

File Revision Date:

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Data Set Description:

PI: Ankie Piters (piters@knmi.nl)
Instrument: Brewer MKIII
Site(s): Paramaribo, Meteorological Service Suriname (MDS)
Measurement Quantities: Total column ozone
Coordinates: 5.80608N -55.21456E 16 mASL

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Reference Articles:

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

Operator's Manual Brewer MkIII Spectrophotometer

<http://www.kippzonen.com/Download/207/Brewer-MkIII-Operator-s-Manual>

Instrument Description:

Brewer MKIII #159 1999-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:

1999-03	Start observations
2001-06	Calibration IOS
2002-11	Calibration IOS
2005-04	Calibration IOS
2008-08	Calibration IOS
2010-12	Calibration K+Z
2014-11	Calibration IOS, lamp board replaced
2016-04	Motor FW2 replaced
2016-06	Power supply replaced
2017-11	Calibration IOS

Before 2004, and in 2007, the clock drifted.
Some effort has been made to correct the data in these periods.

Note

In the NDACC database, only daily average O3 observations are available.
However, individual observations are available in the WOUDC database (2012-now)
UV aerosol data are not (yet) available
Brewer #159 performs O3 and SO2 observations in three modes:
DS: Direct Sun
ZS: Zenith Sky
GI: Global irradiance

Brewer #159 also performs about hourly UV-scans:
UX: Extended UV wavelength scan
These data are available on request.

Marc Allaart
2019-05