Australian Government
Bureau of Meteorology

Head Office Melbourne
Bureau of Meteorology
GPO Box 1289 Melbourne VIC 3001 Australia

Caitlin Healey-Nash
Department of Premier and Cabinet
GPO Box 5341
SYDNEY
NSW 2001

Dear Caitlin Healey-Nash,

I refer to your correspondence dated 14 December 2022, requesting information about the weather conditions in the Watsons Bay area from 1 January 1990 to 23 January 1990.

Please find enclosed a certified copy of Bureau of Meteorology Data Document CAS-42702-V4S0D9-4 which contains:

- Synoptic Observations from 1 January 1990 to 23 January 1990 (inclusive) for the Bureau of Meteorology weather reporting site Sydney (Observatory Hill).
- Daily Weather Observations from 1 January 1990 to 23 January 1990 (inclusive) for the Bureau of Meteorology weather reporting sites Sydney (Observatory Hill) and Sydney Airport AMO.
- Daily Rainfall Observations from 1 January 1990 to 24 January 1990 (inclusive) for the Bureau of Meteorology weather reporting sites Rose Bay (Royal Sydney Golf Club), Mosman (Bapaume Road), Sydney Botanic Gardens and Centennial Park.
- Daily Sunshine Observations from 1 January 1990 to 24 January 1990 (inclusive) for the Bureau of Meteorology weather reporting sites Sydney (Observatory Hill) and Sydney Airport AMO.

Please contact us if you are considering issuing a subpoena.
The Bureau expects that a Certified Copy of Bureau information will be admissible in all Australian courts without the need for a Bureau officer to attend court. Please note that a Bureau officer attending court will only verify the information contained in the Certified Copy and will not be able to provide expert opinion or any interpretation of the information contained in the Certified Copy. If you require an expert witness to interpret meteorological information, please contact a private provider. If you believe you need to issue a subpoena for a Bureau officer to attend court please contact us so we can provide the most appropriate Bureau officer who will be available at the time and place required. Please note that the above is not legal advice and you should seek legal advice if you deem this is appropriate.

Yours sincerely,

Ying Zhao
Customer and Data Solutions
Bureau of Meteorology

21 December 2022

Australian Government
Bureau of Meteorology

Head Office Melbourne
Bureau of Meteorology
GPO Box 1289 Melbourne VIC 3001 Australia

Caitlin Healey-Nash
Department of Premier and Cabinet
GPO Box 5341
SYDNEY
NSW 2001

21 December 2022

CERTIFIED COPY
EVIDENCE ACT 1995 SECTION 155

FROM THE OFFICIAL METEOROLOGICAL RECORDS OF THE COMMONWEALTH OF AUSTRALIA

I, Ying Zhao, Customer and Data Solutions, Melbourne Office, COMMONWEALTH BUREAU OF METEOROLOGY, HEREBY CERTIFY that the attached 27 pages are a true copy of Bureau of Meteorology Data Document CAS-42702-V4S0D9-4 prepared by the Bureau of Meteorology derived from the official meteorological records of the Commonwealth of Australia, and I FURTHER CERTIFY that I am an officer to whose custody the said records are entrusted.

SIGNED BY the said **Ying Zhao** at the Melbourne Office on 21 December 2022.

Australian Government
Bureau of Meteorology

Bureau of Meteorology Data Document CAS-42702-V4S0D9-4

Watsons Bay area weather observations

This document, prepared on 19 December 2022, contains:

- Synoptic Observations from 1 January 1990 to 23 January 1990 (inclusive) for the Bureau of Meteorology weather reporting site Sydney (Observatory Hill).
- Daily Weather Observations from 1 January 1990 to 23 January 1990 (inclusive) for the Bureau of Meteorology weather reporting sites Sydney (Observatory Hill) and Sydney Airport AMO.
- Daily Rainfall Observations from 1 January 1990 to 24 January 1990 (inclusive) for the Bureau of Meteorology weather reporting sites Rose Bay (Royal Sydney Golf Club), Mosman (Bapaume Road), Sydney Botanic Gardens and Centennial Park.
- Daily Sunshine Observations from 1 January 1990 to 24 January 1990 (inclusive) for the Bureau of Meteorology weather reporting sites Sydney (Observatory Hill) and Sydney Airport AMO.

Included in Appendix A is a table with station details for the Bureau sites used to prepare this report.
Information to assist with your interpretation of the weather observations is included in Appendix B.
A copy of the Beaufort Wind Scale, which provides a reference for wind speed, is included in Appendix C.

Synoptic Observations for Sydney (Observatory Hill)

Sydney (Observatory Hill) (Site No. 66062)																					
Date	Time (LCT)	Rain (mm)	QC	Rain period (hrs)	Air Temp (°C)	QC	Dwpt Temp (°C)	QC	Rel Hum (%)	QC	Wind Speed (km/h)	QC	Wind Direction (degrees)	QC	Visibility (m)	QC	Total Cloud (oktas)	QC	Present Weather	QC	Past Weather	QC
01/01/1990	12:00 AM				22.4	Y	20.0	Y	86	Y	0	Y	000	Y	20000	Y	5	Y	Smoke	Y	Fine	Y
01/01/1990	03:00 AM				21.4	Y	20.0	Y	92	Y	0	Y	000	Y	25000	Y	0	Y	Fine	Y	Fine	Y
01/01/1990	06:00 AM	0.0	Y		20.5	Y	20.0	Y	97	Y	0	Y	000	Y	20000	Y	2	Y	Haze	Y	Fine	Y
01/01/1990	09:00 AM				23.8	Y	19.0	Y	75	Y	0	Y	000	Y	20000	Y	1	Y	Smoke	Y	Fine	Y
01/01/1990	12:00 PM				27.6	Y	20.0	Y	63	Y	24	Y	090	Y	25000	Y	3	Y	Smoke	Y	Fine	Y
01/01/1990	03:00 PM				28.4	Y	20.0	Y	60	Y	24	Y	090	Y	25000	Y	5	Y	Distant/nearby virga	Y	Fine	Y
01/01/1990	06:00 PM	0.0	Y		25.6	Y	20.0	Y	71	Y	15	Y	180	Y	20000	Y	6	Y	Distant precipitation	Y	Thunderstorm	Y
01/01/1990	09:00 PM	0.0	Y		20.9	Y	19.0	Y	89	Y	22	Y	180	Y	15000	Y	8	Y	Haze	Y	Distant precipitation	Y
02/01/1990	12:00 AM				20.1	Y	17.0	Y	82	Y	13	Y	180	Y	20000	Y	7	Y	Haze	Y	Fine	Y
02/01/1990	03:00 AM				19.7	Y	16.0	Y	79	Y	15	Y	180	Y	20000	Y	7	Y	Haze	Y	Fine	Y
02/01/1990	06:00 AM	0.0	Y		19.5	Y	17.0	Y	85	Y	4	Y	180	Y	15000	Y	8	Y	Haze	Y	Haze	Y
02/01/1990	09:00 AM				20.8	Y	17.0	Y	79	Y	11	Y	180	Y	30000	Y	8	Y	Fine	Y	Fine	Y
02/01/1990	12:00 PM				22.7	Y	16.0	Y	66	Y	8	Y	157	Y	30000	Y	8	Y	Haze	Y	Fine	Y
02/01/1990	03:00 PM				26.1	Y	16.0	Y	54	Y	13	Y	135	Y	30000	Y	4	Y	Haze	Y	Fine	Y
02/01/1990	06:00 PM				23.5	Y	17.0	Y	67	Y	11	Y	135	Y	20000	Y	8	Y	Haze	Y	Fine	Y
02/01/1990	09:00 PM				21.0	Y	18.0	Y	83	Y	4	Y	135	Y	20000	Y	7	Y	Fine	Y	Fine	Y
03/01/1990	12:00 AM				20.6	Y	18.0	Y	85	Y	0	Y	000	Y	20000	Y	6	Y	Fine	Y	Fine	Y

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Sydney (Observatory Hill) (Site No. 66062)

Date	Time (LCT)	Rain (mm)	QC	Rain period (hrs)	Air Temp (°C)	QC	Dwpt Temp (°C)	QC	Rel Hum (%)	QC	Wind Speed (km/h)	QC	Wind Direction (degrees)	QC	Visibility (m)	QC	Total Cloud (oktas)	QC	Present Weather	QC	Past Weather	QC
03/01/1990	03:00 AM				19.6	Y	18.0	Y	90	Y	0	Y	000	Y	20000	Y	2	Y	Fine	Y	Fine	Y
03/01/1990	06:00 AM	0.0	Y		19.2	Y	18.0	Y	93	Y	0	Y	000	Y	15000	Y	1	Y	Smoke	Y	Fine	Y
03/01/1990	09:00 AM				23.4	Y	18.0	Y	72	Y	8	Y	315	Y	4000	Y	0	Y	Haze	Y	Fine	Y
03/01/1990	12:00 PM				25.6	Y	20.0	Y	71	Y	24	Y	112	Y	10000	Y	0	Y	Haze	Y	Fine	Y
03/01/1990	03:00 PM	0.0	Y		29.9	Y	21.0	Y	59	Y	21	Y	090	Y	6000	Y	0	Y	Haze	Y	Haze	Y
03/01/1990	06:00 PM	.			29.0	Y	20.0	Y	58	Y	26	Y	112	Y	10000	Y	1	Y	Haze	Y	Fine	Y
03/01/1990	09:00 PM				27.9	Y	21.0	Y	66	Y	13	Y	067	Y	10000	Y	2	Y	Haze	Y	Fine	Y
04/01/1990	12:00 AM				31.2	Y	14.0	Y	35	Y	5	Y	022	Y	10000	Y	2	Y	Haze	Y	Fine	Y
04/01/1990	03:00 AM	0.0	Y		21.8	Y	19.0	Y	84	Y	30	Y	157	Y	15000	Y	1	Y	Haze	Y	Haze	Y
04/01/1990	06:00 AM				20.0	Y	17.0	Y	83	Y	13	Y	157	Y	15000	Y	2	Y	Haze	Y	Fine	Y
04/01/1990	09:00 AM				20.5	Y	14.0	Y	66	Y	11	Y	180	Y	15000	Y	8	Y	Haze	Y	Fine	Y
04/01/1990	12:00 PM				21.0	Y	15.0	Y	69	Y	11	Y	157	Y	15000	Y	8	Y	Haze	Y	Fine	Y
04/01/1990	03:00 PM				21.2	Y	14.0	Y	63	Y	11	Y	112	Y	20000	Y	8	Y	Haze	Y	Fine	Y
04/01/1990	06:00 PM				20.2	Y	14.0	Y	68	Y	9	Y	135	Y	20000	Y	8	Y	Haze	Y	Fine	Y
04/01/1990	09:00 PM				19.6	Y	13.0	Y	66	Y	9	Y	112	Y	20000	Y	8	Y	Haze	Y	Fine	Y
05/01/1990	12:00 AM				19.4	Y	13.0	Y	66	Y	5	Y	135	Y	25000	Y	7	Y	Fine	Y	Fine	Y
05/01/1990	03:00 AM				18.6	Y	12.0	Y	65	Y	0	Y	000	Y	25000	Y	6	Y	Fine	Y	Fine	Y
05/01/1990	06:00 AM				18.0	Y	13.0	Y	73	Y	5	Y	112	Y	20000	Y	5	Y	Haze	Y	Fine	Y
05/01/1990	09:00 AM				21.4	Y	12.0	Y	55	Y	13	Y	090	Y	30000	Y	2	Y	Fine	Y	Fine	Y
05/01/1990	12:00 PM				22.7	Y	11.0	Y	48	Y	15	Y	090	Y	20000	Y	5	Y	Haze	Y	Fine	Y
05/01/1990	03:00 PM				22.6	Y	11.0	Y	48	Y	26	Y	090	Y	30000	Y	6	Y	Distant/nearby virga	Y	Fine	Y
05/01/1990	06:00 PM				22.2	Y	13.0	Y	56	Y	13	Y	090	Y	30000	Y	8	Y	Fine	Y	Fine	Y

Sydney (Observatory Hill) (Site No. 66062)

Date	Time (LCT)	Rain (mm)	QC	Rain period (hrs)	Air Temp (°C)	QC	Dwpt Temp (°C)	QC	Rel Hum (%)	QC	Wind Speed (km/h)	QC	Wind Direction (degrees)	QC	Visibility (m)	QC	Total Cloud (oktas)	QC	Present Weather	QC	Past Weather	QC
05/01/1990	09:00 PM				21.2	Y	14.0	Y	63	Y	15	Y	067	Y	30000	Y	5	Y	Fine	Y	Fine	Y
06/01/1990	12:00 AM				21.2	Y	17.0	Y	77	Y	15	Y	067	Y	30000	Y	5	Y	Fine	Y	Fine	Y
06/01/1990	03:00 AM				21.0	Y	17.0	Y	78	Y	9	Y	045	Y	30000	Y	5	Y	Fine	Y	Fine	Y
06/01/1990	06:00 AM	0.0	Y		20.5	Y	18.0	Y	86	Y	5	Y	067	Y	30000	Y	4	Y	Lightning	Y	Fine	Y
06/01/1990	09:00 AM	4.0	Y		21.2	Y	19.0	Y	87	Y	4	Y	067	Y	15000	Y	7	Y	Haze	Y	Thunderstorm	Y
06/01/1990	12:00 PM				24.0	Y	19.0	Y	74	Y	9	Y	067	Y	15000	Y	5	Y	Haze	Y	Fine	Y
06/01/1990	03:00 PM				25.1	Y	17.0	Y	61	Y	22	Y	067	Y	20000	Y	7	Y	Haze	Y	Fine	Y
06/01/1990	06:00 PM				23.8	Y	21.0	Y	84	Y	28	Y	067	Y	20000	Y	7	Y	Distant precipitation	Y	Fine	Y
06/01/1990	09:00 PM				21.7	Y	21.7	Y	100	Y	0	Y	000	Y	20000	Y	7	Y	Thunderstorm	Y	Thunderstorm	Y
07/01/1990	12:00 AM				22.0	Y	21.0	Y	94	Y	8	Y	247	Y	30000	Y	8	Y	Fine	Y	Thunderstorm	Y
07/01/1990	03:00 AM	0.0	Y		21.0	Y	20.0	Y	94	Y	0	Y	000	Y	20000	Y	8	Y	Fine	Y	Fine	Y
07/01/1990	06:00 AM	0.0	Y		21.0	Y	20.0	Y	94	Y	0	Y	000	Y	20000	Y	8	Y	Haze	Y	Haze	Y
07/01/1990	09:00 AM	0.0	Y		22.8	Y	20.0	Y	84	Y	5	Y	157	Y	6000	Y	6	Y	Haze	Y	Haze	Y
07/01/1990	12:00 PM				24.8	Y	21.0	Y	79	Y	13	Y	180	Y	12000	Y	6	Y	Haze	Y	Fine	Y
07/01/1990	03:00 PM				23.5	Y	21.0	Y	86	Y	9	Y	157	Y	15000	Y	7	Y	Haze	Y	Fine	Y
07/01/1990	06:00 PM				21.6	Y	20.0	Y	91	Y	13	Y	180	Y	15000	Y	8	Y	Haze	Y	Fine	Y
07/01/1990	09:00 PM	0.2	Y		20.2	Y	19.0	Y	93	Y	18	Y	180	Y	10000	Y	8	Y	Shower	Y	Thunderstorm	Y
08/01/1990	12:00 AM	8.6	Y		19.0	Y	18.9	Y	99	Y	2	Y	225	Y	10000	Y	8	Y	Rain	Y	Thunderstor	Y

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Sydney (Observatory Hill) (Site No. 66062)

Date	Time (LCT)	Rain (mm)	QC	Rain period (hrs)	Air Temp (°C)	QC	Dwpt Temp (°C)	QC	Rel Hum (%)	QC	Wind Speed (km/h)	QC	Wind Direction (degrees)	QC	Visibility (m)	QC	Total Cloud (oktas)	QC	Present Weather	QC	Past Weather	QC
																					m	
08/01/1990	03:00 AM	3.0	Y		19.1	Y	18.9	Y	99	Y	0	Y	000	Y	20000	Y	8	Y	Recent rain	Y	Rain	Y
08/01/1990	06:00 AM				19.3	Y	19.0	Y	98	Y	8	Y	180	Y	20000	Y	8	Y	Haze	Y	Fine	Y
08/01/1990	09:00 AM				19.8	Y	16.0	Y	79	Y	9	Y	157	Y	5000	Y	8	Y	Drizzle	Y	Fine	Y
08/01/1990	12:00 PM				19.9	Y	18.0	Y	89	Y	11	Y	180	Y	5000	Y	8	Y	Haze	Y	Drizzle	Y
08/01/1990	03:00 PM				20.0	Y	18.0	Y	88	Y	15	Y	180	Y	10000	Y	8	Y	Rain	Y	Rain	Y
08/01/1990	06:00 PM				20.0	Y	18.0	Y	88	Y	11	Y	157	Y	10000	Y	8	Y	Haze	Y	Rain	Y
08/01/1990	09:00 PM	0.6	Y		19.0	Y	19.0	Y	100	Y	0	Y	000	Y	5000	Y	8	Y	Drizzle	Y	Drizzle	Y
09/01/1990	12:00 AM	7.0	Y		18.2	Y	18.0	Y	99	Y	11	Y	247	Y	4000	Y	8	Y	Drizzle	Y	Rain	Y
09/01/1990	03:00 AM	0.2	Y		18.7	Y	18.0	Y	96	Y	0	Y	000	Y	10000	Y	7	Y	Distant precipitation	Y	Drizzle	Y
09/01/1990	06:00 AM	0.4	Y		19.9	Y	19.8	Y	99	Y	4	Y	135	Y	10000	Y	7	Y	Distant precipitation	Y	Shower	Y
09/01/1990	09:00 AM	1.0	Y		20.9	Y	20.0	Y	95	Y	4	Y	180	Y	2000	Y	8	Y	Rain	Y	Drizzle	Y
09/01/1990	12:00 PM	4.0	Y		20.2	Y	19.9	Y	98	Y	5	Y	157	Y	8000	Y	8	Y	Drizzle	Y	Rain	Y
09/01/1990	03:00 PM	4.0	Y		20.0	Y	19.0	Y	94	Y	11	Y	180	Y	10000	Y	8	Y	Rain	Y	Rain	Y
09/01/1990	06:00 PM	8.8	Y		19.6	Y	19.0	Y	96	Y	0	Y	000	Y	5000	Y	8	Y	Rain	Y	Rain	Y
09/01/1990	09:00 PM	2.0	Y		18.9	Y	18.8	Y	99	Y	4	Y	157	Y	10000	Y	8	Y	Recent drizzle	Y	Rain	Y
10/01/1990	12:00 AM	1.0	Y		18.6	Y	18.0	Y	96	Y	0	Y	000	Y	2000	Y	8	Y	Drizzle	Y	Rain	Y
10/01/1990	03:00 AM	2.0	Y		18.1	Y	18.0	Y	99	Y	5	Y	180	Y	800	Y	8	Y	Drizzle	Y	Drizzle	Y
10/01/1990	06:00 AM	4.0	Y		18.3	Y	18.0	Y	98	Y	5	Y	180	Y	10000	Y	8	Y	Recent drizzle	Y	Rain	Y

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Sydney (Observatory Hill) (Site No. 66062)																					
Date	Time (LCT)	Rain (mm)	QC	Rain period (hrs)	Air Temp (°C)	QC	Dwpt Temp (°C)	QC	Rel Hum (%)	QC	Wind Speed (km/h)	QC	Wind Direction (degrees)	QC	Visibility (m)	QC	Total Cloud (oktas)	QC	Present Weather	QC	Past Weather	QC
10/01/1990	09:00 AM	1.0	Y		20.0	Y	18.0	Y	88	Y	0	Y	000	Y	15000	Y	8	Y	Rain	Y	Drizzle	Y
10/01/1990	12:00 PM				20.7	Y	17.0	Y	79	Y	2	Y	157	Y	20000	Y	8	Y	Fine	Y	Drizzle	Y
10/01/1990	03:00 PM				21.5	Y	18.0	Y	80	Y	5	Y	112	Y	30000	Y	7	Y	Fine	Y	Fine	Y
10/01/1990	06:00 PM				21.7	Y	15.0	Y	66	Y	5	Y	180	Y	30000	Y	5	Y	Fine	Y	Fine	Y
10/01/1990	09:00 PM				19.4	Y	16.0	Y	81	Y	4	Y	180	Y	30000	Y	6	Y	Fine	Y	Fine	Y
11/01/1990	12:00 AM				18.4	Y	17.9	Y	97	Y	0	Y	000	Y	10000	Y	8	Y	Drizzle	Y	Drizzle	Y
11/01/1990	03:00 AM	1.4	Y		17.3	Y	17.0	Y	98	Y	9	Y	247	Y	8000	Y	8	Y	Drizzle	Y	Drizzle	Y
11/01/1990	06:00 AM	1.0	Y		17.8	Y	17.8	Y	100	Y	0	Y	000	Y	6000	Y	8	Y	Drizzle	Y	Drizzle	Y
11/01/1990	09:00 AM	2.0	Y		20.4	Y	20.0	Y	98	Y	0	Y	000	Y	10000	Y	7	Y	Recent shower	Y	Shower	Y
11/01/1990	12:00 PM	1.0	Y		21.0	Y	20.0	Y	94	Y	5	Y	180	Y	3000	Y	8	Y	Drizzle	Y	Drizzle	Y
11/01/1990	03:00 PM				24.5	Y	21.0	Y	81	Y	11	Y	045	Y	20000	Y	7	Y	Haze	Y	Fine	Y
11/01/1990	06:00 PM				23.8	Y	20.0	Y	79	Y	17	Y	067	Y	30000	Y	5	Y	Haze	Y	Fine	Y
11/01/1990	09:00 PM				21.8	Y	20.0	Y	90	Y	18	Y	067	Y	30000	Y	3	Y	Fine	Y	Fine	Y
12/01/1990	12:00 AM				21.8	Y	19.0	Y	84	Y	17	Y	067	Y	30000	Y	6	Y	Fine	Y	Fine	Y
12/01/1990	03:00 AM				20.6	Y	19.0	Y	91	Y	5	Y	045	Y	30000	Y	1	Y	Fine	Y	Fine	Y
12/01/1990	06:00 AM				20.2	Y	19.0	Y	93	Y	0	Y	000	Y	30000	Y	7	Y	Fine	Y	Fine	Y
12/01/1990	09:00 AM				23.3	Y	19.0	Y	77	Y	5	Y	022	Y	30000	Y	5	Y	Haze	Y	Fine	Y
12/01/1990	12:00 PM				25.4	Y	20.0	Y	72	Y	13	Y	090	Y	25000	Y	3	Y	Haze	Y	Fine	Y
12/01/1990	03:00 PM				26.8	Y	20.0	Y	66	Y	26	Y	067	Y	30000	Y	1	Y	Fine	Y	Fine	Y
12/01/1990	06:00 PM				25.2	Y	19.0	Y	69	Y	18	Y	067	Y	30000	Y	1	Y	Fine	Y	Fine	Y
12/01/1990	09:00 PM				22.7	Y	20.0	Y	85	Y	18	Y	067	Y	30000	Y	3	Y	Fine	Y	Fine	Y
13/01/1990	12:00 AM				22.1	Y	20.0	Y	88	Y	4	Y	067	Y	25000	Y	4	Y	Fine	Y	Fine	Y

Sydney (Observatory Hill) (Site No. 66062)

Date	Time (LCT)	Rain (mm)	QC	Rain period (hrs)	Air Temp (°C)	QC	Dwpt Temp (°C)	QC	Rel Hum (%)	QC	Wind Speed (km/h)	QC	Wind Direction (degrees)	QC	Visibility (m)	QC	Total Cloud (oktas)	QC	Present Weather	QC	Past Weather	QC
13/01/1990	03:00 AM				21.5	Y	20.0	Y	91	Y	0	Y	000	Y	20000	Y	5	Y	Fine	Y	Fine	Y
13/01/1990	06:00 AM				20.8	Y	20.0	Y	95	Y	0	Y	000	Y	15000	Y	7	Y	Haze	Y	Fine	Y
13/01/1990	09:00 AM				23.4	Y	20.0	Y	81	Y	8	Y	247	Y	25000	Y	7	Y	Haze	Y	Fine	Y
13/01/1990	12:00 PM				25.8	Y	20.0	Y	70	Y	5	Y	180	Y	20000	Y	6	Y	Haze	Y	Fine	Y
13/01/1990	03:00 PM				26.3	Y	21.0	Y	73	Y	17	Y	135	Y	20000	Y	6	Y	Haze	Y	Fine	Y
13/01/1990	06:00 PM				22.8	Y	20.0	Y	84	Y	11	Y	180	Y	20000	Y	8	Y	Distant precipitation	Y	Fine	Y
13/01/1990	09:00 PM				21.0	Y	19.0	Y	88	Y	13	Y	180	Y	20000	Y	7	Y	Distant precipitation	Y	Fine	Y
14/01/1990	12:00 AM	6.0	Y		19.8	Y	19.0	Y	95	Y	15	Y	180	Y	20000	Y	7	Y	Fine	Y	Thunderstorm	Y
14/01/1990	03:00 AM				19.6	Y	18.0	Y	90	Y	13	Y	180	Y	20000	Y	8	Y	Fine	Y	Fine	Y
14/01/1990	06:00 AM				19.1	Y	17.0	Y	88	Y	8	Y	157	Y	20000	Y	8	Y	Fine	Y	Fine	Y
14/01/1990	09:00 AM				20.4	Y	17.0	Y	81	Y	5	Y	180	Y	30000	Y	8	Y	Haze	Y	Fine	Y
14/01/1990	12:00 PM				20.9	Y	16.0	Y	74	Y	0	Y	000	Y	25000	Y	8	Y	Distant precipitation	Y	Fine	Y
14/01/1990	03:00 PM				20.6	Y	15.0	Y	70	Y	4	Y	157	Y	10000	Y	8	Y	Haze	Y	Fine	Y
14/01/1990	06:00 PM				20.3	Y	16.0	Y	76	Y	9	Y	157	Y	10000	Y	8	Y	Haze	Y	Fine	Y
14/01/1990	09:00 PM				19.9	Y	16.0	Y	78	Y	4	Y	112	Y	20000	Y	8	Y	Fine	Y	Fine	Y
15/01/1990	12:00 AM				18.6	Y	17.0	Y	90	Y	0	Y	000	Y	20000	Y	8	Y	Fine	Y	Fine	Y
15/01/1990	03:00 AM				18.2	Y	17.0	Y	93	Y	0	Y	000	Y	3000	Y	8	Y	Drizzle	Y	Fine	Y
15/01/1990	06:00 AM	0.6	Y		17.8	Y	17.0	Y	95	Y	0	Y	000	Y	3000	Y	8	Y	Drizzle	Y	Drizzle	Y
15/01/1990	09:00 AM	0.4	Y		19.0	Y	17.0	Y	88	Y	0	Y	000	Y	10000	Y	8	Y	Distant	Y	Drizzle	Y

Sydney (Observatory Hill) (Site No. 66062)

Date	Time (LCT)	Rain (mm)	QC	Rain period (hrs)	Air Temp (°C)	QC	Dwpt Temp (°C)	QC	Rel Hum (%)	QC	Wind Speed (km/h)	QC	Wind Direction (degrees)	QC	Visibility (m)	QC	Total Cloud (oktas)	QC	Present Weather	QC	Past Weather	QC
																			precipitation			
15/01/1990	12:00 PM	0.1	Y		20.2	Y	17.0	Y	82	Y	5	Y	180	Y	15000	Y	8	Y	Drizzle	Y	Drizzle	Y
15/01/1990	03:00 PM	0.0	Y		21.0	Y	17.0	Y	78	Y	11	Y	157	Y	20000	Y	8	Y	Distant precipitation	Y	Drizzle	Y
15/01/1990	06:00 PM				19.3	Y	17.0	Y	87	Y	0	Y	000	Y	20000	Y	8	Y	Distant precipitation	Y	Fine	Y
15/01/1990	09:00 PM				19.3	Y	16.0	Y	81	Y	5	Y	157	Y	20000	Y	8	Y	Fine	Y	Fine	Y
16/01/1990	12:00 AM				19.1	Y	17.0	Y	88	Y	8	Y	180	Y	20000	Y	8	Y	Fine	Y	Drizzle	Y
16/01/1990	03:00 AM				18.8	Y	17.0	Y	89	Y	11	Y	180	Y	20000	Y	8	Y	Fine	Y	Fine	Y
16/01/1990	06:00 AM				17.7	Y	17.0	Y	96	Y	9	Y	180	Y	20000	Y	8	Y	Fine	Y	Fine	Y
16/01/1990	09:00 AM				18.8	Y	15.0	Y	79	Y	18	Y	180	Y	25000	Y	7	Y	Distant precipitation	Y	Fine	Y
16/01/1990	12:00 PM				18.8	Y	12.0	Y	65	Y	24	Y	180	Y	25000	Y	7	Y	Fine	Y	Fine	Y
16/01/1990	03:00 PM				19.6	Y	11.0	Y	58	Y	18	Y	157	Y	30000	Y	7	Y	Fine	Y	Fine	Y
16/01/1990	06:00 PM				18.3	Y	9.0	Y	55	Y	18	Y	180	Y	30000	Y	7	Y	Fine	Y	Fine	Y
16/01/1990	09:00 PM				17.4	Y	8.0	Y	54	Y	8	Y	180	Y	30000	Y	6	Y	Fine	Y	Fine	Y
17/01/1990	12:00 AM				17.6	Y	9.0	Y	57	Y	2	Y	180	Y	30000	Y	6	Y	Fine	Y	Fine	Y
17/01/1990	03:00 AM				16.8	Y	10.0	Y	64	Y	0	Y	000	Y	30000	Y	6	Y	Fine	Y	Fine	Y
17/01/1990	06:00 AM				15.2	Y	12.0	Y	81	Y	0	Y	000	Y	25000	Y	1	Y	Haze	Y	Fine	Y
17/01/1990	09:00 AM				19.2	Y	12.0	Y	63	Y	0	Y	000	Y	20000	Y	2	Y	Smoke	Y	Fine	Y
17/01/1990	12:00 PM				20.8	Y	11.0	Y	53	Y	13	Y	067	Y	25000	Y	7	Y	Smoke	Y	Fine	Y
17/01/1990	03:00 PM	0.0	Y		23.1	Y	12.0	Y	50	Y	21	Y	090	Y	30000	Y	1	Y	Fine	Y	Fine	Y
17/01/1990	06:00 PM				22.0	Y	13.0	Y	57	Y	21	Y	090	Y	30000	Y	1	Y	Fine	Y	Fine	Y

Sydney (Observatory Hill) (Site No. 66062)

Date	Time (LCT)	Rain (mm)	QC	Rain period (hrs)	Air Temp (°C)	QC	Dwpt Temp (°C)	QC	Rel Hum (%)	QC	Wind Speed (km/h)	QC	Wind Direction (degrees)	QC	Visibility (m)	QC	Total Cloud (oktas)	QC	Present Weather	QC	Past Weather	QC
17/01/1990	09:00 PM				20.4	Y	13.0	Y	62	Y	24	Y	067	Y	30000	Y	1	Y	Fine	Y	Fine	Y
18/01/1990	12:00 AM				20.4	Y	15.0	Y	71	Y	0	Y	000	Y	30000	Y	1	Y	Fine	Y	Fine	Y
18/01/1990	03:00 AM				17.8	Y	16.0	Y	89	Y	0	Y	000	Y	30000	Y	0	Y	Fine	Y	Fine	Y
18/01/1990	06:00 AM	0.0	Y		17.2	Y	15.0	Y	87	Y	0	Y	000	Y	30000	Y	6	Y	Fine	Y	Fine	Y
18/01/1990	09:00 AM				20.0	Y	16.0	Y	78	Y	0	Y	000	Y	20000	Y	5	Y	Smoke	Y	Fine	Y
18/01/1990	12:00 PM	0.0	Y		24.0	Y	16.0	Y	61	Y	13	Y	090	Y	25000	Y	7	Y	Haze	Y	Smoke	Y
18/01/1990	03:00 PM				24.7	Y	17.0	Y	62	Y	18	Y	090	Y	25000	Y	6	Y	Haze	Y	Fine	Y
18/01/1990	06:00 PM				26.4	Y	19.0	Y	64	Y	17	Y	090	Y	20000	Y	5	Y	Haze	Y	Fine	Y
18/01/1990	09:00 PM				23.8	Y	18.0	Y	70	Y	9	Y	090	Y	30000	Y	5	Y	Fine	Y	Fine	Y
19/01/1990	12:00 AM				22.7	Y	19.0	Y	80	Y	18	Y	090	Y	30000	Y	4	Y	Fine	Y	Fine	Y
19/01/1990	03:00 AM				21.7	Y	20.0	Y	90	Y	0	Y	000	Y	30000	Y	2	Y	Fine	Y	Fine	Y
19/01/1990	06:00 AM				20.3	Y	18.0	Y	87	Y	0	Y	000	Y	20000	Y	2	Y	Smoke	Y	Fine	Y
19/01/1990	09:00 AM				22.4	Y	19.0	Y	81	Y	4	Y	180	Y	15000	Y	3	Y	Smoke	Y	Fine	Y
19/01/1990	12:00 PM				26.0	Y	19.0	Y	65	Y	9	Y	067	Y	20000	Y	1	Y	Smoke	Y	Fine	Y
19/01/1990	03:00 PM				25.9	Y	19.0	Y	66	Y	18	Y	157	Y	30000	Y	6	Y	Haze	Y	Fine	Y
19/01/1990	06:00 PM				23.0	Y	18.0	Y	73	Y	8	Y	090	Y	30000	Y	7	Y	Distant precipitation	Y	Fine	Y
19/01/1990	09:00 PM				22.4	Y	16.0	Y	67	Y	0	Y	000	Y	30000	Y	7	Y	Distant precipitation	Y	Fine	Y
20/01/1990	12:00 AM				20.6	Y	17.0	Y	80	Y	11	Y	315	Y	30000	Y	3	Y	Haze	Y	Fine	Y
20/01/1990	03:00 AM				20.2	Y	16.0	Y	77	Y	0	Y	000	Y	30000	Y	1	Y	Haze	Y	Fine	Y
20/01/1990	06:00 AM				20.3	Y	17.0	Y	81	Y	11	Y	067	Y	30000	Y	7	Y	Haze	Y	Fine	Y
20/01/1990	09:00 AM				23.9	Y	17.0	Y	65	Y	0	Y	000	Y	30000	Y	7	Y	Fine	Y	Fine	Y

Sydney (Observatory Hill) (Site No. 66062)																					
Date	Time (LCT)	Rain (mm)	QC	Rain period (hrs)	Air Temp (°C)	QC	Dwpt Temp (°C)	QC	Rel Hum (%)	QC	Wind Speed (km/h)	QC	Wind Direction (degrees)	QC	Visibility (m)	QC	Total Cloud (oktas)	QC	Present Weather	QC	Past Weather	QC
20/01/1990	12:00 PM				28.3	Y	19.0	Y	57	Y	11	Y	090	Y	30000	Y	5	Y	Fine	Y	Fine	Y
20/01/1990	03:00 PM				30.0	Y	19.0	Y	52	Y	17	Y	090	Y	30000	Y	6	Y	Fine	Y	Fine	Y
20/01/1990	06:00 PM				28.3	Y	16.0	Y	47	Y	28	Y	180	Y	25000	Y	7	Y	Distant precipitation	Y	Fine	Y
20/01/1990	09:00 PM	9.6	Y		20.8	Y	20.0	Y	95	Y	8	Y	180	Y	25000	Y	8	Y	Rain	Y	Thunderstorm	Y
21/01/1990	12:00 AM	2.0	Y		20.3	Y	18.0	Y	87	Y	13	Y	180	Y	25000	Y	8	Y	Distant precipitation	Y	Rain	Y
21/01/1990	03:00 AM				19.6	Y	18.0	Y	90	Y	9	Y	180	Y	25000	Y	7	Y	Fine	Y	Fine	Y
21/01/1990	06:00 AM				19.7	Y	16.0	Y	79	Y	13	Y	180	Y	25000	Y	7	Y	Fine	Y	Fine	Y
21/01/1990	09:00 AM				20.8	Y	16.0	Y	74	Y	2	Y	180	Y	25000	Y	8	Y	Fine	Y	Fine	Y
21/01/1990	12:00 PM				21.4	Y	15.0	Y	67	Y	5	Y	135	Y	25000	Y	8	Y	Fine	Y	Fine	Y
21/01/1990	03:00 PM				22.6	Y	15.0	Y	62	Y	11	Y	112	Y	25000	Y	8	Y	Fine	Y	Fine	Y
21/01/1990	06:00 PM				20.7	Y	14.0	Y	65	Y	2	Y	180	Y	25000	Y	8	Y	Fine	Y	Fine	Y
21/01/1990	09:00 PM				20.2	Y	15.0	Y	72	Y	5	Y	157	Y	25000	Y	8	Y	Fine	Y	Fine	Y
22/01/1990	12:00 AM				19.7	Y	14.0	Y	70	Y	9	Y	157	Y	2000	Y	8	Y	Fine	Y	Fine	Y
22/01/1990	03:00 AM				19.3	Y	14.0	Y	71	Y	9	Y	157	Y	25000	Y	8	Y	Fine	Y	Fine	Y
22/01/1990	06:00 AM				18.6	Y	12.0	Y	65	Y	5	Y	180	Y	25000	Y	8	Y	Fine	Y	Fine	Y
22/01/1990	09:00 AM				21.1	Y	13.0	Y	60	Y	4	Y	157	Y	20000	Y	6	Y	Fine	Y	Fine	Y
22/01/1990	12:00 PM				21.9	Y	13.0	Y	57	Y	5	Y	180	Y	20000	Y	7	Y	Fine	Y	Fine	Y
22/01/1990	03:00 PM				23.0	Y	13.0	Y	53	Y	13	Y	112	Y	20000	Y	7	Y	Fine	Y	Fine	Y
22/01/1990	06:00 PM				21.1	Y	13.0	Y	60	Y	9	Y	112	Y	20000	Y	7	Y	Fine	Y	Fine	Y
22/01/1990	09:00 PM				20.3	Y	14.0	Y	67	Y	0	Y	000	Y	25000	Y	7	Y	Fine	Y	Fine	Y

Sydney (Observatory Hill) (Site No. 66062)																					
Date	Time (LCT)	Rain (mm)	QC	Rain period (hrs)	Air Temp (°C)	QC	Dwpt Temp (°C)	QC	Rel Hum (%)	QC	Wind Speed (km/h)	QC	Wind Direction (degrees)	QC	Visibility (m)	QC	Total Cloud (oktas)	QC	Present Weather	QC	Past Weather	QC
23/01/1990	12:00 AM				19.6	Y	14.0	Y	70	Y	4	Y	157	Y	30000	Y	3	Y	Fine	Y	Fine	Y
23/01/1990	03:00 AM				19.0	Y	15.0	Y	78	Y	0	Y	000	Y	30000	Y	1	Y	Fine	Y	Fine	Y
23/01/1990	06:00 AM				18.4	Y	14.0	Y	76	Y	0	Y	000	Y	30000	Y	1	Y	Fine	Y	Fine	Y
23/01/1990	09:00 AM				20.3	Y	16.0	Y	76	Y	0	Y	000	Y	30000	Y	6	Y	Fine	Y	Fine	Y
23/01/1990	12:00 PM				24.3	Y	15.0	Y	56	Y	15	Y	067	Y	30000	Y	4	Y	Fine	Y	Fine	Y
23/01/1990	03:00 PM				24.3	Y	14.0	Y	53	Y	17	Y	067	Y	30000	Y	1	Y	Fine	Y	Fine	Y
23/01/1990	06:00 PM				23.6	Y	13.0	Y	51	Y	15	Y	067	Y	30000	Y	1	Y	Fine	Y	Fine	Y
23/01/1990	09:00 PM				21.2	Y	14.0	Y	63	Y	13	Y	067	Y	30000	Y	0	Y	Fine	Y	Fine	Y

Daily Weather Observations for Sydney (Observatory Hill)

Sydney (Observatory Hill) (Site No. 66062)																	
Date	Max Temp (°C)	No. of days	QC	Time of Max Temp (LCT)	QC	Min Temp (°C)	No. of days	QC	Time of Min Temp (LCT)	QC	Max Wind Gust (km/h)	QC	Max Wind Gust Direction (degrees)	QC	Time of Max Wind Gust (LCT)	QC	No. of days
01/01/1990	29.9		Y			20.5		Y			54	Y	180	Y	09:40 PM	Y	
02/01/1990	26.2		Y			19.5		Y			42	Y	180	Y	01:30 AM	Y	
03/01/1990	32.2		Y			19.2		Y			39	Y	090	Y	07:30 PM	Y	
04/01/1990	21.4		Y			19.9		Y			63	Y	157	Y	02:40 AM	Y	
05/01/1990	24.1		Y			17.5		Y			58	Y	090	Y	04:10 PM	Y	
06/01/1990	25.7		Y			19.7		Y			58	Y	112	Y	07:20 PM	Y	
07/01/1990	25.5		Y			21.0		Y			50	Y	180	Y	08:50 PM	Y	
08/01/1990	21.4		Y			18.7		Y			37	Y	180	Y	02:40 PM	Y	
09/01/1990	20.9		Y			18.2		Y			35	Y	157	Y	02:50 PM	Y	
10/01/1990	23.2		Y			17.6		Y			26	Y	157	Y	05:30 PM	Y	
11/01/1990	25.4		Y			17.3		Y			45	Y	067	Y	08:50 PM	Y	
12/01/1990	27.2		Y			20.2		Y			50	Y	067	Y	05:50 PM	Y	
13/01/1990	27.6		Y			20.8		Y			41	Y	180	Y	12:40 AM	Y	
14/01/1990	21.4		Y			19.1		Y			46	Y	180	Y	03:10 AM	Y	
15/01/1990	21.1		Y			17.8		Y			30	Y	112	Y	02:10 PM	Y	
16/01/1990	20.2		Y			17.6		Y			50	Y	180	Y	11:20 AM	Y	
17/01/1990	23.4		Y			15.2		Y			48	Y	067	Y	09:50 PM	Y	
18/01/1990	27.2		Y			17.0		Y			39	Y	067	Y	07:50 PM	Y	
19/01/1990	28.7		Y			19.9		Y			45	Y	180	Y	04:30 PM	Y	

Sydney (Observatory Hill) (Site No. 66062)																	
Date	Max Temp (°C)	No. of days	QC	Time of Max Temp (LCT)	QC	Min Temp (°C)	No. of days	QC	Time of Min Temp (LCT)	QC	Max Wind Gust (km/h)	QC	Max Wind Gust Direction (degrees)	QC	Time of Max Wind Gust (LCT)	QC	No. of days
20/01/1990	31.4		Y			20.2		Y			50	Y	157	Y	07:20 PM	Y	
21/01/1990	22.6		Y			19.6		Y			33	Y	180	Y	03:30 AM	Y	
22/01/1990	23.4		Y			18.4		Y			32	Y	112	Y	04:50 PM	Y	
23/01/1990	24.7		Y			18.2		Y			32	Y	067	Y	01:30 PM	Y	

Daily Weather Observations for Sydney Airport AMO

Sydney Airport AMO (Site No. 66037)																	
Date	Max Temp (°C)	No. of days	QC	Time of Max Temp (LCT)	QC	Min Temp (°C)	No. of days	QC	Time of Min Temp (LCT)	QC	Max Wind Gust (km/h)	QC	Max Wind Gust Direction (degrees)	QC	Time of Max Wind Gust (LCT)	QC	No. of days
01/01/1990	33.7		Y			20.6		Y			65	Y	180	Y	08:30 PM	Y	
02/01/1990	23.9		Y			19.4		Y			46	Y	180	Y	01:10 AM	Y	
03/01/1990	32.3		Y			18.5		Y			52	Y	022	Y	07:40 PM	Y	
04/01/1990	22.3		Y			20.0		Y			82	Y	180	Y	02:50 AM	Y	
05/01/1990	24.2		Y			17.8		Y			55	Y	067	Y	03:40 PM	Y	
06/01/1990	27.0		Y			20.6		Y			61	Y	045	Y	06:40 PM	Y	
07/01/1990	23.6		Y			20.7		Y			61	Y	180	Y	08:50 PM	Y	
08/01/1990	21.1		Y			18.8		Y			45	Y	180	Y	06:20 AM	Y	
09/01/1990	20.8		Y			18.8		Y			52	Y	157	Y	02:30 PM	Y	
10/01/1990	21.7		Y			18.2		Y			33	Y	135	Y	06:10 AM	Y	
11/01/1990	26.2		Y			17.7		Y			46	Y	045	Y	08:40 PM	Y	
12/01/1990	27.4		Y			20.4		Y			58	Y	045	Y	04:50 PM	Y	
13/01/1990	26.2		Y			20.6		Y			46	Y	180	Y	07:00 PM	Y	
14/01/1990	21.5		Y			19.0		Y			54	Y	180	Y	04:40 AM	Y	
15/01/1990	21.0		Y			17.2		Y			35	Y	157	Y	04:40 PM	Y	
16/01/1990	19.5		Y			17.3		Y			63	Y	180	Y	12:00 PM	Y	
17/01/1990	23.3		Y			14.8		Y			42	Y	045	Y	08:00 PM	Y	
18/01/1990	27.4		Y			16.6		Y			45	Y	022	Y	07:30 PM	Y	
19/01/1990	26.2		Y			20.3		Y			63	Y	157	Y	04:10 PM	Y	

Sydney Airport AMO (Site No. 66037)																	
Date	Max Temp (°C)	No. of days	QC	Time of Max Temp (LCT)	QC	Min Temp (°C)	No. of days	QC	Time of Min Temp (LCT)	QC	Max Wind Gust (km/h)	QC	Max Wind Gust Direction (degrees)	QC	Time of Max Wind Gust (LCT)	QC	No. of days
20/01/1990	34.5		Y			18.8		Y			98	Y	157	Y	07:00 PM	Y	
21/01/1990	23.3		Y			19.7		Y			41	Y	180	Y	05:50 AM	Y	
22/01/1990	23.4		Y			18.8		Y			33	Y	157	Y	03:20 AM	Y	
23/01/1990	24.8		Y			18.4		Y			33	Y	090	Y	01:50 PM	Y	

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Daily Rainfall Observations

	Rose Bay (Royal Sydney Golf Club) (Site No. 66098)			Mosman (Bapaume Road) (Site No. 66042)			Sydney Botanic Gardens (Site No. 66006)			Centennial Park (Site No. 66160)		
Date	Rain to 9am (mm)	No of days	QC	Rain to 9am (mm)	No of days	QC	Rain to 9am (mm)	No of days	QC	Rain to 9am (mm)	No of days	QC
01/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y
02/01/1990	0.2	1	Y	0.6	1	Y	0.0		Y	0.0		Y
03/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y
04/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y
05/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y
06/01/1990	2.8	1	Y	0.2	1	Y	2.8	1	Y	0.0		Y
07/01/1990	7.4	1	Y	6.0	1	Y	8.4	1	Y	10.0	1	Y
08/01/1990	11.0	1	Y	12.2	1	Y	11.4	1	Y	12.2	1	Y
09/01/1990	3.8	1	Y	7.4	1	Y	10.0	1	Y	7.4	1	Y
10/01/1990	22.6	1	Y	33.2	1	Y	23.4	1	Y	18.6	1	Y
11/01/1990	4.0	1	Y	6.0	1	Y	4.8	1	Y	4.6	1	Y
12/01/1990	0.3	1	Y	1.8	1	Y	1.3	1	Y	1.0	1	Y
13/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y
14/01/1990	3.0	1	Y	5.8	1	Y	6.0	1	Y	0.0		Y
15/01/1990	1.8	1	Y	2.0	1	Y	0.0		Y			
16/01/1990	0.6	1	Y	3.0	1	Y	1.2	1	Y	5.0	2	S
17/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y
18/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y
19/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y
20/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y

	Rose Bay (Royal Sydney Golf Club) (Site No. 66098)			Mosman (Bapaume Road) (Site No. 66042)			Sydney Botanic Gardens (Site No. 66006)			Centennial Park (Site No. 66160)		
Date	Rain to 9am (mm)	No of days	QC	Rain to 9am (mm)	No of days	QC	Rain to 9am (mm)	No of days	QC	Rain to 9am (mm)	No of days	QC
21/01/1990	9.8	1	Y	12.4	1	Y	13.0	1	Y	7.6	1	Y
22/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y
23/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y
24/01/1990	0.0		Y	0.0		Y	0.0		Y	0.0		Y

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Daily Sunshine Observations

	Sydney (Observatory Hill) (Site No. 66062)		Sydney Airport AMO (Site No. 66037)	
Date	Bright Sunshine (hours)	QC	Bright sunshine (hours)	QC
01/01/1990	9.1	Y	9.8	Y
02/01/1990	8.1	Y	6.8	Y
03/01/1990	12.6	Y	13.1	Y
04/01/1990	0	Y	0.1	Y
05/01/1990	7.2	Y	7.3	Y
06/01/1990	4.7	Y	5.8	Y
07/01/1990	2.5	Y	3.1	Y
08/01/1990	0	Y	0	Y
09/01/1990	0	Y	0	Y
10/01/1990	2.5	Y	2.8	Y
11/01/1990	4.4	Y	5.7	Y
12/01/1990	10.3	Y	10.1	Y
13/01/1990	6.8	Y	9.5	Y
14/01/1990	0	Y	0	Y
15/01/1990	0	Y	0	Y
16/01/1990	2.3	Y	4.5	Y
17/01/1990	11.1	Y	10.5	Y
18/01/1990	7.6	Y	8	Y
19/01/1990	9.7	Y	10	Y
20/01/1990	6.6	Y	8.4	Y
21/01/1990	0	Y	0	Y
22/01/1990	2.4	Y	3.9	Y
23/01/1990	11.4	Y	13.2	Y
24/01/1990	12.5	Y	13.2	Y

Appendix A: Location of sites provided

Please note that not all weather stations report all types and frequencies of data. Data from the closest weather stations to the area of interest that report the data requested have generally been included in this document.

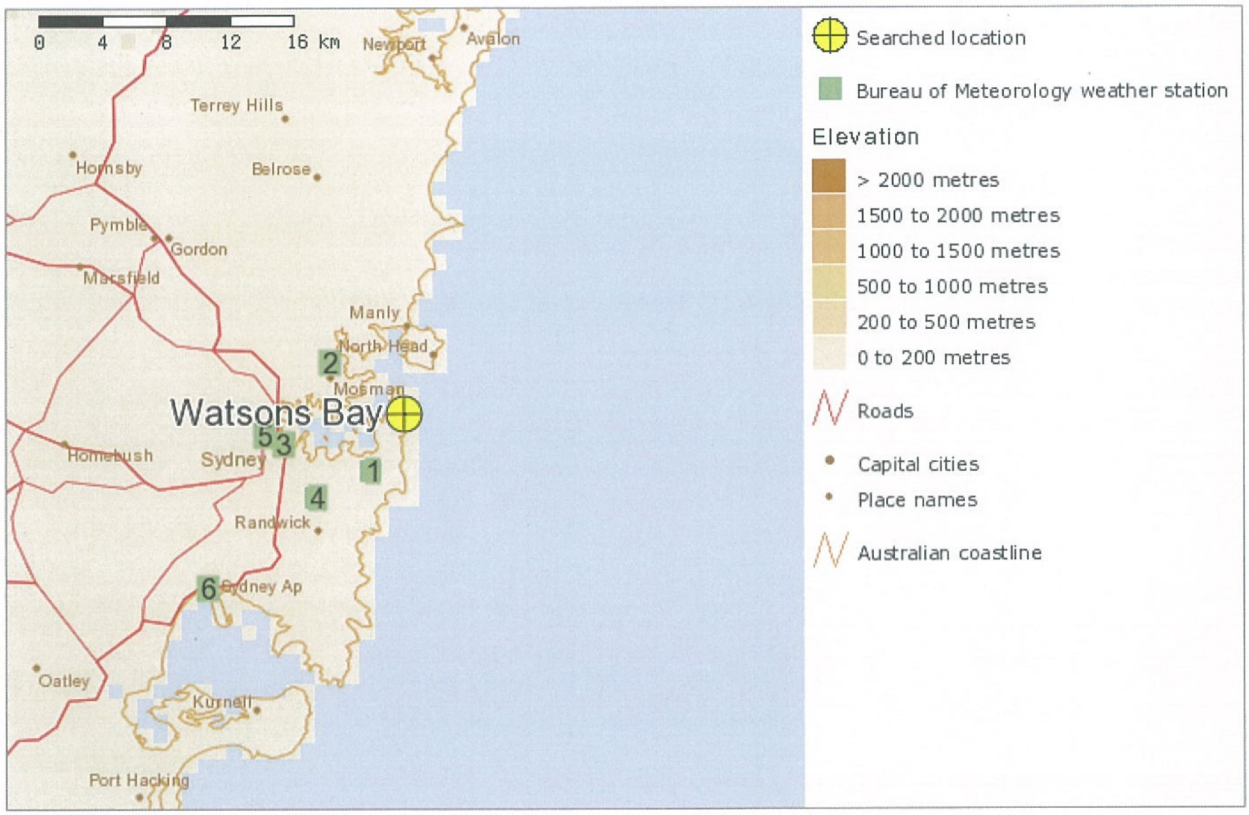

Figure 1: Map of Bureau of Meteorology weather stations in the Watsons Bay area included in Bureau of Meteorology Data Document CAS-42702-V4S0D9-4

Label	Site Name	Site No.	Distance (km)	Elevation (m)	Latitude	Longitude
1	Rose Bay (Royal Sydney Golf Club)	066098	4	8	-33.8809	151.2658
2	Mosman (Bapaume Road)	066042	5	70	-33.8194	151.2428
3	Sydney Botanic Gardens	066006	6.6	15	-33.8658	151.2161
4	Centennial Park	066160	7	38	-33.8959	151.2341
5	Sydney (Observatory Hill)	066062	7.5	39	-33.8607	151.205
6	Sydney Airport AMO	066037	15	6	-33.9465	151.1731

Table 1: Station details of Bureau of Meteorology weather stations in the Watsons Bay area included in Bureau of Meteorology Data Document CAS-42702-V4S0D9-4

Appendix B: Observation Notes

The following notes are provided to assist with your interpretation of the supplied weather observations.

General Information

Date and time

Observation Date and Time are expressed in Local Clock Time (LCT). LCT is the 'clock time' and is normally the same as Local Standard Time, but reflects Daylight Saving where applicable. For further information on the various time-zones used across Australia, please refer to:
http://www.bom.gov.au/climate/averages/tables/daysavtm.shtml.

Date format is in dd/mm/yyyy, whilst Time format is hh:mm AM/PM.

Gaps and missing data

Very few sites have a complete unbroken record of climate information. A site may have been closed, reopened, upgraded to a full weather site or downgraded to a rainfall only site during its existence, causing breaks in the record for some or all elements. Some gaps may be for one element due to a damaged instrument, others may be for all elements due to the absence or illness of an observer. Some elements are only recorded when an observer is present. When suspect data have been identified through the quality control process, these data have been excluded.

Where there are gaps in the data tables provided, that means that no data is available.

Quality control (QC)

Recent data may not have been fully quality controlled, indicated by an "N" in the QC columns. This means the data is 'as read'. This does not mean that the data is incorrect, merely that the full quality control process has not been completed.

Data that has been quality controlled and found to be acceptable has a quality flag of "Y".
Data that has been quality controlled and found to be suspect has a quality flag of "S".
Data that has been quality controlled and found to be wrong has a quality flag of "W".
Data that has been quality controlled and found to be inconsistent with other known information has a quality flag of "I".

In tables where "QC" columns are included, the QC value relates to the observed value in the column immediately to its left.

General Observation Notes

Rainfall is measured either manually using a 203 mm rain gauge, or automatically using a "Tipping Bucket Rain Gauge". Rainfall includes all forms of water particles, whether liquid (for example, rain or drizzle) or solid (hail or snow), that fall from clouds and reach the ground at the point of observation. For more information please refer to: http://www.bom.gov.au/climate/how/observations/rain-measure.shtml.

Temperature (including air temperature, dewpoint temperature and wet bulb temperature) is recorded in a Stevenson Screen, which allows for good air flow across the thermometers, and prevents heating from direct

sunlight. The height of the thermometers is approximately 1.2 m above the ground. For more information please refer to: http://www.bom.gov.au/climate/cdo/about/airtemp-measure.shtml.

Dewpoint Temperature is the temperature to which the air must be cooled, without change in pressure and water vapour content, in order for condensation of water vapour to occur. It therefore directly indicates the moisture content of the air; a low value indicates dry air. The closer the dewpoint is to the air temperature, the more moist the air and the higher the relative humidity.

Relative humidity (RH) indicates the moisture content of the air. It is the ratio of the amount of moisture actually in the air to the maximum amount of moisture which the air could hold at the same temperature. RH is obtained either from measurements by an electronic relative humidity sensor or derived via complex equations from wet and dry bulb temperature observations. There can be slight differences between RH values measured directly by a relative humidity sensor and those derived using equations. Typically these differences are less than 1%. In very dry air as RH approaches 0%, and in very humid conditions as RH approaches 100%, the uncertainty associated with RH data increases. There are some occasions when reported RH values may slightly exceed 100%. In these instances you should consider the value to be 100%.

Wind speed and direction are generally measured using an anemometer at a height of approximately 10 metres above the surface. However, at some sites, typically those without an Automatic Weather Station (AWS), wind speed may be estimated visually using the Beaufort Wind Scale. Refer to "Appendix C - Beaufort Wind Scale" for wind speed categories. Wind direction is measured clockwise from True North and indicates the direction from which the wind is blowing. For example 090 is equivalent to a wind coming directly from the east. Calm conditions are expressed as 0 in both wind direction and wind speed.

Mean Sea Level Pressure is the atmospheric pressure converted to an equivalent pressure at sea level. The use of MSLP allows for comparison of sites at different elevations.

Automatic visibility observations are made with a visibility meter. Visibility meters measure air clarity using the principle of forward scattering of visible light. Light is transmitted from a high intensity source and beamed into a scattering volume which is viewed by a receiver. The amount of light received is expressed as a measure of visibility and is expressed in metres (m). The information should be used with care as it samples only a small volume of air. Where visibility is given as 10km, this most likely means that visibility is 10km or more. For more information about visibility meters, please refer to the reference material available at: http://www.bom.gov.au/aviation/data/education/ceilometer-visibility.pdf.

Automatic cloud observations are made by a ceilometer. The ceilometer is an instrument which uses a vertical laser beam to estimate the cloud amounts and heights. The instrument only samples the sky directly above it and so care should be taken when using these values for estimates of whole sky amounts. The data are collected over a half hour period and then processed to produce estimates. The data in the most recent 10 minute period are given a double weighting to produce a better response time in situations when cloud cover is changing rapidly. The ceilometer reports heights to 12,500 feet. For more information about ceilometers, please refer to the reference material available at: http://www.bom.gov.au/aviation/data/education/ceilometer-visibility.pdf.

Data table notes

Notes for Synoptic Observations Data Table:

1. Rain is expressed in millimetres (mm) and is the total amount of precipitation recorded over the period indicated.
2. Rain period is the number of hours prior to the time of the observation that the rainfall total applies to. If the period field is blank then it is usually the amount of precipitation recorded since the previous observation.
3. Air Temp is the air temperature at that time expressed in degrees Celsius (°C).
4. Dwpt Temp is the dewpoint temperature at that time expressed in degrees Celsius (°C).
5. Rel Hum is the relative humidity expressed as a percentage (%).
6. Wind Speed is expressed in kilometres per hour (km/h) and is the average wind speed, typically over the 10 minutes prior to the observation time. Refer to "Appendix C - Beaufort Wind Scale" for wind speed categories.
7. Wind Direction is expressed in degrees (true) and is the mean wind direction averaged over the same period as the wind speed, typically during the 10 minute period up until the observation time, rounded to the nearest 1 degree.
8. Visibility is measured horizontally and is expressed in metres (m). At some staffed sites, visibility observations are estimated by a weather observer. Otherwise visibility observations are made with a visibility meter which has a maximum range of 10 km. Refer to the notes on "Automatic visibility observations" above for more information on the automatic measurements.
9. Total Cloud indicates the fraction of sky covered by cloud and is given in eighths (oktas). At some staffed sites, cloud observations are made by a weather observer and consider the full sky dome. Otherwise cloud observations are made with a ceilometer. Refer to the notes on "Automatic cloud observation" above for more information on the automatic measurement. The following are descriptive terms on the amount of cloudiness and cover the range 0 to 8 oktas:
   a. "Sunny" for up to 1 okta of cloud;
   b. "Mostly sunny" for 2 oktas;
   c. "Partly cloudy" for 3, 4, or 5 oktas;
   d. "Cloudy" for 6 or 7 oktas;
   e. "Overcast" for sky covered by clouds (8 oktas).
10. Present Weather refers to the weather occurring at the time of observation. Refer to the notes on "Weather Descriptors" for further information.
11. Past Weather refers to the most significant weather that has occurred since the previous observation up until the present. Refer to the notes on "Weather Descriptors" for further information.

Weather Descriptors:

The following explanations are technical definitions from the Surface Observations Handbook of the Bureau of Meteorology and may help in the interpretation of the present and past weather observations.
Within sight or at a distance means that although a phenomenon is not occurring at the station it is seen to be occurring within the field of view around the station.

Definitions of Weather Phenomena:
Rain - precipitation in the form of liquid water drops, either as drops of appreciable size or of smaller widely

scattered drops. Rain can be characterised as either intermittent, continuous or showers and is also classified by intensity:
Intensity of Rain on rate of fall basis:
Slight: up to 2.2 mm per hour
Moderate: 2.2 mm to 6 mm per hour
Heavy: 6.2 mm per hour to 50 mm per hour
Violent: greater than 50 mm per hour

Showers are associated with cumuliform clouds. Because of the isolated nature of these clouds there is, usually, at least a partial clearing of the sky between the cumuliform clouds so that a break is visible. Showers are also characterised by rapid changes of intensity and the suddenness with which they start and stop. Showers are also associated with sudden short changes in wind speed (down draft) and direction. Showers seldom last more than one hour, most often less than 15 minutes. Showers may occur in combination with intermittent or continuous precipitation, in these cases the showers are indicated by the sudden increases and decreases in precipitation intensity.

Drizzle - fairly uniform precipitation composed exclusively of fine droplets of water very close to one another. Drizzle droplets are so small that their individual impact on a water surface is imperceptible. Drizzle may be characterised as intermittent or continuous and is also classified by intensity.
Intensity of Drizzle on rate of fall basis:
Slight: up to 0.2 mm per hour
Moderate: greater than 0.2 mm per hour, up to 0.4 mm per hour
Thick: greater than 0.4 mm per hour
Note: when precipitation rate exceeds 0.8 mm per hour the precipitation is usually rain.

Snow - precipitation in the form of ice crystals. The crystals are usually branched to form six pointed stars and interlock to form snowflakes. Snow may be characterised as intermittent, continuous or showers and is also classified for intensity.
Intensity of Snow on rate of fall basis:
Slight: Gives a water equivalent of up to 2 mm per hour.
Moderate: Gives a water equivalent of 2.2 mm to 6 mm per hour.
Heavy: Gives a water equivalent of greater than 6 mm per hour.

Hail - precipitation of small balls or pieces of ice, hard and partly transparent, which fall separately or frozen together into irregular lumps. Hail falls from cumulonimbus cloud therefore occurs only as showers.
Guide for Approximating Intensity of Hail:
Slight: Sparse hailstones of small size, often mixed with rain
Moderate: The fall is abundant enough to whiten the ground
Heavy: Includes at least a proportion of hailstones exceeding 6 mm diameter.

Virga - Vertical or inclined trails of precipitation attached to the base of a cloud which do not reach the ground.

Frost - two phenomena fall under this general term:
1. Hoar frost - deposit of soft white ice crystals when the temperature of the surface is below freezing point, produced by deposition of water vapour from the surrounding clear air.

2. White dew - deposit of white frozen dew drops, produced by a deposit of dew being frozen by a decrease in temperature to below freezing point.

Note: Frost is reported when:

1. Frozen deposits are observed on the ground or objects, or
2. The terrestrial minimum temperature falls to -0.9°C or below even though a frozen deposit is not observed on the ground or objects

Dew - deposit of water drops on objects at or near the ground, produced by condensation of water vapour from the surrounding clear air.

Fog - suspension of very small water droplets in the air reducing the horizontal visibility to less than 1000 metres.

Shallow Fog - fog lying on the surface of the ground or sea which does not obstruct visibility at a height of 2 metres over land or 10 metres over sea.

Mist - a suspension in the air of microscopic water droplets or wet hygroscopic particles, reducing the horizontal visibility. The visibility limits for mist are 1000 metres to 10 km inclusive. Mist usually has a greyish tinge.

Funnel Cloud - violent disturbance of the vortex type with an approximately vertical axis. The cloud resembles an ice cream cone or funnel, hanging from the main cumulonimbus cloud base, it may or may not reach the surface. A funnel cloud is the characteristic feature of a tornado or waterspout. The violent winds near the axis may do great damage along a track which may be quite narrow. In general, the tornado is much more developed than a waterspout.

Haze - state of atmospheric obscurity due to the suspension in the air of extremely small dry particles invisible to the naked eye. Haze resembles a uniform veil over the landscape that subdues its colours. When viewed against a dark background (e.g. a mountain) it has a bluish tinge but it has a dirty yellow or orange tinge against a right background (e.g. sun, clouds). Haze is distinguished from mist when the humidity is less than 90% at the time.

Widespread dust (dust haze) - suspension in the air of dust or small sand particles. Dust or sand is not being raised locally at the time of observation.

Blowing dust or sand - dust or sand raised by the wind to moderate heights above the ground. The visibility is reduced at eye level (2 metres) but horizontally not to less than 1000 metres.

Dust storm or sand storm - caused by turbulent winds raising large quantities of dust or sand into the air and reducing visibility to less than 1000 metres. Severe dust storm (or sandstorm) reduces visibility below 200 metres. The difference between a dust storm and a sandstorm is the size of the particles. A dust storm consists of fine particles, often raised to great heights (3000 metres), which may be carried great distances from the source. A sandstorm consists of coarse particles, which are not usually raised to a great height or carried far from the source.

Dust devil - whirling column of dust or sand, usually less than 30 metres high (but may extend to 300 metres

or more) and of narrow dimensions. Moving with the wind they whirl dust and light objects into the air and usually subside after travelling short distance.

Smoke - fine ash particles suspended in the atmosphere. When smoke is present the disk of the sun at sunrise and sunset appears very red and during daytime it has a reddish tinge. Smoke at a distance, such as from bushfires, usually has a light greyish or bluish colour and is usually evenly distributed in the upper air.

Thunder - sound caused by the atmospheric disturbance created by a lighting flash and may be audible up to about 20 km from the source. Always associated with cumulonimbus clouds.

Lightning - brilliant momentary discharge between two electrified clouds or between such a cloud and the ground or within a cloud. If the path of the discharge is visible to the observer it is seen as a forked streak but if the actual discharge is hidden from the observer it is seen as a diffuse glow.

Thunderstorm - combination of thunder and lightning with or without precipitation. The intensity of a thunderstorm refers to the occurrence of the thunder phenomenon, not to any precipitation that may be present. The intensities are:
(a) Slight - occasional thunder
(b) Moderate - frequent thunder
(c) Heavy - almost continuous thunder.

Notes for Daily Data Table:

1. Maximum temperature is expressed in degrees Celsius (°C) and is the highest air temperature recorded during the 24-hour period starting at 9am on the indicated date. Sometimes this is only reported to the nearest whole degree.
2. The time of maximum temperature is expressed in Local Clock Time (LCT) and is the time of the highest air temperature in the 24-hour period starting at 9am on the indicated date. Normally, the time of maximum temperature will occur during mid-afternoon on the date shown, but may occur at any time in the 24-hour period from 9am.
3. Minimum temperature is expressed in degrees Celsius (°C) and is the lowest air temperature recorded during the 24-hour period prior to 9am on the indicated date. Sometimes this is only reported to the nearest whole degree.
4. The time of minimum temperature is expressed in Local Clock Time and is the time of the lowest air temperature in the 24-hour period prior 9am on the indicated date. Normally, the time of minimum temperature will occur near dawn on the date shown, but may occur at any time in the 24-hour period prior to 9am.
5. Maximum Wind Gust:
    a. Speed is expressed in kilometres per hour (km/h) and is the maximum 3 second wind speed observed in the 24-hour period ending at midnight on the date shown.
    b. Direction is expressed in degrees (true), measured clockwise from True North, and indicates the direction from which the Maximum Wind Gust originated.
    c. Time is expressed in Local Clock Time and is the observed time of the Maximum Wind Gust in the 24-hour period ending at midnight on the date shown. Should the Maximum Wind Gust occur on multiple instances during this period, the time of the first instance is reported.

Notes for Daily Rainfall Table:

1. Rain to 9am is expressed in millimetres (mm) and is the total amount of precipitation recorded in the 24 hours ending at 9am on the date indicated, unless indicated as a multi-day total (see point 2 below). Rainfall is usually recorded in increments of 0.2 mm. Some sites that are part of the Flood Warning network may report rainfall to the nearest whole mm.
2. The "No of Days" refers to the number of days over which the rainfall total was collected. For example a 2 day rainfall accumulation refers to the 48 hour period prior to 9am on the indicated date. For observations which span more than one day it indicates that there were multiple dates on which the rainfall may have occurred. For rainfall totals of 0.0 mm, the "No of Days" column will either be blank, or have "1" displayed.

Notes for Number of Hours of Bright Sunshine

1. Number of Hours of Bright Sunshine are measured in the 24 hours midnight to midnight.
2. The Bureau of Meteorology generally uses a Campbell-Stokes recorder to record bright sunshine. This device only measures the duration of "bright" sunshine, which is less than the amount of "visible" sunshine. For example, sunshine immediately after sunrise and just before sunset is visible, but would not be bright enough to register on the Campbell-Stokes recorder.

Appendix C: Beaufort Wind Scale

Please note: The Beaufort scale applies to mean winds and not wind gusts. Beaufort scale numbers and descriptive terms such as 'near gale', 'strong gale' and 'violent storm' are not normally used in Bureau of Meteorology communications or forecasts.

Beaufort Scale No.	Descriptive Term	Units in km/h	Units in knots*	Description on Land	Description at Sea
0	Calm	0	0	Smoke rises vertically	Sea like a mirror.
1-3	Light winds	19 km/h or less	10 knots or less	Wind felt on face; leaves rustle; ordinary vanes moved by wind.	Small wavelets, ripples formed but do not break: A glassy appearance maintained.
4	Moderate winds	20 - 29 km/h	11-16 knots	Raises dust and loose paper; small branches are moved.	Small waves - becoming longer; fairly frequent white horses.
5	Fresh winds	30 - 39 km/h	17-21 knots	Small trees in leaf begin to sway; crested wavelets form on inland waters	Moderate waves, taking a more pronounced long form; many white horses are formed - a chance of some spray
6	Strong winds	40 - 50 km/h	22-27 knots	Large branches in motion; whistling heard in telephone wires; umbrellas used with difficulty.	Large waves begin to form; the white foam crests are more extensive with probably some spray
7	Near gale	51 - 62 km/h	28-33 knots	Whole trees in motion; inconvenience felt when walking against wind.	Sea heaps up and white foam from breaking waves begins to be blown in streaks along direction of wind.
8	Gale	63 - 75 km/h	34-40 knots	Twigs break off trees; progress generally impeded.	Moderately high waves of greater length; edges of crests begin to break into spindrift; foam is blown in well-marked streaks along the direction of the wind.
9	Strong gale	76 - 87 km/h	41-47 knots	Slight structural damage occurs -roofing dislodged; larger branches break off.	High waves; dense streaks of foam; crests of waves begin to topple, tumble and roll over; spray may affect visibility.
10	Storm	88 - 102 km/h	48-55 knots	Seldom experienced inland; trees uprooted; considerable structural damage.	Very high waves with long overhanging crests; the resulting foam in great patches is blown in dense white streaks; the surface of the sea takes on a white appearance; the tumbling of the sea becomes heavy with visibility affected.
11	Violent storm	103 -117 km/h	56-63 knots	Very rarely experienced - widespread damage	Exceptionally high waves; small and medium sized ships occasionally lost from view behind waves; the sea is completely covered with long white patches of foam; the edges of wave crests are blown into froth.
12+	Hurricane	118 km/h or more	64 knots or more	Very rarely experienced - widespread damage	The air is filled with foam and spray. Sea completely white with driving spray; visibility very seriously affected

*Conversions of knots to kilometres per hour are not exact because of established conventions.