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AREA FORECAST DISCUSSION

NATIONAL WEATHER SERVICE LAS VEGAS NV
1039 AM PDT SUN JUL 3 2011

.SYNOPSIS...SUBTROPICAL MOISTURE MOVING IN FROM THE SOUTHEAST WILL BRING CHANCES FOR THUNDERSTORMS TO MUCH OF THE MOJAVE DESERT AND SOUTHERN GREAT BASIN THROUGH THE UPCOMING WEEK. ISOLATED DRY LIGHTNING AND GUSTY WINDS WILL BE THE MAIN CONCERNS TODAY IN SOUTHEAST NEVADA...WITH ISOLATED FLASH FLOODING BECOMING MORE LIKELY IN EASTERN CALIFORNIA AND SOUTHERN MOHAVE COUNTY. TEMPERATURES WILL BE NEAR TO SLIGHTLY ABOVE NORMAL...BUT THE HUMIDITY WILL MAKE IT FEEL QUITE UNCOMFORTABLE.

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.UPDATE...MOISTURE SURGE HAS ARRIVED AND BROUGHT CLOUDINESS WITH IT AS EXPECTED...BUT ALSO A LARGE CLOUD OF DUST. WEBCAMS SHOW REDUCED VISIBILITY IN MANY AREAS ALONG AND SOUTHEAST OF I-15. TWEAKED MANY GRIDS THIS AFTERNOON TO INCREASE SKY COVER CENTRAL AND SOUTHERN ZONES...REDUCE HIGH TEMPERATURES IN AREAS WITH CLOUDS AND HIGHER DEWPOINTS...EXCHANGE DRY THUNDERSTORMS FOR WET IN A STRIP OF THE CENTRAL CWFA WHERE DEWPOINTS ARE ON THE RISE...AND INCLUDE BLOWING DUST /WHICH IS NOT REALLY TECHNICALLY CORRECT BUT IT IS THE CLOSEST OPTION WITH THE AVAILABLE TOOLS/ FOR CLARK...MOHAVE...AND SAN BERNARDINO COUNTIES.

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.AVIATION...FOR MCCARRAN...MONSOON MOISTURE HAS COME INTO THE AREA OVERNIGHT. ALONG WITH IT DUST HAS COME INTO SOUTHERN NEVADA AND NORTHWEST ARIZONA THIS MORNING TO BRING VISIBILITIES TO NEAR 2 MILES IN SOME LOCATIONS AND MUCH LOWER SLANT RANGE VISIBILITIES. THE DUST/HAZE WILL PERSIST THROUGH TODAY. CEILINGS WILL BE AROUND THE 12-15K RANGE. THUNDERSTORMS AND SHOWERS WILL BE IN THE AREA AS WELL...BUT FOR THE MOST PART WILL PRODUCE VIRGA AND GUSTY SURFACE WINDS DUE TO THE DRIER AIR IN THE LOW LEVELS. WINDS WILL BE SOUTHEAST TO SOUTH IN THE MORNING THROUGH AFTERNOON AND THEN SOUTHWEST AT NIGHT. SPEEDS OUTSIDE OF THE VICINITY OF CONVECTION WILL BE 10 KNOTS OR LESS.

FOR THE REST OF SOUTHERN NEVADA...NORTHWEST ARIZONA...AND SOUTHEAST CALIFORNIA...WIDESPREAD SUSPENDED DUST HAS SPREAD INTO SOUTHERN NEVADA...EASTERN CALIFORNIA...AND ARIZONA. IN SOME LOCALES VISIBILITY THIS MORNING COULD BE AS LOW AS A MILE. CONDITIONS WILL IMPROVE THIS AFTERNOON. ALONG WITH THE DUST...MONSOON MOISTURE HAS MOVED INTO THE REGION. EXTENSIVE CEILINGS AROUND 10-15K FEET WILL SPREAD OVER MOST AREAS BY LATE THIS MORNING AND PERSIST UNTIL LATE EVENING. THUNDERSTORMS ARE POSSIBLE TODAY AND THIS EVENING WITH THE BEST PROBABILITIES BEING IN AREAS SOUTH AND EAST OF INTERSTATE 15. THOSE THAT FORM WEST OF THIS LINE WILL MOST LIKELY BE HIGH BASED AND PRODUCE STRONG OUTFLOW WINDS WHILE THOSE TO THE EAST WILL LIKELY PRODUCE HEAVIER RAINFALL.

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.PREV DISCUSSION...
355 AM PDT SUN JUL 3 2011

.SHORT TERM...WELL WE HAVE REACHED THAT TIME OF YEAR...AS THINGS ARE CHANGING IN A HURRY EARLY THIS MORNING. MCS THAT DEVELOPED OVER NORTHERN SONORA MEXICO LAST EVENING HAS GENERATED AN OUTFLOW BOUNDARY THAT CURRENTLY EXTENDS FROM NEAR THE MORONGO BASIN EAST

INTO SOUTHERN MOHAVE COUNTY. BOUNDARY WILL BE KICKING UP SOME DUST AS WINDS GUST UP TO AT LEAST 30 MPH AS BOUNDARY CONTINUES NORTHWARD. RADAR ALSO DEPICTING SOME ENHANCED RETURNS OVER SOUTHEAST SAN BERNARDINO COUNTY AND WON`T BE SURPRISED TO SEE A FEW LIGHTNING STRIKES BEFORE SUNRISE. DON`T IMAGE MUCH IF ANY PRECIPITATION WILL BE REACHING THE GROUND THOUGH. LOW LEVEL MOISTURE WILL CONTINUE TO SURGE NORTHWARD INTO SOUTHERN NEVADA TODAY. 06Z NAM DID SORT OF CATCH ONTO THIS SURGE AND NOW INDICATES A GREATER AREA OF NEGATIVE LIFTED INDICES AND HIGHER CAPE VALUES GENERALLY ALONG AND EAST-SOUTHEAST OF INTERSTATE 15 THIS AFTERNOON. DID INCREASE POPS IN AREAS FROM SOUTHERN CLARK COUNTY SOUTH AND WOULD EXPECT WETTER STORMS...WHILE FROM LAS VEGAS NORTH INTO LINCOLN COUNTY SUB-CLOUD LAYER REMAINS SOMEWHAT DRY /INVERTED-V PROFILE/ FOR GUSTY WINDS AND DRY LIGHTNING POTENTIAL. ANTICYCLONIC CIRCULATION WILL REMAIN ANCHORED NEAR THE FOUR CORNERS AREA THROUGH TUESDAY. MOISTURE THAT IS ADVECTED INTO THE AREA TODAY WILL BE RECYCLED EACH DAY AND WILL CONTINUE WITH LOW GRADE MONSOON FORECAST FOR MONDAY AND TUESDAY. CLOUD COVER AND CLOUD COVER WILL LEAD TO LOWER HIGH TEMPERATURES TODAY...ESPECIALLY IN SAN BERNARDINO COUNTY AND SOUTHERN MOHAVE COUNTY WHERE SURFACE DEWPOINT WILL BE THE HIGHEST. GUIDANCE NOT MUCH HELP SO HAD TO DO SOME SEAT OF THE PANTS FORECASTING TRIMMING SEVERAL MORE DEGREES OFF PREVIOUS FORECAST.

.LONG TERM...THE REAL ISSUES THROUGH THE EXTENDED WILL BE HOW MUCH MOISTURE IS AROUND AND HOW LONG IT LASTS. OVERALL THE OPERATIONAL GFS AND ECMWF WERE IN DECENT AGREEMENT THROUGH THE PERIOD AND WERE FOLLOWED. A 500 MB HIGH REMAINS NEAR THE FOUR CORNERS ON WEDNESDAY AND ALTHOUGH NO REAL PUSH OF ADDITIONAL MOISTURE INTO THE AREA IS NOTED...THERE SHOULD BE SUFFICIENT MOISTURE TO TRIGGER SCATTERED SHOWERS AND THUNDERSTORMS ACROSS THE AREA MAINLY IN THE AFTERNOON AND EVENING HOURS. THE GFS FORECASTS PWATS OF AN INCH AS FAR NORTH AS A PEARSONVILLE-SCOTTY`S CASTLE-HIKO LINE AND PUSHES THE 8C 850 MB DEWPOINT LINE ALMOST AS FAR NORTH. GIVEN THIS...I INCREASED POPS FOR WEDNESDAY AFTERNOON AND EVENING AREA WIDE. THE TOUGHEST CALL ON WEDNESDAY AND BEYOND WILL BE WHERE EXACTLY ACTIVITY WILL DEVELOP AS SOME AREAS MAY BE WORKED OVER AND OTHERS MAY BE MORE PRONE TO SEEING CONVECTION DUE TO OUTFLOW OR CONVERGENCE BOUNDARIES OR THE EXTENT OF CLOUD COVER AROUND. THE MAIN PLAYER FROM THURSDAY INTO NEXT WEEKEND IS AN UPPER LEVEL TROUGH FORECAST TO SWING ACROSS THE PAC NW AND IF IT IS ABLE TO BRING ENOUGH WESTERLY FLOW ALOFT INTO THE AREA TO DRY THINGS OUT. THE LATEST GFS AND ECMWF LOOK SLOWER TO DRY THINGS OUT THURSDAY AND FRIDAY AND SUGGEST THAT ANY DRYING WILL HOLD OFF UNTIL NEXT WEEKEND. EVEN THEN THE BEST ODDS FOR A TREND DOWN IN CONVECTION LOOK TO BE ACROSS ESERALDA...INYO AND NORTHWESTERN AND CENTRAL SAN BERNARDINO COUNTIES. FURTHER EAST I ACTUALLY TRENDED POPS UP A BIT AS NO REAL DRYING IS NOTED OVER THESE AREAS. THE THINGS TO WATCH WITH THIS TROUGH WILL BE IF IT ENHANCES CONVECTION AND HELPS IT BECOME MORE ORGANIZED AND ALSO WHETHER ACTIVITY BECOMES FOCUSED ON THE MOISTURE BOUNDARY BETWEEN DRIER AND VERY MOIST AIR AS SOMETIMES TAKES PLACE. TEMPS WERE KEPT CLOSE TO THE PREVIOUS FORECAST WHICH PLACES THEM NEAR NORMAL FOR HIGHS. DAY TO DAY VARIATIONS IN TEMPS WILL BE DRIVEN BY THE AMOUNT OF CLOUDS AROUND AS WELL AS THE AMOUNT OF MOISTURE IN PLACE. THE MAIN THREATS IN STORMS WILL BE GUSTY WINDS AND LOCALLY HEAVY DOWNPOURS THROUGH THE PERIOD.

.AVIATION...FOR MCCARRAN...WINDS WILL MAINLY FOLLOW DIURNAL DIRECTIONAL TRENDS THROUGH SUNDAY EVENING. MONSOON MOISTURE WILL RESULT IN THE DEVELOPMENT OF CUMULUS CLOUDS SUNDAY. THUNDERSTORMS ARE POSSIBLE IN AND AROUND THE LAS VEGAS VALLEY SUNDAY AFTERNOON AND EVENING. LITTLE IN THE WAY PRECIPITATION CAN BE EXPECTED FROM THEM BUT GUSTY OUTFLOW WINDS ARE A CONCERN. THUNDERSTORMS WILL ALSO BE IN THE MORMON MESA AND PEACH SPRINGS CORRIDORS SUNDAY AFTERNOON.

FOR THE REST OF SOUTHERN NEVADA...NORTHWEST ARIZONA...AND SOUTHEAST CALIFORNIA...LIGHT WINDS FOLLOWING LOCAL DIURNAL PATTERNS TO OCCUR AREAWIDE THROUGH THROUGH SUNDAY MORNING ALONG WITH MOSTLY CLEAR SKIES. SUNDAY WILL SEE CUMULUS CLOUDS FORM AS MONSOON MOISTURE MAKES ITS WAY INTO THE AREA. AREAS EAST OF THE COLORADO RIVER WILL SEE A DECENT CHANCE FOR AFTERNOON THUNDERSTORMS SUNDAY WHILE AREAS WEST OF IT IN CLARK AND LINCOLN COUNTIES WILL SEE A LOWER CHANCE OF THUNDERSTORMS AND THOSE THAT DO FORM WILL BE HIGH BASED AND LIKELY TO PRODUCE STRONGER OUTFLOW WINDS.

.CLIMATE...WITH RAIN FINALLY IN THE FORECAST FOR LAS VEGAS HERE IS A LOOK AT THE LAST TIME WE FINALLY SAW THE FOLLOWING PRECIPITATION AMOUNTS AT THE OFFICIAL CLIMATE STATION AT MCCARRAN INTERNATIONAL AIRPORT...

A TRACE...MAY 29TH
0.01 INCH...MAY 18TH...LAST MEASURABLE PRECIPITATION THIS YEAR
0.15 INCH...MARCH 21ST...WETTEST DAY OF 2011 SO FAR

FOR A QUARTER OF AN INCH OR MORE OF PRECIPITATION...THE LAST TIME WE SAW THIS MUCH WAS BACK ON DECEMBER 22ND OF 2010 WHEN 1.01 INCHES FELL. DECEMBER 2010 SAW 8 DAYS WITH MEASURABLE PRECIPITATION AT MCCARRAN AIRPORT. SO FAR IN 2011 THERE HAVE ONLY BEEN SIX DAYS WITH MEASURABLE PRECIPITATION...1 DAY EACH IN JANUARY AND MAY AND 2 DAYS EACH IN FEBRUARY AND MARCH.

.FIRE WEATHER...AS LOW LEVEL MOISTURE SURGES NORTHWARD INTO EASTERN CALIFORNIA AND SOUTHERN MOHAVE COUNTY THIS MORNING DON`T BE SURPRISED TO SEE A STRAY LIGHTNING STRIKE. ANY STORMS THAT DEVELOP LATER TODAY...MAINLY TO THE EAST-SOUTHEAST OF INTERSTATE 15 WILL HAVE A HIGHER PROBABILITY OF BEING WET DUE TO THE RAPID ONSET OF LOW LEVEL MOISTURE. BOUNDARY LAYER ACROSS NORTHERN CLARK AND LINCOLN COUNTIES IN SOUTHERN NEVADA WILL STAY DRY WITH GUSTY WINDS AND DRY LIGHTNING POSSIBLE. COVERAGE OF THUNDERSTORMS ACROSS NORTHERN CLARK AND LINCOLN COUNTIES WILL BE QUITE ISOLATED AND BELIEVE A RED FLAG WARNING IS NOT NECESSARY.

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.VEF WATCHES/WARNINGS/ADVISORIES...

NV...NONE.

AZ...NONE.

CA...NONE.

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MORGAN/JACQUES/PIERCE/STACHELSKI

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