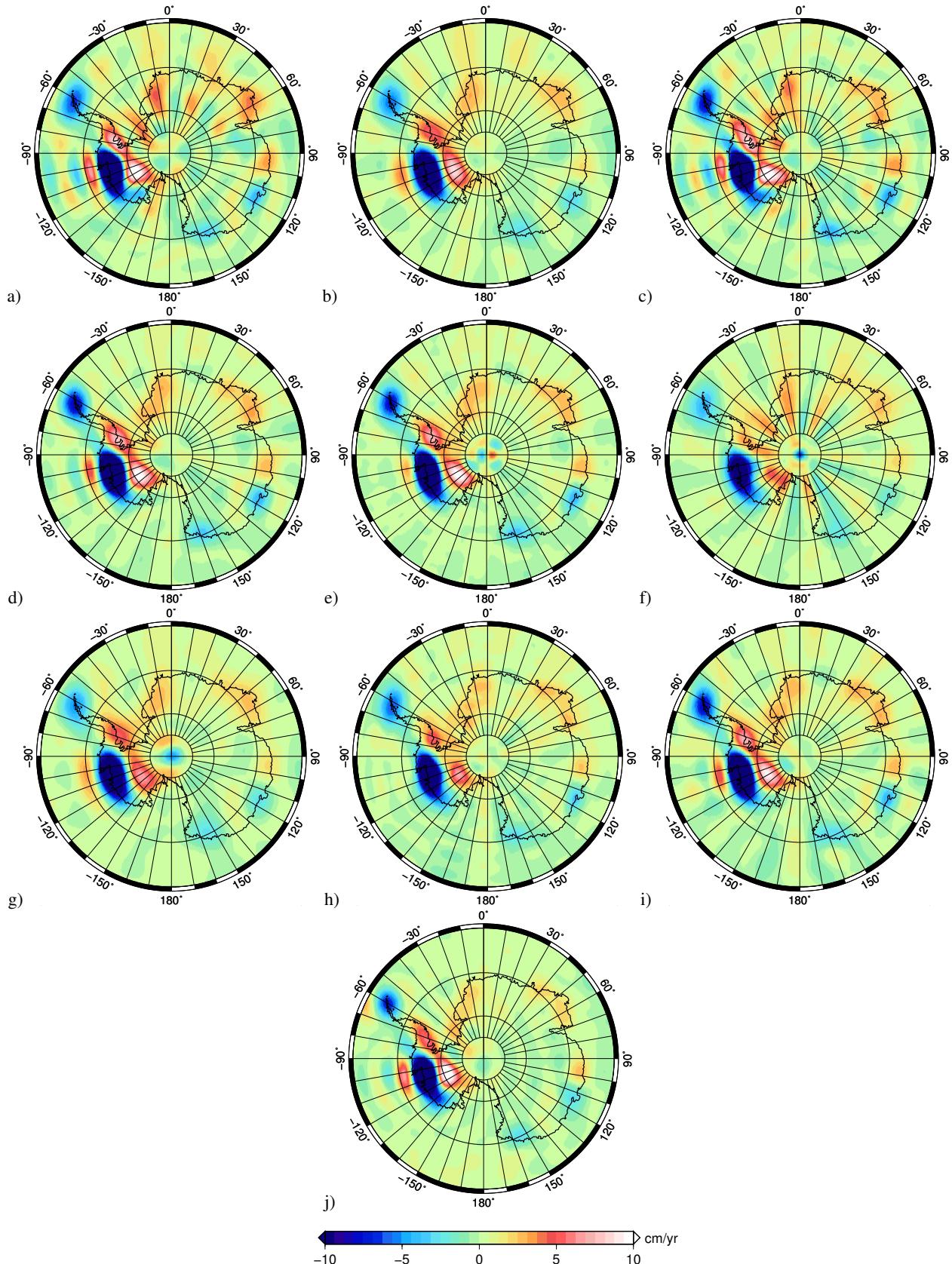
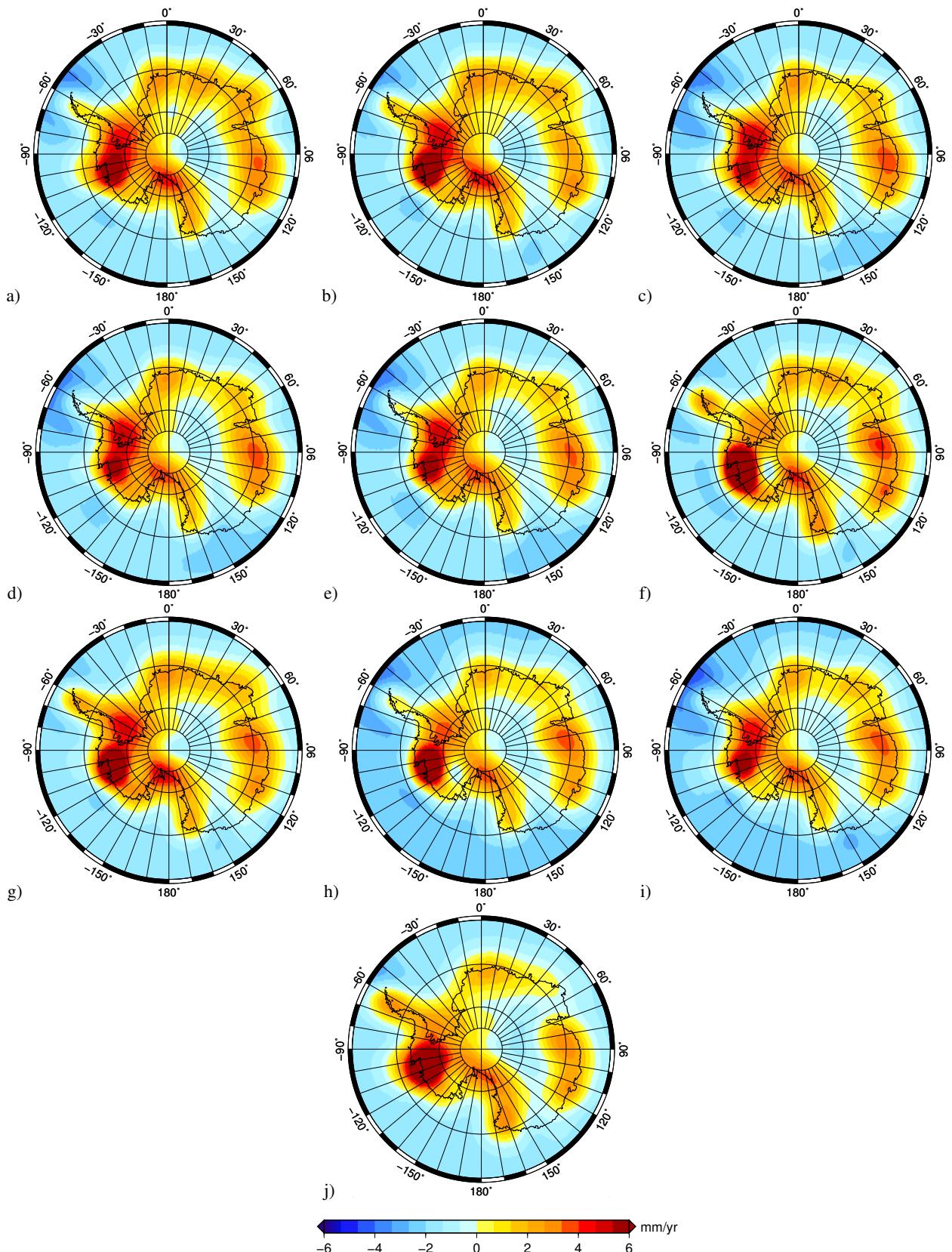


## **Appendix A**

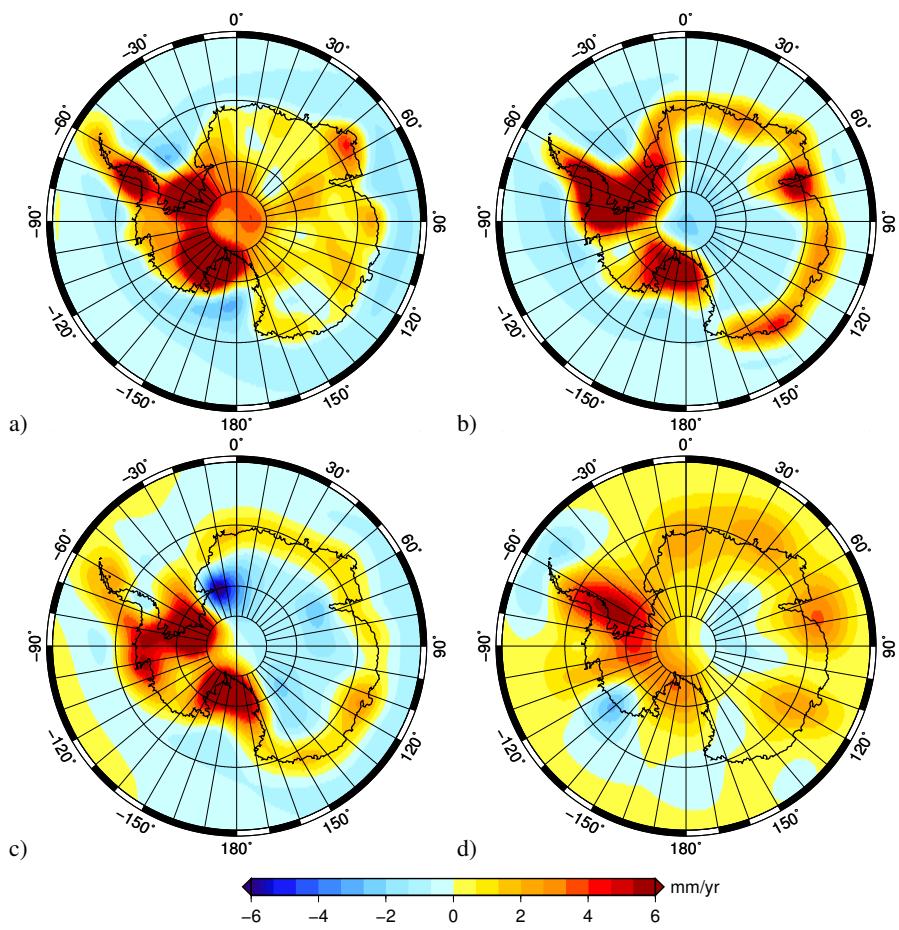
### **Supplementary Material**



**Fig. S1.** Mass change trends of the following GRACE solutions, in units of EWH: a) CSR RL04, b) CSR RL04 DDK3, c) CSR RL05, d) CSR RL05 DDK5, e) CSR RL05 Regularized, f) GFZ RL04, g) GFZ RL04 DDK3, h) GFZ RL05, i) GFZ RL05 DDK5, j) DMT-1b



**Fig. S2.** Estimated GIA vertical rates computed from the following GRACE solutions: a) CSR RL04, b) CSR RL04 DDK3, c) CSR RL05, d) CSR RL05 DDK5, e) CSR RL05 Regularized, f) GFZ RL04, g) GFZ RL04 DDK3, h) GFZ RL05, i) GFZ RL05 DDK5, j) DMT-1b



**Fig. S3.** Original GIA uplift rates for a) ICE-5G, b) IJ05, and c) W12a, d) Riva09.