**Ocean Science
Discussions**

Interactive comment on "Fast thermistor string observations at the slope of Great Meteor Seamount" *by* H. van Haren et al.

H. van Haren et al.

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Reply to Referee #1commenting on manuscript OSD-2004-0003

As can be understood from the abstract the paper is about the instrument (T-string) and its performance is elucidated with some examples from the sloping bottom boundary layer above GMS. We disagree with the referee that new science is obtained by doing 'some Thorpe scale calculations', as anyone who has calculated Th-scales knows. The thermistors are spaced 0.5 m apart, which is already large for estimating Thorpe scales, and, moreover, the range is limited (due to several groups of sensors failing). It may be worthwhile to compare with Th-scale estimates made using a microstructure profiler, but we do not have suitable measurements available from positions next to the mooring. We have indicated why we constructed this T-string, and what processes we want to study with it. The reviewer has given far too-few well-argued comments to conclude that our paper should not appear in a peer-

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reviewed journal. The detailed comments, for which we thank the referee, can easily be dealt with. We thus refute his/her conclusive remark. This will be clear from our replies to the detailed comments given:

1. We did. 2. OK can be rewritten. 3. We do not completely agree with this, as this depends on the accuracy that one wants and N varies with time and space. But, we will change our remark. 4. OK figure can be supplied. 5. OK can be moved to the calibration section. 6. 1 m bin size. We can add a sketch of the mooring. 7. Bar is not a depth unit. Will sort rest out. 8. OK can give Ref. 9. Will moderate. 10. May be, may be not. 11. Will go through text of calibration. No, we disagree and find the thermistors not very noisy: 1std =0.0005-0.001 degree C, which is very close to the value estimated on beforehand from the electronics set-up (0.001 degree C). The divergence occurs when the data fall outside the calibration window (as indicated between 11-14 degree C). The present calibration is not valid for temperatures outside this range, due to the non-linearity in the transfer to engineering units. We will mention this more clearly in text. No, we are not trying to calibrate using the moving CTD package. 12. Or a better ref? 13. More information on what? 14. Divided by 15. Paper is about T-string performance not primarily on details of ADCP knowledge. Nevertheless we will add a bit of explanation; we can recommend that users of ADCP get into the details of the instrumentation. 16. Will rewrite 17. Why? For a standard Seabird-911 CTD?? But, we can give a few details in the text. 18. Axis in yeardays conveniently links the different figures. Seconds/minutes/whatever does not do so, but we will consider this remark. 19. OK; No, white rectangle does not refer to [5]c but to Fig 8c, as indicated. 20. Disagree, depends on what one wants to see. This is for overview, not details. 21. Ditto.

Interactive comment on Ocean Science Discussions, 1, 37, 2004.