

## ***Interactive comment on* “Self-sustained Oscillations in the Atmosphere (0–110 km) at Long Periods” by Dirk Offermann et al.**

**Dirk Offermann et al.**

offerf@uni-wuppertal.de

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Response to Anonymous Referee #1

Thank you for your review.

Your Comment: “Have you considered possible interpretation of your results in terms of stationary waves with vertical wavelength of 21 km (Fig.11)?” Reply: As we stated in Sections 4.1 and 5 of our paper we do not yet know the nature of the self-sustained oscillations. We avoided to interpret them in terms of “waves” for two reasons: 1) Typical atmospheric waves show an exponential amplitude increase with altitude, which is not the case for our oscillations (see Fig.1 and related text). 2) At the long periods discussed diabatic processes should be dominant. A possibility might be the modula-

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tion of atmospheric waves by the long period oscillations. This appears, however, to be a long shot. Furthermore, our oscillations appear to be influenced by changes in the (seasonal) wind direction. This would be difficult to understand for a stationary wave.

Your technical comment, Line 489: “intermittent” has been corrected. Thank you!

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