

NOUS41 KWBC 252021
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TECHNICAL IMPLEMENTATION NOTICE 05-XX
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
1000AM EDT TUESDAY JULY 05 2005

TO: FAMILY OF SERVICES /FOS/ SUBSCRIBERS...NOAA WEATHER WIRE
SERVICE /NWS/ SUBSCRIBERS...EMERGENCY MANAGERS WEATHER
INFORMATION NETWORK /EMWIN/ SUBSCRIBERS...NOAAPORT
SUBSCRIBERS...OTHER NATIONAL WEATHER SERVICE /NWS/
CUSTOMERS AND PARTNERS...AND NWS EMPLOYEES

FROM: MIKE CAMPBELL
CHIEF...OCWWS OBSERVING SERVICES DIVISION

SUBJECT: AUTOMATED SURFACE OBSERVING SYSTEM WIND SENSOR
REPLACEMENT

THE FOLLOWING CHANGES HAVE NO DIRECT IMPACT ON NOAA WEATHER WIRE
SERVICE SUBSCRIBERS

THE AUTOMATED SURFACE OBSERVING SYSTEM /ASOS/ PRODUCT
IMPROVEMENT PROGRAM WILL SOON DEPLOY A REPLACEMENT WIND SENSOR.
THE NEW SENSOR WILL REPORT WIND INFORMATION USING THE 3-SECOND
WORLD METEOROLOGICAL ORGANIZATION /WMO/ GUST STANDARD.

THE CURRENT ASOS WIND SENSOR /BELFORT 2000 / USES ROTATING CUPS
TO MEASURE WIND SPEED AND A VANE TO MEASURE WIND DIRECTION. OVER
A TWO-MINUTE PERIOD...ASOS USES 24 FIVE-SECOND AVERAGES TO
DETERMINE THE TWO-MINUTE AVERAGE WIND SPEED AND DIRECTION. EVERY
MINUTE ASOS STORES THE HIGHEST FIVE-SECOND AVERAGE SPEED FOR THE
PAST MINUTE... ALONG WITH ITS DIRECTION... IN THE 12-HOUR ARCHIVE
FOR ADDITIONAL PROCESSING. THIS HIGHEST SPEED VALUE IS USED TO
DETERMINE IF A GUST AND/OR A PEAK WIND REMARK WILL BE REPORTED.

THE NEW ASOS WIND SENSOR /VAISALA 425NWS / IS A SONIC ANEMOMETER.
IT HAS NO MOVING PARTS AND WILL OPERATE BETTER IN WINTER WEATHER
CONDITIONS. AS WITH THE BELFORT SENSOR...OVER A TWO-MINUTE
PERIOD...ASOS USES 24 FIVE-SECOND AVERAGES TO DETERMINE THE
TWO-MINUTE AVERAGE WIND SPEED AND DIRECTION. BUT THE HIGHEST
THREE-SECOND RUNNING AVERAGE SPEED IS STORED FOR GUST AND PEAK
WIND PROCESSING.

WHILE THERE WILL BE LITTLE DIFFERENCE IN TWO-MINUTE AVERAGE WIND

SPEED AND DIRECTION REPORTING...THE CHANGES IN GUST AND PEAK WIND REPORTING MAY BE SIGNIFICANT. WE CAN EXPECT TO SEE MORE GUSTS AND PEAK WINDS REPORTED WITH THE NEW SENSOR. THE MASS OF THE MOVING PARTS IN EXISTING SENSORS LIMITS RESPONSIVENESS. THE NEW SENSOR WILL BE MORE RESPONSIVE TO SHORT TERM GUSTS.

THE NEW SENSOR KNOWN AS THE ICE FREE WIND /IFW/ SENSOR WILL BE DEPLOYED AT ALL ASOS LOCATIONS OVER A 12 MONTH PERIOD BEGINNING IN JULY 2005...MORE SPECIFIC INFORMATION WILL BE ISSUED BY THE RESPONSIBLE WEATHER FORECAST OFFICE FOR EACH INDIVIDUAL SITE WHEN THE IFW IS IMPLEMENTED. THESE SITE SPECIFIC NOTICES WILL INDICATE THE DATE OF TRANSITION TO THE IFW AND CONTAIN THE FOLLOWING INFORMATION

SID	STATION NAME	CONFIGURATION	DEPLOYMENT DATE
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FURTHER INFORMATION ON IFW IMPLEMENTATION PLANS AND STATUS CAN BE FOUND ON THE SURFACE OBSERVATIONPROGRAM WEB PAGE AT WWW.NWS.NOAA.GOV/OPS2/SURFACE/INDEX.HTM...PLEASE NOTE THE S IN SURFACE IS IN UPPER CASE...

IF YOU HAVE ANY QUESTIONS ABOUT THIS CHANGE...PLEASE CONTACT ONE OF THE FOLLOWING INDIVIDUALS AT NWS HEADQUARTERS:

DAVID MANNARANO
ASOS IMPLEMENTATIONMANAGER
PHONE: 301-713-2093 X103
E-MAIL: DAVID.MANNARANO@NOAA.GOV

OR

RICHARD AHLBERG
ASOS PLANNED PRODUCT IMPROVEMENT PROGRAM MANAGER
PHONE: 301-713-1975 X160
E-MAIL: RICHARD.AHLBERG@NOAA.GOV.

THIS AND OTHER NWS TECHNICAL IMPLEMENTATION NOTICES ARE AVAILABLE ON THE INTERNET AT /USE LOWER CASE/:

<http://www.nws.noaa.gov/om/notif.htm>

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