

In

JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 109, A12102,
doi:10.1029/2004JA010633, 2004

The heliospheric magnetic field from 850 to 2000 AD inferred from ^{10}Be records

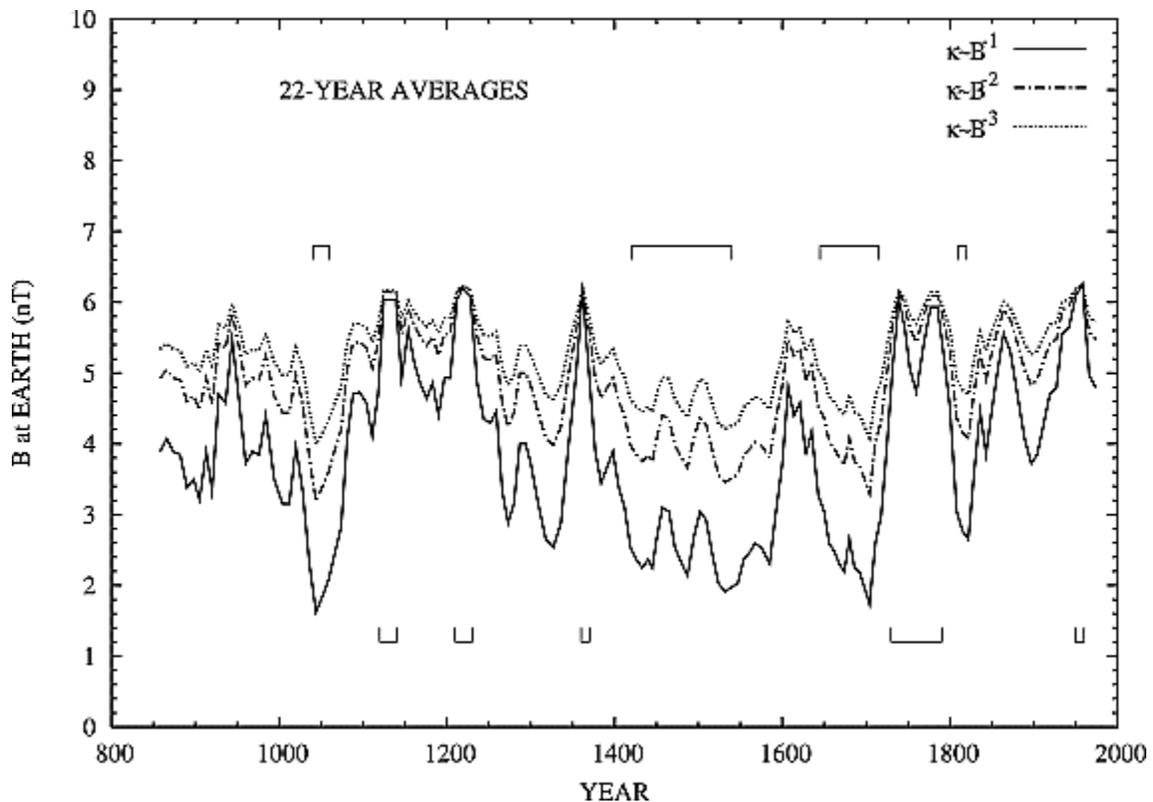
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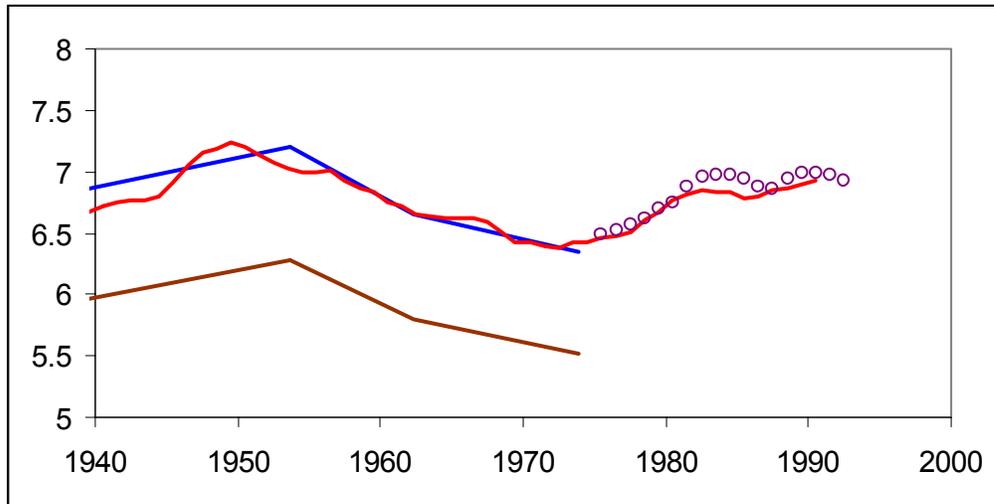
[K. G. McCracken](#) and [F. B. McDonald](#)

the authors derive the heliospheric magnetic field strength at 1 AU from ^{10}Be measurements in ice cores.

Here I compare their result with my inferred B from the Slovakia paper.
First I show one of their Figures:

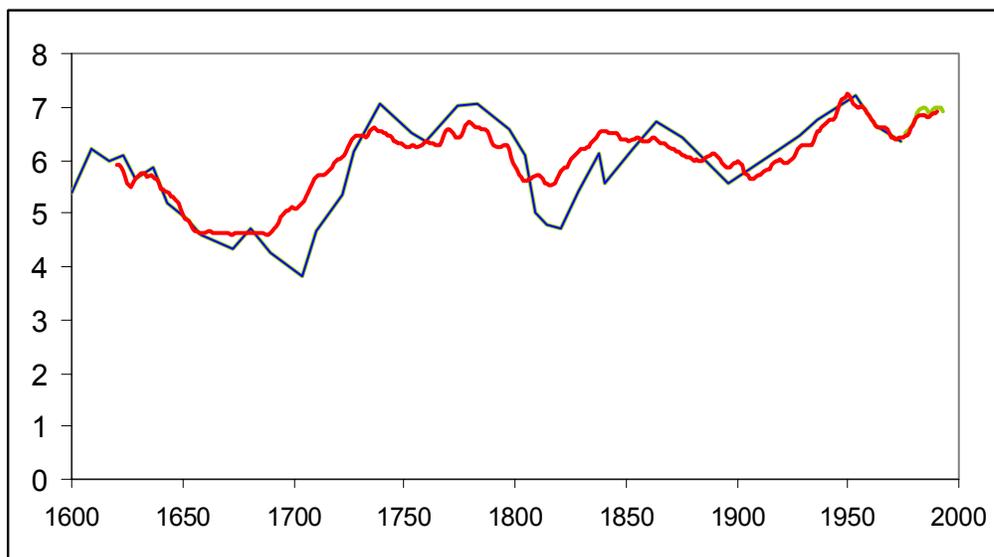


In another paper Ken McCracken advocates the use of a diffusion coefficient depending on B^{-2} (that is the middle curve in the Figure above. I carefully measured the values of their inferred B from the Figure. The values since 1940 are shown in the following Figure (brown line) together with B inferred by me in our Slovakia paper (red line) and B observed by spacecraft (open circles). Because the authors work with 22-year average, all my values are 22-year average too.



It is clear that their values (the brown line) are systematically too low. In their paper they assume a value of 6.25 nT for the average B during the spacecraft age. In actual fact, that value should be 6.7 nT (as is easily calculated from the OMNI-database). If we adjust their values by $(6.7/6.25)^2$ [see their paper why] we get the blue curve that very nicely matches our inferred values and the observed IMF.

With this adjustment we can now plot together their adjusted B and our B from the Slovakia paper. Here is the result (them: green, us: red):



There is substantial agreement.