

## Impacts of river discharge on the circulation in Tokyo Bay

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Tokyo Bay is a semi-closed bay which is surrounded by several metropolis including Tokyo City as well as a number of industrial areas. Since it has a close relationship with many human activities, a lot of observations and modeling efforts have been made within this area. Despite these previous studies, a further understanding of current structure is still necessary. In our study, a hydrostatic, incompressible, z-level model – MSSG model is used to simulate the variations of circulation in the Tokyo Bay. The model has a horizontal resolution of 200 m and 30 vertical levels and is driven by the climatological monthly mean forcing as well as four major river discharges, which includes Tama River, Tsurumi River, Arakawa River, and Edogawa River. And the impacts of these rivers on the circulation in Tokyo Bay are discussed in our study.

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