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PUBLIC INFORMATION STATEMENT...SERVICE CHANGE NOTICE 01-49
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
430 PM EDT THU AUG 30 2001

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

FROM: JAMES E. LEE
CHIEF...FIRE AND PUBLIC WEATHER SERVICES BRANCH

SUBJECT: NEW WIND CHILL TEMPERATURE INDEX...EFFECTIVE
NOVEMBER 1 2001

EFFECTIVE TUESDAY NOVEMBER 1 2001...THE NATIONAL WEATHER SERVICE
WILL IMPLEMENT A NEW WIND CHILL TEMPERATURE INDEX. THE LATEST
ADVANCES IN SCIENCE...TECHNOLOGY AND COMPUTER MODELING HAVE
RESULTED IN A SIGNIFICANTLY IMPROVED WIND CHILL INDEX. THE NEW
INDEX WILL PROVIDE A MORE ACCURATE...UNDERSTANDABLE AND USEFUL
FORMULA FOR CALCULATING THE POTENTIAL DANGER FROM THE COMBINATION
OF WIND AND COLD TEMPERATURES. THE METEOROLOGICAL SERVICES OF
CANADA HAS SCHEDULED IMPLEMENTATION OF THIS SAME NEW WIND CHILL
INDEX ON OCTOBER 2 2001.

THE NEW WIND CHILL INDEX WILL:

1. USE CALCULATED WIND SPEED AT AN AVERAGE HEIGHT OF FIVE FEET
/TYPICAL HEIGHT OF AN ADULT HUMAN FACE/ BASED ON READINGS
FROM THE NATIONAL STANDARD HEIGHT OF 33 FEET /TYPICAL HEIGHT
OF AN ANEMOMETER/
2. BE BASED ON A HUMAN FACE MODEL
3. INCORPORATE MODERN HEAT TRANSFER THEORY...I.E....HEAT LOSS
FROM THE BODY TO ITS SURROUNDINGS DURING COLD AND
BREEZY/WINDY DAYS
4. LOWER THE CALM WIND THRESHOLD FROM 4 MPH TO 3 MPH
5. USE A CONSISTENT STANDARD FOR SKIN TISSUE RESISTANCE...AND
6. ASSUME NO IMPACT FROM THE SUN.

THE WIND CHILL TEMPERATURE WILL CONTINUE TO BE ROUTINELY ISSUED
EVERY HOUR ON AN EVENT DRIVEN BASIS ON HOURLY WEATHER ROUNDUPS
/HWR/. NO COMMUNICATIONS CHANGES ARE REQUIRED TO RECEIVE THE NEW
WIND CHILL TEMPERATURE.

A MORE DETAILED DESCRIPTION OF THE NEW WIND CHILL INDEX...
INCLUDING THE NEW WIND CHILL CHART...FORMULA...AND COMPARISON
GRAPHIC BETWEEN THE OLD AND NEW INDEX...CAN BE FOUND AT THE
FOLLOWING WEB ADDRESS /USE LOWER CASE LETTERS/:

<http://www.nws.noaa.gov/om/windchill>

IF YOU HAVE QUESTIONS OR COMMENTS ABOUT THIS CHANGE...PLEASE
CONTACT:

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THIS NOTICE AND OTHER SERVICE CHANGE NOTICES ARE ON THE INTERNET
AT /USE LOWER CASE LETTERS/

www.nws.noaa.gov/om/notif.htm

END
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