

# Aviation Turbulence Induced by the Interaction between a Jet Stream and Deep Convection

Haoming Chen<sup>1</sup>, Xiaoming Shi<sup>1</sup>, Christy Yan Yu Leung<sup>2</sup>, Ping Cheung<sup>2</sup>, Pak

Wai Chan<sup>2</sup>

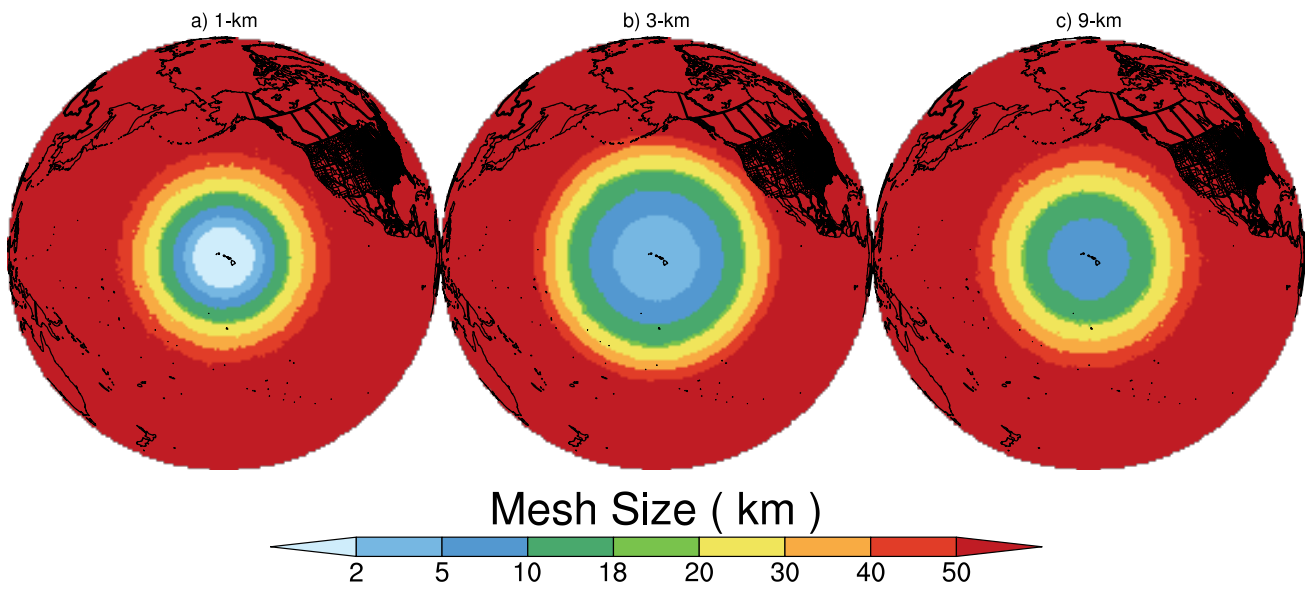
<sup>1</sup>Division of Environment and Sustainability, Hong Kong University of Science and Technology, Hong Kong, China

<sup>2</sup>Hong Kong Observatory, Hong Kong, China

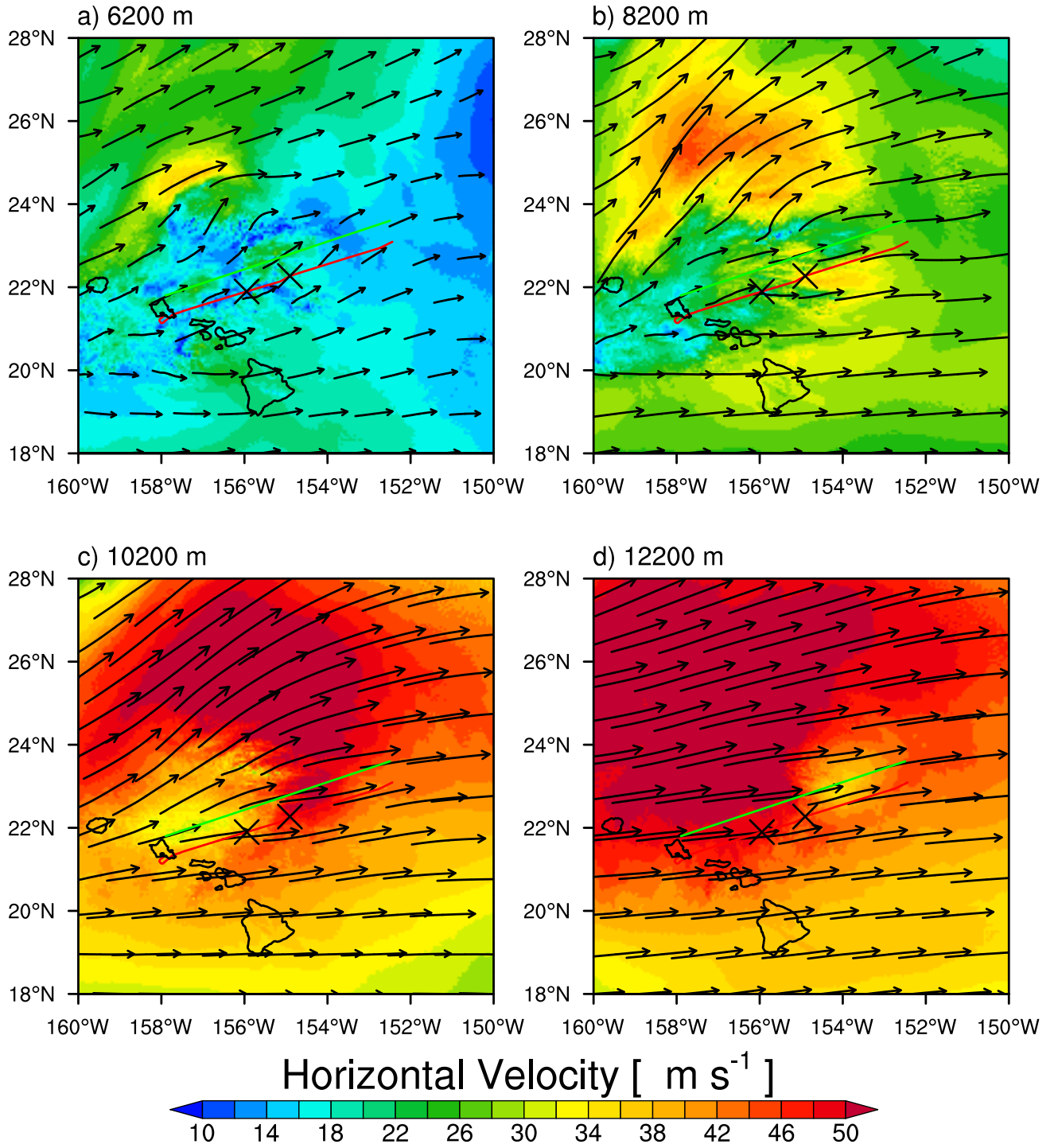
## Contents of this file

1. Figure S1
2. Figure S2
3. Figure S3

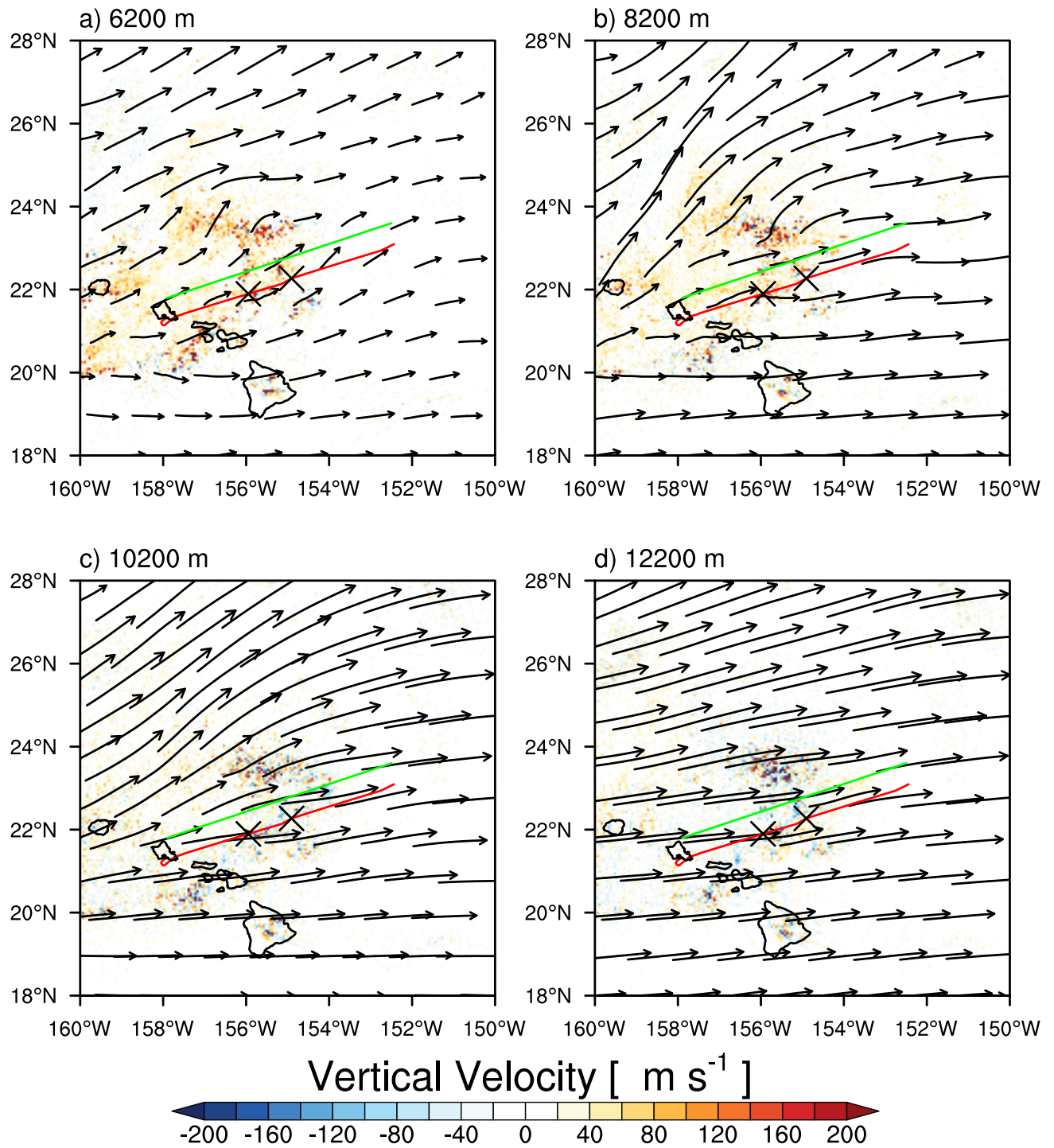
---



**Figure S1.** Global variable-resolution mesh size distribution in the variable-resolution a) 1 ~ 60 km, b) 3 ~ 60 km and c) 9 ~ 60 km experiments.



**Figure S2.** Horizontal distribution of the wind speed at at December 18, 2022, 20:10 UTC from different levels a) 6200 m, b) 9200 m, c) 10200 m and d) 12200 m. The red line represents the path of the airplane, the two notations represent the positions of possible turbulence events.



**Figure S3.** Vertical distribution of the wind speed at at December 18, 2022, 20:10 UTC from different levels a ) 6200 m , b ) 9200 m , c ) 10200 m and d ) 12200 m . The red line represents the path of the airplane, the two notations represent the positions of possible turbulence events.