Freshwater flux over the ocean

Masahisa Kubota, Tsuyoshi Watabe and Shinsuke Iwasaki
(Tokai University)
e-mail: Kubota@mercury.oi.u-tokai.ac.jp

Recently there are many products related to evaporation and precipitation over the ocean. The products are separated into reanalysis and satellite-derived products. For example, the former related to evaporation includes NRA, ERA and JRA, while the latter includes GSSTF2, HOAPS3, and J-OFURO2. Although there are many comparison studies concerning about latent heat flux and precipitation, there are not so many studies about freshwater flux itself over the ocean. In this study we compared freshwater flux products after constructing freshwater flux products using evaporation and precipitation data including satellite-derived and reanalysis products. Our objectives are to clarify the characteristics of freshwater flux products and the uncertainty depending on the combination of evaporation and precipitation products. Our comparison is carried out for not only global scale but also local scale such as boundary current regions. Moreover, the long-term time variation of global freshwater flux is also investigated.