

File Revision Date:

November 1, 2024

Data Set Description:

PI: Matt Tully
Instrument: Dobson
Site(s): Melbourne, Bureau of Meteorology
Measurement Quantities: Total column ozone

Contact Information:

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DOI

Not at present time

Reference Articles:

"Operations handbook - ozone observations with a Dobson spectrophotometer", W.D. Komhyr, Global Ozone Research and Monitoring Project. Report 6, World Meteorological Organization, Geneva, 1980.

Instrument Description:

Dobson Ozone Spectrophotometer numbers 105, 111 and 115
Dobson #115 was been partially automated in 2010 using the JMA hardware and software system

Algorithm Description:

Uses algorithm set out in "Operations handbook - ozone observations with a Dobson spectrophotometer", W.D. Komhyr, Global Ozone Research and Monitoring Project. Report 6, World Meteorological Organisation, Geneva, 1980.

Uses Bass/Paur (1992) ozone absorption coefficients.

Expected Precision/Accuracy of Instrument:

"Review of the Dobson spectrophotometer and its accuracy", Reid E. Basher, Global Ozone Research and Monitoring Project. Report 13, World Meteorological Organisation, Geneva, 1982.

Instrument History:

Aspendale

1 Mar 1972 - 17 Jul 1977: Dobson #105

6 Jul 1977 - 28 Feb 1978: Dobson #111

22 Feb 1978 - 4 Jan 1983: Dobson #105

Melbourne

11 May 1983 - 29 Jul 1998: Dobson #105

29 Jul 1998 - 21 Feb 2000: Dobson #115

21 Feb 2000 - 14 Nov 2001: Dobson #105

15 Nov 2001 - 22 Mar 2010: Dobson #115

22 Mar 2010 - 9 Jul 2013: Dobson #111

4 July 2013 - : Dobson #115

Dobson #105 was referenced against the World Standard in 1972, 1977, 1984, 1988, 1992, 1997, 2001

Dobson #111 was referenced against the Regional Standard in 2010, 2013 and 2021

Dobson #115 was referenced against the Regional Standard in 1998, 2000, 2001, 2002, 2004, 2010, 2012, 2018