

COMPARISONS OF TIDES FROM MODELS AND OBSERVATIONS: RESULTS FROM THE CAWSES GLOBAL TIDAL CAMPAIGNS

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Tidal signatures have been determined from general circulation models and observations for the CAWSES Global Tidal Campaigns project (this is one of the projects which was initiated under the CAWSES (Climate and Weather of the Sun Earth System program, a SCOSTEP sponsored program). These comparisons indicate that while the general form of the tides in the mesosphere and lower thermosphere is simulated by the models, specific features are not. A particularly stringent comparison is to compare the superposition of tidal components for a particular period in the mesosphere and lower thermosphere with those determined from observations. Correct simulation of the tides requires the components to have correct amplitudes and phases. This generally is not possible for models at the present time as it requires both the source distributions and atmospheric filtering in the model to coincide with the conditions during the observation period. In this talk we show results of comparisons and discuss the directions for improvements in comparisons to proceed in the future.

Atmospheric Tides Dynamics, Mesosphere and Lower Thermosphere

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