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C-14 and temperature variation around and after AD 775 - after the Dark Age Grand Minimum

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We have compiled an extensive catalog of aurora observations from the Far and Near East as well as Europe for the time from AD 550 to 845. From historic observations of aurorae and sunspots as well as the C-14 and Be-10 data, we can date the end of the Dark Age grand minimum to about AD 690; we see strong activity after this period. We can fix the solar activity Schwabe cycle maxima and minima in the 7th and 8th centuries..

The strong 14-C increase in data with 1-yr time resolution in the AD 770s (e.g. Miyake et al. 2012) is still a matter of debate, e.g. a solar super-flare. In the last three millennia, there were two more strong rapid rises in 14-C - around BC 671 and AD 1795. All three 14-C variations are embedded in similar evolution of solar activity, as we can show with various solar activity proxies; secular evolution of solar wind plays an important role. The rises of 14-C - within a few years each - can be explained by a sudden strong decrease in solar modulation potential leading to increased radioisotope production. The strong rises around AD 775 and 1795 are due to three effects:
(i) very strong activity in the previous cycles (i.e. very low 14-C level),
(ii) the declining phase of a very strong Schwabe cycle, and
(iii) a phase of very weak activity after the strong 14-C rise - very short and/or weak cycle(s) like the suddenly starting Dalton minimum.

In addition to arXiv:1503.01581 and arXiv:1508.06745, we also discuss the temperature depression and new quasi-annual 10-Be data. If a temperature depression right after AD 775 for a few decades can be confirmed, this would be fully consistent with our suggestion: reduced solar activity since AD 775 (for a few decades like in the Dalton minimum). Otherwise, one would not expect such a temperature depression after a solar super-flare.