



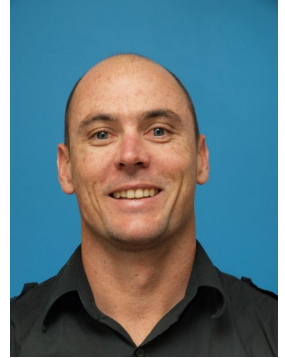
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THE OFFICIAL PUBLICATION OF THE AUSTRALIAN
METEOROLOGICAL ASSOCIATION INC
June 2017

“Forecasting the November 2015 Pinery Fires”.

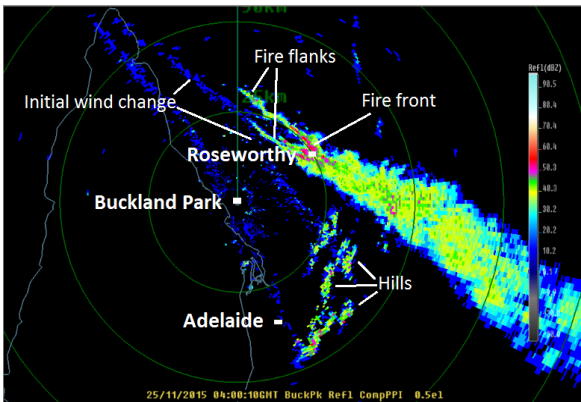
Matt Collopy, Supervising Meteorologist, SA Forecasting Centre, BOM.

At the AMETA April 2017 meeting, Supervising Meteorologist of the Bureau of Meteorology South Australian Forecasting Centre, gave a fascinating talk on forecasting the conditions of the November 2015 Pinery fires, which burnt 85,000ha 80 km north of Adelaide.



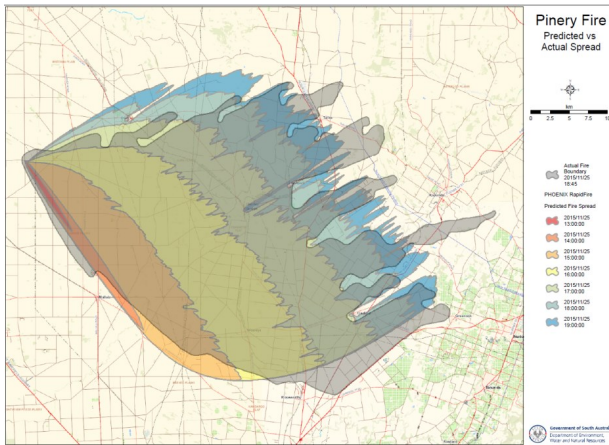
The fire started during the morning of Wednesday 25th November 2015 ahead of a cold frontal system. Winds from the north reached 45-65km/h and temperatures reached the high 30’s, ahead of the change, with the west to southwest wind change reaching the area at around 2:30pm.

Matt’s talk highlighted the power of radar imagery in improving the understanding of the behaviour of the fire. The 10 minute radar scans were able to show ash, and ember particles being lofted into the atmosphere, and help identify where the fire would be spreading. The radar also gave insight into the timing of the wind change- vital information as the wind change greatly extends the fire front.



Buckland Park radar image from 2:30pm (0400 UTC) on 25/11/2015 showing fine scale features of the Pinery fire, and lofted ember particles.

Prediction of fire behaviour has vastly improved, with Matt showing real-time predictions of fire behaviour overlain with resulting fire behaviour on the day. This uses a model called Phoenix, into which weather model predicted conditions, and vegetation information are fed to provide a model of expected fire behaviour.



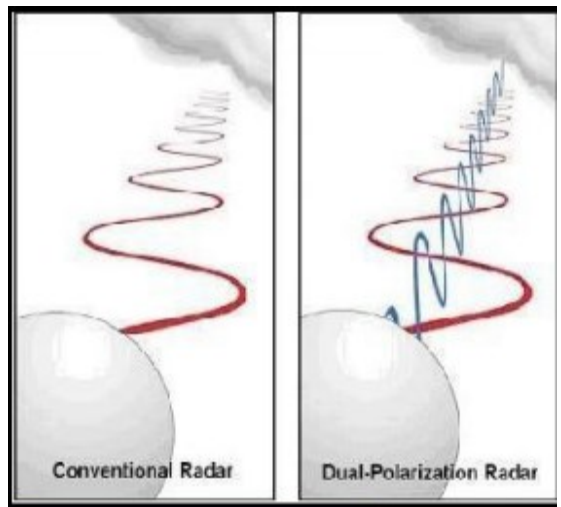
Phoenix fire model expected fire spread, and actual fire spread for the Pinery fire.

Buckland Park radar is back online

The Bureau of Meteorology radar at Buckland Park to the north of Adelaide has become a fixture for studying the weather since it was opened in 2005. It has been offline for a mid-life upgrade in recent weeks, and has been missed.

It is now back online, with the upgrade completed and expected to extend the life of the radar for at least another 10 years. At the same time, the opportunity was taken to install some new detection equipment. A dual pole system was installed. This means the radar now sends out both horizontal and vertical radar pulses, enabling forecasters to differentiate between hail, snow/ice, and bushfire debris, as well as improving rainfall estimates.

For more on dual pole radar see this web link:



https://www.weather.gov/media/lmk/soo/Dual_Pol_Overview.pdf

Weather Observation Site reopens at West Terrace

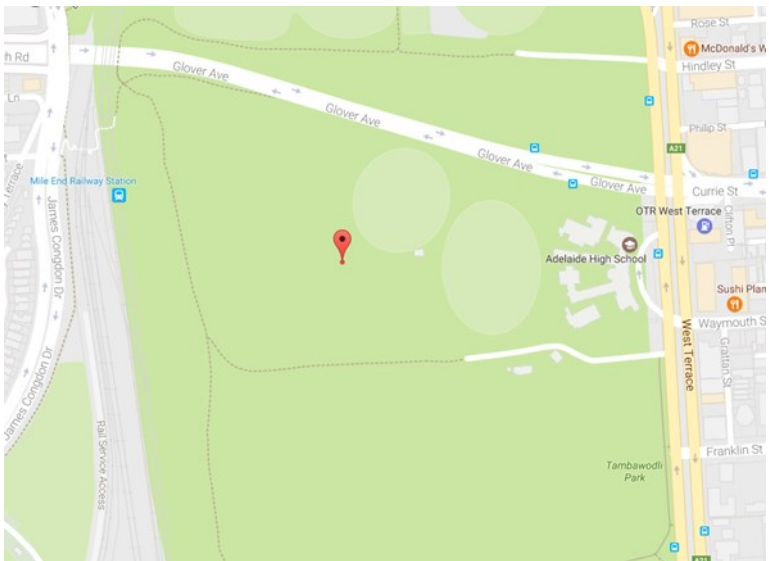
As of Wednesday 14 July 2017, the Bureau of Meteorology has re-established a weather observation site on West Terrace.

Over the last 18 months a consultative process with Adelaide City council, and the Kaurna community, has resulted in a new automatic weather station being established in the Adelaide Parklands to the west of the original West Terrace site established in 1859, now occupied by Adelaide High School.

The construction of this new automatic weather station in 2017 officially marks Adelaide's weather observations returning to their historical home. The weather station will provide a one minute data feed to the Bureau of Meteorology regional office on South Terrace, and becomes the official site for Adelaide observations.

The process of moving to West Terrace as the official site for Adelaide will take several years to fully complete. The Adelaide (Kent Town) site on college Road will remain for at least two years, to allow a full comparison between the two sites, before being removed.

The new site also incorporates educational signage on the Aboriginal and early colonial meteorological history of the area.



Location of the new Adelaide (West Terrace) Bureau of Meteorology station

Adelaide in April 2017

Despite a cool end to the month, April 2017 in Adelaide was slightly warmer than average. April rainfall was below average in Adelaide's north but generally above average in southern suburbs and in the hills.

Wetter than average in south and east; drier in the north

- After a relatively dry start to the month, April rainfall was close to average in most Adelaide suburbs
- There was heavy rainfall across the city on 20-21 April as tropical moisture extended across the State
- A series of cold fronts continued to bring rain to Adelaide throughout the last week of the month
- Some sites such as Mount Crawford and Noarlunga were much wetter than average, with 152% and 150% of their April average rainfall respectively
- Conditions were drier in Adelaide's north, with Edinburgh RAAF and Parafield Airport recording around half of their April average rainfall

Slightly warmer than average

- Both daytime and night time temperatures were slightly warmer than average throughout the Adelaide region during April
- The coldest day of the month in all suburbs was 26 April, with Mt Lofty only reaching 9.9°C on the day (coldest April day since 25 April, 2015, for the site)
- Mean maximum temperatures ranged from 0.2°C warmer than average at Noarlunga to 1.4°C warmer than average at Parafield Airport
- Mean minimum temperatures ranged from 0.2°C warmer than average at Parafield Airport to 1.9°C warmer than average at Mount Barker
- April ended with a week of cool daytime temperatures

High humidity at times

- A large cloud band stretching from the Kimberley into South Australia brought tropical moisture and high humidity to Adelaide from 19 April
- On 20 April, Adelaide Airport recorded a precipitable water value of 42.1 mm, which was a late-season record for the site by 11 days .

Extremes in April 2017

Hottest day	32.7°C at Edinburgh RAAF on the 19th
Warmest days on average	24.1°C at Parafield Airport
Coollest days on average	17.8°C at Mount Lofty
Coldest day	9.9°C at Mount Lofty on the 26th
Coldest night	4.2°C at Mount Lofty on the 26th
Coollest nights on average	10.2°C at Mount Lofty
Warmest nights on average	14.1°C at Noarlunga
Warmest night	22.6°C at Adelaide (Kent Town) on the 19th
Warmest on average overall	18.3°C at Adelaide (Kent Town)
Coollest on average overall	14.0°C at Mount Lofty
Wettest overall	84.8 mm at Williamstown
Driest overall	15.2 mm at Edinburgh RAAF
Wettest day	48.2 mm at Williamstown on the 21st
Strongest wind gust	76 km/h at Mount Crawford AWS on the 9 th

For more information see:

<http://www.bom.gov.au/climate/current/month/sa/archive/201704.adelaide.shtml>

Adelaide, South Australia April 2017 Daily Weather Observations

Observations are from Kent Town, about 2 km east of the city centre.



Australian Government
Bureau of Meteorology

Date	Temps		Rain mm	Evap mm	Sun hours	Max wind gust			9am					3pm					
	Min °C	Max °C				Dirn	Spd km/h	Dirn	Spd km/h	MSLP hPa	RH %	Cld eighths	Dirn	Spd km/h	MSLP hPa	RH %	Cld eighths	Dirn	Spd km/h
1	Sa	11.4	21.6	0.2		WSW	33	14:21	16.1	75	WSW	2	1025.4	20.3	45	SW	13	1024.9	
2	Su	11.6	21.0	0		SSE	30	15:09	16.3	51	SE	9	1031.6	20.4	34	SE	15	1028.8	
3	Mo	10.5	21.8	0		SE	30	16:37	15.9	48	E	9	1031.3	21.5	31	S	11	1027.2	
4	Tu	9.8	26.9	0		SW	24	15:44	17.9	52	ESE	6	1027.2	26.5	29	WSW	11	1022.6	
5	We	16.1	28.9	0		ESE	31	14:25	22.4	30	NE	9	1023.1	26.8	17	ESE	9	1019.0	
6	Th	11.4	29.4	0		NNW	22	11:08	21.6	32	NNE	6	1021.7	28.8	18	W	11	1018.5	
7	Fr	14.9	30.2	0		NNW	30	11:06	23.3	33	N	9	1020.5	29.3	17	WNNW	11	1016.7	
8	Sa	14.4	29.1	0		N	35	11:08	24.4	31	NNE	9	1016.4	23.5	59	SW	17	1013.4	
9	Su	13.3	17.5	2.6		SW	63	11:23	15.4	44	SW	20	1019.0	16.0	43	SW	26	1020.2	
10	Mo	11.7	18.9	0.8		SSW	33	00:13	15.6	54	SSW	13	1024.9	16.8	58	SSW	11	1024.2	
11	Tu	9.9	20.8	0		ENE	26	10:22	15.4	71	SW	7	1027.5	20.1	51	SE	13	1024.3	
12	We	10.9	24.2	0		WSW	20	12:53	17.1	63	SSW	2	1025.9	22.7	47	SW	11	1022.3	
13	Th	10.4	26.0	0		SW	24	15:49	18.7	56	Calim	Calim	1025.2	24.9	40	SW	13	1023.2	
14	Fr	9.6	23.5	0		SW	22	13:15	18.3	55	Calim	Calim	1025.7	23.0	47	SW	11	1022.8	
15	Sa	9.4	26.0	0		WSW	20	13:20	17.1	58	W	2	1021.4	25.2	45	W	7	1017.6	
16	Su	13.7	23.9	0		E	20	16:07	17.5	55	SE	4	1021.0	22.6	48	WSW	11	1019.2	
17	Mo	14.0	27.8	0		ENE	22	05:49	20.7	49	N	6	1021.4	27.2	30	WNNW	7	1018.9	
18	Tu	19.6	29.2	0		E	33	19:20	22.6	33	NE	9	1023.4	28.1	21	ENE	13	1021.0	
19	We	22.6	30.8	0		NNW	41	19:25	24.9	33	ENE	11	1020.7	29.4	27	NW	15	1017.8	
20	Th	19.1	21.4	0.4		N	20	07:23	19.7	90	NNE	7	1021.8	21.0	85	WSW	13	1018.8	
21	Fr	18.2	22.6	4.8		WSW	20	11:29	19.0	83	SW	7	1022.5	21.8	60	S	11	1020.6	
22	Sa	11.4	24.1	0.2		NNW	20	13:00	18.3	67	E	2	1024.2	23.2	51	SW	9	1021.4	
23	Su	15.6	24.6	0		ESE	19	09:46	20.0	67	N	7	1023.5	22.6	55	SSW	7	1020.5	
24	Mo	15.4	20.4	3.4		W	26	18:06	17.8	90	E	2	1017.8	20.0	80	NW	9	1014.2	
25	Tu	15.2	21.0	8.2		SW	52	23:34	18.0	74	WSW	13	1014.5	19.8	54	W	11	1012.1	
26	We	10.2	15.8	6.0		SSW	59	02:36	12.9	54	SSW	13	1021.4	15.1	48	S	17	1023.0	
27	Th	9.6	18.0	0		SSW	30	10:32	12.1	75	E	6	1029.3	15.8	59	SW	15	1027.2	
28	Fr	12.0	17.4	3.8		S	20	12:36	13.8	96	N	6	1029.1	17.1	66	SW	11	1027.0	
29	Sa	13.5	17.6	2.8		W	13	13:21	14.7	87	ENE	4	1027.4	17.1	65	WSW	4	1025.4	
30	Su	14.6	19.7	0		NNE	26	11:46	16.6	61	N	9	1023.4	19.1	48	WNNW	11	1019.6	
Statistics for April 2017																			
Mean		13.3	23.3						18.1	58		6	1023.6	22.2	45		11	1021.1	
Lowest		9.4	15.8						12.1	30		Calim	1014.5	15.1	17		WSW	4	1012.1
Highest		22.6	30.8	8.2		SW	63		24.9	96	SW	20	1031.6	29.4	85		SW	26	1028.8
Total				33.2															

Observations were drawn from Adelaide (Kent Town) [station 023000]

ICDC_IDW0002.201704 - Prepared at 16:05 GMT on 2 Jun 2017
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South Australia in April 2017: very wet in most parts

April 2017 saw large areas of central South Australia record more than three times their April average rainfall. Temperatures were generally warmer than average across eastern parts of South Australia, but cooler than average in the northwest.

Very wet for most of the State

- April 2017 was South Australia's tenth-wettest April on record
- Rainfall was double the April average for South Australia as a whole
- After largely dry conditions for many areas in the first half of the month, tropical activity from the 20th led to widespread rainfall across South Australia
- Cold fronts brought continued rainfall through the remainder of April 2017 and large areas across the State ended the month with rainfall more than three times the April average
- Most of central South Australia had very much above average rainfall
- A large area around Tarcoola and Mount Eba had its wettest April on record
- Large areas around Port Augusta, Tarcoola, Mount Eba, and Andamooka all recorded more than 400% of their April average rainfall
- Below average rainfall in isolated patches on the Eyre Peninsula, and northern parts of the Far North
- Sites in central South Australia and in the east had their highest April daily rainfall on record between 20-26 April
- Several sites had their highest total April rainfall on record or highest total April rainfall for at least 20 years

Temperatures close to average

- Temperatures for South Australia as a whole were close to average in April

High humidity at times

- From 19 April, a broad surface trough combined with an upper level trough to produce a large cloudband that extended from the Kimberley to South Australia, which resulted in heavy rainfall for much of the State
- That tropical moisture also resulted in high humidity for southern and eastern districts
- Precipitable water values on 20 April at Adelaide Airport (42.1 mm) and Woomera (41.3 mm) were both late-season records by 11 days (that is, 11 days later in the season than a value this high had been recorded before)

For more information on South Australia's April temperatures and rainfall plus a summary of statistics please see:

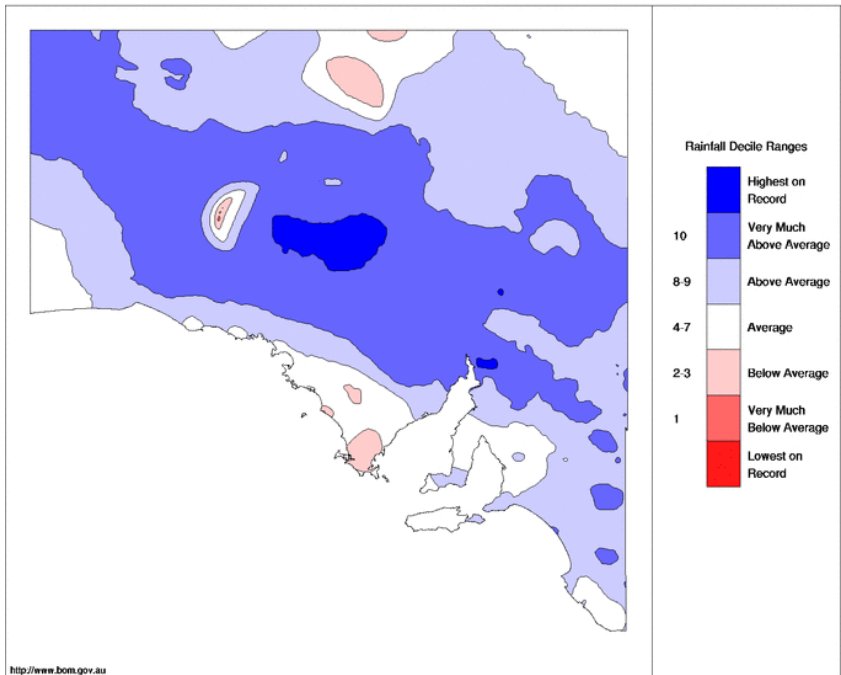
<http://www.bom.gov.au/climate/current/month/sa/archive/201704.summary.shtml>

All the detail you could possibly want and more is available on the BoM website.

Visit <http://www.bom.gov.au/climate> and wander through the various archived climate reports and summaries which are available in text and graphical forms.

South Australian Rainfall Deciles April 2017

Distribution Based on Gridded Data
Australian Bureau of Meteorology

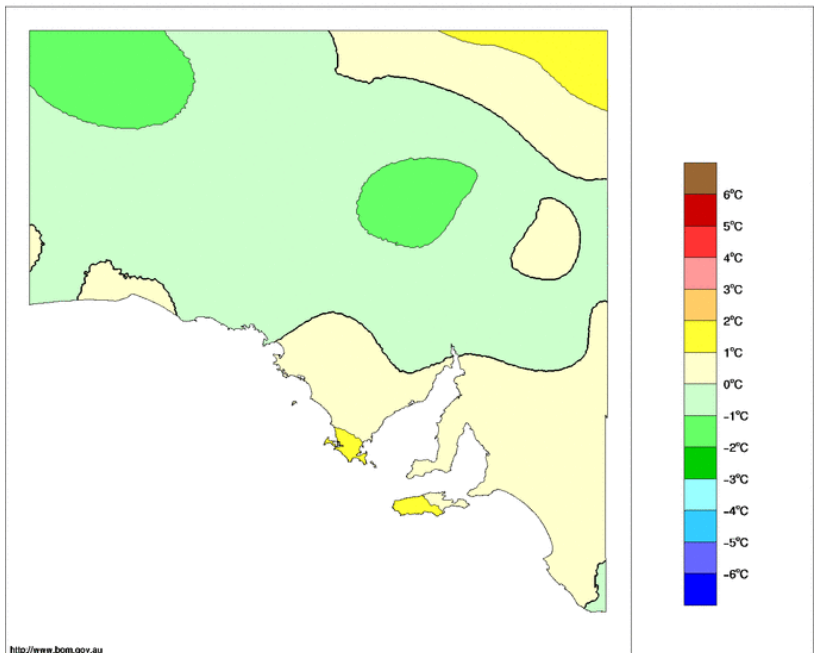


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Issued: 21/05/2017

Maximum Temperature Anomaly (°C) April 2017

Australian Bureau of Meteorology



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Issued: 21/05/2017

Adelaide in May 2017: drier than average

May was drier than average throughout Adelaide and the Hills. Daytime temperatures during May were generally warmer than average, with cooler than average nights.

Drier than average

- Rainfall totals in excess of 30 mm in the last few days of the month weren't enough to avoid most areas around Adelaide recording below average rainfall during May
- Adelaide (Kent Town) recorded 51.2 mm during May, which was only slightly below average
- Several cold fronts crossed South Australia in the last few days of the month, bringing three days of good rains to the Adelaide region from 28-30 May
- Adelaide's wettest day for the month was the 28th, with 29.8 mm of rainfall recorded at Uraidla in the Adelaide Hills
- May rainfall totals around Adelaide ranged from 42% of average at Parafield Airport, to 90% of average at Mount Lofty

Average to slightly warmer than average days; cool nights

- Daytime temperatures were generally slightly warmer than average during May
- May ended with four cooler than average days following the passage of several cold fronts across the State from the 27th
- The warmest day was 23.7°C at Parafield Airport on the 21st
- Mean minimum temperatures were generally cooler than average in May: Mount Barker was the only site in the Adelaide region that recorded warmer than average minima
- Nights were generally cooler than average during the first half of the month, but were warmer than average from the 16th to the 27th
- Most suburbs had their coldest night of the month on the 31st: the coldest temperature recorded around Adelaide was 1.5°C at Mount Lofty on the 31st
- Adelaide had a run of seven consecutive days of 20°C or above (from 10th to the 16th), which was the longest such run for three years (the longest such run of days during May is 16 days in 2014)

Extremes in May 2017

Hottest day	23.7°C at Parafield Airport on the 21st
Warmest days on average	19.9°C at Parafield Airport
Coollest days on average	13.5°C at Mount Lofty
Coldest day	8.5°C at Mount Lofty on the 28th
Coldest night	1.5°C at Mount Lofty on the 31st
Coollest nights on average	7.4°C at Mount Lofty
Warmest nights on average	11.1°C at Noarlunga
Warmest night	17.1°C at Noarlunga on the 17th
Warmest on average overall	14.7°C at Noarlunga
Coollest on average overall	10.4°C at Mount Lofty
Wettest overall	102.8 mm at Uraidla
Driest overall	18.4 mm at Gawler
Wettest day	29.8 mm at Uraidla on the 28th
Strongest wind gust	80 km/h at Kuitpo Forest Reserve on the 27th

For more information for May see:

<http://www.bom.gov.au/climate/current/month/sa/archive/201705.adelaide.shtml>

Adelaide, South Australia May 2017 Daily Weather Observations

Observations are from Kent Town, about 2 km east of the city centre.



Date	Day	Temps		Rain	Evap	Sun	Max wind gust			9am					3pm								
		Min	Max				Dirn	Spd	Time	Temp	RH	Cid	Dirn	Spd	MSLP	Temp	RH	Cid	Dirn	Spd	MSLP		
		°C	°C	mm	mm	hours	km/h	local	°C	%	eighths	km/h	°C	%	eighths	km/h	hPa	°C	%	eighths	km/h	hPa	
1	Mo	11.8	18.4	0			WSW	31	11:23	14.7	81	NNE	7	1017.6	15.9	77	SW	17	1017.9				
2	Tu	10.0	17.0	3.0			SSW	33	12:13	14.7	57	NNE	9	1025.4	15.5	56	S	9	1025.9				
3	We	6.2	18.3	0.2			SSW	20	15:28	12.0	73	N	6	1032.1	16.5	60	SSW	9	1029.5				
4	Th	5.8	17.6	0			NNE	20	10:24	13.2	49	ENE	6	1031.7	16.3	44	WSW	9	1028.5				
5	Fr	6.6	19.9	0			WNNW	22	13:11	13.1	55	NE	2	1027.1	19.3	31	WNNW	7	1023.5				
6	Sa	11.5	19.9	0			SW	37	13:57	14.1	61	NNE	4	1024.2	18.3	49	SW	17	1025.4				
7	Su	8.0	15.3	0			SE	20	17:43	11.5	61	NNE	4	1033.8	15.0	47	SE	9	1032.1				
8	Mo	6.8	16.9	0			E	24	11:53	12.7	57	E	9	1034.0	16.0	47	SE	9	1030.7				
9	Tu	6.9	18.9	0			SW	20	15:45	13.0	67	NNE	7	1030.2	18.6	50	WSW	9	1026.3				
10	We	5.7	20.5	0			N	28	13:33	13.6	60	N	7	1027.5	19.3	37	NNE	7	1023.9				
11	Th	7.3	20.7	0			WSW	15	14:24	12.9	63	NNE	6	1026.8	19.9	34	WSW	9	1024.3				
12	Fr	5.7	21.4	0			ESE	20	12:35	13.9	57	ESE	10	1025.8	20.6	35	ESE	9	1022.0				
13	Sa	7.8	21.0	0			E	24	11:35	15.9	54	E	24	1023.2	20.4	35	E	7	1021.2				
14	Su	7.3	21.2	0			WSW	22	13:50	14.6	61	Calm	Calm	1023.6	19.5	40	SW	13	1021.2				
15	Mo	6.8	22.5	0			ENE	20	20:00	13.7	61	Calm	Calm	1021.1	21.3	30	SW	13	1017.2				
16	Tu	13.7	21.0	0			N	39	18:28	19.5	28	NE	9	1014.0	20.5	28	N	9	1011.0				
17	We	15.6	18.2	1.4			N	37	03:35	17.3	64	NNE	11	1011.8	15.8	88	NNE	11	1012.2				
18	Th	10.5	20.8	4.6			E	22	16:21	16.5	54	N	2	1017.6	19.9	44	E	6	1015.5				
19	Fr	12.2	19.5	0.2			N	20	13:30	13.8	87	NNE	2	1016.5	18.3	60	NW	7	1013.3				
20	Sa	12.4	20.5	0			NW	28	14:46	14.5	76	NNE	9	1016.3	20.2	55	NW	11	1014.4				
21	Su	10.1	22.9	0			N	24	10:15	17.2	60	NE	6	1018.7	22.4	41	NW	9	1016.2				
22	Mo	11.6	20.1	0			N	30	10:30	17.9	47	NE	7	1017.1	19.6	46	NNE	13	1012.2				
23	Tu	12.5	19.3	1.6			NW	31	13:40	13.4	97	NNE	9	1018.6	17.6	57	WNNW	15	1015.9				
24	We	13.3	19.2	3.6			WNNW	30	11:13	16.0	81	NW	4	1021.4	17.9	64	W	13	1021.3				
25	Th	10.0	20.2	0.2			WSW	26	13:39	14.2	79	NE	7	1023.2	19.4	53	W	15	1020.9				
26	Fr	12.5	21.9	0			NW	24	14:28	13.9	87	E	4	1023.0	21.6	36	NW	13	1018.1				
27	Sa	11.6	20.4	0			WSW	48	22:31	15.0	61	NNE	17	1015.1	19.5	52	NW	15	1011.0				
28	Su	9.5	15.1	16.6			WSW	50	03:15	11.5	89	SW	13	1015.5	14.9	93	WSW	19	1015.8				
29	Mo	7.9	15.2	3.8			W	28	14:55	10.8	95	N	9	1023.1	14.1	93	WNNW	13	1021.6				
30	Tu	9.7	15.1	16.0			S	35	13:09	12.2	71	S	7	1028.9	14.0	40	SSE	11	1029.3				
31	We	4.8	15.0	0			E	24	12:37	9.4	68		Calm	1036.6	14.4	40	E	11	1035.2				
Statistics for May 2017																							
	Mean	9.4	19.2							14.1	66		5	1023.3	18.2	49				10	1021.1		
	Lowest	4.8	15.0							9.4	28		Calm	1011.8	14.0	28				Calm	1015.0		
	Highest	15.6	22.9	16.6			WSW	50		19.5	97	NNE	17	1036.6	22.4	93				WSW	19	1035.2	
	Total																						

Observations were drawn from Adelaide (Kent Town) (Station 023060)

ICD:IDW65002201705 Prepared at 13:05 GMT on 2 Jun 2017

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South Australia in May 2017

South Australia during May was drier than average, particularly on the Eyre Peninsula. Daytime temperatures were warmer than average, while nights tended to be cooler than average.

Drier than average

- South Australian rainfall was 62% below the May average
- Very much drier than average around Eyre Peninsula
- Little or no rain for the month in parts of the northern pastoral districts: Marree Aero recorded 0.0 mm of rainfall for the month
- May rainfall was close to average in the southeast
- Two sites had their lowest total May rainfall for at least 20 years

Warm days, cooler than average nights

- Warmer than average daytime temperatures for the State as a whole
- Mean maximum temperatures were 1.34°C warmer than average for the State as a whole
- Very much warmer than average in the Northeast Pastoral district
- Cooler than average nights in western and southern districts
- Overall, mean minimum temperatures were 0.41° cooler than the May average
- A warm spell in mid-May resulted in 32.0°C at Oodnadatta on the 16th, the hottest temperature recorded in the State this month
- The month ended with a large high pressure system and clear skies over much of South Australia, resulting in the coldest night of the year: the coldest temperature recorded in the State was -2.8°C at Yunta on the morning of the 31st
- Keith had a run of 10 consecutive nights below 5°C from 7-16 May, which was the site's the longest such run during May in at least 56 years
- Strathalbyn Racecourse equalled its lowest May mean daily minimum temperature on record
- Two sites had their lowest May mean daily minimum temperature for at least 20 years

Extremes in May 2017

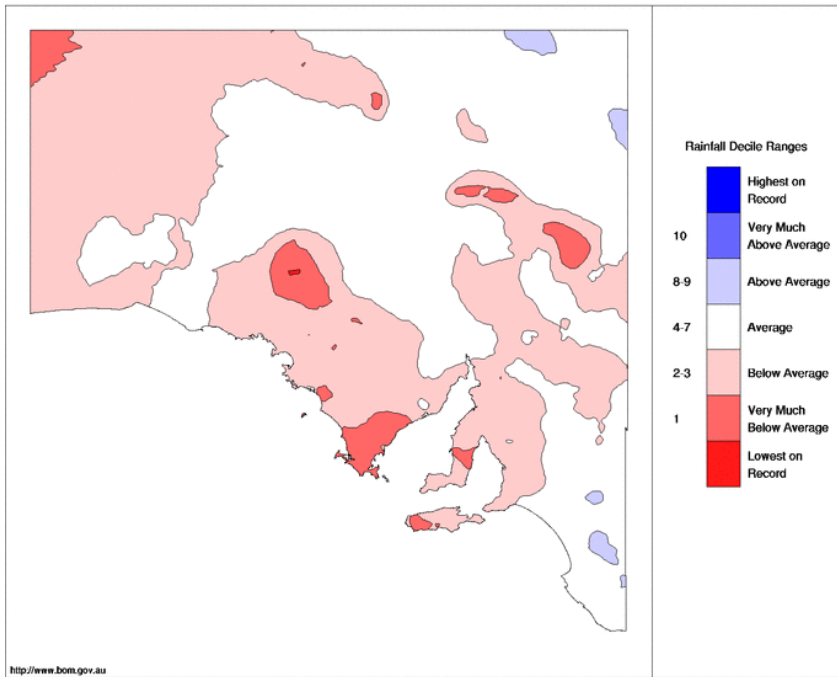
Hottest day	32.0°C at Oodnadatta Airport on the 16th
Warmest days on average	25.1°C at Oodnadatta Airport
Coollest days on average	13.5°C at Mount Lofty
Coldest day	8.5°C at Mount Lofty on the 28th
Coldest night	-2.8°C at Yunta Airstrip on the 31st
Coollest nights on average	4.2°C at Yongala
Warmest nights on average	14.3°C at Neptune Island
Warmest night	18.9°C at Oodnadatta Airport on the 17th
Warmest on average overall	17.5°C at Moomba Airport
Coollest on average overall	10.4°C at Mount Lofty
Wettest overall	102.8 mm at Uraidla
Driest overall	0 mm at Marree Aero
Wettest day	38.0 mm at Parrakie on the 19th
Strongest wind gust	83 km/h at Neptune Island on the 22nd and 28th

For more information on May weather statistics see:

<http://www.bom.gov.au/climate/current/month/sa/archive/201705.summary.shtml>

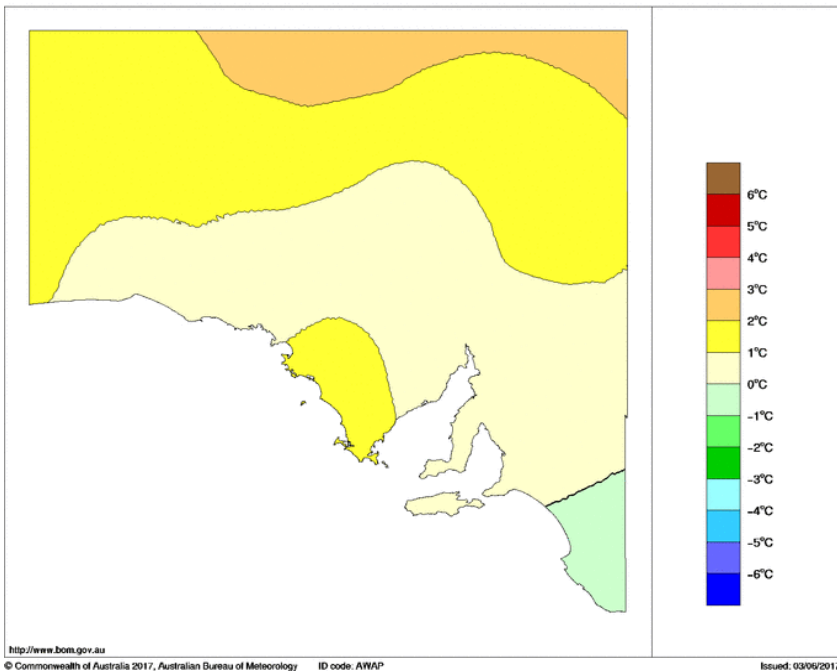
South Australian Rainfall Deciles May 2017

Distribution Based on Gridded Data
Australian Bureau of Meteorology



Maximum Temperature Anomaly (°C) May 2017

Australian Bureau of Meteorology



Adelaide in autumn 2017: warmer and drier than average

Adelaide and the Hills had a drier than average autumn. Both days and nights in the Adelaide region were warmer than average for the season as a whole.

Drier than average

- Autumn was drier than average throughout Adelaide and the Hills
- Autumn rainfall totals around Adelaide ranged from 45% of average at Edinburgh RAAF to 97% of average at Adelaide (Kent Town)
- April brought above average rainfall to many parts of Adelaide and the wettest day for the season was on 21 April: Williamstown recorded 48.2mm in the 24 hours to 9am on 21 April
- The wettest site for the season was at Uraidla in the Adelaide Hills, recording an autumn total of 217.2mm

Warmer than average

- Warmer than average days and nights in Adelaide's suburbs and in the Hills
- Mean temperatures were much warmer than average in March and April, but closer to average in May
- Mean maximum temperatures ranged from 0.6°C above average at Noarlunga to 2.8°C above average at Mount Lofty
- Mean minimum temperatures equalled the autumn average at Parafield Airport, but ranged up to 2.1°C warmer than average at Mount Barker
- Adelaide's hottest autumn day was at the start of the season, reaching 38.6°C at both Adelaide (Kent Town) and Parafield Airport on 1 March
- The season ended with a clear, cold night: the coldest temperature recorded for the season around Adelaide was 1.5°C at Mount Lofty on 31 May

Extremes in autumn 2017

Hottest day	38.6°C at Adelaide (Kent Town) on 1 Mar 38.6°C at Parafield Airport on 1 Mar
Warmest days on average	24.7°C at Parafield Airport
Coollest days on average	18.4°C at Mount Lofty
Coldest day	8.5°C at Mount Lofty on 28 May
Coldest night	1.5°C at Mount Lofty on 31 May
Coollest nights on average	10.4°C at Mount Lofty
Warmest nights on average	14.2°C at Noarlunga
Warmest night	23.3°C at Noarlunga on 20 Mar
Warmest on average overall	18.7°C at Adelaide (Kent Town)
Coollest on average overall	14.4°C at Mount Lofty
Wettest overall	217.2 mm at Uraidla
Driest overall	45.2 mm at Edinburgh RAAF
Wettest day	48.2 mm at Williamstown on 21 Apr
Strongest wind gust	80 km/h at Kuitpo Forest Reserve on 27 May

For more information on Adelaide's Autumn temperatures and rainfall plus a summary of statistics please see:

<http://www.bom.gov.au/climate/current/season/sa/archive/201705.adelaide.shtml>

South Australia in autumn 2017: much warmer than average

Autumn in South Australia was generally warmer than average. Autumn days were much warmer than average for the State as a whole, and while night time temperatures were also warmer than average, they were closer to the norm for this time of the year. Autumn rainfall totals were generally slightly below average, despite a very wet April.

Drier than average

- Autumn 2017 was the driest autumn for South Australia since 2008
- Autumn rainfall was 24% below average for the State as a whole
- Very wet in April, but the State was drier than average in both March and May
- Very much below average rainfall on the Eyre Peninsula
- Patches of below average rainfall around Adelaide, in the far west, and in the far north of the State
- Autumn was wetter than average across large parts of the southern pastoral districts, and for much of the State's southeast
- In April, some sites had their highest autumn daily rainfall on record
- Coonawarra had its highest total autumn rainfall on record
- Several sites had their highest total autumn rainfall for at least 20 years
- North Shields near Port Lincoln had its lowest total autumn rainfall on record
- Elliston had its lowest total autumn rainfall since 1959

Seventh-warmest days on record

- Statewide maximum temperatures during autumn were the seventh-highest on record: 1.46°C warmer than average
- Daytime temperatures were close to average in April, but warmer than average in both March and May
- Very much above average maxima in the State's north and east
- For the State as a whole, night time temperatures were closer to average: 0.36°C warmer than average
- Minima were generally near average in the State's west and warmer than average in the east
- Overall, South Australian mean temperatures were 0.91°C warmer than average
- Some sites had their highest autumn temperature on record

Extremes in autumn 2017

Hottest day	44.5°C at Ceduna AMO on 26 Mar
Warmest days on average	30.2°C at Moomba Airport
Coollest days on average	18.4°C at Mount Lofty
Coldest day	8.5°C at Mount Lofty on 28 May
Coldest night -	2.8°C at Yunta Airstrip on 31 May
Coollest nights on average	8.8°C at Keith (Munkora)
Warmest nights on average	16.2°C at Moomba Airport
Warmest night	30.2°C at Oodnadatta Airport on 27 Mar
Warmest on average overall	23.2°C at Moomba Airport
Coollest on average overall	14.4°C at Mount Lofty
Wettest overall	223.6 mm at Mount Gambier Aero
Driest overall	6.2 mm at Oodnadatta Airport
Wettest day	98.8 mm at Lucindale Post Office on 21 Mar
Strongest wind gust	98 km/h at Neptune Island on 8 Apr

Some notable statistics for South Australia in Autumn 2017 were:

Record highest autumn daily rainfall			
	New record (mm)	Old record	Years held
Parilla	69.8 on 21 Apr	46.6 on 13 May 1974	104
Hilltown	60.0 on 20 Apr	56.0 on 29 Apr 2007	61
Roseworthy	58.6 on 21 Apr	35.8 on 8 Mar 2011	20
Lowaldie	75.6 on 21 Apr	60.0 on 9 Mar 2011	49

Record highest autumn total rainfall				
	New record	Old record	Years held	Autumn Average
Coonawarra	194.6	182.2 in 2011	32	119.3

Record lowest autumn total rainfall				
	New record	Old record	Years held	Autumn Average
Port Lincoln	22.4	29.6 in 2005	23	82.3

Record highest autumn temperature				
	New record (°C)	Old record	Years held	Autumn Average
Woomera	43.0 on 26 Mar	= 43.0 on 6 Mar 1986	69	25.6
Nullarbor	43.4 on 26 Mar	43.0 on 31 Mar 2005	31	24.2
Coles Point	40.6 on 26 Mar	39.9 on 11 Mar 2006	26	22.1
Minnipa	42.4 on 26 Mar	41.8 on 2 Mar 2007	21	24.7
Tarcoola	44.0 on 26 Mar	43.0 on 17 Mar 2000	20	27.0

Highest autumn total rainfall for at least 20 years			
	Observed	Most recent higher	Autumn Average
Frances	170.0	229.2 in 1983	112.8
Padthaway	199.8	264.2 in 1983	114.6
Coomandook	140.3	168.2 in 1985*	95.8
Keith	144.2	165.2 in 1988	106.2
Mount Gambier	223.6	252.2 in 1992*	162.1

Lowest autumn total rainfall for at least 20 years

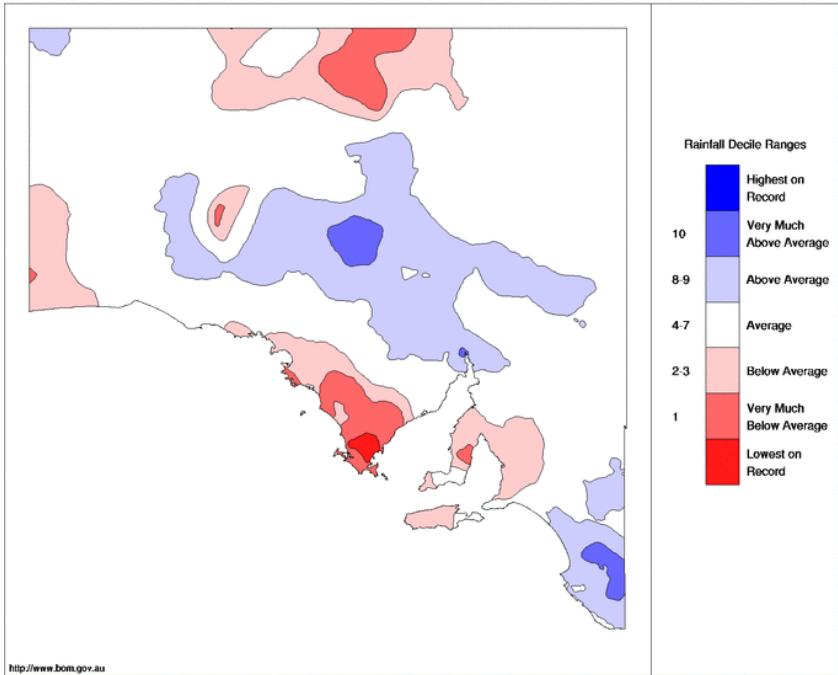
	Observed (mm)	Most recent lower	Autumn Average
Elliston	25.4	23.7 in 1959	94.5

* *note: there are gaps in the historical record at this site, so it is possible a lower value has gone unreported*

Many other rainfall and temperature records for Autumn in South Australia were also set. For more information plus a summary of statistics please see: <http://www.bom.gov.au/climate/current/season/sa/archive/201705.summary.shtml>

South Australian Rainfall Deciles 1 March to 31 May 2017

Distribution Based on Gridded Data
Australian Bureau of Meteorology

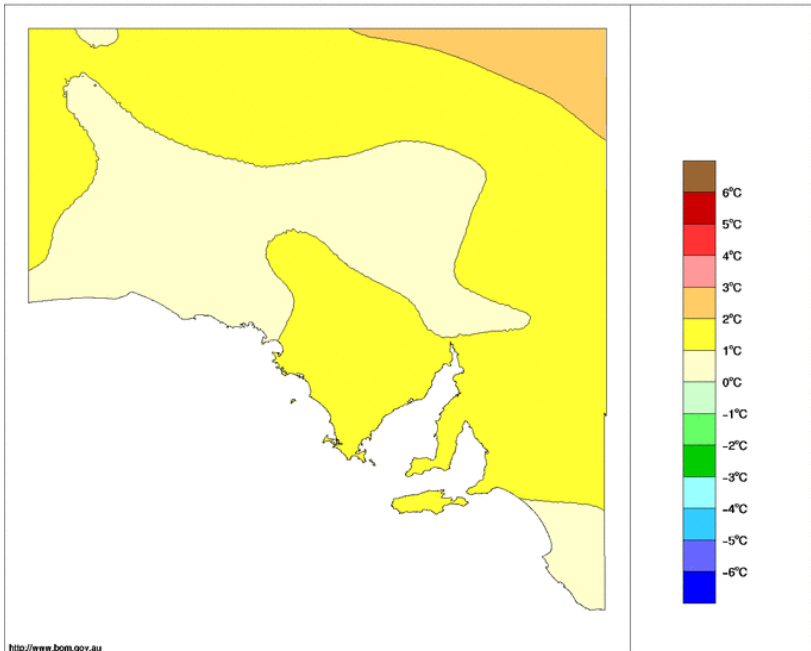


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Issued: 03/06/2017

Maximum Temperature Anomaly (°C) 1 March to 31 May 2017

Australian Bureau of Meteorology



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Australian Meteorological Association Inc (AMetA)
www.ameta.org.au

NEXT MEETING

6.00 PM TUESDAY 20 June 2017

*Bureau of Meteorology offices, Level 4, Optus Building, NW corner of
South Terrace & King William Street , Adelaide*

Subject: Charles Todd, Meteorologist: The Formative Years

**Speaker: Dr Tony Rogers, Historian & member AMetA Volunteers
Group**

As AMETA historian, Tony has been putting together a book on the early history of meteorology in South Australia, with a particular focus on Sir Charles Todd, and the establishment of the West Terrace observation site. Tony's presentation will cover the early life and development of Sir Charles Todd, and early meteorological activity in South Australia.

Convenient free street parking is usually available nearby (e.g. South Tce.)

We look forward to seeing you at the meeting.

For further information contact

<i>Secretary:</i>	<i>Darren Ray</i>
<i>Phone:</i>	<i>8366 2664</i>
<i>Fax:</i>	<i>8366 2693</i>

Inquiries or suggestions, please contact the Secretary on the phone number listed above.