Since 1850, CO2 levels in **Arguments over climate change** atmosphere have risen from 280 to 385 parts per million Carbon dioxide and its concentration in the by volume (ppmv) atmosphere is at the centre of the climate change debate. The UN Intergovernmental Panel on Climate This represents increase from three Change (IPCC) savs man-made CO2 emissions are to four molecules of CO₂ per 10,700 causing global climatic change. Sceptics claim the molecules of nitrogen and oxygen oceans can absorb this gas as fast as it is produced, Oceans considered capable while some astrophysicists link climate change to sunspot of absorbing 50 times more activity and environmental changes in near-Earth space CO2 than atmosphere 450 Atmospheric carbon dioxide from Monthly mean atmospheric carbon dioxide at *Mauna Loa* Observatory, Hawaii. Measurements started 1958 by ice cores at Law Dome. East Antarctica. Parts per million by volume Dr. Charles David Keeling - so-called Keeling Curve 400 1010: Ice core samples show CO₂ at 279.5ppmv 2008: 385.3 During last Ice Age (70.000 to 10.000 years ago) 1960: 316.9 CO₂ concentrations varied between 200-280ppmv 1962/63: Europe's coldest winter in 360 years 350 296.7 283.9 281.9 282.1 280.8 282.8 290.8 280.5 282.5 283.6 280.3 282.2 275.8 285.2 283.0 277.0 300 2009: One thousand years of changing climate Sunspot 250 activity for past 1460-1550. Spoerer Minimum: Low solar. 18 months activity coincides with period when Earth's is at lowest climate is colder than average level seen 200 for century 1550-1850, Little Ice Age: Bitterly cold winters . in Europe and North America. London's River Thames and canals in Netherlands freeze over. 150 Baltic Sea freezes, enabling sledge rides from Poland to Sweden. New York Harbour freezes people can walk from Manhattan to Staten Island 1859: 100 Sun spot superstorm is 1645-1715, Maunder Minimum: Prolonged fiercest ever sunspot minimum coincides with coldest part of recorded. Auroras Little Ice Age. Ocean temperatures fall by 1.4°C 50 turn night to 1760-1830, Industrial Revolution: Massive day as far south growth in energy consumption - through burning as Panama of coal - spreads from Britain to Europe ատվատարատվատարատվատակատարատվատարատվատարատվատակատարատվատակատարատվատակատարատվատակատակատակատակատ 0 © GRAPHIC NEWS Sources: CDIAC; EIA; Scripps Institution of Oceanography; Dr. Willie Soon, Mount Wilson Observatory; Science; PNAS