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Contents

INSPECTION AND MAINTENANCE STRATEGIES

Preface	2
A. VAN DER TOORN	
The maintenance of civil engineering structures ...	3
O.D. DIJKSTRA / S.E. VAN MANEN / F.B.J. GIJSBERS	
Probabilistic maintenance planning for the tubular joints in the steel gates in the Eastern Scheldt storm surge barrier	35
D.J.D. WIJNMALEN / J.A.M. HONTELEZ	
A model for determining strategies to maintain single components of a system at minimal costs ...	65
P.J. VAN GESTEL	
KEMA Maintenance Optimization Support System	85
H.K.T. KUIJPER / J.K. VRIJLING	
Economical optimization of the maintenance of a river bed protection construction	97

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Preface

It is beyond any doubt that the maintenance of buildings and civil engineering works is becoming a more and more important field of engineering. The stock of existing roads and structures becomes larger and older every year, while on the other hand replacements and extensions of the infrastructure become less selfevident. Also in research a shift from “design tools for new structures” towards “maintenance and inspection tools for existing structures” can be observed.

Nevertheless, a large gap between research and practice can be observed. Maintenance and inspection in practice is still the domain of the practical engineer who relies primarily on intuition and less on scientific methods. Researchers, on the other hand, often have only a limited idea about what is going on in practice, or have to ignore it to keep the models manageable and simple.

However, progress is being made and this special issue of Heron is devoted to this area, with an emphasize on the inspection and maintenance strategies for civil engineering works. To avoid misunderstanding, it is not the inspection and maintenance techniques themselves that will be discussed, but the related philosophical and strategic questions like: what are the optimal inspection intervals, what is the appropriate depth of the inspection, what measures should be taken for certain inspection results and so on.

Given the important and stimulating role of the Dutch “Rijkswaterstaat” (The Ministry of Publics Works) in this field of research, it seemed appropriate to invite them to write the leading article. Furthermore, contributions have been asked from TU-Delft, TNO-Bouw, TNO-FEL and KEMA, showing results of related research and applications. It is very interesting and instructive to see the similarities and differences between the approaches in the various institutes. Hopefully this issue will contribute to a better mutual understanding and be an inspiration for further research in this area.

A. Vrouwenvelder (TNO)
(editor)