High resolution align and difference between F10.7 and NOAA MgII solar datasets.

Post 2002 is about 10%

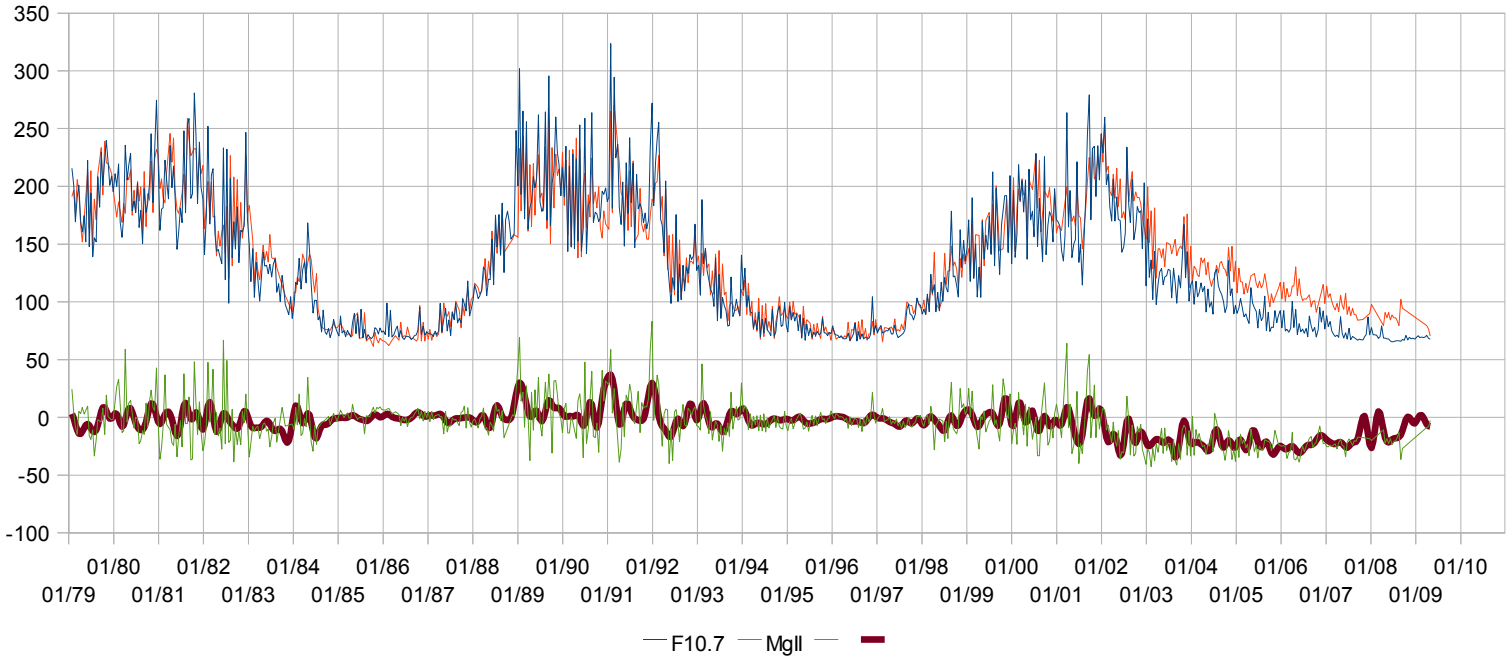


Illustration 1: See http://www.leif.org/research/MgII%20Calibration.pdf

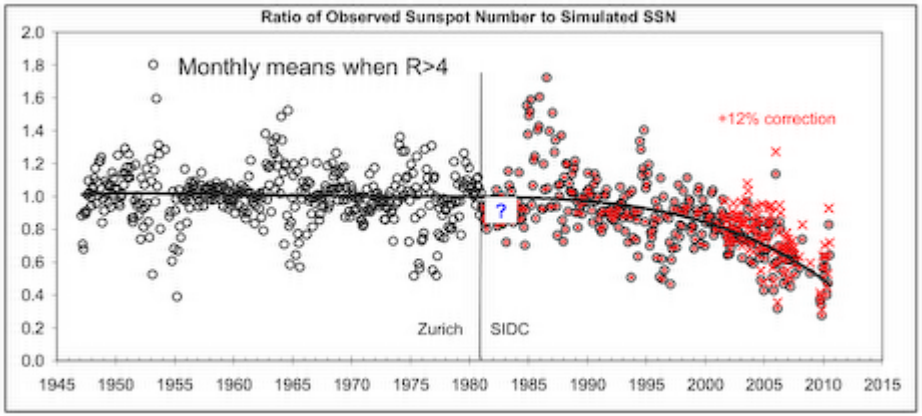
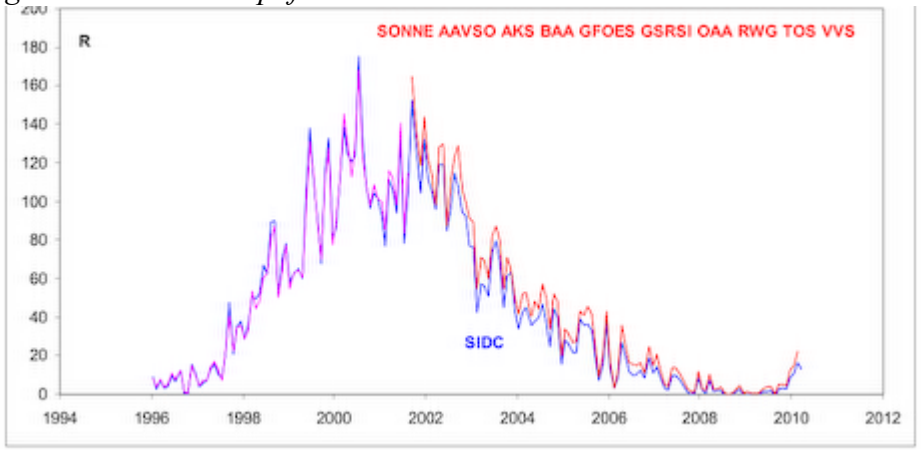


Illustration 3: From http://www.leif.org/research/SHINE-2010-Microwave-Flux.pdf



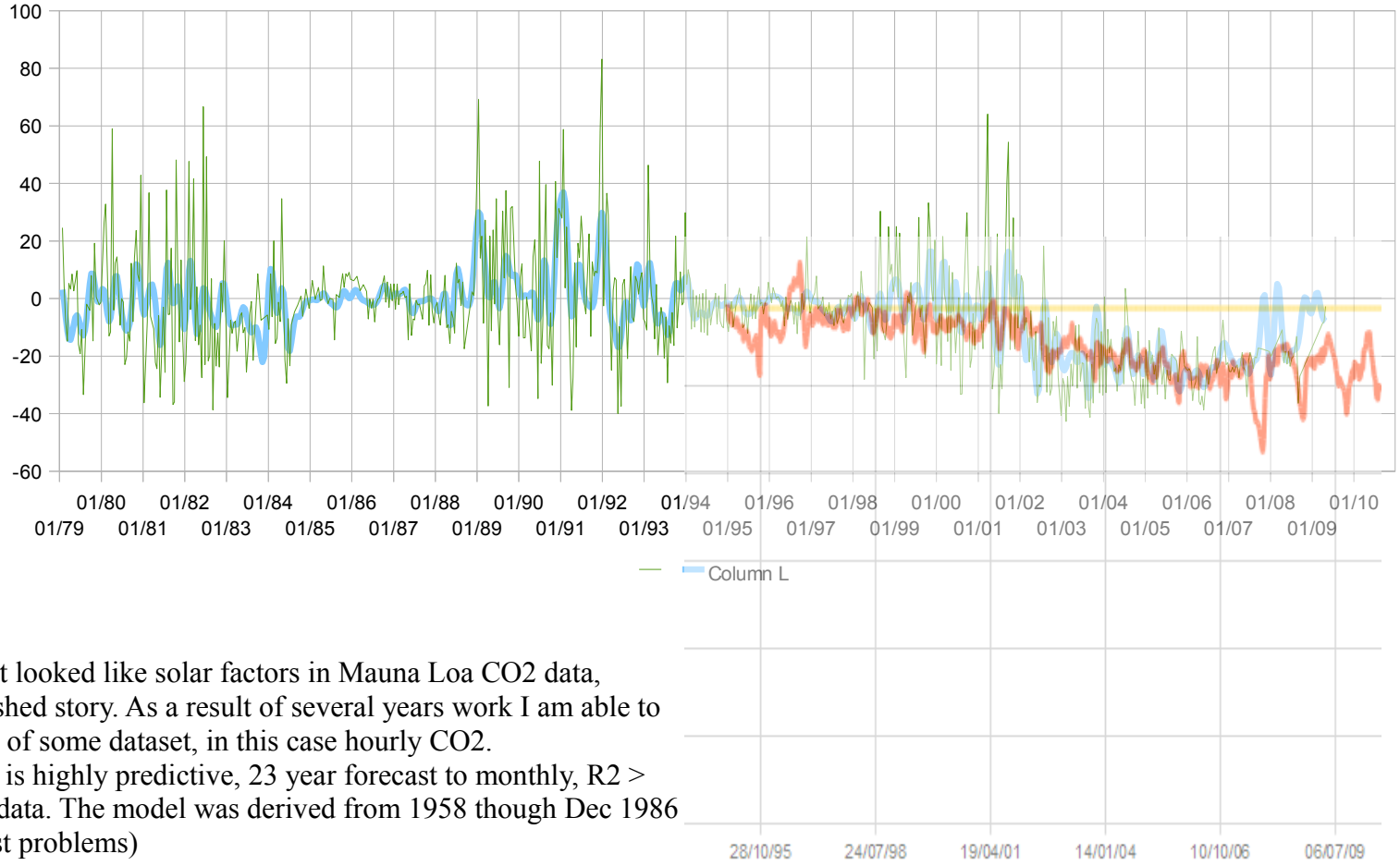
llustration 2: From http://www.leif.org/research/SHINE-2010-Microwave-Flux.pdf

Here is a strange coincidence, the composite now includes the deviation of Arctic sea ice.

Not shown, 96 to middle 08 avoiding bad end data, filter 90 days, R2 = 0.992
Ice change vs MgII/F10.7 diff.

There are unusual solar and interplenetary magnetic fields where we do not know all the effects.

Is this a satellite error which went undetected by the system people or is something real going on?



I came to this after noticing what looked like solar factors in Mauna Loa CO2 data, wherein is a long as yet unpublished story. As a result of several years work I am able to produce a high resolution model of some dataset, in this case hourly CO2.
The rebased (to monthly) model is highly predictive, 23 year forecast to monthly, R2 > 0.998 against current published data. The model was derived from 1958 though Dec 1986 hourly data. (minimising Nyquist problems)

For other reasons, also unpublished I suspect a strong northern ice linkage with CO2 data. On top of that there is a model of asymmetric solar data which is a very tight match with MLO CO2, excluding annual, R2 >0.99. The error term in the high resolution CO2 model bizarrely is R2 >0.8 to >0.9 depending on factors I am not discussing here, over the period Oct 1998 through Oct 2009 with the SIDC sunspot data. This seems to coincide with unusual solar behaviour and latitudinal solar bias. Why and what is going on is a total mystery.

Any independent data cross checks, ideas, are welcome.