CO₂ and Sea Level Quick Questions/Answers

OPS-77

- 1. Why are Sea Levels declining pre-1856? Because temperatures were declining pre-1856 (as CO₂ was rising).
- 2. Why does Sea Level Rise decelerate and accelerate as the AMO Index rises and falls? Sea Level is reacting to the ocean's temperature changes.
- 3. Why have Sea Levels effectively risen linearly since 1856? The global average is just reflecting the individual tidal gauge linear data sets.
- 4. Is it reasonable to expect atmospheric CO₂ levels to affect Sea Level? No, ocean temperatures drive atmospheric temperatures not vice versa.
- 5. Why does CO₂ NOT correlate with Sea Level? Because while CO₂ may provide a minor warming component to the atmosphere, CO₂ is a trace component of the atmosphere, which does not control ocean temperatures.

CO₂ Sea Level Q&A Bonus Question What caused the Sea Level inflection point in 1856?

Not CO₂, since there was no change in the minor CO₂ rise. Not ocean cycles, since the ocean cycle influence (while present) is minor. That leaves solar activity (with minor volcanic contribution). Solar activity rose sporadically out of the Little Ice Age (with many inflection points). The 1856 inflection was just the most recent. The sun was volatile around 1856 and is now dropping into a Grand Solar Minimum?

