

TYPE	DATE	TIME	AGENCY	DESCRIPTION	PAGE	
Area Forecast Discussion	12/17/2017	2010	PST	San Diego	The trough will dig SE into NV on Wednesday as the ridge off the coast builds northward. Surface pressure falls over the Great Basin will set the stage for strong onshore flow over our mts/deserts later Wed/Wed night, before winds turn back offshore on Thursday as the wave passes. Current indications are for westerly winds gusts of 50 to 60 MPH over the mtn crests/desert slopes late Wednesday before swinging northerly and then NE on Thursday.	
Area Forecast Discussion	12/18/2017	0342	MST	Phoenix	A strong storm system will move into the Great Basin Wednesday and Thursday, bringing an increase in winds... Strong winds will also persist amidst a tight surface pressure gradient, and will have to monitor for the potential of a Wind Advisory Wednesday , especially across southeastern California and the lower Colorado River Valley.	
Area Forecast Discussion	12/18/2017	0424	PST	San Diego	A low pressure system moving into the Great Basin Wednesday will bring stronger onshore flow with...strong gusty west winds in the mountains and deserts... The stronger onshore flow will bring strong gusty west to northwest winds to the mountains and deserts for Wednesday into Wednesday evening ... strongest Wednesday afternoon and early evening. The strongest winds are expected from mountain ridge tops along desert mountain slopes into adjacent desert areas and in the northern Coachella valley below the San Gorgonio Pass with the stronger isolated gusts to around 70 mph.	
Area Forecast Discussion	12/18/2017	1309	PST	San Diego	...onshore flow increases ahead of a trough digging into the Great Basin. The trough will rev up the westerly winds over the mts and deserts ahead of a cold front that will swing across the region from north to south Wednesday evening. A Wind Advisory will likely be needed in the mts for later Wed, possibly into Thursday for strong westerly winds shifting northerly as the cold front sweeps across the region from north to south. Gusts along the upper desert slopes of 60 to 70 mph.	
Area Forecast Discussion	12/18/2017	1353	MST	Phoenix	A strong storm system will move into the Great Basin Wednesday and Thursday, bringing an increase in winds... The system will create windy conditions, particularly in southeast California, for much of Thursday with gusts 25-35 miles per hour or greater as the cold front moves through. Potential for a wind advisory exists, especially if this system remains on track.	
Area Forecast Discussion	12/18/2017	2124	PST	San Diego	Minor changes made this evening to... expand areas of blowing dust and sand for Wednesday afternoon and evening , when the strong west winds will develop over the mountains and down along the desert floors.	
Urgent Weather Message	12/19/2017	0341	MST	Phoenix	Wind Advisory in effect from 7 pm Wednesday to 3 pm PST Thursday... portions of southeast California...Northwest 20 to 35 mph. Gusts of 45 to 55 mphStrong cross winds will make driving difficult, especially for high profile vehicles on east-west oriented roads. Use extra caution. Localized blowing dust is also possible, reducing visibilities.	
Area Forecast Discussion	12/19/2017	0354	PST	San Diego	A low pressure system moving through the Great Basin on Wednesday will bring strong onshore flow to Southern California for Wednesday into Wednesday evening. This will bring cooling and strong gusty west to northwest winds for the mountains and deserts for Wednesday into Wednesday evening with strongest gusts in the windier locations to around 70 mph.	

Area Forecast Discussion	12/19/2017	0741	PST	San Diego	The trough will continue inland and move southeast through the Great Basin, dragging a cold front across our forecast area late Wednesday. Winds in the mountains and desert slopes will become strong and gusty late Wednesday afternoon and evening from the west direction as onshore pressure gradients from San Diego to Las Vegas increase to 11-13 mb... Thus, although we'll likely see gusts of 50 mph and locally 60 mph, we shouldn't see any significant wind impacts, so a Wind Advisory will likely be appropriate.
Area Forecast Discussion	12/19/2017	1407	MST	Phoenix	A general increase in southwesterly winds will increase area-wide on Wednesday afternoon in response to surface pressure falls over the central and northern Rockies. This will occur ahead of a fast-moving cold front entering southeast California Wednesday afternoon, which will demarcate an abrupt wind shift out of the northwest into Wednesday evening. Advisory-level wind speeds are forecast to occur across most of eastern Riverside County and parts of Imperial County in the wake of the cold front.
Urgent Weather Message	12/19/2017	1516	MST	Phoenix	Wind Advisory in effect from 4 pm to 10 pm Wednesday... Imperial County Southwest- Including the city of Mountain Spring...Northwest 20 to 35 mph. Gusts of 45 to 55 mph...Strong cross winds will make driving difficult, especially for high profile vehicles on east-west oriented roads. Use extra caution. Localized blowing dust is also possible , reducing visibilities.
Area Forecast Discussion	12/19/2017	1532	MST	Phoenix	The front pushes through southeast California early Wednesday evening, shifting winds to the northwest and increasing speeds quite a bit. As such, a Wind Advisory has been issued from 4 pm Wednesday until 3 PM Thursday, with the strongest winds expected across the highest elevation locations of eastern Riverside County, including Joshua Tree National Park as well as the Mountain Spring area in Imperial County. These breezy conditions over desert areas could result in briefly lowered visibilities in blowing dust or blowing sand.
Urgent Weather Message	12/19/2017	1713	PST	San Diego	Wind Advisory in effect from noon Wednesday to 4 pm PST Thursday...San Bernardino County Mountains-Riverside County Mountains-San Diego County Mountains-Apple and Lucerne Valleys-Coachella Valley- San Diego County Deserts -San Geronio Pass Near Banning-Including the cities of Big Bear City, Wrightwood, Hesperia, Apple Valley, Cathedral City, and Desert Hot Springs... Westerly winds becoming strong Wednesday afternoon along the mountain ridges and down into the Mojave and Sonoran Deserts. Strongest gusts to 55 mph through the passes and along the desert slopes and 45 mph in the deserts... Along Interstates 8, 10, and 15 through the mountains and down into the deserts...Poor visibility possible due to blowing dust and sand.
Area Forecast Discussion	12/19/2017	2136	PST	San Diego	Changes were made this evening to expand patchy dust/sand across the deserts for Wednesday afternoon and evening. Given the strong westerly winds expected across the mountains and into the deserts Wednesday afternoon through evening, we have also issued a wind advisory for those areas.
Urgent Weather Message	12/20/2017	0245	PST	Phoenix	Wind Advisory remains in effect... portions of southeast California including the Mountain Spring area along Interstate 8 ...west winds 25 to 30 mph...gusts of 40 to 50 mph...localized blowing dust is possible...

Area Forecast Discussion	12/20/2017	0339	PST	Phoenix	A cold front is forecast to enter southeast California this evening, and quickly sweep southeastward. A modest increase in west-southwesterly winds will occur ahead of the cold front, with a more significant strengthening of winds forecast to occur in the wake of the cold front overnight. The strongest winds are forecast to occur across higher elevation locations and ridgetops over southeast California , amidst strong northerly flow above the surface (e.g., 850-mb winds around 40 kt). Winds will gradually weaken throughout the day Thursday, but will remain locally strong into the afternoon. As such, a Wind Advisory will be maintained for much of southeast California. Areas of blowing sand/dust will also be possible.
Area Forecast Discussion	12/20/2017	1124	PST	San Diego	Wind Advisory remains in effect until 10 pm this evening... Riverside County Mountains-San Diego County Mountains-Coachella Valley-San Diego County Deserts-San Gorgonio Pass Near Banning-Including the cities of Julian, Borrego Springs, and Desert Hot Springs...Areas of southwest to west winds 20 to 30 mph with gusts to 50 mph. Isolated gusts to 60 mph... From mountain ridge tops and along deserts slopes of the mountains into adjacent desert areas... Areas of reduced visibility in the deserts from blowing sand and dust.
Area Forecast Discussion	12/20/2017	1330	PST	San Diego	Winds have freshened in the mountains and deserts with gusts of 40 to 50 mph this afternoon. Big Bear Airport had a gust to 35 mph at 115 PM, with stronger gusts to 52 mph at Burns Canyon, 43 mph at Lucerne Valley, and 36 mph at Boulevard . Blowing Dust was reported in the High Deserts. A Wind Advisory is in effect through 10 pm tonight in these areas.
Urgent Weather Message	12/20/2017	1422	PST	Phoenix	Wind Advisory remains in effect... portions of southeast California including the Mountain Spring area along Interstate 8 ...west winds 25 to 30 mph...gusts of 40 to 50 mph...localized blowing dust is possible...
Area Forecast Discussion	12/20/2017	1444	MST	Phoenix	A cold front is forecast to enter southeast California this evening, and quickly sweep southeastward. A modest increase in west-southwesterly winds will occur ahead of the cold front, with a more significant strengthening of winds forecast to occur in the wake of the cold front overnight. The strongest winds are forecast to occur across higher elevation locations and ridgetops over southeast California, amidst strong northerly flow above the surface (e.g., 850-mb winds around 40 kt). Winds will gradually weaken throughout the day Thursday, but will remain locally strong into the afternoon. As such, a Wind Advisory will be maintained for much of southeast California. Areas of blowing sand/dust will also be possible.
Area Forecast Discussion	12/20/2017	1520	MST	Phoenix	...a cold front moves through the region late today and Thursday, with strong winds developing across southeast California ...The passing of this system will bring parts of our forecast area gusty winds...The first impact that will be felt will be the winds. Breezier pre-frontal southwest winds will be possible in Southeast California and parts of Southwest Arizona late this afternoon/early this evening. The strongest winds can be expected in southeast California where west to northwest winds gusting to 50 mph will be possible. These strong cross winds will make driving difficult and in addition localized blowing dust reducing visibilities will be possible.

Urgent Weather Message	12/20/2017	1921	PST	San Diego	Blowing Dust Advisory in effect until midnight PST tonight... Coachella Valley- San Diego County Deserts -San Gorgonio Pass Near Banning- Including the cities of Indio, Palm Springs, Cathedral City, Palm Desert, Palm Desert Country, La Quinta, Coachella, Borrego Springs, and Desert Hot Springs... Areas of southwest to west winds 20 to 30 mph with gusts to 50 mph. Isolated gusts to 65 mph along the slopes. Wind decreasing after midnight...From mountain ridge tops and along deserts slopes of the mountains into adjacent desert areas and through and below San Gorgonio Pass... Very poor visibility, down to zero in spots, travel delays possible.
Area Forecast Discussion	12/20/2017	2145	PST	San Diego	Forecast was updated to add a blowing dust advisory in the Coachella Valley and Lower Deserts. Also...wind and dust products extended to midnight. No other changes at this time.
Urgent Weather Message	12/20/2017	2352	PST	Phoenix	Wind Advisory for Imperial County southwest will expire at midnight PST tonight.
Urgent Weather Message	12/21/2107	0016	PST	San Diego	Blowing Dust Advisory for San Diego County deserts has expired.

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AFDSGX

Area Forecast Discussion
National Weather Service San Diego CA
810 PM PST Sun Dec 17 2017

.SYNOPSIS...

High pressure will bring fair skies, lighter winds and mild weather Monday and Tuesday with seasonal temperatures. Strong onshore flow will develop Wednesday as low pressure swings into the Great Basin, pulling in the marine layer briefly. As the low passes, high pressure will build inland, forcing flow back offshore across Southern California with another round of gusty northeast winds below passes and canyons. Cooler, with more seasonal temperatures into the weekend.

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.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO
COUNTIES...

The Cajon Pass and areas just below along with the Santa Ana coastal slopes continue to see northeast winds gusting 30-40 mph. However, winds will be relaxing overnight. The Wind Advisory was allowed to expire at 8 PM.

Temps have fallen a bit quicker in portions of the area, so adjusted the lows for tonight down a tad, mainly for the mountains.

A strong ridge remains parked just off the West Coast. The ridge will expand across the west on Monday, then flatten as a strong shortwave trough slides SE from higher latitudes. The trough will dig SE into NV on Wednesday as the ridge off the coast builds northward. Surface pressure falls over the Great Basin will set the stage for strong onshore flow over our mts/deserts later Wed/Wed night, before winds turn back offshore on Thursday as the wave passes.

Current indications are for westerly winds gusts of 50 to 60 MPH over the mtn crests/desert slopes late Wednesday before swinging northerly and then NE on Thursday. The NE winds could be quite strong as well, especially through the passes and canyons and along the coastal slopes of the Mts. This event looks to be short-lived though as models show the trough moving east rather quickly.

The weekend looks like a transition period with higher uncertainty as the hemispheric pattern begins to undergo a rather large shift. Both the 12Z GFS/ECMWF runs appear to be hinting at establishing the massive EastPac ridge farther to the north, allowing shortwave

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

energy to undercut. How this energy manifests itself remains to be worked out, but it will at least keep us cooler and tamp down the persistent dry offshore flow we have been experiencing this month. The shift in the ridge, if it does occur as seems to be indicated, will also open the door to Pacific systems that could eventually bring much needed precipitation.

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.AVIATION...

180345Z...Mostly clear with unrestricted vis through Monday evening.

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.MARINE...

A trough of low pressure moving through the region will bring strengthening northwesterly winds gusting 20-25 kt Wednesday night through Thursday morning.

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.FIRE WEATHER...

Winds will subside overnight, with moderate RH recovery. Drier most areas on Monday as daytime RH falls into the teens over the mtns/valleys, but winds will be light.

Onshore flow will be increasing and become strong and gusty over the mtns/desert slopes by Wednesday afternoon and evening as low pressure passes to the northeast. Gusty offshore flow will follow on Thursday and could be quite strong into Thursday night.

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.SKYWARN...

Skywarn activation is not requested. However weather spotters are encouraged to report significant weather conditions.

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.SGX WATCHES/WARNINGS/ADVISORIES...

CA...NONE.

PZ...NONE.

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PUBLIC...Gregoria/JAD

AVIATION/MARINE...SS

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Area Forecast Discussion
National Weather Service Phoenix AZ
342 AM MST Mon Dec 18 2017

.SYNOPSIS...

Near to slightly above normal temperatures will persist through mid-week amidst mostly clear skies. A strong storm system will move into the Great Basin Wednesday and Thursday, bringing an increase in winds and substantially cooler temperatures into the second half of the week. Rainfall chances will remain very low.

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.DISCUSSION...

Satellite loop from this morning continues to show a well-defined midlevel circulation due south of Phoenix near the international border this morning. The western edge of cloud cover within a larger plume of moisture and ascent was located across Pinal and southern Gila Counties, and will slowly shift eastward through the late morning. All in all, should expect temperatures right at seasonal normals today, with light winds and mostly clear skies.

Brief shortwave ridging will build across the Four Corners Tuesday and Wednesday and result in temperatures a degree or two warmer each day. This will be short-lived, however, as another significant upper trough quickly develops over the Pacific Northwest and the Great Basin mid-week. The track of this system will remain to the north of the forecast area, with drier air infiltrating amidst a tight pressure gradient along it's southern periphery. A cold front will quickly progress southeastward Wednesday, with strong west to northwest winds developing it's wake. Will see a fairly significant cooldown into Thursday, with temperatures forecast to be nearly 5 degrees below normal. Strong winds will also persist amidst a tight surface pressure gradient, and will have to monitor for the potential of a Wind Advisory Wednesday, especially across southeastern California and the lower Colorado River Valley.

The coldest temperatures of the season thus far are forecast for Friday morning, with widespread 30s expected across the lower deserts, and 20s across the higher terrain. Will have to monitor for the possibility of a Freeze Watch across parts of southern Gila County, including the Globe area, should confidence in widespread freezing temperatures in the higher elevations increase.

Models continue to indicate a large-scale pattern shift with an expansive continental arctic air mass approaching the CONUS. As is

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

typical this far out, the details are still somewhat muddy, with the ECMWF depicting a wider swath of cold air extending westward into the Great Basin and Four Corners area. This potential scenario would reinforce and perhaps even strengthen the cold air mass over the Southwest. However, confidence is still fairly low given the lack of consistency with other deterministic and ensemble guidance. Regardless, cool temperatures and generally dry conditions look likely to persist throughout the week.

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.AVIATION...

South-Central Arizona including KPHX, KIWA, and KSDL:

Minimal aviation impacts from weather through Monday evening as the current weather system moves well east of terminal sites. Cigs 10K-15K ft will scatter and lift by Monday morning with any lingering light rain staying over mountain locations east of Phoenix. Light east winds will be preferred overnight though some variability may occur. A light west wind will finally develop by early/mid Monday afternoon.

Southeast California/Southwest Arizona including KIPL and KBLH:

No aviation problems through Monday evening under clear skies.

Steady north winds near 10kt will weaken overnight with nearly calm (or light and variable) conditions widespread Monday morning and afternoon.

Aviation Discussion not updated for amended TAFs.

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.FIRE WEATHER...

Tuesday through Saturday...

Winds will be light and variable with subtle trends toward drainage slopes and diurnal patterns. Dry northwest flow will linger for Tuesday and Wednesday before another colder and more potent storm system sweeps in from the northwest. Breezy west-northwest winds will develop overnight Wednesday and into Thursday, impacting area ridgetops first then mixing into the lower desert elevations during the daytime. Model forecasts have backed off any precipitation chances with this system, so conditions will stay mostly dry over the Districts. Daytime humidities will be range higher than the last few weeks, 15 to 20 percent for the lower elevations and 30 percent or greater for the higher terrain. After temperatures rebound in the early week to slightly above normal readings, they will drop to near normal readings (60s for the deserts and 40s/50s for the foothills/higher terrain) by Thursday into the coming weekend.

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.SPOTTER INFORMATION STATEMENT...

Spotters should follow standard reporting procedures.

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.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...None.

CA...None.

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DISCUSSION...Rogers

AVIATION...MO

FIRE WEATHER...No1te

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Area Forecast Discussion
National Weather Service San Diego CA
424 AM PST Mon Dec 18 2017

.SYNOPSIS...

Offshore flow will continue to weaken today with locally gusty northeast winds near the coastal foothills this morning. Dry weather with weaker winds and near seasonal temperatures will continue through Tuesday. A low pressure system moving into the Great Basin Wednesday will bring stronger onshore flow with cooling...more clouds...and strong gusty west winds in the mountains and deserts. A weakening cold front will move through far southern California late Wednesday afternoon into Wednesday evening with small chances for very light precipitation along and west of the mountains. A period of moderate offshore will follow for Thursday with gusty northeast winds. Warming with weaker winds for Friday.

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.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO
COUNTIES...

.SHORT TERM (Today through Wednesday night)...

High pressure aloft over California today will weaken on Tuesday with a low pressure system off the Pacific Northwest coast on Tuesday moving into the Great Basin on Wednesday. Offshore lower level flow will continue to weaken today...become weakly onshore on Tuesday...then much stronger onshore for Wednesday into Wednesday evening.

Locally gusty northeast winds near the coastal foothills and below passes and canyons will continue to weaken this morning. Some patchy stratus could develop over the coastal waters tonight and extend locally inland near the coast late tonight into Tuesday morning. A greater stratus return is possible for Tuesday night into Wednesday along with deepening of the marine layer. Stratus could return Tuesday evening along the coast and extend into portions of the inland valleys for Wednesday morning.

Warming that occurred toward the coast on Sunday from the offshore flow will extend inland today and Tuesday. Warmer high temperatures toward the coast will continue today...with slow cooling spreading inland on Tuesday...with greater cooling spreading inland on Wednesday with the stronger onshore flow.

The stronger onshore flow will bring strong gusty west to northwest winds to the mountains and deserts for Wednesday into

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Wednesday evening...strongest Wednesday afternoon and early evening. The strongest winds are expected from mountain ridge tops along desert mountain slopes into adjacent desert areas and in the northern Coachella valley below the San Gorgonio Pass with the stronger isolated gusts to around 70 mph.

This low pressure system will also push a weakening cold front through southwestern California late Wednesday afternoon into Wednesday evening. Some light precipitation is possible with the front...mainly along and west of the mountains. Any precipitation is not expected to be significant...a tenth of an inch or less on the coastal slopes of the mountains to a few hundredths of an inch or less towards the coast.

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.LONG TERM (Thursday through Sunday)...

As the low pressure system over the Great Basin moves east...a brief period of moderate offshore flow is expected on Thursday. It may not be too different from the offshore flow and gusty northeast winds that occurred this past Saturday night into Sunday...except the duration of the stronger winds may be a little less.

For Friday into next weekend...greater differences among the global models arise. The global models have a highly amplified pattern with high pressure aloft near or just off the West Coast. However...there are greater differences with the downstream cold trough of low pressure. The GFS is farther east which would result in warmer weather for Southern California with weaker winds and near seasonal temperatures. The ECMWF and Canadian models are farther west with this cold trough of low pressure which would result in a cooler and windier pattern for Southern California.

The current forecast leans towards those cooler...breezier solutions...but not as cool as the ECMWF. The period from next weekend into the week of Christmas is one of increasing uncertainty from the western states into the eastern Pacific...and an exceedingly low confidence forecast for Southern California with a large range of forecast possibilities.

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.AVIATION...

181000Z...Mostly clear with unrestricted vis today and tonight.

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.MARINE...

A cold front arriving Wednesday will boost winds in the outer waters possibly strong enough to be hazardous for small craft. Otherwise, no hazardous marine weather is forecast through Friday.

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.FIRE WEATHER...

Locally gusty northeast winds near the coastal foothills and below passes and canyons will continue to weaken this morning. Inland humidities will be lower today...especially in the mountains...but winds will be weak this afternoon when humidities are lowest. Onshore flow will bring increasing humidities for Tuesday and Wednesday with stronger onshore flow on Wednesday bringing strong and gusty west to northwest winds for the mountains and deserts for Wednesday into early Wednesday evening. A brief period of moderate offshore flow is expected on Thursday. However...similar to this past Sunday...the duration and areal extent of near critical fire weather conditions may be fairly limited. The most likely areas to experience near critical fire weather conditions from gusty north to northeast winds and decreasing humidities would be below the Cajon Pass and in inland Orange County...mainly for late Thursday morning into Thursday afternoon.

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.SKYWARN...

Skywarn activation is not requested. However weather spotters are encouraged to report significant weather conditions.

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.SGX WATCHES/WARNINGS/ADVISORIES...

CA...NONE.

PZ...NONE.

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PUBLIC/FIRE WEATHER...17

AVIATION/MARINE...MM

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Area Forecast Discussion
National Weather Service San Diego CA
109 PM PST Mon Dec 18 2017

.SYNOPSIS...

Fair and seasonally mild weather will continue through Tuesday under high pressure aloft. Cooler with more clouds on Wednesday as a low pressure system moving into the Great Basin, drags a cold front south across the region. Ahead of the front, a few light showers could break out along and west of the mountains, while strong westerly winds develop over the mountains and deserts. A period of moderate offshore will follow behind the front on Thursday, with gusty north to northeast winds. Warmer with less wind on Friday.

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.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO
COUNTIES...

Other than some patchy, thin, high clouds, skies were clear across SoCal early this afternoon. Surface pressure gradients had weakened considerably at midday (4 MBS offshore SW NV to KSAN) and weak onshore to the east. This has kept winds light today.

Fair and pleasant weather with mild days and cool nights will continue through Tue night. Marine clouds will make an appearance over SoCal by Wednesday morning as onshore flow increases ahead of a trough digging into the Great Basin. The trough will rev up the westerly winds over the mts and deserts ahead of a cold front that will swing across the region from north to south Wednesday evening. There may be just enough moisture and lift to generate a few light showers from the marine layer late Wednesday along and west of the mts. After frontal passage, winds will turn northerly and remain strong and gusty through and below north-south oriented passes and canyons.

The system will move rapidly east on Thu/Fri, allowing winds to drop off Thu night/Fri. The latest 12Z operational solutions of the ECMWF/GFS models have come in line for the Holiday Weekend and suggest that a fair, and dry pattern, with weak to moderate offshore flow will prevail through at least Monday.

A Wind Advisory will likely be needed in the mts for later Wed, possibly into Thursday for strong westerly winds shifting northerly as the cold front sweeps across the region from north to south. Gusts along the upper desert slopes of 60 to 70 MPH appear likely. POPS are in the forecast for Wed PM along and west of the mts due to the deepening marine layer and convergence associated with the cold

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

front. Unfortunately, amounts will likely be less than one-tenth of an inch.

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.AVIATION...

182016Z...There is a very small chance that fog could develop within a few miles of the coast late tonight and early Tuesday. Otherwise, FEW-SCT clouds AOA 20000 ft msl and P6SM vis through Tuesday morning.

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.MARINE...

A cold front will bring strengthening northwest winds possibly gusting to 25 kt in the outer waters Wednesday night, which would be hazardous to small craft. Then, models indicate that gusty offshore (northeast) winds to 25-30 kt could occur over the coastal waters Thursday morning. However, confidence in the offshore winds being hazardous is low at the moment.

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.FIRE WEATHER...

The low RH values across the region today will ease tonight into Tuesday as the atmosphere cools and onshore flow slowly develops.

Onshore flow will increase sharply on Wednesday, becoming strong and gusty over the ridges and onto the desert slopes by afternoon/evening at 30 to 45 MPH with local gusts 60 to 70 MPH. A brief period of moderate offshore flow is expected on Thursday. However... similar to this past Sunday, the duration and areal extent of near critical fire weather conditions may be fairly limited. The most likely areas to experience near critical fire weather conditions for several hours due to wind/RH would be along the lower coastal slopes of the San Bernardino and Santa Ana Mts...far inland Orange County, and below the Cajon Pass...mainly late Thursday morning through Thursday afternoon. Winds will drop off Thursday night.

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.SKYWARN...

Skywarn activation is not requested. However weather spotters are encouraged to report significant weather conditions.

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.SGX WATCHES/WARNINGS/ADVISORIES...

CA...NONE.

PZ...NONE.

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AFDPSR

Area Forecast Discussion
National Weather Service Phoenix AZ
153 PM MST Mon Dec 18 2017

.SYNOPSIS...

Near to slightly above normal temperatures will persist through mid-week amidst mostly clear skies. A strong storm system will move into the Great Basin Wednesday and Thursday, bringing an increase in winds and substantially cooler temperatures into the second half of the week. Rainfall chances will remain very low.

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.DISCUSSION...

This weekend's weather disturbance has all but moved off to our east leaving behind clear skies for much of the forecast area. Far eastern Gila County had a very slight chance for a lingering shower or two but that opportunity has passed. Temperatures today will warm to near seasonal normals with desert locations reaching the mid 60s, give or take, by the late afternoon.

The first half of this week will be rather quiet with minor shortwave ridging over the southwest. This will lead to a slight warming trend with lower desert locations possibly reaching the low 70s again by Wednesday. However, another system is then pegged to dig over the west Thursday. Unfortunately, moisture looks to be lacking with this system leaving the best chance for any storms or showers well to our north. The system will create windy conditions, particularly in southeast California, for much of Thursday with gusts 25-35 miles per hour or greater as the cold front moves through. Potential for a wind advisory exists, especially if this system remains on track.

This system will also allow for temperatures to drop to their coolest of the season beginning Thursday when daytime highs will struggle to warm much above 60 degrees. Friday morning, temperatures will drop to near freezing for the Globe area and other outlying desert locations. Temperatures should warm a bit heading towards the weekend but will likely remain at or below seasonal normals.

Models continue to indicate a large-scale pattern shift with an expansive continental arctic air mass approaching the CONUS. As is typical this far out, the details are still somewhat muddy, with the ECMWF depicting a wider swath of cold air extending westward into the Great Basin and Four Corners area. This potential scenario would reinforce and perhaps even strengthen the cold air mass over the Southwest. However, confidence is still fairly low given the lack of consistency with other deterministic and

- **December 20, 2017 Exceptional Event, Imperial County**
ensemble guidance. Regardless, cool temperatures and generally dry conditions look likely to persist throughout the week.

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.AVIATION...

South-Central Arizona including KPHX, KIWA, and KSDL:
Low to mid level clouds (7-12 kft) will continue to gradually thin this morning with clear conditions expected by late morning. Light northeasterly winds, though sometime variable, will continue until light westerly flow develops early Monday afternoon.

California/Southwest Arizona including KIPL and KBLH:
No aviation concerns for the next 24 hours as terminals remain under clear skies. A light northerly flow will persist at KBLH on Monday while very light and variable winds are expected at KIPL. No other aviation concerns.

Aviation Discussion not updated for amended TAFs.

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.FIRE WEATHER...

Wednesday through Sunday...

Southerly winds will begin to pick up over SE California late on Wednesday as a dry weather system approaches our area. A cold front will then move through early Thursday switching winds to a dry northwest flow. This will certainly bring a period of elevated fire danger and will need to be watched closely as critical fire weather thresholds could be met. Low 60s and upper 50s will be common through the lower deserts Thursday and Friday while minimum relative humidity bottoms out near 10-25% each afternoon. Winds weaken dramatically on Friday as the system exits to our east with wind speeds remaining relatively light through the weekend. A subtle increase in temperatures and humidity look to occur over the weekend but conditions remain largely unchanged.

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.SPOTTER INFORMATION STATEMENT...

Spotters should follow standard reporting procedures.

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.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...None.

CA...None.

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AFDSGX

Area Forecast Discussion
National Weather Service San Diego CA
924 PM PST Mon Dec 18 2017

.SYNOPSIS...

Fair and seasonally mild weather will continue through Tuesday under high pressure aloft. Cooler with more clouds on Wednesday as a low pressure system moving into the Great Basin, drags a cold front south across the region. Ahead of the front, a few light showers could break out along and west of the mountains, while strong westerly winds develop over the mountains and deserts. A period of moderate offshore will follow behind the front on Thursday, with gusty north to northeast winds. Warmer with less wind on Friday.

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.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO
COUNTIES...

Minor changes made this evening to remove the patchy fog over the coastal waters and expand areas of blowing dust and sand for Wednesday afternoon and evening, when the strong west winds will develop over the mountains and down along the desert floors. The remainder of the forecast remains on track as does the remainder of the forecaster discussion below.

...Previous forecaster discussion...

Fair and pleasant weather with mild days and cool nights will continue through Tue night. Marine clouds will make an appearance over SoCal by Wednesday morning as onshore flow increases ahead of a trough digging into the Great Basin. The trough will rev up the westerly winds over the mts and deserts ahead of a cold front that will swing across the region from north to south Wednesday evening. There may be just enough moisture and lift to generate a few light showers from the marine layer late Wednesday along and west of the mts. After frontal passage, winds will turn northerly and remain strong and gusty through and below north-south oriented passes and canyons.

The system will move rapidly east on Thu/Fri, allowing winds to drop off Thu night/Fri. The latest 12Z operational solutions of the ECMWF/GFS models have come in line for the Holiday Weekend and suggest that a fair, and dry pattern, with weak to moderate offshore flow will prevail through at least Monday.

A Wind Advisory will likely be needed in the mts for later Wed, possibly into Thursday for strong westerly winds shifting northerly

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

as the cold front sweeps across the region from north to south. Gusts along the upper desert slopes of 60 to 70 MPH appear likely. POPS are in the forecast for Wed PM along and west of the mts due to the deepening marine layer and convergence associated with the cold front. Unfortunately, amounts will likely be less than one-tenth of an inch.

&&

.AVIATION...

190430Z...Mostly clear skies will prevail through Tuesday with unrestricted vis. Stratus will likely return to coastal areas Tuesday evening with ceilings under 1000 ft MSL possible.

&&

.MARINE...

A cold front will bring strengthening northwest winds possibly gusting to 25 kt in the outer waters Wednesday night, which would be hazardous to small craft. Offshore flow developing early Thursday morning could bring locally gusty northeast winds, possibly near 25 kt.

&&

.FIRE WEATHER...

Onshore flow will increase sharply on Wednesday, becoming strong and gusty over the ridges and onto the desert slopes by afternoon/evening at 30 to 45 MPH with local gusts 60 to 70 MPH. A brief period of moderate offshore flow is expected on Thursday. However... similar to this past Sunday, the duration and areal extent of near critical fire weather conditions may be fairly limited. The most likely areas to experience near critical fire weather conditions for several hours due to wind/RH would be along the lower coastal slopes of the San Bernardino and Santa Ana Mts...far inland Orange County, and below the Cajon Pass...mainly late Thursday morning through Thursday afternoon. Winds will drop off Thursday night.

&&

.SKYWARN...

Skywarn activation is not requested. However weather spotters are encouraged to report significant weather conditions.

&&

.SGX WATCHES/WARNINGS/ADVISORIES...

CA...NONE.

PZ...NONE.

&&

\$\$

078
FXUS65 KPSR 191034
AFDPSR

Area Forecast Discussion
National Weather Service Phoenix AZ
334 AM MST Tue Dec 19 2017

.SYNOPSIS...

Near to slightly above normal temperatures will persist through mid-week amidst mostly clear skies. A strong storm system will move into the Great Basin Wednesday and Thursday bringing an increase in winds, and substantially cooler temperatures into the second half of the week. However, rainfall chances will remain very low.

&&

.DISCUSSION...

The Southwest is currently in between storm systems, as the upper disturbance that affected us over the weekend is moving into the southern High Plains, and another more potent upper trough digs across the Pacific Northwest. The latter feature will bring a significant cooling trend and increase in winds beginning Wednesday into the weekend. Prior to that, temperatures a few degrees above normal with mostly clear skies and light winds will prevail, bringing pleasant conditions for late December.

A general increase in southwesterly winds will increase area-wide on Wednesday afternoon in response to surface pressure falls over the central and northern Rockies. This will occur ahead of a fast-moving cold front entering southeast California Wednesday afternoon, which will demarcate an abrupt wind shift out of the northwest into Wednesday evening. Advisory-level wind speeds are forecast to occur across most of eastern Riverside County and parts of Imperial County in the wake of the cold front, as 850-mb flow strengthens to around 40 kt overnight. As such, a Wind Advisory has been issued from 04Z-23Z Thursday, with the strongest winds expected across the highest elevation locations of eastern Riverside County, including Joshua Tree National Park. Breezy conditions will spread across the remainder of the area on Thursday, and patchy blowing dust will be possible.

The other big impact will be the much cooler temperatures in the wake of the cold front, and high temperatures may struggle to get out of the 50s in some lower desert locations, including the Phoenix area. The coldest temperatures of the year are expected Friday morning, and 30s will be common overnight in many locations. A Freeze Watch has been issued for parts of southern Gila County, where the first widespread freezing temperatures of the season are expected. Similar temperatures can be expected into Friday, before a gradual warming trend begins into the weekend as upper ridging slowly expands eastward from the eastern Pacific.

Precipitation chances are expected to remain quite low throughout the period given the over-land trajectory of the mid-week storm system. The best shot for light precipitation may clip parts of southern Gila County on Thursday, but potential will be quite limited. The large-scale pattern will continue to favor dry conditions for the foreseeable future.

&&

.AVIATION...

South-Central Arizona including KPHX, KIWA, and KSDL; and California/Southwest Arizona including KIPL and KBLH:

No aviation weather impacts across the region through Tuesday under mostly clear skies. Directional trends in winds will be very typical for mid December; and extended periods of nearly calm conditions will be common.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...

Wednesday through Sunday...

Southerly winds will begin to pick up over SE California late on Wednesday as a dry weather system approaches our area. A cold front will then move through early Thursday switching winds to a

December 20, 2017 Exceptional Event, Imperial County

Appendix A

dry northwest flow. This will certainly bring a period of elevated fire danger and will need to be watched closely as critical fire weather thresholds could be met. Low 60s and upper 50s will be common through the lower deserts Thursday and Friday while minimum relative humidity bottoms out near 10-25% each afternoon. Winds weaken dramatically on Friday as the system exits to our east with wind speeds remaining relatively light through the weekend. A subtle increase in temperatures and humidity look to occur over the weekend but conditions remain largely unchanged.

&&

.SPOTTER INFORMATION STATEMENT...
 Spotters should follow standard reporting procedures.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...
 AZ...Freeze Watch from Thursday evening through Friday morning for AZZ558-560-562.

CA...Wind Advisory from 8 PM Wednesday to 7 AM PST Thursday for CAZ560-561-564-568>570.

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DISCUSSION...Rogers
 AVIATION...MO
 FIRE WEATHER...Wilson

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374
 WWUS75 KPSR 191041
 NPWPSR

URGENT - WEATHER MESSAGE
 National Weather Service Phoenix AZ
 341 AM MST Tue Dec 19 2017

CAZ560-561-564-568>570-192245-
 /O.NEW.KPSR.WI.Y.0031.171221T0300Z-171221T2300Z/
 Joshua Tree NP West-Joshua Tree NP East-Chuckwalla Mountains-
 Chiriaco Summit-Palo Verde Valley-Chuckwalla Valley-
 Including the cities of Cottonwood Visitor,
 Lost Horse-Keys Village, Imperial Hot Mineral Springs,
 Chiriaco Summit, Martinez Lake, Blythe, Palo Verde, Ripley,
 and Midland
 241 AM PST Tue Dec 19 2017

..WIND ADVISORY IN EFFECT FROM 7 PM WEDNESDAY TO 3 PM PST
 THURSDAY..

The National Weather Service in Phoenix has issued a Wind
 Advisory, which is in effect from 7 PM Wednesday to 3 PM PST
 Thursday.

* AFFECTED AREA...Portions of southeast California, including
 Joshua Tree National Park and the Interstate 10 corridor.

* TIMING...Wednesday evening to Thursday afternoon.

* WINDS...Northwest 20 to 35 mph. Gusts of 45 to 55 mph.

* IMPACTS...Strong cross winds will make driving difficult,
 especially for high profile vehicles on east-west oriented
 roads. Use extra caution. Localized blowing dust is also
 possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between
 30 and 40 mph are expected, or wind gusts of between 40 and
 58 mph. Winds this strong can make driving difficult, especially
 for high profile vehicles. In addition, strong winds over desert
 areas could result in briefly lowered visibilities to well under
 a mile at times in blowing dust or blowing sand. Use extra
 caution.

&&

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AZZ558-560-562-192245-
 /O.NEW.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
 Pinal/Superstition Mountains-San Carlos-Globe/Miami-
 Including the cities of San Carlos, Peridot, Globe, and Miami
 341 AM MST Tue Dec 19 2017

...FREEZE WATCH IN EFFECT FROM THURSDAY EVENING THROUGH FRIDAY
 MORNING...

The National Weather Service in Phoenix has issued a Freeze
 Watch, which is in effect from Thursday evening through Friday
 morning.

* AFFECTED AREA...Portions of southern Gila County, including the
 community of Globe.

* TEMPERATURES...Ranging from the upper 20s around Globe to the
 upper teens for areas east of Globe. This includes communities
 along portions of Highway 60.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage
 to sensitive plants and ornamental vegetation. Poorly insulated
 pipes may burst. The extreme cold is also dangerous for any pets
 left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Watch means sub-freezing temperatures are possible.
 These conditions could destroy or damage crops and other

┌
981
FXUS66 KSGX 191154
AFDSGX

Area Forecast Discussion
National Weather Service San Diego CA
354 AM PST Tue Dec 19 2017

.SYNOPSIS...

Weak onshore flow will return today with slow cooling near the coast spreading inland. A low pressure system moving into the Great Basin Wednesday will bring stronger onshore flow with cooling...more clouds...and strong gusty west winds in the mountains and deserts. A weakening cold front will move through far southern California late Wednesday afternoon into Wednesday evening with small chances for very light precipitation along and west of the mountains. A period of moderate offshore will follow for Thursday with gusty north winds. Dry with a warming trend for Friday through Christmas with weaker winds.

&&

.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO
COUNTIES...

.SHORT TERM (Today through Thursday)...

Little change for the forecast through Thursday. High pressure aloft will continue today along with a return of weak onshore flow which will bring slight cooling towards the coast. A low pressure system moving through the Great Basin on Wednesday will bring strong onshore flow to Southern California for Wednesday into Wednesday evening. This will bring cooling and strong gusty west to northwest winds for the mountains and deserts for Wednesday into Wednesday evening with strongest gusts in the windier locations to around 70 mph. A return of coastal low clouds and fog is expected for tonight into Wednesday morning. A weakening cold front will move through far southern California late Wednesday afternoon into Wednesday evening with small chances for light precipitation along and west of the mountains.

A period of moderate offshore flow will follow for Thursday with gusty north winds with strongest winds below the Cajon Pass...and for inland Orange County along and below the coastal slopes of the Santa Ana Mountains. Strongest winds are expected for Thursday morning into Thursday afternoon with winds weakening for late Thursday afternoon into Thursday night.

&&

.LONG TERM (Friday through Christmas)...

The global models are in better agreement with the pattern for the western states for Friday through Christmas before greater

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

differences begin to arise. High pressure aloft will be centered along the West Coast with a cold trough of low low pressure to the east covering much of the central and eastern states. Southern California will be dry with a warming trend for Friday through Christmas. There may be some occasional weak offshore lower level flow at times...but winds should be mostly weak.

&&

.AVIATION...

191000Z...Mostly clear skies will prevail today and tonight with unrestricted vis. Areas of coastal low clouds will increase after 03Z into Wednesday morning. Cigs 600-800 feet MSL increasingly likely at coastal airports.

&&

.MARINE...

A cold front will bring stronger northwest winds Wednesday afternoon and evening, which could be hazardous to small craft. Offshore flow developing early Thursday morning could bring locally gusty northeast winds Thursday. Otherwise, no other hazardous marine weather is forecast through Saturday.

&&

.FIRE WEATHER...

Strengthening onshore flow will bring increasing humidities for Wednesday with strong and gusty west to northwest winds for the mountains and deserts for Wednesday into Wednesday evening. A brief period of moderate offshore flow is expected on Thursday. However...similar to this past Sunday...the duration and areal extent of near critical fire weather conditions should be fairly limited. The most likely areas to experience near critical fire weather conditions from gusty north to northeast winds and decreasing humidities would be below the Cajon Pass and in inland Orange County...mainly for late Thursday morning into Thursday afternoon.

&&

.SKYWARN...

Skywarn activation will not be needed today.

&&

.SGX WATCHES/WARNINGS/ADVISORIES...

CA...NONE.

PZ...NONE.

&&

\$\$

PUBLIC/FIRE WEATHER...17
AVIATION/MARINE...MM

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714
FXUS66 KSGX 191541
AFDSGX

Area Forecast Discussion
National Weather Service San Diego CA
741 AM PST Tue Dec 19 2017

.SYNOPSIS...

Weak onshore flow will return today with slow cooling near the coast spreading inland, while the mountains and deserts warm slightly. A low pressure system moving into the Great Basin Wednesday will bring stronger onshore flow with cooling, more clouds, and strong gusty west winds in the mountains and deserts. A weakening cold front will move through far southern California late Wednesday afternoon into Wednesday evening with small chances for very light precipitation along and west of the mountains. A period of moderate Santa Ana winds will follow for Thursday with strong wind gusts possible. Dry with a warming trend for Friday through Saturday with weaker winds. Another moderate Santa Ana wind event possible on Sunday then weaker winds with fair weather for Christmas.

&&

.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO
COUNTIES...

Clear skies are prevailing across Southern California this morning, according to visible satellite. Offshore pressure gradients have been weakening across the region, with San Diego to Topopah only showing 3.1 mb, while it was 7.1 mb 24 hours ago. With the flow trending onshore today, we'll likely see slight cooling west of the mountains but perhaps slightly warmer in the mountains and deserts. Regardless, the highs today will still be above normal in most areas. A trough of low pressure will move into the Pacific Northwest tonight into Wednesday morning, bringing increasing onshore flow and a return of marine layer stratus to the coast and valleys.

The trough will continue inland and move southeast through the Great Basin, dragging a cold front across our forecast area late Wednesday. As a result, it will be significantly cooler Wednesday, with even the chance for some light showers over and west of the mountains late Wednesday afternoon and evening. Winds in the mountains and desert slopes will become strong and gusty late Wednesday afternoon and evening from the west direction as onshore pressure gradients from San Diego to Las Vegas increase to 11-13 mb, with 850 mb west winds of 25-30 kt bringing some upper level support. Looking at a cross-section across San Diego county using our local WRF, there is no indication of a strong mountain wave surfacing in the deserts. Thus, although we'll likely see gusts of 50 mph and locally 60 mph, we shouldn't see any significant wind impacts, so a Wind Advisory will likely be appropriate.

Strong surface high pressure will then build into the Great Basin behind the departing trough late Wednesday evening, resulting in moderate Santa Ana winds developing overnight Wednesday through Thursday afternoon, with northeast wind gusts of 50 mph and isolated gusts of 65 mph in the windiest locations possible, through and below the Cajon Pass and into the Orange county mountains and foothills. A Wind Advisory may be necessary for those areas as well. It will be another cool day Thursday as the Santa Ana winds will be originating in a region of very cold air and a cold air mass will be still be hanging around our area with the trough moving into the Four Corners region. Weak offshore winds expected Friday and even weaker on Saturday, but a building upper level ridge will nudge into our region, bringing warming both days, with highs near normal by Saturday.

Another moderate Santa Ana wind could occur Sunday, with winds weakening Monday. Still no signs of any significant precipitation in the long-range models.

&&

.AVIATION...
191530Z...Mostly clear today through early evening. Increasing coastal clouds between 03-09Z Wednesday with SCT-BKN006-010 becoming

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

likely at KSAW...KCRQ and KSNM by 12Z. From 12-18Z...BKN OVC010-015 spreading 15-20 miles inland.

Mountains and Deserts...Mostly clear today and tonight with unrestricted visibility.

&&

.MARINE...

Mostly clear today. A cold front will bring strong northwest winds Wednesday afternoon and evening when a Small Craft Advisory may be needed. The winds turn offshore early Thursday morning with areas of gusty northeast winds through Thursday.

&&

.FIRE WEATHER...

Another round of critical fire weather conditions could occur late Thursday morning through Thursday evening as a moderate strength Santa Ana develops. The main area impacted would be through and below the Cajon Pass and into the Santa Ana mountains/foothills. Although the Northeast winds begin late Wednesday evening, the humidities will still be high at that point. It is not until around late Thursday morning that the humidities drop to 15 percent or less in these areas. Looks like the low humidity and wind never really line up in San Diego county, so critical fire weather conditions are less likely in that county. The winds become less widespread Thursday evening, but humidity will still be 10-15 percent. Winds will weaken late Thursday night, with weak offshore winds on Friday but still low day-time humidity.

Yet another Santa Ana wind and critical fire weather conditions could occur on Sunday.

&&

.SKYWARN...

Skywarn activation is not requested. However weather spotters are encouraged to report significant weather conditions.

&&

.SGX WATCHES/WARNINGS/ADVISORIES...

CA...NONE.

PZ...NONE.

&&

\$\$

PUBLIC/FIRE WEATHER...Harrison

AVIATION/MARINE...Moede

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215
FXUS65 KPSR 192107
AFDPSR

Area Forecast Discussion
National Weather Service Phoenix AZ
207 PM MST Tue Dec 19 2017

.UPDATE...Updated aviation discussion.

&&

.SYNOPSIS...

Near to slightly above normal temperatures will persist through mid-week amidst mostly clear skies. A strong storm system will move into the Great Basin Wednesday and Thursday bringing an increase in winds, and substantially cooler temperatures into the second half of the week. However, rainfall chances will remain very low.

&&

.DISCUSSION...

The Southwest is currently in between storm systems, as the upper disturbance that affected us over the weekend is moving into the southern High Plains, and another more potent upper trough digs across the Pacific Northwest. The latter feature will bring a significant cooling trend and increase in winds beginning Wednesday into the weekend. Prior to that, temperatures a few degrees above normal with mostly clear skies and light winds will prevail, bringing pleasant conditions for late December.

A general increase in southwesterly winds will increase area-wide on Wednesday afternoon in response to surface pressure falls over the central and northern Rockies. This will occur ahead of a fast-moving cold front entering southeast California Wednesday afternoon, which will demarcate an abrupt wind shift out of the northwest into Wednesday evening. Advisory-level wind speeds are forecast to occur across most of eastern Riverside County and parts of Imperial County in the wake of the cold front, as 850-mb flow strengthens to around 40 kt overnight. As such, a Wind Advisory has been issued from 04Z-23Z Thursday, with the strongest winds expected across the highest elevation locations of eastern Riverside County, including Joshua Tree National Park. Breezy conditions will spread across the remainder of the area on Thursday, and patchy blowing dust will be possible.

The other big impact will be the much cooler temperatures in the wake of the cold front, and high temperatures may struggle to get out of the 50s in some lower desert locations, including the Phoenix area. The coldest temperatures of the year are expected Friday morning, and 30s will be common overnight in many locations. A Freeze Watch has been issued for parts of southern Gila County, where the first widespread freezing temperatures of the season are expected. Similar temperatures can be expected into Friday, before a gradual warming trend begins into the weekend as upper ridging slowly expands eastward from the eastern Pacific.

Precipitation chances are expected to remain quite low throughout the period given the over-land trajectory of the mid-week storm system. The best shot for light precipitation may clip parts of southern Gila County on Thursday, but potential will be quite limited. The large-scale pattern will continue to favor dry conditions for the foreseeable future.

&&

.AVIATION...

South-Central Arizona including KPHX, KIWA, and KSDL; and California/Southwest Arizona including KIPL and KBLH:

There are no aviation weather concerns through tonight as winds will remain light and follow typical diurnal tendencies.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...

Thursday through Monday...

A cold front will move through early Thursday morning bringing

December 20, 2017 Exceptional Event, Imperial County

Appendix A

dry northwest winds to SE California and along the Lower Colorado River Valley. This will certainly bring a period of elevated fire danger to the area but widespread critical fire weather thresholds will likely not be met. Low 60s and upper 50s will be common throughout the lower deserts Thursday and Friday while minimum relative humidity bottoms out near 10-25% each afternoon. Winds weaken dramatically on Friday as the system exits to our east with wind speeds remaining relatively light through early Saturday. Another round of north winds are possible starting Saturday evening and into Sunday before weakening on Monday. The forecast remains dry for the foreseeable future.

&&

.SPOTTER INFORMATION STATEMENT...
 Spotters should follow standard reporting procedures.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...
 AZ...Freeze Watch from Thursday evening through Friday morning for
 AZZ533-552-553-556>558-560>562.

CA...Wind Advisory from 7 PM Wednesday to 3 PM PST Thursday for
 CAZ560-561-564-568>570.

Wind Advisory from 4 PM to 10 PM PST Wednesday for CAZ562.

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DISCUSSION...Rogers
 AVIATION...Deemer
 FIRE WEATHER...Wilson

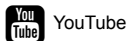
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481
 WWUS75 KPSR 192216
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URGENT - WEATHER MESSAGE
 National Weather Service Phoenix AZ
 316 PM MST Tue Dec 19 2017

CAZ562-201030-
 /O.EXB.KPSR.WI.Y.0031.171221T0000Z-171221T0600Z/

Imperial County Southwest-
 Including the city of Mountain Spring
 216 PM PST Tue Dec 19 2017

.. **WIND ADVISORY IN EFFECT FROM 4 PM TO 10 PM PST WEDNESDAY...**

The National Weather Service in Phoenix has issued a Wind Advisory, which is in effect from 4 PM to 10 PM PST Wednesday.

* **AFFECTED AREA...**Portions of southeast California, including the Mountain Spring area along Interstate 8.

* **TIMING...**Wednesday evening to Thursday afternoon.

* **WINDS...**Northwest 20 to 35 mph. Gusts of 45 to 55 mph.

* **IMPACTS...**Strong cross winds will make driving difficult, especially for high profile vehicles on east-west oriented roads. Use extra caution. Localized blowing dust is also possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between 30 and 40 mph are expected, or wind gusts of between 40 and 58 mph. Winds this strong can make driving difficult, especially for high profile vehicles. In addition, strong winds over desert areas could result in briefly lowered visibilities to well under a mile at times in blowing dust or blowing sand. Use extra caution.

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CAZ560-561-564-568>570-201030-
 /O.CON.KPSR.WI.Y.0031.171221T0300Z-171221T2300Z/
 Joshua Tree NP West-Joshua Tree NP East-Chuckwalla Mountains-
 Chiriaco Summit-Palo Verde Valley-Chuckwalla Valley-
 Including the cities of Cottonwood Visitor,
 Lost Horse-Keys Village, Imperial Hot Mineral Springs,
 Chiriaco Summit, Martinez Lake, Blythe, Palo Verde, Ripley,
 and Midland
 216 PM PST Tue Dec 19 2017

.. **WIND ADVISORY REMAINS IN EFFECT FROM 7 PM WEDNESDAY TO 3 PM PST THURSDAY...**

* **AFFECTED AREA...**Portions of southeast California, including Joshua Tree National Park and the Interstate 10 corridor.

* **TIMING...**Wednesday evening to Thursday afternoon.

* **WINDS...**Northwest 20 to 35 mph. Gusts of 45 to 55 mph.

* **IMPACTS...**Strong cross winds will make driving difficult, especially for high profile vehicles on east-west oriented roads. Use extra caution. Localized blowing dust is also possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between 30 and 40 mph are expected, or wind gusts of between 40 and 58 mph. Winds this strong can make driving difficult, especially for high profile vehicles. In addition, strong winds over desert areas could result in briefly lowered visibilities to well under a mile at times in blowing dust or blowing sand. Use extra caution.

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

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AZZ552-556-557-561-201030-
 /O.EXA.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
 Superior-Tonto Basin-Mazatzal Mountains-Dripping Springs-
 Including the cities of Superior, Punkin Center, Sunflower,
 Hayden, and Winkelman
 316 PM MST Tue Dec 19 2017

...FREEZE WATCH IN EFFECT FROM THURSDAY EVENING THROUGH FRIDAY
 MORNING...

The National Weather Service in Phoenix has issued a Freeze
 Watch, which is in effect from Thursday evening through Friday
 morning.

* AFFECTED AREA...Portions of southern Gila County and extreme
 northeastern Maricopa County. Affected communities include
 Superior, Sunflower, and Winkelman.

* TEMPERATURES...In the upper 20s.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage to
 sensitive plants and ornamental vegetation. Poorly insulated
 pipes may burst. The extreme cold is also dangerous for any pets
 left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Watch means sub-freezing temperatures are possible.
 These conditions could destroy or damage crops and other
 sensitive vegetation.

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AZZ553-201030-
 /O.EXA.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
 Northwest Pinal County-
 Including the cities of Casa Grande, Cactus Forest, Florence,
 and Coolidge
 316 PM MST Tue Dec 19 2017

...FREEZE WATCH IN EFFECT FROM THURSDAY EVENING THROUGH FRIDAY
 MORNING...

The National Weather Service in Phoenix has issued a Freeze
 Watch, which is in effect from Thursday evening through Friday
 morning.

* AFFECTED AREA...Northwest Pinal County including the
 communities of Casa Grande, Coolidge, Florence, and Ak-Chin
 Village.

* TEMPERATURES...Ranging from the upper 20s to the low 30s.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage
 to sensitive plants and ornamental vegetation. Poorly
 insulated pipes may burst. The extreme cold is also dangerous
 for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Watch means sub-freezing temperatures are possible.
 These conditions could destroy or damage crops and other
 sensitive vegetation.

&&

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AZZ533-201030-
 /O.EXA.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
 Central La Paz-
 Including the cities of Brenda, Harcuvar, Quartzsite, Vicksburg,
 Vicksburg Junction, and Salome
 316 PM MST Tue Dec 19 2017

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

...FREEZE WATCH IN EFFECT FROM THURSDAY EVENING THROUGH FRIDAY MORNING...

The National Weather Service in Phoenix has issued a Freeze Watch, which is in effect from Thursday evening through Friday morning.

* AFFECTED AREA...Much of La Paz County, including the communities of Quartzsite, Bouse, and Wenden. Other affected areas include locations along Interstate 10, and Highways 72 and 95.

* TEMPERATURES...Mid to upper 20s for the coldest locations.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage to sensitive plants and ornamental vegetation. Poorly insulated pipes may burst. The extreme cold is also dangerous for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Watch means sub-freezing temperatures are possible. These conditions could destroy or damage crops and other sensitive vegetation.

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AZZ558-560-562-201030-
/O.CON.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
Pinal/Superstition Mountains-San Carlos-Globe/Miami-
Including the cities of San Carlos, Peridot, Globe, and Miami
316 PM MST Tue Dec 19 2017

...FREEZE WATCH REMAINS IN EFFECT FROM THURSDAY EVENING THROUGH FRIDAY MORNING...

* AFFECTED AREA...Portions of southern Gila County, including the community of Globe.

* TEMPERATURES...Ranging from the upper 20s around Globe to the upper teens for areas east of Globe. This includes communities along portions of Highway 60.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage to sensitive plants and ornamental vegetation. Poorly insulated pipes may burst. The extreme cold is also dangerous for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Watch means sub-freezing temperatures are possible. These conditions could destroy or damage crops and other sensitive vegetation.

&&

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515
FXUS65 KPSR 192232
AFDPSR

Area Forecast Discussion
National Weather Service Phoenix AZ
332 PM MST Tue Dec 19 2017

.SYNOPSIS...

Near to slightly above normal temperatures will persist through mid-week amidst mostly clear skies. A strong storm system will move into the Great Basin Wednesday and Thursday bringing an increase in winds, and substantially cooler temperatures into the second half of the week. However, rainfall chances will remain very low.

&&

.DISCUSSION...

Subtle ridging over the region is bringing us dry northwesterly flow and clear skies. Pleasant conditions will continue for the remainder of the day with temperatures near normal. On Wednesday, southwesterly winds will increase ahead of an approaching cold front and bring us some decent warm air advection before temperatures drop significantly Thursday/Friday in the wake of the front. On Wednesday, temperatures will be a few degrees above normal, with most desert locations seeing highs in the upper 60s to low 70s. Some mid/upper level moisture will also begin to move into the region from the west, so expect a few high clouds to pass overhead, but generally speaking skies will remain mostly clear.

The front pushes through southeast California early Wednesday evening, shifting winds to the northwest and increasing speeds quite a bit. As such, a Wind Advisory has been issued from 4 pm Wednesday until 3 PM Thursday, with the strongest winds expected across the highest elevation locations of eastern Riverside County, including Joshua Tree National Park as well as the Mountain Spring area in Imperial County. These breezy conditions over desert areas could result in briefly lowered visibilities in blowing dust or blowing sand.

In the wake of the cold front Thursday and Friday, high temperatures will struggle to get out of the 50s in some lower desert locations, including the Phoenix area. Another big impact will be the low temperatures on Friday morning. Around midnight on Friday, our region will be in the wake of the upper-level trough. This will allow the coldest air of the season to filter into our region. Temperatures will drop into the 30s and below region wide. Thus, a Freeze Watch has been issued for parts of southern Gila, La Paz, and Pinal County, where the first widespread freezing temperatures of the season are expected.

With Flagstaffs area hogging most of the moisture with this system, precipitation chances are expected to remain quite low. The best shot for light precipitation may clip parts of southern Gila County on Thursday, but potential will be quite limited.

&&

.AVIATION...

South-Central Arizona including KPHX, KIWA, and KSDL; and California/Southwest Arizona including KIPL and KBLH:

There are no aviation weather concerns through tonight as winds will remain light and follow typical diurnal tendencies.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...

Thursday through Monday...

A cold front will move through early Thursday morning bringing dry northwest winds to SE California and along the Lower Colorado River Valley. This will certainly bring a period of elevated fire danger to the area but widespread critical fire weather thresholds will likely not be met. Low 60s and upper 50s will be common throughout the lower deserts Thursday and Friday while minimum relative humidity bottoms out near 10-25% each afternoon. Winds weaken dramatically on Friday as the system exits to our east with wind speeds remaining relatively light through early Saturday.

December 20, 2017 Exceptional Event, Imperial County

Appendix A

Another round of north winds are possible starting Saturday evening and into Sunday before weakening on Monday. The forecast remains dry for the foreseeable future.

&&

.SPOTTER INFORMATION STATEMENT...
Spotters should follow standard reporting procedures.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...
AZ...Freeze Watch from Thursday evening through Friday morning for
AZZ533-552-553-556>558-560>562.

CA...Wind Advisory from 7 PM Wednesday to 3 PM PST Thursday for
CAZ560-561-564-568>570.

Wind Advisory from 4 PM to 10 PM PST Wednesday for CAZ562.

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Visit us on Facebook, Twitter, and at weather.gov/phoenix

DISCUSSION...Hernandez
AVIATION...Deemer
FIRE WEATHER...Wilson

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URGENT - WEATHER MESSAGE
National Weather Service San Diego CA
513 PM PST Tue Dec 19 2017

CAZ055-056-058-060>062-065-201400-
/O.NEW.KSGX.WI.Y.0034.171220T2000Z-171221T1200Z/
San Bernardino County Mountains-Riverside County Mountains-
San Diego County Mountains-Apple and Lucerne Valleys-
Coachella Valley-San Diego County Deserts-
San Gorgonio Pass Near Banning-
Including the cities of Big Bear City, Wrightwood, Hesperia,
Apple Valley, Cathedral City, and Desert Hot Springs
513 PM PST Tue Dec 19 2017

...WIND ADVISORY IN EFFECT FROM NOON WEDNESDAY TO 4 AM PST
THURSDAY...

The National Weather Service in San Diego has issued a Wind
Advisory...which is in effect from noon Wednesday to 4 AM PST
Thursday.

* Winds...Westerly winds becoming strong Wednesday afternoon along
the mountain ridges and down into the Mojave and Sonoran
Deserts. Strongest gusts to 55 mph through the passes and along
the desert slopes and 45 mph in the deserts.

* Timing...Strongest winds late Wednesday afternoon and during the
evening...decreasing after midnight.

* Location...Along Interstates 8, 10, and 15 through the
mountains and down into the deserts.

* Impacts...Poor visibility possible due to blowing dust and sand.
Hazardous travel for high profile vehicles.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that winds of 35 mph are expected. Winds
this strong can make driving difficult...especially for high
profile vehicles. Use extra caution.

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jmb

weather.gov/sandiego

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WWUS75 KPSR 200323
NPWPSR

URGENT - WEATHER MESSAGE
National Weather Service Phoenix AZ
823 PM MST Tue Dec 19 2017

CAZ562-201200-
/O.CON.KPSR.WI.Y.0031.171221T0000Z-171221T0600Z/
Imperial County Southwest-
Including the city of Mountain Spring
723 PM PST Tue Dec 19 2017

...WIND ADVISORY REMAINS IN EFFECT FROM 4 PM TO 10 PM PST
WEDNESDAY...

* AFFECTED AREA...Portions of southeast California, including
the Mountain Spring area along Interstate 8.

* TIMING...Wednesday evening.

* WINDS...West 25 to 30 mph. Gusts of 40 to 50 mph.

* IMPACTS...Strong cross winds will make driving difficult,
especially for high profile vehicles on east-west oriented
roads. Use extra caution. Localized blowing dust is also
possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between
30 and 40 mph are expected, or wind gusts of between 40 and
58 mph. Winds this strong can make driving difficult, especially
for high profile vehicles. In addition, strong winds over desert
areas could result in briefly lowered visibilities to well under
a mile at times in blowing dust or blowing sand. Use extra
caution.

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CAZ560-561-564-568>570-201200-
/O.CON.KPSR.WI.Y.0031.171221T0300Z-171221T2300Z/
Joshua Tree NP West-Joshua Tree NP East-Chuckwalla Mountains-
Chiriaco Summit-Palo Verde Valley-Chuckwalla Valley-
Including the cities of Cottonwood Visitor,
Lost Horse-Keys Village, Imperial Hot Mineral Springs,
Chiriaco Summit, Martinez Lake, Blythe, Palo Verde, Ripley,
and Midland
723 PM PST Tue Dec 19 2017

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

...WIND ADVISORY REMAINS IN EFFECT FROM 7 PM WEDNESDAY TO 3 PM
PST THURSDAY...

- * AFFECTED AREA...Portions of southeast California, including Joshua Tree National Park and the Interstate 10 corridor.
- * TIMING...Wednesday evening through Thursday afternoon.
- * WINDS...Northwest 20 to 35 mph. Gusts of 45 to 55 mph.
- * IMPACTS...Strong cross winds will make driving difficult, especially for high profile vehicles on east-west oriented roads. Use extra caution. Localized blowing dust is also possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between 30 and 40 mph are expected, or wind gusts of between 40 and 58 mph. Winds this strong can make driving difficult, especially for high profile vehicles. In addition, strong winds over desert areas could result in briefly lowered visibilities to well under a mile at times in blowing dust or blowing sand. Use extra caution.

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AZZ552-556>558-560>562-201200-
/O.CON.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
Superior-Tonto Basin-Mazatzal Mountains-
Pinal/Superstition Mountains-San Carlos-Dripping Springs-
Globe/Miami-
Including the cities of Superior, Pukin Center, Sunflower,
San Carlos, Peridot, Hayden, Winkelman, Globe, and Miami
823 PM MST Tue Dec 19 2017

...FREEZE WATCH REMAINS IN EFFECT FROM THURSDAY EVENING THROUGH
FRIDAY MORNING...

- * AFFECTED AREA...Portions of southern Gila County and extreme northeastern Maricopa County. Affected communities include Globe, Miami, Superior, Sunflower, and Winkelman.
- * TEMPERATURES...Lows falling into the 20s.
- * IMPACTS...Freezing/sub-freezing temperatures may cause damage to sensitive plants and ornamental vegetation. Poorly insulated pipes may burst. The extreme cold is also dangerous for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

December 20, 2017 Exceptional Event, Imperial County

A Freeze Watch means sub-freezing temperatures are possible. These conditions could destroy or damage crops and other sensitive vegetation.

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AZZ553-201200-
/O.CON.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
Northwest Pinal County-
Including the cities of Casa Grande, Cactus Forest, Florence,
and Coolidge

823 PM MST Tue Dec 19 2017

...FREEZE WATCH REMAINS IN EFFECT FROM THURSDAY EVENING THROUGH FRIDAY MORNING...

- * AFFECTED AREA...Northwest Pinal County including the communities of Casa Grande, Coolidge, Florence, and Ak-Chin Village.
- * TEMPERATURES...Ranging from the middle 20s to the low 30s.
- * IMPACTS...Freezing/sub-freezing temperatures may cause damage to sensitive plants and ornamental vegetation. Poorly insulated pipes may burst. The extreme cold is also dangerous for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Watch means sub-freezing temperatures are possible. These conditions could destroy or damage crops and other sensitive vegetation.

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AZZ533-201200-
/O.CON.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
Central La Paz-
Including the cities of Brenda, Harcuvar, Quartzsite, Vicksburg,
Vicksburg Junction, and Salome

823 PM MST Tue Dec 19 2017

...FREEZE WATCH REMAINS IN EFFECT FROM THURSDAY EVENING THROUGH FRIDAY MORNING...

- * AFFECTED AREA...Much of La Paz County, including the communities of Quartzsite, Bouse, and Wenden. Other affected areas include locations along Interstate 10, and Highways 72 and 95.

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

* TEMPERATURES...Mid to upper 20s for the coldest locations.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage to sensitive plants and ornamental vegetation. Poorly insulated pipes may burst. The extreme cold is also dangerous for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Watch means sub-freezing temperatures are possible. These conditions could destroy or damage crops and other sensitive vegetation.

&&

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013
FXUS66 KSGX 200536
AFDSGX

Area Forecast Discussion
National Weather Service San Diego CA
936 PM PST Tue Dec 19 2017

.SYNOPSIS...

A low pressure system moving into the Great Basin Wednesday will bring stronger onshore flow with cooling, more clouds, and strong gusty west winds in the mountains and deserts. A weakening cold front will move through Southern California Wednesday afternoon into Wednesday evening with a chance of light rain along and west of the mountains. A period of moderate Santa Ana winds will follow for Thursday with strong wind gusts possible. Dry with a warming trend for Friday through Saturday with weaker winds. Another Santa Ana wind event possible on Sunday then weaker winds with fair weather for Christmas.

&&

.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO
COUNTIES...

Flow has transitioned to light onshore this evening with most gradients running about 2 to 4 mb onshore. With this we still expect coastal stratus to develop after midnight and push into the western valleys by Wednesday morning. Wednesday will be notably cooler with the trough approaching and a weak cold front moving into the region Wednesday afternoon.

Changes were made this evening to expand patchy dust/sand across the deserts for Wednesday afternoon and evening. Given the strong westerly winds expected across the mountains and into the deserts Wednesday afternoon through evening, we have also issued a wind advisory for those areas. Finally, the fire weather watch remains in effect and the start time was moved 2 hours earlier to 4 am Wednesday morning to account for the strong Santa Ana winds that will develop by late Wednesday night. Please see the fire weather section below for more details.

No other changes were made to the forecast and the remainder of the forecaster discussion is displayed below.

...Remainder of previous discussion...

The trough will continue inland and move southeast through the Great Basin, dragging a cold front across our forecast area late Wednesday. As a result, it will be significantly cooler Wednesday, with even the chance for some light showers over and west of the mountains late Wednesday afternoon and evening. Winds in the mountains and desert slopes will become strong and gusty late Wednesday afternoon and evening from the west direction as onshore pressure gradients from San Diego to Las Vegas increase to 11-13 mb, with 850 mb west winds of 25-30 kt bringing some upper level support. Looking at a cross-section across San Diego county using our local WRF, there is no indication of a strong mountain wave surfacing in the deserts. Thus, although we'll likely see gusts of 50 mph and locally 60 mph, we shouldn't see any significant wind impacts, so a Wind Advisory will likely be appropriate.

Strong surface high pressure will then build into the Great Basin behind the departing trough late Wednesday evening, resulting in moderate Santa Ana winds developing overnight Wednesday through Thursday afternoon, with northeast wind gusts of 50 mph and isolated gusts of 60 mph or greater in the windiest locations possible, through and below the Cajon Pass and into the Orange county mountains and foothills. A Wind Advisory may be necessary for those areas as well. It will be another cool day Thursday as the Santa Ana winds will be originating in a region of very cold air and a cold air mass will be still be hanging around our area with the trough moving into the Four Corners region. Weak offshore winds expected Friday and even weaker on Saturday, but a building upper level ridge will nudge into our region, bringing warming both days, with highs near normal by Saturday.

Another Santa Ana wind could occur Sunday, with this one potentially being stronger due to a very strong surface high

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

developing over the Great Basin. Winds likely to weaken Monday (Christmas Day). Still no signs of any significant precipitation in the long-range models.

&&

.AVIATION...

200530Z...Coast and Valleys...Areas of stratus will develop along the coast late tonight, mainly after 08Z, and spread into some of the valleys Wed morning 12Z-16Z with partial afternoon clearing Wednesday. Bases will be 1000-1500 ft MSL, rising to 2000 ft MSL after 16Z Wed, with tops to 3000 ft MSL Wed. There is a slight chance of showers Wednesday evening.

Mountains and Deserts...Mostly clear skies will continue through Wednesday with unrestricted vis, with some clouds developing Wednesday evening causing local coastal slope obscurations. There is a slight chance of showers Wednesday evening. After 20Z Wed, west winds 15-30 kt with gusts to 45 kt will occur in the mountains and on desert slopes.

&&

.MARINE...

A cold front will bring moderately strong northwest winds Wednesday night with gusts 25 to 30 knots in the outer coastal waters, accompanied by choppy seas 7 to 9 feet. A small craft advisory has been issued for Wednesday night. The winds turn offshore early Thursday morning with local gusty northeast winds Thursday.

&&

.FIRE WEATHER...

Another round of critical fire weather conditions could occur Thursday morning through Thursday evening as a moderate strength Santa Ana develops. The main area impacted would be through and below the Cajon Pass and into the Santa Ana mountains/foothills. By late late Thursday morning the humidities drop to 15 percent or less in these areas. A Fire Weather Watch remains in effect for all of Orange county, the Inland Empire and the San Bernardino and Riverside county coastal slopes/foothills/passes. Looks like the low humidity and wind never really line up in San Diego county, so critical fire weather conditions are less likely in that county. The winds become less widespread Thursday evening, but humidity will still be 10-15 percent. Winds will weaken late Thursday night, with weak offshore winds on Friday but still low day-time humidity.

Yet another Santa Ana wind and critical fire weather conditions could occur on Sunday. This wind event is looking to be much stronger and more widespread with lower humidity and higher temperatures.

&&

.SKYWARN...

Skywarn activation is not requested. However weather spotters are encouraged to report significant weather conditions.

&&

.SGX WATCHES/WARNINGS/ADVISORIES...

CA...Wind Advisory from noon Wednesday to 4 AM PST Thursday for Apple and Lucerne Valleys-Coachella Valley-Riverside County Mountains-San Bernardino County Mountains-San Diego County Deserts-San Diego County Mountains-San Gorgonio Pass Near Banning.

Fire Weather Watch from late Wednesday night through Friday morning for Orange County Coastal Areas-Orange County Inland Areas-Riverside County Mountains-Including The San Jacinto Ranger District Of The San Bernardino National Forest-San Bernardino County Mountains-Including The Mountain Top And Front Country Ranger Districts Of The San Bernardino National Forest-San Bernardino and Riverside County Valleys -The Inland Empire-San Gorgonio Pass Near Banning-Santa Ana Mountains-Including The Trabuco Ranger District of the Cleveland National Forest.

PZ...Small Craft Advisory from 6 PM Wednesday to 6 AM PST Thursday

December 20, 2017 Exceptional Event, Imperial County

for waters from San Mateo point to the Mexican border
Extending 30 to 60 nm out including San Clemente Island.

&&

\$\$

PUBLIC/FIRE WX...Harrison/Brotherton
AVIATION/MARINE...Maxwell

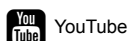
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314
FXUS65 KPSR 201039
AFDPSR

Area Forecast Discussion
National Weather Service Phoenix AZ
339 AM MST Wed Dec 20 2017

.SYNOPSIS...

Slightly above normal temperatures are forecast today before a cold front moves through the region late Wednesday and Thursday, with strong winds developing across southeast California. Much cooler temperatures are expected area-wide Thursday and Friday. A warming trend will occur through the weekend as high pressure rebuilds over the Pacific Coast.

&&

.DISCUSSION...

A upper trough over the Pacific Northwest is becoming better defined in satellite imagery over the past several hours, exhibiting evidence of low-topped convection amidst cold temperatures aloft. This feature will continue to dig southeastward across the northern Rockies into the Great Basin today, and will be the primary driver of changing weather conditions across the Southwest. Cool conditions overnight will give way to a pleasant day region-wide, with slightly above normal temperatures expected today.

A cold front is forecast to enter southeast California this evening, and quickly sweep southeastward. A modest increase in west-southwesterly winds will occur ahead of the cold front, with a more significant strengthening of winds forecast to occur in the wake of the cold front overnight. The strongest winds are forecast to occur across higher elevation locations and ridgetops over southeast California, amidst strong northerly flow above the surface (e.g., 850-mb winds around 40 kt). Winds will gradually weaken throughout the day Thursday, but will remain locally strong into the afternoon. As such, a Wind Advisory will be maintained for much of southeast California. Areas of blowing sand/dust will also be possible.

Moisture will be limited area-wide with this system, with only a slight chance of showers possible late tonight across Joshua Tree National Park. Otherwise, the other big weather impact will be the much cooler temperatures spreading across the region in the wake of the cold front. The current forecast continues to support below-normal temperatures both Thursday and Friday, with some lower desert locations struggling to get out of the 50s during peak heating. The coldest temperatures of the season so far are expected Friday morning, with 20s across the higher terrain and even some outlying areas, and 30s across the remainder of the lower deserts. The Freeze Watch has been maintained across parts of southern Gila, Pinal, and La Paz Counties for Friday morning.

A gradual warming trend will begin Saturday through early next week as upper ridging expands eastward. Model solutions have finally converged on a similar solution, so looks like the previously anticipated stretch of a more prolonged period of cool temperatures will not materialize. Temperatures should return to the low 70s by early next week, while rainfall potential remains low. More significant discrepancies in the pattern evolution develop by the middle of next week, with the potential for another storm system affecting the western CONUS. However, overall confidence in any scenario remains low.

&&

.AVIATION... South-Central Arizona including KPHX, KIWA, and KSDL: Light easterly flow will continue today and may only briefly become southwest for a few hours this afternoon. An approaching weather system will then switch easterly evening winds around to the west late Wednesday/early Thursday and will persist through the day on Thursday. The terminals will remain dry.

California/Southwest Arizona including KIPL and KBLH: Very light winds through Wednesday morning will eventually become southerly, then westerly into Wednesday evening. Greater aviation concerns exists Wednesday night as a cold front moves through the terminals bringing gusty northwest winds. There is the possibility of reduced

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

visibilities caused by blowing dust and sand Wednesday night through Thursday but confidence is not high enough to include it in the TAFs at this point.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...

Friday through Tuesday... Winds across SE California weaken dramatically on Friday as a dry weather system exits our area. Wind speeds look to stay relatively light through early Saturday before another round of breezy north winds take place Saturday night and into Sunday across SE California and the Lower Colorado River Valley. Temperatures steadily rise through early next week with above normal high temperatures returning on Monday. Afternoon humidity minimums and overnight recoveries will generally be poor as dry air remains in place.

&&

.SPOTTER INFORMATION STATEMENT...

Spotters should follow standard reporting procedures.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Freeze Watch from Thursday evening through Friday morning for AZZ533-552-553-556>558-560>562.

CA...Wind Advisory from 7 PM this evening to 3 PM PST Thursday for CAZ560-561-564-568>570.

Wind Advisory from 4 PM this afternoon to 10 PM PST this evening for CAZ562.

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DISCUSSION...Rogers

AVIATION...Wilson

FIRE WEATHER...Wilson

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 WWUS75 KPSR 201045
 NPWPSR

URGENT - WEATHER MESSAGE
 National Weather Service Phoenix AZ
 345 AM MST Wed Dec 20 2017

CAZ562-202300-
 /O.CON.KPSR.WI.Y.0031.171221T0000Z-171221T0600Z/

Imperial County Southwest-
 Including the city of Mountain Spring
 245 AM PST Wed Dec 20 2017

..WIND ADVISORY REMAINS IN EFFECT FROM 4 PM THIS AFTERNOON TO
 10 PM PST THIS EVENING...

* AFFECTED AREA...Portions of southeast California, including
 the Mountain Spring area along Interstate 8.

* TIMING...Wednesday afternoon and evening.

* WINDS...West 25 to 30 mph. Gusts of 40 to 50 mph.

* IMPACTS...Strong cross winds will make driving difficult,
 especially for high profile vehicles on east-west oriented
 roads. Use extra caution. Localized blowing dust is also
 possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between
 30 and 40 mph are expected, or wind gusts of between 40 and
 58 mph. Winds this strong can make driving difficult, especially
 for high profile vehicles. In addition, strong winds over desert
 areas could result in briefly lowered visibilities to well under
 a mile at times in blowing dust or blowing sand. Use extra
 caution.

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CAZ560-561-564-568>570-202300-
 /O.CON.KPSR.WI.Y.0031.171221T0300Z-171221T2300Z/
 Joshua Tree NP West-Joshua Tree NP East-Chuckwalla Mountains-
 Chiriaco Summit-Palo Verde Valley-Chuckwalla Valley-
 Including the cities of Cottonwood Visitor,
 Lost Horse-Keys Village, Imperial Hot Mineral Springs,
 Chiriaco Summit, Martinez Lake, Blythe, Palo Verde, Ripley,
 and Midland
 245 AM PST Wed Dec 20 2017

..WIND ADVISORY REMAINS IN EFFECT FROM 7 PM THIS EVENING TO 3 PM
 PST THURSDAY...

* AFFECTED AREA...Portions of southeast California, including
 Joshua Tree National Park and the Interstate 10 corridor.

* TIMING...Wednesday evening through Thursday afternoon.

* WINDS...Northwest 20 to 30 mph. Gusts of 40 to 50 mph.

* IMPACTS...Strong cross winds will make driving difficult,
 especially for high profile vehicles on east-west oriented
 roads. Use extra caution. Localized blowing dust is also
 possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between
 30 and 40 mph are expected, or wind gusts of between 40 and
 58 mph. Winds this strong can make driving difficult, especially
 for high profile vehicles. In addition, strong winds over desert
 areas could result in briefly lowered visibilities to well under
 a mile at times in blowing dust or blowing sand. Use extra
 caution.

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\$\$ **December 20, 2017 Exceptional Event, Imperial County**

AZZ552-556>558-560>562-202300-
 /O.CON.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
 Superior-Tonto Basin-Mazatzal Mountains-
 Pinal/Superstition Mountains-San Carlos-Dripping Springs-
 Globe/Miami-
 Including the cities of Superior, Punkin Center, Sunflower,
 San Carlos, Peridot, Hayden, Winkelman, Globe, and Miami
 345 AM MST Wed Dec 20 2017

...FREEZE WATCH REMAINS IN EFFECT FROM THURSDAY EVENING THROUGH
 FRIDAY MORNING...

* AFFECTED AREA...Portions of southern Gila County and extreme
 northeastern Maricopa County. Affected communities include
 Globe, Miami, Superior, Sunflower, and Winkelman.

* TEMPERATURES...Lows falling into the 20s.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage
 to sensitive plants and ornamental vegetation. Poorly
 insulated pipes may burst. The extreme cold is also dangerous
 for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Watch means sub-freezing temperatures are possible.
 These conditions could destroy or damage crops and other
 sensitive vegetation.

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AZZ553-202300-
 /O.CON.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
 Northwest Pinal County-
 Including the cities of Casa Grande, Cactus Forest, Florence,
 and Coolidge
 345 AM MST Wed Dec 20 2017

...FREEZE WATCH REMAINS IN EFFECT FROM THURSDAY EVENING THROUGH
 FRIDAY MORNING...

* AFFECTED AREA...Northwest Pinal County including the
 communities of Casa Grande, Coolidge, Florence, and Ak-Chin
 Village.

* TEMPERATURES...Ranging from the middle 20s to the low 30s.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage
 to sensitive plants and ornamental vegetation. Poorly
 insulated pipes may burst. The extreme cold is also dangerous
 for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Watch means sub-freezing temperatures are possible.
 These conditions could destroy or damage crops and other
 sensitive vegetation.

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AZZ533-202300-
 /O.CON.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
 Central La Paz-
 Including the cities of Brenda, Harcuvar, Quartzsite, Vicksburg,
 Vicksburg Junction, and Salome
 345 AM MST Wed Dec 20 2017

...FREEZE WATCH REMAINS IN EFFECT FROM THURSDAY EVENING THROUGH
 FRIDAY MORNING...

* AFFECTED AREA...Much of La Paz County, including the
 communities of Quartzsite, Bouse, and Wenden. Other affected
 areas include locations along Interstate 10, and Highways 72
 and 95.

December 20, 2017 Exceptional Event, Imperial County

Appendix A

* TEMPERATURES...Max to upper 20s for the coldest locations.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage to sensitive plants and ornamental vegetation. Poorly insulated pipes may burst. The extreme cold is also dangerous for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Watch means sub-freezing temperatures are possible. These conditions could destroy or damage crops and other sensitive vegetation.

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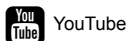
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December 20, 2017 Exceptional Event, Imperial County

Appendix A

999
 WWUS76 KSGX 201924
 NPWSGX

URGENT - WEATHER MESSAGE
 National Weather Service San Diego CA
 1124 AM PST Wed Dec 20 2017

..GUSTY SOUTHWEST TO WEST WINDS IN THE MOUNTAINS AND DESERTS
 INTO THIS EVENING...

.A low pressure system moving into the Great Basin will bring strong onshore flow and gusty south to southwest winds to mountains and deserts through this evening.

CAZ055-060-210600-
 /O.CON.KSGX.WI.Y.0034.00000T0000Z-171221T0600Z/
 San Bernardino County Mountains-Apple and Lucerne Valleys-
 Including the cities of Crestline, Lake Arrowhead, Big Bear City,
 Wrightwood, Victorville, Hesperia, and Apple Valley
 1124 AM PST Wed Dec 20 2017

..WIND ADVISORY REMAINS IN EFFECT UNTIL 10 PM PST THIS EVENING...

* Winds...Areas of southwest to west winds 20 to 30 mph with gusts to 50 mph. Isolated gusts to 60 mph.

* Location...From mountain ridge tops and along deserts slopes of the mountains into adjacent desert areas.

* Impacts...Hazardous travel for high profile vehicles. Areas of reduced visibility in the deserts from blowing sand and dust.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that winds of 35 mph are expected. Winds this strong can make driving difficult...especially for high profile vehicles. Use extra caution.

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CAZ056-058-061-062-065-210600-
 /O.CON.KSGX.WI.Y.0034.171220T2200Z-171221T0600Z/
 Riverside County Mountains-San Diego County Mountains-
 Coachella Valley-San Diego County Deserts-
 San Gorgonio Pass Near Banning-
 Including the cities of Julian, Borrego Springs,
 and Desert Hot Springs
 1124 AM PST Wed Dec 20 2017

..WIND ADVISORY REMAINS IN EFFECT UNTIL 10 PM PST THIS EVENING...

* Winds...Areas of southwest to west winds 20 to 30 mph with gusts to 50 mph. Isolated gusts to 60 mph.

* Location...From mountain ridge tops and along deserts slopes of the mountains into adjacent desert areas and in the northern Coachella Valley below the San Gorgonio Pass.

* Impacts...Hazardous travel for high profile vehicles. Areas of reduced visibility in the deserts from blowing sand and dust.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that winds of 35 mph are expected. Winds this strong can make driving difficult...especially for high profile vehicles. Use extra caution.

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Moede

411
FXUS66 KSGX 202216
AFDSGX

Area Forecast Discussion
National Weather Service San Diego CA
130 PM PST Wed Dec 20 2017

.SYNOPSIS...

A cold front will move across Southern California this evening bringing strong west winds to the mountains and deserts and a chance of light showers along and west of the mountains. Moderate Santa Ana winds will follow on Thursday, strongest in San Bernardino, Riverside, and Orange Counties. It will be cold Thursday night with areas of frost in the inland valleys and lower deserts Friday morning. Dry with a warming trend Saturday through Monday with weak to moderate offshore flow.

&&

.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO
COUNTIES...

A cold upper trough and surface cold front over central CA this afternoon will move south across southern CA this evening. The 1 PM satellite image showed a band of clouds from Bishop southwest toward Pt Conception and the coastal waters. There has been rain with this trough, but the rain totals have been light with 0.04 inches at Santa Maria and Vandenberg Air Force Base.

Low clouds over the coastal waters will increase in coverage ahead of the advancing cold front and spread inland this evening. BUFKIT sounding forecasts for SAN show near saturation from the Sfc to 4500 feet between 6 pm and Midnight, and that will be our best window of opportunity for light rain. Rain totals will be light with trace amounts to 0.10" from the western mtn slopes to the coast, with locally greater amounts most likely on the slopes aided by orographics.

Winds have freshened in the mountains and deserts with gusts of 40 to 50 mph this afternoon. Big Bear Airport had a gust to 35 mph at 115 PM, with stronger gusts to 52 mph at Burns Canyon, 43 mph at Lucerne Valley, and 36 mph at Boulevard. Blowing Dust was reported in the High Deserts. A Wind Advisory is in effect through 10 pm tonight in these areas.

Tonight: The west winds will shift north with the passage of the cold front. The winds will be fairly strong as a 1034 mb high moves into Oregon and the resultant N-S pressure gradient generates sustained winds of 20-30 mph with gusts to 50 mph in the San Bernardino, Riverside and Orange County mountains and passes and into the Inland Empire. The winds will not be quite as strong in San Diego County with this gradient pattern.

The clouds will clear from north to south tonight and a colder, drier airmass will settle over the area. This will result in rapid cooling and areas of frost in wind sheltered areas Thursday morning. Thursday night will be colder with lighter winds and an even drier airmass in place. The first Frost Advisory of the season may be issued for the inland valleys and the Coachella Valley.

For Saturday through Tuesday the long range progs have backed off on the strong Santa Ana wind potential that was advertised for Sunday and Monday. The pressure pattern is now forecast to be about 10 mb weaker. A surface high is still forecast over Idaho Sunday morning on the 12Z GFS and ECMWF runs, but it is 1040 mb instead of 1050 mb. This pattern will continue our relentless offshore weather pattern Saturday through Tuesday with dry, warm weather and periods of offshore flow, strongest on Sunday. Have raised Max temperatures a couple degrees Sunday and Monday based on the higher heights and downslope warming component west of the mountains that is usually underforecast by the long range progs.

&&

.AVIATION...

202100Z...Coast and Valleys: Patchy low clouds, with bases 2300-3000 ft MSL and tops near 3500 ft MSL, will continue to increase in coverage this afternoon, with more widespread coverage late this

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

afternoon as light showers move across the region. SHRA will move from west northwest to east southeast starting around 23Z this afternoon and end around 09Z tonight. Clouds should clear out overnight as offshore flow develops.

Mountains and Deserts: SCT lenticular clouds today with unrestricted VIS. Clouds and a few showers developing late this afternoon and evening will obscure local coastal slopes. Westerly winds of 15-30 kt with gusts to 45 kt will continue over desert mountain slopes through this evening and tapering off overnight. Winds will quickly switch to northeasterly early Thu morning, gusting 30-45 kt below coastal mountain slopes and through the Cajon Pass. LLWS is likely near the mountains through the period.

&&

.MARINE...

A cold front will create gusty northwest winds around 25 kt this evening and tonight, which will create choppy seas hazardous for small craft. Winds turn offshore early Thursday morning with local gusty northeast winds Thursday, but not likely hazardous. No additional hazardous marine weather is forecast through Sunday.

&&

.FIRE WEATHER...

West winds were strong in the mountains and the high deserts at 1 pm with gusts of 50 mph at Whitewater above the San Gorgonio Pass, 43 mph at Volcan Mountain, and 35 mph at Hesperia. These strong west winds will continue through evening, then shift north tonight with the passage of the cold front.

A moderately strong surface high will build over northern Nevada tonight and support moderate to locally strong north to northeast winds beginning tonight and continuing through Thursday afternoon. The most critical fire weather conditions will be Thursday when humidities will fall into the lower teens. Winds will decrease Thursday night with lighter winds Friday.

This prevailing offshore flow pattern will persist through early next week with surface high pressure settling over the Great Basin Saturday through Monday. Yesterday the models were advertising a strong Santa Ana Sunday, but they have backed off considerably, and the outlook now is for weak to locally moderate offshore flow. It will warm and dry with temperatures well above average in this pattern, with periods of gusty northeast winds at times in the mountains and foothills.

&&

.SKYWARN...

Skywarn activation is not requested. However weather spotters are encouraged to report significant weather conditions.

&&

.SGX WATCHES/WARNINGS/ADVISORIES...

CA...Wind Advisory through 10 PM PST this evening
for Coachella Valley-Riverside County Mountains-San Diego
County Deserts-San Diego County Mountains-San Gorgonio Pass
Near Banning-Apple and Lucerne Valleys-San Bernardino
County Mountains.

Fire Weather Watch from Thursday morning through Thursday
afternoon for Orange County Coastal Areas-Orange County
Inland Areas-Riverside County Mountains-Including The San
Jacinto Ranger District Of The San Bernardino National
Forest-San Bernardino County Mountains-Including The
Mountain Top And Front Country Ranger Districts Of The San
Bernardino National Forest-San Bernardino and Riverside
County Valleys -The Inland Empire-San Gorgonio Pass Near
Banning-Santa Ana Mountains-Including The Trabuco Ranger
District of the Cleveland National Forest.

PZ...Small Craft Advisory from 6 PM this evening to 6 AM PST Thursday
for Waters from San Mateo point to the Mexican Border
Extending 30 to 60 nm out including San Clemente Island.

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December 20, 2017 Exceptional Event, Imperial County

AZZ533-210930-
 /O.UPG.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
 /O.NEW.KPSR.FZ.W.0002.171222T0600Z-171222T1600Z/
 Central La Paz-
 Including the cities of Brenda, Harcuvar, Quartzsite, Vicksburg,
 Vicksburg Junction, and Salome
 222 PM MST Wed Dec 20 2017

...FREEZE WARNING IN EFFECT FROM 11 PM THURSDAY TO 9 AM MST
FRIDAY...

The National Weather Service in Phoenix has issued a Freeze Warning, which is in effect from 11 PM Thursday to 9 AM MST Friday. The Freeze Watch is no longer in effect.

- * AFFECTED AREA...Much of La Paz County, including the communities of Quartzsite, Bouse, and Wenden. Other affected areas include locations along Interstate 10, and Highways 72 and 95.
- * TEMPERATURES...Mid to upper 20s for the coldest locations.
- * IMPACTS...Freezing/sub-freezing temperatures may cause damage to sensitive plants and ornamental vegetation. Poorly insulated pipes may burst. The extreme cold is also dangerous for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Warning means sub-freezing temperatures are imminent or highly likely. These conditions will destroy or damage crops and other sensitive vegetation.

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CAZ562-210600-
 /O.CON.KPSR.WI.Y.0031.171221T0000Z-171221T0600Z/
 Imperial County Southwest-
 Including the city of Mountain Spring
 122 PM PST Wed Dec 20 2017

...WIND ADVISORY REMAINS IN EFFECT UNTIL 10 PM PST THIS EVENING...

- * AFFECTED AREA...Portions of southeast California, including the Mountain Spring area along Interstate 8.
- * TIMING...Wednesday afternoon and evening.
- * WINDS...West 25 to 30 mph. Gusts of 40 to 50 mph.

* IMPACTS...Strong cross winds will make driving difficult, especially for high profile vehicles on east-west oriented roads. Use extra caution. Localized blowing dust is also possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between 30 and 40 mph are expected, or wind gusts of between 40 and 58 mph. Winds this strong can make driving difficult, especially for high profile vehicles. In addition, strong winds over desert areas could result in briefly lowered visibilities to well under a mile at times in blowing dust or blowing sand. Use extra caution.

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CAZ560-561-564-568>570-210930-
 /O.CON.KPSR.WI.Y.0031.171221T0300Z-171221T2300Z/
 Joshua Tree NP West-Joshua Tree NP East-Chuckwalla Mountains-
 Chiriaco Summit-Palo Verde Valley-Chuckwalla Valley-
 Including the cities of Cottonwood Visitor,
 Lost Horse-Keys Village, Imperial Hot Mineral Springs,
 Chiriaco Summit, Martinez Lake, Blythe, Palo Verde, Ripley,
 and Midland

December 20, 2017 Exceptional Event, Imperial County

Appendix A

122 PM PST Wed Dec 20 2017

...WIND ADVISORY REMAINS IN EFFECT FROM 7 PM THIS EVENING TO 3 PM PST THURSDAY...

* AFFECTED AREA...Portions of southeast California, including Joshua Tree National Park and the Interstate 10 corridor.

* TIMING...Wednesday evening through Thursday afternoon.

* WINDS...Northwest 20 to 30 mph. Gusts of 40 to 50 mph.

* IMPACTS...Strong cross winds will make driving difficult, especially for high profile vehicles on east-west oriented roads. Use extra caution. Localized blowing dust is also possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between 30 and 40 mph are expected, or wind gusts of between 40 and 58 mph. Winds this strong can make driving difficult, especially for high profile vehicles. In addition, strong winds over desert areas could result in briefly lowered visibilities to well under a mile at times in blowing dust or blowing sand. Use extra caution.

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033
FXUS65 KPSR 202144
AFDPSR

Area Forecast Discussion
National Weather Service Phoenix AZ
244 PM MST Wed Dec 20 2017

.UPDATE...
Updated Aviation section.

&&

.SYNOPSIS...
Slightly above normal temperatures are forecast today before a cold front moves through the region late Wednesday and Thursday, with strong winds developing across southeast California. Much cooler temperatures are expected area-wide Thursday and Friday. A warming trend will occur through the weekend as high pressure rebuilds over the Pacific Coast.

&&

.DISCUSSION...
A upper trough over the Pacific Northwest is becoming better defined in satellite imagery over the past several hours, exhibiting evidence of low-topped convection amidst cold temperatures aloft. This feature will continue to dig southeastward across the northern Rockies into the Great Basin today, and will be the primary driver of changing weather conditions across the Southwest. Cool conditions overnight will give way to a pleasant day region-wide, with slightly above normal temperatures expected today.

A cold front is forecast to enter southeast California this evening, and quickly sweep southeastward. A modest increase in west-southwesterly winds will occur ahead of the cold front, with a more significant strengthening of winds forecast to occur in the wake of the cold front overnight. The strongest winds are forecast to occur across higher elevation locations and ridgetops over southeast California, amidst strong northerly flow above the surface (e.g., 850-mb winds around 40 kt). Winds will gradually weaken throughout the day Thursday, but will remain locally strong into the afternoon. As such, a Wind Advisory will be maintained for much of southeast California. Areas of blowing sand/dust will also be possible.

Moisture will be limited area-wide with this system, with only a slight chance of showers possible late tonight across Joshua Tree National Park. Otherwise, the other big weather impact will be the much cooler temperatures spreading across the region in the wake of the cold front. The current forecast continues to support below-normal temperatures both Thursday and Friday, with some lower desert locations struggling to get out of the 50s during peak heating. The coldest temperatures of the season so far are expected Friday morning, with 20s across the higher terrain and even some outlying areas, and 30s across the remainder of the lower deserts. The Freeze Watch has been maintained across parts of southern Gila, Pinal, and La Paz Counties for Friday morning.

A gradual warming trend will begin Saturday through early next week as upper ridging expands eastward. Model solutions have finally converged on a similar solution, so looks like the previously anticipated stretch of a more prolonged period of cool temperatures will not materialize. Temperatures should return to the low 70s by early next week, while rainfall potential remains low. More significant discrepancies in the pattern evolution develop by the middle of next week, with the potential for another storm system affecting the western CONUS. However, overall confidence in any scenario remains low.

&&

.AVIATION... South-Central Arizona including KPHX, KIWA, and KSDL: Anticipate south and southeasterly winds this afternoon and evening ahead of a cold front (extending from near Salt Lake City...southwestward through southern NV to near Santa Barbara as of 21Z). South-southwesterly directions are possible for a time late this afternoon and early evening. Anticipate a dry cold front to move across metro Phoenix between 07Z-10Z causing winds to

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

become westerly. Winds will not be that strong however. In the lower levels above the surface, winds will be fairly strong but not anticipating Low Level Wind Shear thresholds to be met. Anticipate westerly directions to prevail through the day Thursday. There may be some scattered cumulus with the front and possibly some localized shallow local ceilings AOA FL060 over the higher terrain east of metro Phoenix. Otherwise, anticipate ceilings to be more likely over Yavapai, Coconino, Mogollon Rim, White Mtns from west to east after 06Z.

Southeast California/Southwest Arizona including KIPL and KBLH: Anticipate south and southeasterly winds this afternoon and early evening ahead of a dry cold front (extending from near Salt Lake City...southwestward through southern NV to near Santa Barbara as of 21Z). Anticipate west and northwesterly winds to develop from west to east after 01Z and be much stronger than the daytime winds have been today. From near the Lower Colorado River Valley (LCRV) westward, anticipate widespread gusts of 25 kts behind the front with gusts of 30-35 knots common north of Interstate 8. Expect areas of suspended dust for reduced visibility with occasional patchy dense dust/sand leading to further reductions in visibility. Breezy to windy conditions will be more widespread over southwest AZ after 17Z. Anticipate surface winds to be strong enough to prevent Low Level Wind Shear thresholds from being met (except perhaps for a brief time during FROPA). But if there are areas near and west of the LCRV with surface winds below 10 kts tonight after 05Z, then LLWS can be inferred.

Very light winds through Wednesday morning will eventually become southerly, then westerly into Wednesday evening. Greater aviation concerns exists Wednesday night as a cold front moves through the terminals bringing gusty northwest winds. There is the possibility of reduced visibilities caused by blowing dust and sand Wednesday night through Thursday but confidence is not high enough to include it in the TAFs at this point.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...

Friday through Tuesday... Winds across SE California weaken dramatically on Friday as a dry weather system exits our area. Wind speeds look to stay relatively light through early Saturday before another round of breezy north winds take place Saturday night and into Sunday across SE California and the Lower Colorado River Valley. Temperatures steadily rise through early next week with above normal high temperatures returning on Monday. Afternoon humidity minimums and overnight recoveries will generally be poor as dry air remains in place.

&&

.SPOTTER INFORMATION STATEMENT...

Spotters should follow standard reporting procedures.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Freeze Warning from 11 PM Thursday to 9 AM MST Friday for AZZ533-552-553-556>558-560>562.

CA...Wind Advisory from 7 PM this evening to 3 PM PST Thursday for CAZ560-561-564-568>570.

Wind Advisory until 10 PM PST this evening for CAZ562.

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Visit us on Facebook, Twitter, and at weather.gov/phoenix

DISCUSSION...Rogers

AVIATION...AJ

FIRE WEATHER...Wilson

208
FXUS65 KPSR 202220
AFDPSR

Area Forecast Discussion
National Weather Service Phoenix AZ
320 PM MST Wed Dec 20 2017

.SYNOPSIS...

Slightly above normal temperatures are forecast today before a cold front moves through the region late today and Thursday, with strong winds developing across southeast California. Much cooler temperatures are expected area-wide Thursday and Friday. A warming trend will occur through the weekend as high pressure rebuilds over the Pacific Coast.

&&

.DISCUSSION...

Currently, the upper-level trough axis is stretching southwest from western Montana to central California. The associated cold front can be easily detected and is moving southeast into southern Nevada/ southern California. Latest IR imagery shows a nice band of colder cloud tops associated with this frontal boundary, and some isolated precipitation can also be seen on radar. This front should be passing through southeast California sometime around 06Z tonight, through central Arizona around 09Z, and through the remainder of our CWA by 12Z tomorrow morning. The passing of this system will bring parts of our forecast area gusty winds, some passing lower clouds, freezing temperatures, and a very slight chance of precipitation (less than 10 percent).

The first impact that will be felt will be the winds. Breezier pre-frontal southwest winds will be possible in Southeast California and parts of Southwest Arizona late this afternoon/ early this evening. The strongest winds will be felt behind the front starting near 06Z Thursday and lasting through about 00Z Friday. The strongest winds can be expected in southeast California where west to northwest winds gusting to 50 mph will be possible. These strong cross winds will make driving difficult and in addition localized blowing dust reducing visibilities will be possible.

The second impact will be the freezing temperatures. The coldest temperatures will move into our region on Friday morning, with some portions of our forecast area seeing temperatures at or below freezing. With higher and higher confidence with this freeze event, the previous Watch has now been upgraded to a Warning. The Freeze Warning will be in effect from 11PM MST Thursday to 9 AM MST Friday. Areas under the warning still include portions of southern Gila County, extreme northeastern Maricopa County, Northwest Pinal County, and much of La Paz County. The first day of Winter is tomorrow, so it looks like our region will actually be participating!

Beginning on Saturday, heights will gradually start to rise as ridging builds over the region. This will start to gradually warm up temperatures with highs expected to rise from the mid 60s on Saturday to low 70s on Wednesday.

&&

.AVIATION... South-Central Arizona including KPHX, KIWA, and KSDL: Anticipate south and southeasterly winds this afternoon and evening ahead of a cold front (extending from near Salt Lake City...southwestward through southern NV to near Santa Barbara as of 21Z). South-southwesterly directions are possible for a time late this afternoon and early evening. Anticipate a dry cold front to move across metro Phoenix between 07Z-10Z causing winds to become westerly. Winds will not be that strong however. In the lower levels above the surface, winds will be fairly strong but not anticipating Low Level Wind Shear thresholds to be met. Anticipate westerly directions to prevail through the day Thursday. There may be some scattered cumulus with the front and possibly some localized shallow local ceilings AOA FL060 over the higher terrain east of metro Phoenix. Otherwise, anticipate ceilings to be more likely over Yavapai, Coconino, Mogollon Rim, White Mtns from west to east after 06Z.

Southeast California/Southwest Arizona including KIPL and KBLH:

December 20, 2017 Exceptional Event, Imperial County

Appendix A

Anticipate south and southeasterly winds this afternoon and early evening ahead of a dry cold front (extending from near Salt Lake City...southwestward through southern NV to near Santa Barbara as of 21Z). Anticipate west and northwesterly winds to develop from west to east after 01Z and be much stronger than the daytime winds have been today. From near the Lower Colorado River Valley (LCRV) westward, anticipate widespread gusts of 25 kts behind the front with gusts of 30-35 knots common north of Interstate 8. Expect areas of suspended dust for reduced visibility with occasional patchy dense dust/sand leading to further reductions in visibility. Breezy to windy conditions will be more widespread over southwest AZ after 17Z. Anticipate surface winds to be strong enough to prevent Low Level Wind Shear thresholds from being met (except perhaps for a brief time during FROPA). But if there are areas near and west of the LCRV with surface winds below 10 kts tonight after 05Z, then LLWS can be inferred.

Very light winds through Wednesday morning will eventually become southerly, then westerly into Wednesday evening. Greater aviation concerns exists Wednesday night as a cold front moves through the terminals bringing gusty northwest winds. There is the possibility of reduced visibilities caused by blowing dust and sand Wednesday night through Thursday but confidence is not high enough to include it in the TAFs at this point.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...

Friday through Tuesday... Winds across SE California weaken dramatically on Friday as a dry weather system exits our area. Wind speeds look to stay relatively light through early Saturday before another round of breezy north winds take place Saturday night and into Sunday across SE California and the Lower Colorado River Valley. Temperatures steadily rise through early next week with above normal high temperatures returning on Monday. Afternoon humidity minimums and overnight recoveries will generally be poor as dry air remains in place.

&&

.SPOTTER INFORMATION STATEMENT...

Spotters should follow standard reporting procedures.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Freeze Warning from 11 PM Thursday to 9 AM MST Friday for AZZ533-552-553-556>558-560>562.

CA...Wind Advisory from 7 PM this evening to 3 PM PST Thursday for CAZ560-561-564-568>570.

Wind Advisory until 10 PM PST this evening for CAZ562.

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DISCUSSION...Hernandez

AVIATION...AJ

FIRE WEATHER...Wilson



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584
WMUS76 KSGX 210321
NPWSGX

URGENT - WEATHER MESSAGE
National Weather Service San Diego CA
721 PM PST Wed Dec 20 2017

...STRONG WINDS WILL CAUSE AREAS OF BLOWING DUST AND SAND AND
VERY POOR VISIBILITY IN THE DESERTS THIS EVENING...

CAZ061-062-065-210800-
/O.CAN.KSGX.WI.Y.0034.000000T0000Z-171221T0600Z/
/O.EXB.KSGX.DU.Y.0001.000000T0000Z-171221T0800Z/
Coachella Valley-San Diego County Deserts-
San Gorgonio Pass Near Banning-
Including the cities of Indio, Palm Springs, Cathedral City, Palm
Desert, Palm Desert Country, La Quinta, Coachella, **Borrego
Springs**, and Desert Hot Springs
721 PM PST Wed Dec 20 2017

...**BLOWING DUST ADVISORY IN EFFECT UNTIL MIDNIGHT PST TONIGHT...**

The National Weather Service in San Diego has issued a Blowing
Dust Advisory...which is in effect until midnight PST tonight.
The Wind Advisory has been replaced with the Blowing Dust
Advisory.

* **Winds...Areas of southwest to west winds 20 to 30 mph with gusts
to 50 mph. Isolated gusts to 65 mph along the slopes. Wind
decreasing after midnight.**

* Location...From mountain ridge tops and along deserts slopes
of the mountains into adjacent desert areas and through and
below San Gorgonio Pass.

* Impacts...Hazardous travel for high profile vehicles especially
in cross winds. Very poor visibility, down to zero in spots,
travel delays possible.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Blowing Dust Advisory means that blowing dust will restrict
visibilities. Travelers are urged to use caution.

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CAZ060-210800-
/O.EXT.KSGX.DU.Y.0001.000000T0000Z-171221T0800Z/
Apple and Lucerne Valleys-
Including the cities of Victorville, Hesperia, and Apple Valley
721 PM PST Wed Dec 20 2017

...**BLOWING DUST ADVISORY NOW IN EFFECT UNTIL MIDNIGHT PST
TONIGHT...**

* **Winds...Areas of southwest to west winds 20 to 30 mph with gusts
50 to 60 mph. Wind decreasing after midnight.**

* **Timing...Strong southwest to west winds this afternoon and
evening...decreasing and shifting to the north late this
evening.**

* **Location...Along desert slopes and into the Mojave Desert
floor.**

* **Visibility...Areas of blowing dust and sand causing very poor
visibility...especially along Highways 247, 18, and 395.**

* **Impacts...Hazardous travel for high profile vehicles especially
in cross winds. Very poor visibility, down to zero in spots,
travel delays possible.**

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Blowing Dust Advisory means that blowing dust will restrict
visibilities. Travelers are urged to use caution.

December 20, 2017 Exceptional Event, Imperial County

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CAZ055-056-058-210800-
 /O.EXT.KSGX.WI.Y.0034.000000T0000Z-171221T0800Z/
 San Bernardino County Mountains-Riverside County Mountains-
 San Diego County Mountains-
 Including the cities of Crestline, Lake Arrowhead, Big Bear City,
 Big Bear Lake, Running Springs, Wrightwood, Idyllwild-Pine Cove,
 Julian, and Pine Valley
 721 PM PST Wed Dec 20 2017

...WIND ADVISORY NOW IN EFFECT UNTIL MIDNIGHT PST TONIGHT...

* Winds...Areas of southwest to west winds 20 to 30 mph with gusts to 50 mph. Isolated gusts to 60 mph along the ridges. Wind decreasing after midnight.

* Location...From mountain ridge tops and along deserts slopes.

* Impacts...Hazardous travel for high profile vehicles especially in cross winds.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that winds of 35 mph are expected. Winds this strong can make driving difficult...especially for high profile vehicles. Use extra caution.

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jmb

weather.gov/sandiego

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559
FXUS66 KSGX 210547 AAB
AFDSGX

Area Forecast Discussion
National Weather Service San Diego CA
945 PM PST Wed Dec 20 2017

.QUICK UPDATE...

Forecast was updated to add a blowing dust advisory in the Coachella Valley and Lower Deserts. Also...wind and dust products extended to midnight. No other changes at this time.

&&

.SYNOPSIS...

A cold front will move across Southern California this evening bringing strong west winds to the mountains and deserts and a chance of light showers along and west of the mountains. Moderate Santa Ana winds will follow on Thursday, strongest in San Bernardino, Riverside, and Orange Counties. It will be cold Thursday night with areas of frost in the inland valleys and lower deserts Friday morning. Dry with a warming trend Saturday through Monday with weak to moderate offshore flow.

&&

.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO
COUNTIES...

A cold upper trough and surface cold front over central CA this afternoon will move south across southern CA this evening. The 1 PM satellite image showed a band of clouds from Bishop southwest toward Pt Conception and the coastal waters. There has been rain with this trough, but the rain totals have been light with 0.04 inches at Santa Maria and Vandenberg Air Force Base.

Low clouds over the coastal waters will increase in coverage ahead of the advancing cold front and spread inland this evening. BUFKIT sounding forecasts for SAN show near saturation from the Sfc to 4500 feet between 6 pm and Midnight, and that will be our best window of opportunity for light rain. Rain totals will be light with trace amounts to 0.10" from the western mtn slopes to the coast, with locally greater amounts most likely on the slopes aided by orographics.

Winds have freshened in the mountains and deserts with gusts of 40 to 50 mph this afternoon. Big Bear Airport had a gust to 35 mph at 115 PM, with stronger gusts to 52 mph at Burns Canyon, 43 mph at Lucerne Valley, and 36 mph at Boulevard. Blowing Dust was reported in the High Deserts. A Wind Advisory is in effect through 10 pm tonight in these areas.

Tonight: The west winds will shift north with the passage of the cold front. The winds will be fairly strong as a 1034 mb high moves into Oregon and the resultant N-S pressure gradient generates sustained winds of 20-30 mph with gusts to 50 mph in the San Bernardino, Riverside and Orange County mountains and passes and into the Inland Empire. The winds will not be quite as strong in San Diego County with this gradient pattern.

The clouds will clear from north to south tonight and a colder, drier airmass will settle over the area. This will result in rapid cooling and areas of frost in wind sheltered areas Thursday morning. Thursday night will be colder with lighter winds and an even drier airmass in place. The first Frost Advisory of the season may be issued for the inland valleys and the Coachella Valley.

For Saturday through Tuesday the long range progs have backed off on the strong Santa Ana wind potential that was advertised for Sunday and Monday. The pressure pattern is now forecast to be about 10 mb weaker. A surface high is still forecast over Idaho Sunday morning on the 12Z GFS and ECMWF runs, but it is 1040 mb instead of 1050 mb. This pattern will continue our relentless offshore weather pattern Saturday through Tuesday with dry, warm weather and periods of offshore flow, strongest on Sunday. Have raised Max temperatures a couple degrees Sunday and Monday based on the higher heights and downslope warming component west of the mountains that is usually

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

underforecast by the long range prog.

&&

.AVIATION...

210530Z...Coast/Valleys...Showers will gradually end through 07Z in San Diego County with lingering BKN-OVC cigs 1500-2500 ft MSL and tops to 6000 ft MSL with local surface vis 2-4 miles. Otherwise, skies will gradually clear overnight, with clear skies/unrestricted vis prevailing Thu and Thu night. Areas of northeast surface winds 20-30 kt local gusts 40-50 kt will occur 09Z Thu through Thu night mainly through/below passes/canyons of Orange, Riverside and San Bernardino Counties, along with LLWS and strong up/downdrafts.

Mountains/Deserts...Showers will end in San Diego County Mountains by 08Z, and local mountain obscurations in clouds/fog will dissipate by 10Z Thu, with mostly SKC and unrestricted vis after 10Z Thu. Areas of northwest surface winds 20-30 kt with local gusts 50-60 kt will become north-northeast between 06Z and 09Z and mainly affect southwest mountain slopes of Orange, Riverside and San Bernardino Counties 20-30 kt with local gusts 40-50 kt, continuing through Thu, slightly weaker Thu evening.

&&

.MARINE...

A cold front will create gusty northwest winds around 25 kt this evening and tonight, which will create choppy seas 6-8 feet hazardous for small craft. Winds turn offshore early Thursday morning with local gusty northeast winds around 20 kt Thursday, but not likely hazardous. No additional hazardous marine weather is expected through Monday.

&&

.FIRE WEATHER...

West winds were strong in the mountains and the high deserts at 1 pm with gusts of 50 mph at Whitewater above the San Gorgonio Pass, 43 mph at Volcan Mountain, and 35 mph at Hesperia. These strong west winds will continue through evening, then shift north tonight with the passage of the cold front.

A moderately strong surface high will build over northern Nevada tonight and support moderate to locally strong north to northeast winds beginning tonight and continuing through Thursday afternoon. The most critical fire weather conditions will be Thursday when humidities will fall into the lower teens. Winds will decrease Thursday night with lighter winds Friday.

This prevailing offshore flow pattern will persist through early next week with surface high pressure settling over the Great Basin Saturday through Monday. Yesterday the models were advertising a strong Santa Ana Sunday, but they have backed off considerably, and the outlook now is for weak to locally moderate offshore flow. It will warm and dry with temperatures well above average in this pattern, with periods of gusty northeast winds at times in the mountains and foothills.

&&

.SKYWARN...

Skywarn activation is not requested. However weather spotters are encouraged to report significant weather conditions.

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.SGX WATCHES/WARNINGS/ADVISORIES...

CA...Blowing Dust Advisory until midnight PST tonight for Apple and Lucerne Valleys-Coachella Valley-San Diego County Deserts-San Gorgonio Pass Near Banning.

Red Flag Warning from 9 AM to 6 PM PST Thursday for Orange County Coastal Areas-Orange County Inland Areas-Riverside County Mountains-Including The San Jacinto Ranger District Of The San Bernardino National Forest-San Bernardino County Mountains-Including The Mountain Top And Front Country Ranger Districts Of The San Bernardino National Forest-San Bernardino and Riverside County Valleys -The Inland Empire-San Gorgonio Pass Near Banning-Santa Ana Mountains-Including The Trabuco Ranger District of the Cleveland

December 20, 2017 Exceptional Event, Imperial County

Appendix A

National Forest.

Wind Advisory until midnight PST tonight for Riverside County Mountains-San Bernardino County Mountains-San Diego County Mountains.

PZ...Small Craft Advisory until 6 AM PST Thursday for Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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PUBLIC/FIRE WEATHER...Moede/JMB
AVIATION/MARINE...Maxwell

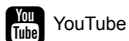
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URGENT - WEATHER MESSAGE
National Weather Service Phoenix AZ
1252 AM MST Thu Dec 21 2017

CAZ562-210900-
/O.EXP.KPSR.WI.Y.0031.000000T0000Z-171221T0800Z/
Imperial County Southwest-
Including the city of Mountain Spring
1152 PM PST Wed Dec 20 2017

...WIND ADVISORY WILL EXPIRE AT MIDNIGHT PST TONIGHT...

A cold front has moved through southeast California, and will bring a gradual decrease in wind speeds overnight. Locally gusty winds will continue across some ridgetops and within area passes, but advisory-level winds are no longer anticipated.

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AZZ552-556>558-560>562-220000-
/O.CON.KPSR.FZ.W.0002.171222T0600Z-171222T1600Z/
Superior-Tonto Basin-Mazatzal Mountains-
Pinal/Superstition Mountains-San Carlos-Dripping Springs-
Globe/Miami-
Including the cities of Superior, Punkin Center, Sunflower,
San Carlos, Peridot, Hayden, Winkelman, Globe, and Miami
1252 AM MST Thu Dec 21 2017

...FREEZE WARNING REMAINS IN EFFECT FROM 11 PM THIS EVENING TO
9 AM MST FRIDAY...

* AFFECTED AREA...Portions of southern Gila County and extreme
northeastern Maricopa County. Affected communities include
Globe, Miami, Superior, Sunflower, and Winkelman.

* TEMPERATURES...Lows falling into the 20s.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage
to sensitive plants and ornamental vegetation. Poorly
insulated pipes may burst. The extreme cold is also dangerous
for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Warning means sub-freezing temperatures are imminent or
highly likely. These conditions will destroy or damage crops and
other sensitive vegetation.

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

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AZZ553-220000-

/O.CON.KPSR.FZ.W.0002.171222T0600Z-171222T1600Z/

Northwest Pinal County-

Including the cities of Casa Grande, Cactus Forest, Florence,
and Coolidge

1252 AM MST Thu Dec 21 2017

...FREEZE WARNING REMAINS IN EFFECT FROM 11 PM THIS EVENING TO
9 AM MST FRIDAY...

* AFFECTED AREA...Northwest Pinal County including the
communities of Casa Grande, Coolidge, Florence, and Ak-Chin
Village.

* TEMPERATURES...Ranging from the middle 20s to the low 30s.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage
to sensitive plants and ornamental vegetation. Poorly
insulated pipes may burst. The extreme cold is also dangerous
for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Warning means sub-freezing temperatures are imminent or
highly likely. These conditions will destroy or damage crops and
other sensitive vegetation.

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AZZ533-220000-

/O.CON.KPSR.FZ.W.0002.171222T0600Z-171222T1600Z/

Central La Paz-

Including the cities of Brenda, Harcuvar, Quartzsite, Vicksburg,
Vicksburg Junction, and Salome

1252 AM MST Thu Dec 21 2017

...FREEZE WARNING REMAINS IN EFFECT FROM 11 PM THIS EVENING TO
9 AM MST FRIDAY...

* AFFECTED AREA...Much of La Paz County, including the
communities of Quartzsite, Bouse, and Wenden. Other affected
areas include locations along Interstate 10, and Highways 72
and 95.

* TEMPERATURES...Mid to upper 20s for the coldest locations.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage
to sensitive plants and ornamental vegetation. Poorly

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NPWPSR

URGENT - WEATHER MESSAGE
National Weather Service Phoenix AZ
222 PM MST Wed Dec 20 2017

AZZ552-556>558-560>562-210930-
/O.UPG.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
/O.NEW.KPSR.FZ.W.0002.171222T0600Z-171222T1600Z/
Superior-Tonto Basin-Mazatzal Mountains-
Pinal/Superstition Mountains-San Carlos-Dripping Springs-
Globe/Miami-
Including the cities of Superior, Punkin Center, Sunflower,
San Carlos, Peridot, Hayden, Winkelman, Globe, and Miami
222 PM MST Wed Dec 20 2017

...FREEZE WARNING IN EFFECT FROM 11 PM THURSDAY TO 9 AM MST
FRIDAY...

The National Weather Service in Phoenix has issued a Freeze
Warning, which is in effect from 11 PM Thursday to 9 AM MST
Friday. The Freeze Watch is no longer in effect.

- * AFFECTED AREA...Portions of southern Gila County and extreme
northeastern Maricopa County. Affected communities include
Globe, Miami, Superior, Sunflower, and Winkelman.
- * TEMPERATURES...Lows falling into the 20s.
- * IMPACTS...Freezing/sub-freezing temperatures may cause damage
to sensitive plants and ornamental vegetation. Poorly insulated
pipes may burst. The extreme cold is also dangerous for any pets
left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Warning means sub-freezing temperatures are imminent or
highly likely. These conditions will destroy or damage crops and
other sensitive vegetation.

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AZZ553-210930-
/O.UPG.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/
/O.NEW.KPSR.FZ.W.0002.171222T0600Z-171222T1600Z/
Northwest Pinal County-
Including the cities of Casa Grande, Cactus Forest, Florence,
and Coolidge
222 PM MST Wed Dec 20 2017

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

...FREEZE WARNING IN EFFECT FROM 11 PM THURSDAY TO 9 AM MST
FRIDAY...

The National Weather Service in Phoenix has issued a Freeze Warning, which is in effect from 11 PM Thursday to 9 AM MST Friday. The Freeze Watch is no longer in effect.

* AFFECTED AREA...Northwest Pinal County including the communities of Casa Grande, Coolidge, Florence, and Ak-Chin Village.

* TEMPERATURES...Ranging from the middle 20s to the low 30s.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage to sensitive plants and ornamental vegetation. Poorly insulated pipes may burst. The extreme cold is also dangerous for any pets left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Warning means sub-freezing temperatures are imminent or highly likely. These conditions will destroy or damage crops and other sensitive vegetation.

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AZZ533-210930-

/O.UPG.KPSR.FZ.A.0002.171222T0600Z-171222T1600Z/

/O.NEW.KPSR.FZ.W.0002.171222T0600Z-171222T1600Z/

Central La Paz-

Including the cities of Brenda, Harcuvar, Quartzsite, Vicksburg, Vicksburg Junction, and Salome

222 PM MST Wed Dec 20 2017

...FREEZE WARNING IN EFFECT FROM 11 PM THURSDAY TO 9 AM MST
FRIDAY...

The National Weather Service in Phoenix has issued a Freeze Warning, which is in effect from 11 PM Thursday to 9 AM MST Friday. The Freeze Watch is no longer in effect.

* AFFECTED AREA...Much of La Paz County, including the communities of Quartzsite, Bouse, and Wenden. Other affected areas include locations along Interstate 10, and Highways 72 and 95.

* TEMPERATURES...Mid to upper 20s for the coldest locations.

* IMPACTS...Freezing/sub-freezing temperatures may cause damage to sensitive plants and ornamental vegetation. Poorly insulated pipes may burst. The extreme cold is also dangerous for any pets

December 20, 2017 Exceptional Event, Imperial County
left outdoors overnight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Freeze Warning means sub-freezing temperatures are imminent or highly likely. These conditions will destroy or damage crops and other sensitive vegetation.

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CAZ562-210600-

/O.CON.KPSR.WI.Y.0031.171221T0000Z-171221T0600Z/

Imperial County Southwest-
Including the city of Mountain Spring
122 PM PST Wed Dec 20 2017

...WIND ADVISORY REMAINS IN EFFECT UNTIL 10 PM PST THIS EVENING...

* AFFECTED AREA...Portions of southeast California, including the Mountain Spring area along Interstate 8.

* TIMING...Wednesday afternoon and evening.

* WINDS...West 25 to 30 mph. Gusts of 40 to 50 mph.

* IMPACTS...Strong cross winds will make driving difficult, especially for high profile vehicles on east-west oriented roads. Use extra caution. Localized blowing dust is also possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between 30 and 40 mph are expected, or wind gusts of between 40 and 58 mph. Winds this strong can make driving difficult, especially for high profile vehicles. In addition, strong winds over desert areas could result in briefly lowered visibilities to well under a mile at times in blowing dust or blowing sand. Use extra caution.

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CAZ560-561-564-568>570-210930-

/O.CON.KPSR.WI.Y.0031.171221T0300Z-171221T2300Z/

Joshua Tree NP West-Joshua Tree NP East-Chuckwalla Mountains-
Chiriaco Summit-Palo Verde Valley-Chuckwalla Valley-
Including the cities of Cottonwood Visitor,
Lost Horse-Keys Village, Imperial Hot Mineral Springs,
Chiriaco Summit, Martinez Lake, Blythe, Palo Verde, Ripley,
and Midland

December 20, 2017 Exceptional Event, Imperial County**Appendix A**

122 PM PST Wed Dec 20 2017

...WIND ADVISORY REMAINS IN EFFECT FROM 7 PM THIS EVENING TO 3 PM PST THURSDAY...

* AFFECTED AREA...Portions of southeast California, including Joshua Tree National Park and the Interstate 10 corridor.

* TIMING...Wednesday evening through Thursday afternoon.

* WINDS...Northwest 20 to 30 mph. Gusts of 40 to 50 mph.

* IMPACTS...Strong cross winds will make driving difficult, especially for high profile vehicles on east-west oriented roads. Use extra caution. Localized blowing dust is also possible, reducing visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Wind Advisory means that sustained wind speeds of between 30 and 40 mph are expected, or wind gusts of between 40 and 58 mph. Winds this strong can make driving difficult, especially for high profile vehicles. In addition, strong winds over desert areas could result in briefly lowered visibilities to well under a mile at times in blowing dust or blowing sand. Use extra caution.

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URGENT - WEATHER MESSAGE
National Weather Service San Diego CA
1216 AM PST Thu Dec 21 2017

CAZ060>062-065-210930-
/O.EXP.KSGX.DU.Y.0001.00000T0000Z-171221T0800Z/
Apple and Lucerne Valleys-Coachella Valley-
San Diego County Deserts-San Gorgonio Pass Near Banning-
Including the cities of Victorville, Hesperia, Apple Valley,
Indio, Palm Springs, Cathedral City, Palm Desert,
Palm Desert Country, La Quinta, Coachella, Borrego Springs,
and Desert Hot Springs
1216 AM PST Thu Dec 21 2017

...BLOWING DUST ADVISORY HAS EXPIRED...

Winds continue to subside and widespread blowing dust is no longer
expected.

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CAZ055-056-058-210930-
/O.EXP.KSGX.WI.Y.0034.00000T0000Z-171221T0800Z/
San Bernardino County Mountains-Riverside County Mountains-
San Diego County Mountains-
Including the cities of Crestline, Lake Arrowhead, Big Bear City,
Big Bear Lake, Running Springs, Wrightwood, Idyllwild-Pine Cove,
Julian, and Pine Valley
1216 AM PST Thu Dec 21 2017

...WIND ADVISORY HAS EXPIRED...

Winds have lessened and will continue to subside overnight.

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Gregoria

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