

***Interactive comment on “Cluster analysis of
midlatitude oceanic cloud regimes – Part 1: Mean
cloud and meteorological properties” by
N. D. Gordon and J. R. Norris***

Anonymous Referee #3

Received and published: 29 March 2010

This is a very nice contribution to the study of clouds and their relationship to circulation systems. The application of the cluster techniques to extratropical clouds has not been comprehensively published before, although the study by Williams and Tselioudis (2007) included some short analysis of extratropical clouds using similar techniques to the ones presented here. The analysis of the "dynamical" background in which the clusters occur is interesting and the paper generally adds to the body of knowledge. The technical execution is mostly fine. I have a few minor comments:

p1570, l 4: I do not understand how southwesterly can be defined "in a Northern Hemisphere sense". Southwest is southwest, the hemisphere has no influence on

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that. There is another such strange reference on p 1571, l6.

p1573, par 1: I am not convinced that the ISCCP data is sufficient to assert that cluster 4 is dominated by mid-level top clouds. Due to the nature of the data, this could well be a mix of transparent high clouds overlying thick low clouds, which ISCCP would likely interpret as mid-top clouds. I suggest being a little more careful in the interpretation of the results here.

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 1559, 2010.

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