MR3252: Tropical Meteorology

Paper Summary for Wheeler and Kiladis (1999): Please answer the following questions with as much detail as possible. Your answers may be in paragraph form or list form as appropriate.

1. What were the authors' primary research questions, goals, and/or hypotheses?

2. What motivated the authors to conduct this study?

3. How did the authors execute this research? What data did they use? How did they use these data?

4. What are some potential key limitations in this study, including those that were explicitly mentioned in the article?

5. What were the article's central conclusions? How did they relate to the primary research questions and/or hypotheses? (i.e., If possible, match a conclusions or set of conclusions to each research questions and/or hypothesis.)

6. What is equivalent depth?

7. What are the asymmetric and symmetric components of the OLR power spectrum?

8. What is the difference between a dispersive and non-dispersive equatorial wave? Of the waves shown in the Hovmöller plots in Fig. 9, which waves are non-dispersive? How would you prove this mathematically? (You don't have to prove this here, but I'm asking how you would.)

9. By looking at a Hovmöller plot, how can you tell if a wave is propgating eastward or westward?