ISSMGE - TC201

Geotechnical Aspects of Dykes and Levees, Shore Protection and Land Reclamation

Newsletter July 2012

Dear Reader

This is the third newsletter of the ISSMGE Technical Committee 201: geotechnical aspects of dykes and levees, shore protection and land reclamation. The intention of the newsletter is to keep all members informed on coming of our TC.

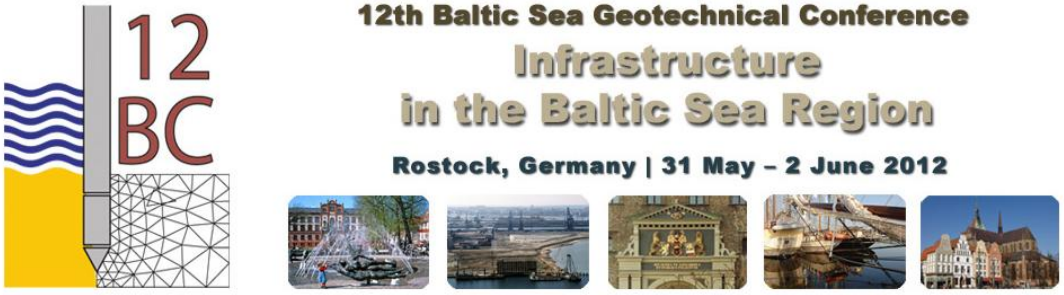
Meindert Van (Chairman TC201)
Cor Zwanenburg (Secretary TC201)

1. The IJkdijk prediction competition

In September 2012, new field tests within the IJkdijk research programme will be conducted. The tests involve construction of full scale dikes and bringing it, controlled, to failure. Different failure modes will be tested, piping and (slip circle) stability. In cooperation with Rensselaer Polytechnic Institute a prediction competition is organized. An invitation to join the competition is added to this newsletter, more information is also found on the website;
http://ijkdijk.rpi.edu/

The photo gives an impression of successful stability test conducted earlier in the IJkdijk research programme. I hope that many TC members will take the opportunity and send in a prediction.

2. Meeting at the Baltic Sea Conference 2012.



The 3nr committee meeting was held during the Baltic Sea Conference, Rostock Germany, May 31st to June 2nd 2012. The minutes of the meeting have been send around to the members. During the lunch break TC201 had the option to present it self to the attendants of the conference. For this purpose three case histories of recent floodings were discussed.

Dr Meindert Van gave an interesting lecture on the recent flooding in Thailand which had a great impact on the economic and social live of the people in Thailand. Dr Yoichi Watabe gave an impressive lecture on the impact of the Tsunami in 2011 and showed how flood defense strategies are worked out, including urban planning to reduce the dramatic consequences of a Tsunami on this scale. Dr Mike Sharp showed how the Mississippi floods 2012 were controlled. This included the impressive strategy to inundate carefully selected areas to prevent flooding of urban areas.

In total 30 – 35 people attended the TC201 session.

3. Meeting at the international soil mechanics conference in Paris 2013

The 4th committee meeting will beheld during the 18th International Conference on Soil mechanics and Geotechnical Engineering, Paris, 1-5 September 2013. A website with information is in progress.

4. Next Newsletter

The next newsletter will be send around at October 15th. Please provide all available information to the secretary Cor Zwanenburg, cor.zwanenburg@deltares.nl.

IJkdijk Levee Failure Prediction Competition 2012

Think your numerical levee model can 'survive' the test of full-scale failure data?

This prediction competition is offered as a challenge to geotechnical numerical modelers, particularly those individuals or corporations modeling levee systems. Three well-controlled, full-scale test levees will be brought to failure in late August 2012 and we invite you to submit your Class-A predictions of the timing and mode of failure for one, two, or all three of these tests. For those who are unfamiliar with the IJkdijk full-scale levee testing facility, please visit http://www.ijkdijk.eu/you can also view a video of a stability experiment from 2008 conducted on a 100m long levee at http://ijkdijk.rpi.edu/. All information on the upcoming tests can be obtained by registering through http://ijkdijk.rpi.edu/.The information includes levee profiles, available instrumentation, soil parameters, planned loading sequence, etc.

Class-A submissions should be sent no later than August 19, 2012 for the piping tests and September 2, 2012 for the slope stability test, i.e. before the start of each test. Any predictions received after these dates will be considered Class-C predictions. Send submissions to andre.koelewijn@deltares.nl, or abdout@rpi.edu, or send by regular mail to Deltares, attn. Andre Koelewijn, P.O. Box 177, 2600 MH Delft, Netherlands. Please be aware that your prediction should be received in time!

The results of the tests and this prediction competition will be presented at a conference in The Netherlands by the end of 2012 (preliminary results) and at a possible workshop at Rensselaer Polytechnic Institute (Troy, NY, USA) in early 2013 (final results).

For all tests, this is the question to answer: 'At what loading stage does failure occur?'
The moment of failure is defined as the point at which the test can no longer be continued with an increase of loading, because of excessive deformations, indicated by leakage of the reservoir or a large slide of the levee. In case your prediction depends on the load history, please also indicate how (at least approximately). Please provide details on the method(s) used for the prediction (calculation method, interpretation of available data, results for intermediate stages, etc.).

Looking forward to your predictions,

Organizing committee:

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