

Climate Sensitivity Reconsidered

Author's reconciliation of reviewer's requested revisions

Reviewer: Professor Alvin Saperstein, Professor of Physics, Wayne State University, Detroit, Michigan

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Figures and tables

Labeling: There are no ordinate or abscissa labels on many figures. **All figures now redrawn and relabeled clearly**

Figure captions: No clear separation between figure-captions and general text. **Captions now drafted and set in italics**

Tbl. 2 I don't understand it. **Table now removed: new Table 2 inserted, captioned, and explained**

Fig. 1 appears to contradict Fig. 2: in 1, T_S is going down; in 2 it is going up.

[Comment on this discrepancy, on the actual data of past years, not on the projections].

Explanation now provided that the NCDC dataset anomalously shows a rising trend

Fig. 2 can't read figures on left. **Figure now clarified**

Fig. 4, 5 can't read at all. Don't understand them, or where they came from. Some hints needed.

Figures now clarified, captioned, and explained fully in the text

Fig. 6 no ordinate labels. Don't understand it, or where it came from. Some hints needed.

Figure now labeled, clarified, captioned, and explained fully in text

Fig. 7 is clear. Make more of it: it contradicts the GW claims. **Discussion paragraph on this figure now added**

Fig. 8 has overprinting, making it very hard to read or understand. I don't understand it. **Figure clarified and explained**

Definitions

" T_S ": People mean different things about T_S ; clarify that further. **Now defined clearly at the beginning of the paper**

"Radiative forcing": Define it. **Now defined clearly early in the paper**

" $_F$ ": Define it. Is it directly measurable? If so, what data do we have? [you criticize IPCC for not providing a definition!]

Definition and discussion of this parameter now provided

"Other anthropogenic forcings": What is meant by this? Why are they net-negative? **New table and explanation added**

"Temperature feedback": Define it. Feedback of what to what? **Now defined clearly early in the paper**

"Unamplified temperature feedback": Define it. **Now defined and explained as not yet amplified by other feedbacks**

"Laboratory experiments": Describe them in outline. **Outline now provided in the text**

"Greenhouse-gas forcing": Define it. How is it distinct from other forcings (what are they)? **Distinctions now clarified**

"Aggregate forcing": Define it. **Term now defined at point of use**

"Linear/non-linear feedbacks": thought feedbacks made all systems non-linear.

Yes: but Bode's equation was designed only to address objects that were initially linear

"Forcing": I don't understand why forcing can't be measured. that shows that I don't understand the difference between solar flux incident on top of atmosphere and "forcing", which takes us back to the initial need for clear explanatory definition.

Now fully clarified in the text

"Feedback": I don't know the difference between "forcing" and "feedback". If "forcing" is not just external energy flux, than I would assume it includes "feedback". What do you mean? **Definitions now amplified and clarified in the text**

Equations

Eq. 1 Where does it come from? **All terms now defined at point of first use**

Eq. 2 Is this a definition or is it derived? If the latter, how? **Eq. 2 is the Bode feedback-amplification equation**

Eq. 3 Is this a definition or is it derived? If the latter, how? **The source for Eq. 3 is now cited at point of use**

Eq. 4, 5 Do they follow from Eq. 2 and 3? If so, say so; if not, hint where they come from.

Eq. 4's value is derived from IPCC central estimates as summarized in the new Table 1

Eq. 5 is the IPCC's definition (IPCC, 2001: ch. 6.1)

Eq. 6's derivation from Eq. 5 is now fully explained

Eq. 11 What does it mean? **This equation evaluates the CO₂ feedback: it is now fully explained at point of use**

Conclusion: Should be longer and stronger. **Discussion, conclusion, and acknowledgements now added**

References: Will be needed. **References now added**

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