

PROGNOSTIC DISCUSSION FOR MONTHLY OUTLOOK
CLIMATE PREDICTION CENTER NCEP
NATIONAL WEATHER SERVICE WASHINGTON DC
3 PM EST THURSDAY DECEMBER 14 2000

30-DAY OUTLOOK DISCUSSION FOR JANUARY 2001

EQUATORIAL PACIFIC SSTs ARE COOLER THAN NORMAL AND THE CIRCULATION IN THE TROPICAL PACIFIC BASIN HAS RETURNED TO A PATTERN TYPICAL OF COLD ENSO EVENTS. BOTH STATISTICAL AND DYNAMIC MODELS INDICATE THAT COOLER THAN NORMAL SSTs WILL PERSIST IN THE NINO 3.4 REGION THROUGH THE MONTH OF JANUARY. HOWEVER EQUATORIAL PACIFIC SSTs ARE CLOSER TO NORMAL THAN THEY HAVE BEEN AT THIS TIME OF YEAR DURING THE LAST TWO YEARS - ESPECIALLY NEAR THE DATE LINE - WHICH IS THE MOST IMPORTANT REGION FOR ITS INFLUENCE ON GLOBAL CIRCULATION. THIS ENABLES OTHER SOURCES OF ATMOSPHERIC VARIABILITY - MOST IMPORTANTLY THE MADDEN-JULIAN OSCILLATION (MJO) TO PLAY A MORE SIGNIFICANT ROLE IN DETERMINING CIRCULATION PATTERNS IN JANUARY. IF A COLD EVENT IS WEAK - MJO RELATED DISTURBANCES ARE MORE LIKELY TO MAKE IT THROUGH TO THE EASTERN PACIFIC AND CAN ERASE THE TYPICAL COLD EVENT CIRCULATION PATTERNS FOR A SUBSTANTIAL PART OF A MONTH. MJO ACTIVITY IS NOT A COMPLETELY RELIABLE PREDICTOR THOUGH. ANOMALOUS SOIL MOISTURE CONDITIONS HAVE LITTLE LASTING EFFECT ON THE AIR TEMPERATURES AT THIS TIME OF YEAR. THE NUMERICAL GCM ATMOSPHERIC RESULTS ARE OF UNCERTAIN RELIABILITY THIS MONTH. STATISTICAL MODELS SHOW SMALL TO MODERATE AREAS OF SIGNIFICANT SIGNALS WITH THE CCA HAVING SOME HINTS OF A COLD-EVENT PATTERN AND OCN SHOWING THE WARMING TREND OF RECENT YEARS.

THE ABOVE CONSIDERATIONS INDICATE ONLY A WEAK SIGNAL FOR THE JANUARY OUTLOOK. THE OUTLOOK REFLECTS A COLD EVENT SIGNATURE IN AREAS WHERE THE TELECONNECTIONS BETWEEN ENSO AND U.S. CLIMATE ARE THE STRONGEST. PROBABILITIES ARE LOW BECAUSE THE MJO CAN ALTER OR ELIMINATE THE TYPICAL COLD-EVENT SIGNATURES AND OTHER TELECONNECTIONS LIKE THE AO AND NAO ARE NOT FORECASTABLE. VARIABILITY IN WEATHER PATTERNS TENDS TO BE LARGER THAN NORMAL WHEN ENSO IS WEAK OR NEUTRAL - SO CLIMATOLOGICAL PROBABILITIES ARE INDICATED OVER A MAJORITY OF THE NATION. COMPOSITES OF ARCTIC OSCILLATION (AO) PATTERNS UNDER WEAK COLD-EVENT CONDITIONS INDICATE BELOW NORMAL TEMPERATURES OVER MUCH OF THE NORTHEASTERN QUARTER OF THE U.S. - WHICH COUNTERACTS RECENT TRENDS FOR WARMER THAN NORMAL IN PORTIONS OF THAT REGION. WARMER AND DRIER THAN NORMAL CONDITIONS IN PORTIONS OF FLORIDA AND TEXAS...AND WARMER THAN NORMAL IN THE SOUTHWEST ARE WEAK COLD-EVENT EFFECTS AS ARE THE WETTER THAN NORMAL CONDITIONS IN THE PORTIONS OF THE PACIFIC NORTHWEST AND MIDWEST. THE SSTs ALONG THE WEST COAST ARE IN EXCESS OF ONE DEGREE C BELOW NORMAL IN SOME AREAS AND SHOULD INFLUENCE AREAS ALONG THE SOUTHERN CALIFORNIA COAST. ABOVE MEDIAN PRECIPITATION IN TEXAS AND OKLAHOMA ARE INDICATED BY OCN BUT CONTRADICTED IN SOUTHERN AND WESTERN TEXAS BY ENSO COLD-EVENT PATTERNS.

ALASKAN TEMPERATURES ARE LIKELY TO BE COOLER THAN NORMAL OVER APPROXIMATELY THE NORTHWEST QUARTER OF THE STATE AS INDICATED BY CCA.

NOTE - THIS CLIMATE OUTLOOK IS INTENDED FOR USE ONLY PRIOR TO THE START OF THE VALID PERIOD. WITHIN THE VALID PERIOD OBSERVATIONS AND MEDIUM RANGE FORECASTS SHOULD BE CONSULTED.

NOTE - THE NEXT 0.5 MONTH LEAD-TIME MONTHLY OUTLOOK WILL BE ISSUED THURSDAY JANUARY 18 2000.

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