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PUBLIC INFORMATION STATEMENT...SERVICE CHANGE NOTICE 01-29 AMENDED
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
245 PM EDT TUE JUN 17 2001

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

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

...AMENDED FOR MORE SPECIFIC WEB ADDRESS...

ON THURSDAY...JULY 12 2001...THE NATIONAL WEATHER SERVICE/S CLIMATE
PREDICTION CENTER /CPC/ BEGAN ISSUING SITE SPECIFIC CITY TEMPERATURE AND
DEGREE DAY CLIMATE OUTLOOKS ON THE CPC WEBPAGE AT /USE LOWER CASE EXCEPT
UPPER CASE FOR NFOR/:

[HTTP://WWW.CPC.NCEP.NOAA.GOV/PACDIR/NFORDIR/CITYDIR/EXPLANATION CTYDF.HTML](http://www.cpc.ncep.noaa.gov/pacdir/nfordir/citydir/explanation_ctydf.html)

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 JANUARY-MARCH...FEBRUARY-
APRIL...MARCH-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.

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 INTERNATIONAL...CHICAGO
MIDWAY...WASHINGTON REAGAN NATIONAL...SAN FRANCISCO
INTERNATIONAL...PHILADELPHIA INTERNATIONAL...BOSTON LOGAN
INTERNATIONAL...DETROIT CITY...DALLAS LOVE FIELD...HOUSTON HOBBY...MIAMI
INTERNATIONAL...ATLANTA HARTSFIELD INTERNATIONAL...SEATTLE-TACOMA
INTERNATIONAL...CLEVELAND HOPKINS INTERNATIONAL...MINNEAPOLIS/ST. PAUL
INTERNATIONAL...SAN DIEGO LINDBERGH FIELD...SAINT LOUIS LAMBERT
INTERNATIONAL...PHOENIX SKY HARBOR INTERNATIONAL...PITTSBURGH
INTERNATIONAL...DENVER INTERNATIONAL...TAMPA INTERNATIONAL...PORTLAND
INTERNATIONAL...CINCINNATI MUNICIPAL...KANSAS CITY
INTERNATIONAL...MILWAUKEE MITCHELL INTERNATIONAL...SACRAMENTO
EXECUTIVE...NORFOLK INTERNATIONAL...INDIANAPOLIS INTERNATIONAL...SAN
ANTONIO INTERNATIONAL...COLUMBUS OH...ORLANDO...NEW ORLEANS...CHARLOTTE
DOUGLAS INTERNATIONAL...BUFFALO NIAGARA INTERNATIONAL...SALT LAKE CITY
INTERNATIONAL...HARTFORD CT BRAINARD FIELD...PROVIDENCE RI T.F. GREEN
STATE...GREENSBORO NC PIEDMONT TRIAD INTERNATIONAL...GREATER ROCHESTER
NY...LAS VEGAS MCCARRAN INTERNATIONAL...NASHVILLE INTERNATIONAL...MEMPHIS
INTERNATIONAL...OKLAHOMA CITY WILL ROGERS...GRAND RAPIDS MI...LOUISVILLE
STANDIFORD FIELD...JACKSONVILLE INTERNATIONAL... RALEIGH/DURHAM
INTERNATIONAL...AUSTIN TX MUELLER...DAYTON OH INTERNATIONAL... WEST PALM
BEACH INTERNATIONAL...BIRMINGHAM MUNICIPAL...FRESNO YOSEMITE
INTERNATIONAL...EL PASO INTERNATIONAL...OMAHA NE EPPLEY
AIRFIELD...ALBUQUERQUE INTERNATIONAL...BISMARCK ND 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 NWS 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 DECEMBER 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 FIVE 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.

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

DAVID UNGER
NOAA/NWS -CLIMATE PREDICTION CENTER
CAMP SPRINGS MARYLAND
PHONE: 301-763-8000 EXT. 7569

PLEASE SEND ANY EVALUATIONS OR SUGGESTED PRODUCT CHANGES TO:

ROBERT LEFFLER
NOAA/NWS - CLIMATE SERVICES DIVISION
SILVER SPRING MARYLAND
PHONE: 301-713-1867 EXT. 134

NATIONAL SERVICE CHANGE NOTICES ARE ONLINE AT /USE LOWER CASE/:

[HTTPS://WWW.WEATHER.GOV/NOTIFICATIONS/ARCHIVE](https://www.weather.gov/notifications/archive)

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