

File Revision Date:
September 15, 2022

Data Set Description:

PI: Ankie Piters
Instrument: Brewer MKIII
Site(s): De Bilt, Royal Netherlands Meteorological Institute (KNMI)
Measurement Quantities: Total column ozone

Data Contact:

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Reference Articles:

Brewer, A replacement for the Dobson spectrophotometer, Pure and Applied Geophys., 106-108, 919-927, 1973

Instrument Description:

Brewer MKIII #100 1994-2006

Brewer MKIII #189 2007-now

Algorithm Description:

Original Brewer algorithm as described in manual for Direct Sun observations
Zenith Sky observations are calibrated using a "fit" to Direct Sun observations
Zenith Sky observations are reported only on days with no Direct Sun observations

Expected Precision/Accuracy of Instrument:

6 dobson units for Direct Sun observations

9 dobson units for Zenith Sky observations

Instrument History:

1994-01 #100 Start observations
1997-08 #100 Calibration IOS
1999-07 #100 Calibration IOS
2001-05 #100 Calibration IOS
2003-05 #100 Calibration IOS

2005-05	#100 Calibration IOS
2006-10	#189 Start observations
2007-09	#100 Observation stopped
2009-06	#189 Calibration K+Z
2012-08	#189 Calibration K+Z
2014-08	#189 Calibration K+Z
2014-12	#158 replaced #189
2015-05	#189 Resumed operations
2017-05	#189 Calibration K+Z
2020-05	#189 Calibration K+Z
2022-08	#189 Calibration campaign Davos

Note

In the NDACC database, only daily average O3 observations are available.

However, individual observations are available in the WOUDC database.

UV aerosol data are not (yet) available

Brewer #189 performs O3 and SO2 observations in three modes:

DS: Direct Sun

ZS: Zenith Sky

UO: Global irradiance

Brewer #189 also performs about hourly UV-scans:

UX: Extended UV wavelength scan

SS: Direct sun UV scan

These data are available on request.