



## **Steady state in experimentally produced turbidity current under a large amount of suspension supply**

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Turbidity current is a main source of suspended sediment transport in submarine systems. Recently, it is reported that the turbidity current proceeds in longer distance than previously estimated with high frequency. To understand its mass movement precisely, turbidity current was experimentally generated in an inclined lock-gate type flume and velocity distribution was observed by ultrasound velocity profiler. Since the discharge gate was installed in the center of the flume and a large amount of suspension was prepared in upstream flume, a constant volume of suspension was continuously supplied in the downstream zone. We observed that the turbidity current moves keeping its similar flow contour and confirmed that the body part of turbidity current proceeds maintaining its homogeneous velocity profile in distal area from the gate. It was concluded that turbidity current converges to an ideal velocity distribution with low disturbance, which would be a key to transfer a large amount of sediment in a long distance.