

Interactive comment on “Influence of the sudden stratosphere warming on quasi-2 day waves” by S.-Y. Gu et al.

Anonymous Referee #2

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General comments:

The authors use the thermosphere-Ionosphere-Mesosphere-Electrodynamics General Circulation model to model the effect of the sudden stratospheric warming on the quasi-2-day wave (QTDW). They investigate the non-linear interaction of the QTDW with westward zonal wavenumber 3 (W3) and the stationary planetary wave with zonal wavenumber 1 and show that a QTDW with westward zonal wavenumber 2 can be produced.

Specific comments:

I agree with the specific comments of referee nr. 1 in addition I was wondering:

- 1) Why has the analysis of the W3 wave been performed in the meridional wind at 82

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km, 7.5 S and days 25-30

- 2) Why are days 15-20 chosen for the analysis of the W2 and not the same time period as for the analysis of the W3?

- 3) Why has the analysis of the W2 wave been performed in the meridional wind at 100 km, 2.5 N and during days 15-20?

- 4) In the caption of Figure 5 the authors state that the analysis of the W3 has been performed at 22.5S and ~90km. However, in the text describing Figure 5 (page 11, line 226f), the authors state that the analysis of the W3 wave has been performed at ~82 km and at 7.5S. Which coordinates have been used?

Technical corrections:

- 1) Page 15, Line 313: Barotropic/baraclinic => barotropic/baroclinic

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