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Autumn gales again drive salt into the Baltic: Third Major Baltic Inflow within 1.5 years.

From November 14 – 22, huge amounts of North Sea waters rich in oxygen entered the Baltic Sea again. It was a series of 12 storm fronts passing the Baltic Sea region since the beginning of November, which had triggered this event. According to first calculations a water volume of 76 km³ with a salt content of 17-22 g/kg passed the narrow and shallow Western Baltic Sea during the main inflow period. This sums up to approximately 1.4 giga-tons of salt being transported into the Baltic. Such an event can be classified as a Major Baltic Inflow of moderate intensity. Currently, this water mass can be traced in a water depth of 45-25 m in the Arkona Basin.

After the event of the century in December 2014, which transported in total nearly 4 giga-tons of salt and caused, together with three minor inflow pulses in early 2014, for the first time since 2003 a ventilation of the deep water in the central Baltic, this is the third inflow in a row. During the eleven years since 2003 stagnating conditions in the deep water of the central Baltic have led to oxygen depletion and the formation of toxic hydrogen sulfide.

Again, the automatic measurements at the MARNET station Darss Sill, which the IOW is conducting on behalf of the Federal Maritime and Hydrographic Agency, decisively supported the early recognition of this inflow. Dr. Michael Naumann, responsible for hydrophysical observations at the IOW had a sharp eye on the development “We recognized the special meteorology and the changes in the sea water level. Together with the MARNET data, we were perfectly prepared for immediate impact assessments. “ The effects of this anew inflow on the ecosystem of the Baltic Sea will be subject of further investigations.

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