

Fig. 1 Temporal change of vorticity ζ_z (a, b, c, d) and ω_z (e, f, g, h) on the south-north vertical cross-section during 480s to 660s. Shaded color, vectors, and contours indicate vorticity, wind velocity, and potential temperature, respectively.

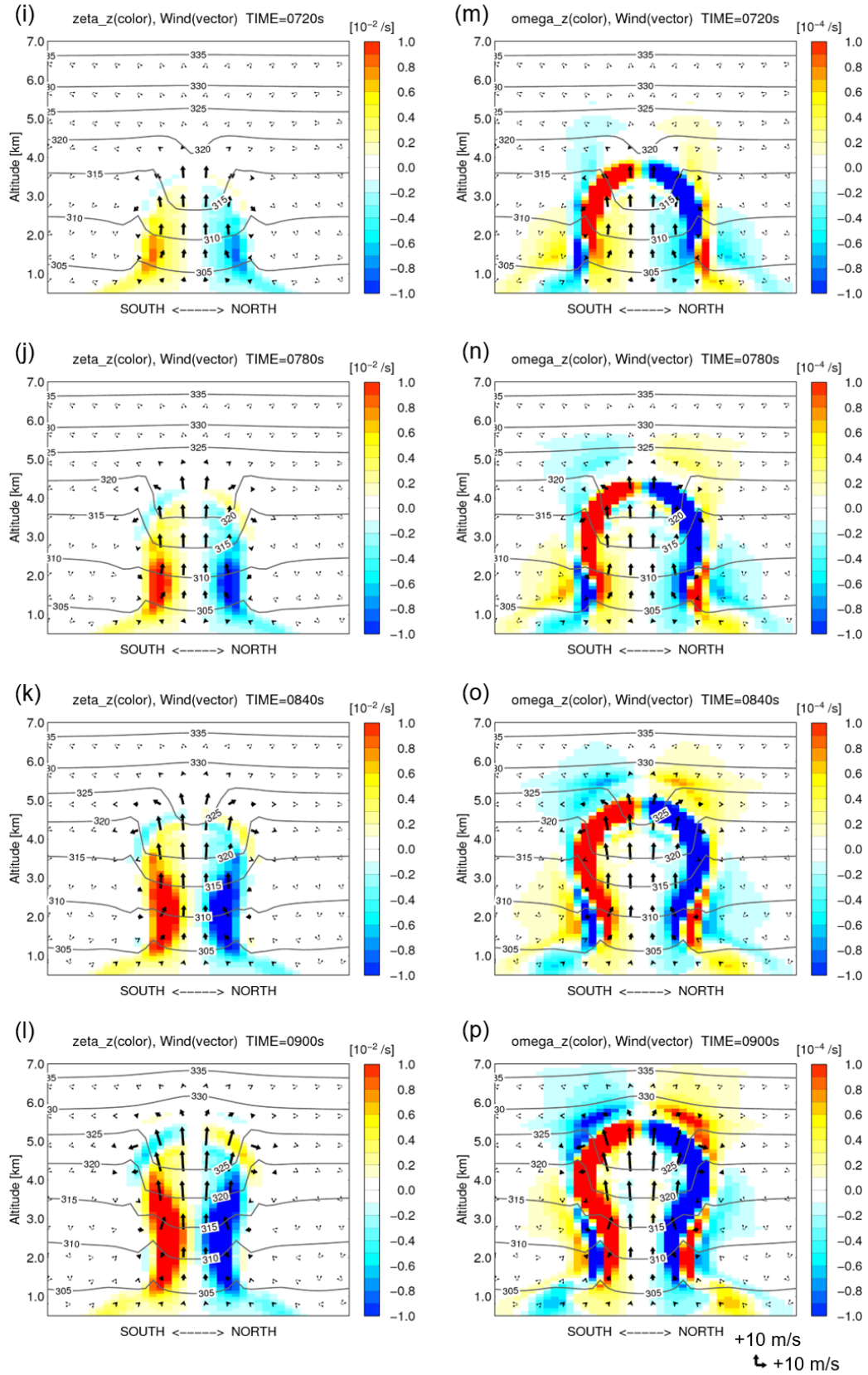


Fig. 1(sequel): Temporal change of vorticity ζ_z (i, j, k, l) and ω_z (m, n, o, p) on the south-north vertical cross-section during 720s to 900s.

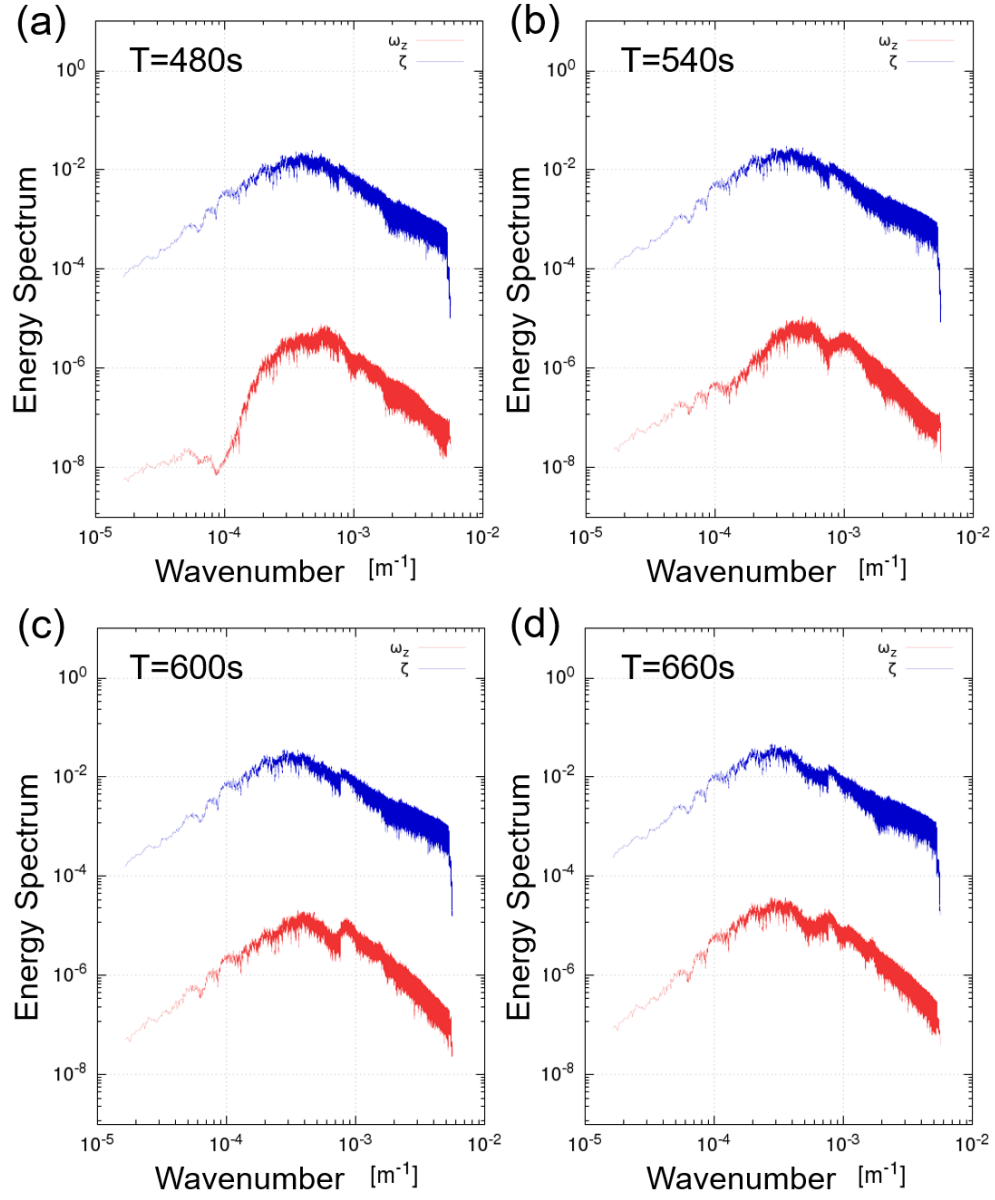


Fig. 2 Temporal change of energy spectrum of vorticity field indicated in Fig. 1. Blue line and red line indicates spectrum of ζ_z , and ω_z , respectively.

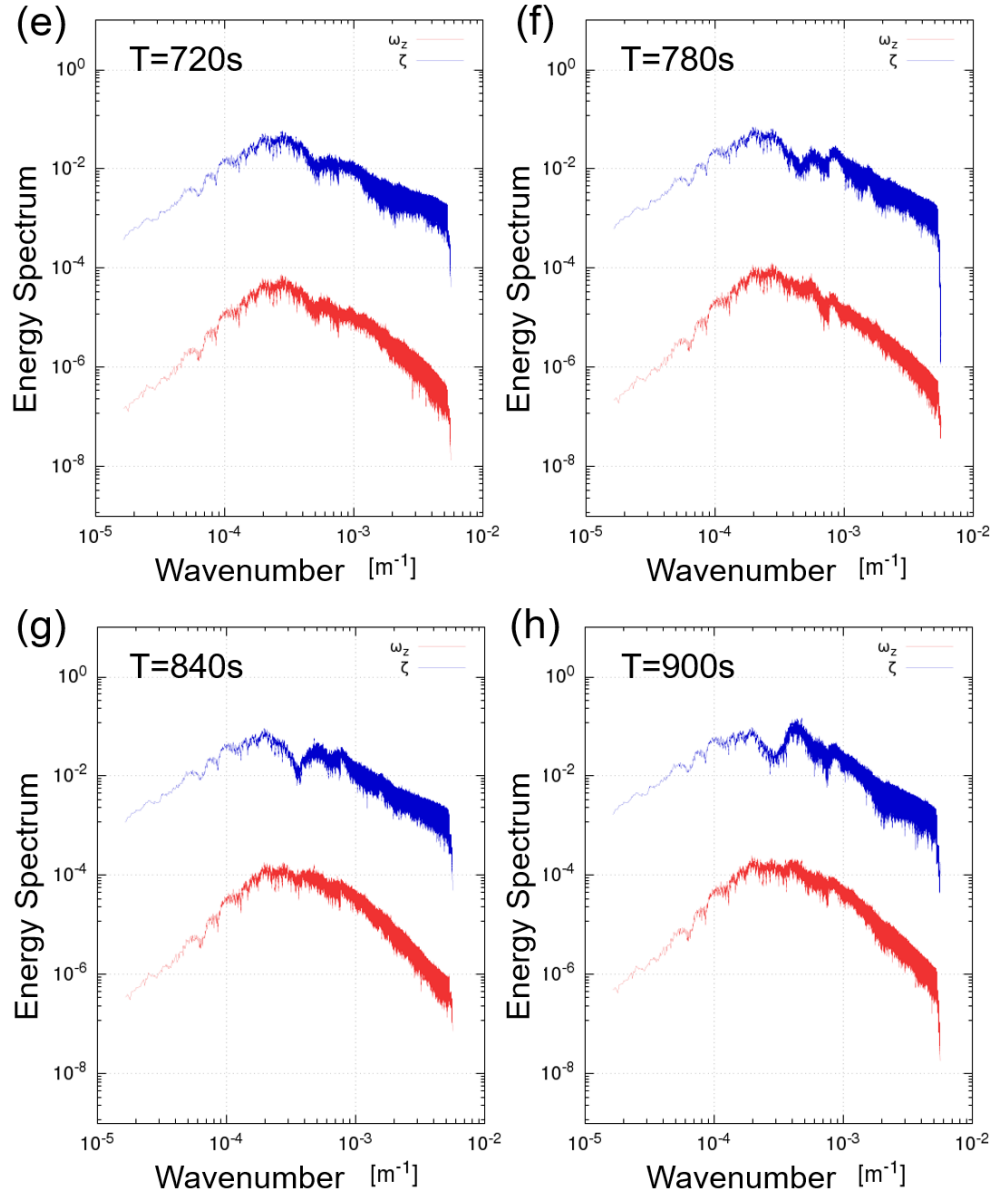


Fig. 2(sequel): Temporal change of energy spectrum of vorticity field indicated in Fig. 1.

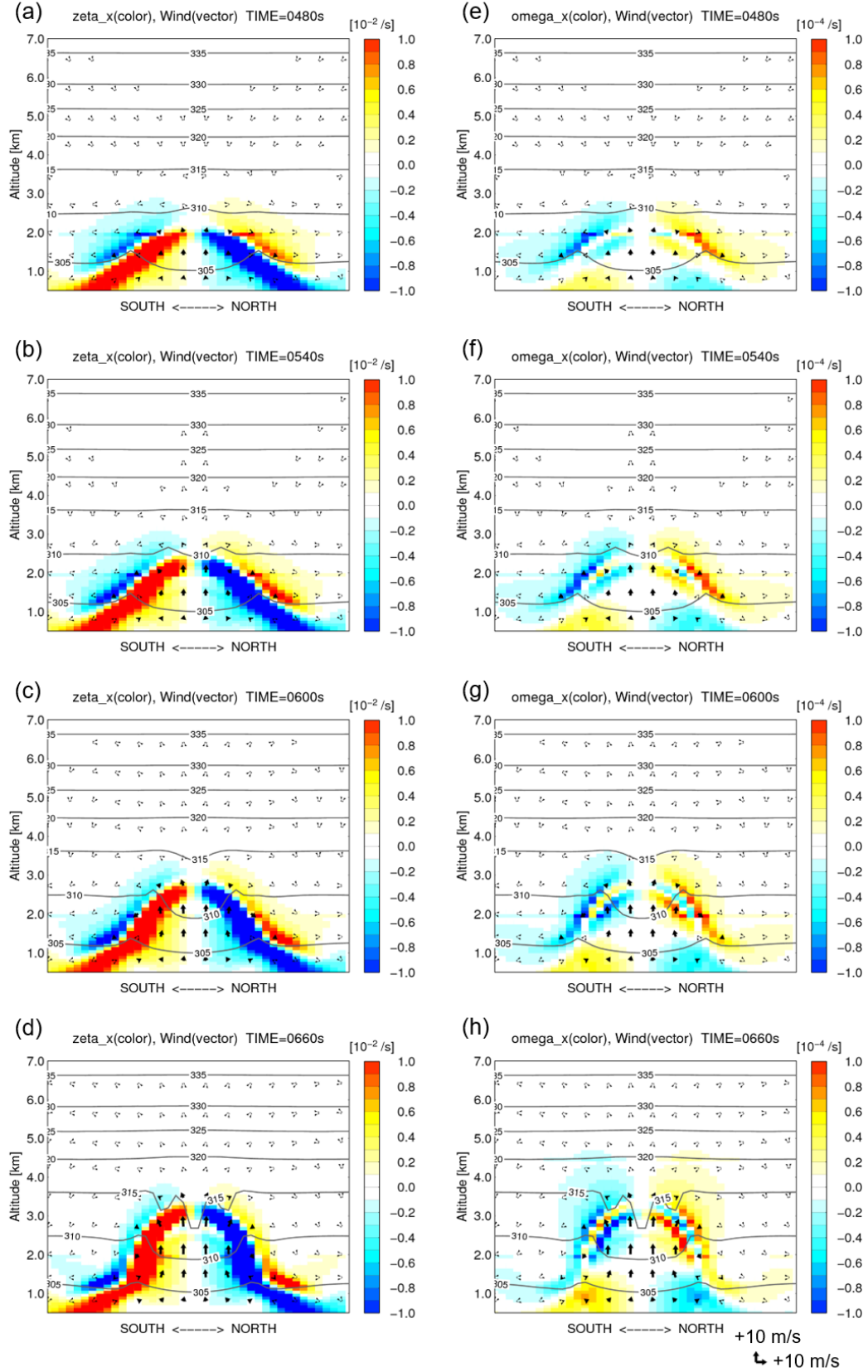


Fig. 3 Temporal change of vorticity ζ_x (a, b, c, d) and ω_x (e, f, g, h) on the south-north vertical cross-section during 480s to 660s. Shaded color, vectors, and contours indicate vorticity, wind velocity, and potential temperature, respectively.

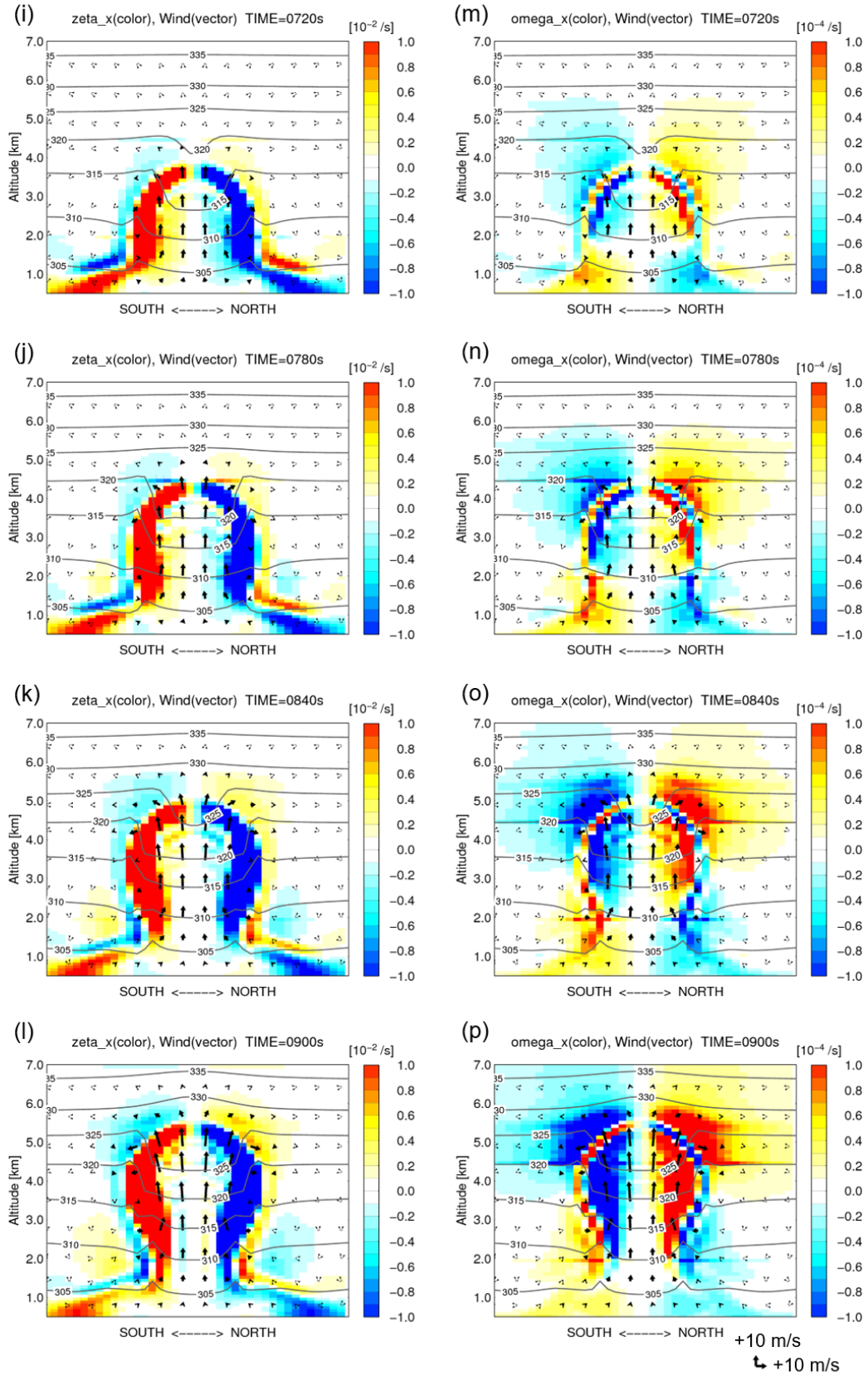


Fig. 3(sequel): Temporal change of vorticity ζ_x (i, j, k, l) and ω_x (m, n, o, p) on the south-north vertical cross-section during 720s to 900s.

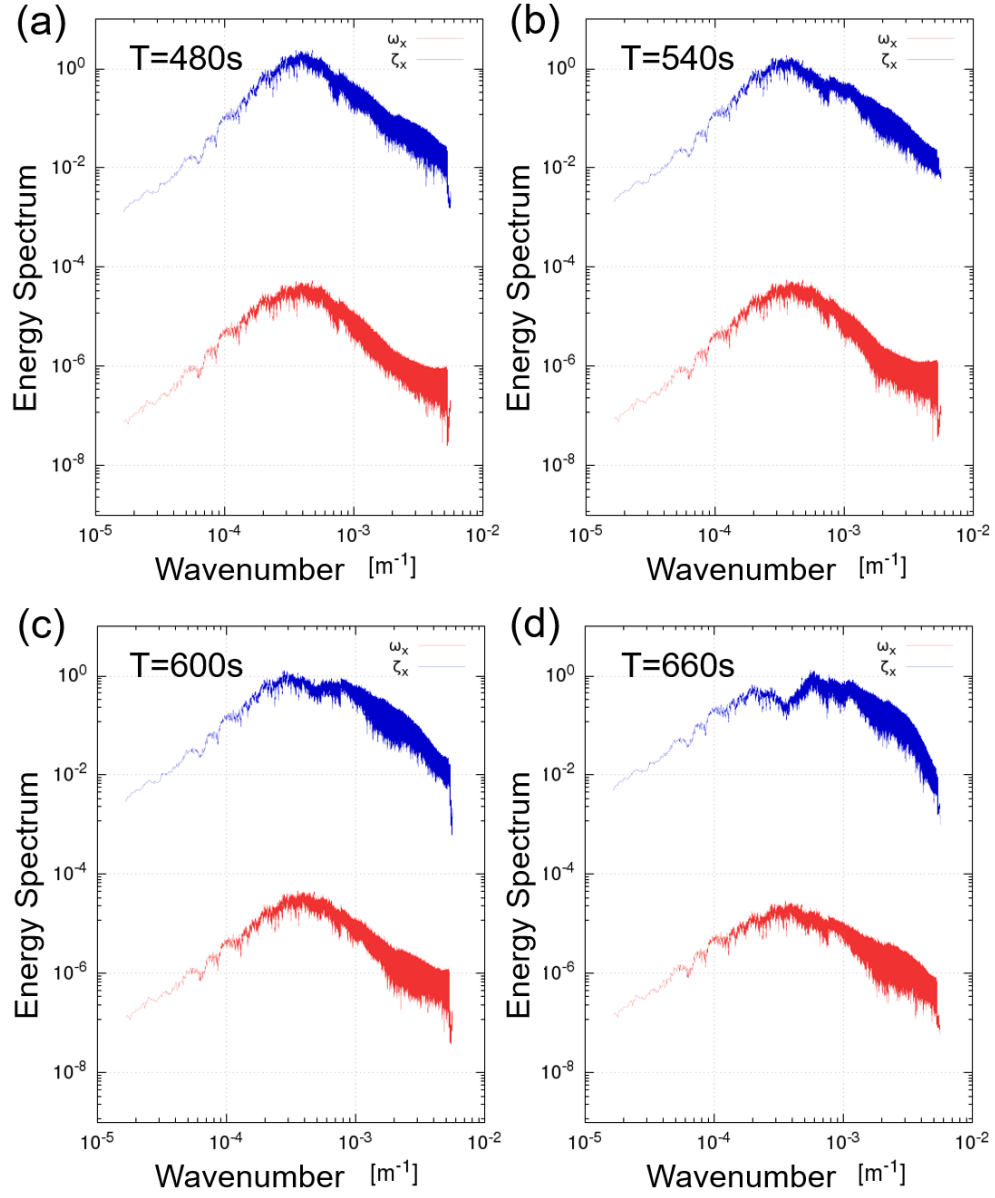


Fig. 4 Temporal change of energy spectrum of vorticity field indicated in Fig. 3. Blue line and red line indicates spectrum of ζ_x , and ω_x , respectively.

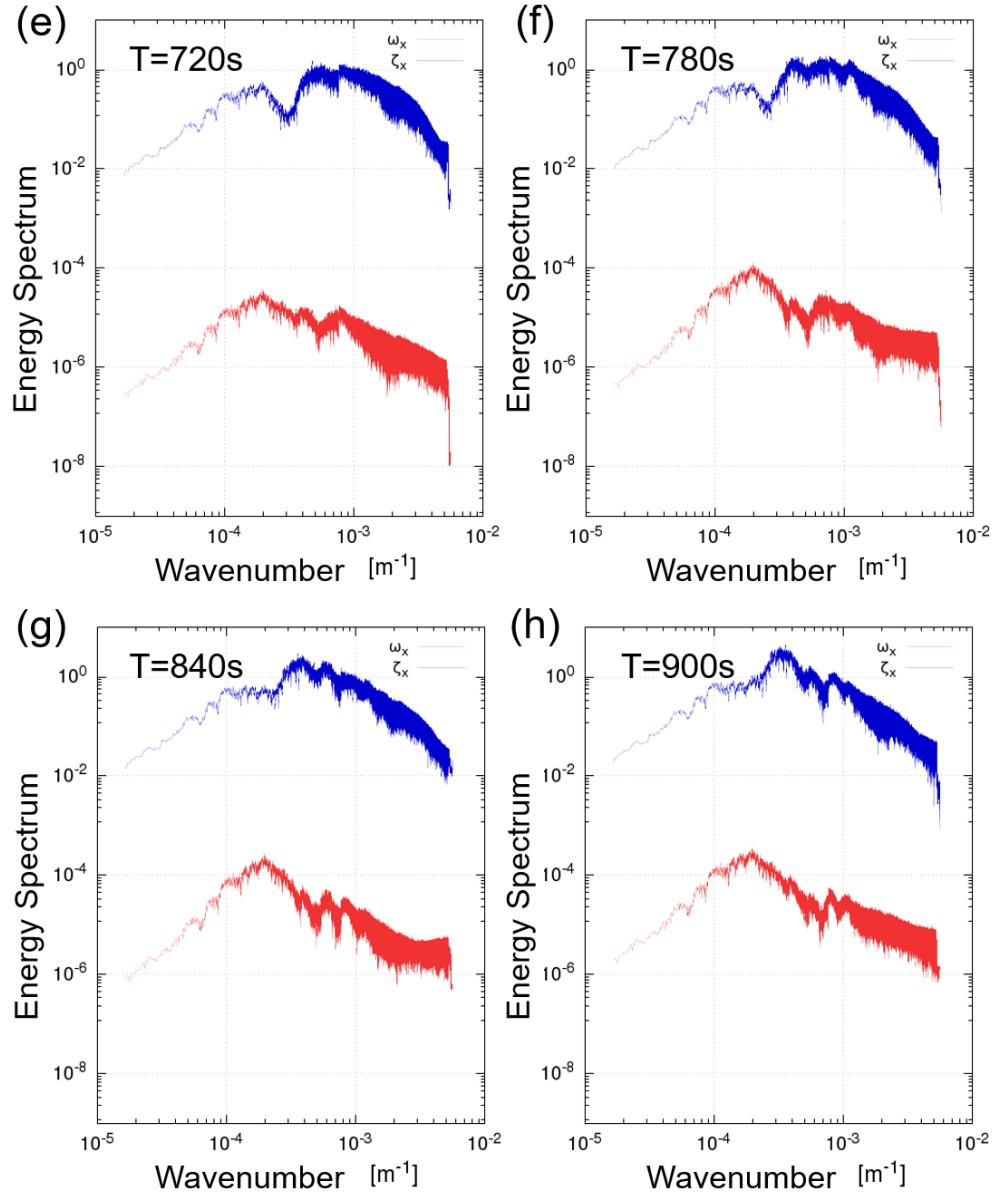


Fig. 4(sequel): Temporal change of energy spectrum of vorticity field indicated in Fig. 3.

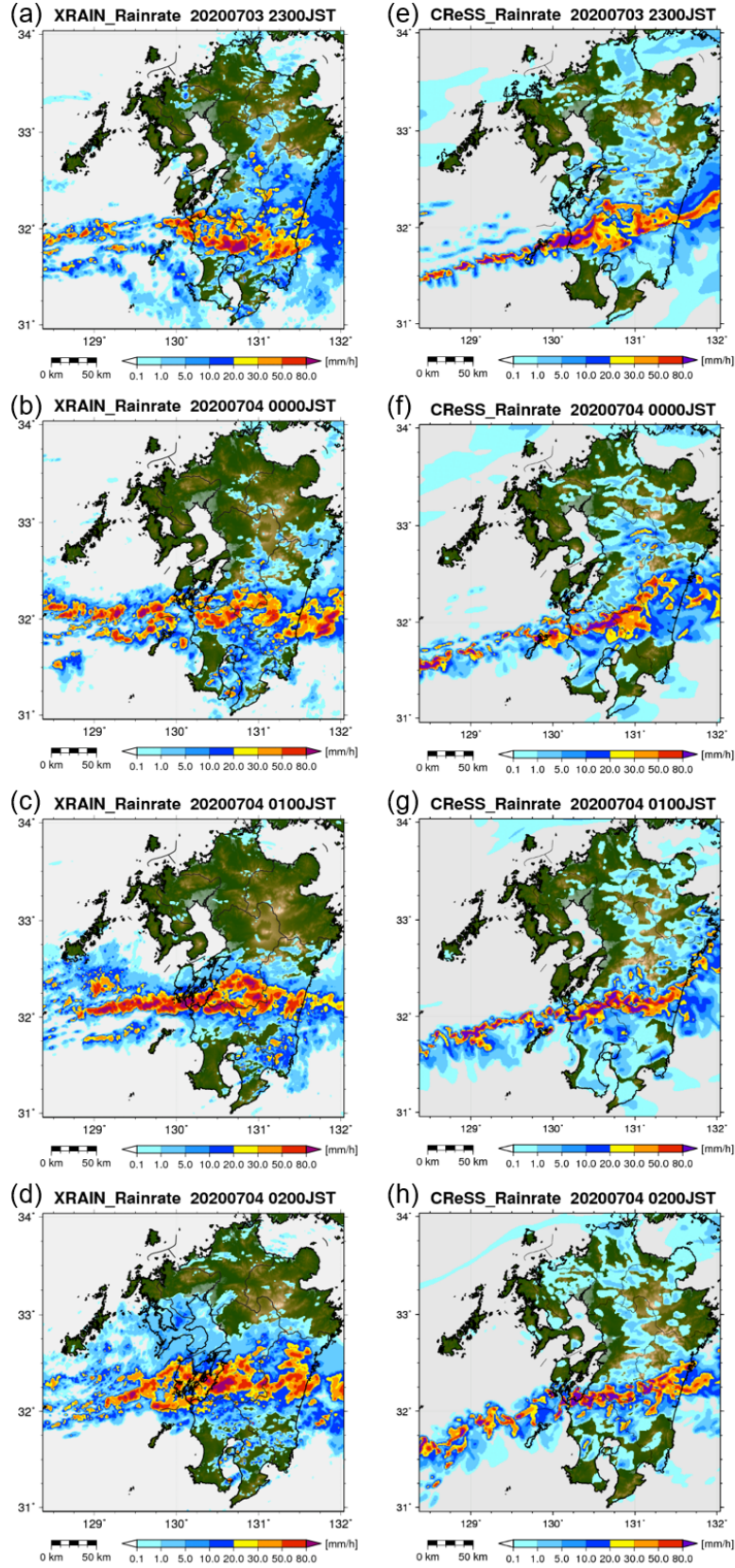


Fig. 5 Rainfall rate at every 1 hour (a, b, c, d) observed by XRAIN (eXtended RADAR Information Network managed by MLIT, Japan), and computation results of rainfall rate at every 1 hour (e, f, g, h).

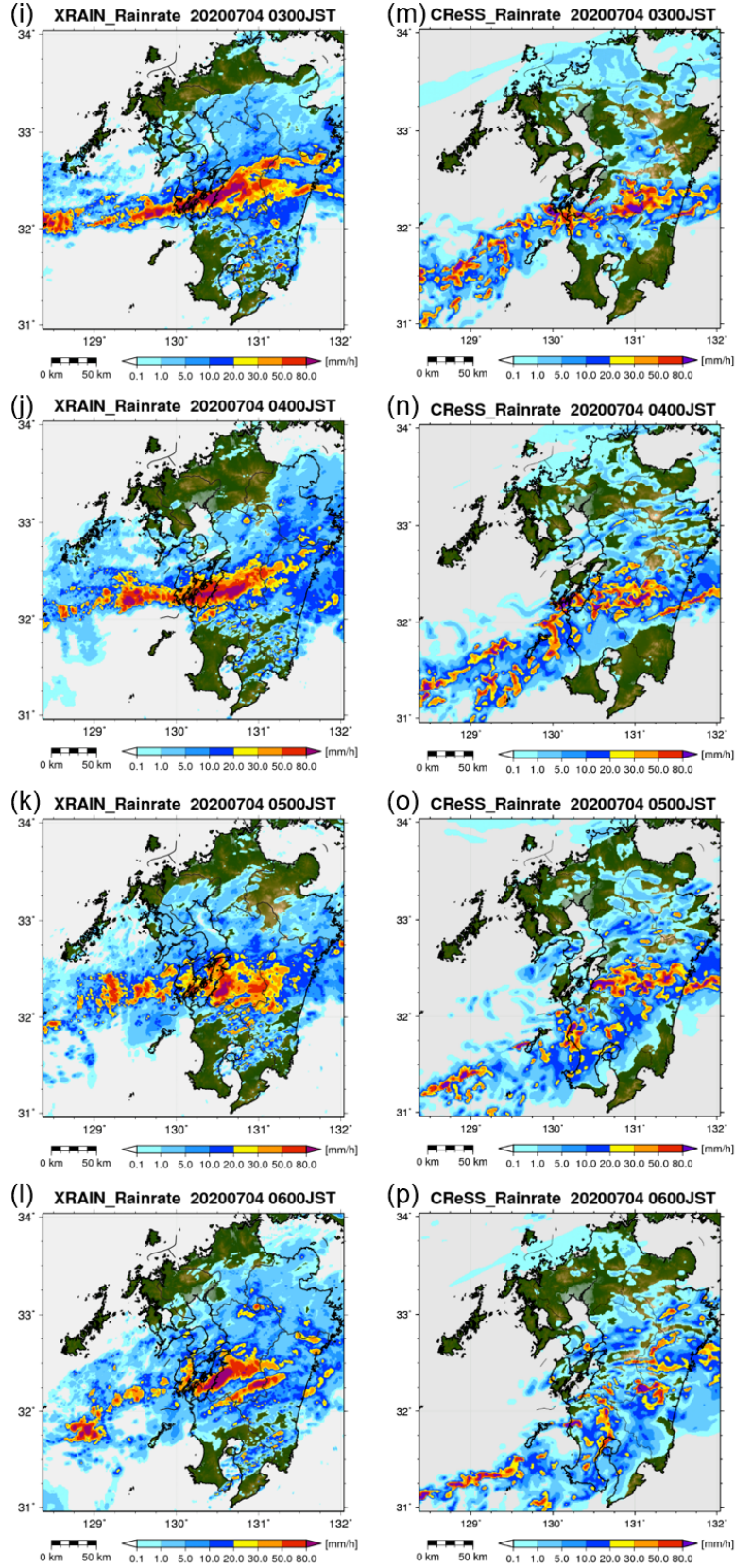


Fig. 5(sequel): Rainfall rate at every 1 hour (i, j, k, l) observed by XRAIN, and computation results of rainfall rate at every 1 hour (m, n, o, p).

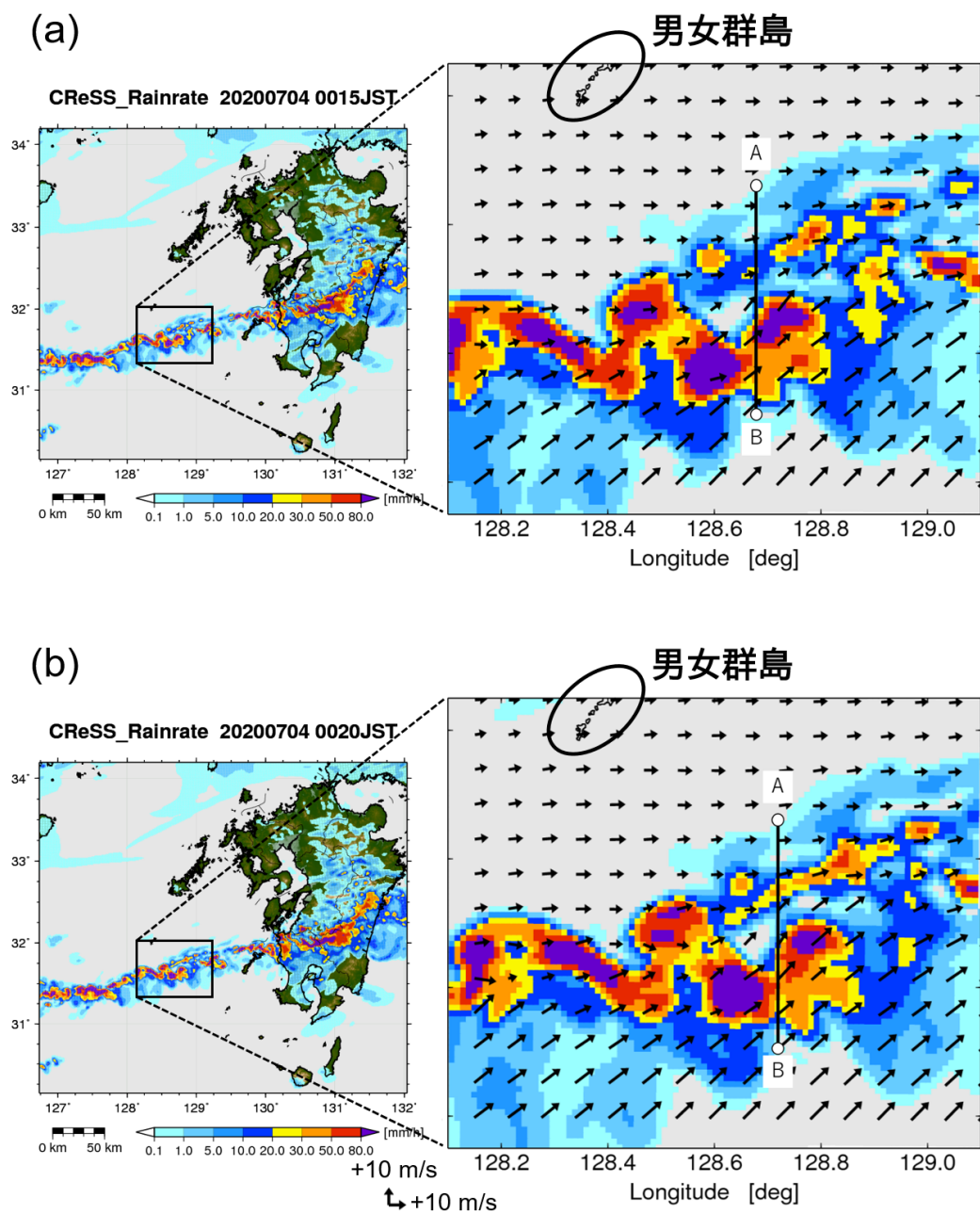


Fig. 6 (a)4日0015JST, (b)0020JSTにおける、男女群島付近で見られた新たな降雨域とその周辺域の拡大図。右側の拡大図中の矢印は地上付近における水平風を示している。また、A、B、並びに黒実線はFig. 8において解析対象とした南北-鉛直断面の位置を示している。

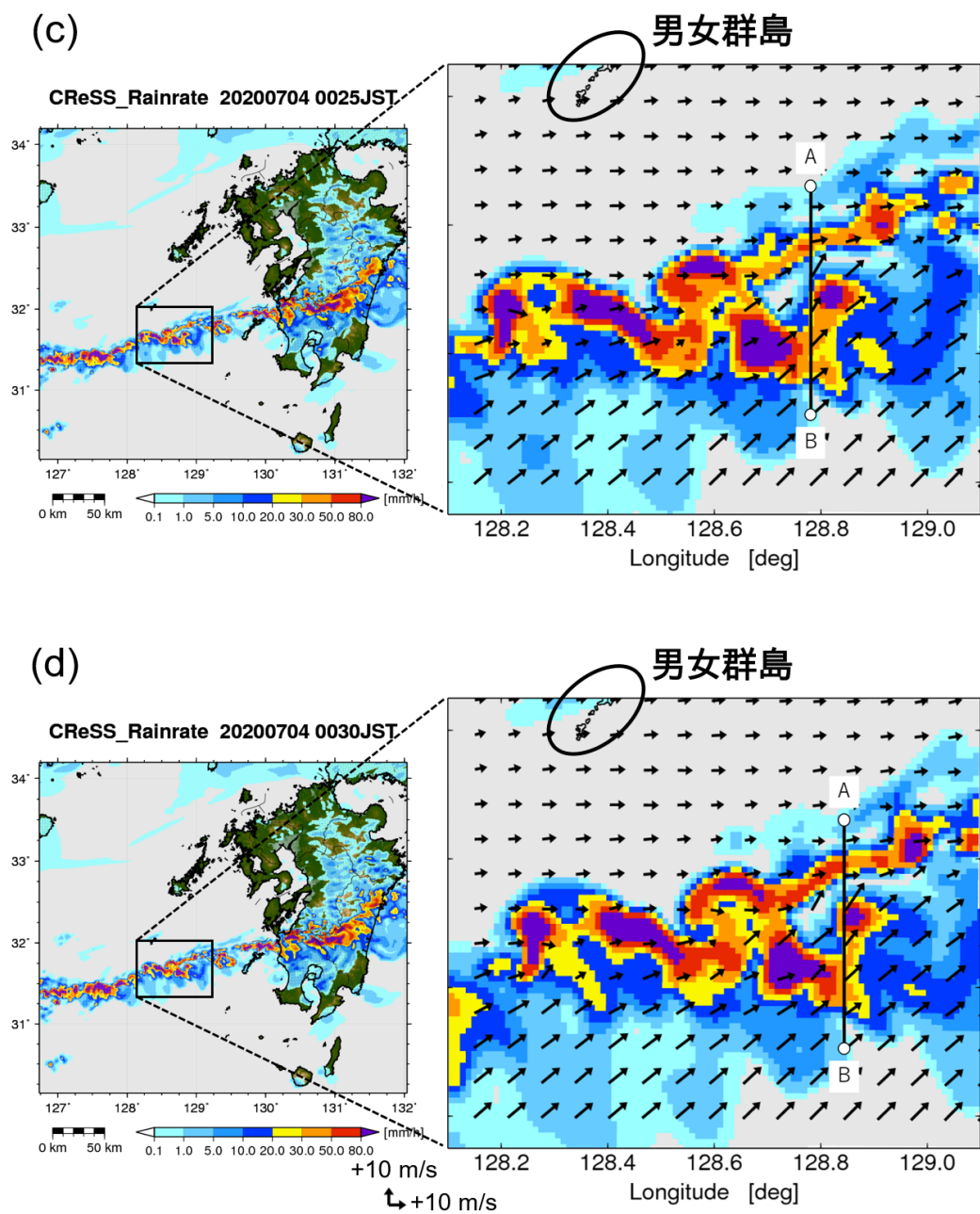


Fig. 6(sequel): (c)4日 0025JST, (d)0030JSTにおける、男女群島付近で見られた新たな降雨域とその周辺域の拡大図．右側の拡大図中の矢印は地上付近における水平風を示している．また、A、B、並びに黒実線は Fig. 8 において解析対象とした南北-鉛直断面の位置を示している．

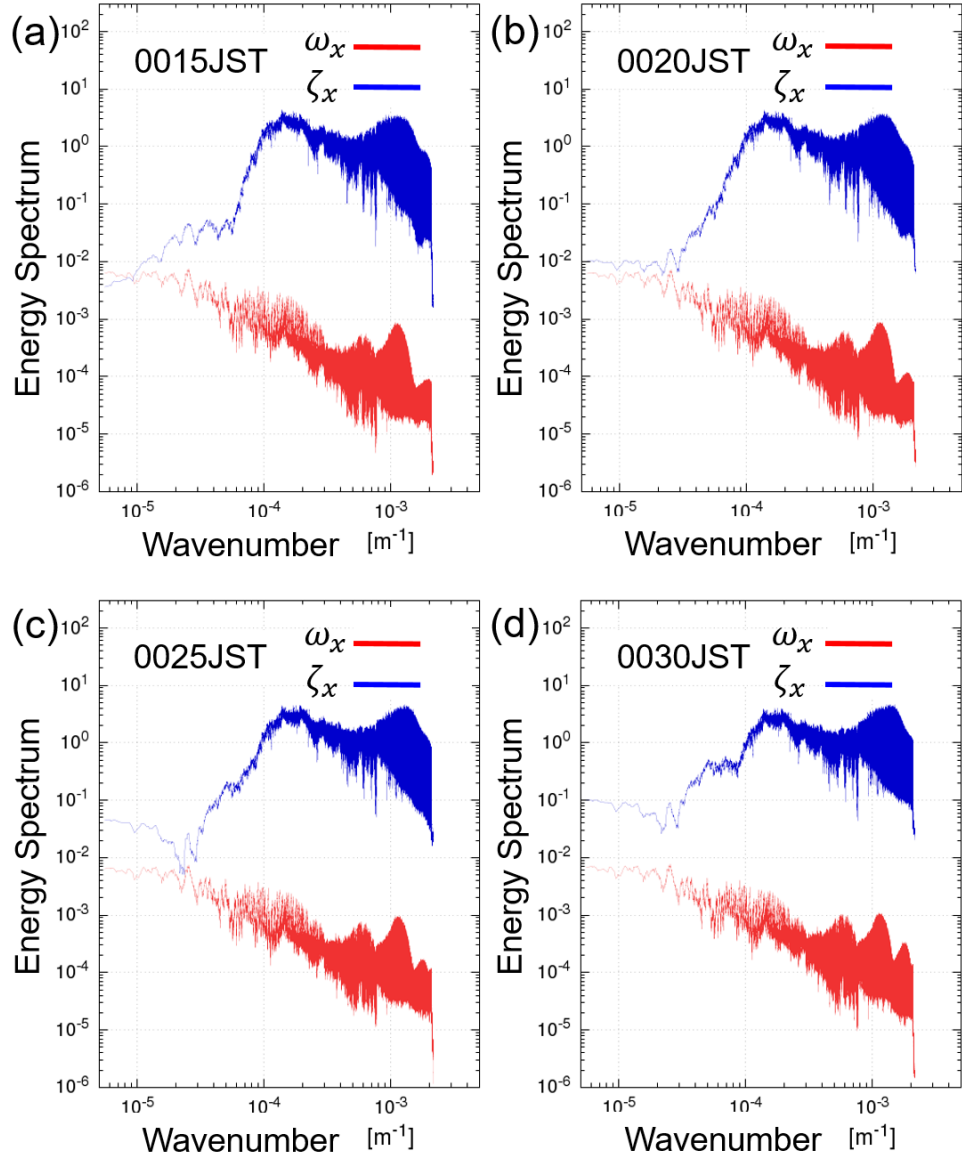


Fig. 7 Energy spectrum of vorticity ζ_x (blue line) and ω_x (red line) around developing cloud focused on Fig. 23.

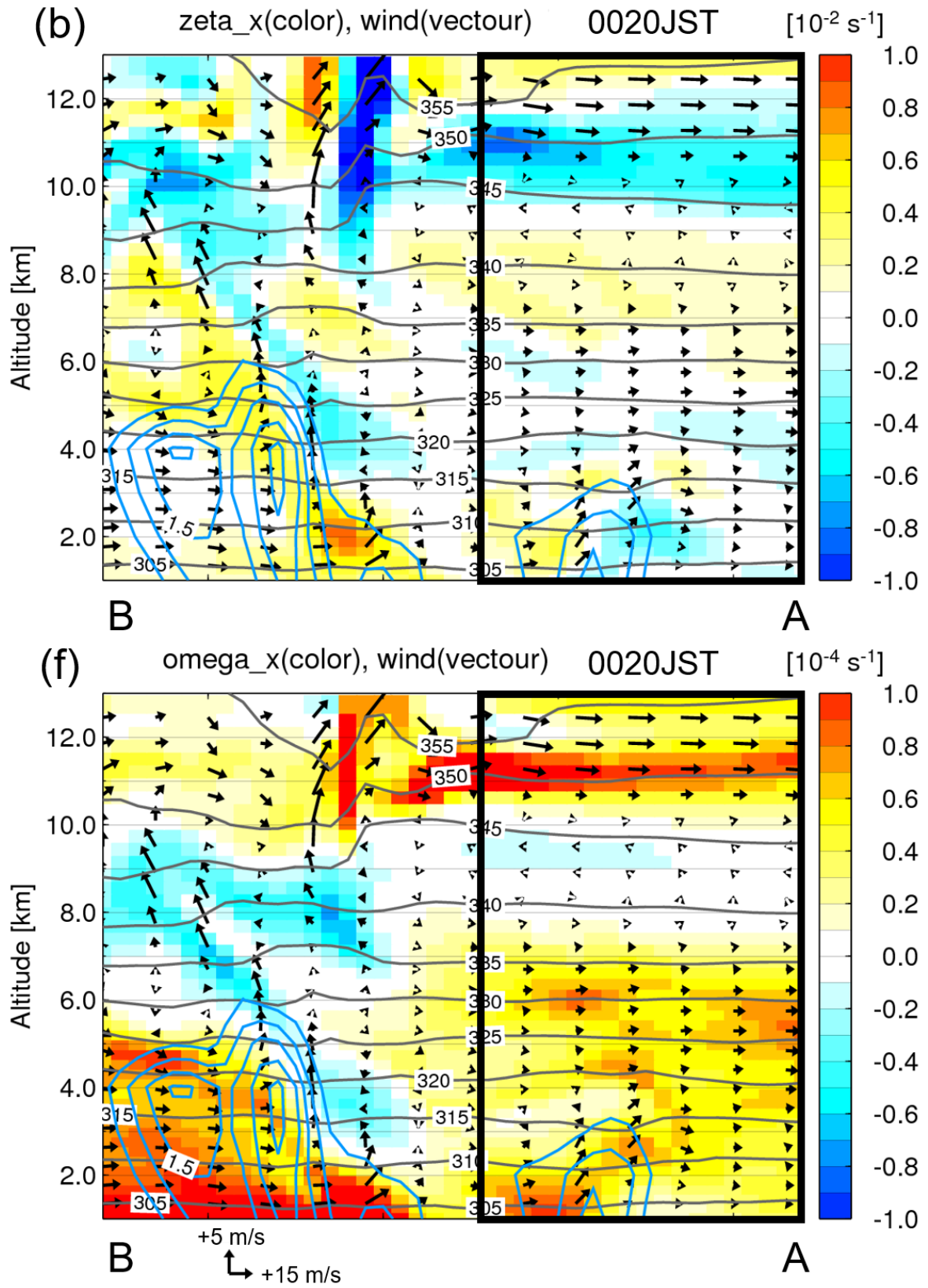


Fig. 8(sequel): Fig. 6 内の 0020JST における黒実線 AB に対応する断面の風速渦度 ζ_x (b) と温位渦度 ω_x (f) の分布.

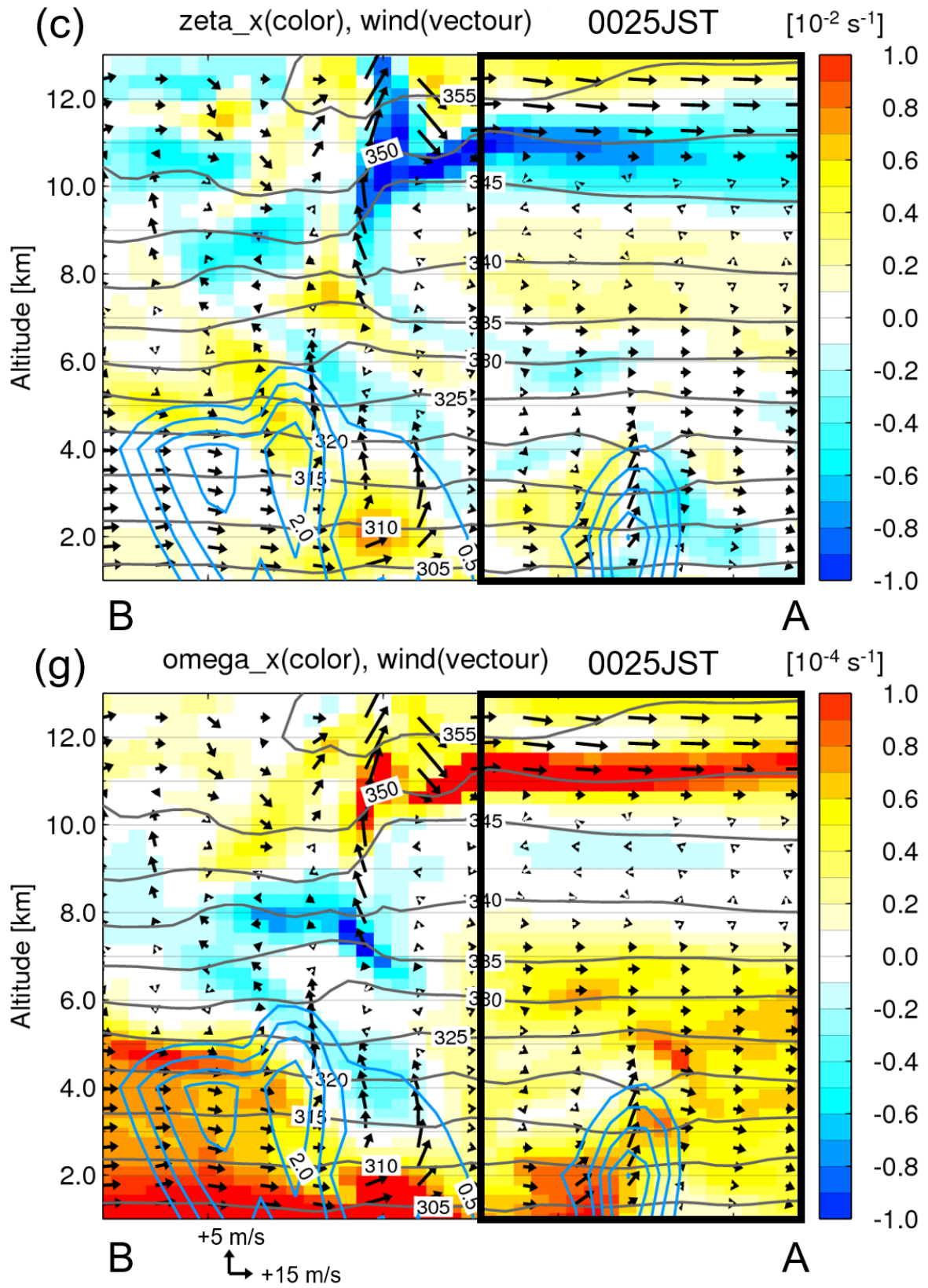


Fig. 8(sequel): Fig. 6 内の 0025JST における黒実線 AB に対応する断面の風速渦度 ζ_x (c) と温位渦度 ω_x (g) の分布.

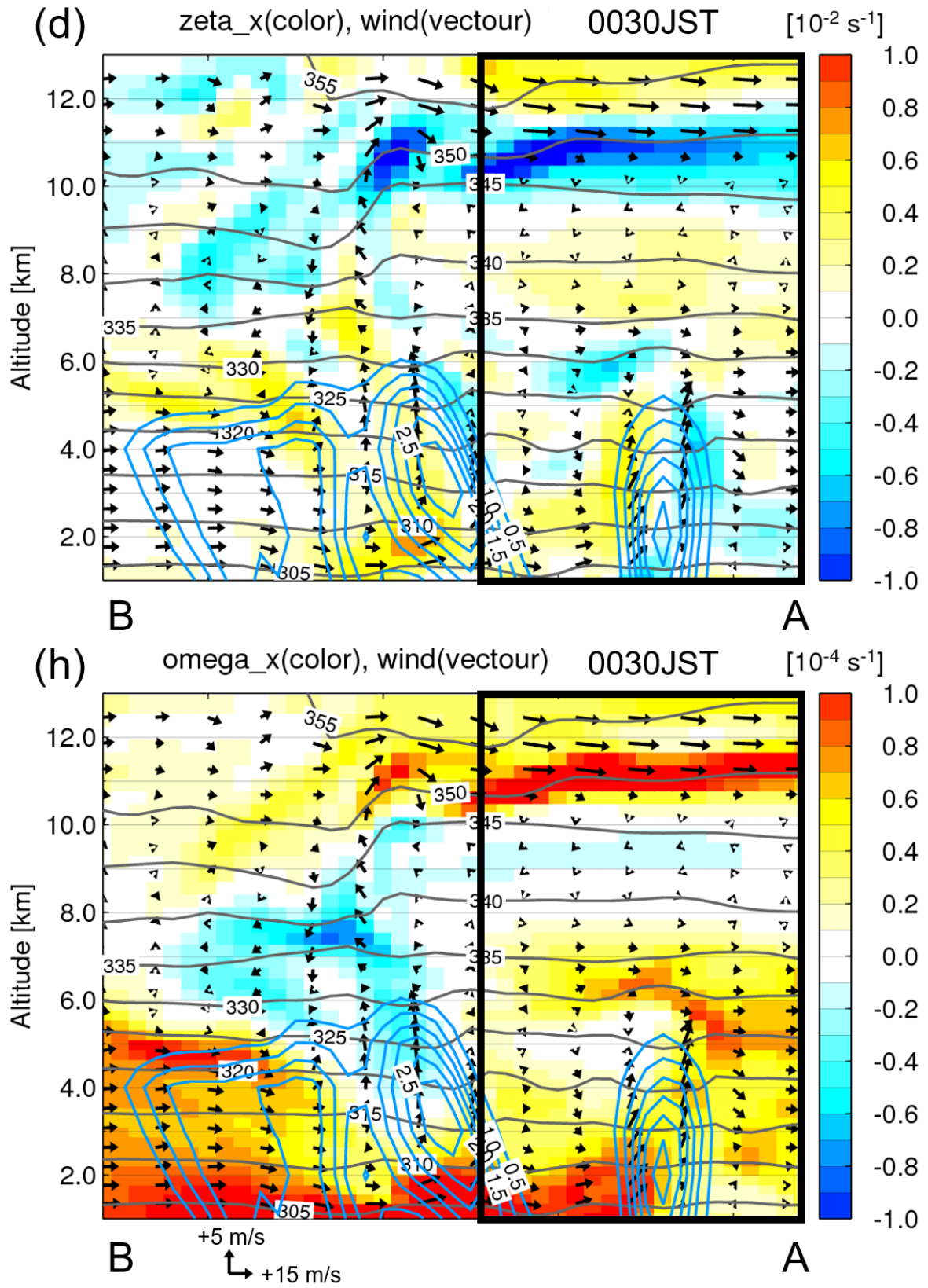


Fig. 8(sequel): Fig. 6 内の 0030JST における黒実線 AB に対応する断面の風速渦度 ζ_x (d) と温位渦度 ω_x (h) の分布.