

Introducing the

RISC-KIT Project on the Kiel Fjord case study site

by Guntram Seiß, Bundesanstalt für Wasserbau, Germany

RISC-KIT is an EU funded project which aims to develop tools which enables end users of the project results to make decisions for reduction of risks due to coastal hazards. Kiel Fjord is the German case study site out of ten sites throughout Europe.

The Kiel Fjord case study site

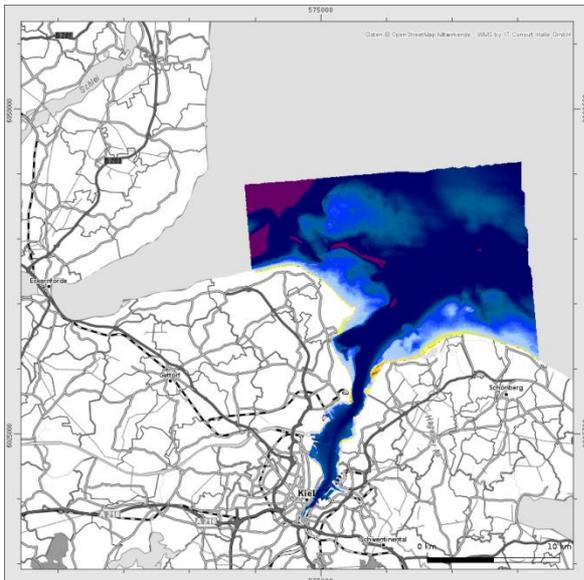


Fig. 1: Map of the Kiel Fjord region. Courtesy by OpenStreetMap.org and digital bathymetry data of BAW (Seiß 2013).

The event “celebrates” the 25th anniversary in 2014 which could be an occasion to look back to this event. As the RISC-KIT project deals with tools, sufficient to mitigate or avoid risks for the people exposed to the coast caused by rarely occurring flood events, it seems to be natural, to look in detail to this event.

The Kiel Fjord is a highly developed region on the Western Baltic Sea with its inner part enclosed by the modern City of Kiel (Fig. 1). A significant number of people living at the fjord have their income from beach tourism and water sports. Both beaches and water sports infrastructure are vulnerable due to their exposition to the sea. The history of hazards at the Kiel Fjord shows one exceptional event in the modern record of storm surges at the Western Baltic Sea coastline, the August 1989 storm surge (Neemann 1994). Marinas at the site were not prepared for such an event at all (Fig. 2). This event caused damages of about 25 Millions of Euros on private property and coastal infrastructure (today value is about twice, see Fig. 3).



Fig. 2 : View over the Marina Wendtorf, which shows classical construction of bridges and berths inside a typical marina in the Western Baltic. From (ShipShape Deutschland GmbH).

Initially we will collect historical and scientific material to review storm surges at the Western Baltic Sea in Germany. We review the vulnerabilities and existing disaster management



Fig. 3 : A picture from days after the storm surge August 1989. From (Boots-Angler-Club E.V. 2009)

strategies in the Kiel Fjord region by interviewing people from different groups (coastal managers, public authorities, citizen with and without historic background, natural reserve managers and marina operators).

During the project we will develop instruments for analyzing the vulnerability of typical infrastructures at the Kiel Fjord coastline like managed beaches, marinas, coastal protection as well as the vulnerability of natural systems (nature reserves, cliff coasts). For this aim we

collect physical data and geospatial informations.

A third part will be the numeric simulation of historic events to set up test an Early Warning System (EWS) applicable to storm surges and flash floods. One of the simulated events will be the storm surge of August 28th, 1989. After the EWS system has been tested and optimized, an operational version will be set up.

New disaster risk reduction (DRR) measures will be developed and present plans will be optimized. DRR measures will be applicable to different regions of Europe either.

Our work on the Kiel Fjord case study site will help making the Western Baltic safer in respect to storm surge events.

Contact information

We welcome everybody's input to the project, e.g. by sending us photographs, stories or other material, which helps understanding the dynamics of surges and their impact on the people at the Western Baltic Sea coast. So please contact me under e-mail Guntram Seiß at guntram.seiss@baw.de.

Publication bibliography

Boots-Angler-Club E.V. (Ed.) (2009): Alte Geschichte und zu dünne Leinen. Available online at <http://www.bootsanglerclub.de/wbb/wbb/index.php?page=Thread&threadID=1622>.

Neemann, Volker (1994): Beschreibung des Sommerhochwassers an der westlichen Ostseeküste von Schleswig-Holstein am 28.08.1989 mit Vergleich anderer Hochwasser. In : Gewässerkundliches Jahrbuch 1989, pp. 2–14.

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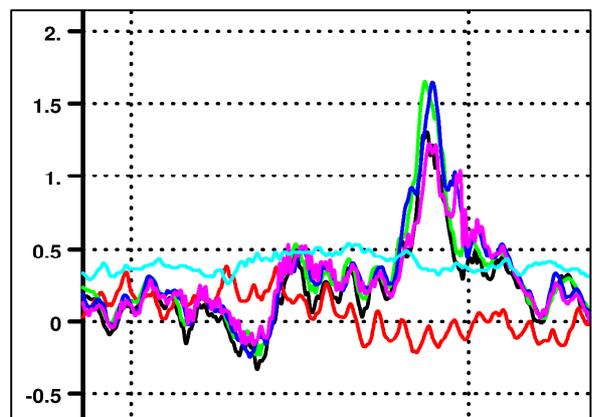


Fig. 4 : August 1989 storm surge water levels at different gauges.