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PUBLIC INFORMATION STATEMENT...SERVICE CHANGE NOTICE 01-29
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
1100 AM EDT THU JUN 28 2001

TO: NATIONAL WEATHER SERVICE EMPLOYEES...NOAAPORT
SUBSCRIBERS... NOAA WEATHER WIRE SUBSCRIBERS...NWS
CUSTOMERS AND PARTNERS

FROM: ROBERT E. LIVEZEY
CHIEF...CLIMATE SERVICES DIVISION

SUBJECT: ISSUANCE OF EXPERIMENTAL SITE SPECIFIC CITY TEMPERATURE
AND DEGREE DAY LONG LEAD CLIMATE OUTLOOKS...EFFECTIVE
JULY 12 2001

ON THURSDAY...JULY 12 2001...THE NATIONAL WEATHER SERVICE/S
CLIMATE PREDICTION CENTER /CPC/ WILL BEGIN ISSUING SITE SPECIFIC
CITY TEMPERATURE AND DEGREE DAY CLIMATE OUTLOOKS ON THE CPC WEB
PAGE AT /USE LOWER CASE/:

[HTTP://WWW.CPC.NCEP.NOAA.GOV](http://www.cpc.ncep.noaa.gov)

THESE CITY OUTLOOKS ARE DERIVED FROM CPC/S OFFICIAL /AREAL/
SEASONAL OUTLOOKS AND WILL BE ISSUED CONCURRENTLY WITH THE AREAL
OUTLOOKS ON A THURSDAY AROUND MID MONTH...ABOUT 300 PM EASTERN
LOCAL TIME. THESE CITY OUTLOOK PROCEDURES WERE DEVELOPED UNDER
CONTRACT FUNDING BY THE RISK PREDICTION INITIATIVE /RPI/
ORGANIZATION. THE NEW PRODUCT PROVIDES OUTLOOKS FOR MAJOR
WEATHER SERVICE OFFICE AIRPORT OBSERVING LOCATIONS SINCE MANY
USERS...SUCH AS ENERGY COMPANIES...INSURANCE COMPANIES...AND THE
WEATHER DERIVATIVES INDUSTRY...BASE DECISIONS ON OBSERVATIONS
LOCATED AT AIRPORTS.

IN SUMMARY...THE CITY OUTLOOKS WILL INCLUDE:

A/ A PROBABILITY OF EXCEEDENCE OUTLOOK IN TABULAR FORM FOR
SEASONAL MEAN TEMPERATURES AT AIRPORTS LOCATED NEAR 56 MAJOR U.S.
CITIES FOR EACH OF 13 OVERLAPPING 3-MONTH SEASONAL OUTLOOKS /I.E.
FOR JAN-MAR...FEB-APR...MAR-MAY...ETC/.

B/ AN URBAN CLIMATOLOGY REFERENCE FILE WHICH SPECIFIES THE
RELATIONSHIP BETWEEN THE SEASONAL MEAN TEMPERATURES AT THE CITY
AIRPORT AND CPC OUTLOOK DIVISIONAL AREA...AS WELL AS THE
CHARACTERISTICS OF TEMPERATURES IN THE NEARBY URBAN AND RURAL
LOCATIONS THAT SURROUND EACH CITY.

C/ AN OUTLOOK FOR THE HEATING AND COOLING DEGREE DAYS EXPECTED
FOR EACH OF THE 56 METROPOLITAN AIRPORT LOCATIONS FOR THE 13
OVERLAPPING SEASONS PROVIDED IN THE OFFICIAL /AREAL/ CPC OUTLOOK.

D/ A TABLE THAT PROVIDES DETAILS NEEDED TO TRANSLATE SEASONAL MEAN TEMPERATURES INTO HEATING OR COOLING DEGREE DAYS AT THE CITY AIRPORTS.

DETAILS ON ITEMS A...B...C...AND D FOLLOW.

IF YOU HAVE TECHNICAL QUESTIONS ON THESE OUTLOOKS...CONTACT:

DAVID UNGER
NOAA/NWS -CLIMATE PREDICTION CENTER W/NP52
5200 AUTH ROAD
CAMP SPRINGS MD 20746-4304
PH: 301-763-8000 EXT 7569

PLEASE SEND ANY EVALUATIONS OR SUGGESTION PRODUCT CHANGES TO:

ROBERT LEFFLER
NOAA/NWS - CLIMATE SERVICES DIVISION W/OS4
1325 EAST-WEST HIGHWAY
SILVER SPRING MD 20910
PH: 301-713-1867 EXT 134

...DETAILED COMMENTS ON ITEMS A...B...C...AND D:

A/ PROBABILITY OF EXCEEDENCE TEMPERATURE OUTLOOKS.

EACH MONTH A TABLE IS PROVIDED WITH A DISTRIBUTION OF MEAN TEMPERATURE VALUES HAVING PROBABILITIES OF EXCEEDENCE OF 2...5...10...20... 30...40...50...60...70... 80...90... 95...AND 98 PERCENT. THE TABLE ALSO INCLUDES THE MEAN VALUE FOR THE OUTLOOK AND THE CLIMATOLOGICAL MEAN AND STANDARD DEVIATION FOR EACH OF THE 13 3-MONTH SEASONAL OUTLOOKS. THE TABLE CONSISTS OF 728 LINES OF DATA. THERE WILL BE ONE LINE FOR EACH OF 13 LEAD TIMES AND EACH AIRPORT. A NEW TABLE IS PRODUCED EACH MONTH.

THE 56 CITY AIRPORT LOCATIONS ARE /LISTED IN ORDER OF METROPOLITAN AREA POPULATION/:

NEW YORK CITY LAGUARDIA...LOS ANGELES INTL...CHICAGO MIDWAY...
WASHINGTON REAGAN NATIONAL...SAN FRANCISCO INTL...
PHILADELPHIA INTL...BOSTON LOGAN...DETROIT CITY...
DALLAS LOVE FIELD...HOUSTON HOBBY...MIAMI INTL...
ATLANTA HARTSFIELD INTL...SEATTLE-TACOMA INTL...
CLEVELAND HOPKINS INTL...MINNEAPOLIS ST PAUL INTL...
SAN DIEGO LINDBERGH FIELD...SAINT LOUIS LAMBERT INTL...
PHOENIX SKY HARBOR INTL...PITTSBURGH INTL...DENVER INTL...
TAMPA INTL...PORTLAND INTL...CINCINNATI MUNICIPAL...
KANSAS CITY INTL... MILWAUKEE MITCHELL INTL...
SACRAMENTO EXECUTIVE...NORFOLK INTL...INDIANAPOLIS INTL...
SAN ANTONIO INTL...COLUMBUS OH...ORLANDO...NEW ORLEANS...
CHARLOTTE DOUGLAS INTL...BUFFALO NIAGARA INTL...
SALT LAKE CITY INTL...HARTFORD BRAINARD FIELD...
PROVIDENCE T.F. GREEN STATE...GREENSBORO PIEDMONT TRIAD INTL...
GREATER ROCHESTER...LAS VEGAS MCCARRAN INTL...

NASHVILLE INTL...MEMPHIS INTL...OKLAHOMA CITY WILL ROGERS...
GRAND RAPIDS MI..LOUISVILLE STANDIFORD FIELD...
JACKSONVILLE INTL..RALEIGH DURHAM INTL...
AUSTIN TX MUELLER...DAYTON INTL...WEST PALM BEACH INTL...
BIRMINGHAM MUNICIPAL...FRESNO YOSEMITE INTL...EL PASO INTL..
OMAHA EPPLEY AIRFIELD...ALBUQUERQUE INTL...BISMARCK MUNICIPAL.

B/ CONTENTS OF THE URBAN CLIMATOLOGY FILE: THE FOLLOWING
QUANTITIES ARE PROVIDED FOR EACH OF THE 13 OVERLAPPING 3-MONTH
SEASONS:

1/ THE 1971-2000 CLIMATOLOGY AT EACH AIRPORT...BOTH MEAN
AND STANDARD DEVIATION.

2/ A TWO-TERM REGRESSION EQUATION RELATING THE SEASONAL
MEAN TEMPERATURE FOR THE CPC OUTLOOK DIVISIONAL AREA AND THE
AIRPORT LOCATION. THERE IS AN "URBAN TREND" COMPONENT ADDED ONTO
THE EQUATION TO ACCOUNT FOR TRENDS IN URBAN CLIMATOLOGY THAT MAY
NOT BE REFLECTED IN REGIONAL TEMPERATURE AVERAGES.

/NOTE: THIS TREND MAY BE DUE TO AIRPORT STATION LOCATION OR
INSTRUMENT CHANGES AS WELL AS CHANGES DUE TO URBANIZATION./

3/ THE CORRELATION BETWEEN SEASONAL MEAN TEMPERATURES AT
THE AIRPORT AND THE CPC OUTLOOK DIVISIONAL AREA IN WHICH IT
RESIDES.

4/ THE AVERAGE DIFFERENCE IN MEAN SEASONAL TEMPERATURES
BETWEEN THE AIRPORT AND CPC OUTLOOK DIVISIONAL AREA IN WHICH IT
RESIDES.

5/ THE AVERAGE DIFFERENCE BETWEEN THE SEASONAL MEAN
TEMPERATURE AND THE SEASONAL MEAN MINIMUM TEMPERATURE AT THE
AIRPORT. THIS CAN BE USED TO FIND THE MEAN MAXIMUM AND MINIMUM
TEMPERATURES FROM THE CLIMATE OUTLOOKS.

6/ THE AVERAGE DIFFERENCE IN MEAN SEASONAL TEMPERATURE OF
ALL WEATHER SERVICE AND COOPERATIVE LOCATIONS WITHIN THE URBAN
AREA AND THAT OF THE CPC OUTLOOK DIVISIONAL AREA.

7/ THE AVERAGE DIFFERENCE IN MEAN SEASONAL TEMPERATURE
BETWEEN THE URBAN AREA AVERAGE AND RURAL STATIONS SURROUNDING THE
CITY /URBAN - RURAL TEMPERATURES/.

C/ PROBABILITY OF EXCEEDENCE FOR HEATING AND COOLING DEGREE DAYS:

THESE OUTLOOKS ARE PRESENTED IN A TABLE SIMILAR IN FORMAT
TO THE CITY TEMPERATURE OUTLOOKS AND GIVE A DISTRIBUTION OF
DEGREE DAY TOTALS IN WHICH THE PROBABILITIES OF EXCEEDENCE ARE
2...5...10...20... 30...40...50... 60...70... 80... 90... 95...
AND 98 PERCENT. CLIMATOLOGICAL MEAN TOTAL VALUES AND OUTLOOK
TOTAL VALUES ARE ALSO GIVEN.

IN ADDITION TO THE OUTLOOK FOR INDIVIDUAL SEASONS...THE

NUMBER OF HEATING OF COOLING DEGREE DAYS EXPECTED TO ACCUMULATE BETWEEN THE START OF THE FIRST OUTLOOK TARGET PERIOD AND THE END OF THE ANNUAL HEATING OR COOLING DEGREE DAY SEASON IS ALSO PROVIDED. THE ANNUAL COOLING /HEATING/ DEGREE DAYS TOTALS ARE FOR THE 12-MONTH PERIOD ENDING ON DEC. 31 /JUNE 30/.

D/ TRANSLATION TABLE TO GET SEASONAL MEAN DEGREE DAYS FROM SEASONAL MEAN TEMPERATURES.

THIS TABLE GIVES EMPIRICALLY DERIVED HEATING DEGREE DAY ACCUMULATION RATES FOR EACH CITY FOR WINTER/SPRING AND FALL. THE AVERAGE NUMBER OF HEATING DEGREE DAY ACCUMULATION PER DAY IS GIVEN FOR 5 DEGREE INCREMENTS OF MEAN SEASONAL TEMPERATURE AT EACH CITY. AN INTERPOLATION METHOD IS ALSO PROVIDED. COOLING DEGREE DAYS RATES ARE AN EXACT FUNCTION OF HEATING DEGREE DAY RATES AND MEAN SEASONAL TEMPERATURES.

...NOTE TO INTERNET USERS...

THIS AND ALL OTHER NWS SERVICE CHANGE NOTICES ARE POSTED ON THE INTERNET AT /USE LOWER CASE/:

[HTTP://WWW.NWS.NOAA.GOV/OM/NOTIF.HTM](http://www.nws.noaa.gov/om/notif.htm)

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