLUME SCANNING: EFFECTIVE JULY 2010

THE NWS IS PLANNING AN OPERATIONAL FIELD TEST OF THE
AUTOMATED VOLUME SCAN EVALUATION AND TERMINATION /AVSET/
ALGORITHM AT EIGHT WEATHER SURVEILLANCE RADAR-1988...DOPPLER
/WSR-88D/ BUILD 12 RADAR PRODUCT GENERATOR FIELD SITES
STARTING NO EARLIER THAN JULY 15 2010 AND ENDING JANUARY 31
2011. THE PURPOSE OF THE TEST IS TO ENSURE AVSET
FUNCTIONALITY INTEGRATES INTO WSR-88D FIELD OPERATIONS. IF
THE PROPOSED TEST IS APPROVED...THE TEST SITES WILL ISSUE A
FREE TEXT MESSAGE IN ADVANCE OF USING AVSET THE FIRST TIME.

THE NWS IS REQUESTING COMMENTS THROUGH APRIL 20 2010 ON THE
PROPOSED OPERATIONAL FIELD TEST. SEND COMMENTS TO:

TIM.D.CRUM@NOAA.GOV
MICHAEL.ISTOK@NOAA.GOV

THE PROPOSED WSR-88 AVSET OPERATIONAL TEST SITES ARE:

KCCX	STATE COLLEGE PA
KEMX	TUCSON AZ
KGGW	GLASGOW MT
KGLD	GOODLAND KS
KIND	INDIANAPOLIS IN
KLWX	STERLING VA
KMLB	MELBOURNE FL
KTLX	OKLAHOMA CITY OK

AVSET HAS BEEN DEVELOPED TO MEET WSR-88D AGENCY REQUIREMENTS
FOR FASTER VOLUME COVERAGE PATTERN /VCP/
UPDATES...ESPECIALLY IN SEVERE WEATHER SITUATIONS. THE
BASIC PREMISE OF THE AVSET FUNCTION IS TO TERMINATE A VOLUME
SCAN AFTER THE WSR-88D HAS SCANNED ALL OF THE ELEVATIONS
WITH IMPORTANT RETURNS. THE NET EFFECT OF AVSET IS TO

SHORTEN THE ELAPSED TIME BETWEEN DATA COLLECTION ON LOW ELEVATION ANGLES. WHEN AVSET IS OPERATING...THE VCP NUMBER DOES NOT CHANGE... THE ELEVATION ANGLES EXECUTED BEFORE THE TERMINATION OF THE VCP DO NOT CHANGE...AND VOLUMETRIC PRODUCTS ARE PRODUCED. THE AVSET FUNCTION:

EVALUATES THE RETURN ON EACH ELEVATION ABOVE 5 DEG AND TERMINATES THE VCP IF THE AREAL COVERAGE THRESHOLDS ARE NOT MET.

SHORTENS THE ELAPSED TIME BETWEEN DATA COLLECTION ON LOW-ELEVATION ANGLES AND GENERATION OF VOLUME-BASED PRODUCTS DURING PERIODS WHEN LITTLE OR NO DATA ARE AVAILABLE ON HIGHER TILTS.

RESULTS IN FASTER VCP UPDATES WITHOUT IMPACTING THE QUALITY AND ACCURACY OF THE BASE DATA ESTIMATES.

DURING THE TEST PERIOD...SITE OPERATORS WILL BE ASKED TO USE AVSET AS OFTEN AS THEY WISH. THE DEFAULT STATE OF THE AVSET FUNCTION IS /DISABLED/. THUS OPERATORS MUST MANUALLY ACTIVATE AVSET EACH TIME USE IS DESIRED. AVSET IS AUTOMATICALLY DISABLED WHEN A CLEAR AIR COVERAGE PATTERN...VCP 31 OR VCP32...IS INVOKED.

THE WSR-88D RADAR OPERATIONS CENTER HAS CONDUCTED EXTENSIVE OFF-LINE AVSET TESTING. AVSET DOES NOT ADVERSELY AFFECT NEXRAD AGENCY SYSTEMS AND NWS BELIEVES THERE WILL BE LITTLE OR NO ADVERSE IMPACT OF AVSET ON USER SYSTEMS. HOWEVER AVSET WILL INCREASE NARROWBAND AND LEVEL II COMMUNICATIONS LOADING. SINGLE-SITE NARROWBAND COMMUNICATIONS AND LEVEL II LOADING CAN INCREASE UP TO 30 PERCENT /WORST CASE/ WITH A FAST VCP. USING AVSET IS AN OPERATOR-SELECTABLE OPTION. THUS THE OVERALL NETWORK-WIDE COMMUNICATIONS INCREASES WILL BE MUCH LESS THAN THE INDIVIDUAL SITE FIGURES.

MORE AVSET DETAILS ARE AVAILABLE UNDER /NEW RADAR TECHNOLOGY/ AT:

[HTTP://WWW.ROC.NOAA.GOV/WSR88D/](http://www.roc.noaa.gov/WSR88D/)

NATIONAL PUBLIC INFORMATION STATEMENTS ARE ONLINE AT:

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

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