April 19, 2018 Exceptional Event, Imperial Co.
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TYPE	DATE		ИE	AGENCY	DESCRIPTION	PAGE
Area Forecast Discussion	4/15/2018	0333	MST	Phoenix	The next system to affect our forecast area brings breezy conditions to southeast California beginning later Wednesday afternoon. Breezy to windy conditions overspread the forecast area by Thursday afternoon. At this time, not anticipating widespread blowing dust. While the upper low digs further south than the preceding one, this system is not as cold	55
Area Forecast Discussion	4/15/2018	0344	PDT	San Diego	Another low pressure system moving inland through California on Thursday will bring cooling and another round of strong gusty west winds for the mountains and deserts for Wednesday night into Thursday night. There is also a slight chance of light showers near the mountains for Thursday	58
Area Forecast Discussion	4/15/2018	2102	PDT	San Diego	Still on track for another fast moving system on Thursday with similar wind threat for mountains and deserts. Then an offshore flow push and upper level ridging leading to significant warming next weekend	60
Area Forecast Discussion	4/16/2018	0302	PDT	San Diego	Another low pressure system moving inland through California will bring another round of strong onshore flow with cooling and with periods of strong gusty west winds for the mountains and deserts for Wednesday night into Thursday night. There is also a slight chance of light showers along and west of the mountains Thursday	63
Area Forecast Discussion	4/16/2018	0318	MST	Phoenix	Transient shortwave ridging will build across the region by mid-week, before a deeper and slower-moving storm system evolves along the Pacific coast. Moisture will still be lacking west of the Continental Divide, with the primary effect being another increase in winds on Thursday/Friday and a minor cooldown.	66
Area Forecast Discussion	4/16/2018	2145	PDT	San Diego	The trough axis passes tonight followed by zonal flow Tuesday and Wednesday for warmer days and lighter winds. But the roller coaster takes another big dip Thursday as yet another very strong 500 mb trough moves into California. This one will be similar to the previous two troughs and bring cool, windy weather and perhaps a few light showers along and west of the mountains. Very strong winds will once again impact the mountains and deserts with gusts of 50 to 70 mph	69
Area Forecast Discussion	4/17/2018	0251	MST	Phoenix	Low-amplitude shortwave ridging will temporarily build and bring temperatures closer to seasonal normals on Wednesday, but will be transient ahead of a deepening area of low pressure near the northern California coast. This feature continues to become more prominently featured across the Southwest in the most recent model guidance, and confidence is high in another round of strong winds, blowing dust, and potentially critical fire weather conditions occurring on Thursday A Wind Advisory and/or Blowing Dust Advisory may eventually be needed as well. Southwesterly flow in the lowest 4 km AGL or so will strengthen significantly on Thursday, and will be better phased with the diurnal cycle than the most recent storm system. This means the potential for strong winds will be relatively high, especially across southwest Arizona. Could see gusts exceeding 40 mph with areas of blowing dust developing on Thursday afternoon. Since the upcoming storm system will feature a closed-low, it will be slower to progress eastward across the region	71

TYPE	DATE	TII	ME	AGENCY	DESCRIPTION	PAGE
Area Forecast Discussion	4/17/2018	0339	PDT	San Diego	Another sharp trough will dig south and move through California on Thursday, bringing more gusty west winds in the mountains and deserts. Both global and high res models are showing some precipitation along and west of the mountains on Thursday. Preliminary rainfall estimates are around one-tenth inch west of the mountains and up to two-tenths inch along the west facing coastal mountain slopes. This system will be rather cold, with snow levels between 4500-5500 ft. Given the lack of moisture, snow totals will generally be an inch or less. The system quickly moves out Thursday night, ending any showers. Winds will slowly lower through Friday morning	74
Area Forecast Discussion	4/17/2018	0905	PDT	San Diego	The next trough will intensify and move through California on Thursday, bringing more gusty west winds in the mountains and deserts, increasing low clouds, lower temps and a chance for light showers over and west of the mtns. The strongest winds are expected Thursday morning into Thu afternoon, mostly in the mtns and on adjacent desert slopes where wind gusts of 55 to 65 mph will be possible. Most deterministic models are indicating some precipitation along and west of the mountains on Thursday. Preliminary rainfall estimates are for up to one-tenth inch west of the mountains and up to two-tenths inch along the west facing coastal mountain slopes. This system will be rather cold, with snow levels between 4500-5500 ft. Given the lack of moisture, snow totals will generally be an inch or less. The system quickly moves out Thursday night, ending any showers. Winds will slowly lower through Friday morning	76
Area Forecast Discussion	4/17/2018	1355	MST	Phoenix	Tonight through Wednesday will be relatively quiet with temperatures running very close to average for mid April, the proverbial quiet before the storm. A deep storm system will make its way onto the central California coast Wednesday night, move east to southern Nevada Thursday evening then continue to Colorado and New Mexico Friday night. This storm will produce a somewhat prolonged period of strong and gusty winds due to the slow forward motion of the storm	78

April 19, 201	8 Excep		al E	vent, In	nperial County Appendix DESCRIPTION	K A PAGE
Area Forecast Discussion	4/17/2018	2130	PDT		The calm before the next storm All eyes then turn to the west as we watch a deep trough off the Oregon coast this evening move south and be near SFO Wednesday evening. The onshore gradients ahead of this system tighten up Wednesday afternoon in response to a deepening 1008 mb surface low over Nevada A few light showers are possible over the valleys or foothills with this rapidly deepening marine layer. The deep upper trough will race across SoCal Thursday morning. The gusty west to southwest winds ahead of the surface cold front will shift northwest through midday. As with the Monday system, the main issue with this system will be the gusty west winds Thursday, strongest in the mountains and deserts. The 700 mb jet core is strongest (50-60 kt) over San Diego County and Riverside Counties Thursday morning, coincident with the highest mountain wave potential with the passage of the cold front. The CAA weakens in the	80
Area Forecast Discussion	4/17/2018	2145	MST	Phoenix	.UPDATEUpdated Aviation discussion.Southeast California/Southwest Arizona including KIPL and KBLH: High pressure ridging moving across the region to keep skies mainly clear through the taf period, with just some high cirrus passing overhead from timeto-time during the day on Wednesday. Winds to remain on the light side (8 kts or less), mainly following typical diurnal trends through early afternoon on Wednesday. Stronger westerly to southwesterly winds to develop during the late afternoon/evening hours on Wednesday as the next Pacific weather system approaches from the west.	82
Area Forecast Discussion	4/18/2018	0310	PDT	San Diego	as an upper level trough of low pressure moves inland across California. The biggest concern with this system is once again strong gusty winds in the mountains and deserts. Winds will start to pick up this evening as the trough approaches, then peak late tonight into Thursday morning as the trough axis moves through. The GFS is showing 700 mb winds of 50-60 kt, though 850 mb winds are only around 20 kt. There is the potential for mountain waves at this time, which could bring locally stronger winds into the low deserts. Otherwise the strongest winds will be along the mountain crests and onto the east facing mountain slopes. Mid level winds weaken during the day Thursday while surface pressure gradients continue to increase. Winds in the deserts will become more widespread during this time, though will generally be weaker. Overall it looks like wind gusts will mainly be between 45-55 MPH in parts of the mountains and deserts, with isolated gusts around 60 MPH. There is also a chance of light showers along and west of the	84

mountains tonight into Thursday. ...

April 19, 2018 Exceptional Event, Imperial County
TYPE DATE TIME AGENCY **Appendix A** DESCRIPTION PAGE

	TYPE	DATE	TII	ME	AGENCY	DESCRIPTION	PAGE
	Area Forecast Discussion	4/18/2018	0323	MST	Phoenix	The next weather system slated to affect the region is currently off the Pacific Northwest. This trough will track southwestward today reaching central California tonight. As with the past several weather systems, this one will be mostly dry in nature and pose a wind, blowing dust and fire weather threat. The Pacific low will maintain its intensity tracking through southern Nevada Thursday afternoon as the trough becomes less positively tilted. In response to the upper level trough, a deepening surface low over Utah will create a strong north/south pressure gradient across Arizona. Winds will initially strengthen across portions of southeast California this evening, remaining gusty at times through tonight. Widespread stronger winds will move in starting mid Thursday morning, peaking late Thursday afternoon. Wind gusts Thursday afternoon/early evening to 30 mph will be common with the possibility of localized advisory level winds over southern Gila County. The gusty winds will most likely create some blowing dust with at least some potential for dense blowing dust in the most dust prone areas of Pinal County. Although there will be a slight uptick in moisture with this system, Thursday afternoon RHs will still be in the single digits across south-central and southeast Arizona	86
=	Area Forecast Discussion	4/18/2018	0835	MST	Phoenix	At 8 am this morning, dry southwest flow aloft was present across the area (as seen in morning plot and raob data) ahead of an upper low now developing off the west coastCurrent forecasts are in good shape and no updates are needed at this time.	89
	Area Forecast Discussion	4/18/2018	0957	MST	Phoenix	UPDATEUpdated aviation discussion. Southeast California/Southwest Arizona including KIPL and KBLH: Expect light diurnal winds through this afternoon. At KIPL, elevated southeasterly winds between 10 to 15 kts will develop late this afternoon and then switch over to the west near 02/03Z. Winds will remain out of the west through the remainder of the TAF period but you can expect speeds to get gradually higher overnight into tomorrow afternoon. Westerly gusts late tomorrow morning will be in the 30 to 40 kt range. At KBLH, winds will be out of the south-southeast through the TAF period with elevated wind speeds expected between 00Z this afternoon and 18Z tomorrow. During this time frame, sustained wind speeds will be in the 10 to 15 kt range. Breeziest conditions develop late tomorrow morning, with gusts up to 30 to 40 kts. Blowing dust and slantwise visibility concerns could be an issue tomorrow at both TAF sites.	92
-	Area Forecast Discussion	4/18/2018	0958	PDT	San Diego	At 9 AM PDT, water vapor satellite imagery displayed an upper-level low just off the coast of northern California and southwesterly flow over southern CaliforniaThe aforementioned low will move across central California tomorrow, while the associated trough swings across southern California. A tight pressure gradient in the upper-levels will create the potential for strong and gusty winds across portions of the mountains and deserts as the system moves by starting tonight through Thursday night. 12Z guidance is starting to roll in, and looks a bit stronger than the 00Z runs. Strongest west to northwest wind gusts of 50 to 60 mph and isolated gusts to 70 mph will be over portions of the San Diego and Riverside County mountains and Deserts. Gusty, but weaker winds, are expected over the San Bernardino County Mountains and Deserts Snow levels will lower to 5500-6500 ft, with around an inch of snow possible above 6000 ft. Highs will lower 10 to 20 degrees below normal Thursday.	95

April 19, 2018 Exceptional Event, Impe
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TYPE	DATE		ME	AGENCY	DESCRIPTION  STRONG AND GUSTY WINDS OVER PORTIONS OF THE	PAGE
Urgent Weather Message	4/18/2018	1404	PDT	San Diego	STRONG AND GUSTY WINDS OVER PORTIONS OF THE MOUNTAINS AND DESERTS THIS EVENING THROUGH THURSDAY NIGHTRiverside County Mountains-San Diego County Mountains- Coachella Valley-San Diego County Deserts-San Gorgonio Pass Near Banning-Including the cities of Idyllwild-Pine Cove, Julian, Pine Valley, Indio, Palm Springs, Cathedral City, Palm Desert, Palm Desert Country, La Quinta, Coachella, Borrego Springs, Banning, and Desert Hot SpringsHIGH WIND WARNING IN EFFECT FROM 11 PM THIS EVENING TO 2 AM PDT FRIDAYThe National Weather Service in San Diego has issued a High Wind Warningwhich is in effect from 11 PM this evening to 2 AM PDT Friday.  * WindsWest to southwest 25 to 35 mph with gusts to 60 mph. Isolated gusts to 70 mph.  * TimingThis evening through Thursday night, with strongest gusts Thursday morning. Strongest winds along desert mountain slopes into adjacent deserts.  * VisibilityLess than a mile at times in blowing dust and sand.  * ImpactsDifficult drivingespecially for motorists with high profile vehicles. Reduced visibilities. Downed trees and power lines.  * OutlookWinds will quickly diminish late Thursday night.	97
Area Forecast Discussion	4/18/2018	1415	PDT	San Diego	At 2 PM PDT, water vapor satellite imagery displayed an upper-level low just off the coast of northern California and southwesterly flow over southern CaliforniaThe aforementioned low will move across central California tomorrow, while the associated trough swings across southern California. A tight pressure gradient in the upper-levels will create strong and gusty winds across portions of the mountains and deserts as the system moves by starting this evening through Thursday night. Strongest westerly wind gusts of 50 to 60 mph and isolated gusts to 70 mph will be over portions of the San Diego and Riverside County mountains and Deserts. Gusty, but weaker winds, are expected over the San Bernardino County Mountains and Deserts. A High Wind Warning and Wind Advisory has been issued this afternoon for the periodSnow levels will lower to 5500-6500 ft, with around an inch of snow possible above 6000 ft. Highs will lower 10 to 20 degrees below normal Thursday.	99
Area Forecast Discussion	4/18/2018	1445	MST	Phoenix	At 2 pm this afternoon,Warming is a result of some initial warm advection ahead of a strong upper low currently developing off the California coast. Guidance has been consistent in the handling of this low which is still expected to move through the desert southwest Thursday through Friday bringing strong gusty winds, cooler temperatures and little if any chance of precipitation(See Discussion 04/18/2018 at 323am)	101

ТҮРЕ	DATE	TII	ME	AGENCY	DESCRIPTION	PAGE
Urgent Weather Message	4/18/2018	2121	PDT	San Diego	STRONG AND GUSTY WINDS OVER PORTIONS OF THE MOUNTAINS AND DESERTS THROUGH THURSDAY NIGHT Riverside County Mountains-San Diego County Mountains- Coachella Valley-San Diego County Deserts-San Gorgonio Pass Near Banning-Including the cities of Idyllwild-Pine Cove, Julian, Pine Valley, Indio, Palm Springs, Cathedral City, Palm Desert, Palm Desert Country, La Quinta, Coachella, Borrego Springs, Banning, and Desert Hot SpringsHIGH WIND WARNING REMAINS IN EFFECT UNTIL 2 AM PDT FRIDAY  * WindsWest to southwest 25 to 35 mph with gusts to 60 mph. Isolated gusts to 70 mph. Strongest along the desert slopes.  * TimingThrough Thursday night, with strongest gusts Thursday morning.  * VisibilityLess than a mile at times in blowing dust and sand.  * ImpactsDifficult driving, especially for motorists with high profile vehicles. Reduced visibilities. Downed trees and power lines.  * OutlookWinds will diminish Thursday night.	104
Area Forecast Discussion	4/18/2018	2139	PDT	San Diego	At 9 PM, an upper level trough was located over northern California, with a smaller embedded shortwave just off the coast of San Francisco. In southern california skies remained mostly clear, apart from a few wave clouds over the upper deserts and patchy low clouds near the coast. At the surface winds were gusty in the deserts, though they were not particularly strong, with peak gusts near 40 mph. Over the next 36 hours, the trough currently over northern California will dip south. As this occurs, significantly cooler and windier weather will arrive in SoCal. Strongest winds will likely coincide with the peak in upper level support Thursday morning and are expected to affect the mountains and deserts. Widespread 30-40 mph gusts are anticipated on the desert floor, while local gusts of 50-70 mph will be possible where mountain wave activity surfaces. The main impacts should be blowing dust/sand and hazardous driving conditions for high profile vehicles. Isolated tree/power line damage is also possible. Apart from the winds, a few very light showers are possible west of the mountain crests, while afternoon highs will dip to 10-25 degrees below seasonal averages inland.	106
Area Forecast Discussion	4/18/2018	2150	MST	Phoenix	UPDATEUpdated aviation discussion. Southeast California/Southwest Arizona including KIPL and KBLH: After a relatively quiet overnight period, with just a few high clouds passing overhead, and moderate westerly to southwesterly winds, a rather strong, but dry Pacific weather system will bring strong westerly to southwesterly winds to the region on Thursday. Wind speeds are expected to rise into the 22-32kt range during the afternoon/evening, with gusts as high as 40kts possible. along with the strong winds, blowing dust is likely, especially at KIPL, which could see significant reductions in sfc visibilities. Suspended blowing dust will likely create slantwise visibility issues as well. Westerly winds are expected to persist well into Thursday night as well, with speeds lowly diminishing with time. Considerable high cloudiness is expected to overspread the region on Thursday, with BKN-OVC layer aoa 25k feet through the day. Clearing is expected to commence during the evening hours on Thursday	109

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ТҮРЕ	DATE	TII		AGENCY	DESCRIPTION	PAGE
Area Forecast Discussion	4/19/2018	0233	PDT	San Diego	Winds are increasing across the mountains and deserts this morning. The highest wind gusts recorded so far have been 52 mph at Whitewater in the San Gorgonio Pass, and 43 mph at Volcan Mountain. Winds will continue to strengthen through mid-morning, especially along the mountain crests and desert mountain slopes. Isolated strong winds are possible in the low deserts where any mountain waves surface. Winds will weaken but become more widespread in the deserts during the afternoon. Gusts will generally be around 40-55 mph with isolated gusts to 60 mph. The compact cold front and small band of precipitation is currently making its way into Santa Barbara County. This frontal precipitation is forecast to fall apart before even making it to Ventura County.	112
Urgent Weather Message	4/19/2018	0320	MST	Phoenix	Imperial County Southwest-Chuckwalla Mountains-Imperial County West-Including the cities of Mountain Spring, Imperial Hot Mineral Springs, Coolidge Springs, Salton City, Winona, Coyote Wells, Ocotillo, and Plaster CityWIND ADVISORY IN EFFECT UNTIL 7 PM PDT THIS EVENINGThe National Weather Service in Phoenix has issued a Wind Advisory, which is in effect until 7 PM PDT this evening.  * AFFECTED AREAFar southwest Imperial County including parts of I-8 and the Chuckwalla Mountains Imperial County, CA.  * TIMINGUntil 7 PM PDT  * WINDSWesterly Winds 30-35 mph with gusts to 45-55 mph.  * IMPACTSVery hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.	115
Area Forecast Discussion	4/19/2018	0321	MST	Phoenix	An approaching Pacific trough will move in from the northwest later today and slowly move through the Desert Southwest tonight into early Friday. Current water vapor imagery shows the low center just off the central California coast with weak moisture advection ahead of the low. Southerly flow across the Desert Southwest will continue to increase through this morning with winds becoming gusty initially across southeast California and southwest Arizona by mid morning. Gusty winds will become widespread this afternoon peaking late this afternoon with gusts 25 to 35 mph. Winds will likely hit advisory level across Imperial County and southern Gila County late this afternoon with gusts peaking at 40 to 45 mph. This should lead to at least some patching blowing dust and possibly very localized dense blowing dust this afternoon.	117
Urgent Weather Message	4/19/2018	0409	PDT	Phoenix	Imperial County Southwest-Chuckwalla Mountains-Imperial County West-Including the cities of Mountain Spring, Imperial Hot Mineral Springs, Coolidge Springs, Salton City, Winona, Coyote Wells, Ocotillo, and Plaster CityWIND ADVISORY REMAINS IN EFFECT UNTIL 7 PM PDT THIS EVENING * AFFECTED AREAFar southwest Imperial County including parts of I-8 and the Chuckwalla Mountains Imperial County, CA. * TIMINGUntil 7 PM PDT * WINDSWesterly Winds 30-35 mph with gusts to 40-50 mph. * IMPACTSVery hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.	120

<b>April 19, 2018 Exceptional Event, Imperial County</b>	April	19,	2018	<b>Exceptional</b>	Event,	Imperial	County
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TYPE	DATE	TIF	ME	AGENCY	DESCRIPTION	PAGE
Area Forecast Discussion	4/19/2018	0539	MST	Phoenix	.UPDATEUpdated Aviation and Fire Weather discussions.  Southeast California/Southwest Arizona including KIPL and KBLH:  Very windy conditions and areas of blowing dust are expected to develop this morning across the region and persist into the nighttime hours. KIPL will have southwesterly to westerly winds at 16-20kt with gusts of 26-32kt along with reduced visibilities and CIGS in blowing dust. Visibilities as low as 3sm and CIGS near 6Hft are possible. KBLH can expect west to southwest winds at 17-20kt gusting to 24-32kt today and continuing into tonight. Skies will also be partly cloudy with high cloud decks near 25kft this morning to be replaced by FEW low clouds near 7kft this afternoon and evening.	122
Urgent Weather Message	4/19/2018	0543	PDT	San Diego	STRONG AND GUSTY WINDS OVER PORTIONS OF THE MOUNTAINS AND DESERTS THROUGH TONIGHTRiverside County Mountains-San Diego County Mountains-Coachella Valley-San Diego County Deserts-San Gorgonio Pass Near Banning-Including the cities of Idyllwild-Pine Cove, Julian, Pine Valley, Indio, Palm Springs, Cathedral City, Palm Desert, Palm Desert Country, La Quinta, Coachella, Borrego Springs, Banning, and Desert Hot SpringsHIGH WIND WARNING REMAINS IN EFFECT UNTIL 2 AM PDT FRIDAY * WindsSouthwest to west winds 25 to 35 mph with gusts to 55 mph. Isolated gusts to 65 mph. Strongest along the mountain crests and desert slopes. * TimingThrough tonight, strongest this morning.  * VisibilityLocally reduced to 5 miles or less in blowing dust and sand.  * ImpactsDifficult driving, especially for motorists with high profile vehicles. Reduced visibilities. Downed trees and power lines.  * OutlookWinds will diminish tonight.	125
Urgent Weather Message	4/19/2018	0821	MST	Phoenix	Imperial Valley-Including the cities of El Centro, Calexico, Alamorio, and BrawleyWIND ADVISORY IN EFFECT UNTIL 7 PM PDT THIS EVENINGThe National Weather Service in Phoenix has issued a Wind Advisory, which is in effect until 7 PM PDT this evening.  * AFFECTED AREAImperial Vallely including El Centro and Imperial.  * TIMINGUntil 7 PM PDT  * WINDSWesterly Winds 30-35 mph with gusts to 45 mph.  * IMPACTSVery hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne. (Notice includes Wind Advisory for Imperial County Southwest and Imperial County West - See Urgent Weather Message for 409am)	127

Appendix A TYPE DATE TIME **AGENCY** DESCRIPTION PAGE Dry southwest flow aloft continued across Arizona this morning, ahead of an approaching Pacific upper level low pressure system. Surface cold front was moving thru central portions of Imperial and E. Riverside county, and the front will be quickly moving east and into the western deserts later this morning. Tightening gradients associated with the low have resulted in strong gusty west/southwest winds over portions of Imperial county; areas of blowing dust have spread through the Imperial valley and the lofted dust will move into the Area Forecast Discussion 4/19/2018 0935 MST Phoenix 130 AZ deserts during the day today. Gusts over 40kt have been seen in Imperial, with visibility lowered to near 1 mile....Due to strong winds occurring out west, a Wind Advisory was issued for the Imperial Valley and it will remain in effect thru 7 pm this evening. Current forecasts look to be in good shape - will continue to monitor winds/dust in case additional wind advisories or blowing dust advisories are needed as the day progresses. At 930 AM, a trough of low pressure was centered over the NV/CA boarder with a weak cold front along the SoCal coast.... Surface winds were gusty in the mountains and deserts with some blowing dust **over Imperial County.** Though some of the more wind prone spots have seen gusts to 60 mph this morning, most areas have been limited to 20-40 mph gusts so far. The trough and associated cold front will traverse the region today, this will keep winds gusty in the mountains/deserts through this evening. The strongest winds (gusts 55-4/19/2018 | 0937 | PDT | San Diego 133 Area Forecast Discussion 65 mph) should be limited to the deserts slopes, with most guidance suggesting limited mountain wave potential. Areas along the desert floor should see peak gusts in the 30-50 mph range, this includes the Coachella Valley. Areas of blowing dust/sand, along with difficult travel for high profile vehicles are expected. Though tree/power line damage can't be ruled out, widespread impacts are not expected. ... with the winds in the deserts diminishing overnight as the trough shifts rapidly eastward. STRONG WINDS OVER PORTIONS OF THE MOUNTAINS AND **DESERTS THROUGH TONIGHT...**Riverside County Mountains-San Diego County Mountains-Coachella Valley-San Diego County Deserts-San Gorgonio Pass Near Banning-Including the cities of Idyllwild-Pine Cove, Julian, Pine Valley, Indio, Palm Springs, Cathedral City, Palm Desert, Palm Desert Country, La Quinta, Coachella, Borrego Springs, Banning, and Desert Hot Springs...HIGH WIND WARNING **REMAINS IN EFFECT UNTIL 2 AM PDT FRIDAY...** 4/19/2018 | 1236 | PDT | San Diego Urgent Weather Message 136 \* Winds...Southwest to west winds 20 to 30 mph with gusts 35 to 50 mph. Isolated gusts to 60 mph along the desert slopes. \* Timing...Through tonight. \* Visibility...Locally reduced to 1 mile or less in blowing dust and sand. \* Impacts...Difficult driving, especially for motorists with high profile vehicles. Reduced visibilities. Downed trees and power lines. \* Outlook...Winds will diminish tonight. .At 2 pm this afternoon, a strong Pacific upper low was moving east and through the desert southwest, centered over far southern Nevada. The surface cold front was pushing east and into the far southwestern AZ deserts....Biggest impact with this system has been wind - we saw west winds gust over 40kt in the Imperial valley earlier in the morning, and when best mixing kicks in this Area Forecast Discussion 4/19/2018 1350 MST Phoenix 138 afternoon, winds should pick up over most of the area, reaching wind advisory levels over favored areas in far SE California as well as higher terrain of southern Gila County. Some of the lower deserts could see gusts approach 35 mph at times later today but for the most part winds should remain below advisory criteria.

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ITPE	DATE		VIE	AGENCI	At 130 PM, an upper level trough was centered over Nevada, with	PAGE
Area Forecast Discussion	4/19/2018	1401	PDT	San Diego	cool northwest flow from the surface to 500 mb over SoCal. Rain showers had ended over the region, with 0.01-0.05 inches of accumulation from the mountain crests westward. Winds remained gusty in the deserts, though significant blowing dust was not evident on satellite. Gusty winds will continue through tonight as mountain	141
Urgent Weather Message	4/19/2018	1402	MST	Phoenix	Imperial County Southwest-Chuckwalla Mountains-Imperial County West-Imperial Valley-Including the cities of Mountain Spring, Imperial Hot Mineral Springs, Coolidge Springs, Salton City, Winona, Coyote Wells, Ocotillo, Plaster City, El Centro, Calexico, Alamorio, and BrawleyWIND ADVISORY REMAINS IN EFFECT UNTIL 7 PM PDT THIS EVENING  * AFFECTED AREAFar southwest Imperial County including parts of I-8 and the Chuckwalla Mountains Imperial County, CA.  * TIMINGUntil 7 PM PDT  * WINDSWesterly Winds 30 to 35 mph with gusts to 40 to 50 mph.  * IMPACTSVery hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.	143
Public Information Statement	4/19/2018	1549	MST	Phoenix	Wind Reports Location Speed Time/DateCaliforniaImperial County Mountain Springs Grade 53 MPH 0850 AM 04/19 Imperial County Airport 51 MPH 0832 AM 04/19 Naval Air Facility 41 MPH 0242 PM 04/19 17 NNW Coyote Wells 40 MPH 0226 PM 04/19 4 S Martinez Lake 39 MPH 0227 PM 04/19 Sunrise 38 MPH 0200 PM 04/19 5 WSW Glamis 37 MPH 0110 PM 04/19 4 ENE Gordon's Well 37 MPH 1009 AM 04/19 11 NNE Gordon's Well 35 MPH 0105 PM 04/19 2 ESE Niland 29 MPH 1235 PM 04/19 2 ESE Glamis 28 MPH 0200 PM 04/19 14 ENE Glamis 27 MPH 0300 PM 04/19 13 SSE Imperial Hot Mineral S 26 MPH 0125 PM 04/19Riverside County Blythe Airport 38 MPH 0103 PM 04/19 10 WNW Imperial Hot Mineral 29 MPH 0914 AM 04/19 17 E Desert Center 28 MPH 1200 PM 04/19	146
Urgent Weather Message	4/19/2018	1842	MST	Phoenix	Pinal/Superstition Mountains-San Carlos-Dripping Springs-Globe/Miami-Southeast Gila County-Imperial County Southwest-Chuckwalla Mountains-Imperial County West-Imperial Valley-Including the cities of San Carlos, Peridot, Hayden, Winkelman, Globe, Miami, Mountain Spring, Imperial Hot Mineral Springs, Coolidge Springs, Salton City, Winona, Coyote Wells, Ocotillo, Plaster City, El Centro, Calexico, Alamorio, and BrawleyWIND ADVISORY WILL EXPIRE AT 7 PM MST /7 PM PDT/ THIS EVENINGThe strong winds will continue to weaken.	150

<b>April 19, 2018 Exceptional Event, Imperial Count</b>	April 1	l <b>9, 201</b> 8	<b>Exceptional</b>	Event,	<b>Imperial</b>	County
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ТҮРЕ	DATE		ME	AGENCY	DESCRIPTION	PAGE
Area Forecast Discussion	4/19/2018	2112	PDT	San Diego	At 9 PM, water vapor satellite imagery displayed an upper-level low centered over the NV/UT/AZ border with northwest flow over southern CA. Surface observations showed wind gusts of 35-45 mph over portions of the mountains and lower deserts. A few higher gusts are possible over the next few hours, then winds will quickly diminish across the area. No extensions of the wind products are expected at this time. Peak wind gusts so far have been 64 mph at Volcan Mountain, 63 mph at Harrison Park and Whitewater and a 56 mph was reported at Palm Springs International Airport. A few hundredths of an inch of precipitation were observed earlier today as the trough moved across the area, with a tenth or two reported along the coastal mountain slopes. Only minor updates to the sky forecast this evening to account for low clouds along portions of the coast tonight and tomorrow night.	151
Public Information Statement	4/19/2018	2115	PDT	San Diego	Top Wind Gusts Thursday  Location Speed Time/Date Elevation (ft.)  Volcan Mountain 64 MPH 0650 AM 04/19 5154  Harrison Park 63 MPH 0750 AM 04/19 4861  White Water Raws 63 MPH 0150 PM 04/19 2546  Boulevard (1 W) 62 MPH 0800 AM 04/19 3404  Palm Springs Airport 56 MPH 0715 PM 04/19 474  Burns Canyon 52 MPH 0551 PM 04/19 6284  Boucher Hill 50 MPH 1137 AM 04/19 5440  Whitewater 50 MPH 1245 PM 04/19 1510  Borrego Springs (7 SE) 49 MPH 0727 AM 04/19 587	153
Area Forecast Discussion	4/19/2018	2156	MST	Phoenix	.UPDATEUpdated aviation discussion. Southeast California/Southwest Arizona including KIPL and KBLH: Winds will continue to weaken overnight as a weather system moves off to our east. Westerly flow will prevail through our TAF period with winds favoring the northwest on Friday. Speeds will be much weaker tomorrow with gusts up to 15 kts in the afternoon. Besides this, clear skies will prevail with no other aviation concerns.	157
Area Forecast Discussion	4/20/2018	0301	PDT	San Diego	The low pressure system that moved through Southern California Thursday is now centered across Arizona and Utah and continuing to move to the east. Onshore lower level flow and northwest flow aloft are continuing to weaken across Southern California early this morning. Strongest gusts at Whitewater in the northern Coachella Valley below the San Gorgonio Pass are still around 50 mphbut gusts elsewhere across the mountains and deserts of San Diego and Riverside Counties are mostly less than 40 mph and continuing to subside.	160

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Area Forecast Discussion National Weather Service Phoenix AZ 333 AM MST Sun Apr 15 2018

### .SYNOPSIS...

Expect additional warming today with highs on the lower deserts reaching the low 90s. Two vigorous weather systems will move through the western states this week leading to large fluctuations in winds and temperatures from one day to the next. Gusty winds, areas of blowing dust, and heightened fire weather concerns will exist Monday. Expect much cooler temperatures Tuesday. Precipitation chances will be minimal and limited to higher terrain areas of northern and eastern Arizona Thursday night and Friday.

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#### .DISCUSSION...

Today...

Water vapor imagery over western North America and adjacent northeast Pacific shows a ridge axis over the interior West with a large low pressure system moving into western Canada and the Pacific Northwest. This system is pulling some subtropical moisture northward but it is mostly in the upper half of the troposphere. As the low pressure system digs southeastward today, it will displace the ridge eastward. However, plenty of warm air left in the lower levels for some additional warming today. Sunny skies will give way to increasing high clouds later this afternoon.

### Monday and Tuesday...

Winds pick up on Monday with the approach of the upper trough and associated cold front. The front will pass through southeast California Monday afternoon and across Arizona Monday night. Strong winds can be expected over southeast California and southwest Arizona during that time with breezy to windy conditions over south-central Arizona. One limiting factor to the wind speeds for the south-central Arizona deserts will be reduced mixing due to thick mid-high clouds in the afternoon. However, if the clouds depart by mid afternoon, breeziness will be stronger. Of note, both the GFS and NAM soundings indicate that mixing won't really be reduced - perhaps offset by southerly winds/warm advection. This is also why we are still anticipating highs to still get into the mid-upper 80s on Monday in metro Phoenix. With the enhanced winds and dry air, held on to the Fire Weather Watch. Considered adding our southeast CA zones to the Watch, but not looking like the 6 hour duration requirement will be met. Winds also mean

April 19, 2018 Exceptional Event Imperial County blowing dust concerns. Anticipate Winds Will not be quite as strong as on Thursday (especially over metro Phoenix) and thus dust problems not quite as bad but still enough to be of concern. With the cool advection, expect Tuesday's highs to be much cooler (mid to upper 70s over the lower deserts) even though skies will be clear.

Wednesday through Saturday...

A passing ridge enables a rebound of temperatures on Wednesday with highs climbing well into the 80s on the lower deserts. The next system to affect our forecast area brings breezy conditions to southeast California beginning later Wednesday afternoon. Breezy to windy conditions overspread the forecast area by Thursday afternoon. At this time, not anticipating widespread blowing dust. While the upper low digs further south than the preceding one, this system is not as cold. Thus, the cool advection in the lower levels will be much weaker. In fact, models depict it fizzling out over our western areas with lower level warming developing upstream Thursday night. This is due to the upstream ridge being stronger and in turn subsidence warming. The upshot is that there will be little change in highs over most of our Arizona zones Wednesday through Friday. Cooling will be mainly near and west of the Lower Colorado River Valley Thursday with some warming there Friday. Anticipate additional warming across the forecast area on Saturday as short wave ridging traverses the region.

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.AVIATION...

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

With no aviation concerns, winds will be light to light and variable trough midday tomorrow and favor normal diurnal directions. Expect light to moderate westerly winds to develop early to mid afternoon tomorrow near 6-10kt. Skies will remain clear for tonight through tomorrow morning and then become partly to mostly cloudy tomorrow afternoon and evening with SCT-BKN high clouds moving in near 20-25kft.

Southeast California/Southwest Arizona including KIPL and KBLH:

Expect light to light and variable winds tonight through tomorrow morning. Then breezy to occasionally very breezy southwesterly to westerly winds will gradually develop from midday through late afternoon at 10-14 gusting to 18-23kt. Skies will remain clear through tomorrow morning and then become partly to mostly cloudy tomorrow afternoon and evening with SCT-BKN high clouds near 20-25kft.

Aviation Discussion not updated for amended TAFs.

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# April 19, 2018 Exceptional Event, Imperial County

Tuesday through Saturday:

Cooler temperatures will sweep into the districts Tuesday behind a weather disturbance, however rebound back to above normal Wednesday awaiting the next weather system later in the week. Despite the cooler weather, very dry air will ensure afternoon humidity values will continue to fall below 10%. Overnight recovery will only be poor to fair. Winds will be very typical for mid-spring Tuesday and Wednesday, though will increase substantially Thursday with critical conditions possible again Thursday afternoon. More tranquil weather should return to the districts Friday and Saturday.

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.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust next week.

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.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Fire Weather Watch from Monday morning through Monday evening for AZZ131>133.

CA...Fire Weather Watch from Monday morning through Monday evening for CAZ231.

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DISCUSSION...AJ
AVIATION...Sawtelle
FIRE WEATHER...MO



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7 375 FXUS66 KSGX 151044 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 344 AM PDT Sun Apr 15 2018

### .SYNOPSIS...

Onshore flow will return today with a cooling trend for coastal and valley areas. A low pressure system moving inland along the West Coast will bring much stronger onshore flow for tonight into Monday night with cooling...strong gusty southwest to west winds in the mountains and deserts...a return and deepening of the marine layer with coastal low clouds extending on to the coastal mountain slopes for Monday into Monday night...with a slight chance of light showers near the mountains for late Monday into Monday night. Weaker winds with warming for Tuesday into Wednesday. Another low pressure system moving inland through California on Thursday will bring cooling with strong gusty winds for the mountains and deserts for Wednesday night into Thursday night. Dry with warming and weaker winds for Friday and Saturday.

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

High clouds will begin to spread across the area today in advance of a low pressure system off the West Coast. Onshore flow will return today with cooling spreading into coastal and valley areas.

That low pressure system will move inland along the West Coast tonight and Monday. It will bring much stronger onshore flow across Southern California for tonight into Monday night. Southwest to west winds will develop in the mountains and deserts for late this afternoon and evening...strengthening tonight...and becoming more widespread Monday. The strongest and most widespread winds are expected for Monday afternoon and evening. The winds are expected to diminish from north to south late Monday night.

Low clouds are expected to return near the coast during the late afternoon. The marine layer will deepen rapidly for late tonight into Monday. The low clouds will spread into the valleys during the late evening and late tonight and onto the coastal mountain slopes for early Monday. There is also a slight chance of light showers...mainly near the mountains...for late Monday into Monday night.

Greater cooling is expected for Monday and Monday night with warming returning to coastal and valley areas on Tuesday...and

# April 19, 2018 Exceptional Event, Imperial County for the mountains and deserts Wednesday.

Another low pressure system moving inland through California on Thursday will bring cooling and another round of strong gusty west winds for the mountains and deserts for Wednesday night into Thursday night. There is also a slight chance of light showers near the mountains for Thursday.

Dry with a warming trend and weaker winds for Friday and Saturday... though with some continuing differences with the global models with a weak trough of low pressure that may be near the West Coast around next Sunday.

&&

### .AVIATION...

151015Z...Mostly clear skies with unrestricted vis will prevail most of today, except SCT-locally BKN clouds with bases 1000-1500 ft MSL could develop after 21Z along the immediate coast. BKN-OVC clouds will likely spread 25-35 miles inland from the coast tonight with bases 1200-2000 ft MSL and tops to 2500 ft MSL with areas of higher terrain obscured.

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### .MARINE...

West-northwest winds will increase over the coastal waters Monday. Winds of 20-25 KT with gusts around 30 knots are possible Monday afternoon through Monday night, decreasing gradually Tuesday. This and 8-10 foot combined seas will result in hazardous conditions to small craft. Similar winds and seas are possible Thursday into Friday.

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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...High Wind Watch from late tonight through late Monday night 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.

PZ...NONE.

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FXUS66 KSGX 160402 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 902 PM PDT Sun Apr 15 2018

### .SYNOPSIS...

Onshore flow increases for much cooler weather. A stronger onshore flow will develop late tonight and Monday, continuing into Monday night. This will bring strong winds to the mountains, passes and deserts. A deepening marine layer will extend coastal low clouds inland to the coastal mountain slopes for Monday into Monday night. Patchy drizzle on the coast and scattered light showers. A dry weak offshore flow develops on Tuesday for warming into Wednesday. Another cold front will bring cooling and strong gusty winds for the mountains and deserts Wednesday night into Thursday night. Dry with significant warming and weak offshore winds for Friday and Saturday.

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

We saw the cooling today on the coast and inland valleys as maximum temps were held to mid 70s to lower 80s with stronger onshore flow. Period of dense high clouds in short wave trough in southwest flow also occurred. The lower deserts still topped around 90F. We have seen moderate flow into the San Gorgonio Pass and now still into northern Coachella Valley. Lots of great views of lenticular clouds out the window and on webcams. Winds aloft increase notably after midnight. We should see the passes also increase again. Low clouds are slowly forming and should continue though high clouds are covering most on satellite. Once the marine layer forms it will be rapid and deepen so patches of drizzle should develop Monday morning along the coast.

The incoming short wave trough is rather strong with 545 DM at 500 mb cutting into the southern Sierra Nevada. Wind speeds at 700 mb are progged to peak at 60-65 knots from 21-03 UTC, Monday afternoon and evening. The return interval and anomaly indicates similar strength to the April 12 wind event. This is a mountain, high desert and lower desert type of wind event again, but strong even for these areas with potential for breaking waves due to a stable moist layer up to about 800 mb. Even some light showers for the mountains as the trough axis arrives Monday evening. Given the wind potential and the impact in the Coachella Valley and San Diego desert region as it occurs in Aprils in the past we have issued an upgrade to a High Wind Warning. The message was

April 19, 2018 Exceptional Event, Imperial County, separated too so that 75 mph wind does not get included in the lower deserts which will see northwest winds and gusts to around 55-60 mph. There is potential for 80 mph wind at most wind prone areas on the desert slopes during the trough axis and wind shift occurs Monday evening between 21 and 09 UTC and then winds decrease but last in the Coachella Valley due to postfrontal northwest enhancement.

Still on track for another fast moving system on Thursday with similar wind threat for mountains and deserts. Then an offshore flow push and upper level ridging leading to significant warming next weekend.

### &&

### .AVIATION...

160350Z...Coast/Valleys/Coastal Slopes...Areas of BKN marine stratus are expected to develop and spread rapidly inland overnight. Bases initially near 1500 FT MSL should lift to between 2500-3000 FT MSL by 17Z Monday morning. Tops will rise from around 2500 FT to 5000 FT by Monday evening, partially obscuring the coastal slopes of the mts...elsewhere, mostly P6SM with unrestricted VIS. Above the marine layer...Clouds based near FL200 through 15Z Mon, becoming clear Mon afternoon. Low-Moderate confidence on bases/timing at TAF sites.

Mts/Deserts...Westerly winds will be increasing over the mtn ridges and upper desert slopes 30-40KT through 12Z...increasing further after 18Z through 00Z Tue from the west at 40-60KT. The stronger winds will sfc over the deserts 00Z-06Z at 25-40KT with locally higher gusts...mainly 00Z through 06Z Tue. These winds will create strong UDDFS and LLWS above and near the desert foothills and local VIS blo 3SM in dust on the desert floor. CIGS AOA FL200 with standing lenticulars over the mts through about 15Z...becoming mostly clear after 18Z, xcp over the deserts where SCT wave clouds near FL080-120 are possible.

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### .MARINE...

West-northwest winds will increase over the coastal waters Monday. Winds of 20-25 KT with gusts around 30 knots are possible Monday afternoon through Monday night, decreasing gradually Tuesday. The wind and 8-10 foot combined seas will result in hazardous conditions to small craft. northwest winds 20-25KT are possible again on Thursday with elevated seas.

### &&

### .SKYWARN...

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

### &&

# **April 19, 2018 Exceptional Event, Imperial County**

.SGX WATCHES/WARNINGS/ADVISORIES...

CA...High Wind Warning from midnight tonight to 5 AM PDT Tuesday 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.

PZ...NONE.

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PUBLIC...Tardy
AVIATION/MARINE...JAD

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618 FXUS66 KSGX 161002 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 302 AM PDT Mon Apr 16 2018

### .SYNOPSIS...

A low pressure system moving inland along the West Coast will bring much stronger onshore flow through tonight. This will bring cooling...spread coastal clouds onto the coastal mountain slopes with a slight chance of light showers near the mountains for late this afternoon into tonight...and bring strong gusty west winds in the mountains and deserts through late tonight. Dry with weaker winds and a warming trend for Tuesday and Wednesday. Another low pressure system moving inland through California will bring cooling with periods of strong gusty west winds for the mountains and deserts for Wednesday night into Thursday night. There is also a slight chance of light showers along and west of the mountains Thursday. Dry with a warming trend for Friday into next weekend with weaker winds.

&&

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

.SHORT TERM (Today through Wednesday)...
Surface reports show stronger winds early this morning mostly confined to areas near the mountain ridge tops onto the upper desert slopes. The winds will gradually strengthen and spread into the deserts through this morning. The strongest and most widespread winds are expected for this afternoon and evening...

The low pressure system moving inland along the West Coast bringing the much stronger onshore flow will spread cooling inland today. Areas of coastal low clouds will return and expand onto the coastal mountain slopes as the marine layer deepens. There is also a slight chance of light showers...mainly near the mountains...for late this afternoon into tonight.

Dry weather with weaker winds will follow for Tuesday into Wednesday. Warming for coastal and valley areas on Tuesday will expand into the mountains and deserts on Wednesday.

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.LONG TERM (Wednesday night through Sunday)...

Another low pressure system moving inland through California will

decreasing late tonight into early Tuesday.

April 19. 2018 Exceptional Event Imperial County bring another round of strong onshore flow with cooling and with periods of strong gusty west winds for the mountains and deserts for Wednesday night into Thursday night. There is also a slight chance of light showers along and west of the mountains Thursday. Dry weather with a warming trend will following for Friday into next weekend. Periods of gusty north to northeast winds near the coastal foothills are possible for Friday into Saturday morning.

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.AVIATION... 160900Z...Coast/Valleys/Coastal Slopes...Low clouds will gradually increase through sunrise overall, but will be somewhat intermittent and random in coverage. Bases will be around 1500 feet MSL rising to about 2500 feet. Vis Generally scattered conditions after 17Z. 3-5sm along far inland extent of clouds. Low clouds will increase again late afternoon and evening, pushing into mountains to the crests where some obscuration will occur above about 3000 feet along with isolated light showers. Skies will clear from north to south early Tuesday.

Desert slopes/Deserts...Westerly winds over the ridges and upper desert slopes 30-50KT with isolated higher gusts today into tonight. Winds will create strong UDDFS and LLWS above and near the desert foothills and local VIS blo 3SM in dust on the desert floor. CIGS AOA FL200 with standing lenticulars over the mts through about 15Z...becoming mostly clear after 18Z, xcp over the deserts where SCT wave clouds near FL080-120 are possible.

&&

### .MARINE...

West-northwest winds will increase this morning and northwest swell will increase today and tonight, creating hazardous boating conditions. Check the small craft advisory for details. Winds will decrease rapidly early Tuesday while swell more gradually subsides later Tuesday. After no forecast hazardous conditions Tuesday into Wednesday, strong winds and higher seas will return late Wednesday through Thursday.

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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...High Wind Warning until 5 AM PDT Tuesday 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.

9/9/2019

IEM :: AFD from NWS SGX

# **April 19, 2018 Exceptional Event, Imperial County**

**Appendix A** 

PZ...Small Craft Advisory from 10 AM this morning to 8 AM PDT Tuesday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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PUBLIC...17 AVIATION/MARINE...MM

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197 FXUS65 KPSR 161018 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 318 AM MST Mon Apr 16 2018

.SYNOPSIS...A weather system moving across the western U.S. will bring increasing breeziness, areas of blowing dust, and elevated to critical fire weather conditions to the region. A significant but short- lived cooling trend will occur into Tuesday, before temperatures warm back to near seasonal normals mid-week. A second dry storm system will affect the Southwest Thursday and Friday, bringing another round of breeziness to the region along with a slight cooldown.

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### .DISCUSSION...

A band of mid-/upper-level cloudiness continues to spread northeastward from the Pacific, ahead of a storm system off the coast of northern California. Little change in temperatures compared to yesterday is expected, as more substantial height falls and low-level cooling remains displaced to the west today. Should see highs top out between 85-90 degrees across most of the lower desert locations.

The more significant impact will be the increasing wind speeds across the area. Forecast models indicate a significant strengthening in flow within the H5-7 layer will occur this afternoon as the upper-level disturbance accelerates east of the area. Diurnal mixing beneath the increasing flow aloft, along with a tightening gradient in response to rapid pressure falls across the eastern Great Basin and northern Rockies, will result in increasing wind speeds this afternoon. The most notable signal for strong winds remains across southeast California into the lower Colorado River Valley, where gusts in excess of 40 mph will be possible this afternoon. Breezy conditions are still expected across southwest/south-central Arizona, where gusts of 25-30 mph are forecast to occur. This will be enough to generate at least patchy blowing dust across the lower deserts this afternoon. Additionally, elevated to critical fire weather conditions remain a concern area-wide, with a Red Flag Warning in effect for southern Gila County today.

A significant cooldown into Tuesday can be expected as a cold front moves eastward overnight. Highs 5-8 degrees below normal can be expected, with highs in the upper 70s forecast across the lower deserts. Transient shortwave ridging will build across the region by mid-week, before a deeper and slower-moving storm system evolves along the Pacific coast. Moisture will still be lacking

west of the Continental Divide, with the primary effect being another increase in winds on Thursday/Friday and a minor cooldown. With limited moisture, precipitation chances will remain low across most of the forecast area, but a very slight chance of showers may clip southern Gila County Friday afternoon and evening. A general weakening of westerlies aloft is forecast to occur in the wake of the departing storm system into next weekend, resulting in another warming trend and perhaps a more prolonged period of weaker wind speeds across the Southwest.

&&

.AVIATION...

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

There are no major aviation weather concerns from this afternoon through Monday morning. During this time, the winds will remain fairly light and follow typical diurnal patterns. Some high clouds will begin to filter through the area but should remain AOA 20k feet. However, breezy conditions will take hold Monday afternoon.

Southeast California/Southwest Arizona including KIPL and KBLH:

The wind speeds will generally increase through this afternoon ahead of another weather system with gusts up to 20 kts possible. However, the winds look to blow even stronger by late Monday morning with gusts exceeding 20 kts. In addition, the stronger winds may cause some isolated areas of blowing dust and possibly reducing visibility. Otherwise, some thicker clouds AOA 15k feet will begin to pass over the area Sunday and clearing by late Monday.

Aviation Discussion not updated for amended TAFs.

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.FIRE WEATHER...

ELEVATED FIRE DANGER MONDAY due to strong winds, low relative humidity and dry fuels. Southern Gila County is currently under a Red Flag Warning.

Wednesday through Sunday:

The region will continue to suffer through favorable fire conditions with plenty of dryness and breezy winds. Daily minimum relative humidity values will remain at or below 10 percent for all areas stretching from the southern portions of the Tonto National Forest and westward through the Arizona and California desert. Overnight recoveries are also negligible. Each afternoon will be marked by some breeziness with gusts in the 10-15 miles per hour, especially on any mountain peaks. In addition, another weather system will pass by to our north late this week which should bring some stronger winds to the area with no chance of rain.

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.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust next week.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Red Flag Warning from 11 AM this morning to 8 PM MST this evening for AZZ133.

Wind Advisory from 2 PM this afternoon to 11 PM MST this evening for AZZ530.

CA...Wind Advisory from 2 PM this afternoon to 11 PM PDT this evening for CAZ560>570.

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DISCUSSION...Rogers
AVIATION...Deemer
FIRE WEATHER...Deemer/Kuhlman

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700 FXUS66 KSGX 170448 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 945 PM PDT Mon Apr 16 2018

### .SYNOPSIS...

Our roller coaster Spring weather will continue for a while longer. Tuesday and Wednesday will be warmer with lighter winds, but it will turn windy and colder on Thursday as another strong trough moves across California. There is also be a slight chance of light showers along and west of the mountains Thursday. The weekend will be dry and warm with lighter winds.

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

The winds blew hard in the mountains and the deserts this afternoon and evening with a peak gust of 70 mph at Volcan Mountain. Mountain waves crashed down the eastern mountains slopes and into the deserts floor of the Coachella Valley where northwest winds gusted to 58 mph at Coachella and 56 mph at Thermal. Blowing dust and sand reduced vis to less than a mile at Thermal this evening. Also, a long duration rotor set up over the Palm Springs Airport with east winds of 15-30 mph between 5 PM and 9 PM. The winds will remain strong through late evening, then gradually subside after midnight.

The trough axis passes tonight followed by zonal flow Tuesday and Wednesday for warmer days and lighter winds. But the roller coaster takes another big dip Thursday as yet another very strong 500 mb trough moves into California. This one will be similar to the previous two troughs and bring cool, windy weather and perhaps a few light showers along and west of the mountains. Very strong winds will once again impact the mountains and deserts with gusts of 50 to 70 mph.

The trough passes Friday and higher pressure aloft on Saturday and Sunday will bring dry, warm weather this weekend.

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### .AVIATION...

170430Z...Coast/Valleys...Mostly SCT clouds will prevail with bases 2500-3500 ft MSL through Tue evening. Vis will be greater than 6 miles.

Mountains/Deserts...Strong west to northwest winds will continue but

April 19, 2018 Exceptional Event Imperial County very slowly decrease overhight. Areas of winds 20-35 kt with gusts 35-50 kt will become 15-25 kt with gusts 30-40 kt after 06Z Tue, then gusts will be mostly below 25 kt by 14Z Tue. Areas of vis below 3 miles will continue in blowing dust through 06Z Tue, becoming just local 06Z-14Z Tue. Mostly clear skies with unrestricted vis will prevail Tuesday and Tuesday evening.

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### .MARINE...

Most wind gusts so far this afternoon and evening have been 20 to 25 knots, but some gusts between 25 and 30 knots should still occur overnight before decreasing early Tuesday morning. Combined seas of 6 to locally 10 feet will occur. Winds will increase again late Wednesday through Thursday, with gusts likely around 25 knots, with combined seas again 6 to locally 10 feet. &&

### .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...High Wind Warning until 5 AM PDT Tuesday 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.
- PZ...Small Craft Advisory until 8 AM PDT Tuesday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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PUBLIC...Moede
AVIATION/MARINE...Maxwell



College of Ag

Department of Agronomy

7 343 FXUS65 KPSR 170951 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 251 AM MST Tue Apr 17 2018

.SYNOPSIS...Below normal temperatures are expected area-wide today in the wake of an exiting storm system, before temperatures rebound back to near seasonal normals midweek. A strong storm system will affect the Southwest Thursday and Friday, bringing a return of breezy conditions and an elevated to critical fire weather threat. A significant warming trend is expected into this weekend as temperatures warm back into the upper 90s over the lower deserts.

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### .DISCUSSION...

Morning satellite imagery shows the primary shortwave trough over the Great Basin, and beginning to accelerate eastward. The western edge of mid-level cloudiness is finally exiting south-central Arizona, with drier air aloft becoming evident across the region. The low-level cold front is making its way across the lower deserts of south-central Arizona as of 09Z. Wind speeds remain breezy across southeast California and continue to produce pockets of blowing dust, but have otherwise weakened elsewhere. The forecast for temperatures 5-10 degrees below normal appears on track for today as cold advection continues to occur.

Low-amplitude shortwave ridging will temporarily build and bring temperatures closer to seasonal normals on Wednesday, but will be transient ahead of a deepening area of low pressure near the northern California coast. This feature continues to become more prominently featured across the Southwest in the most recent model guidance, and confidence is high in another round of strong winds, blowing dust, and potentially critical fire weather conditions occurring on Thursday. For that reason -- have issued a Fire Weather Watch for much of south-central and southwest Arizona for Thursday morning through Thursday evening. A Wind Advisory and/or Blowing Dust Advisory may eventually be needed as well. Southwesterly flow in the lowest 4 km AGL or so will strengthen significantly on Thursday, and will be better phased with the diurnal cycle than the most recent storm system. This means the potential for strong winds will be relatively high, especially across southwest Arizona. Could see gusts exceeding 40 mph with areas of blowing dust developing on Thursday afternoon.

Since the upcoming storm system will feature a closed-low, it will be slower to progress eastward across the region. Moisture will remain limited, but cannot rule out a few showers developing north April 19, 2018 Exceptional Event, Imperial County and east of the Phoenix area on Friday and early Saturday. Another temporary cool down to around 5-8 degrees below normal is also forecast on Friday. Into the weekend, a substantial weakening of westerlies across the western U.S. will occur, allowing broad ridging to gradually build across the Southwest. The inevitable return to the 90s looks probable, perhaps pushing the upper 90s by early next week.

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### .AVIATION...

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

A weather system passing to the north is expected to keep winds going from a westerly direction through the rest of tonight and through Tuesday. Drier air moving in from the west is expected to clear out the mid/high clouds that are now being seen over the region this evening.

Southeast California/Southwest Arizona including KIPL and KBLH: Strong and gusty westerly winds and areas of blowing dust will continue to be a serious aviation weather concern through the rest of this evening with sustained WSW speeds over 20 kts and gusts as strong as 45 kts. Winds are then expected to greatly diminish later tonight and early Tuesday as the sfc cold front now affecting the region moves off to the east, but with suspended dust likely degrading slantwise visibility into Tuesday morning.

Aviation Discussion not updated for amended TAFs.

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### .FIRE WEATHER...

Thursday through Monday:

A Fire Weather Watch has been issued for late Thursday morning through Thursday evening for much of southwest and south-central Arizona for strong winds, low RH, and very dry fuels.

A seasonably strong storm system will affect the Southwest, and bring another period of strong winds and low RH on Thursday. Winds look to be stronger with this system compared to the most recent system, and perhaps over a more prolonged period given its slow-moving nature. With fuel conditions very dry, a critical fire weather threat looks likely on Thursday. Wind speeds are not currently forecast to be as strong across southeast California and the lower Colorado River Valley, and these areas are not included in the Fire Weather Watch.

Cooler conditions will return on Friday, before a significant warmup occurs this weekend into early next week. While conditions will remain dry, wind speeds should generally weaken during this period and return to more typical diurnal wind patterns.

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.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

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.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Fire Weather Watch from Thursday morning through Thursday evening for AZZ132-133.

CA...None.

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DISCUSSION...Rogers AVIATION...Percha FIRE WEATHER...Rogers

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770 FXUS66 KSGX 171039 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 339 AM PDT Tue Apr 17 2018

.SYNOPSIS...

Warmer with lighter winds Tuesday and Wednesday, then cooler and windy with a chance of showers on Thursday as another strong trough moves across California. The weekend will be dry and warm with lighter winds.

&&

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

Winds have dropped off significantly this morning as onshore surface pressure gradients weaken. As of 3 AM, the top two windiest spots were Harrison Park, gusting to 42 MPH, and Whitewater, with gusts to 40 MPH. The High Wind Warning is no longer in effect. Otherwise, a few low clouds remain banked up against the coastal slopes of the mountains and skies were clear elsewhere.

Minor warming today and Wednesday as the upper level trough moves east and zonal flow sets up over the southwest. Despite the warming trend, high temperatures will remain slightly below normal. Another sharp trough will dig south and move through California on Thursday, bringing more gusty west winds in the mountains and deserts. Both global and high res models are showing some precipitation along and west of the mountains on Thursday. Preliminary rainfall estimates are around one-tenth inch west of the mountains and up to two-tenths inch along the west facing coastal mountain slopes. This system will be rather cold, with snow levels between 4500-5500 ft. Given the lack of moisture, snow totals will generally be an inch or less. The system quickly moves out Thursday night, ending any showers. Winds will slowly lower through Friday morning.

Warmer weather will follow for Friday into the weekend as a weak upper level ridge moves over So Cal. Weakly cyclonic flow returns early next week for slight cooling and a return of marine layer low clouds.

&&

.AVIATION...

April 19, 2018 Exceptional Event Imperial County 1709302.... Scattered to locally broken clouds between 2500-4000 feet msl will continue mainly along mountains through early morning, but mostly clear and VFR conditions will prevail today and tonight. Areas of strong west to northwest winds will continue with gusts over 35 mph along the mountain/desert transition zone, but will gradually taper off during the morning.

&&

### .MARINE...

Winds will gust between 20 and 30 knots early this morning and diminish thereafter. Combined seas of 6 to locally 10 feet will continue, but gradually subside later today. Winds and seas will increase again late Wednesday and continue through Thursday night, and will likely prove hazardous. No additional marine weather hazards are forecast Friday through Saturday.

&&

#### .SKYWARN...

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

&&

### .SGX WATCHES/WARNINGS/ADVISORIES...

CA...NONE.

PZ...Small Craft Advisory until 8 AM PDT this morning for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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 ${\tt PUBLIC...SS}$ 

AVIATION/MARINE...MM



College of Ag

Department of Agronomy

# **April 19, 2018 Exceptional Event, Imperial County**

FXUS66 KSGX 171605

Area Forecast Discussion National Weather Service San Diego CA 905 AM PDT Tue Apr 17 2018

### .SYNOPSIS...

**AFDSGX** 

Warmer under mostly sunny skies, with lighter winds today and Wednesday. Cooler, cloudy and windy with a chance of light showers on Thursday as another strong low pressure trough moves across California. The weekend will be dry and warm with lighter winds and temperatures closer to seasonal averages.

&&

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

Mostly sunny this morning with generally light winds. Sfc pressure gradients are still onshore but are dramatically lower than at this time yesterday, with 1.8 mb SAN-TPH and 2.4 mb SAN-TRM. Only 2 locations have reported wind gusts of between 30 and 40 mph in the last hour. Temperatures are generally lower than at this time yesterday, mostly due to efficient radiation under mostly clear skies overnight. Some mountain locations were as much as 20 degrees lower at 6 am today than 6 am yesterday.

Warmer today and Wednesday as the upper level trough moves east and a weak high pressure ridge moves in from the west ahead of another vigorous low pressure trough. Although temperatures will increase, they are likely to remain slightly below normal.

The next trough will intensify and move through California on Thursday, bringing more gusty west winds in the mountains and deserts, increasing low clouds, lower temps and a chance for light showers over and west of the mtns. The strongest winds are expected Thursday morning into Thu afternoon, mostly in the mtns and on adjacent desert slopes where wind gusts of 55 to 65 mph will be possible. Most deterministic models are indicating some precipitation along and west of the mountains on Thursday. Preliminary rainfall estimates are for up to one-tenth inch west of the mountains and up to two-tenths inch along the west facing coastal mountain slopes. This system will be rather cold, with snow levels between 4500-5500 ft. Given the lack of moisture, snow totals will generally be an inch or less. The system quickly moves out Thursday night, ending any showers. Winds will slowly lower through Friday morning.

Warmer weather will follow for Friday through the weekend as a

PEM:: AFD from NWS SGX Weak upper level ridge sets up over the west coast. Weakly

cyclonic flow aloft returns early next week for slight cooling and a return of marine layer low clouds during the nights and mornings.

&&

.AVIATION...

171630Z...Mostly clear skies and unrestricted visibilities today and tonight. Local westerly wind gusts to 25 mph on the desert slopes that will gradually taper off. The risk of BKN low clouds is very low at KSAN, so the confidence in no BKN low clouds at KSAN is very high.

&&

.MARINE...

Winds will gust between 15 and 20 knots and continue to diminish. Combined seas of 6 to locally 9 feet will continue, but gradually subside. Winds and seas will increase again late Wednesday and continue through Thursday night, and will likely prove hazardous. No additional marine weather hazards are forecast Friday through Saturday.

&&

.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...PG

AVIATION/MARINE...Small



College of Ag

Department of Agronomy

# April 19, 2018 Exceptional Event, Imperial County

720 FXUS65 KPSR 172054 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ Issued by National Weather Service Tucson AZ 155 PM MST Tue Apr 17 2018

.SYNOPSIS...A strong storm system is slated to affect the Southwest Thursday and Friday, bringing a return of windy conditions and an elevated to critical fire weather threat. A significant warming trend is expected into this weekend as temperatures warm back into the upper 90s over the lower deserts.

&&

.DISCUSSION...Tonight through Wednesday will be relatively quiet with temperatures running very close to average for mid April, the proverbial quiet before the storm. A deep storm system will make its way onto the central California coast Wednesday night, move east to southern Nevada Thursday evening then continue to Colorado and New Mexico Friday night. This storm will produce a somewhat prolonged period of strong and gusty winds due to the slow forward motion of the storm. The primary concern with this system is fire weather related with a high likelihood of critical fire weather conditions across a significant part of the forecast area Thursday. This is currently covered well by the Fire Weather Watch that is in effect over the area of main concern.

The path of the storm limits the amount of moisture available for it to work with and as such it is expected to pass by dry for much of the area. The one possible exception is a slight chance of a few showers north and east of the Globe/Roosevelt area late Friday into Friday night and even if they occur they are not expected to produce meaningful amounts of precipitation.

Temperatures will be a bit cooler than average Friday afternoon with this system overhead, however they will rebound nicely Saturday onward as the storm departs and upper level ridging moves over the region. Highs will be near 90 Saturday across the lower deserts and reach into the mid to upper 90s Sunday into Tuesday under generally mostly clear skies.

&&

AVIATION...

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

Relatively light winds are expected tonight into Wednesday and will generally follow normal diurnal patterns. Skies will be clear to mostly clear.

Southeast California/Southwest Arizona including KIPL and KBLH:

Expect clear skies tonight into Wednesday outside any linger dust/haze that was lofted during the afternoon. Winds will diminish this evening becoming light tonight and Wednesday and will follow normal diurnal patterns once it settles down this evening.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...

Thursday through Monday: A Fire Weather Watch remains in effect for late Thursday morning through Thursday evening for much of southwest and south-central Arizona for strong winds, low RH, and very dry fuels.

A seasonably strong storm system will affect the Southwest, and bring yet another period of strong winds and low RH conditions on Thursday. Winds look to be stronger with this system compared to the most recent system, and perhaps over a more prolonged period given its slow-moving nature. With fuel conditions very dry, a critical fire weather threat looks likely on Thursday. Wind speeds are not currently forecast to be as strong across southeast California and the lower Colorado River Valley, and these areas are not included in the Fire Weather Watch.

Cooler conditions will return Friday, before a significant warmup occurs this weekend into early next week. While conditions will remain dry, wind speeds should generally weaken during this period and return to more typical diurnal wind patterns.

88

.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Fire Weather Watch from Thursday morning through Thursday evening for AZZ132-133.

CA...None.

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DISCUSSION...Cerniglia
AVIATION...Cerniglia
FIRE WEATHER...Rogers/Cerniglia

T 119 FXUS66 KSGX 180435 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 930 PM PDT Tue Apr 17 2018

#### .SYNOPSIS...

Mostly sunny and a little warmer Wednesday under mostly sunny skies. Thursday will turn windy and colder with a chance of light showers over and west of the mountains as a strong trough moves across California. The weekend will be dry and warm with lighter winds and temperatures closer to seasonal averages.

&&

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

The calm before the next storm tonight with clear skies under weak ridging aloft. All eyes then turn to the west as we watch a deep trough off the Oregon coast this evening move south and be near SFO Wednesday evening. The onshore gradients ahead of this system tighten up Wednesday afternoon in response to a deepening 1008 mb surface low over Nevada. So it'll turn a bit breezy in the mountains and deserts tomorrow afternoon/evening, with strongest winds in the high deserts. West of the mountains, low clouds over the coastal waters will move inland by late afternoon or evening. They will surge into the valleys overnight as the marine layer deepens to 4000 feet through Thursday morning. A few light showers are possible over the valleys or foothills with this rapidly deepening marine layer.

The deep upper trough will race across SoCal Thursday morning. The gusty west to southwest winds ahead of the surface cold front will shift northwest through midday. As with the Monday system, the main issue with this system will be the gusty west winds Thursday, strongest in the mountains and deserts. The 700 mb jet core is strongest (50-60 kt) over San Diego County and Riverside Counties Thursday morning, coincident with the highest mountain wave potential with the passage of the cold front. The CAA weakens in the afternoon and the 700 mb winds decrease to 30-40 kt, so the wave potential will lessen somewhat, but the surface pressure gradients strengthen Thursday afternoon. MOS guidance for the deserts show a burst of very strong winds into the Coachella Valley and the Lower Deserts in the afternoon. The winds may not be as widespread as they were on Monday, but they will be quite strong where they do surface. It will be breezy/windy in the coastal and valley areas too with 15 to 25 mph west winds, highest near the coast and over the coastal waters.

April 19, 2018 Exceptional Event Imperial County
Any scattered showers along and ahead of the cold front Thursday
morning will end by Noon in most areas, perhaps lingering into the
early afternoon in the southern San Diego County. Sharply colder air
fills in quickly behind the cold front and snow will fall to 45005000 feet Thursday morning. Rainfall estimates are for 0.01-0.10" in
the valleys and foothills, with local amounts up to 0.20" on the
west facing mtn slopes.

The trough moves east Friday but it will still be a bit breezy with cool north to northwest flow behind the trough. Much warmer Saturday with weak ridging aloft. Continued warm Sunday with a scattered high clouds as a weak upper trough approaches from the southwest.

&&

#### .AVIATION...

180415Z...Mostly clear skies and unrestricted visibilities will continue through Wednesday. Winds will begin to increase late Wednesday afternoon from the mountain crests through the desert slopes and adjacent deserts, with areas of west winds 15-25 kt with gusts 25-35 kt.

&&

#### .MARINE...

Winds will increase again late Wednesday and continue through Thursday night with west to northwest winds 15 to 25 knots with gusts as high as 25-30 knots. Seas will increase as well, mainly Thursday and Thursday night, with 6-10 foot combined seas, which will be steep and choppy. This will be hazardous to small craft. No hazardous marine weather is expected Friday through Sunday.

88

#### .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...Small Craft Advisory from 5 PM Wednesday to 2 AM PDT Friday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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PUBLIC...Moede
AVIATION/MARINE...Maxwell

## **April 19, 2018 Exceptional Event, Imperial County**

FXUS65 KPSR 180444 AAA AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ Issued by National Weather Service Tucson AZ 945 PM MST Tue Apr 17 2018

.UPDATE...Updated Aviation discussion.

.SYNOPSIS...A strong storm system is slated to affect the Southwest Thursday and Friday, bringing a return of windy conditions and an elevated to critical fire weather threat. A significant warming trend is expected into this weekend as temperatures warm back into the upper 90s over the lower deserts.

&&

.DISCUSSION...Tonight through Wednesday will be relatively quiet with temperatures running very close to average for mid April, the proverbial quiet before the storm. A deep storm system will make its way onto the central California coast Wednesday night, move east to southern Nevada Thursday evening then continue to Colorado and New Mexico Friday night. This storm will produce a somewhat prolonged period of strong and gusty winds due to the slow forward motion of the storm. The primary concern with this system is fire weather related with a high likelihood of critical fire weather conditions across a significant part of the forecast area Thursday. This is currently covered well by the Fire Weather Watch that is in effect over the area of main concern.

The path of the storm limits the amount of moisture available for it to work with and as such it is expected to pass by dry for much of the area. The one possible exception is a slight chance of a few showers north and east of the Globe/Roosevelt area late Friday into Friday night and even if they occur they are not expected to produce meaningful amounts of precipitation.

Temperatures will be a bit cooler than average Friday afternoon with this system overhead, however they will rebound nicely Saturday onward as the storm departs and upper level ridging moves over the region. Highs will be near 90 Saturday across the lower deserts and reach into the mid to upper 90s Sunday into Tuesday under generally mostly clear skies.

&&

AVIATION...

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

High pressure ridging moving across the region to keep skies mainly

April 19. 2018 Exceptional Event Imperial County clear through the tat period, with just some high cirrus passing overhead from time-to-time during the day on Wednesday. Winds to remain on the light side (8 kts or less), mainly following typical diurnal trends.

Southeast California/Southwest Arizona including KIPL and KBLH:

High pressure ridging moving across the region to keep skies mainly clear through the taf period, with just some high cirrus passing overhead from time-to-time during the day on Wednesday. Winds to remain on the light side (8 kts or less), mainly following typical diurnal trends through early afternoon on Wednesday. Stronger westerly to southwesterly winds to develop during the late afternoon/evening hours on Wednesday as the next Pacific weather system approaches from the west.

Aviation Discussion not updated for amended TAFs.

&&

#### .FIRE WEATHER...

Thursday through Monday: A Fire Weather Watch remains in effect for late Thursday morning through Thursday evening for much of southwest and south-central Arizona for strong winds, low RH, and very dry fuels.

A seasonably strong storm system will affect the Southwest, and bring yet another period of strong winds and low RH conditions on Thursday. Winds look to be stronger with this system compared to the most recent system, and perhaps over a more prolonged period given its slow-moving nature. With fuel conditions very dry, a critical fire weather threat looks likely on Thursday. Wind speeds are not currently forecast to be as strong across southeast California and the lower Colorado River Valley, and these areas are not included in the Fire Weather Watch.

Cooler conditions will return Friday, before a significant warmup occurs this weekend into early next week. While conditions will remain dry, wind speeds should generally weaken during this period and return to more typical diurnal wind patterns.

&&

.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Fire Weather Watch from Thursday morning through Thursday evening for AZZ132-133.

CA...None.

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819 FXUS66 KSGX 181010 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 310 AM PDT Wed Apr 18 2018

#### .SYNOPSIS...

Mostly sunny and a little warmer today. Thursday will turn windy and colder with a chance of light showers over and west of the mountains as a strong trough moves across California. The weekend will be dry and warm with lighter winds and temperatures closer to seasonal averages.

#### &&

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

Skies were clear this morning under a weak short wave ridge. Minor warming will continue today with highs a couple degrees below normal. Marine layer low clouds will redevelop over the coastal waters this afternoon, then rapidly spread into the valleys tonight as an upper level trough of low pressure moves inland across California.

The biggest concern with this system is once again strong gusty winds in the mountains and deserts. Winds will start to pick up this evening as the trough approaches, then peak late tonight into Thursday morning as the trough axis moves through. The GFS is showing 700 mb winds of 50-60 kt, though 850 mb winds are only around 20 kt. There is the potential for mountain waves at this time, which could bring locally stronger winds into the low deserts. Otherwise the strongest winds will be along the mountain crests and onto the east facing mountain slopes. Mid level winds weaken during the day Thursday while surface pressure gradients continue to increase. Winds in the deserts will become more widespread during this time, though will generally be weaker. Overall it looks like wind gusts will mainly be between 45-55 MPH in parts of the mountains and deserts, with isolated gusts around 60 MPH.

There is also a chance of light showers along and west of the mountains tonight into Thursday. Rainfall totals in the coasts and valleys will be around one-tenth inch or less, with up to two-tenths inch along the west facing coastal slopes. Up to an inch of snow is possible above 5500 ft in the San Bernardino and Riverside County mountains, with little if any in San Diego County. Aside from the wind and showers, it will be much cooler with highs in the upper 50s to mid 60s west of the mountains and in the high

April 19, 2018 Exceptional Event, Imperial County deserts, 40s in the mountains, and low to mid 70s in the low deserts.

IEM :: AFD from NWS SGX

Gradual clearing and considerable warming will occur Friday with high temperatures near normal. Warming will continue into the weekend under weak ridging. Slow cooling with a return of marine layer low clouds and stronger onshore flow Monday and Tuesday as weak troughing develops along the west coast.

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#### .AVIATION...

180900Z...Mostly clear skies and unrestricted visibilities will continue today and tonight. Winds will begin to increase late this afternoon from the mountain crests through the desert slopes and adjacent deserts, with areas of west winds 15-25 kt with gusts 25-35 kt, producing pockets of strong up/downdrafts in lee of ridges. Coastal low clouds will begin to develop after 03Z this evening shrouding most coastal areas with cigs of around 1500 feet msl, but rising and moving farther inland overnight.

&&

#### .MARINE...

Winds will increase again this afternoon and continue through Thursday night. Seas will increase Thursday and Thursday night, and will be steep and choppy. Winds and seas will create hazardous conditions. Consult the small craft advisory for details. No hazardous marine weather is expected Friday through Sunday.

&&

#### .SKYWARN...

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

&&

.SGX WATCHES/WARNINGS/ADVISORIES...

CA...NONE.

PZ...Small Craft Advisory from 5 PM this afternoon to 2 AM PDT Friday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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FXUS65 KPSR 181023 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 323 AM MST Wed Apr 18 2018

#### .SYNOPSIS...

A strong, but mostly dry weather system will affect the Desert Southwest Thursday and Friday bringing a return of windy conditions and an elevated to critical fire weather threat. A significant warming trend is expected this weekend into early next week with high temperatures eventually returning into the upper 90s over the lower deserts.

&&

#### .DISCUSSION...

After a pleasant Tuesday with highs 10 degrees below normal, temperatures will return to normal readings as weak ridging aloft builds across the Desert Southwest. The next weather system slated to affect the region is currently off the Pacific Northwest. This trough will track southwestward today reaching central California tonight. As with the past several weather systems, this one will be mostly dry in nature and pose a wind, blowing dust and fire weather threat.

The Pacific low will maintain its intensity tracking through southern Nevada Thursday afternoon as the trough becomes less positively tilted. In response to the upper level trough, a deepening surface low over Utah will create a strong north/south pressure gradient across Arizona. Winds will initially strengthen across portions of southeast California this evening, remaining gusty at times through tonight. Widespread stronger winds will move in starting mid Thursday morning, peaking late Thursday afternoon. Wind gusts Thursday afternoon/early evening to 30 mph will be common with the possibility of localized advisory level winds over southern Gila County. The gusty winds will most likely create some blowing dust with at least some potential for dense blowing dust in the most dust prone areas of Pinal County.

Although there will be a slight uptick in moisture with this system, Thursday afternoon RHs will still be in the single digits across south-central and southeast Arizona. The windy and dry conditions will lead to Red Flag conditions across Gila County Thursday afternoon/early evening. A Fire Weather Watch will remain in effect for south-central and southwest Arizona. The dry cold front will progress through southeast California and southwest Arizona Thursday morning as highs only top out in the middle 70s. Farther east, highs should again reach into the 80s until the cold front moves through late in the afternoon and early evening.

The upper level trough will be somewhat slow to move through the Desert Southwest as it lingers over the area into Friday. Gusty winds will again occur on Friday, but with gusts mostly below 25 mph. Temperatures Friday will recover into the low to mid 80s west of Phoenix with readings mostly only reaching into the upper 70s for the metro Phoenix area. Rain chances will remain out of our CWA until late Friday afternoon into the evening when a trailing shortwave trough moves through eastern Arizona. This shortwave may be enough to trigger a shower or weak thunderstorm over far eastern Gila County Friday evening.

The trough finally exits to the east early Saturday with upper level ridging quickly building in from the west. This will allow for highs to reach to around 90 for Saturday. The upper level ridge will be somewhat disrupted on Sunday as a weak upper level cyclonic circulation passes through northern Mexico, but temperatures will continue to climb. Despite a bit of cloudiness on Sunday, highs should warm in the low to mid 90s across the lower deserts. Weak flow aloft with 500mb heights hovering around 580-582dm will keep the above normal temperature over the Desert Southwest through early next week. Highs Monday through Wednesday next week should climb a bit higher with readings likely reaching into the upper 90s.

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#### AVIATION...

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

High pressure ridging moving across the region to keep skies mainly clear through the taf period, with just some high cirrus passing overhead from time-to-time during the day on Wednesday. Winds to remain on the light side (8 kts or less), mainly following typical diurnal trends.

Southeast California/Southwest Arizona including KIPL and KBLH:

High pressure ridging moving across the region to keep skies mainly clear through the taf period, with just some high cirrus passing overhead from time-to-time during the day on Wednesday. Winds to remain on the light side (8 kts or less), mainly following typical diurnal trends through early afternoon on Wednesday. Stronger westerly to southwesterly winds to develop during the late afternoon/evening hours on Wednesday as the next Pacific weather system approaches from the west.

Aviation Discussion not updated for amended TAFs.

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#### .FIRE WEATHER...

Thursday through Monday: A Fire Weather Watch remains in effect for late Thursday morning through Thursday evening for much of southwest

April 19, 2018 Exceptional Event Imperial County and south-central Arizona for strong winds, low RH, and very dry fuels.

A seasonably strong storm system will affect the Southwest, and bring yet another period of strong winds and low RH conditions on Thursday. Winds look to be stronger with this system compared to the most recent system, and perhaps over a more prolonged period given its slow-moving nature. With fuel conditions very dry, a critical fire weather threat looks likely on Thursday. Wind speeds are not currently forecast to be as strong across southeast California and the lower Colorado River Valley, and these areas are not included in the Fire Weather Watch.

Cooler conditions will return Friday, before a significant warmup occurs this weekend into early next week. While conditions will remain dry, wind speeds should generally weaken during this period and return to more typical diurnal wind patterns.

&&

.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

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.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Fire Weather Watch from Thursday morning through Thursday evening for AZZ132-133.

CA...None.

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DISCUSSION...Kuhlman AVIATION...Percha FIRE WEATHER...Rogers/Cerniglia

# IOWA STATE UNIVERSITY

College of Ag

Department of Agronomy

#### **Department of Agronomy**

716 Farm House Ln Ames, IA 50011 T 111 FXUS65 KPSR 181538 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 835 AM MST Wed Apr 18 2018

#### .SYNOPSIS...

A strong, but mostly dry weather system will affect the Desert Southwest Thursday and Friday bringing a return of windy conditions and an elevated to critical fire weather threat. A significant warming trend is expected this weekend into early next week with high temperatures eventually returning into the upper 90s over the lower deserts.

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#### .DISCUSSION...

At 8 am this morning, dry southwest flow aloft was present across the area (as seen in morning plot and raob data) ahead of an upper low now developing off the west coast. IR imagery showed sunny skies area wide, and surface dewpoints over the lower deserts generally ranged from the teens to upper 20s. For the rest of today, expect sunny skies along with warming high temperatures which will reach into the middle 80s over the warmer lower deserts by later this afternoon. Current forecasts are in good shape and no updates are needed at this time.

#### .PREVIOUS DISCUSSION...

After a pleasant Tuesday with highs 10 degrees below normal, temperatures will return to normal readings as weak ridging aloft builds across the Desert Southwest. The next weather system slated to affect the region is currently off the Pacific Northwest. This trough will track southwestward today reaching central California tonight. As with the past several weather systems, this one will be mostly dry in nature and pose a wind, blowing dust and fire weather threat.

The Pacific low will maintain its intensity tracking through southern Nevada Thursday afternoon as the trough becomes less positively tilted. In response to the upper level trough, a deepening surface low over Utah will create a strong north/south pressure gradient across Arizona. Winds will initially strengthen across portions of southeast California this evening, remaining gusty at times through tonight. Widespread stronger winds will move in starting mid Thursday morning, peaking late Thursday afternoon. Wind gusts Thursday afternoon/early evening to 30 mph will be common with the possibility of localized advisory level winds over southern Gila County. The gusty winds will most likely create some blowing dust with at least some potential for dense blowing dust in the most dust prone areas of Pinal County.

IEM :: AFD from NWS PSR

Although there will be a slight uptick in moisture with this system, Thursday afternoon RHs will still be in the single digits across south-central and southeast Arizona. The windy and dry conditions will lead to Red Flag conditions across Gila County Thursday afternoon/early evening. A Fire Weather Watch will remain in effect for south-central and southwest Arizona. The dry cold front will progress through southeast California and southwest Arizona Thursday morning as highs only top out in the middle 70s. Farther east, highs should again reach into the 80s until the cold front moves through late in the afternoon and early evening.

The upper level trough will be somewhat slow to move through the Desert Southwest as it lingers over the area into Friday. Gusty winds will again occur on Friday, but with gusts mostly below 25 mph. Temperatures Friday will recover into the low to mid 80s west of Phoenix with readings mostly only reaching into the upper 70s for the metro Phoenix area. Rain chances will remain out of our CWA until late Friday afternoon into the evening when a trailing shortwave trough moves through eastern Arizona. This shortwave may be enough to trigger a shower or weak thunderstorm over far eastern Gila County Friday evening.

The trough finally exits to the east early Saturday with upper level ridging quickly building in from the west. This will allow for highs to reach to around 90 for Saturday. The upper level ridge will be somewhat disrupted on Sunday as a weak upper level cyclonic circulation passes through northern Mexico, but temperatures will continue to climb. Despite a bit of cloudiness on Sunday, highs should warm in the low to mid 90s across the lower deserts. Weak flow aloft with 500mb heights hovering around 580-582dm will keep the above normal temperature over the Desert Southwest through early next week. Highs Monday through Wednesday next week should climb a bit higher with readings likely reaching into the upper 90s.

&&

.AVIATION...

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

With no aviation concerns, winds will be light to moderate today near 6-10kt along with normal diurnal sequences. Expect skies to remain clear with a few cirrus moving in during the afternoon and evening hours.

Southeast California/Southwest Arizona including KIPL and KBLH:

Expect light diurnal winds at KIPL through the late afternoon. Very breezy westerly winds will then develop in the early evening near 15kt gusting to 20-23kt. KBLH will also start out with light winds with breezy southwesterly winds starting by early afternoon at 9-12kt with gusts to 20kt. Expect skies to remain clear with FEW cirrus moving in during the afternoon and nighttime.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...
Friday through Tuesday...

Dry and windy conditions will linger throughout the region through Friday afternoon as a dry weather system continues to cross AZ. As a result, expect lingering elevated fire weather conditions through Friday with very breezy to windy westerly winds developing through the afternoon near 12-17mph with gust to 18-28mph across the region. Min RH values near 10-15 percent on Friday will fall to the single digits by Sunday. A warming trend will increase max temps to near 90 on Saturday and the mid to upper 90s by Tuesday. Overnight recovery is expected to be poor to fair.

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.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

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.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Fire Weather Watch from Thursday afternoon through Thursday evening for AZZ132.

Red Flag Warning from noon to 8 PM MST Thursday for AZZ133.

CA...None.

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DISCUSSION...CB
PREVIOUS DISCUSSION...Kuhlman
AVIATION...Sawtelle

FIRE WEATHER...Sawtelle



College of Ag

Department of Agronomy

## **April 19, 2018 Exceptional Event, Imperial County**

824 FXUS65 KPSR 181657 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 957 AM MST Wed Apr 18 2018

.UPDATE...Updated aviation discussion.

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#### .SYNOPSIS...

A strong, but mostly dry weather system will affect the Desert Southwest Thursday and Friday bringing a return of windy conditions and an elevated to critical fire weather threat. A significant warming trend is expected this weekend into early next week with high temperatures eventually returning into the upper 90s over the lower deserts.

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#### .DISCUSSION...

At 8 am this morning, dry southwest flow aloft was present across the area (as seen in morning plot and raob data) ahead of an upper low now developing off the west coast. IR imagery showed sunny skies area wide, and surface dewpoints over the lower deserts generally ranged from the teens to upper 20s. For the rest of today, expect sunny skies along with warming high temperatures which will reach into the middle 80s over the warmer lower deserts by later this afternoon. Current forecasts are in good shape and no updates are needed at this time.

#### .PREVIOUS DISCUSSION...

After a pleasant Tuesday with highs 10 degrees below normal, temperatures will return to normal readings as weak ridging aloft builds across the Desert Southwest. The next weather system slated to affect the region is currently off the Pacific Northwest. This trough will track southwestward today reaching central California tonight. As with the past several weather systems, this one will be mostly dry in nature and pose a wind, blowing dust and fire weather threat.

The Pacific low will maintain its intensity tracking through southern Nevada Thursday afternoon as the trough becomes less positively tilted. In response to the upper level trough, a deepening surface low over Utah will create a strong north/south pressure gradient across Arizona. Winds will initially strengthen across portions of southeast California this evening, remaining gusty at times through tonight. Widespread stronger winds will move in starting mid Thursday morning, peaking late Thursday afternoon. Wind gusts Thursday afternoon/early evening to 30 mph

will be common with the possibility of localized advisory level winds over southern Gila County. The gusty winds will most likely create some blowing dust with at least some potential for dense blowing dust in the most dust prone areas of Pinal County.

Although there will be a slight uptick in moisture with this system, Thursday afternoon RHs will still be in the single digits across south-central and southeast Arizona. The windy and dry conditions will lead to Red Flag conditions across Gila County Thursday afternoon/early evening. A Fire Weather Watch will remain in effect for south-central and southwest Arizona. The dry cold front will progress through southeast California and southwest Arizona Thursday morning as highs only top out in the middle 70s. Farther east, highs should again reach into the 80s until the cold front moves through late in the afternoon and early evening.

The upper level trough will be somewhat slow to move through the Desert Southwest as it lingers over the area into Friday. Gusty winds will again occur on Friday, but with gusts mostly below 25 mph. Temperatures Friday will recover into the low to mid 80s west of Phoenix with readings mostly only reaching into the upper 70s for the metro Phoenix area. Rain chances will remain out of our CWA until late Friday afternoon into the evening when a trailing shortwave trough moves through eastern Arizona. This shortwave may be enough to trigger a shower or weak thunderstorm over far eastern Gila County Friday evening.

The trough finally exits to the east early Saturday with upper level ridging quickly building in from the west. This will allow for highs to reach to around 90 for Saturday. The upper level ridge will be somewhat disrupted on Sunday as a weak upper level cyclonic circulation passes through northern Mexico, but temperatures will continue to climb. Despite a bit of cloudiness on Sunday, highs should warm in the low to mid 90s across the lower deserts. Weak flow aloft with 500mb heights hovering around 580-582dm will keep the above normal temperature over the Desert Southwest through early next week. Highs Monday through Wednesday next week should climb a bit higher with readings likely reaching into the upper 90s.

&&

.AVIATION...

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

Minimal aviation concerns today. Winds will follow typical diurnal headings with speeds mainly aob 10 kts. Skies will remain mostly clear with a FEW high clouds aoa 25 kft. Tomorrow afternoon, a dry cold front sweeps across the region, bringing an early westerly wind shift and gusty wind speeds. Winds will switch over to the west around 17/18Z with gusts up to 30 kts likely. Thus, blowing dust and slantwise visibility concerns could be an issue tomorrow.

## April 19 2018 Exceptional Event, Imperial County Southeast California/Southwest Arizona including KIPL and KBLH:

Expect light diurnal winds through this afternoon. At KIPL, elevated southeasterly winds between 10 to 15 kts will develop late this afternoon and then switch over to the west near 02/03Z. Winds will remain out of the west through the remainder of the TAF period but you can expect speeds to get gradually higher overnight into tomorrow afternoon. Westerly gusts late tomorrow morning will be in the 30 to 40 kt range. At KBLH, winds will be out of the south-southeast through the TAF period with elevated wind speeds expected between 00Z this afternoon and 18Z tomorrow. During this time frame, sustained wind speeds will be in the 10 to 15 kt range. Breeziest conditions develop late tomorrow morning, with gusts up to 30 to 40 kts. Blowing dust and slantwise visibility concerns could be an issue tomorrow at both TAF sites.

Aviation Discussion not updated for amended TAFs.

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.FIRE WEATHER...
Friday through Tuesday...
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Dry and windy conditions will linger throughout the region through Friday afternoon as a dry weather system continues to cross AZ. As a result, expect lingering elevated fire weather conditions through Friday with very breezy to windy westerly winds developing through the afternoon near 12-17mph with gust to 18-28mph across the region. Min RH values near 10-15 percent on Friday will fall to the single digits by Sunday. A warming trend will increase max temps to near 90 on Saturday and the mid to upper 90s by Tuesday. Overnight recovery is expected to be poor to fair.

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.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.
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.PSR WATCHES/WARNINGS/ADVISORIES...
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AZ...Fire Weather Watch from Thursday afternoon through Thursday evening for AZZ132.

Red Flag Warning from noon to 8 PM MST Thursday for AZZ133.

CA...None.

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DISCUSSION...CB
PREVIOUS DISCUSSION...Kuhlman
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598 FXUS66 KSGX 181658 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 958 AM PDT Wed Apr 18 2018

#### .SYNOPSIS...

Mostly sunny and a little warmer today. Thursday will turn windy and colder with a chance of light showers over and west of the mountains as a strong trough moves across California. The weekend will be dry and warm with lighter winds and high temperatures above seasonal averages.

&&

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

At 9 AM PDT, water vapor satellite imagery displayed an upperlevel low just off the coast of northern California and southwesterly flow over southern California. Fair weather will continue today, with highs around 5 degrees below seasonal normals.

The aforementioned low will move across central California tomorrow, while the associated trough swings across southern California. A tight pressure gradient in the upper-levels will create the potential for strong and gusty winds across portions of the mountains and deserts as the system moves by starting tonight through Thursday night. 12Z guidance is starting to roll in, and looks a bit stronger than the 00Z runs. Strongest west to northwest wind gusts of 50 to 60 mph and isolated gusts to 70 mph will be over portions of the San Diego and Riverside County mountains and Deserts. Gusty, but weaker winds, are expected over the San Bernardino County Mountains and Deserts. Moisture will be mainly marine layer driven as the system moves by. Isolated to scattered showers are expected with a few hundredths possible over the coast and valleys and up to one-quarter inch possible along the coastal mountain slopes, mainly tomorrow morning through the afternoon. Snow levels will lower to 5500-6500 ft, with around an inch of snow possible above 6000 ft. Highs will lower 10 to 20 degrees below normal Thursday.

Heights will build Friday through the weekend, with high temperatures increasing 5 to 10 degrees above normal by Saturday and lingering through Monday. Cooler, more seasonal weather, will return Tuesday along with night/morning low clouds and fog along the coast and valleys on Monday.

.AVIATION...

181600Z...Mostly clear skies and unrestricted visibilities will continue today and tonight. Winds will begin to increase late this afternoon from the mountain crests through the desert slopes and adjacent deserts, with areas of west winds 15-25 kt with gusts 25-35 kt, producing pockets of strong up/downdrafts in lee of ridges. Local gusts 55-65 knots desert slopes and adjacent deserts. Coastal low clouds will begin to develop after 07Z tonight shrouding most coastal areas with BKN-OVC low clouds based around 1500 feet MSL. Bases will be rising and moving farther inland overnight, with tops around 5000 feet MSL by midday Thursday. The risk of low clouds developing overnight with no fog at KSAN is moderate to high, so the moderate to high confidence in the development of low clouds tonight as seen in the KSAN TAF looks good.

&&

.MARINE...

Winds will increase again this afternoon and continue through Thursday night. Seas will increase Thursday and Thursday night, and will be steep and choppy. Winds and seas will create hazardous conditions. Consult the small craft advisory for details. No hazardous marine weather is expected Friday through Sunday.

&&

.SKYWARN...

Skywarn activation will not be needed today.

&&

.SGX WATCHES/WARNINGS/ADVISORIES...

CA...NONE.

PZ...Small Craft Advisory from 5 PM this afternoon to 2 AM PDT Friday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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PUBLIC...JJT

AVIATION/MARINE...Small

349

WWUS76 KSGX 182104

**NPWSGX** 

URGENT - WEATHER MESSAGE National Weather Service San Diego CA 204 PM PDT Wed Apr 18 2018

...STRONG AND GUSTY WINDS OVER PORTIONS OF THE MOUNTAINS AND DESERTS THIS EVENING THROUGH THURSDAY NIGHT...

CAZ056-058-061-062-065-190500-

/O.NEW.KSGX.HW.W.0006.180419T0600Z-180420T0900Z/

Riverside County Mountains-San Diego County Mountains-

Coachella Valley-San Diego County Deserts-

San Gorgonio Pass Near Banning-

Including the cities of Idyllwild-Pine Cove, Julian, Pine Valley, Indio, Palm Springs, Cathedral City, Palm Desert, Palm Desert Country, La Quinta, Coachella, Borrego Springs, Banning, and Desert Hot Springs
204 PM PDT Wed Apr 18 2018

...HIGH WIND WARNING IN EFFECT FROM 11 PM THIS EVENING TO 2 AM PDT FRIDAY...

The National Weather Service in San Diego has issued a High Wind Warning...which is in effect from 11 PM this evening to 2 AM PDT Friday.

- \* Winds...West to southwest 25 to 35 mph with gusts to 60 mph. Isolated gusts to 70 mph.
- \* Timing...This evening through Thursday night, with strongest gusts Thursday morning. Strongest winds along desert mountain slopes into adjacent deserts.
- \* Visibility...Less than a mile at times in blowing dust and sand.
- \* Impacts...Difficult driving...especially for motorists with high profile vehicles. Reduced visibilities. Downed trees and power lines.
- \* Outlook...Winds will quickly diminish late Thursday night.

#### PRECAUTIONARY/PREPAREDNESS ACTIONS...

A High Wind Warning means a hazardous high wind event is expected or occurring. Sustained wind speeds of at least 40 mph or gusts of 58 mph or more can lead to property damage.

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## April 19, 2018 Exceptional Event, Imperial County

CAZ055-060-190500-

/O.NEW.KSGX.WI.Y.0014.180419T0300Z-180420T0600Z/ San Bernardino County Mountains-Apple and Lucerne Valleys-Including the cities of Crestline, Lake Arrowhead, Big Bear City, Big Bear Lake, Running Springs, Wrightwood, Victorville, Hesperia, and Apple Valley 204 PM PDT Wed Apr 18 2018

...WIND ADVISORY IN EFFECT FROM 8 PM THIS EVENING TO 11 PM PDT THURSDAY...

The National Weather Service in San Diego has issued a Wind Advisory...which is in effect from 8 PM this evening to 11 PM PDT Thursday.

- \* Winds...West to southwest 20 to 30 mph with gusts to 50 mph. Isolated gusts to 60 mph.
- \* Timing...Late this evening through early Thursday night, with strongest gusts early tonight and again Thursday evening. Strongest winds along desert mountain slopes into adjacent deserts.
- \* Visibility...Less than a mile at times in blowing dust and sand.
- \* Impacts...Difficult driving...especially for motorists with high profile vehicles. Reduced visibilities. Downed trees limbs and power lines possible.
- \* Outlook...Winds will quickly diminish early Thursday night.

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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JJT



College of Ag

305 FXUS66 KSGX 182115 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 215 PM PDT Wed Apr 18 2018

#### .SYNOPSIS...

Mostly sunny and a little warmer today. Thursday will turn windy and colder with a chance of light showers over and west of the mountains as a strong trough moves across California. The weekend will be dry and warm with lighter winds and high temperatures above seasonal averages.

&&

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

At 2 PM PDT, water vapor satellite imagery displayed an upperlevel low just off the coast of northern California and southwesterly flow over southern California. A coastal eddy was helping to develop patchy low clouds across portions of the coast this afternoon.

The aforementioned low will move across central California tomorrow, while the associated trough swings across southern California. A tight pressure gradient in the upper-levels will create strong and gusty winds across portions of the mountains and deserts as the system moves by starting this evening through Thursday night. Strongest westerly wind gusts of 50 to 60 mph and isolated gusts to 70 mph will be over portions of the San Diego and Riverside County mountains and Deserts. Gusty, but weaker winds, are expected over the San Bernardino County Mountains and Deserts. A High Wind Warning and Wind Advisory has been issued this afternoon for the period. Please see the products for additional details. Moisture will be mainly marine layer driven as the system moves by. Isolated to scattered showers are expected with a few hundredths possible over the coast and valleys and up to one- quarter inch possible along the coastal mountain slopes, mainly tomorrow morning through the afternoon. Snow levels will lower to 5500-6500 ft, with around an inch of snow possible above 6000 ft. Highs will lower 10 to 20 degrees below normal Thursday.

Heights will build Friday through the weekend, with high temperatures increasing 5 to 10 degrees above normal by Saturday and lingering through Monday. Cooler, more seasonal weather, will return Tuesday along with night/morning low clouds and fog along the coast and valleys on Monday.

#### &&

#### .AVIATION...

182020Z...Mostly clear skies and unrestricted visibilities will continue into tonight. Winds will begin to increase late this afternoon from the mountain crests through the desert slopes and adjacent deserts, with areas of west winds 15-25 kt with gusts 25-35 kt, producing pockets of strong up/downdrafts in lee of ridges. Local gusts 55-65 knots desert slopes and adjacent deserts. Coastal low clouds will begin to develop after 07Z tonight shrouding most coastal areas with BKN-OVC low clouds based around 1500 feet MSL. Low cloud bases will be rising while the clouds move farther inland overnight, with tops around 5000 feet MSL by midday Thursday and coastal slopes frequently obscured below 5000 feet MSL. The risk of low clouds developing overnight with no fog at KSAN is moderate to high, so the moderate to high confidence in the development of low clouds tonight as seen in the KSAN TAF looks good.

**April 19, 2018 Exceptional Event, Imperial County** 

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#### .MARINE...

Winds will increase again this afternoon and continue through Thursday night. Seas will increase Thursday and Thursday night, and will be steep and choppy. Winds and seas will create hazardous conditions. Consult the small craft advisory for details. No hazardous marine weather is expected Friday through Sunday.

&&

#### .SKYWARN...

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

88

#### .SGX WATCHES/WARNINGS/ADVISORIES...

CA...High Wind Warning from 11 PM this evening to 2 AM PDT Friday for Coachella Valley-Riverside County Mountains-San Diego County Deserts-San Diego County Mountains-San Gorgonio Pass Near Banning.

Wind Advisory from 8 PM this evening to 11 PM PDT Thursday for Apple and Lucerne Valleys-San Bernardino County Mountains.

PZ...Small Craft Advisory from 5 PM this afternoon to 2 AM PDT Friday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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## April 19, 2018 Exceptional Event, Imperial County Appendix A

287 FXUS65 KPSR 182147 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 245 PM MST Wed Apr 18 2018

#### .SYNOPSIS...

A strong, but mostly dry weather system will affect the Desert Southwest Thursday and Friday bringing a return of windy conditions and an elevated to critical fire weather threat. A significant warming trend is expected this weekend into early next week with high temperatures eventually returning into the upper 90s over the lower deserts.

&&

.DISCUSSION...

At 2 pm this afternoon, dry southwest flow aloft was present across the area, skies were sunny area-wide and temperatures over the deserts were running 6-8 degrees warmer than 24 hours ago. We should see highs into the low or even mid 80s before the day is over. Warming is a result of some initial warm advection ahead of a strong upper low currently developing off the California coast. Guidance has been consistent in the handling of this low which is still expected to move through the desert southwest Thursday through Friday bringing strong gusty winds, cooler temperatures and little if any chance of precipitation. Little change has been made to the forecast except in regards to fire weather issues; gusty winds and low RH values across south central Arizona will result in dangerous fire weather conditions and as such the Fire Weather Watch for AZZ132 on Thursday has been upgraded to a Red Flag Warning. Actually, the fire weather threat is really only for the central deserts (Maricopa County east) as increasing RH from the west will limit fire weather concerns for the western deserts.

The aforementioned Pacific low will maintain its intensity tracking through southern Nevada Thursday afternoon as the trough becomes less positively tilted. In response to the upper level trough, a deepening surface low over Utah will create a strong north/south pressure gradient across Arizona. Winds will initially strengthen across portions of southeast California this evening, remaining gusty at times through tonight. Widespread stronger winds will move in starting mid Thursday morning, peaking late Thursday afternoon. Wind gusts Thursday afternoon/early evening to 30 mph will be common with the possibility of localized advisory level winds over southern Gila County. The gusty winds will most likely create some blowing dust with at least some potential for dense blowing dust in the most dust prone areas of Pinal County.

April 19, 2018 Exceptional Event, Imperial County
Although there will be a slight uptick in Moisture With this
system, Thursday afternoon RHs will still be in the single digits
across south-central and southeast Arizona. The windy and dry
conditions will lead to Red Flag conditions across Gila County and
the central AZ deserts Thursday afternoon/early evening. The dry
cold front will progress through southeast California and southwest
Arizona Thursday morning as highs only top out in the middle 70s.
Farther east, highs should again reach into the 80s until the
cold front moves through late in the afternoon and early evening.

The upper level trough will be somewhat slow to move through the Desert Southwest as it lingers over the area into Friday. Gusty winds will again occur on Friday, but with gusts mostly below 25 mph. Temperatures Friday will recover into the low to mid 80s west of Phoenix with readings mostly only reaching into the upper 70s for the metro Phoenix area. Rain chances will remain out of our CWA until late Friday afternoon into the evening when a trailing shortwave trough moves through eastern Arizona. This shortwave may be enough to trigger a shower or weak thunderstorm over far eastern Gila County Friday evening.

The trough finally exits to the east early Saturday with upper level ridging quickly building in from the west. This will allow for highs to reach to around 90 for Saturday. The upper level ridge will be somewhat disrupted on Sunday as a weak upper level cyclonic circulation passes through northern Mexico, but temperatures will continue to climb. Despite a bit of cloudiness on Sunday, highs should warm in the low to mid 90s across the lower deserts. Weak flow aloft with 500mb heights hovering around 580-582dm will keep the above normal temperature over the Desert Southwest through early next week. Highs Monday through Wednesday next week should climb a bit higher with readings likely reaching into the upper 90s.

&&

.AVIATION...

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

Minimal aviation concerns today. Winds will follow typical diurnal headings with speeds mainly aob 10 kts. Skies will remain mostly clear with a FEW high clouds aoa 25 kft. Tomorrow afternoon, a dry cold front sweeps across the region, bringing an early westerly wind shift and gusty wind speeds. Winds will switch over to the west around 17/18Z with gusts up to 30 kts likely. Thus, blowing dust and slantwise visibility concerns could be an issue tomorrow.

Southeast California/Southwest Arizona including KIPL and KBLH:

Expect light diurnal winds through this afternoon. At KIPL, elevated southeasterly winds between 10 to 15 kts will develop late this afternoon and then switch over to the west near 02/03Z. Winds will remain out of the west through the remainder of the TAF

April 19, 2018 Exceptional Event, Imperial County period but you can expect speeds to get gradually higher

overnight into tomorrow afternoon. Westerly gusts late tomorrow morning will be in the 30 to 40 kt range. At KBLH, winds will be out of the south-southeast through the TAF period with elevated wind speeds expected between 00Z this afternoon and 18Z tomorrow. During this time frame, sustained wind speeds will be in the 10 to 15 kt range. Breeziest conditions develop late tomorrow morning, with gusts up to 30 to 40 kts. Blowing dust and slantwise visibility concerns could be an issue tomorrow at both TAF sites.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...
Saturday through Wednesday...

In the wake of a departing upper level low pressure system, high pressure will start to build back into the area from the west starting Saturday, leading to a strong warming trend along with low humidity and generally light winds. Min RH values near 10-15 percent on Friday will fall to the single digits by Sunday. High temps will rise into the low 90s Saturday over warmer deserts and eventually rise into the upper 90s by Tuesday. Overnight recovery is expected to be poor to fair. Minimum RH values will stay mostly in the single digits to around 10 percent each day over the deserts.

&&

.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Red Flag Warning from noon to 8 PM MST Thursday for AZZ132 and AZZ133.

CA...None.

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DISCUSSION...CB/Kuhlman AVIATION...Hernandez FIRE WEATHER...CB



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429
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WWUS76 KSGX 190421

NPWSGX

URGENT - WEATHER MESSAGE National Weather Service San Diego CA 921 PM PDT Wed Apr 18 2018

...STRONG AND GUSTY WINDS OVER PORTIONS OF THE MOUNTAINS AND DESERTS THROUGH THURSDAY NIGHT...

CAZ056-058-061-062-065-191300-

/O.CON.KSGX.HW.W.0006.180419T0600Z-180420T0900Z/

Riverside County Mountains-San Diego County Mountains-

Coachella Valley-San Diego County Deserts-

San Gorgonio Pass Near Banning-

Including the cities of Idyllwild-Pine Cove, Julian, Pine Valley, Indio, Palm Springs, Cathedral City, Palm Desert, Palm Desert Country, La Quinta, Coachella, Borrego Springs, Banning, and Desert Hot Springs
921 PM PDT Wed Apr 18 2018

...HIGH WIND WARNING REMAINS IN EFFECT UNTIL 2 AM PDT FRIDAY...

- \* Winds...West to southwest 25 to 35 mph with gusts to 60 mph. Isolated gusts to 70 mph. Strongest along the desert slopes.
- \* Timing...Through Thursday night, with strongest gusts Thursday morning.
- \* Visibility...Less than a mile at times in blowing dust and sand.
- \* Impacts...Difficult driving, especially for motorists with high profile vehicles. Reduced visibilities. Downed trees and power lines.
- \* Outlook...Winds will diminish Thursday night.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A High Wind Warning means a hazardous high wind event is expected or occurring. Sustained wind speeds of at least 40 mph or gusts of 58 mph or more can lead to property damage.

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CAZ055-060-191300-

/O.CON.KSGX.WI.Y.0014.000000T0000Z-180420T0600Z/ San Bernardino County Mountains-Apple and Lucerne ValleysApril 19, 2018 Exceptional Event Imperial County
Including the cities of Crestline, Lake Arrowhead, Big Bear City,
Big Bear Lake, Running Springs, Wrightwood, Victorville,
Hesperia, and Apple Valley
921 PM PDT Wed Apr 18 2018

...WIND ADVISORY REMAINS IN EFFECT UNTIL 11 PM PDT THURSDAY...

- \* Winds...West to southwest 20 to 30 mph with gusts to 50 mph. Isolated gusts to 60 mph.
- \* Timing...Through Thursday night, with strongest gusts early tonight and again Thursday evening.
- \* Visibility...Less than a mile at times in blowing dust and sand.
- \* Impacts...Difficult driving, especially for motorists with high profile vehicles. Reduced visibilities. Downed trees limbs and power lines possible.
- \* Outlook...Winds will quickly diminish early Thursday night.

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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Albright



College of Ag

Department of Agronomy

#### **Department of Agronomy**

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748 FXUS66 KSGX 190439 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 939 PM PDT Wed Apr 18 2018

#### .SYNOPSIS...

A trough of low pressure will help windy conditions develop, especially in the mountains and deserts, over the next 36 hours. Hazardous travel for high profile vehicles and blowing dust/sand are expected in the deserts. Tree or power line damage is possible, though it shouldn't be extensive. High pressure will bring a warming trend and ligher winds for the weekend and early next week.

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

#### .SYNOPSIS...

At 9 PM, an upper level trough was located over northern California, with a smaller embedded shortwave just off the coast of San Francisco. In southern california skies remained mostly clear, apart from a few wave clouds over the upper deserts and patchy low clouds near the coast. At the surface winds were gusty in the deserts, though they were not particularly strong, with peak gusts near 40 mph.

Over the next 36 hours, the trough currently over northern California will dip south. As this occurs, significantly cooler and windier weather will arrive in SoCal. Strongest winds will likely coincide with the peak in upper level support Thursday morning and are expected to affect the mountains and deserts. Widespread 30-40 mph gusts are anticipated on the desert floor, while local gusts of 50-70 mph will be possible where mountain wave activity surfaces. The main impacts should be blowing dust/sand and hazardous driving conditions for high profile vehicles. Isolated tree/power line damage is also possible. Apart from the winds, a few very light showers are possible west of the mountain crests, while afternoon highs will dip to 10-25 degrees below seasonal averages inland.

Come Friday, ridging will take hold and linger into early next week. This will bring a warming trend, plenty of sunshine and weaker winds for the entire region. By Saturday/Sunday afternoon highs should be 5-10 degrees above average for all areas. No significantly impactful weather is expected Friday-Tuesday.

Model guidance diverges by the middle of next week as the global models struggle to anticipated the track of the next trough along the West Coast. None of the model solutions suggest a strong trough or rain for SoCal, but the ultimate track of the trough may impact winds in the deserts by the middle of next week.

&&

#### .AVIATION...

190430Z...Coast/Valleys...Areas of stratus with bases mostly 1500-2000 ft MSL will continue to develop and will cover most areas by 08Z. Bases will gradually rise to 2000-3000 ft MSL Thu 11Z-18Z, with isolated -SHRA and tops to 6000-7000 ft MSL. SCT-local BKN conditions will prevail Thu afternoon, with FEW/SCT low clouds Thu evening. Most vis below the clouds will be greater than 6 miles, though higher terrain will be obscured at times.

Mountains/Deserts...Areas of coastal slope and ridge obscurations will occur mainly 08Z-18Z Thu and mostly below 7000 ft MSL due to clouds and fog. Isolated -SHRA with local -SHSN will occur, mainly 12Z-18Z Thu. Areas of strong winds will develop late tonight and Thursday, mainly from the mountain crests through the coastal slopes and into the deserts, with areas of west winds 20-30 knots local gusts 40-55 knots. Winds will be strongest 14Z Thu through 02Z Fri, with local surface vis below 3 miles in blowing dust.

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#### .MARINE...

Winds will increase overnight and continue through Thursday night. Winds will generally be around 20 knots, with gusts as high as 25 to 30 knots, especially Thursday afternoon and evening. Seas will increase Thursday and Thursday night with some 7-9 foot combined seas in the outer waters. Seas will be steep and choppy due to the variable periods, mostly less than 10 seconds. Winds and seas will create hazardous conditions. No hazardous marine weather is expected Friday through Monday.

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#### .SKYWARN...

Skywarn activation will not be needed today.

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#### .SGX WATCHES/WARNINGS/ADVISORIES...

CA...High Wind Warning until 2 AM PDT Friday for Coachella Valley-Riverside County Mountains-San Diego County Deserts-San Diego County Mountains-San Gorgonio Pass Near Banning.

Wind Advisory until 11 PM PDT Thursday for Apple and Lucerne Valleys-San Bernardino County Mountains.

9/10/2019

IEM :: AFD from NWS SGX

## **April 19, 2018 Exceptional Event, Imperial County**

**Appendix A** 

PZ...Small Craft Advisory until 2 AM PDT Friday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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PUBLIC...Albright
AVIATION/MARINE...Maxwell

# IOWA STATE UNIVERSITY

College of Ag
Department of Agronomy

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FXUS65 KPSR 190449 AAA AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 950 PM MST Wed Apr 18 2018

.UPDATE....Updated aviation discussion.

#### .SYNOPSIS...

A strong, but mostly dry weather system will affect the Desert Southwest Thursday and Friday bringing a return of windy conditions and an elevated to critical fire weather threat. A significant warming trend is expected this weekend into early next week with high temperatures eventually returning into the upper 90s over the lower deserts.

&&

.DISCUSSION...

At 2 pm this afternoon, dry southwest flow aloft was present across the area, skies were sunny area-wide and temperatures over the deserts were running 6-8 degrees warmer than 24 hours ago. We should see highs into the low or even mid 80s before the day is over. Warming is a result of some initial warm advection ahead of a strong upper low currently developing off the California coast. Guidance has been consistent in the handling of this low which is still expected to move through the desert southwest Thursday through Friday bringing strong gusty winds, cooler temperatures and little if any chance of precipitation. Little change has been made to the forecast except in regards to fire weather issues; gusty winds and low RH values across south central Arizona will result in dangerous fire weather conditions and as such the Fire Weather Watch for AZZ132 on Thursday has been upgraded to a Red Flag Warning. Actually, the fire weather threat is really only for the central deserts (Maricopa County east) as increasing RH from the west will limit fire weather concerns for the western deserts.

The aforementioned Pacific low will maintain its intensity tracking through southern Nevada Thursday afternoon as the trough becomes less positively tilted. In response to the upper level trough, a deepening surface low over Utah will create a strong north/south pressure gradient across Arizona. Winds will initially strengthen across portions of southeast California this evening, remaining gusty at times through tonight. Widespread stronger winds will move in starting mid Thursday morning, peaking late Thursday afternoon. Wind gusts Thursday afternoon/early evening to 30 mph will be common with the possibility of localized advisory level winds over southern Gila County. The gusty winds will most likely create some blowing dust with at least some potential for dense blowing dust in the most

Although there will be a slight uptick in moisture with this system, Thursday afternoon RHs will still be in the single digits across south-central and southeast Arizona. The windy and dry conditions will lead to Red Flag conditions across Gila County and the central AZ deserts Thursday afternoon/early evening. The dry cold front will progress through southeast California and southwest Arizona Thursday morning as highs only top out in the middle 70s. Farther east, highs should again reach into the 80s until the cold front moves through late in the afternoon and early evening.

IEM :: AFD from NWS PSR

The upper level trough will be somewhat slow to move through the Desert Southwest as it lingers over the area into Friday. Gusty winds will again occur on Friday, but with gusts mostly below 25 mph. Temperatures Friday will recover into the low to mid 80s west of Phoenix with readings mostly only reaching into the upper 70s for the metro Phoenix area. Rain chances will remain out of our CWA until late Friday afternoon into the evening when a trailing shortwave trough moves through eastern Arizona. This shortwave may be enough to trigger a shower or weak thunderstorm over far eastern Gila County Friday evening.

The trough finally exits to the east early Saturday with upper level ridging quickly building in from the west. This will allow for highs to reach to around 90 for Saturday. The upper level ridge will be somewhat disrupted on Sunday as a weak upper level cyclonic circulation passes through northern Mexico, but temperatures will continue to climb. Despite a bit of cloudiness on Sunday, highs should warm in the low to mid 90s across the lower deserts. Weak flow aloft with 500mb heights hovering around 580-582dm will keep the above normal temperature over the Desert Southwest through early next week. Highs Monday through Wednesday next week should climb a bit higher with readings likely reaching into the upper 90s.

&&

.AVIATION...

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

After a quiet overnight period, with just a few high clouds passing overhead, and typical easterly drainage winds during the late evening/overnight hours, a rather strong, but dry Pacific weather system will bring strong westerly winds to the region on Thursday. Wind speeds are expected to rise into the 18-28kt range during the afternoon/evening, with gusts as high as 35kts possible. along with the strong winds, blowing dust is likely, especially at KIWA, which could see visibilities fall into the 3-5 mile range. Suspended blowing dust will likely create slantwise visibility issues as well. Westerly winds are expected to persist well into Thursday night as well, with speeds slowly diminishing with time. Considerable high cloudiness is expected to overspread the region on Thursday, with BKN-OVC layer aoa 25k feet through the day.

Southeast California/Southwest Arizona including KIPL and KBLH:

After a relatively quiet overnight period, with just a few high clouds passing overhead, and moderate westerly to southwesterly winds, a rather strong, but dry Pacific weather system will bring strong westerly to southwesterly winds to the region on Thursday. Wind speeds are expected to rise into the 22-32kt range during the afternoon/evening, with gusts as high as 40kts possible. along with the strong winds, blowing dust is likely, especially at KIPL, which could see significant reductions in sfc visibilities. Suspended blowing dust will likely create slantwise visibility issues as well. Westerly winds are expected to persist well into Thursday night as well, with speeds lowly diminishing with time. Considerable high cloudiness is expected to overspread the region on Thursday, with BKN-OVC layer aoa 25k feet through the day. Clearing is expected to commence during the evening hours on Thursday.

Aviation Discussion not updated for amended TAFs.

&&

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.FIRE WEATHER...
Saturday through Wednesday...
```

In the wake of a departing upper level low pressure system, high pressure will start to build back into the area from the west starting Saturday, leading to a strong warming trend along with low humidity and generally light winds. Min RH values near 10-15 percent on Friday will fall to the single digits by Sunday. High temps will rise into the low 90s Saturday over warmer deserts and eventually rise into the upper 90s by Tuesday. Overnight recovery is expected to be poor to fair. Minimum RH values will stay mostly in the single digits to around 10 percent each day over the deserts.

&&

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.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.
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&&

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.PSR WATCHES/WARNINGS/ADVISORIES...
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AZ...Red Flag Warning from noon to 8 PM MST Thursday for AZZ132 and AZZ133.

CA...None.

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DISCUSSION...CB/Kuhlman
AVIATION...Percha
FIRE WEATHER...CB
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T 356 FXUS66 KSGX 190933 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 233 AM PDT Thu Apr 19 2018

#### .SYNOPSIS...

A trough of low pressure will generate strong west winds in the mountains and deserts through tonight. There is also a chance of light precip along and west of the mountains through this evening. High pressure will bring a warming trend and ligher winds for the weekend. Slight cooling next week as a trough develops off the west coast.

&&

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

Winds are increasing across the mountains and deserts this morning. The highest wind gusts recorded so far have been 52 mph at Whitewater in the San Gorgonio Pass, and 43 mph at Volcan Mountain. Winds will continue to strengthen through mid-morning, especially along the mountain crests and desert mountain slopes. Isolated strong winds are possible in the low deserts where any mountain waves surface. Winds will weaken but become more widespread in the deserts during the afternoon. Gusts will generally be around 40-55 mph with isolated gusts to 60 mph.

The compact cold front and small band of precipitation is currently making its way into Santa Barbara County. This frontal precipitation is forecast to fall apart before even making it to Ventura County. Whatever is left of it will arrive in Orange/San Diego County by mid-morning. Recent runs of the high resolution models have backed off on precipitation amounts - not that there was a lot to begin with. Some areas along and west of the mountains may pick up a few hundredths of an inch, mainly in San Diego County. Aside from the wind and showers, this trough will bring much cooler weather. High temps will be anywhere from 10 to 20 degrees below normal today.

The trough will depart tonight, with lighter winds following. Gradual warming takes place through Sunday as weak high pressure moves in behind the trough. High temperatures will climb to around 5 to 10 degrees above normal. There may be some patchy low clouds and fog along the coast Saturday and Sunday mornings.

Slight cooling will occur early next week as weak trough develops along the west coast. Model solutions really begin to diverge

April 19, 2018 Exceptional Event Imperial County around Tuesday with regards to the track of the aforementioned trough. Best bet is for the cooling trend to continue, more widespread marine layer clouds each night and morning, and gusty west winds in the mountains and deserts each afternoon.

#### &&

#### .AVIATION...

190900Z...Coast/Valleys...Mostly broken low clouds with bases 2000-3500 feet msl will continue this morning but scatter out from northwest to southeast from 15-20Z. Isolated -shra mainly in San Diego County between 16-20Z. Mainly scattered clouds this afternoon. Areas of low clouds after 03Z this evening, between about 2000-2500 feet msl.

Mountains/Deserts...Areas of coastal slope and ridge obscurations will occur through about 19Z mainly in San Diego County, mostly below 7000 feet MSL due to clouds and fog. Isolated -shra with local -shsn will occur, mainly 16-20Z in San Diego County. Areas of strong winds will continue, strongest this afternoon and evening from the mountain crests through the desert slopes and into the deserts. West winds 20-30 knots local gusts 40-45 knots. Areas of reduced vis below 3sm in blowing dust and sand are probable in deserts this afternoon and evening.

#### &&

#### .MARINE...

Winds and choppy seas will peak this afternoon and evening, mainly in the outer waters, presenting a hazard for small craft. No additional hazardous marine weather is forecast Friday through Monday.

#### &&

#### .SKYWARN...

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

#### &&

#### .SGX WATCHES/WARNINGS/ADVISORIES...

CA...High Wind Warning until 2 AM PDT Friday for Coachella Valley-Riverside County Mountains-San Diego County Deserts-San Diego County Mountains-San Gorgonio Pass Near Banning.

Wind Advisory until 11 PM PDT this evening for Apple and Lucerne Valleys-San Bernardino County Mountains.

PZ...Small Craft Advisory until 2 AM PDT Friday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-

9/10/2019

IEM :: AFD from NWS SGX

April 19, 2018 Exceptional Event Imperial County Waters from San Mateo point to the Mexican Border Extending

30 to 60 nm out including San Clemente Island.

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PUBLIC...SS AVIATION/MARINE...MM

# IOWA STATE UNIVERSITY

College of Ag
Department of Agronomy

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054 WWUS75 KPSR 191020 NPWPSR

URGENT - WEATHER MESSAGE National Weather Service Phoenix AZ 320 AM MST Thu Apr 19 2018

CAZ562-564-566-192200-

/O.NEW.KPSR.WI.Y.0012.180419T1020Z-180420T0200Z/

Imperial County Southwest-Chuckwalla Mountains-

Imperial County West-

Including the cities of Mountain Spring, Imperial Hot Mineral Springs, Coolidge Springs, Salton City, Winona, Coyote Wells, Ocotillo, and Plaster City 320 AM PDT Thu Apr 19 2018

...WIND ADVISORY IN EFFECT UNTIL 7 PM PDT THIS EVENING...

The National Weather Service in Phoenix has issued a Wind Advisory, which is in effect until 7 PM PDT this evening.

- \* AFFECTED AREA...Far southwest Imperial County including parts of I-8 and the Chuckwalla Mountains Imperial County, CA.
- \* TIMING...Until 7 PM PDT
- \* WINDS...Westerly Winds 30-35 mph with gusts to 45-55 mph.
- \* IMPACTS...Very hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.

#### 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>563-192200/O.NEW.KPSR.WI.Y.0012.180419T2100Z-180420T0200Z/
Pinal/Superstition Mountains-San Carlos-Dripping SpringsGlobe/Miami-Southeast Gila CountyIncluding the cities of San Carlos, Peridot, Hayden, Winkelman,

320 AM MST Thu Apr 19 2018

...WIND ADVISORY IN EFFECT FROM 2 PM THIS AFTERNOON TO 7 PM MST THIS EVENING...

The National Weather Service in Phoenix has issued a Wind Advisory, which is in effect from 2 PM this afternoon to 7 PM MST this evening.

- \* AFFECTED AREA...Pinal/Superstition Mountains-San Carlos-Dripping Springs- Globe/Miami-Southeast Gila County- Including the cities of San Carlos, Peridot, Hayden, Winkelman, Globe, and Miami.
- \* TIMING...From 2 PM this afternoon until 7 PM MST
- \* WINDS...Westerly Winds 25-35 mph with gusts to 45-55 mph.
- \* IMPACTS...Very hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.

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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College of Ag
Department of Agronomy

#### **Department of Agronomy**

716 Farm House Ln Ames, IA 50011 956 FXUS65 KPSR 191021 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 321 AM MST Thu Apr 19 2018

#### .SYNOPSIS...

A strong, but mostly dry weather system will affect the Desert Southwest into Friday bringing a return of windy and critical fire conditions across the eastern half of Arizona. A significant warming trend is expected this weekend into early next week with high temperatures eventually returning into the middle to upper 90s over the lower deserts.

&&

#### .DISCUSSION...

An approaching Pacific trough will move in from the northwest later today and slowly move through the Desert Southwest tonight into early Friday. Current water vapor imagery shows the low center just off the central California coast with weak moisture advection ahead of the low. Southerly flow across the Desert Southwest will continue to increase through this morning with winds becoming gusty initially across southeast California and southwest Arizona by mid morning. Gusty winds will become widespread this afternoon peaking late this afternoon with gusts 25 to 35 mph. Winds will likely hit advisory level across Imperial County and southern Gila County late this afternoon with gusts peaking at 40 to 45 mph. This should lead to at least some patching blowing dust and possibly very localized dense blowing dust this afternoon. The strong winds and existent dry boundary layer will also lead to a period of critical fire weather conditions this afternoon and early evening. Red Flag conditions are anticipated during this time for the eastern 2/3s of Arizona.

As the low center enters southern Nevada late this afternoon, a weak cold front will also be progressing through central Arizona, eventually moving through the rest of Arizona by midnight tonight. The cold front will hold temperatures mostly in the middle 70s today west of Phoenix, but the bulk of the metro Phoenix area should still reach into the lower 80s. Winds will eventually diminish into tonight as the low center moves east through southern Utah and the surface gradient relaxes. The upper trough will linger across the region on Friday allowing a return to breezy conditions, but substantially lower winds than today. Highs Friday will rise back to near normals for southeast California and southwest Arizona, but end up mostly around 80 degrees for the Phoenix area. Models are still showing a chance of showers or even a remote chance of a thunderstorm across far east-central Arizona Friday evening, but PoPs remain right around

# April 19, 2018 Exceptional Event Imperial County weak upper level support.

Upper level ridging will take hold behind the exiting trough for Saturday with 500mb heights quickly rebounding to around 580dm. Models are still showing a weak shortwave coming off the Pacific through Baja Saturday night, eventually into northern Mexico on Sunday. This feature will bring a period of high clouds into the Desert Southwest Saturday night into Sunday, but it should not disrupt the warming trend over the region. Highs Saturday should fall around 90 degrees while Sunday looks to be closer to 95 degrees.

Weak southwesterly flow aloft will remain across the Southwest U.S. into early next week with 500mb heights hovering around 580-582dm. This will keep temperatures around 7-10 degrees above normal through at least Tuesday. Model spread increases for the middle of next week with another potential Pacific low approaching the West Coast. This feature may help to amplify the ridge over the Interior West if it becomes mostly cut-off from the northern jet stream as indicated by the warmer European. The GFS is farther north with the trough, more progressive and thus keeps temperatures a bit cooler. Given this system is a week away, a blend was used for forecast temperatures yielding highs mostly in the middle 90s.

&&

#### .AVIATION...

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

After a quiet overnight period, with just a few high clouds passing overhead, and typical easterly drainage winds during the late evening/overnight hours, a rather strong, but dry Pacific weather system will bring strong westerly winds to the region on Thursday. Wind speeds are expected to rise into the 18-28kt range during the afternoon/evening, with gusts as high as 35kts possible. along with the strong winds, blowing dust is likely, especially at KIWA, which could see visibilities fall into the 3-5 mile range. Suspended blowing dust will likely create slantwise visibility issues as well. Westerly winds are expected to persist well into Thursday night as well, with speeds slowly diminishing with time. Considerable high cloudiness is expected to overspread the region on Thursday, with BKN-OVC layer aoa 25k feet through the day.

Southeast California/Southwest Arizona including KIPL and KBLH:

After a relatively quiet overnight period, with just a few high clouds passing overhead, and moderate westerly to southwesterly winds, a rather strong, but dry Pacific weather system will bring strong westerly to southwesterly winds to the region on Thursday. Wind speeds are expected to rise into the 22-32kt range during the afternoon/evening, with gusts as high as 40kts possible. along with the strong winds, blowing dust is likely, especially at KIPL, which could see significant reductions in sfc visibilities. Suspended

April 19, 2018. Exceptional Event Imperial County blowing dust will likely create slantwise Visibility issues as well. Westerly winds are expected to persist well into Thursday night as well, with speeds lowly diminishing with time. Considerable high cloudiness is expected to overspread the region on Thursday, with BKN-OVC layer aoa 25k feet through the day. Clearing is expected to commence during the evening hours on Thursday.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...
Saturday through Wednesday...

In the wake of a departing upper level low pressure system, high pressure will start to build back into the area from the west starting Saturday, leading to a strong warming trend along with low humidity and generally light winds. Min RH values near 10-15 percent on Friday will fall to the single digits by Sunday. High temps will rise into the low 90s Saturday over warmer deserts and eventually rise into the upper 90s by Tuesday. Overnight recovery is expected to be poor to fair. Minimum RH values will stay mostly in the single digits to around 10 percent each day over the deserts.

&&

.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Red Flag Warning from noon today to 8 PM MST this evening for AZZ132-133.

Wind Advisory from 2 PM this afternoon to 7 PM MST this evening for AZZ558-560>563.

CA...Wind Advisory until 7 PM PDT this evening for CAZ562-564-566.

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DISCUSSION...Kuhlman AVIATION...Percha FIRE WEATHER...CB

829

WWUS75 KPSR 191109

**NPWPSR** 

URGENT - WEATHER MESSAGE National Weather Service Phoenix AZ 409 AM MST Thu Apr 19 2018

CAZ562-564-566-192200-

/O.CON.KPSR.WI.Y.0012.000000T0000Z-180420T0200Z/

Imperial County Southwest-Chuckwalla Mountains-

Imperial County West-

Including the cities of Mountain Spring,

Imperial Hot Mineral Springs, Coolidge Springs, Salton City,

Winona, Coyote Wells, Ocotillo, and Plaster City

409 AM PDT Thu Apr 19 2018

...WIND ADVISORY REMAINS IN EFFECT UNTIL 7 PM PDT THIS EVENING...

- \* AFFECTED AREA...Far southwest Imperial County including parts of I-8 and the Chuckwalla Mountains Imperial County, CA.
- \* TIMING...Until 7 PM PDT
- \* WINDS...Westerly Winds 30-35 mph with gusts to 40-50 mph.
- \* IMPACTS...Very hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.

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>563-192200-

/O.CON.KPSR.WI.Y.0012.180419T2100Z-180420T0200Z/

Pinal/Superstition Mountains-San Carlos-Dripping Springs-

Globe/Miami-Southeast Gila County-

Including the cities of San Carlos, Peridot, Hayden, Winkelman, Globe, and Miami

409 AM MST Thu Apr 19 2018

9/10/2019

IEM :: NPW from NWS PSR

## **April 19, 2018 Exceptional Event, Imperial County**

**Appendix A** 

...WIND ADVISORY REMAINS IN EFFECT FROM 2 PM THIS AFTERNOON TO 7 PM MST THIS EVENING...

- \* AFFECTED AREA...Pinal/Superstition Mountains-San Carlos-Dripping Springs- Globe/Miami-Southeast Gila County- Including the cities of San Carlos, Peridot, Hayden, Winkelman, Globe, and Miami.
- \* TIMING...From 2 PM this afternoon until 7 PM MST
- \* WINDS...Westerly Winds 25-35 mph with gusts to 40-45 mph.
- \* IMPACTS...Very hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.

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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## **April 19, 2018 Exceptional Event, Imperial County**

627 FXUS65 KPSR 191239 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 539 AM MST Thu Apr 19 2018

.UPDATE...Updated Aviation and Fire Weather discussions.

&&

#### .SYNOPSIS...

A strong, but mostly dry weather system will affect the Desert Southwest into Friday bringing a return of windy and critical fire conditions across the eastern half of Arizona. A significant warming trend is expected this weekend into early next week with high temperatures eventually returning into the middle to upper 90s over the lower deserts.

&&

#### .DISCUSSION...

An approaching Pacific trough will move in from the northwest later today and slowly move through the Desert Southwest tonight into early Friday. Current water vapor imagery shows the low center just off the central California coast with weak moisture advection ahead of the low. Southerly flow across the Desert Southwest will continue to increase through this morning with winds becoming gusty initially across southeast California and southwest Arizona by mid morning. Gusty winds will become widespread this afternoon peaking late this afternoon with gusts 25 to 35 mph. Winds will likely hit advisory level across Imperial County and southern Gila County late this afternoon with gusts peaking at 40 to 45 mph. This should lead to at least some patching blowing dust and possibly very localized dense blowing dust this afternoon. The strong winds and existent dry boundary layer will also lead to a period of critical fire weather conditions this afternoon and early evening. Red Flag conditions are anticipated during this time for the eastern 2/3s of Arizona.

As the low center enters southern Nevada late this afternoon, a weak cold front will also be progressing through central Arizona, eventually moving through the rest of Arizona by midnight tonight. The cold front will hold temperatures mostly in the middle 70s today west of Phoenix, but the bulk of the metro Phoenix area should still reach into the lower 80s. Winds will eventually diminish into tonight as the low center moves east through southern Utah and the surface gradient relaxes. The upper trough will linger across the region on Friday allowing a return to breezy conditions, but substantially lower winds than today. Highs Friday will rise back to near normals for southeast

IEM :: AFD from NWS PSR

April 19, 2018 Exceptional Event Imperial County California and Southwest Arizona, but end up mostly around 80 degrees for the Phoenix area. Models are still showing a chance of showers or even a remote chance of a thunderstorm across far east-central Arizona Friday evening, but PoPs remain right around 10% due to limited moisture and overall weak upper level support.

Upper level ridging will take hold behind the exiting trough for Saturday with 500mb heights quickly rebounding to around 580dm. Models are still showing a weak shortwave coming off the Pacific through Baja Saturday night, eventually into northern Mexico on Sunday. This feature will bring a period of high clouds into the Desert Southwest Saturday night into Sunday, but it should not disrupt the warming trend over the region. Highs Saturday should fall around 90 degrees while Sunday looks to be closer to 95 degrees.

Weak southwesterly flow aloft will remain across the Southwest U.S. into early next week with 500mb heights hovering around 580-582dm. This will keep temperatures around 7-10 degrees above normal through at least Tuesday. Model spread increases for the middle of next week with another potential Pacific low approaching the West Coast. This feature may help to amplify the ridge over the Interior West if it becomes mostly cut-off from the northern jet stream as indicated by the warmer European. The GFS is farther north with the trough, more progressive and thus keeps temperatures a bit cooler. Given this system is a week away, a blend was used for forecast temperatures yielding highs mostly in the middle 90s.

&&

.AVIATION...

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

Expect moderate easterly winds this morning to switch around to the southwest and west by late morning and become very strong and gusty, especially during the afternoon hours. By mid afternoon westerly winds of 15-20kt with gusts as high as 26-30kt can be expected. Areas of lofted dust will also develop during the afternoon, possibly reducing slantwise visibilities. Breezy westerly winds will also continue into the evening and nighttime hours near 10kt with gusts of 15-18kt. Skies will be partly cloudy with high cloud CIGS near 25kft moving in by midday to be replaced by a few low clouds near 7kft this evening.

Southeast California/Southwest Arizona including KIPL and KBLH:

Very windy conditions and areas of blowing dust are expected to develop this morning across the region and persist into the nighttime hours. KIPL will have southwesterly to westerly winds at 16-20kt with gusts of 26-32kt along with reduced visibilities and CIGS in blowing dust. Visibilities as low as 3sm and CIGS near 6Hft are possible. KBLH can expect west to southwest winds at 17-20kt gusting to 24-32kt today and continuing into tonight. Skies will also be

partly cloudy with high cloud decks near 29kft this morning to be replaced by FEW low clouds near 7kft this afternoon and evening.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...
Saturday through Wednesday...

As high pressure begins to build back in from the west expect a warming trend together with very dry conditions. Above normal max temps near 90 on Saturday will climb to the mid to upper 90s by Tuesday. Min RH values near 6-10 percent are also expected to last throughout the period. Breezy to windy conditions will develop late in the period as a low pressure system approaches from the west. Overnight recovery is expected to be poor to fair.

&&

.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Red Flag Warning from noon today to 8 PM MST this evening for AZZ132-133.

Wind Advisory from 2 PM this afternoon to 7 PM MST this evening for AZZ558-560>563.

CA...Wind Advisory until 7 PM PDT this evening for CAZ562-564-566.

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DISCUSSION...Kuhlman
AVIATION...Sawtelle
FIRE WEATHER...Sawtelle



College of Ag

Department of Agronomy

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April 19, 2018 Exceptional Event, Imperial County
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765 WWUS76 KSGX 191243 NPWSGX

URGENT - WEATHER MESSAGE National Weather Service San Diego CA 543 AM PDT Thu Apr 19 2018

...STRONG AND GUSTY WINDS OVER PORTIONS OF THE MOUNTAINS AND DESERTS THROUGH TONIGHT...

CAZ056-058-061-062-065-192100-

/O.CON.KSGX.HW.W.0006.000000T0000Z-180420T0900Z/ Riverside County Mountains-San Diego County Mountains-

Coachella Valley-San Diego County Deserts-

San Gorgonio Pass Near Banning-

Including the cities of Idyllwild-Pine Cove, Julian, Pine Valley, Indio, Palm Springs, Cathedral City, Palm Desert, Palm Desert Country, La Quinta, Coachella, Borrego Springs, Banning, and Desert Hot Springs
543 AM PDT Thu Apr 19 2018

...HIGH WIND WARNING REMAINS IN EFFECT UNTIL 2 AM PDT FRIDAY...

- \* Winds...Southwest to west winds 25 to 35 mph with gusts to 55 mph. Isolated gusts to 65 mph. Strongest along the mountain crests and desert slopes.
- \* Timing...Through tonight, strongest this morning.
- \* Visibility...Locally reduced to 5 miles or less in blowing dust and sand.
- \* Impacts...Difficult driving, especially for motorists with high profile vehicles. Reduced visibilities. Downed trees and power lines.
- \* Outlook...Winds will diminish tonight.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A High Wind Warning means a hazardous high wind event is expected or occurring. Sustained wind speeds of at least 40 mph or gusts of 58 mph or more can lead to property damage.

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CAZ055-060-192100-/O.CON.KSGX.WI.Y.0014.000000T0000Z-180420T0600Z/ San Bernardino County Mountains-Apple and Lucerne ValleysIEM :: NPW from NWS SGX

Appendix A

April 19, 2018 Exceptional Event Imperial County
Including the cities of Crestline, Lake Arrowhead, Big Bear City,
Big Bear Lake, Running Springs, Wrightwood, Victorville,
Hesperia, and Apple Valley
543 AM PDT Thu Apr 19 2018

...WIND ADVISORY REMAINS IN EFFECT UNTIL 11 PM PDT THIS EVENING...

- \* Winds...Southwest to west winds 20 to 30 mph with gusts to 45 mph.
- \* Timing...Through tonight. Strongest winds during the afternoon.
- \* Visibility...Locally reduced to 5 miles or less in blowing dust in sand.
- \* Impacts...Difficult driving, especially for motorists with high profile vehicles. Reduced visibilities. Downed trees limbs and power lines possible.
- \* Outlook...Winds will quickly diminish this evening.

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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WWUS75 KPSR 191521

NPWPSR

URGENT - WEATHER MESSAGE National Weather Service Phoenix AZ 821 AM MST Thu Apr 19 2018

CAZ567-200200-

/O.EXA.KPSR.WI.Y.0012.000000T0000Z-180420T0200Z/

Imperial Valley-

Including the cities of El Centro, Calexico, Alamorio, and Brawley

821 AM PDT Thu Apr 19 2018

...WIND ADVISORY IN EFFECT UNTIL 7 PM PDT THIS EVENING...

The National Weather Service in Phoenix has issued a Wind Advisory, which is in effect until 7 PM PDT this evening.

- \* AFFECTED AREA...Imperial Vallely including El Centro and Imperial.
- \* TIMING...Until 7 PM PDT
- \* WINDS...Westerly Winds 30-35 mph with gusts to 45 mph.
- \* IMPACTS...Very hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.

#### 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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CAZ562-564-566-200200-

/O.CON.KPSR.WI.Y.0012.000000T0000Z-180420T0200Z/

Imperial County Southwest-Chuckwalla Mountains-

Imperial County West-

Including the cities of Mountain Spring,

Imperial Hot Mineral Springs, Coolidge Springs, Salton City,

# April 19, 2018 Exceptional Event Imperial County Winona, Coyote Wells, Octillo, and Plaster City 821 AM PDT Thu Apr 19 2018

...WIND ADVISORY REMAINS IN EFFECT UNTIL 7 PM PDT THIS EVENING...

- \* AFFECTED AREA...Far southwest Imperial County including parts of I-8 and the Chuckwalla Mountains Imperial County, CA.
- \* TIMING...Until 7 PM PDT
- \* WINDS...Westerly Winds 30-35 mph with gusts to 40-50 mph.
- \* IMPACTS...Very hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.

#### 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>563-200200-

/O.CON.KPSR.WI.Y.0012.180419T2100Z-180420T0200Z/
Pinal/Superstition Mountains-San Carlos-Dripping SpringsGlobe/Miami-Southeast Gila CountyIncluding the cities of San Carlos, Peridot, Hayden, Winkelman,
Globe, and Miami
821 AM MST Thu Apr 19 2018

- ...WIND ADVISORY REMAINS IN EFFECT FROM 2 PM THIS AFTERNOON TO 7 PM MST THIS EVENING...
- \* AFFECTED AREA...Pinal/Superstition Mountains-San Carlos-Dripping Springs- Globe/Miami-Southeast Gila County- Including the cities of San Carlos, Peridot, Hayden, Winkelman, Globe, and Miami.
- \* TIMING...From 2 PM this afternoon until 7 PM MST
- \* WINDS...Westerly Winds 25-35 mph with gusts to 40-45 mph.
- \* IMPACTS...Very hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become

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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FXUS65 KPSR 191638

AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 935 AM MST Thu Apr 19 2018

#### .SYNOPSIS...

A strong, but mostly dry weather system will affect the Desert Southwest into Friday bringing a return of windy and critical fire conditions across the eastern half of Arizona. A significant warming trend is expected this weekend into early next week with high temperatures eventually returning into the middle to upper 90s over the lower deserts.

&&

#### .DISCUSSION...

Dry southwest flow aloft continued across Arizona this morning, ahead of an approaching Pacific upper level low pressure system. Surface cold front was moving thru central portions of Imperial and E. Riverside county, and the front will be quickly moving east and into the western deserts later this morning. Tightening gradients associated with the low have resulted in strong gusty west/southwest winds over portions of Imperial county; areas of blowing dust have spread through the Imperial valley and the lofted dust will move into the AZ deserts during the day today. Gusts over 40kt have been seen in Imperial, with visibility lowered to near 1 mile. Greater Phoenix area will stay ahead of the front into the mid afternoon, and increasing breeziness along with low level warm advection should allow the high temps to reach into the low (and maybe mid) 80s today. Due to strong winds occurring out west, a Wind Advisory was issued for the Imperial Valley and it will remain in effect thru 7 pm this evening. Current forecasts look to be in good shape - will continue to monitor winds/dust in case additional wind advisories or blowing dust advisories are needed as the day progresses.

#### .PREVIOUS DISCUSSION...

An approaching Pacific trough will move in from the northwest later today and slowly move through the Desert Southwest tonight into early Friday. Current water vapor imagery shows the low center just off the central California coast with weak moisture advection ahead of the low. Southerly flow across the Desert Southwest will continue to increase through this morning with winds becoming gusty initially across southeast California and southwest Arizona by mid morning. Gusty winds will become widespread this afternoon peaking late this afternoon with gusts 25 to 35 mph. Winds will likely hit advisory level across Imperial County and southern Gila County late this afternoon with gusts peaking at 40 to 45 mph. This should lead to at least some patching blowing dust and possibly very localized dense blowing

April 19, 2018 Exceptional Event Imperial County dust this afternoon. The strong winds and existent dry boundary layer will also lead to a period of critical fire weather conditions this afternoon and early evening. Red Flag conditions are anticipated during this time for the eastern 2/3s of Arizona.

As the low center enters southern Nevada late this afternoon, a weak cold front will also be progressing through central Arizona, eventually moving through the rest of Arizona by midnight tonight. The cold front will hold temperatures mostly in the middle 70s today west of Phoenix, but the bulk of the metro Phoenix area should still reach into the lower 80s. Winds will eventually diminish into tonight as the low center moves east through southern Utah and the surface gradient relaxes. The upper trough will linger across the region on Friday allowing a return to breezy conditions, but substantially lower winds than today. Highs Friday will rise back to near normals for southeast California and southwest Arizona, but end up mostly around 80 degrees for the Phoenix area. Models are still showing a chance of showers or even a remote chance of a thunderstorm across far east-central Arizona Friday evening, but PoPs remain right around 10% due to limited moisture and overall weak upper level support.

Upper level ridging will take hold behind the exiting trough for Saturday with 500mb heights quickly rebounding to around 580dm. Models are still showing a weak shortwave coming off the Pacific through Baja Saturday night, eventually into northern Mexico on Sunday. This feature will bring a period of high clouds into the Desert Southwest Saturday night into Sunday, but it should not disrupt the warming trend over the region. Highs Saturday should fall around 90 degrees while Sunday looks to be closer to 95 degrees.

Weak southwesterly flow aloft will remain across the Southwest U.S. into early next week with 500mb heights hovering around 580-582dm. This will keep temperatures around 7-10 degrees above normal through at least Tuesday. Model spread increases for the middle of next week with another potential Pacific low approaching the West Coast. This feature may help to amplify the ridge over the Interior West if it becomes mostly cut-off from the northern jet stream as indicated by the warmer European. The GFS is farther north with the trough, more progressive and thus keeps temperatures a bit cooler. Given this system is a week away, a blend was used for forecast temperatures yielding highs mostly in the middle 90s.

&&

.AVIATION...

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

Expect moderate easterly winds this morning to switch around to the southwest and west by late morning and become very strong and gusty, especially during the afternoon hours. By mid afternoon westerly winds of 15-20kt with gusts as high as 26-30kt can be expected.

April 19, 2018 Exceptional Event, Imperial County
Areas of lofted dust will also develop during the afternoon,
possibly reducing slantwise visibilities. Breezy westerly winds will
also continue into the evening and nighttime hours near 10kt with
gusts of 15-18kt. Skies will be partly cloudy with high cloud CIGS
near 25kft moving in by midday to be replaced by a few low clouds
near 7kft this evening.

Southeast California/Southwest Arizona including KIPL and KBLH:

Very windy conditions and areas of blowing dust are expected to develop this morning across the region and persist into the nighttime hours. KIPL will have southwesterly to westerly winds at 16-20kt with gusts of 26-32kt along with reduced visibilities and CIGS in blowing dust. Visibilities as low as 3sm and CIGS near 6Hft are possible. KBLH can expect west to southwest winds at 17-20kt gusting to 24-32kt today and continuing into tonight. Skies will also be partly cloudy with high cloud decks near 25kft this morning to be replaced by FEW low clouds near 7kft this afternoon and evening.

Aviation Discussion not updated for amended TAFs.

&&

.FIRE WEATHER...
Saturday through Wednesday...

As high pressure begins to build back in from the west expect a warming trend together with very dry conditions. Above normal max temps near 90 on Saturday will climb to the mid to upper 90s by Tuesday. Min RH values near 6-10 percent are also expected to last throughout the period. Breezy to windy conditions will develop late in the period as a low pressure system approaches from the west. Overnight recovery is expected to be poor to fair.

&&

.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Red Flag Warning from noon today to 8 PM MST this evening for AZZ132-133.

Wind Advisory from 2 PM this afternoon to 7 PM MST this evening for AZZ558-560>563.

CA...Wind Advisory until 7 PM PDT this evening for CAZ562-564-566-567.

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FXUS66 KSGX 191637 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 937 AM PDT Thu Apr 19 2018

#### .SYNOPSIS...

A trough of low pressure will generate strong west winds in the mountains and deserts through tonight, along with a light showers west of the mountains today. High pressure will bring a warming trend and ligher winds for the weekend. Slight cooling by the middle of next week as a trough develops off the west coast.

&&

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

At 930 AM, a trough of low pressure was centered over the NV/CA boarder with a weak cold front along the SoCal coast. Light showers were affecting the coast/valleys and coastal slopes, with general precipitation amounts of 0.01 to 0.05 inches. Surface winds were gusty in the mountains and deserts with some blowing dust over Imperial County. Though some of the more wind prone spots have seen gusts to 60 mph this morning, most areas have been limited to 20-40 mph gusts so far.

The trough and associated cold front will traverse the region today, this will keep winds gusty in the mountains/deserts through this evening. The strongest winds (gusts 55-65 mph) should be limited to the deserts slopes, with most guidance suggesting limited mountain wave potential. Areas along the desert floor should see peak gusts in the 30-50 mph range, this includes the Coachella Valley. Areas of blowing dust/sand, along with difficult travel for high profile vehicles are expected. Though tree/power line damage can't be ruled out, widespread impacts are not expected. The potential for light showers west of the mountains will decrease by this afternoon, becoming limited to just a 15-30% chance in San Diego County. Overall rain amounts of 0.00-0.05 inches expected.

Any lingering showers will taper off quickly this evening, with the winds in the deserts diminishing overnight as the trough shifts rapidly eastward. Ridging begins to take hold Friday, and solidifies its hold on the region over the weekend. This will bring a warming trend for the weekend, along with light winds and fair skies through early next week.

Forecast uncertainty is relatively high for the middle part of

April 19 2018 Exceptional Event Imperial County next week, with global models continuing to waver on the placement of closed low along the coast. Not that surprising given the potential setup. For now the forecast remains dry for the Wednesday-Friday period, with the most notable weather feature being a trend toward below average temperatures by late week.

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#### .AVIATION...

191600Z...Coast/Valleys...Mostly BKN low clouds with bases 2000-3500 feet msl will continue this morning but scatter out from northwest to southeast. Isolated -shra mainly in San Diego County between 16-20Z. Mainly scattered clouds this afternoon. Areas of low clouds after 03Z this evening, between about 2000-2500 feet msl. The risk of BKN low clouds after 21Z this afternoon is low, so the confidence in mainly SCT clouds in the TAF after about 21Z is high.

Mountains/Deserts...Areas of coastal slope and ridge obscurations will occur through about 19Z mainly in San Diego County, mostly below 7000 feet MSL due to clouds and fog. Isolated -shra with local -shsn will occur, mainly 16-20Z in San Diego County. Areas of strong winds will continue, strongest this afternoon and evening from the mountain crests through the desert slopes and into the deserts. West winds 20-30 knots, with isolated gusts 40-50 knots possible. Areas of reduced vis below 3sm in blowing dust and sand are probable in deserts this afternoon and evening.

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#### .MARINE...

Winds and choppy seas will peak this afternoon and evening, mainly in the outer waters, presenting a hazard for small craft. No additional hazardous marine weather is forecast Friday through Monday.

&&

#### .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...High Wind Warning until 2 AM PDT Friday for Coachella Valley-Riverside County Mountains-San Diego County Deserts-San Diego County Mountains-San Gorgonio Pass Near Banning.

Wind Advisory until 11 PM PDT this evening for Apple and Lucerne Valleys-San Bernardino County Mountains.

PZ...Small Craft Advisory until 2 AM PDT Friday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-

9/10/2019

IEM :: AFD from NWS SGX

**Appendix A** 

April 19, 2018 Exceptional Event Imperial County Waters from San Mateo point to the Mexican Border Extending

30 to 60 nm out including San Clemente Island.

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PUBLIC...Albright AVIATION/MARINE...Small

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995 WWUS76 KSGX 191936 NPWSGX

URGENT - WEATHER MESSAGE National Weather Service San Diego CA 1236 PM PDT Thu Apr 19 2018

...STRONG WINDS OVER PORTIONS OF THE MOUNTAINS AND DESERTS THROUGH TONIGHT...

CAZ056-058-061-062-065-200600-

/O.CON.KSGX.HW.W.0006.000000T0000Z-180420T0900Z/

Riverside County Mountains-San Diego County Mountains-

Coachella Valley-San Diego County Deserts-

San Gorgonio Pass Near Banning-

Including the cities of Idyllwild-Pine Cove, Julian, Pine Valley, Indio, Palm Springs, Cathedral City, Palm Desert, Palm Desert Country, La Quinta, Coachella, Borrego Springs, Banning, and Desert Hot Springs
1236 PM PDT Thu Apr 19 2018

...HIGH WIND WARNING REMAINS IN EFFECT UNTIL 2 AM PDT FRIDAY...

- \* Winds...Southwest to west winds 20 to 30 mph with gusts 35 to 50 mph. Isolated gusts to 60 mph along the desert slopes.
- \* Timing...Through tonight.
- \* Visibility...Locally reduced to 1 mile or less in blowing dust and sand.
- \* Impacts...Difficult driving, especially for motorists with high profile vehicles. Reduced visibilities. Downed trees and power lines.
- \* Outlook...Winds will diminish tonight.

#### PRECAUTIONARY/PREPAREDNESS ACTIONS...

A High Wind Warning means a hazardous high wind event is expected or occurring. Sustained wind speeds of at least 40 mph or gusts of 58 mph or more can lead to property damage.

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CAZ055-060-200600-

/O.CON.KSGX.WI.Y.0014.000000T0000Z-180420T0600Z/
San Bernardino County Mountains-Apple and Lucerne ValleysIncluding the cities of Crestline, Lake Arrowhead, Big Bear City,

IEM :: NPW from NWS SGX

### **Appendix A**

# April 19, 2018 Exceptional Event Imperial County Big Bear Lake, Running Springs, Wrightwood, Victorville,

Hesperia, and Apple Valley 1236 PM PDT Thu Apr 19 2018

...WIND ADVISORY REMAINS IN EFFECT UNTIL 11 PM PDT THIS EVENING...

- \* Winds...Southwest to west winds 15 to 25 mph with gusts 35 to 45 mph.
- \* Timing...Through tonight.
- \* Visibility...Locally reduced to 2 miles or less in blowing dust in sand.
- \* Impacts...Difficult driving, especially for motorists with high profile vehicles. Reduced visibilities.
- \* Outlook...Winds will diminish this evening.

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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Albright



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286 FXUS65 KPSR 192052 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 150 PM MST Thu Apr 19 2018

#### .SYNOPSIS...

A strong, but mostly dry weather system will affect the Desert Southwest into Friday bringing a return of windy and critical fire conditions across the eastern half of Arizona. A significant warming trend is expected this weekend into early next week with high temperatures eventually returning into the middle to upper 90s over the lower deserts.

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#### .DISCUSSION...

At 2 pm this afternoon, a strong Pacific upper low was moving east and through the desert southwest, centered over far southern Nevada. The surface cold front was pushing east and into the far southwestern AZ deserts. This is a dry system and will bring little if any chance for precip to the area tonight into Friday. IR imagery showed a prefrontal band of high clouds moving through the central deserts, with skies elsewhere sunny to partly sunny. Surface dewpoints over the central deserts were low, ranging from the low teens to low 20, and even out west the values were on the low side with Blythe reading just 26 degrees. Biggest impact with this system has been wind - we saw west winds gust over 40kt in the Imperial valley earlier in the morning, and when best mixing kicks in this afternoon, winds should pick up over most of the area, reaching wind advisory levels over favored areas in far SE California as well as higher terrain of southern Gila County. Some of the lower deserts could see gusts approach 35 mph at times later today but for the most part winds should remain below advisory criteria. Ahead of the front, in south central AZ, temps today were running a few degrees warmer than 24 hours ago as mixing and low level warm air advection ahead of the front allowed temps to climb into the low to mid 80s. Phoenix has already reached 85 this afternoon...but we should certainly see some cooling by Friday in the wake of a departing cold front. Look for Phoenix to fall into the upper 70s to around 80 on Friday with temps starting to rebound into the mid 80s over the warmer western deserts.

Main issue for the rest of today will be the continuing wind advisories which will stay in effect thru 02z. A Red Flag Warning is also in effect through 8 pm over the southwest and south central Arizona with the main threat being from central Phoenix east into southern Gila County. Areas of blowing dust are still expected this afternoon given the gusty winds and we will continue to monitor in case blowing dust advisories are needed.

Upper level ridging will take hold behind the exiting trough for Saturday with 500mb heights quickly rebounding to around 580dm. Models are still showing a weak shortwave coming off the Pacific through Baja Saturday night, eventually into northern Mexico on Sunday. This feature will bring a period of high clouds into the Desert Southwest Saturday night into Sunday, but it should not disrupt the warming trend over the region. Highs Saturday should fall around 90 degrees while Sunday looks to be closer to 95 degrees.

Weak southwesterly flow aloft will remain across the Southwest U.S. into early next week with 500mb heights hovering around 580-582dm. This will keep temperatures around 7-10 degrees above normal through at least Tuesday. Model spread increases for the middle of next week with another potential Pacific low approaching the West Coast. This feature may help to amplify the ridge over the Interior West if it becomes mostly cut-off from the northern jet stream as indicated by the warmer European. The GFS is farther north with the trough, more progressive and thus keeps temperatures a bit cooler. Given this system is a week away, a blend was used for forecast temperatures yielding highs mostly in the middle 90s.

&&

.AVIATION...

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

Expect moderate easterly winds this morning to switch around to the southwest and west by late morning and become very strong and gusty, especially during the afternoon hours. By mid afternoon westerly winds of 15-20kt with gusts as high as 26-30kt can be expected. Areas of lofted dust will also develop during the afternoon, possibly reducing slantwise visibilities. Breezy westerly winds will also continue into the evening and nighttime hours near 10kt with gusts of 15-18kt. Skies will be partly cloudy with high cloud CIGS near 25kft moving in by midday to be replaced by a few low clouds near 7kft this evening.

Southeast California/Southwest Arizona including KIPL and KBLH:

Very windy conditions and areas of blowing dust are expected to develop this morning across the region and persist into the nighttime hours. KIPL will have southwesterly to westerly winds at 16-20kt with gusts of 26-32kt along with reduced visibilities and CIGS in blowing dust. Visibilities as low as 3sm and CIGS near 6Hft are possible. KBLH can expect west to southwest winds at 17-20kt gusting to 24-32kt today and continuing into tonight. Skies will also be partly cloudy with high cloud decks near 25kft this morning to be replaced by FEW low clouds near 7kft this afternoon and evening.

Aviation Discussion not updated for amended TAFs.

.FIRE WEATHER...
Sunday through Thursday...

As high pressure begins to build back in from the west expect a warming trend together with very dry conditions. Above normal max temps will reach mid 90s over warmer deserts Sunday, and will climb to the upper 90s by the middle of next week. Min RH values near 6-10 percent are also expected to last throughout the period. Breezy to windy conditions will develop late in the period as a low pressure system approaches from the west. Overnight recovery is expected to be poor to fair.

&&

.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

&&

.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...Red Flag Warning until 8 PM MST this evening for AZZ132-133.

Wind Advisory from 2 PM this afternoon to 7 PM MST this evening for AZZ558-560>563.

CA...Wind Advisory until 7 PM PDT this evening for CAZ562-564-566-567.

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DISCUSSION...CB/Kuhlman AVIATION...Sawtelle FIRE WEATHER...Sawtelle

# IOWA STATE UNIVERSITY

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#### **Department of Agronomy**

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197 FXUS66 KSGX 192101 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 201 PM PDT Thu Apr 19 2018

#### .SYNOPSIS...

Drier weather for the rest of today, with gusty winds continuing in the deserts. High pressure will take hold Friday and remain in control through early next week, bringing quiet and warmer weather to the region. Cooler to end next week with the potential for a trough of low pressure along the West Coast.

&&

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

At 130 PM, an upper level trough was centered over Nevada, with cool northwest flow from the surface to 500 mb over SoCal. Rain showers had ended over the region, with 0.01-0.05 inches of accumulation from the mountain crests westward. Winds remained gusty in the deserts, though significant blowing dust was not evident on satellite.

Gusty winds will continue through tonight as mountain wave activity mixes 30-45 kt 850-700 mb winds down to the surface. The strongest winds are expected in the San Diego County deserts where the core of an 850-700 mb jet will be perpendicular to the terrain. Winds speeds should be limited to isolated 60 mph gusts along the desert slopes, and 35-50 mph gusts on the desert floor. Diminishing winds late tonight as mountain wave activity and mid level support shift east along with the upper trough.

Weak ridging will develop over the region Friday and remain in control through early next week. This will bring a rapid warming trend to the region with afternoon highs returning to 5-10 degrees above seasonal normals Saturday/Sunday. A weak closed low may drift over the region Saturday night and Sunday, but impacts should be limited to a few high clouds. Other than temperatures, winds will be light, with no impactful weather forecast through the early next week.

Global models continue hint at the development of a closed low along the West Coast by late next week. The track/strength of this low remains in question, with better agreement in recent runs of the deterministic ECMWF/GFS being undercut by significant spread in their corresponding ensembles.

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.AVIATION...

192000Z...Coast/Valleys...BKN-OVC clouds based around 3000-5000 feet MSL with tops to 7000 feet MSL into the evening will give way to mainly scattered clouds and unrestricted visibilities. The risk of BKN low clouds at KSAN is low, so the confidence in mainly SCT clouds in the KSAN TAF is high.

Mountains/Deserts...Areas of coastal slope and ridge obscurations will occur through late tonight, mostly below 7000 feet MSL due to clouds and fog. Isolated -shra with local -shsn will occur, but slowly taper off. Areas of strong winds will continue, strongest this evening from the desert slopes into the deserts. West winds 20-30 knots, with isolated gusts 40-50 knots possible. Areas of reduced vis below 3sm in blowing dust and sand are probable in deserts this evening.

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#### .MARINE...

Winds and choppy seas will peak this evening, mainly in the outer waters, presenting a hazard for small craft. No additional hazardous marine weather is forecast Friday through Monday.

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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...High Wind Warning until 2 AM PDT Friday for Coachella Valley-Riverside County Mountains-San Diego County Deserts-San Diego County Mountains-San Gorgonio Pass Near Banning.

Wind Advisory until 11 PM PDT this evening for Apple and Lucerne Valleys-San Bernardino County Mountains.

PZ...Small Craft Advisory until 2 AM PDT Friday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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PUBLIC...Albright
AVIATION/MARINE...Small

# SEE PAGE 2 FOR IMPERIAL COUNTY

Appendix A

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WWUS75 KPSR 192102 NPWPSR

URGENT - WEATHER MESSAGE National Weather Service Phoenix AZ 202 PM MST Thu Apr 19 2018

AZZ550-551-553-554-200200-/O.NEW.KPSR.DU.Y.0009.180419T2102Z-180420T0200Z/ South Mountain/Ahwatukee-Southeast Valley/Queen Creek-Northwest Pinal County-West Pinal County-Including the cities of Sun Lakes, Queen Creek, Casa Grande, Cactus Forest, Florence, and Coolidge 202 PM MST Thu Apr 19 2018

...BLOWING DUST ADVISORY IN EFFECT UNTIL 7 PM MST THIS EVENING...

The National Weather Service in Phoenix has issued a Blowing Dust Advisory, which is in effect until 7 PM MST this evening.

- \* AFFECTED AREA...Much of northern Pinal County and parts of southeast Maricopa County including State Route 347 and Interstate 10.
- \* TIMING...Through 7 pm
- \* WINDS...West winds gusting over 30 mph.
- \* VISIBILITY...Falling below 1 mile in many locations. Isolated dust streams near open desert may result in worse visibilities.
- \* IMPACTS...Dense blowing dust may make driving very dangerous with sudden reductions in visibilities.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Be ready for a sudden drop in visibility. If you encounter blowing dust or blowing sand on the roadway or see it approaching, pull off the road as far as possible and put your vehicle in park. Turn the lights all the way off and keep your foot off the brake pedal.

Remember, pull aside, stay alive.

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AZZ558-560>563-200200-/O.CON.KPSR.WI.Y.0012.000000T0000Z-180420T0200Z/ Pinal/Superstition Mountains-San Carlos-Dripping Springs-

Including the cities of San Carlos, Peridot, Hayden, Winkelman,
Globe, and Miami
202 PM MST Thu Apr 19 2018

...WIND ADVISORY REMAINS IN EFFECT UNTIL 7 PM MST THIS EVENING...

- \* AFFECTED AREA...Pinal/Superstition Mountains-San Carlos-Dripping Springs- Globe/Miami-Southeast Gila County- Including the cities of San Carlos, Peridot, Hayden, Winkelman, Globe, and Miami.
- \* TIMING...Until 7 PM MST
- \* WINDS...West winds 25 to 35 mph with gusts 40 to 45 mph.
- \* IMPACTS...Very hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.

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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CAZ562-564-566-567-200200-

/O.CON.KPSR.WI.Y.0012.000000T0000Z-180420T0200Z/

Imperial County Southwest-Chuckwalla MountainsImperial County West-Imperial ValleyIncluding the cities of Mountain Spring,
Imperial Hot Mineral Springs, Coolidge Springs, Salton City,
Winona, Coyote Wells, Ocotillo, Plaster City, El Centro,
Calexico, Alamorio, and Brawley
202 PM PDT Thu Apr 19 2018

- ...WIND ADVISORY REMAINS IN EFFECT UNTIL 7 PM PDT THIS EVENING...
- \* AFFECTED AREA...Far southwest Imperial County including parts of I-8 and the Chuckwalla Mountains Imperial County, CA.
- \* TIMING...Until 7 PM PDT
- \* WINDS...Westerly Winds 30 to 35 mph with gusts to 40 to 50 mph.

\* IMPACIS...Very hazardous driving conditions especially for high profile vehicles. Winds may cause areas of blowing dust that can reduce visibility. Unsecured objects may become airborne.

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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# IOWA STATE UNIVERSITY

College of Ag

**Department of Agronomy** 

#### **Department of Agronomy**

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April 19, 2018 Exceptional Event, Imperial County
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T 143 NOUS45 KPSR 192249 PNSPSR AZZ530>563-CAZ560>570-201049-

Public Information Statement National Weather Service Phoenix AZ 349 PM MST Thu Apr 19 2018

#### ...Wind Reports...

Location	Spe	ed	Time,	/Dat	te	Lat/Lon/Elev (ft.)
Arizona						
Gila County						
1 NE Punkin Center	41	MPH	0211	PM	04/19	33.87N/111.31W/2414
1 NNE San Carlos	38	MPH	0314	PM	04/19	33.37N/110.46W/2830
4 SSE Globe	31	MPH	0306	PM	04/19	33.33N/110.77W/4137
Globe	31	MPH	0220	PM	04/19	33.40N/110.77W/3901
6 W Hilltop	30	MPH	0232	PM	04/19	33.61N/110.41W/5732
La Paz County						
5 NE Martinez Lake	42	MPH	0218	PM	04/19	33.03N/114.39W/505
18 W Palm Canyon	41	MPH	0223	PM	04/19	33.35N/114.29W/1355
5 NNE Martinez Lake	37	MPH	0148	PM	04/19	33.04N/114.43W/429
17 E Cibola	36	MPH	0253	PM	04/19	33.33N/114.37W/1243
6 NE Martinez Lake	35	MPH	0213	PM	04/19	33.03N/114.39W/505
9 NE Martinez Lake	35	MPH	0258	PM	04/19	33.07N/114.36W/682
4 WSW Vicksburg	34	MPH	0220	PM	04/19	33.71N/113.81W/1148
11 NE Martinez Lake	32	MPH	0133	PM	04/19	33.11N/114.35W/790
4 NNE Martinez Lake	32	MPH	0203	PM	04/19	33.03N/114.45W/351
14 NNW Gladden	32	MPH	0253	PM	04/19	34.11N/113.35W/2500
3 SSW Cibola	31	MPH	0148	PM	04/19	33.30N/114.69W/229
18 SSW Quartzsite	30	MPH	0223	PM	04/19	33.41N/114.30W/1236
2 NW Wenden	28	MPH	1209	PM	04/19	33.85N/113.57W/1980
Maricopa County						
1 W Roosevelt	42	MPH	0155	PM	04/19	33.67N/111.16W/2227
Oatman Raws	41	MPH	0152	PM	04/19	33.05N/113.14W/1700
15 WNW Sunflower	41	MPH	0105	PM	04/19	33.98N/111.71W/2022
Phoenix Sky Harbor Intl Arpt	37	MPH	0217	PM	04/19	33.43N/112.00W/1107
1 WSW Luke Afb	35	MPH	0227	PM	04/19	33.53N/112.38W/1089
5 NE Tortilla Flat	35	MPH	0120	PM	04/19	33.59N/111.34W/1916
2 SW Avondale	35	MPH	0247	PM	04/19	33.42N/112.37W/967
2 WNW Tolleson	34	MPH	0230	PM	04/19	33.46N/112.29W/1014
Mesa Gateway Airport	33	MPH	0152	PM	04/19	33.29N/111.67W/1381
Gila Bend Af Aux Ap	33	MPH	0206	PM	04/19	32.89N/112.72W/882
Queen Creek	33	MPH	0205	PM	04/19	33.25N/111.64W/1399
12 N Tonopah	32	MPH	0201	PM	04/19	33.67N/112.92W/1855
1 W Beardsley	31	MPH	0314	PM	04/19	33.68N/112.42W/1350
3 NE Gila Bend	31	MPH	0229	PM	04/19	32.99N/112.68W/751
6 WNW Buckeye	31	MPH	0315	PM	04/19	33.42N/112.69W/1033

April 19, 2018 Exceptional Event, Imperial County  N M Eat Mesa  1 NM Arizona State Universit 31 MPH  215 PM 04/19  33, 47N/111.73W/1391  1 NMA Phoenix  30 MPH  2025 PM 04/19  33, 44N/111.95W/1188  1 NSW Phoenix  30 MPH  2026 PM 04/19  33, 44N/111.95W/1180  1 NSW Apache Junction  29 MPH  2028 PM 04/19  33, 48N/111.60W/1558  Chandler Municipal Airport  29 MPH  29 MPH  2059 PM 04/19  33, 27N/111.81W/9  2 S Citrus Park  29 MPH  29 MPH  2079 PM 04/19  33, 27N/111.81W/9  2 S Citrus Park  29 MPH  29 MPH  2079 PM 04/19  33, 28N/111.63W/1659  9 MSW Sunflower  29 MPH  29 MPH  29 MPH  2080 PM 04/19  33, 39N/111.46W/5825  9 MSW Sunflower  29 MPH  29 MPH  2015 PM 04/19  33, 28N/111.63W/1659  6 ENE Deer Valley  28 MPH  28 MPH  2015 PM 04/19  33, 48N/111.63W/1659  2 SSW Scottsdale  28 MPH  28 MPH  2025 PM 04/19  33, 48N/111.63W/1659  2 SSW Scottsdale  28 MPH  28 MPH  2025 PM 04/19  33, 48N/111.63W/1659  2 SSW Scottsdale  28 MPH  28 MPH  2025 PM 04/19  33, 48N/111.88W/1259  2 SSW Scottsdale  28 MPH  28 MPH  2035 PM 04/19  33, 48N/111.88W/1259  1 SSE Waddell  28 MPH  28 MPH  29 MPH  2045 PM 04/19  33, 48N/111.88W/1259  1 SSE Waddell  28 MPH  28 MPH  29 MPH  2047 PM 04/19  33, 48N/111.88W/1259  2 SSW Scottsdale  2 MPH  2049 PM 04/19  33, 48N/111.88W/1259  2 SSW Scottsdale  2 MPH  2040 PM 04/19  33, 48N/111.88W/1259  3 NE Sun City West  27 MPH  28 MPH  29 MPH  2040 PM 04/19  33, 48N/111.88W/1259  3 NE Sun City West  27 MPH  28 MPH  29 MPH  2040 PM 04/19  33, 48N/111.88W/1259  3 NE Sun City West  27 MPH  28 MPH  29 MPH  2040 PM 04/19  33, 48N/111.88W/1239  3 NE Sun City West  27 MPH  28 MPH  29 MPH  2040 PM 04/19  33, 48N/111.88W/1239  3 NE Sun City West  27 MPH  28 MPH  29 MPH  2040 PM 04/19  33, 48N/111.88W/1123  3 NE Sun City West  28 MPH  29 MPH  2040 PM 04/19  33, 48N/111.88W/1123  3 NESUN City West  29 MPH  2040 PM 04/19  33, 48N/111.88W/1123  3 NESUN City West  29 MPH  2050 PM 04/19  33, 48N/111.88W/1123  4 NSW Glendale  25 MPH  26 MPH  27 MPH  28 MPH  29 MPH  2040 PM 04/19  33, 48N/111.78W/1304  34 MPH  29 MPH  2040 PM 04	0/23/2018				IE	EM :: PNS fro	om NWS PSR
1 NW Arizona State Universit 31 MPH		na	<b>LEvent</b>	, Imp	eri	al Coun	ty 47N/111 72U/1201
1 NNN Phoenix 31 MPH 0203 PM 04/19 33.42N/112.15W/1030 1 NNN Phoenix 30 MPH 0203 PM 04/19 33.47N/112.08W/1090 31 WSN Apache Junction 29 MPH 0205 PM 04/19 33.47N/112.08W/1090 Chandler Municipal Airport 29 MPH 0314 PM 04/19 33.27N/111.81W/0 2 S Citrus Park 29 MPH 0314 PM 04/19 33.51N/112.44W/1115 Aguila 29 MPH 0315 PM 04/19 33.51N/112.44W/1115 Aguila 29 MPH 0314 PM 04/19 33.51N/112.44W/1115 Aguila 29 MPH 0315 PM 04/19 33.9M/131.17W/2170 8 N Sunflower 29 MPH 1029 AM 04/19 33.9M/131.17W/2170 8 N Sunflower 29 MPH 0300 PM 04/19 33.9M/131.17W/2170 25 W Deer Valley 29 MPH 0312 PM 04/19 33.52N/110.63W/1505 25 W Deer Valley 28 MPH 0312 PM 04/19 33.6M/111.94W/1266 2 SW Deer Valley 28 MPH 0245 PM 04/19 33.6M/111.94W/1266 2 SW Deer Valley 28 MPH 0245 PM 04/19 33.5N/112.38W/1145 2 SSW Scottsdale 28 MPH 0312 PM 04/19 33.5N/112.38W/1165 2 SSW Scottsdale 28 MPH 0312 PM 04/19 33.5N/112.88W/1266 2 SW Deer Valley 29 MPH 0245 PM 04/19 33.5N/112.38W/1145 3 SSW 1046 MPH 0312 PM 04/19 33.5N/112.38W/1145 3 SSW 1046 MPH 0312 PM 04/19 33.5N/112.38W/1145 2 SSW Scottsdale 28 MPH 0312 PM 04/19 33.5N/112.38W/1145 2 SSW Scottsdale 28 MPH 0310 PM 04/19 33.5N/112.08W/1045 3 SSW 1016 26 MPH 0315 PM 04/19 33.2N/111.88W/1933 3 NE Sun City West 27 MPH 0315 PM 04/19 33.2N/111.23W/3312 2 WSW Mobile 26 MPH 0305 PM 04/19 33.2N/111.23W/3312 2 SSW Tolleson 26 MPH 0306 PM 04/19 33.2N/111.23W/3312 2 SSW Glendale 26 MPH 0307 PM 04/19 33.2N/111.23W/332 2 SSW Glendale 26 MPH 0307 PM 04/19 33.2N/111.72W/332 2 SSW Glendale 25 MPH 0308 PM 04/19 33.3N/111.72W/332 2 SSW Glendale 25 MPH 0309 PM 04/19 33.3SN/112.20W/333 SSW Glendale 25 MPH 0309 PM 04/19 33.4SN/111.6W/3150 3 SSW Glendale 25 MPH 0309 PM 04/19 33.4SN/111.6W/3150 3 SSW Glendale 25 MPH 0309 PM 04/19 33.4SN/111.73W/3160 4 SSW Glendale 25 MPH 0309 PM 04/19 33.4SN/111.5W/3150 5 E Deer Valley Airport 25 MPH 0309 PM 04/19 33.4SN/111.5W/3150 5 E Deer Valley Airport 25 MPH 0309 PM 04/19 33.4SN/111.14W/31510 5 E Deer Valley Airport 25 MPH 0309 PM 04/19 33.4SN/111.14W/31510 5 E Deer Valley Airport 25 MPH 0309 PM							
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2 S Citrus Park Aguila 2 9 MPH 2 025 PM 04/19 3 3.51N/112.44W/1115 Aguila 2 9 MPH 2 025 PM 04/19 3 3.54W/113.17W/2170 8 N Sunflower 2 9 MPH 3 030 PM 04/19 3 3.94W/111.1.46W/5825 9 WSW Sunflower 2 9 MPH 2 030 PM 04/19 3 3.82N/111.63W/1650 6 ENE Deer Valley 2 8 MPH 2 0125 PM 04/19 3 3.72W/112.02W/1666 2 SW Deer Valley 2 8 MPH 2 0125 PM 04/19 3 3.74W/112.02W/1666 2 SW Deer Valley 2 8 MPH 2 0125 PM 04/19 3 3.46W/112.14W/1328 2 SSW Scottsdale 2 8 MPH 2 0245 PM 04/19 3 3.46W/111.94W/1250 3 SEW addell 2 8 MPH 2 0245 PM 04/19 3 3.54W/112.23W/0 3 SEW addell 3 8 E Sentinel 2 8 MPH 2 8 MPH 2 0220 PM 04/19 3 3.55W/112.23W/0 3 NE Sun City West 2 7 MPH 3 M 050 PM 3 M 04/19 3 M 04/11.1.68W/13/10 2 SSW M 050 PM 4 W Queen Creek 2 6 MPH 3 M 04/19 3 M 04/11.2.26W/3387 4 W Queen Creek 2 6 MPH 2 6 MPH 3 M 04/19 3 M 04/11.2.26W/3387 4 W Queen Creek 2 6 MPH 3 M 04/19 3 M 04/19 3 M 04/11.2.26W/3387 4 W Queen Creek 2 6 MPH 3 M 04/19 3 M 04/19 3 M 04/11.2.26W/3387 4 W 04/19 3 M 04/19 3 M 04/19 3 M 04/19 3 M 04/11.2.26W/3387 4 W 04/19 3 M 04	·						
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Pinal County  4 SSE Coolidge	·						
4 SSE Coolidge 40 MPH 0225 PM 04/19 32.92N/111.51W/1441 Casa Grande Municipal Airpor 38 MPH 0212 PM 04/19 32.95N/111.77W/1462 WNW Santan 37 MPH 0244 PM 04/19 33.17N/111.84W/1214 6 N Florence 35 MPH 0244 PM 04/19 33.12N/111.40W/1750 9 ESE Maricopa 35 MPH 0315 PM 04/19 32.99N/111.92W/1306 7 ESE Apache Junction 34 MPH 0230 PM 04/19 32.99N/111.45W/1802 1 NNW Coolidge 34 MPH 0322 PM 04/19 32.99N/111.53W/1414 3 NNW Ak-chin Village 33 MPH 0220 PM 04/19 33.08N/112.12W/1168 2 WNW Casa Grande 32 MPH 0235 PM 04/19 32.90N/111.79W/1369 10 ESE Queen Creek 31 MPH 0230 PM 04/19 33.16N/111.49W/1547						,	
4 SSE Coolidge 40 MPH 0225 PM 04/19 32.92N/111.51W/1441 Casa Grande Municipal Airpor 38 MPH 0212 PM 04/19 32.95N/111.77W/1462 WNW Santan 37 MPH 0244 PM 04/19 33.17N/111.84W/1214 6 N Florence 35 MPH 0244 PM 04/19 33.12N/111.40W/1750 9 ESE Maricopa 35 MPH 0315 PM 04/19 32.99N/111.92W/1306 7 ESE Apache Junction 34 MPH 0230 PM 04/19 32.99N/111.45W/1802 1 NNW Coolidge 34 MPH 0322 PM 04/19 32.99N/111.53W/1414 3 NNW Ak-chin Village 33 MPH 0220 PM 04/19 33.08N/112.12W/1168 2 WNW Casa Grande 32 MPH 0235 PM 04/19 32.90N/111.79W/1369 10 ESE Queen Creek 31 MPH 0230 PM 04/19 33.16N/111.49W/1547	Pinal County						
Casa Grande Municipal Airpor 38 MPH 0212 PM 04/19 32.95N/111.77W/1462 2 WNW Santan 37 MPH 0244 PM 04/19 33.17N/111.84W/1214 6 N Florence 35 MPH 0244 PM 04/19 33.12N/111.40W/1750 9 ESE Maricopa 35 MPH 0315 PM 04/19 32.99N/111.92W/1306 7 ESE Apache Junction 34 MPH 0230 PM 04/19 33.35N/111.45W/1802 1 NNW Coolidge 34 MPH 0322 PM 04/19 32.99N/111.53W/1414 3 NNW Ak-chin Village 33 MPH 0220 PM 04/19 33.08N/112.12W/1168 2 WNW Casa Grande 32 MPH 0235 PM 04/19 32.90N/111.79W/1369 10 ESE Queen Creek 31 MPH 0230 PM 04/19 33.16N/111.49W/1547		40	MPH	0225	РМ	04/19	32.92N/111.51W/1441
2 WNW Santan 37 MPH 0244 PM 04/19 33.17N/111.84W/1214 6 N Florence 35 MPH 0244 PM 04/19 33.12N/111.40W/1750 9 ESE Maricopa 35 MPH 0315 PM 04/19 32.99N/111.92W/1306 7 ESE Apache Junction 34 MPH 0230 PM 04/19 33.35N/111.45W/1802 1 NNW Coolidge 34 MPH 0322 PM 04/19 32.99N/111.53W/1414 3 NNW Ak-chin Village 33 MPH 0220 PM 04/19 33.08N/112.12W/1168 2 WNW Casa Grande 32 MPH 0235 PM 04/19 32.90N/111.79W/1369 10 ESE Queen Creek 31 MPH 0230 PM 04/19 33.16N/111.49W/1547		38	MPH	0212	РМ	04/19	32.95N/111.77W/1462
9 ESE Maricopa 35 MPH 0315 PM 04/19 32.99N/111.92W/1306 7 ESE Apache Junction 34 MPH 0230 PM 04/19 33.35N/111.45W/1802 1 NNW Coolidge 34 MPH 0322 PM 04/19 32.99N/111.53W/1414 3 NNW Ak-chin Village 33 MPH 0220 PM 04/19 33.08N/112.12W/1168 2 WNW Casa Grande 32 MPH 0235 PM 04/19 32.90N/111.79W/1369 10 ESE Queen Creek 31 MPH 0230 PM 04/19 33.16N/111.49W/1547			MPH	0244	РМ	04/19	33.17N/111.84W/1214
9 ESE Maricopa 35 MPH 0315 PM 04/19 32.99N/111.92W/1306 7 ESE Apache Junction 34 MPH 0230 PM 04/19 33.35N/111.45W/1802 1 NNW Coolidge 34 MPH 0322 PM 04/19 32.99N/111.53W/1414 3 NNW Ak-chin Village 33 MPH 0220 PM 04/19 33.08N/112.12W/1168 2 WNW Casa Grande 32 MPH 0235 PM 04/19 32.90N/111.79W/1369 10 ESE Queen Creek 31 MPH 0230 PM 04/19 33.16N/111.49W/1547		35	MPH				
7 ESE Apache Junction 34 MPH 0230 PM 04/19 33.35N/111.45W/1802 1 NNW Coolidge 34 MPH 0322 PM 04/19 32.99N/111.53W/1414 3 NNW Ak-chin Village 33 MPH 0220 PM 04/19 33.08N/112.12W/1168 2 WNW Casa Grande 32 MPH 0235 PM 04/19 32.90N/111.79W/1369 10 ESE Queen Creek 31 MPH 0230 PM 04/19 33.16N/111.49W/1547	9 ESE Maricopa	35	MPH				
1 NNW Coolidge 34 MPH 0322 PM 04/19 32.99N/111.53W/1414 3 NNW Ak-chin Village 33 MPH 0220 PM 04/19 33.08N/112.12W/1168 2 WNW Casa Grande 32 MPH 0235 PM 04/19 32.90N/111.79W/1369 10 ESE Queen Creek 31 MPH 0230 PM 04/19 33.16N/111.49W/1547	-	34	MPH				
3 NNW Ak-chin Village       33 MPH       0220 PM 04/19       33.08N/112.12W/1168         2 WNW Casa Grande       32 MPH       0235 PM 04/19       32.90N/111.79W/1369         10 ESE Queen Creek       31 MPH       0230 PM 04/19       33.16N/111.49W/1547		34	MPH	0322	РМ	04/19	32.99N/111.53W/1414
2 WNW Casa Grande 32 MPH 0235 PM 04/19 32.90N/111.79W/1369 10 ESE Queen Creek 31 MPH 0230 PM 04/19 33.16N/111.49W/1547		33	MPH	0220	РМ	04/19	33.08N/112.12W/1168
	2 WNW Casa Grande	32	MPH	0235	РМ	04/19	32.90N/111.79W/1369
4 SE Maricopa 28 MPH 0225 PM 04/19 33.02N/111.99W/1213	10 ESE Queen Creek	31	MPH	0230	РМ	04/19	33.16N/111.49W/1547
	4 SE Maricopa	28	MPH	0225	PM	04/19	33.02N/111.99W/1213

018 April 19 2018 Evcent	tional Ever	IEM :: PNS	from NWS PSR	Append
April 19, 2018 Except ESE Apache Junction	28 MPH	0245 PM 04/19	33.41N/111.53W/1754	Append
asa Grande	28 MPH	0118 PM 04/19	32.89N/111.74W/1512	
E Apache Junction	25 MPH	0302 PM 04/19	33.41N/111.47W/1916	
Vuma County				
Yuma County	42 MDU	0216 PM 04/10	22 OON /114 40U /422	
SE Martinez Lake	42 MPH	0216 PM 04/19	32.90N/114.40W/423	
ESE Martinez Lake	40 MPH	0208 PM 04/19	32.92N/114.37W/429	
ESE Martinez Lake	40 MPH	0223 PM 04/19	32.94N/114.38W/469	
2 NNW Tacna	40 MPH	0213 PM 04/19	32.86N/114.03W/757	
1 E Martinez Lake	40 MPH	1223 PM 04/19	32.97N/114.27W/843	
1 SSW Fortuna Foothills	38 MPH	0959 AM 04/19	32.50N/114.45W/346	
0 SSE Martinez Lake	37 MPH	0203 PM 04/19	32.84N/114.39W/318	
SE Martinez Lake	37 MPH	0213 PM 04/19	32.89N/114.35W/436	
1 N Ligurta	37 MPH	0203 PM 04/19	32.83N/114.33W/377	
uma	37 MPH	0216 PM 04/19	32.66N/114.61W/213	
SSW Yuma	36 MPH	0216 PM 04/19	32.65N/114.63W/185	
0 ESE Martinez Lake	36 MPH	0208 PM 04/19	32.88N/114.32W/469	
1 SE Martinez Lake	36 MPH	0218 PM 04/19	32.87N/114.32W/360	
3 NNW Mohawk	35 MPH	0258 PM 04/19	32.92N/113.80W/475	
0 ESE Martinez Lake	35 MPH	0218 PM 04/19	32.89N/114.32W/498	
0 NNW Wellton	34 MPH	0128 PM 04/19	32.82N/114.20W/662	
2 N Ligurta	34 MPH	0113 PM 04/19	32.85N/114.27W/485	
0 SSE Martinez Lake	33 MPH	0208 PM 04/19	32.84N/114.39W/318	
3 N Wellton	33 MPH	0147 PM 04/19	32.86N/114.11W/780	
1 N Ligurta	32 MPH	0323 PM 04/19	32.84N/114.30W/449	
0 SE Martinez Lake	32 MPH	0223 PM 04/19	32.87N/114.33W/429	
W Fortuna Foothills	28 MPH	0135 PM 04/19	32.64N/114.52W/213	
E Wellton	26 MPH	1110 AM 04/19	32.67N/114.09W/287	
SSW Winterhaven	26 MPH	1248 PM 04/19	32.72N/114.65W/125	
NNW Fortuna Foothills	25 MPH	0130 PM 04/19	32.68N/114.42W/285	
California				
Imperial County				
ountain Springs Grade	53 MPH	0850 AM 04/19	32.67N/116.09W/2044	
mperial County Airport	51 MPH	0832 AM 04/19	32.83N/115.58W/0	
aval Air Facility	41 MPH	0242 PM 04/19	32.83N/115.67W/-43	
E Winona	41 MPH	0900 AM 04/19	33.23N/115.82W/-232	
7 NNW Coyote Wells	40 MPH	0226 PM 04/19	32.99N/116.07W/780	
S Martinez Lake	39 MPH	0227 PM 04/19	32.91N/114.47W/285	
unrise	38 MPH	0200 PM 04/19	32.74N/116.04W/694	
WSW Glamis	37 MPH	0110 PM 04/19	32.97N/115.17W/277	
ENE Gordon's Well	37 MPH	1009 AM 04/19	32.74N/114.88W/216	
1 NNE Gordon's Well	35 MPH	0105 PM 04/19	32.87N/114.91W/403	
E Felicity	32 MPH	0915 AM 04/19	32.75N/114.74W/244	
ESE Niland	29 MPH	1235 PM 04/19	33.22N/115.47W/-58	
0 SW Winona	28 MPH	0145 PM 04/19	33.13N/116.05W/12	
NE Wiest	28 MPH	0130 PM 04/19	33.16N/115.31W/226	
ESE Glamis	28 MPH	1235 PM 04/19	32.98N/115.04W/367	
		0200 PM 04/10	33.05N/114.83W/1939	
4 ENE Glamis	27 MPH	0300 PM 04/19	JJ. 0 JN/ 114.0 JN/ 1JJJ	
4 ENE Glamis SW Niland SSE Imperial Hot Mineral	27 MPH	0300 PM 04/19 0200 PM 04/19	33.21N/115.55W/-176	

...Riverside County...

April 19, 2018 Exception Blythe Airport	nal Even	t, Imperial Çour	nty	Appendix A
Blythe Airport	38 MPH	0103 PM 04/19	33.61N/114.71W/395	• • •
10 WNW Imperial Hot Mineral	29 MPH	0914 AM 04/19	33.51N/115.84W/-95	
6 E Rice	29 MPH	0150 PM 04/19	34.06N/114.73W/831	
17 E Desert Center	28 MPH	1200 PM 04/19	33.65N/115.10W/394	
Jtnp-lost Horse Raws	27 MPH	1000 AM 04/19	34.02N/116.19W/4133	
12 E Lost Horse-keys Village	26 MPH	1034 AM 04/19	33.98N/116.00W/3375	
Observations are collected for equipment and exposures. We for their dedication. Not all	thank all	volunteer weathe	r observers	

# **IOWA STATE UNIVERSITY**

\$\$

College of Ag Department of Agronomy

## **Department of Agronomy**

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WWUS75 KPSR 200142

NPWPSR

URGENT - WEATHER MESSAGE National Weather Service Phoenix AZ 642 PM MST Thu Apr 19 2018

AZZ550-551-553-554-200245-

/O.EXP.KPSR.DU.Y.0009.00000T0000Z-180420T0200Z/
South Mountain/Ahwatukee-Southeast Valley/Queen CreekNorthwest Pinal County-West Pinal CountyIncluding the cities of Sun Lakes, Queen Creek, Casa Grande,
Cactus Forest, Florence, and Coolidge
642 PM MST Thu Apr 19 2018

...BLOWING DUST ADVISORY WILL EXPIRE AT 7 PM MST THIS EVENING...

Some very isolated areas of blowing dust may still occur but the overall threat has diminished.

\$\$

AZZ558-560>563-CAZ562-564-566-567-200245-/0.EXP.KPSR.WI.Y.0012.000000T0000Z-180420T0200Z/

Pinal/Superstition Mountains-San Carlos-Dripping Springs-Globe/Miami-Southeast Gila County-Imperial County Southwest-Chuckwalla Mountains-Imperial County West-Imperial Valley-Including the cities of San Carlos, Peridot, Hayden, Winkelman, Globe, Miami, Mountain Spring, Imperial Hot Mineral Springs, Coolidge Springs, Salton City, Winona, Coyote Wells, Ocotillo, Plaster City, El Centro, Calexico, Alamorio, and Brawley 642 PM MST Thu Apr 19 2018 / 642 PM PDT Thu Apr 19 2018/

...WIND ADVISORY WILL EXPIRE AT 7 PM MST /7 PM PDT/ THIS EVENING...

The strong winds will continue to weaken.

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College of Ag

Department of Agronomy

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FXUS66 KSGX 200412 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 912 PM PDT Thu Apr 19 2018

.SYNOPSIS...

Drier weather tonight, with gusty winds diminishing in the mountains and deserts. High pressure will take hold Friday and remain in control through early next week, bringing quiet and warmer weather to the region. Cooler to end next week with the potential for a trough of low pressure along the West Coast.

&&

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

At 9 PM, water vapor satellite imagery displayed an upper-level low centered over the NV/UT/AZ border with northwest flow over southern CA. Surface observations showed wind gusts of 35-45 mph over portions of the mountains and lower deserts. A few higher gusts are possible over the next few hours, then winds will quickly diminish across the area. No extensions of the wind products are expected at this time. Peak wind gusts so far have been 64 mph at Volcan Mountain, 63 mph at Harrison Park and Whitewater and a 56 mph was reported at Palm Springs International Airport. A few hundredths of an inch of precipitation were observed earlier today as the trough moved across the area, with a tenth or two reported along the coastal mountain slopes. Only minor updates to the sky forecast this evening to account for low clouds along portions of the coast tonight and tomorrow night.

Weak ridging will develop over the region Friday and remain in control through early next week. This will bring a rapid warming trend to the region with afternoon highs returning to 5-10 degrees above seasonal normals Saturday/Sunday. A weak closed low may drift over the region Saturday night and Sunday, but impacts should be limited to a few high clouds. Other than temperatures, winds will be light, with no impactful weather forecast through the early next week.

Global models continue hint at the development of a closed low along the West Coast by late next week. The track/strength of this low remains in question, with better agreement in recent runs of the deterministic ECMWF/GFS being undercut by significant spread in their corresponding ensembles.

&&

.AVIATION...

200330Z...Coast/Valleys...SKC-SCT025 most areas except BKN020-030 near the foothills through 15Z Friday. After 15Z...SKC-SCT030 through 23Z.

Mountains/Deserts...Northwest winds 20-30kt gusting to 45kt down the eastern slopes into the lower deserts through 08Z. From 08-12Z...winds diminishing to 10-20kt.

West facing mountains slopes and foothills occasionally obscured in clouds and fog 15Z Friday. After 16Z...mostly clear with unrestricted visibility.

&&

#### .MARINE...

Small Craft Advisory in effect until 2 AM for gusty northwest winds 15-25kt and choppy seas associated with a short period wind swell, primarily over the Outer Waters. No hazardous marine weather is forecast Friday through Monday.

&&

#### .SKYWARN...

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

&&

#### .SGX WATCHES/WARNINGS/ADVISORIES...

CA...High Wind Warning until 2 AM PDT Friday for Coachella Valley-Riverside County Mountains-San Diego County Deserts-San Diego County Mountains-San Gorgonio Pass Near Banning.

Wind Advisory until 11 PM PDT this evening for Apple and Lucerne Valleys-San Bernardino County Mountains.

PZ...Small Craft Advisory until 2 AM PDT Friday for Coastal Waters from San Mateo Point to the Mexican Border and out to 30 nm-Waters from San Mateo point to the Mexican Border Extending 30 to 60 nm out including San Clemente Island.

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PUBLIC...JJT
AVIATION/MARINE...Moede

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NOUS46 KSGX 200415
PNSSGX
CAZ043-048-050-055>058-060>062-065-552-554-201615-
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Public Information Statement National Weather Service San Diego CA 915 PM PDT Thu Apr 19 2018

```
.....Top Wind Gusts Thursday.....
Location
                           Speed
                                     Time/Date
                                                    Elevation (ft.)
Volcan Mountain
                           64 MPH
                                     0650 AM 04/19
                                                    5154
Harrison Park
                           63 MPH
                                     0750 AM 04/19
                                                    4861
White Water Raws
                           63 MPH
                                     0150 PM 04/19
                                                    2546
Boulevard (1 W)
                           62 MPH
                                     0800 AM 04/19
                                                    3404
Palm Springs Airport
                           56 MPH
                                     0715 PM 04/19
                                                    474
Burns Canyon
                                     0551 PM 04/19
                           52 MPH
                                                    6284
Boucher Hill
                           50 MPH
                                     1137 AM 04/19
                                                    5440
Whitewater
                           50 MPH
                                     1245 PM 04/19
                                                    1510
```

0727 AM 04/19

587

...Peak Wind Gusts by Zone...

Borrego Springs (7 SE)

```
...San Gorgonio Pass Near Banning...
White Water Raws
                             63 MPH
                                       0150 PM 04/19
                                                       2546
Whitewater
                             50 MPH
                                       1245 PM 04/19
                                                       1510
Thousand Palms (5 NNE)
                             46 MPH
                                       0713 AM 04/19
                                                       1066
Cabazon
                             32 MPH
                                       0814 AM 04/19
                                                       2154
```

49 MPH

San Diego County Mounta	ins		
Volcan Mountain	64 MPH	0650 AM 04/19	5154
Harrison Park	63 MPH	0750 AM 04/19	4861
Boulevard (1 W)	62 MPH	0800 AM 04/19	3404
Boucher Hill	50 MPH	1137 AM 04/19	5440
Ranchita (1 NE)	47 MPH	0907 AM 04/19	4415
Boulevard (5 NW)	45 MPH	1030 AM 04/19	4114
Julian Fire Station	44 MPH	0755 AM 04/19	4238
Descanso (8 NE)	43 MPH	0710 AM 04/19	4740
4 E Pine Valley	40 MPH	1231 PM 04/19	6048
Lake Cuyamaca	38 MPH	1120 AM 04/19	4779
Warner Springs (4 SE)	36 MPH	0950 AM 04/19	3242
Palomar Mtn Lookout	36 MPH	0633 AM 04/19	6142
5 S Julian	35 MPH	0424 AM 04/19	4637
Julian (1 ESE)	35 MPH	0820 AM 04/19	4201
Julian (4 W)	33 MPH	0740 AM 04/19	3738
Boulevard (8 NW)	33 MPH	0100 PM 04/19	4000
Campo	32 MPH	1201 PM 04/19	2630
Mt Laguna Observatory	32 MPH	0700 AM 04/19	5805
Guatay	31 MPH	1230 PM 04/19	3892
Warner Springs (3 SW)	30 MPH	0220 PM 04/19	2842

April 19, 2018 Exception	onal Eyer	t, Imperial Cou	nty <sub>o1</sub> F
Campo (3 NW)	29 MPH	0240 PM 04/19	2848
Pine Valley (3 SSW)	29 MPH	1250 PM 04/19	4004
Julian (2 N)	29 MPH	· ·	4131
Lake Morena (1 E)	28 MPH		
Warner Springs (4 SW)	28 MPH	0740 AM 04/19	2803
Pine Hills	27 MPH	1104 AM 04/19	3651
Santa Ysabel (1 SE)	27 MPH	•	3314
Oak Grove N	27 MPH	•	2756
Pine Valley (5 S)	27 MPH	0150 PM 04/19	3263
Campo (3 NE)	27 MPH	0920 AM 04/19	2886
Santa Ysabel (2 SW)	27 MPH	1010 AM 04/19	3291
Campo (1 SW)	26 MPH		2433
Mt Laguna Observatory (1 N)	26 MPH	1052 AM 04/19	5737
Descanso (1 SW)	26 MPH	0440 PM 04/19	3394
Julian (5 NW)	26 MPH		4284
Campo (7 NE)	26 MPH		3268
Sill Hill	25 MPH	1120 AM 04/19	3556
Chihuahua Valley	25 MPH	1030 AM 04/19	4610
Pine Valley SE	25 MPH	1230 PM 04/19	3939
San Diego County Inland V	alleys		
Otay Mountain	34 MPH	0314 PM 04/19	3283
Round Potrero	31 MPH	0130 PM 04/19	2634
Otay Mountain	31 MPH	0300 PM 04/19	3359
Jamul (7 E)	29 MPH	0315 PM 04/19	3760
San Clemente (5 E)	28 MPH	0422 PM 04/19	810
Camp Pendleton	27 MPH	0522 PM 04/19	915
Sky Valley	27 MPH	0440 PM 04/19	2248
Potrero North	27 MPH	0240 PM 04/19	2302
Potrero	27 MPH	0240 PM 04/19	2360
Lake San Marcos (3 SE)	26 MPH	0102 PM 04/19	540
Potrero (2 NE)	26 MPH	0410 PM 04/19	2532
Dye Mountain	26 MPH	1000 AM 04/19	2998
Barrett Junction (1 SE)	26 MPH	0250 PM 04/19	1221
Alpine Heights (1 SW)	26 MPH	0250 PM 04/19	1375
Scripps Ranch	25 MPH	0130 PM 04/19	779
Olivenhain	25 MPH	0210 PM 04/19	1167
Fallbrook	25 MPH	0200 PM 04/19	953
Alpine Heights (1 S)	25 MPH		1807
San Diego County Deserts.			
Borrego Springs (7 SE)	49 MPH	0727 AM 04/19	587
Borrego Springs (3 W)	48 MPH	0710 PM 04/19	820
Julian (9 ESE)	43 MPH	1231 PM 04/19	2011
In Ko Pah	39 MPH	0800 AM 04/19	3221
Borrego Springs (9 S)	38 MPH	0440 PM 04/19	768
Ocotillo Wells (4 W)	37 MPH		436
3 NW Borrego Springs	36 MPH		2175
Borrego Springs (2 E)	33 MPH	0530 PM 04/19	720
Ocotillo Wells (1 SW)	31 MPH	0452 AM 04/19	137
Jacumba (1 5W)	30 MPH		2700
Ocotillo Wells (3 WNW)	30 MPH		390
Borrego Springs	25 MPH	0709 PM 04/19	658
2011 CBO 2hi TIIB2	23 LILI	0705 FM 04/15	050

April 19, 2018 Except	tional Eve	nt, Imperial Cou	nty
San Diego County Coasta	l Areas		
Mission Valley	28 MPH	0231 PM 04/19	319
La Jolla Heights	25 MPH	1200 PM 04/19	409
Miramar MCAS	25 MPH	0355 PM 04/19	478
San Bernardino and Rive		= =	· ·
Temescal	33 MPH		
Sage	25 MPH	0314 PM 04/19	2560
San Bernardino County Mo	nuntains		
Burns Canyon	52 MPH	0551 PM 04/19	6284
Running Springs (2 NW)	43 MPH		6350
Mormon Rock	35 MPH		3300
Lake Arrowhead (1 N)	34 MPH	0326 AM 04/19	5225
2 NNW Banning	34 MPH	0813 PM 04/19	3609
Big Bear Airport	33 MPH	0655 PM 04/19	6752
Wrightwood (1 W)	33 MPH	0423 PM 04/19	
			6371
Big Bear Lake	32 MPH	0459 PM 04/19	7001
Green Valley Lake	30 MPH	0349 AM 04/19	6926
Rock Camp	29 MPH	0402 AM 04/19	4900
Big Bear (2 E)	28 MPH	1100 AM 04/19	6790
Big Bear Lake	28 MPH	0602 AM 04/19	6766
Lake Arrowhead	27 MPH	0508 AM 04/19	5495
Fawnskin (2 E)	26 MPH	0534 PM 04/19	6900
Converse	26 MPH	0609 AM 04/19	5618
Riverside County Mounta	ins		
Pinyon Pines	43 MPH	1236 PM 04/19	4060
Mt San Jacinto	33 MPH	1153 AM 04/19	8584
9 SE Mountain Center	30 MPH	0838 AM 04/19	4590
Mt San Jacinto Ranger Stn	29 MPH	0618 AM 04/19	8375
Pine Cove (8 NW)	29 MPH	0801 AM 04/19	4906
Anza (5 NNE)	27 MPH		4599
Anza (5 NE)	26 MPH	0614 AM 04/19	
Anza	26 MPH	0654 AM 04/19	
AllZa	ZO METI	0034 AN 04/19	3939
Santa Ana Mountains and	Foothills	• • •	
Santiago Peak	29 MPH	0840 PM 04/19	4135
Fremont Canyon	25 MPH	0551 PM 04/19	1780
0			
Orange County Inland	ac MBII	0454 DM 04/40	702
Coto De Caza (3 S)	26 MPH	0151 PM 04/19	793
Orange County Coastal	•		
San Clemente	26 MPH	0528 AM 04/19	32
Coachella Valley			
Palm Springs Airport	56 MPH	0715 PM 04/19	474
Palm Desert (5 S)	44 MPH	0530 AM 04/19	980
Thousand Palms	40 MPH	0225 PM 04/19	272
Thermal Airport	39 MPH	0757 AM 04/19	-118
Thousand Palms (5 NE)	38 MPH	0617 AM 04/19	1089
Cathedral City (1 SW)	34 MPH	0252 PM 04/19	605

Coachella 19, 2018 Exception	ona 31	I Event	0748	PM	<b>al Coun</b> 04/19	<b>Y</b> 10
Indio Fire Station	28	MPH	0339	PM	04/19	26
Palm Desert (2 SW)	27	MPH	0507	PM	04/19	492
Apple and Lucerne Valleys						
Victorville Airport	48	MPH	0355	РМ	04/19	2884
Victorville (6 SW)	47	MPH	0507	ΡM	04/19	3164
Means Lake	46	MPH	0526	PΜ	04/19	2818
Victorville (5 N)	45	MPH	1235	ΑМ	04/19	4650
Hesperia (4 SW)	44	MPH	0906	PΜ	04/18	3580
Lucerne Valley (1 SW)	41	MPH	0536	ΑМ	04/19	3034
Apple Valley (6 N)	38	MPH	0350	PΜ	04/19	3159
3 E Victorville	38	MPH	0602	PΜ	04/19	2746
Apple Valley Airport (KAPV)	38	MPH	0131	ΑМ	04/19	3062
Phelan	37	MPH	0415	PΜ	04/19	3587
Adelanto	36	MPH	0334	PM	04/19	2943
El Mirage	35	MPH	0326	PΜ	04/19	2880
Yucca Valley (5 W)	30	MPH	0420	ΑМ	04/19	4302
4 NE Big Pines	29	MPH	0549	PΜ	04/19	4302

Observations are collected from a variety of sources with varying equipment and exposures. We thank all volunteer weather observers for their dedication. Not all data listed are considered official.

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# IOWA STATE UNIVERSITY

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**Department of Agronomy** 

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### **April 19, 2018 Exceptional Event, Imperial County**

7 232 FXUS65 KPSR 200456 AFDPSR

Area Forecast Discussion National Weather Service Phoenix AZ 956 PM MST Thu Apr 19 2018

.UPDATE...Updated aviation discussion

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#### .SYNOPSIS...

A strong, but mostly dry weather system will affect the Desert Southwest into Friday bringing a return of windy and critical fire conditions across the eastern half of Arizona. A significant warming trend is expected this weekend into early next week with high temperatures eventually returning into the middle to upper 90s over the lower deserts.

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#### .DISCUSSION...

At 2 pm this afternoon, a strong Pacific upper low was moving east and through the desert southwest, centered over far southern Nevada. The surface cold front was pushing east and into the far southwestern AZ deserts. This is a dry system and will bring little if any chance for precip to the area tonight into Friday. IR imagery showed a prefrontal band of high clouds moving through the central deserts, with skies elsewhere sunny to partly sunny. Surface dewpoints over the central deserts were low, ranging from the low teens to low 20, and even out west the values were on the low side with Blythe reading just 26 degrees. Biggest impact with this system has been wind - we saw west winds gust over 40kt in the Imperial valley earlier in the morning, and when best mixing kicks in this afternoon, winds should pick up over most of the area, reaching wind advisory levels over favored areas in far SE California as well as higher terrain of southern Gila County. Some of the lower deserts could see gusts approach 35 mph at times later today but for the most part winds should remain below advisory criteria. Ahead of the front, in south central AZ, temps today were running a few degrees warmer than 24 hours ago as mixing and low level warm air advection ahead of the front allowed temps to climb into the low to mid 80s. Phoenix has already reached 85 this afternoon...but we should certainly see some cooling by Friday in the wake of a departing cold front. Look for Phoenix to fall into the upper 70s to around 80 on Friday with temps starting to rebound into the mid 80s over the warmer western deserts.

Main issue for the rest of today will be the continuing wind advisories which will stay in effect thru 02z. A Red Flag Warning is also in effect through 8 pm over the southwest and south central

April 19, 2018 Exceptional Event Imperial County
Arizona with the main threat being from central Phoenix east into
southern Gila County. Areas of blowing dust are still expected this
afternoon given the gusty winds and we will continue to monitor in
case blowing dust advisories are needed.

Upper level ridging will take hold behind the exiting trough for Saturday with 500mb heights quickly rebounding to around 580dm. Models are still showing a weak shortwave coming off the Pacific through Baja Saturday night, eventually into northern Mexico on Sunday. This feature will bring a period of high clouds into the Desert Southwest Saturday night into Sunday, but it should not disrupt the warming trend over the region. Highs Saturday should fall around 90 degrees while Sunday looks to be closer to 95 degrees.

Weak southwesterly flow aloft will remain across the Southwest U.S. into early next week with 500mb heights hovering around 580-582dm. This will keep temperatures around 7-10 degrees above normal through at least Tuesday. Model spread increases for the middle of next week with another potential Pacific low approaching the West Coast. This feature may help to amplify the ridge over the Interior West if it becomes mostly cut-off from the northern jet stream as indicated by the warmer European. The GFS is farther north with the trough, more progressive and thus keeps temperatures a bit cooler. Given this system is a week away, a blend was used for forecast temperatures yielding highs mostly in the middle 90s.

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#### .AVIATION...

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

Slantwise visibilities are reduced this evening from the windy conditions and lofted dust that occurred this past afternoon but are expected to improve throughout the night. Winds will continue to taper off tonight with easterlies returning late tonight. Westerlies return early Friday morning but will be much weaker with gusts up to 15 kts in the afternoon. Besides this, a few midlevel clouds (~10 kft) may drift over the terminals tonight but clear skies are expected by morning. No other aviation concerns.

Southeast California/Southwest Arizona including KIPL and KBLH:

Winds will continue to weaken overnight as a weather system moves off to our east. Westerly flow will prevail through our TAF period with winds favoring the northwest on Friday. Speeds will be much weaker tomorrow with gusts up to 15 kts in the afternoon. Besides this, clear skies will prevail with no other aviation concerns.

Aviation Discussion not updated for amended TAFs.

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Sunday through Thursday...

As high pressure begins to build back in from the west expect a warming trend together with very dry conditions. Above normal max temps will reach mid 90s over warmer deserts Sunday, and will climb to the upper 90s by the middle of next week. Min RH values near 6-10 percent are also expected to last throughout the period. Breezy to windy conditions will develop late in the period as a low pressure system approaches from the west. Overnight recovery is expected to be poor to fair.

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.SPOTTER INFORMATION STATEMENT...

Spotters are encouraged to report dense blowing dust.

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.PSR WATCHES/WARNINGS/ADVISORIES...

AZ...None.

CA...None.

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DISCUSSION...CB/Kuhlman AVIATION...Wilson FIRE WEATHER...Sawtelle

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## April 19, 2018 Exceptional Event, Imperial County

T 142 FXUS66 KSGX 201001 AFDSGX

Area Forecast Discussion National Weather Service San Diego CA 301 AM PDT Fri Apr 20 2018

#### .SYNOPSIS...

A low pressure system over the southwestern states will move east with high pressure aloft and weaker onshore flow for Southern California through early next week. High temperatures for inland areas will warm to near average today...and to 5 to 10 degrees above average for Saturday through Monday. The marine layer and weak onshore flow will keep coastal temperatures near average with areas of night and morning low clouds and fog. For Tuesday through Friday...a low pressure system over the eastern Pacific will move slowly towards the West Coast. This will bring slowly increasing onshore flow and slow deepening of the marine layer with night and morning low clouds and fog extending into portions of the valleys. Slow cooling will spread into the valleys with periods of gusty southwest to west winds in the mountains and deserts.

#### &&

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

The low pressure system that moved through Southern California Thursday is now centered across Arizona and Utah and continuing to move to the east. Onshore lower level flow and northwest flow aloft are continuing to weaken across Southern California early this morning. Strongest gusts at Whitewater in the northern Coachella Valley below the San Gorgonio Pass are still around 50 mph...but gusts elsewhere across the mountains and deserts of San Diego and Riverside Counties are mostly less than 40 mph and continuing to subside.

Aircraft soundings late Thursday evening showed the main subsidence inversion aloft around 600 mb with multiple weaker inversions below that. Satellite imagery shows patchy stratus across the coastal waters into Orange County...and in a few inland valley locations near the coastal mountain slopes. Higher resolution models show some increase in coverage this morning past sunrise across the inner coastal waters and adjacent coastal areas of Orange and San Diego Counties with patchier coverage farther inland to the lower coastal mountain slopes.

High temperatures will warm today...returning to near average. For Saturday through Monday...high pressure aloft and weaker onshore

flow Will bring additional warming with high temperatures for inland areas 5 to 10 degrees above average. For coastal areas...weak onshore flow and the marine layer will keep high temperatures near average with areas of night and morning low clouds and fog.

IEM :: AFD from NWS SGX

For Tuesday through Friday...a low pressure system over the eastern Pacific will move slowly towards the West Coast with slowly strengthening onshore flow. Slow cooling will spread into the valleys as the marine layer slowly deepens with night and morning coastal low clouds and fog extending into portions of the valleys. The stronger onshore flow will bring periods of gusty southwest to west winds in the mountains and deserts.

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.AVIATION...

200900Z...Coast/Valleys...Scattered to locally broken clouds will continue through 16Z this morning. Bases will be around 1500-2500 feet msl. Local terrain obscuration on coastal slopes. Mostly clear skies thereafter until patchy low clouds develop near the coast overnight after 08Z with lower bases around 1000 feet msl.

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.MARINE...

No hazardous marine weather is forecast through Tuesday.

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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...17

AVIATION/MARINE...MM

