

IS92a Global [CO2] Yearly Dataset - v.1 (IS92a.dat)

Derived from : CO2-Scenarios IS92A/IS95A

VEMAP Revision Date 21 May 1999

Released by : VEMAP Data Group (D. Schimel, N. Rosenbloom, and T. Kittel)

Date : Fri, 21 May 1999
From : VEMAP/EDAS/NCAR (nanr@ucar.edu)
Data : IS92a CO2 concentrations (Values for July 1)
Source : Fortunat Joos <joos@climate.unibe.ch> (see IS92a.README)

Original File header
Date: Wed, 24 Jul 1996 13:32:00 +0200
From: Fortunat Joos <joos@climate.unibe.ch>
CO2-Scenarios IS95A
Model : HILDA (beta=0.287)
Date : 23. July 1996

# YEAR	IS92A
1765	277.9650
1766	277.9950
1767	278.0270
1768	278.0630
1769	278.1010
1770	278.1420
1771	278.1860
1772	278.2330
1773	278.2840
1774	278.3370
1775	278.3930
1776	278.4520
1777	278.5140
1778	278.5790
1779	278.6480
1780	278.7190
1781	278.7940
1782	278.8720
1783	278.9530
1784	279.0380
1785	279.1250
1786	279.2160
1787	279.3110
1788	279.4090
1789	279.5100
1790	279.6140
1791	279.7220
1792	279.8330
1793	279.9480
1794	280.0660
1795	280.1880
1796	280.3130
1797	280.4410
1798	280.5730
1799	280.7080

1800	280.8450
1801	280.9840
1802	281.1240
1803	281.2660
1804	281.4080
1805	281.5510
1806	281.6930
1807	281.8350
1808	281.9760
1809	282.1160
1810	282.2540
1811	282.3900
1812	282.5230
1813	282.6530
1814	282.7790
1815	282.9020
1816	283.0210
1817	283.1340
1818	283.2440
1819	283.3490
1820	283.4520
1821	283.5510
1822	283.6480
1823	283.7430
1824	283.8370
1825	283.9290
1826	284.0200
1827	284.1110
1828	284.2030
1829	284.2960
1830	284.3900
1831	284.4860
1832	284.5840
1833	284.6860
1834	284.7910
1835	284.8990
1836	285.0130
1837	285.1320
1838	285.2560
1839	285.3870
1840	285.5230
1841	285.6650
1842	285.8090
1843	285.9540
1844	286.0970
1845	286.2390
1846	286.3790
1847	286.5160
1848	286.6500
1849	286.7810
1850	286.9090
1851	287.0330
1852	287.1540
1853	287.2720
1854	287.3870
1855	287.4970
1856	287.6050

1857	287.7110
1858	287.8160
1859	287.9200
1860	288.0250
1861	288.1310
1862	288.2390
1863	288.3500
1864	288.4650
1865	288.5840
1866	288.7080
1867	288.8380
1868	288.9740
1869	289.1150
1870	289.2620
1871	289.4160
1872	289.5760
1873	289.7440
1874	289.9190
1875	290.1010
1876	290.2920
1877	290.4900
1878	290.6950
1879	290.9080
1880	291.1280
1881	291.3540
1882	291.5860
1883	291.8240
1884	292.0660
1885	292.3120
1886	292.5620
1887	292.8150
1888	293.0710
1889	293.3280
1890	293.5860
1891	293.8430
1892	294.0980
1893	294.3500
1894	294.5990
1895	294.8420
1896	295.0820
1897	295.3200
1898	295.5580
1899	295.7960
1900	296.0380
1901	296.2830
1902	296.5350
1903	296.7930
1904	297.0610
1905	297.3370
1906	297.6200
1907	297.9090
1908	298.2040
1909	298.5040
1910	298.8060
1911	299.1110
1912	299.4190
1913	299.7280

1914	300.0400
1915	300.3520
1916	300.6660
1917	300.9800
1918	301.2940
1919	301.6090
1920	301.9230
1921	302.2370
1922	302.5510
1923	302.8630
1924	303.1720
1925	303.4780
1926	303.7800
1927	304.0760
1928	304.3670
1929	304.6510
1930	304.9310
1931	305.2070
1932	305.4780
1933	305.7470
1934	306.0140
1935	306.2790
1936	306.5460
1937	306.8150
1938	307.0870
1939	307.3650
1940	307.6490
1941	307.9420
1942	308.2440
1943	308.5590
1944	308.8860
1945	309.2270
1946	309.5820
1947	309.9540
1948	310.3410
1949	310.7470
1950	311.1700
1951	311.6120
1952	312.0750
1953	312.5590
1954	313.0650
1955	313.5960
1956	314.1510
1957	314.7330
1958	315.3430
1959	315.9810
1960	316.6440
1961	317.3270
1962	318.0240
1963	318.7380
1964	319.4830
1965	320.2740
1966	321.1250
1967	322.0380
1968	323.0130
1969	324.0520
1970	325.1490

1971	326.2940
1972	327.4810
1973	328.6970
1974	329.9300
1975	331.1890
1976	332.4920
1977	333.8470
1978	335.2500
1979	336.6870
1980	338.1480
1981	339.6250
1982	341.1220
1983	342.6460
1984	344.2020
1985	345.7970
1986	347.3970
1987	348.9810
1988	350.5510
1989	352.1000
1990	353.6360
1991	355.2050
1992	356.8200
1993	358.4770
1994	360.1760
1995	361.9150
1996	363.6940
1997	365.5120
1998	367.3680
1999	369.2620
2000	371.1940
2001	373.1650
2002	375.1760
2003	377.2280
2004	379.3190
2005	381.4500
2006	383.6160
2007	385.8130
2008	388.0400
2009	390.2990
2010	392.5900
2011	394.9130
2012	397.2670
2013	399.6540
2014	402.0740
2015	404.5260
2016	407.0150
2017	409.5460
2018	412.1170
2019	414.7300
2020	417.3830
2021	420.0770
2022	422.8120
2023	425.5880
2024	428.4040
2025	431.2610
2026	434.1430
2027	437.0360

2028	439.9430
2029	442.8650
2030	445.8020
2031	448.7550
2032	451.7250
2033	454.7130
2034	457.7190
2035	460.7440
2036	463.7870
2037	466.8510
2038	469.9340
2039	473.0370
2040	476.1620
2041	479.3070
2042	482.4730
2043	485.6610
2044	488.8700
2045	492.1020
2046	495.3560
2047	498.6330
2048	501.9320
2049	505.2550
2050	508.6010
2051	511.9660
2052	515.3460
2053	518.7420
2054	522.1540
2055	525.5830
2056	529.0280
2057	532.4910
2058	535.9720
2059	539.4710
2060	542.9880
2061	546.5230
2062	550.0780
2063	553.6510
2064	557.2430
2065	560.8550
2066	564.4870
2067	568.1390
2068	571.8110
2069	575.5030
2070	579.2150
2071	582.9480
2072	586.7020
2073	590.4770
2074	594.2740
2075	598.0910
2076	601.9510
2077	605.8710
2078	609.8510
2079	613.8880
2080	617.9830
2081	622.1360
2082	626.3450
2083	630.6100
2084	634.9320

2085	639.3100
2086	643.7440
2087	648.2340
2088	652.7800
2089	657.3810
2090	662.0380
2091	666.7510
2092	671.5200
2093	676.3440
2094	681.2240
2095	686.1600
2096	691.1520
2097	696.2000
2098	701.3040
2099	706.4650
2100	711.6810

Source : Fortunat Joos <joos@climate.unibe.ch

Model : HILDA (beta=0.287)

Date : 23. July 1996

Note that IS92a CO2 values are identical to IS95a CO2 values.

Description:

Yearly time series of global atmospheric CO2 concentration data for the period 1765-2100. Units are [ppmv]. The historical data (1765-1990) are based on the standard IPCC CO2 concentration history dataset (Enting et al. 1994).

Methods:

(1) Data for 1765-1990 are from Enting et al.'s (1994) 1765-1990 dataset derived using a spline fit of Mauna Loa and ice core data.

(2) The future period record (1990-2100) was created by processing the IS92a emission data through the Bern (Joos et al., 1996) global carbon cycle model which was used to calculate terrestrial and oceanic uptake of atmospheric CO2. This modeling approach is described in Enting et al. (1994).

File information:

Filename: IS92a.dat

File format: ASCII

Values are midyear (1 July) 1765-2100

Column labels are:

Year CO2 [ppmv]
1765 277.966
1766 277.995
..
..
..
..
2098 701.3040
2099 706.4650
2100 711.6810

References:

Enting, I.E., T.M.L. Wigley, and M. Heimann. 1994. Future Emissions and Concentrations of Carbon Dioxide: Key Ocean/Atmosphere/Land Analyses. CSIRO Division of Atmospheric Research Technical Paper No. 31.

Joos, F., Bruno, M., Fink, R. Siegenthaler, U., Stocker, T., Le Quere and Sarmiento, J.L., 1996: An efficient and accurate representation of complex oceanic and biospheric models of anthropogenic carbon uptake. Tellus 48B, 397-417.

Schimel, D.S., I. Enting, M. Heimann, T.M.L. Wigley, D. Raynaud, D. Alves, and U. Siegenthaler. 1994. CO2 and the carbon cycle. In: J.T. Houghton, L.G.M. Filho, J. Bruce, H. Lee, B.A. Callander, E. Haites, N. Harris, and K. Maskell (eds.). IPCC Report. Climate Change 1994. Radiative Forcing of Climate Change. Cambridge University Press, Cambridge, UK, pp 39-71.