

**National Climatic Data Center**

**DATA DOCUMENTATION**

**FOR**

**DATA SET 3270 (DSI-3270)**

**Surface Ozone IN-SITU Measurements - Hourly Averages**

**March 19, 2003**

National Climatic Data Center  
151 Patton Ave.  
Asheville, NC 28801-5001 USA

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1. **Abstract:** NCDC maintains an extensive digital collection of historical global, climatic archives from surface, oceanic, and satellite sources. The actual data in this file is ozone, continuous, in situ (In the original position) measurements. The primary data set consists of one-hour average values.

There are four global baseline observatories maintained and operated by CMDL where local pollution and anthropogenic (man made or influenced) influences are frequently non-existent. The sites are located at Barrow, Alaska, Mauna Loa Observatory, Hawaii, Cape Matatula, American Samoa, and South Pole, Antarctica. The data taken from these four stations goes back to the mid-1970s.

The hourly digital file contains: record type, station identification, dates, units of measurement indicator, source codes, data quality flags, and element type.

Surface Ozone Hourly data contains hourly ozone data.

See also: <http://www.cmdl.noaa.gov/>

## 2. **Element Names and Definitions:**

RECORD-TYPE - The type of data stored in this record. Value is "HLY". Each record contains one day of hourly values.

STATION-ID - Contains the WBAN Station Number. (Assigned by NCDC.) Range of values: 21511 (MLO), 27514 (BRW), 61707 (SMO), 90002 (SPO). Eight digit station numbers are always right justified, zero filled.

ELEMENT-TYPE - The type of data element stored in this record. OZPP - (Ozone Partial Pressures)

ELEMENT-UNITS - The units and decimal position of the data value for this record. The element units used for this data record are NB - Nannobars in tenths.

YEAR - This is the year of the record. Range of Value is 1973 - current year processed.

MONTH - This is the month of the record. Range of value is 01-12.

SOURCE-CODE-1 - Contains a code that indicates the instrument type used in taking the data. Values are 1, 7, & 9:

SOURCE CODE TABLE	
1	ECC
7	Dasibi
9	Other/Unknown

SOURCE-CODE-2 - Contains a code that indicates the back-up instrument type used in taking the data. (blank)

NOTE: **The Source code not used at this time.**

DAY - Contains the day of the record. Range of value is 01-31.

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NUM-VALUES - This notates the actual number of values reported. Range of values is 001-024.

TIME-OF-VALUE - Range 0100-2400 contains the hour of the hourly element value. Times are expressed in Greenwich Mean Time (GMT).

SIGN-OF-METEOROLOGICAL-VALUE - This is the 'SIGN' of the meteorological data value (Tape Field 013). A blank represents a positive value or a minus sign represents a negative value. The sign is always blank.

DATA-VALUE - Actual data value. This field is a five digit integer. Units and decimal position are indicated in the ELEMENT-UNITS field described in Tape Field 004. Missing values which contain a flag other than blank (see Flag-1 and Flag-2 fields) are assigned 99999. Missing Values which contain blank flag fields (ie., no observation made) are not included in the variable length record structure.

FLAG-1 - The data measurement FLAG. (blank) Flag not used.

FLAG-2 - The data quality FLAG. (blank) Flag not used.

Additional information at: <http://www.cmdl.noaa.gov/info/ftpdata.html>

3. **Start Date:** Mid 1970's

4. **Stop Date:** 1992

5. **Coverage:** There are four global baseline observatories maintained and operated by the Climate Monitoring Diagnostics laboratory (CMDL). The observatories are located at Barrow, Alaska; Mauna Loa Observatory, Hawaii; Cape Matatula, American Samoa; and South Pole, Antarctica.

6. **How to Order Data:**

Ask NCDC's Climate Services about the cost of obtaining this data set.  
Phone: 828-271-4800  
FAX: 828-271-4876  
E-mail: [NCDC.Orders@noaa.gov](mailto:NCDC.Orders@noaa.gov)

7. **Archiving Data Center:**

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, NC 28801-5001  
Phone: (828) 271-4800

8. **Technical Contact:**

**Climate Monitoring & Diagnostics Laboratory**  
325 Broadway R/CMDL  
Boulder, CO 80305  
(303) 497-6074

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<http://www.cmdl.noaa.gov/>

9. **Known Uncorrected Problems:** No information was provided with original documentation.

10. **Quality Statement:** CMDL is responsible for quality control. Calibrations and quality assurances are performed on the data.

11. **Essential Companion Datasets:** None

12. **References:** No information was provided with original documentation. More information can be obtained at:

<http://surfaceozone.larc.nasa.gov/main.html> and at the CMDL Site above.

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