

I appreciate the authors taking into account my previous comments. There are minor grammatical errors that the copy editor will undoubtedly address. Now that the authors have clarified the text, there are some additional, relatively minor items that should be added prior to publication. Firstly, since the shape of the residual is being used as a measure of the need for additional fitting parameters, error bars should be placed on the residuals in Figures 6, 8 and 10 (these should be the $\sqrt{\text{fitting_error}^2 + \text{temperature_error}^2}$).

Similarly, the final conclusion that the 11-year solar cycle + a long period oscillation is the superior fit relies on the increase in the correlation coefficient, r^2 , as one progresses from fits using the 11-year solar cycle with 1) linear trend ($r^2=0.6$); 2) two linear trends ($r^2 = 0.74$); 3) the Hale magnetic field ($r^2 = 0.71$; and 4) the long-period oscillation ($r^2 = 0.78$). However, the error in the correlation coefficient is not given (the 95% confidence interval of the correlation coefficient is calculated in many standard statistical packages). These should be given to ensure that the increases in the correlation coefficients are statistically significant.

Thus, the intonation that the long period oscillation fits better should be justified as above. If there are no statistically significant differences in the correlation coefficients, the conclusion must be that the different fits are equivalent. However, the author's main point that a long-period oscillation fits at least as well (and perhaps significantly better) than two linear trends would still stand and represent an important contribution. Thus, I trust that the authors would correct the text accordingly, and I would not need to review the manuscript before publication.