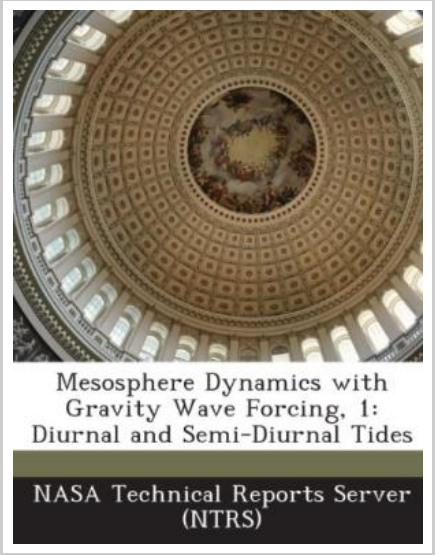

Mesosphere Dynamics with Gravity Wave Forcing, 1: Diurnal and Semi-Diurnal Tides

By -

Bibliogov, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.We present results from a nonlinear, 3D, time dependent numerical spectral model (NSM), which extends from the ground up into the thermosphere and incorporates Hines Doppler Spread Parameterization for small-scale gravity waves (GW). Our focal point is the mesosphere that is dominated by wave interactions. We discuss diurnal and semi-diurnal tides ill the present paper (Part 1) and planetary waves in the companion paper (Part 2). To provide an understanding of the seasonal variations of tides, in particular with regard to gravity wave processes, numerical experiments are performed that lead to the following conclusions: 1. The large semiannual variations in tile diurnal tide (DT), with peak amplitudes observed around equinox, are produced primarily by GW interactions that involve, in part, planetary waves. 2. The DT, like planetary waves, tends to be amplified by GW momentum deposition, which reduces also the vertical wavelength. 3.Variations in eddy viscosity associated with GW interactions tend to peak in late spring and early fall and call also influence the DT. 4. The semidiurnal semidiurnal tide (SDT), and its phase in particular, is strongly...

Reviews

An exceptional pdf and the typeface utilized was fascinating to read through. It can be writter in straightforward words and phrases instead of confusing. I am just quickly could possibly get a delight of looking at a written ebook.

-- ***Prof. Arlie Bogan***

It in a single of the best book. This is for those who statte there had not been a well worth reading through. Once you begin to read the book, it is extremely difficult to leave it before concluding.

-- ***Dr. Barney Robel Jr.***