

Current Data for Atmospheric CO2

The world's most current data for atmospheric CO2 is from measurements at the Mauna Loa Observatory in Hawaii. These high-precision measurements were started by Dave Keeling (shown in the photo) in March 1958.

Today, the monthly average concentration of CO2 in the atmosphere is published by the National Oceanic and Atmospheric Administration (NOAA) within a week after each month ends. The source data is organized into a table and republished here at CO2Now.org so more people can see the latest CO2 level and the important CO2 trend. The table includes the full Mauna Loa instrument record for atmospheric CO2.

NOAA release date for CO2 data:

Wednesday July 7, 2010 (10:15:05)
Atmospheric CO2

Mauna Loa Observatory (Scripps / NOAA / ESRL)

Monthly & Annual Mean CO2 Concentrations (ppm)

March 1958 - Present

Year

Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

Sep

Oct

Nov

Dec

Annual

1958

315.71

317.45

317.5

317.11

315.86

314.93

313.20

312.61

313.33

314.67

1959

315.62

316.38

316.71

317.72

318.29

318.16

316.55

314.8

313.84

313.26

314.80

315.59

315.98

1960

316.43

316.97

317.58

319.02

320.02

319.59

318.18

315.91

314.16

313.83

315.00

316.19

316.91

1961

316.93

317.70

318.54

319.48

320.58

319.77

318.58

316.79

314.80

315.38

316.10

317.01

317.64

1962

317.94

318.55

319.68

320.63

321.01

320.55

319.58

317.40

316.26

315.42

316.69

317.70

318.45

1963

318.74

319.08

319.86

321.39

322.24

321.47

319.74

317.77

316.21

315.99

317.12

318.31

318.99

1964

319.57

320.11

320.76

321.79

322.24

321.89

320.44

318.70

316.70

316.79

317.79

318.71

319.62

1965

319.44

320.44

320.89

322.13

322.16

321.87

321.39

318.80

317.81

317.30

318.87

319.42

320.04

1966

320.62

321.59

322.39

323.87

324.01

323.75

322.40

320.37

318.64

318.10

319.78

321.08

321.38

1967

322.06

322.50

323.04

324.42

325.00

324.09

322.55

320.92

319.31

319.31

320.72

321.96

322.16

1968

322.57

323.15

323.89

325.02

325.57

325.36

324.14

322.03

320.41

320.25

321.31

322.84

323.04

1969

324.00

324.42

325.64

326.66

327.34

326.76

325.88

323.67

322.38

321.78

322.85

324.12

324.62

1970

325.03

325.99

326.87

328.14

328.07

327.66

326.35

324.69

323.10

323.16

323.98

325.13

325.68

1971

326.17

326.68

327.18

327.78

328.92

328.57

327.34

325.46

323.36

323.56

324.80

326.01

326.32

1972

326.77

327.63

327.75

329.72

330.07

329.09

328.05

326.32

324.93

325.06

326.50

327.55

327.45

1973

328.55

329.56

330.30

331.50

332.48

332.07

330.87

329.31

327.51

327.18

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328.64

329.68

1974

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330.71

331.48

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333.15

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330.99

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327.41

327.21

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329.50

330.17

1975

330.68

331.41

331.85

333.29

333.91

333.40

331.74

329.88

328.57

328.35

329.33

330.55

331.08

1976

331.66
332.75
333.46
334.78
334.79
334.05
332.95
330.64
328.96
328.77
330.18
331.65
332.05

1977
332.69
333.23
334.97
336.03
336.82
336.10
334.79
332.53
331.19
331.21
332.35
333.47
333.78

1978
335.09
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336.61
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1979

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337.60

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333.93

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1980

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1981

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341.57

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343.01

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1982

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341.69

342.87

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344.30

343.42

341.85

339.82

337.98

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340.67

341.22

1983

341.42

342.67

343.45

345.08

345.75

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343.93

342.08

340.00

340.12

341.35

342.89

342.84

1984

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344.59

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346.80

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341.24

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1985

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348.02

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1986

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1987

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1993

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2009

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2010

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Source Data

Mauna Loa Monthly Mean CO2

Source data published by the National Oceanic and Atmospheric Administration (NOAA)

Mauna Loa Annual Mean CO2

Source data published by the National Oceanic and Atmospheric Administration (NOAA)

Data Notes

- At CO2Now.org, data for March 1958 - April 1974 was obtained by Charles David Keeling of the Scripps Institution of Oceanography (Scripps). Data for CO2 since May 1974 was obtained by the National Oceanic and Atmospheric Administration (NOAA). The Scripps Institution of Oceanography also maintains a CO2 monitoring program at the Mauna Loa Observatory. Click [here](#) to access the Scripps data for the Mauna Loa Observatory.

- Monthly mean CO2 concentrations are determined from daily averages for the number of CO2 molecules in every one million molecules of dried air (water vapor removed). Annual mean CO2 concentrations are the arithmetic mean of the monthly averages for the year. Atmospheric CO2 concentrations are expressed as parts per million (ppm).

- NOAA data published within the past year is preliminary and subject to change by NOAA due to its recalibration of the reference gas mixture used or other quality control procedures. In some cases, data from earlier years may be changed for the same reasons. Usually, these changes are minor. See the NOAA change log and notes that was started in August 2008 to keep a public record of the adjustments and reasons for the adjustments.

- All data in this table is republished from the most current data available from NOAA. Data is republished independently by Pro Oxygen at CO2Now.org to make it easier for people to see the latest atmospheric CO2 data and trend information. A delay of 4 to 24 hours typically occurs between the release of monthly data by NOAA and the publication of updates at CO2Now.org. The accuracy of republished data can be checked by reviewing the source data. In the event that a publication error is detected, please send details to email "at@co2now.org".

More Data

- [EarthPolicy.org](#) | Annual atmospheric CO2 concentrations from 1,000 AD to 2007

- [NCDC NOAA](#) | Vostock Ice Core CO2 Data

- [CO2Now](#) | Climate science data sources

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