

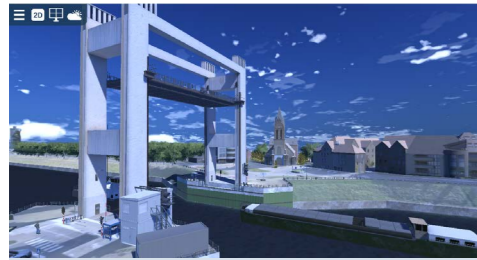


PIANC

The World Association for Waterborne Transport Infrastructure

Developments in the automation and remote operation of locks and bridges

PIANC InCom Work Group 192 | Status update May 2018



Training and Reference Centre (AWATAR)

Country Belgium
Company De Vlaamse Waterweg nv
Goal Developing technical, functional and operational standards for remote operation of bridges and locks, integrating them into a training simulator and setting up a training course for operators.
Contact Michiel Coopman
 michiel.coopman@vlaamsewaterweg.be



Traffic Centre Zemst

Country Belgium
Company De Vlaamse Waterweg nv
Goal The automatization and remote control of multiple movable bridges, locks and waterbound infrastructure in a traffic center.
Contact Michiel Coopman
 michiel.coopman@vlaamsewaterweg.be
 Kim Geysen
 kim.geysen@tractebel.engie.com



ARGUS - subproject remote control

Country Belgium
Company Port of Antwerp
Goal Investigating reasons for centralized control and building a simulator and prototype.
Contact Wim Van Santvoort
 Wim.VanSantvoort@portofantwerp.com



Full automatic surveillance of movable bridges and locks

Country Belgium
Company Port of Antwerp
Goal Design of a full automatic control system for all movable bridges and locks in the port of Antwerp.
Contact Wim Van Santvoort
 Wim.VanSantvoort@portofantwerp.com
 Kim Geysen
 kim.geysen@tractebel.engie.com



Remote terminal for the small locks operation

Country France
Company Cerema
Goal Develop a system that is compatible with older systems and make the terminal easily adaptable for other uses.
Contact Laurent Luchez
 laurent.luchez@cerema.fr

InCom
 InCOM is one of the 4 international technical commissions of PIANC (Permanent International Association of Navigation Congresses) concerned with inland waterways and ports and focusses on inland navigation, inland waterways, river and port infrastructures inland waterway transport and logistics, etc. InCOM commission comprises many different working groups including Work Group 192.

PIANC InCom Work Group 192
 The main objective of the new PIANC InCom Work Group 192 is to update the 2008 WG 96 report on 'Developments in the Automation and Remote Operation of Locks and Bridges' to reflect technological advancement and new considerations related to remote operation. Since the publication of WG 96 in 2008, significant technological advancements have been made at an increasingly rapid pace. Today, multiple ports and waterways have implemented remote operation technology or are planning this step in the nearby future. At the same time, events around the world have led to a much tighter security posture for marine and inland waterway transportation. This development has a significant impact on remote operation of locks and bridges, which was not fully addressed in the 2008 report. The Work Group shall collect recent developments and case studies from different countries and will publish a comprehensive summary of lessons learnt and best practices that can be incorporated into the future design of remote operation of locks and bridges.

i For a more detailed description and additional information about the work group and reference projects, we refer to the PIANC brochure Status update May 2018



Design and construction of the Rhône Traffic Management Centre

Country France
Company Rhône Traffic Centre
Goal Remote control for gauge locks from one central location in Châteauneuf-du-Rhône.
Contact Cyrille Chausat
 c.chausat@cnr.tm.fr



Operation centre for movable bridges and navigation locks in Lelystad

Country The Netherlands
Company Witteveen+Bos
Goal Realization of a marine traffic center in Lelystad and implement remote control of existing bridges and navigation locks in the province Flevoland.
Contact Ad Kloppenburg
 ad.kloppenburg@witteveenbos.com



Overhaul and implementation of remote control Vlaardingerdriesluis

Country The Netherlands
Company Witteveen+Bos
Goal Realization of a reliable and safe remote controlled navigation lock.
Contact Ad Kloppenburg
 ad.kloppenburg@witteveenbos.com



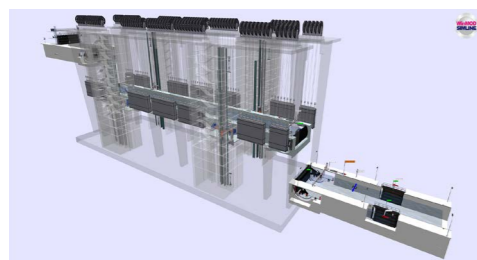
3B Building block

Country The Netherlands
Company Rijkswaterstaat
Goal Rijkswaterstaat will start working with standard systems when operating (Bedienen), managing (Besturen) and monitoring (Bewaken) bridges. This 3B Building block will be used to operate, manage and monitor bridges in a uniform manner.
Contact Leon Uijtewaal
 leon.ujtewaal@rws.nl



Lock management service trials

Country Germany
Company German Federal Waterways and Shipping Administration
Goal Optimizing occupancy of locks and reduce waiting times for ships by the introduction of lock management service.
Contact Rainer Strenge
 rainer.strenge@wsv.bund.de
 Walif Schneider
 walif.schneider@wsv.bund.de



Automation Concept for the New Ship Lift Niederfinow

Country Germany
Company German Federal Waterways and Shipping Administration
Goal The project aims to ensure safe and reliable operation of the new ship lift of all automated components.
Contact Rainer Strenge
 rainer.strenge@wsv.bund.de
 Walif Schneider
 walif.schneider@wsv.bund.de



New Hannover lock operation centre (LOC)

Country Germany
Company German Federal Waterways and Shipping Administration
Goal Design&build of a LOC that ensures safe and reliable operation of locks by bundling services and optimized personnel deployment.
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 rainer.strenge@wsv.bund.de
 Walif Schneider
 walif.schneider@wsv.bund.de



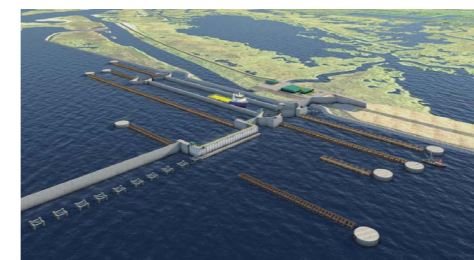
Remote operation of mechanised bridges

Country United Kingdom
Company Royal HaskoningDHV
Goal Improvements to customer service and reduced staffing costs.
Contact Jason Hudson
 jason.hudson@rhdhv.com



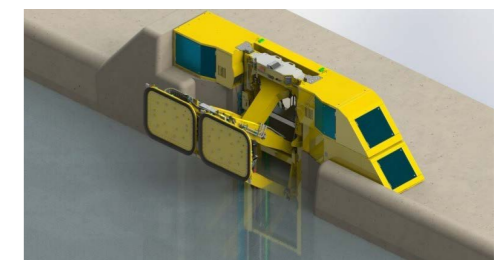
Grays Landing Remote Operations of Locks Demonstration

Country United States of America
Company US Army Corps of Engineers
Goal The project aims to demonstrate the viability of remote lock operations on a large scale commercial waterway within the inland navigation system.
Contact Kathy Griffin
 Kathy.M.Griffin@usace.army.mil



Houma Navigation Canal Lock Complex

Country United States of America
Company TetraTech
Goal To provide hurricane protection for Houma and the surrounding area, to reduce salinity in Houma Navigation Channel, and to distribute freshwater in the Terrebonne Basin.
Contact Albert Barnes
 Albert.Barnes@tetrattech.com



Self-Mooring System

Country Canada
Company St. Lawrence Seaway Management Corporation
Goal The Remote Operation project currently undertaken by the St. Lawrence Seaway Management Corporation intends to add remote operation of lock structures to the existing Operation Control Centers.
Contact Leonard Swift
 LSwift@seaway.ca