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Ocean Science Discussions

Interactive comment on "Coastal upwelling along the southwest coast of India – ENSOmodulation" *by* K. Muni Krishna

Anonymous Referee #4

Received and published: 26 June 2008

Although I was given only 3 days to provide this comment, I'll try my best to say something resonable to this paper.

General Comment: This paper provides an interesting and relevant assessment of the potential for predictability of upwelling along the southwest coast of India that effect SSTs on the basis of ENSO events. Predictive skill in the upwelling along the Indian coast for one or two months in advance could provide crucial information for fishery.

Specific comments:

The paper is well and concisely written, however, the statistical assessment of the hindcast skill is currently quite rudimentary. Specifically, the author cannot base his assessment of potential predictability of SSTs on just 2 ENSO events. Moreover, as

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already mentioned in a previous comment, the author mixes calibration and verification periods and data. I would suggest to use the so-called leave-one-out method, that is to perform the linear regression for n-1 (n=33 in this case) years, leaving out just the particular year that you want to verify. Then do the prediction for that particular year. This can be repeated 33 times, giving you a 33-year statistics of forecasts, from which you could derive a real skill score (for example the correlation skill score). This method should work if there is not too much autocorrelation in the data, which does not seem to be the case. This method is described for example in Coelho et al., 2004, J Climate, 17, 1504-1516. Alternatively the author could split the data into a calibration and verification period, but this reduces the number of verifications that can be performed.

Technical comments: page 125, line 4: replace 'winds stress' by 'wind stress'

No time for more technical comments....

Interactive comment on Ocean Sci. Discuss., 5, 123, 2008.

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