Appendix B
Meteorological Data

FIGURE B-1
METEOROLOGICAL SITES USED IN THIS DOCUMENT

The following graphs represent meteorological data[1] collected from sites located in eastern Riverside County, southeastern San Diego County, southwestern Yuma (Arizona) County, and Imperial County.

[1] National Weather Service; NOAA's Glossary – Wind Speed: The rate at which air is moving horizontally past a given point. It may be a 2-minute average speed (reported as wind speed) or an instantaneous speed (reported as a peak wind speed, wind gust, or squall)[http://w1.weather.gov/glossary/index.php?letter=w]

FIGURE B-2
IMPERIAL COUNTY AIRPORT (KIPL)
WIND SPEED, GUSTS & DIRECTION

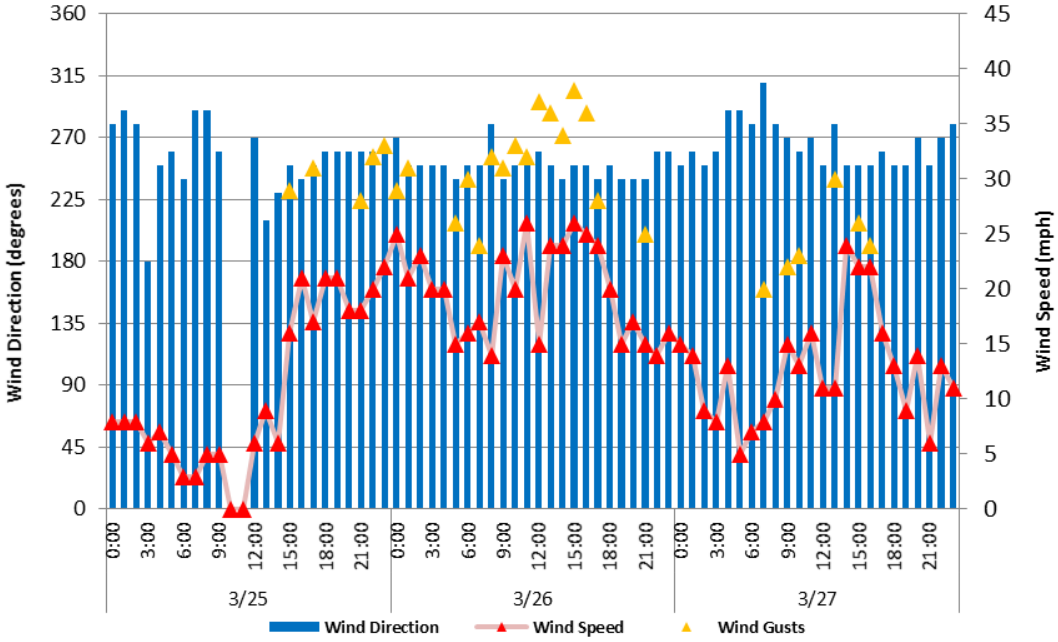
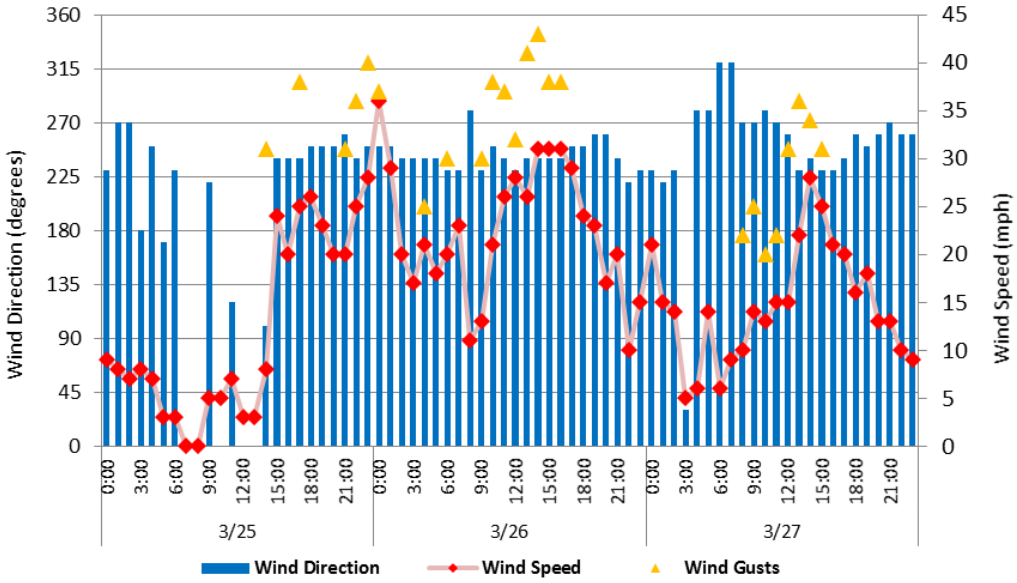
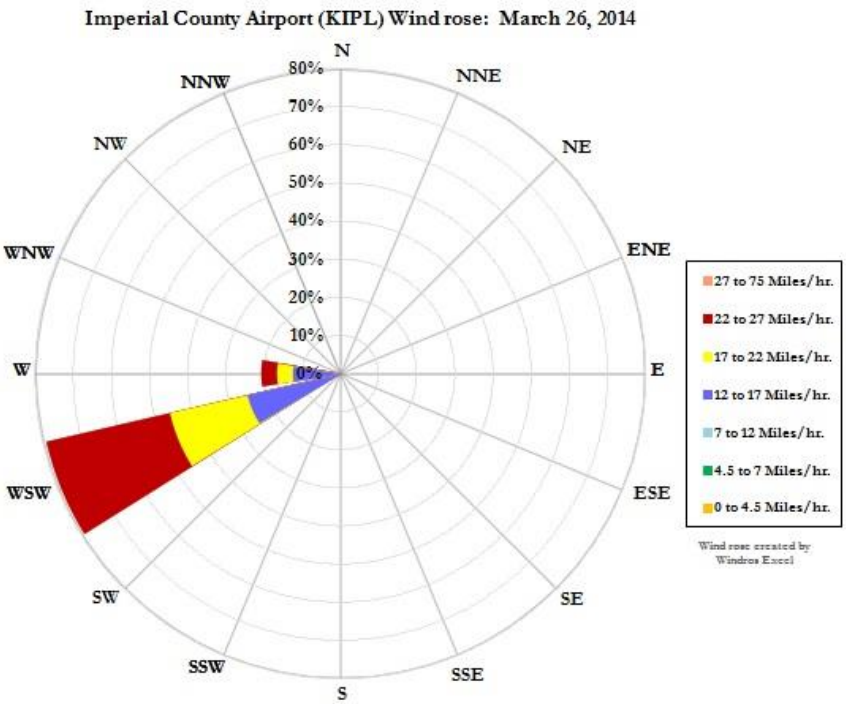


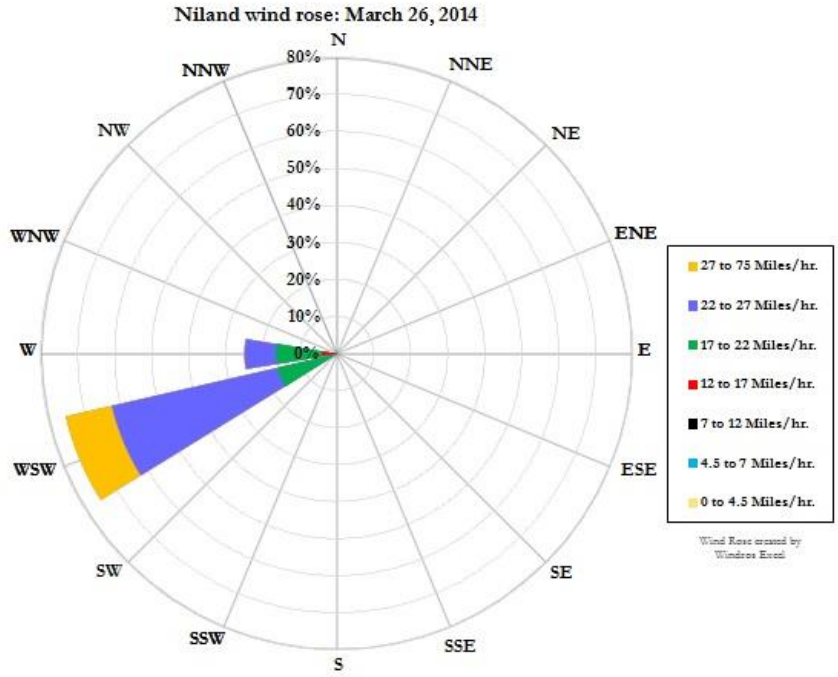
FIGURE B-3
EL CENTRO NAF (KNJK)
WIND SPEED, GUSTS & DIRECTION



Figs B-2 & B-3: Imperial Airport and Naval Air Facility meteorological data show winds increasing on March 25, with winds and gusts from the west-southwest. Data obtained from the NCEI's QCLCD data bank

FIGURES B-4 & B-5





Figs B-4 & B-5: Wind roses for Imperial County Airport and Niland show that wind had a pronounced WSW direction

FIGURE B-6
NILAND (ENGLISH RD)
WIND SPEED, GUSTS & DIRECTION

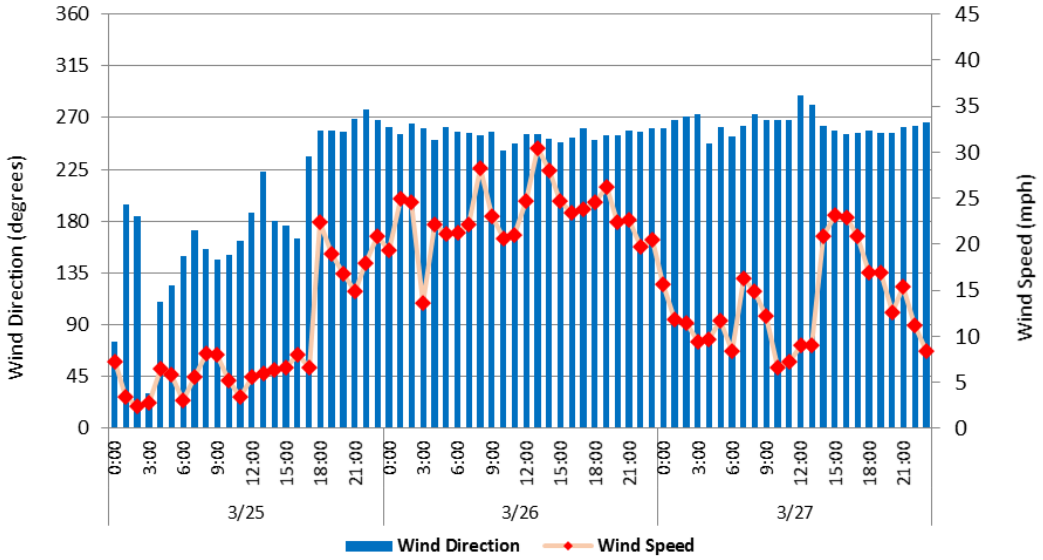


Fig B-6: Niland (English Rd) showed winds from the WSW increasing on March 25 and continuing through March 26. Wind data from the EPA's AQS data bank

EASTERN RIVERSIDE COUNTY SITES

FIGURE B-7
PALM SPRINGS AIRPORT (KPSP)
WIND SPEED, GUSTS & DIRECTION

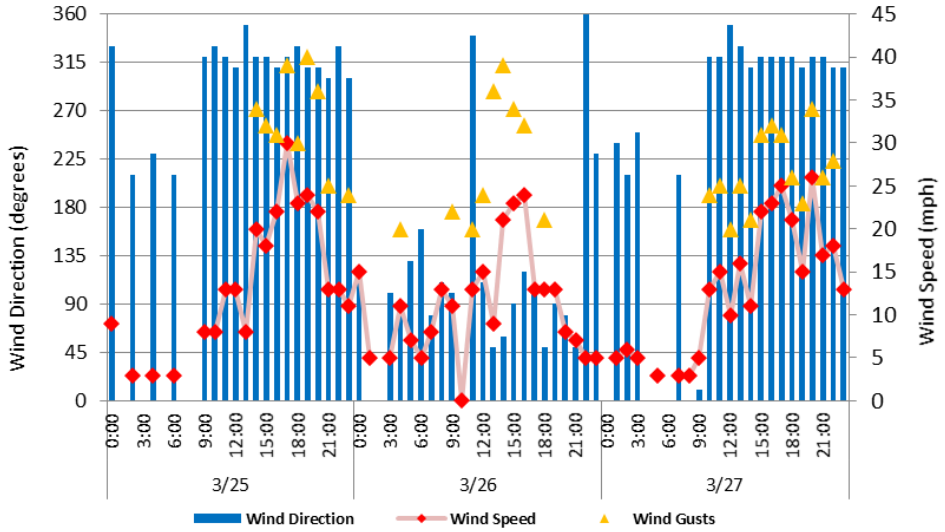


Fig B-7: Palm Springs Airport saw winds and gusts start on March 25, although they were more northerly and easterly on March 26. Data obtained from the NCEI's QCLCD data bank

FIGURE B-8
JACQUELINE COCHRAN AIRPORT (KTRM)
WIND SPEED, GUSTS & DIRECTION

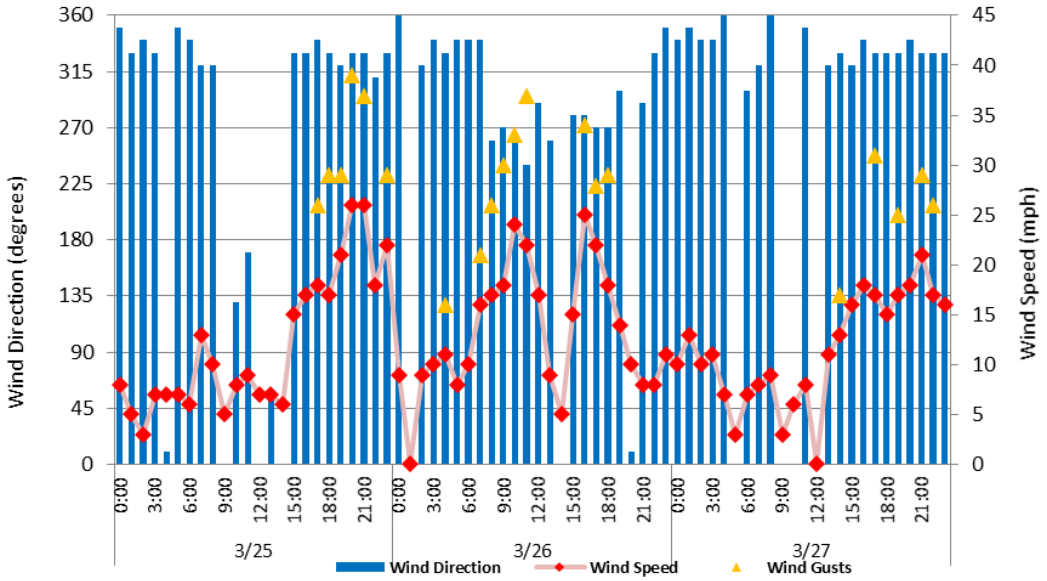


Fig B-8: Jacqueline Cochran Regional Airport recorded much of its winds from the northwest, which would have put the winds on a path to the Imperial Valley to the southeast. Data obtained from the NCEI's QCLCD data bank

FIGURE B-9
BLYTHE AIRPORT (KBLH)
WIND SPEED, GUSTS & DIRECTION

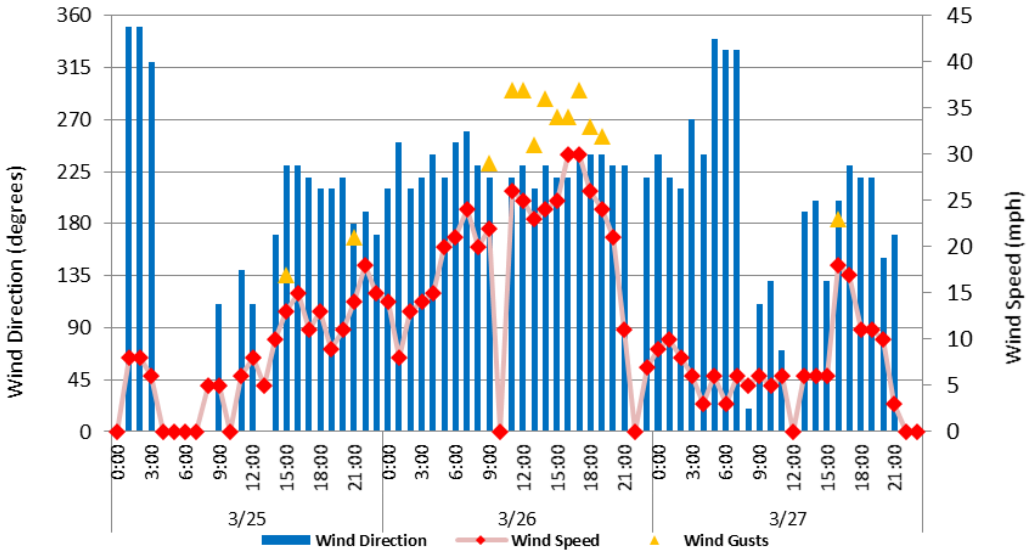


Fig B-9: Jacqueline Cochran Regional Airport recorded much of its winds from the northwest, which would have put the winds on a path to the Imperial Valley to the southeast. Data obtained from the NCEI's QCLCD data bank

SOUTHEASTERN SAN DIEGO & SOUTHWESTERN ARIZONA

FIGURE B-10
CAMPO AIRPORT (KCZZ)
WIND SPEED, GUSTS & DIRECTION

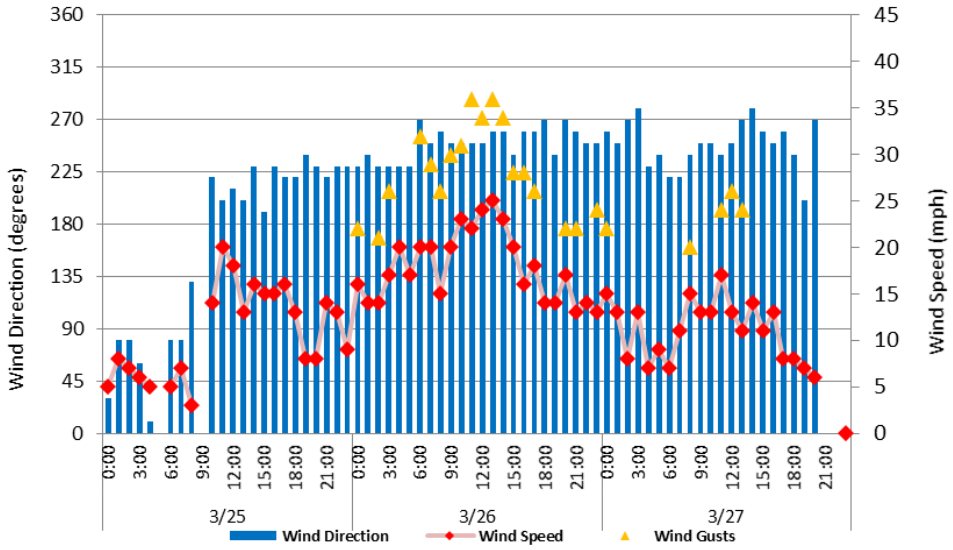
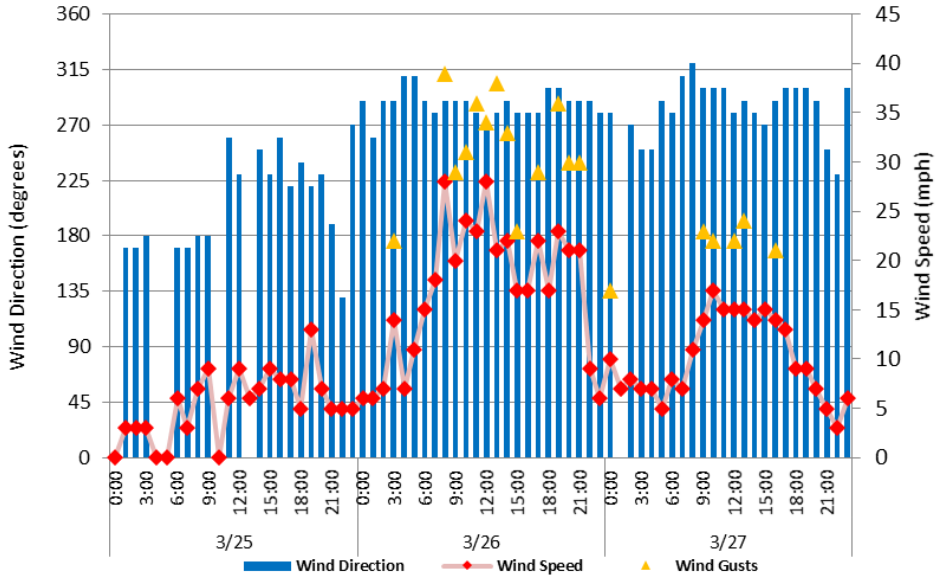


FIGURE B-11
YUMA, ARIZONA MCAS (KNYL)
WIND SPEED, GUSTS & DIRECTION



Figs B-10 and B-11: Campo Airport shows strong winds and gusts on March 26. Its location upstream of Niland and Brawley would have allowed opportunity for the winds to transport dust into the Imperial Valley. Yuma MCAS is downstream and shows winds more from the WNW. Data obtained from the NCEI's QCLCD data bank

UPSTREAM SITES

FIGURE B-12
OCOTILLO WELLS
WIND SPEED, GUSTS & DIRECTION

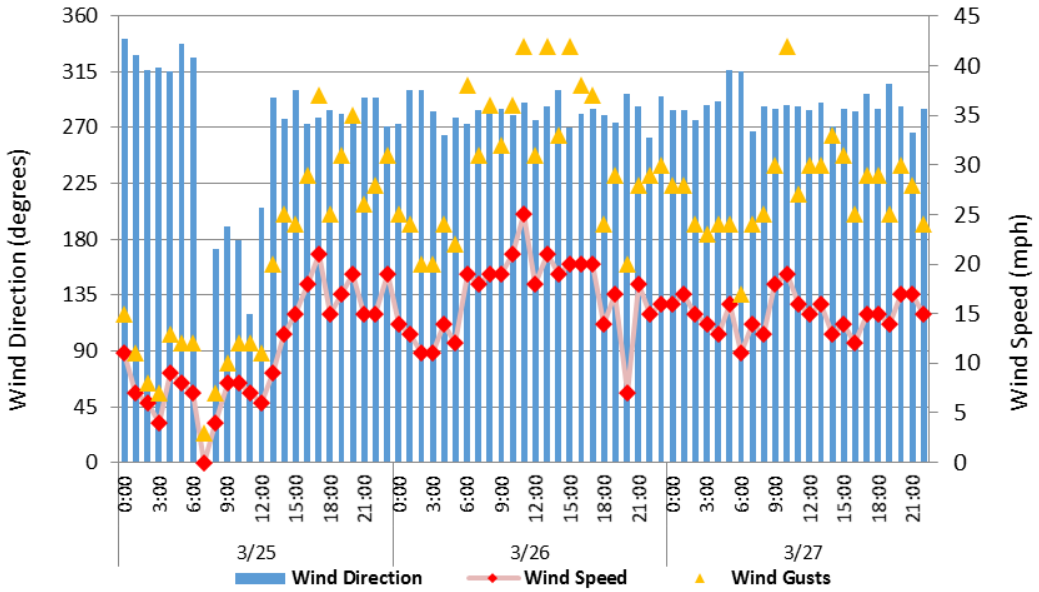
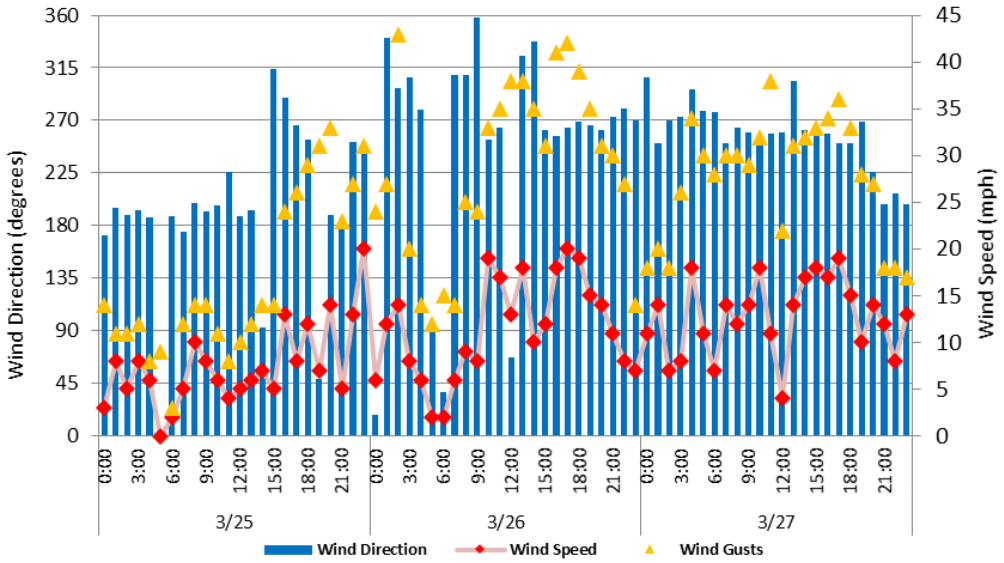


FIGURE B-13
FISH CREEK MTNS.
WIND SPEED, GUSTS & DIRECTION



Figs B-12 and B-13: The Fish Creek Mountains was directly upstream from Brawley, while Ocotillo Wells was directly upstream from Niland. The strong winds lofted and transported dust downstream to the monitors as they passed over a wide fetch of arid, mostly barren soils. Data obtained from the University of Utah's MesoWest data bank

FIGURE B-14
IMPERIAL COUNTY AIRPORT QCLCD – MARCH 26

11/23/2015 QUALITY CONTROLLED Local Climatological Data: IMPERIAL COUNTY AIRPORT

U.S. Department of Commerce
National Oceanic & Atmospheric Administration

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (final) HOURLY OBSERVATIONS TABLE IMPERIAL COUNTY AIRPORT (03144) IMPERIAL, CA (03/2014)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

Elevation: -58 ft. below sea level
Latitude: 32.834
Longitude: -115.578
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp (F)	Dry Bulb Temp (C)	Wet Bulb Temp (F)	Wet Bulb Temp (C)	Dew Point Temp (F)	Dew Point Temp (C)	Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
26	0053	12	CLR	10.00		64	17.8	53	11.7	43	6.1	47	25	270	33	29.84			29.78	AA		29.78
26	0153	12	CLR	10.00		63	17.2	53	11.5	43	6.1	48	21	250	29	29.84			29.78	AA		29.78
26	0253	12	CLR	10.00		62	16.7	52	11.2	43	6.1	50	23	250	31	29.82			29.76	AA		29.76
26	0353	12	CLR	10.00		61	16.1	52	11.2	44	6.7	54	20	250		29.83			29.77	AA		29.77
26	0453	12	CLR	10.00		61	16.1	53	11.5	45	7.2	56	20	250		29.84			29.78	AA		29.78
26	0553	12	CLR	10.00		61	16.1	53	11.5	45	7.2	56	15	240		29.86			29.80	AA		29.80
26	0653	12	CLR	10.00		63	17.2	54	12.2	46	7.8	54	16	250	26	29.88			29.81	AA		29.82
26	0753	12	CLR	10.00		67	19.4	55	12.9	45	7.2	45	17	250	30	29.90			29.84	AA		29.84
26	0853	12	CLR	10.00		69	20.6	55	12.9	43	6.1	39	14	280	24	29.90			29.84	AA		29.84
26	0951	12	FEW006	8.00		72	22.0	56	13.2	41	5.0	33	20	250	32	29.92			M	SP		29.86
26	0953	12	FEW006	8.00		71	21.7	55	12.9	41	5.0	34	23	240	32	29.92			29.85	AA		29.86
26	1053	12	CLR	10.00		73	22.8	56	13.4	41	5.0	32	20	250	31	29.91			29.85	AA		29.85
26	1120	12	FEW009	6.00	HZ	74	23.3	57	13.6	41	5.0	31	24	240	32	29.90			M	SP		29.84
26	1153	12	FEW080	7.00		75	23.9	57	13.6	40	4.4	28	26	250	33	29.89			29.83	AA		29.83
26	1253	12	BKN080	10.00		74	23.3	55	13.0	38	3.3	27	15	260	32	29.88			29.82	AA		29.82
26	1353	12	FEW075	9.00		75	23.9	57	14.0	42	5.6	31	24	250	37	29.87			29.80	AA		29.81
26	1453	12	CLR	10.00		73	22.8	56	13.2	40	4.4	30	24	240	36	29.86			29.80	AA		29.80
26	1553	12	CLR	10.00		71	21.7	56	13.1	42	5.6	35	26	250	34	29.85			29.78	AA		29.79
26	1653	12	CLR	9.00		69	20.6	56	13.1	44	6.7	41	25	250	38	29.85			29.78	AA		29.79
26	1753	12	CLR	10.00		65	18.3	53	11.5	41	5.0	42	24	240	36	29.87			29.81	AA		29.81
26	1853	12	CLR	10.00		63	17.2	52	10.8	40	4.4	43	20	250	28	29.89			29.83	AA		29.83
26	1953	12	CLR	10.00		62	16.7	51	10.3	39	3.9	43	15	240		29.93			29.86	AA		29.87
26	2053	12	CLR	10.00		61	16.1	51	10.5	41	5.0	48	17	240		29.94			29.88	AA		29.88
26	2153	12	CLR	10.00		60	15.6	51	10.3	41	5.0	50	15	240		29.94			29.88	AA		29.88
26	2253	12	CLR	10.00		60	15.6	51	10.5	42	5.6	52	14	260	25	29.95			29.88	AA		29.89
26	2353	12	CLR	10.00		59	15.0	51	10.2	42	5.6	54	16	260		29.95			29.88	AA		29.89

Dynamically generated Mon Nov 23 13:03:27 EST 2015 via http://www.ncdc.noaa.gov/qclcd/QCLCD

FIGURE B-15
EL CENTRO NAF QCLCD – MARCH 26

11/23/2015 QUALITY CONTROLLED Local Climatological Data: NAF

U.S. Department of Commerce
National Oceanic & Atmospheric Administration

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (may be updated) HOURLY OBSERVATIONS TABLE NAF (23199) EL CENTRO, CA (03/2014)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

Elevation: -42 ft. below sea level
Latitude: 32.816
Longitude: -115.683
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp (F)	Dry Bulb Temp (C)	Wet Bulb Temp (F)	Wet Bulb Temp (C)	Dew Point Temp (F)	Dew Point Temp (C)	Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
26	0056	5	CLR	9.00		65	18.3	53	11.7	42	5.6	43	36	250	40	29.84			29.84	AA		29.80
26	0156	5	CLR	10.00		64	17.8	53	11.5	42	5.6	45	29	250	37	29.83			29.83	AA		29.79
26	0256	5	CLR	10.00		62	16.7	52	11.0	42	5.6	48	20	240		29.82			29.83	AA		29.78
26	0356	5	CLR	10.00		61	16.1	52	11.2	44	6.7	54	17	240		29.83			29.83	AA		29.79
26	0456	5	FEW070 FEW200	10.00		62	16.7	53	11.7	45	7.2	54	21	240		29.83			29.84	AA		29.79
26	0556	5	FEW050 FEW070 SCT120	10.00		61	16.1	53	11.5	45	7.2	56	18	240	25	29.85			29.85	AA		29.81
26	0656	5	FEW060 SCT120 BKN250	10.00		65	18.3	54	12.4	45	7.2	49	20	230		29.86			29.87	AA		29.82
26	0756	5	FEW060 FEW090 SCT120	10.00		68	20.0	54	12.4	42	5.6	39	23	230	30	29.88			29.89	AA		29.84
26	0856	5	FEW060 FEW120 SCT200	10.00		70	21.1	55	12.5	40	4.4	34	11	280		29.90			29.90	AA		29.86
26	0956	5	FEW060 FEW150 SCT200	10.00		72	22.2	55	12.9	40	4.4	31	13	230		29.90			29.91	AA		29.86
26	1056	5	FEW060 FEW150 SCT250	10.00		73	22.8	55	13.0	39	3.9	29	21	250	30	29.89			29.89	AA		29.85
26	1156	5	FEW060 FEW150	10.00		75	23.9	56	13.4	39	3.9	27	26	240	38	29.88			29.88	AA		29.84
26	1256	5	FEW025 FEW060 SCT150	9.00		77	25.0	57	13.7	38	3.3	25	28	230	37	29.87			29.87	AA		29.83
26	1356	5	FEW038 FEW080 SCT150	10.00		75	23.9	56	13.4	39	3.9	27	26	240	32	29.85			29.86	AA		29.81
26	1456	5	FEW040 FEW080 SCT150	10.00		73	22.8	56	13.2	40	4.4	30	31	240	41	29.82			29.83	AA		29.78
26	1556	5	FEW040 FEW080 SCT150	9.00		72	22.2	56	13.1	41	5.0	33	31	240	43	29.83			29.83	AA		29.79
26	1656	5	FEW040 FEW080 SCT150	10.00		69	20.6	56	13.1	44	6.7	41	31	240	38	29.85			29.85	AA		29.81
26	1756	5	FEW045 FEW090 SCT160	9.00		66	18.9	53	11.5	40	4.4	39	29	250	38	29.86			29.86	AA		29.82
26	1856	5	FEW045 FEW090 SCT160	10.00		64	17.8	51	10.6	38	3.3	38	24	250		29.88			29.88	AA		29.84
26	1956	5	FEW050 FEW160 SCT250	10.00		63	17.2	51	10.4	38	3.3	40	23	260		29.90			29.91	AA		29.86
26	2056	5	FEW050 FEW160	10.00		62	16.7	51	10.5	40	4.4	45	17	260		29.93			29.93	AA		29.89
26	2156	5	FEW050 FEW160	10.00		62	16.7	51	10.5	40	4.4	45	20	240		29.94			29.95	AA		29.90
26	2256	5	CLR	10.00		61	16.1	51	10.5	41	5.0	48	10	220		29.94			29.94	AA		29.90
26	2356	5	CLR	10.00		60	15.6	51	10.3	41	5.0	50	15	230		29.94			29.95	AA		29.90

Dynamically generated Mon Nov 23 13:02:31 EST 2015 via http://www.ncdc.noaa.gov/qclcd/QCLCD

FIGURE B-16
BLYTHE AIRPORT QCLCD – MARCH 26

11/20/2015 QUALITY CONTROLLED Local Climatological Data: BLYTHE AIRPORT

U.S. Department of Commerce
National Oceanic & Atmospheric Administration

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (final) HOURLY OBSERVATIONS TABLE BLYTHE AIRPORT (23158) BLYTHE, CA (03/2014)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

Elevation: 395 ft. above sea level
Latitude: 33.618
Longitude: -114.714
Data Version: VER3

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp (F)	Dry Bulb Temp (C)	Wet Bulb Temp (F)	Wet Bulb Temp (C)	Dew Point Temp (F)	Dew Point Temp (C)	Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
26	0050	12	CLR	10.00		68	20.0	56	13.1	45	7.0	44	14	220		29.29			M	SP		29.71
26	0052	12	CLR	10.00		68	20.0	56	13.1	45	7.2	44	14	210		29.29			29.69	AA		29.71
26	0152	12	CLR	10.00		66	18.9	54	12.4	44	6.7	45	8	250		29.28			29.69	AA		29.70
26	0252	12	CLR	10.00		66	18.9	54	12.4	44	6.7	45	13	210		29.29			29.70	AA		29.71
26	0352	12	CLR	10.00		64	17.8	53	11.4	42	5.6	45	14	220		29.28			29.69	AA		29.70
26	0452	12	CLR	10.00		64	17.8	53	11.4	42	5.6	45	15	240		29.31			29.71	AA		29.73
26	0552	12	CLR	10.00		64	17.8	53	11.7	43	6.1	47	20	220		29.31			29.72	AA		29.73
26	0652	12	CLR	10.00		65	18.3	54	12.1	44	6.7	47	21	250		29.34			29.75	AA		29.76
26	0752	12	CLR	10.00		68	20.0	55	12.6	43	6.1	41	24	260		29.36			29.76	AA		29.78
26	0852	12	CLR	10.00		70	21.1	55	12.6	41	5.0	35	20	230		29.38			29.78	AA		29.80
26	0952	12	CLR	10.00		73	22.8	56	13.1	40	4.4	30	22	220	29	29.38			29.78	AA		29.80
26	1052	12	CLR	10.00		75	23.9	56	13.1	38	3.3	26		M		29.37			29.77	AA		29.79
26	1152	12	CLR	10.00		76	24.4	55	13.0	36	2.2	23	26	220	37	29.36			29.77	AA		29.78
26	1252	12	CLR	10.00		77	25.0	55	12.7	33	0.6	20	25	230	37	29.33			29.73	AA		29.75
26	1352	12	FEW033	10.00		77	25.0	55	12.8	34	1.1	21	23	210	31	29.31			29.72	AA		29.73
26	1452	12	BKN034	9.00		78	25.6	56	13.1	34	1.1	20	24	230	36	29.29			29.70	AA		29.71
26	1512	12	BKN028 OVC036	6.00	HZ	77	25.0	56	13.4	37	2.8	24	30	220	39	29.29			M	SP		29.71
26	1539	12	BKN030	9.00		77	25.0	56	13.4	37	2.8	24	22	220	30	29.30			M	SP		29.72
26	1552	12	OVC030	8.00		76	24.4	56	13.2	37	2.8	24	25	220	34	29.29			29.70	AA		29.71
26	1610	12	OVC028	5.00	HZ	74	23.3	55	12.9	38	3.3	27	28	230	37	29.29			M	SP		29.71
26	1652	12	OVC028	8.00		73	22.8	55	12.9	39	3.9	29	30	220	34	29.31			29.72	AA		29.73
26	1744	12	SCT026	8.00		70	21.1	55	12.6	41	5.0	35	26	240		29.31			M	SP		29.73
26	1752	12	FEW032	8.00		69	20.6	54	12.4	41	5.0	36	30	240	37	29.31			29.72	AA		29.73
26	1852	12	CLR	10.00		68	20.0	54	11.9	40	4.4	36	26	240	33	29.33			29.73	AA		29.75
26	1940	12	BKN020	9.00		66	18.9	52	11.0	38	3.3	36	25	240	31	29.35			M	SP		29.77
26	1952	12	OVC019	7.00		65	18.3	52	10.8	38	3.3	37	24	240	32	29.35			29.76	AA		29.77
26	2052	12	OVC018	7.00		64	17.8	51	10.8	39	3.9	40	21	230		29.38			29.79	AA		29.80
26	2122	12	SCT020	9.00		64	17.8	51	10.8	38	3.3	38	14	240		29.39			M	SP		29.81
26	2152	12	CLR	10.00		64	17.8	51	10.6	38	3.3	38	11	230		29.40			29.81	AA		29.82
26	2252	12	CLR	10.00		63	17.2	51	10.3	38	3.3	40	0	000		29.42			29.83	AA		29.84
26	2352	12	CLR	10.00		61	16.1	50	9.8	38	3.3	43	7	220		29.42			29.83	AA		29.84

Dynamically generated Fri Nov 20 19:33:55 EST 2015 via http://www.ncdc.noaa.gov/qclcd/QCLCD

FIGURE B-17
CAMPO AIRFIELD QCLCD – MARCH 26

11/23/2015 QUALITY CONTROLLED Local Climatological Data: CAMPO

U.S. Department of Commerce
National Oceanic & Atmospheric Administration

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (final) HOURLY OBSERVATIONS TABLE CAMPO (03164) CAMPO, CA (03/2014)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

Elevation: 2641 ft. above sea level
Latitude: 32.626
Longitude: -116.468
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp (F)	Dry Bulb Temp (C)	Wet Bulb Temp (F)	Wet Bulb Temp (C)	Dew Point Temp (F)	Dew Point Temp (C)	Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
26	0052	12	M	M		50	10.0	47	8.3	44	6.7	80	16	230	22	27.18			29.84	AA		29.90
26	0152	12	M	M		49	9.4	46	8.0	44	6.7	83	14	240		27.16			29.83	AA		29.88
26	0252	12	M	M		48	8.9	46	7.7	44	6.7	86	14	230	21	27.13			29.79	AA		29.85
26	0352	12	M	M		48	8.9	46	7.7	44	6.7	86	17	230	26	27.14			29.80	AA		29.86
26	0452	12	M	M		47	8.3	46	7.7	45	7.2	93	20	230		27.14			29.80	AA		29.86
26	0552	12	M	M		47	8.3	46	7.7	45	7.2	93	17	230		27.14			29.81	AA		29.86
26	0652	12	M	M		48	8.9	46	7.7	44	6.7	86	20	270	32	27.17			29.85	AA	0.02	29.89
26	0752	12	M	M		49	9.4	46	7.7	43	6.1	80	20	250	29	27.20			29.87	AA		29.92
26	0852	12	M	M		50	10.0	46	8.0	43	6.1	77	15	260	26	27.21			29.88	AA		29.93
26	0952	12	M	M		51	10.6	47	8.3	43	6.1	74	20	250	30	27.21			29.89	AA		29.94
26	1052	12	M	M		53	11.7	47	8.5	42	5.6	66	23	250	31	27.21			29.88	AA		29.93
26	1152	12	M	M		55	12.8	48	8.8	41	5.0	59	22	250	36	27.20			29.87	AA		29.92
26	1252	12	M	M		55	12.8	48	8.8	41	5.0	59	24	250	34	27.19			29.86	AA		29.91
26	1352	12	M	M		56	13.3	49	9.3	42	5.6	60	25	260	36	27.17			29.84	AA		29.89
26	1452	12	M	M		53	11.7	48	8.8	43	6.1	69	23	260	34	27.18			29.85	AA		29.90
26	1552	12	M	M		50	10.0	47	8.5	45	7.2	83	20	240	28	27.17			29.85	AA		29.89
26	1652	12	M	M		49	9.4	46	8.0	44	6.7	83	16	260	28	27.18			29.86	AA		29.90
26	1752	12	M	M		48	8.9	46	7.5	43	6.1	83	18	260	26	27.18			29.86	AA		29.90
26	1852	12	M	M		48	8.9	46	7.5	43	6.1	83	14	270		27.19			29.88	AA		29.91
26	1952	12	M	M		48	8.9	46	7.5	43	6.1	83	14	240		27.21			29.89	AA		29.93
26	2052	12	M	M		48	8.9	45	7.2	42	5.6	80	17	270	22	27.21			29.91	AA		29.94
26	2152	12	M	M		47	8.3	45	6.9	42	5.6	83	13	260	22	27.22			29.91	AA		29.95
26	2252	12	M	M		47	8.3	46	7.5	44	6.7	89	14	250		27.21			29.90	AA		29.94
26	2352	12	M	M		47	8.3	46	7.7	45	7.2	93	13	250	24	27.21			29.89	AA	0.03	29.94

Dynamically generated Mon Nov 23 13:01:32 EST 2015 via http://www.ncdc.noaa.gov/qclcd/QCLCD

FIGURE B-18
JACQUELINE COCHRAN REGIONAL AIRPORT QCLCD – MARCH 26

11/23/2015 QUALITY CONTROLLED Local Climatological Data: DESERT RESORTS RGNL ARPT

U.S. Department of Commerce
National Oceanic & Atmospheric Administration

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (final)
HOURLY OBSERVATIONS TABLE
DESERT RESORTS RGNL ARPT (03104)
PALM SPRINGS, CA
(03/2014)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

Elevation: -118 ft. below sea level
Latitude: 33.626
Longitude: -116.159
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp (F)	Dry Bulb Temp (C)	Wet Bulb Temp (F)	Wet Bulb Temp (C)	Dew Point Temp (F)	Dew Point Temp (C)	Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
26	0052	12	FEW034	10.00		67	19.4	54	12.2	42	5.6	40	9	360		29.87			29.78	AA		29.75
26	0152	12	SCT039	10.00		65	18.3	53	11.5	41	5.0	42	0	000		29.86			29.78	AA		29.74
26	0252	12	CLR	10.00		64	17.8	54	11.9	44	6.7	48	9	320		29.84			29.75	AA		29.72
26	0352	12	FEW070	10.00		63	17.2	53	11.7	44	6.7	50	10	340		29.85			29.74	AA		29.73
26	0452	12	CLR	10.00		67	19.4	53	11.8	40	4.4	37	11	330	16	29.86			29.75	AA		29.74
26	0552	12	BKN075	10.00		64	17.8	53	11.5	42	5.6	45	8	340		29.87			29.75	AA		29.75
26	0652	12	CLR	10.00		64	17.8	52	11.3	41	5.0	43	10	340		29.88			29.76	AA		29.76
26	0752	12	CLR	10.00		70	21.1	55	12.7	41	5.0	35	16	340	21	29.91			29.78	AA		29.78
26	0852	12	CLR	9.00		72	22.2	54	12.3	37	2.8	28	17	260	26	29.91			29.80	AA		29.79
26	0907	12	CLR	8.00		72	22.2	54	12.1	36	2.2	27	18	280	28	29.92			M	SP		29.80
26	0952	12	CLR	9.00		74	23.3	55	12.6	36	2.2	25	18	270	30	29.91			29.79	AA		29.79
26	1052	12	CLR	9.00		76	24.4	55	12.9	35	1.7	23	24	260	33	29.92			29.80	AA		29.80
26	1152	12	CLR	9.00		77	25.0	56	13.1	35	1.7	22	22	240	37	29.91			29.78	AA		29.78
26	1252	12	SCT027	7.00		74	23.3	55	12.8	37	2.8	26	17	290		29.89			29.77	AA		29.77
26	1352	12	BKN030	8.00		74	23.3	55	13.0	38	3.3	27	9	260		29.88			29.76	AA		29.76
26	1408	12	OVC028	5.00	HZ	74	23.3	56	13.2	39	3.9	28	10	250		29.87			M	SP		29.75
26	1416	12	BKN030 OVC037	6.00	HZ	74	23.3	56	13.4	40	4.4	29	8	240	18	29.87			M	SP		29.75
26	1450	12	BKN028 OVC037	5.00	HZ	73	23.0	55	13.0	39	4.0	29	3	VR		29.87			M	SP		29.75
26	1452	12	BKN028 OVC037	6.00	HZ	74	23.3	55	13.0	38	3.3	27	5	VR		29.87			29.75	AA		29.75
26	1524	12	SCT027	9.00		74	23.3	55	13.0	38	3.3	27	9	300	20	29.86			M	SP		29.74
26	1531	12	BKN027	6.00	HZ	74	23.3	55	13.0	38	3.3	27	8	310		29.86			M	SP		29.74
26	1549	12	SCT024	10.00		73	23.0	54	12.4	36	2.0	26	17	280	23	29.85			M	SP		29.73
26	1552	12	SCT024	10.00		74	23.3	54	12.4	35	1.7	24	15	280		29.86			29.74	AA		29.74
26	1652	12	FEW033	7.00		73	22.8	53	11.8	33	0.6	23	25	280	34	29.86			29.74	AA		29.74
26	1752	12	CLR	10.00		69	20.6	52	11.2	35	1.7	29	22	270	28	29.87			29.75	AA		29.75
26	1852	12	CLR	10.00		67	19.4	51	10.5	34	1.1	30	18	270	29	29.91			29.78	AA		29.78
26	1952	12	CLR	10.00		66	18.9	51	10.7	36	2.2	33	14	300		29.94			29.82	AA		29.82
26	2052	12	CLR	10.00		64	17.8	52	10.8	39	3.9	40	10	010		29.96			29.84	AA		29.84
26	2152	12	CLR	10.00		63	17.2	51	10.6	39	3.9	41	8	290		29.97			29.85	AA		29.85
26	2252	12	CLR	10.00		61	16.1	51	10.3	40	4.4	46	8	330		29.98			29.86	AA		29.86
26	2352	12	CLR	10.00		61	16.1	51	10.7	42	5.6	50	11	350		29.98			29.87	AA		29.86

Dynamically generated Mon Nov 23 13:05:31 EST 2015 via http://www.ncdc.noaa.gov/qclcd/QCLCD

FIGURE B-19
PALM SPRINGS INTERNATIONAL AIRPORT QCLCD – MARCH 26

11/23/2015 QUALITY CONTROLLED Local Climatological Data: PALM SPRINGS INTL AIRPORT

U.S. Department of Commerce
National Oceanic & Atmospheric Administration

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (final)
HOURLY OBSERVATIONS TABLE
PALM SPRINGS INTL AIRPORT (93138)
PALM SPRINGS, CA
(03/2014)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

Elevation: 409 ft. above sea level
Latitude: 33.822
Longitude: -116.504
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp (F)	Dry Bulb Temp (C)	Wet Bulb Temp (F)	Wet Bulb Temp (C)	Dew Point Temp (F)	Dew Point Temp (C)	Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
26	0053	12	CLR	10.00		67	19.4	52	10.9	36	2.2	32	15	110		29.26			29.73	AA		29.74
26	0153	12	CLR	10.00		67	19.4	52	11.3	38	3.3	35	5	VR		29.26			29.73	AA		29.74
26	0253	12	CLR	10.00		65	18.3	52	11.0	39	3.9	39	0	000		29.25			29.72	AA		29.73
26	0353	12	CLR	10.00		63	17.2	52	11.2	42	5.6	46	5	100		29.25			29.72	AA		29.73
26	0453	12	CLR	10.00		65	18.3	52	11.0	39	3.9	39	11	080	20	29.25			29.73	AA		29.73
26	0553	12	CLR	10.00		63	17.2	51	10.5	39	3.9	41	7	130		29.27			29.74	AA		29.75
26	0653	12	FEW080 SCT140	10.00		63	17.2	51	10.5	39	3.9	41	5	160		29.28			29.76	AA		29.76
26	0753	12	CLR	10.00		68	20.0	52	11.3	37	2.8	32	8	080		29.31			29.78	AA		29.79
26	0853	12	CLR	10.00		70	21.1	53	11.6	36	2.2	29	13	110		29.32			29.80	AA		29.80
26	0953	12	FEW080	10.00		71	21.7	52	11.3	33	0.6	25	11	100	22	29.32			29.79	AA		29.80
26	1053	12	FEW080	10.00		73	22.8	53	11.6	32	0.0	22		M		29.32			29.79	AA		29.80
26	1153	12	FEW080 SCT120	9.00		74	23.3	54	12.3	35	1.7	24	13	340	20	29.31			29.78	AA		29.79
26	1239	12	BKN028	6.00	HZ	74	23.3	55	12.5	36	2.2	25	18	120	29	29.29			M	SP		29.77
26	1251	12	BKN028 BKN033	6.00	HZ	73	23.0	55	12.5	37	3.0	27	15	080	26	29.29			M	SP		29.77
26	1253	12	BKN028 BKN033	6.00	HZ	74	23.3	55	12.7	37	2.8	26	15	110	24	29.29			29.76	AA		29.77
26	1331	12	OVC028	6.00	HZ	74	23.3	55	12.9	38	3.3	27	25	030	38	29.27			M	SP		29.75
26	1353	12	OVC026	5.00	HZ	73	22.8	55	12.7	38	3.3	28	9	050	36	29.28			29.75	AA		29.76
26	1436	12	BKN030 BKN036	8.00		74	23.3	55	12.5	36	2.2	25	20	110	33	29.25			M	SP		29.73
26	1451	12	BKN030	5.00	HZ	75	24.0	55	12.7	36	2.0	24	25	050	39	29.23			M	SP		29.71
26	1453	12	BKN028	5.00	HZ	74	23.3	54	12.3	35	1.7	24	21	060	39	29.23			29.71	AA		29.71
26	1500	12	BKN028 OVC037	4.00	HZ	73	22.8	54	12.1	35	1.7	25		M		29.23			M	SP		29.71
26	1553	12	BKN028	5.00	HZ	73	22.8	53	11.5	32	0.0	22	23	090	34	29.23			29.70	AA		29.71
26	1609	12	BKN030	9.00		73	22.8	53	11.5	32	0.0	22	23	100	31	29.23			M	SP		29.71
26	1653	12	BKN030	7.00		72	22.2	52	11.1	31	-0.6	22	24	120	32	29.25			29.72	AA		29.73
26	1753	12	BKN045	10.00		69	20.6	51	10.2	30	-1.1	23	13	100		29.27			29.74	AA		29.75
26	1853	12	OVC035	9.00		67	19.4	50	9.9	31	-0.6	26	13	050	21	29.30			29.78	AA		29.78
26	1953	12	SCT042	10.00		65	18.3	50	10.2	35	1.7	33	13	090		29.34			29.82	AA		29.82
26	2053	12	CLR	10.00		64	17.8	50	10.1	36	2.2	36	8	080		29.37			29.85	AA		29.85
26	2153	12	CLR	10.00		63	17.2	50	9.9	36	2.2	37	7	050		29.40			29.88	AA		29.88
26	2253	12	CLR	10.00		63	17.2	51	10.3	38	3.3	40	5	360		29.40			29.87	AA		29.88
26	2353	12	CLR	10.00		60	15.6	50	9.8	39	3.9	46	5	230		29.41			29.88	AA		29.89

Dynamically generated Mon Nov 23 13:04:44 EST 2015 via http://www.ncdc.noaa.gov/qclcd/QCLCD

FIGURE B-20
YUMA MCAS QCLCD – MARCH 26

11/23/2015

QUALITY CONTROLLED Local Climatological Data: YUMA MCAS

U.S. Department of Commerce
National Oceanic & Atmospheric Administration

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA
(may be updated)
HOURLY OBSERVATIONS TABLE
YUMA MCAS (03145)
YUMA, AZ
(03/2014)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

Elevation: 213 ft. above sea level
Latitude: 32.65
Longitude: -114.616
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp (F)	Dry Bulb Temp (C)	Wet Bulb Temp (F)	Wet Bulb Temp (C)	Dew Point Temp (F)	Dew Point Temp (C)	Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
26	0057	5	CLR	10.00		69	20.6	53	11.8	38	3.3	32	6	290		29.54			29.76	AA		29.77
26	0155	5	BKN020	10.00		66	19.0	52	11.3	39	4.0	37	7	270		29.55			M	SP		29.78
26	0157	5	BKN020	10.00		67	19.4	53	11.5	39	3.9	36	6	260		29.55			29.77	AA		29.78
26	0240	5	SCT021	8.00		65	18.3	52	11.2	40	4.4	40	5	260		29.55			M	SP		29.78
26	0257	5	CLR	8.00		65	18.3	52	11.2	40	4.4	40	7	290		29.55			29.77	AA		29.78
26	0357	5	CLR	10.00		63	17.2	51	10.8	40	4.4	43	14	290	22	29.54			29.76	AA		29.77
26	0457	5	CLR	9.00		62	16.7	51	10.5	40	4.4	45	7	310		29.55			29.77	AA		29.78
26	0557	5	CLR	10.00		61	16.1	51	10.3	40	4.4	46	11	310		29.56			29.78	AA		29.79
26	0657	5	SCT120 BKN250	10.00		63	17.2	52	11.2	42	5.6	46	15	290		29.56			29.78	AA		29.79
26	0757	5	FEW080 SCT150 BKN250	4.00	BLDU	65	18.3	54	11.9	43	6.1	45	18	280		29.58			29.80	AA		29.81
26	0857	5	FEW080 SCT150 BKN250	3.00	BLDU	69	20.6	54	12.2	40	4.4	35	28	290	39	29.60			29.82	AA		29.83
26	0957	5	SCT150 BKN250	5.00	BLDU	71	21.7	55	12.9	41	5.0	34	20	290	29	29.62			29.85	AA		29.85
26	1057	5	SCT150 BKN200	6.00	BLDU	72	22.2	55	12.7	39	3.9	30	24	290	31	29.62			29.84	AA		29.85
26	1157	5	FEW150 SCT250	6.00	BLDU	73	22.8	55	12.7	38	3.3	28	23	280	36	29.60			29.83	AA		29.83
26	1257	5	FEW150	8.00	BLDU	76	24.4	55	12.6	34	1.1	22	28	270	34	29.59			29.81	AA		29.82
26	1357	5	FEW150 FEW200	10.00		77	25.0	55	12.9	34	1.1	21	21	280	38	29.58			29.80	AA		29.81
26	1457	5	FEW150 SCT200	10.00		77	25.0	56	13.1	35	1.7	22	22	290	33	29.58			29.80	AA		29.81
26	1557	5	SCT150 BKN200	10.00		77	25.0	56	13.2	36	2.2	23	17	280	23	29.57			29.79	AA		29.80
26	1657	5	SCT150 BKN200	10.00		76	24.4	56	13.0	36	2.2	23	17	280		29.56			29.78	AA		29.79
26	1757	5	SCT150 SCT200	10.00		73	22.8	55	12.5	37	2.8	27	22	280	29	29.55			29.77	AA		29.78
26	1857	5	FEW150 SCT200	10.00		69	20.6	54	12.0	39	3.9	34	17	300		29.56			29.79	AA		29.79
26	1957	5	FEW150 FEW200	10.00		66	18.9	53	11.7	41	5.0	40	23	300	36	29.58			29.81	AA		29.81
26	2057	5	FEW150 FEW200	9.00		64	17.8	51	10.6	38	3.3	38	21	290	30	29.61			29.83	AA		29.84
26	2157	5	FEW150 FEW200	10.00		63	17.2	51	10.3	38	3.3	40	21	290	30	29.62			29.85	AA		29.85
26	2257	5	CLR	10.00		62	16.7	50	10.1	38	3.3	41	9	290		29.66			29.88	AA		29.89
26	2357	5	CLR	8.00		61	16.1	50	10.0	39	3.9	44	6	280		29.66			29.88	AA		29.89

Dynamically generated Mon Nov 23 12:59:32 EST 2015 via http://www.ncdc.noaa.gov/qclcd/QCLCD

The following pages contain tabular data for Ocotillo Wells, the Fish Creek Mountains, and Westmorland-North. Ocotillo Wells and Fish Creek Mountain data was obtained from the University of Utah's MesoWest data bank. Westmorland-North was obtained from AQMIS.

FIGURE B-21
WESTMORLAND-NORTH

site	date	start_hour	variable	units	quality	prelim	met_source	obs_type	name
5822	3/26/2014	0	22.9	272	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	1	20	264	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	2	13.2	267	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	3	18.6	255	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	4	14.7	281	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	5	16.9	278	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	6	22.2	274	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	7	17	280	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	8	20.3	273	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	9	18.1	259	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	10	19	264	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	11	20.6	270	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	12	25.3	276	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	13	27.6	264	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	14	27.2	267	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	15	25.8	272	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	16	25.3	277	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	17	25.1	273	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	18	23.8	268	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	19	20.4	272	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	20	19.9	274	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	21	18.6	272	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	22	16.1	270	0	y	CIMIS	H	Westmorland North
5822	3/26/2014	23	14.3	268	0	y	CIMIS	H	Westmorland North

FIGURE B-22
FISH CREEK MOUTAINS

STATION: FHCC1
STATION NAME: FISH CREEK MOUNTAINS
LATITUDE: 32.990306
LONGITUDE: -116.066972
ELEVATION [ft]: 781
STATE: CA

MONTH	DAY	YEAR	HR	MIN	W/S-MPH	GUST	DRCT
3	25	2014	0	26	3	14	172
3	25	2014	1	26	8	11	195
3	25	2014	2	26	5	11	189
3	25	2014	3	26	8	12	193
3	25	2014	4	26	6	8	187
3	25	2014	5	26	0	9	
3	25	2014	6	26	2	3	188
3	25	2014	7	26	5	12	175
3	25	2014	8	26	10	14	199
3	25	2014	9	26	8	14	192
3	25	2014	10	26	6	11	197
3	25	2014	11	26	4	8	226
3	25	2014	12	26	5	10	188
3	25	2014	13	26	6	12	193
3	25	2014	14	26	7	14	93
3	25	2014	15	26	5	14	314
3	25	2014	16	26	13	24	289
3	25	2014	17	26	8	26	266
3	25	2014	18	26	12	29	254
3	25	2014	19	26	7	31	49
3	25	2014	20	26	14	33	189
3	25	2014	21	26	5	23	181
3	25	2014	22	26	13	27	251
3	25	2014	23	26	20	31	247
3	26	2014	0	26	6	24	18
3	26	2014	1	26	12	27	341
3	26	2014	2	26	14	43	298
3	26	2014	3	26	8	20	307
3	26	2014	4	26	6	14	279
3	26	2014	5	26	2	12	90
3	26	2014	6	26	2	15	37
3	26	2014	7	26	6	14	309
3	26	2014	8	26	9	25	309
3	26	2014	9	26	8	24	358
3	26	2014	10	26	19	33	254
3	26	2014	11	26	17	35	264
3	26	2014	12	26	13	38	67
3	26	2014	13	26	18	38	325
3	26	2014	14	26	10	35	337
3	26	2014	15	26	12	31	262
3	26	2014	16	26	18	41	257
3	26	2014	17	26	20	42	264
3	26	2014	18	26	19	39	269
3	26	2014	19	26	15	35	266
3	26	2014	20	26	14	31	262
3	26	2014	21	26	11	30	273
3	26	2014	22	26	8	27	280
3	26	2014	23	26	7	14	270
3	27	2014	0	26	11	18	307
3	27	2014	1	26	14	20	250
3	27	2014	2	26	7	18	270
3	27	2014	3	26	8	26	273
3	27	2014	4	26	18	34	297
3	27	2014	5	26	11	30	278

MONTH	DAY	YEAR	HR	MIN	W/S-MPH	GUST	DRCT
3	27	2014	6	26	7	28	277
3	27	2014	7	26	14	30	250
3	27	2014	8	26	12	30	264
3	27	2014	9	26	14	29	260
3	27	2014	10	26	18	32	250
3	27	2014	11	26	11	38	259
3	27	2014	12	26	4	22	260
3	27	2014	13	26	14	31	304
3	27	2014	14	26	17	32	262
3	27	2014	15	26	18	33	258
3	27	2014	16	26	17	34	259
3	27	2014	17	26	19	36	250
3	27	2014	18	26	15	33	250
3	27	2014	19	26	10	28	269
3	27	2014	20	26	14	27	226
3	27	2014	21	26	12	18	198
3	27	2014	22	26	8	18	207
3	27	2014	23	26	13	17	198

FIGURE B-23
OCOTILLO WELLS

STATION: AS938
STATION NAME: KD6RSQ-5 Ocotillo Wells
LATITUDE: 33.15044
LONGITUDE: -116.18041
ELEVATION [ft]: 419
STATE: CA

MONTH	DAY	HR	W/S	GUST	DRCT
3	25	0	11	15	342
3	25	1	7	11	328
3	25	2	6	8	316
3	25	3	4	7	318
3	25	4	9	13	315
3	25	6	8	12	338
3	25	7	7	12	326
3	25	8	0	3	
3	25	9	4	7	172
3	25	10	8	10	190
3	25	11	8	12	179
3	25	12	7	12	120
3	25	13	6	11	205
3	25	14	9	20	294
3	25	15	13	25	277
3	25	16	15	24	300
3	25	17	18	29	273
3	25	18	21	37	278
3	25	19	15	25	284
3	25	20	17	31	281
3	25	21	19	35	273
3	25	22	15	26	294
3	25	23	15	28	294
3	26	0	19	31	271
3	26	1	14	25	273
3	26	2	13	24	300
3	26	3	11	20	300
3	26	4	11	20	283
3	26	5	14	24	264
3	26	6	12	22	278
3	26	7	19	38	273
3	26	8	18	31	284
3	26	9	19	36	284
3	26	10	19	32	285
3	26	11	21	36	280
3	26	12	25	42	290
3	26	13	18	31	276
3	26	14	21	42	287
3	26	15	19	33	300
3	26	16	20	42	270
3	26	17	20	38	281
3	26	18	20	37	285
3	26	19	14	24	280
3	26	20	17	29	274
3	26	21	7	20	297
3	26	23	18	28	287
3	26	23	15	29	262
3	27	0	16	30	295
3	27	1	16	28	284
3	27	2	17	28	284
3	27	3	15	24	276
3	27	4	14	23	288
3	27	5	13	24	291
3	27	6	16	24	316

MONTH	DAY	HR	W/S	GUST	DRCT
3	27	8	14	24	267
3	27	9	13	25	287
3	27	10	18	30	285
3	27	11	19	42	288
3	27	12	16	27	287
3	27	13	15	30	284
3	27	14	16	30	290
3	27	15	13	33	271
3	27	16	14	31	285
3	27	17	12	25	283
3	27	18	15	29	297
3	27	19	15	29	285
3	27	20	14	25	305
3	27	21	17	30	287
3	27	22	17	28	266
3	27	23	15	24	285