

Interactive comment on “What could we learn about climate sensitivity from variability in the surface temperature record?” by James Douglas Annan et al.

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Thank you for your helpful comments. We will add some extra ranges to the values to help with comparisons.

Section 3.1 Yes in part this is the case. We cannot accurately infer the intrinsic time scale when the time series is not long compared to it.

Sec 4. p11 Possibly, but we don't think such a simple model can address this with much precision. Weak results relating to the annual cycle were obtained by: Knutti, R., Meehl, G., Allen, M. R., & Stainforth, D. A. (2006). Constraining climate sensitivity from

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the seasonal cycle in surface temperature, *Journal of Climate* 19(17), 4224–4233.

Sect 4 yes we will note this. Hemispheric models take advantage of this point.

l25 Noted thank you

Table 1 We will include these values.

Interactive comment on Earth Syst. Dynam. Discuss., <https://doi.org/10.5194/esd-2019-90>, 2020.

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