

Interactive comment on “Large-scale and synoptic meteorology in the South-East Pacific during the observations campaign VOCALS-REx in Spring 2008” by T. Toniazzo et al.

Anonymous Referee #1

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General Comments

The manuscript is a collection of data from a wide variety of model, reanalysis, and observational sources. As such it forms an interesting album of conditions, variability, and context for the southeastern tropical Pacific during VOCALS REx. Such an album should be published somehow, perhaps as a technical report, but in its current presentation it does not have the merits of a scientific article. The organization is poor. Discussion skips around many phenomena. Though the possibility to do so exists, the manuscript makes few novel scientific contributions to any of them.

The presentation is not suitable for peer review, let alone publication (online or in print).

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The text should have been professionally edited before submission. Figures present a large amount of data, but some are difficult to interpret or even illegible. The text does not match what is shown in figures. Were its figures consistently intuitive and clear, I would want to cite this paper.

Specific Comments

Eventually my ability to understand and review the manuscript fairly gave way to frustration. I gave up reading on p. 245, but I attach an annotated PDF with my comments, such as they are. I considered the author's comment (to add an outline of sections) in this review.

Comments on Figures ACP wiped from annotated PDF:

Fig. 1: Show gradients in H_{inv} by putting all (and more) pink contours on one panel. This structure looks barotropic; why show so many panels?

Fig. 2: Add '500-700 hPa' and '200-500 hPa' to panel titles.

Fig. 3,4: Add diagnosed inversion. No model verification is given (see Abel 2010?)

Fig. 6,7: small multiples too small! can't see. Fig. 6 ordering confusing.

Fig. 8: Label colorbar LTS. Add Θ_{5km} to caption. Use consistent time axis (preferably month date).

Fig. 9: acknowledgement for RHB soundings and UKMO model?

Fig. 10: cut panels b,c; perhaps replace with synoptic indices.

Fig. 11: define units 'hm'

Fig. 12 et al.: Use consistent time axis.

Fig. 13b: Bold significant regions.

Please also note the supplement to this comment:

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<http://www.atmos-chem-phys-discuss.net/11/C266/2011/acpd-11-C266-2011-supplement.pdf>

Interactive comment on Atmos. Chem. Phys. Discuss., 11, 225, 2011.

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