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Supporting Information for

Evolution of an atmospheric Kármán vortex street from high-resolution satellite winds: Guadalupe Island case study

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Additional Supporting Information (Files uploaded separately)

Captions for Movies S1 to S5 corresponding to files horvath_etal-ms01.mp4, horvath_etal-ms02.mp4, horvath_etal-ms03.mp4, horvath_etal-ms04.mp4, and horvath_etal-ms05.mp4.

Introduction

This supporting information provides MPEG-4 animations of GOES-16 images and the corresponding derived local wind components and vorticity. Movie S1 composed of infrared and visible band satellite images covers a longer period between 9 May 2018, 00:02 UTC and 10 May 2018, 02:42 UTC in order to give a broader context for the studied Guadalupe vortex street. Animations of derived quantities only cover the 8-hr period between 14:37 and 22:32 UTC on 9 May 2018, for which local wind retrievals are available. Movies S2, S3, S4, and S5 show the 8-hr evolution of the variables that were plotted, at four specific time steps, in Figures 6, 7, 8, and 9 of the main article. The time interval between individual images is 5 min in all animations.

Movie S1. Animation of GOES-16 band 7 (3.9 μm) and band 2 (0.64 μm) images of the Guadalupe study domain, mapped in cylindrical equidistant projection for the period between 9 May 2018, 00:02 UTC and 10 May 2018, 02:42 UTC at 5-minute intervals.

Movie S2. Animation of GOES-16 local wind vectors on 9 May 2018 between 14:37 and 22:32 UTC at 5-minute intervals. The wind vectors were median-filtered and resampled without smoothing on a 6.3-km UTM grid and colored according to wind speed.

Movie S3. Same as Movie S2, but for the streamwise wind component V smoothed with a 3×3-gridbox averaging window.

Movie S4. Same as Movie S2, but for the transverse wind component U smoothed with a 3×3-gridbox averaging window.

Movie S5. Same as Movie S2, but for the vorticity ζ smoothed with a 3×3-gridbox averaging window.