

**An impartial geologist's view of "man-made global warming":  
warming *will* continue for 100 years, making sea level rise  
about 5 metres (*sic*), but it's nothing to do with man or CO2**

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Prepare to be shocked. The United Nations Intergovernmental Panel on Climate Change (IPCC) fixation on anthropogenic (i.e. man-made) global warming (AGW), shown below to be a fallacy, has convinced much of society that "greenhouse gas" CO<sub>2</sub> is a pollutant, when in fact it's the basis of all life, via plant photosynthesis. IPCC's reports are unbalanced: the great majority of their 255 appointed, volunteer authors of "Climate Change 2013: The Physical Science Basis" pre-believe in AGW (many of them *rely* on it for government research grants). Furthermore, among these 255 authors, *astoundingly there are no sedimentary geologists*, the very scientists who know that global temperature and sea level (SL) have *always* varied (never static), and that even in past interglacial periods SL fluctuated by several metres (m), at peak rates of rise of at least 2cm/y, so there's no reason to suppose the present interglacial is any different.

IPCC asserts, based on flawed arguments (see Higgs 2016a, b), that no SL fluctuation in the period AD 0 to 1800 exceeded 25cm, hence it views the 30cm SL rise measured since about (c.) 1800 by tide gauges (in use from 1700) as unnatural, blaming it on man's large-scale industrial CO<sub>2</sub> emissions that began c.1850. However, this overlooks abundant historical evidence in England and Wales for: (1) a c.5m SL rise in early medieval time, e.g. Roman constructions buried by intertidal muds; and (2) a late medieval c.5m fall, e.g. Norman castles and ports originally reachable by seaships but now stranded several metres above SL and as much as 25km up rivers (former estuaries). The only plausible interpretation is that world SL around AD 1000, during the well-known "Medieval Warm Period", was c.5m higher than today, the rise resulting from ice melt and from polar ice sheets sliding into the sea. SL then fell, reaching 30cm below today's SL by 1800, in the "Little Ice Age" (LIA). Since then, SL has risen

30cm, accelerating from 0mm/y to today's 2.5mm/y, a geologically paltry rate but again, according to IPCC's distorted view, unprecedented since 0 AD and thus incriminating man. In fact it's pure coincidence that man's CO<sub>2</sub> emissions accompany an ongoing, natural, sun-driven, post-LIA warming (see below); they were just as likely to accompany a cooling. Besides, CO<sub>2</sub> is a global-warming *product*, emitted by warming oceans, not the *cause*.

In any case, the post-Roman warming and resulting higher SL long predated industrial CO<sub>2</sub> emissions, so what was the cause? My impartial literature survey implicates the inconstant sun (whose tiny variations are amplified by Svensmark's brilliant cosmic ray/cloud mechanism), supporting the view of many other independent scientists (claimed AGW "consensus" is untrue). I find that by comparing two published graphs, namely (1) AD 0-2000 fluctuating global average land temperature (based on proxies like tree-ring widths) and (2) solar output (measured by radioisotopes in tree rings and ice cores and, since c.1600, by sunspots), and by applying a temp. lag of 150y (attributable to the "global conveyor belt" of ocean water downwelling in the north Atlantic and upwelling in the circum-Antarctic Southern Ocean, to return north as a surface current that cools/warms adjoining continents), curves (1) and (2) match well, i.e. the temp. max. (AD 460) and min. (1840) align *exactly* with the solar pre-LIA max. (AD310) and LIA min. (1690); and throughout the intervening 1,400 years, both temp. and solar output decline progressively in sawtooth fashion, i.e. briefer increases (years, decades) are superimposed on the overall decline. Occasional mismatches record (solar-reflective) volcanic ash/aerosol eruptions.

Since the LIA solar minimum (c.1690; "Maunder Minimum"), solar output has risen overall, in sawtooth style: sunspots initially increased, then decreased from 1870 to 1905, then increased to a 1958 peak ("Modern Maximum"), then decreased to the present (all four trends had smaller-scale sawteeth). Thus, given the 150y lag, Earth is here predicted to cool (sawtooth) from 2020 to 2055, and warm from 2055 until a 2108 peak.

Cross-correlating the solar graph with the SL (tide gauge) graph reveals a shorter lag, only 120y (because Antarctica feels the changing temperature of upwelling

ocean water before other continents along the conveyor). Based on this 120y lag, global SL is predicted here to fall (sawtooth) from 1990 (sic) until 2025, then rise for five decades, peaking in 2078, 62y from now.

The 1958 solar peak, the highest since the AD310 peak that caused the c.5m medieval SL rise, substantially surpassed it. Thus, given that SL has only risen 30cm since the LIA solar minimum, a further rise of at least 4.7m is predictable between now and the forecast 2078 SL highstand. This implies (requires) rapid acceleration to >5cm/y by 2050 (cf. today's trivial 2.5mm/y), culminating in >10cm/y for three decades. The predicted cause is catastrophic sliding, into the ocean, of ground-based Antarctic ice sheets once the surrounding, buttressing ice-shelf "safety belt" reaches a threshold minimum width, due to melting by increasingly warm water that will upwell from 2025 (i.e. downwelled 120y earlier, in the north Atlantic). Once the critical threshold is breached (the "time bomb" is already set), SL rise will jump alarmingly (<1 to >10cm/y in the space of a few years?). Such a jump may explain 5th century mass migration to Britain of the Anglo-Saxons, trapped between an encroaching NW European shoreline and eastern enemy tribes; it might even explain the enigmatic Dark Ages.

Vast government spending to reduce mankind's CO<sub>2</sub> emissions, and to store CO<sub>2</sub>, will not reduce the coming c.5m *natural* SL rise; but *will* reduce co-emissions of genuine pollutants (SO<sub>2</sub>, NO<sub>x</sub>, particulates, etc.), benefitting the environment and human health. In any case, evacuation of settlements and infrastructure near SL will have to begin within 20y. The UK's £18 billion Hinkley Point C nuclear power plant (projected lifespan 60y), to be built near SL like many others globally (sea-water cooling), will be inoperable within 10-20y of the planned 2025 startup.

**Higgs, Roger 2016a.** Overlooked geological and human-historical evidence that sea-level rise will approach or exceed IPCC worst-case scenario, regardless of human action. Oral presentation, 35th International Geological Congress, Cape Town, South Africa, 30th Aug 2016, abstract.  
[http://www.geoclastica.com/Higgs16\\_abstract\\_35th\\_IGC\\_sea\\_level\\_change\\_not\\_man\\_made.pdf](http://www.geoclastica.com/Higgs16_abstract_35th_IGC_sea_level_change_not_man_made.pdf)

**Higgs, Roger 2016b.** Neglected British historic evidence for a 5m medieval global sea-level rise: portent of the Modern Rise. Oral presentation, Geological Society of America Annual Meeting, Denver, Colorado, 28 Sept 2016, abstract.  
<https://gsa.confex.com/gsa/2016AM/webprogram/Paper278985.html>