

# CONTENTS

Papers	Page
LABORATORY STUDY OF LIFT FORCES ON CIRCULAR PILES by Devidas D. Bidde . . . . .	595
LABORATORY STUDY OF DEGRADATION AND AGGRADATION by Suryanarayana Bhamidipaty and Hsieh W. Shen . . . . .	615
CONTROL OF NATURAL CHLORIDE, ARKANSAS-RED RIVERS by Myron W. DeGeer and Robert J. Hensley . . . . .	631
ULTIMATE ENERGY DESIGN OF PRESTRESSED CONCRETE FENDER PILING by Shu-t'ien Li and Venkataswamy Ramakrishnan . . . . .	647
FOURIER ANALYSIS OF TRANSIENT WAVE SYSTEM by Edward K. Noda . . . . .	663
ECONOMICS OF CHANNELS AND MANEUVERING AREAS FOR SHIPS by Richard G. Waugh, Jr. . . . .	671
LONGSHORE TRANSPORT COMPUTATIONS by Eco W. Bijker . . . . .	687
DESIGN CRITERIA FOR NORTH SEA DIKES by Johann Kramer . . . . .	703
SECTOR GATES IN BANGKOK KLONG SYSTEM by Fred C. Stepanich . . . . .	721
REGULAR WAVE EFFECTS ON WALLS MADE OF CYLINDERS by G. D. Khaskhachikh and O. M. Vanchagov . . . . .	735

(over)

---

This Journal is published quarterly by the American Society of Civil Engineers. Publications office is at 345 East 47th Street, New York, N.Y. 10017. Address all ASCE correspondence to the Editorial and General Offices at 345 East 47th Street, New York, N.Y. 10017. Allow six weeks for change of address to become effective. Subscription price is \$8.00 per year with discounts to members and libraries. Second-class postage paid at New York, N.Y. and at additional mailing offices. IR, WW.

---

DISCUSSION  
Proc. Paper 8488

---

<p><b>SELF-STABILIZING TENDENCIES OF ALLUVIAL CHANNELS,</b> by Johannes Gessler (May, 1970. Prior Discussions: Feb., 1971). closure . . . . .</p>	757
<p><b>HISTORY AND FUTURE OF OHIO RIVER NAVIGATION,</b> by Carl H. Gaum (May, 1970. Prior Discussion: Feb., 1971). closure . . . . .</p>	759
<p><b>COASTAL EROSION IN NORTH CAROLINA,</b> by Leonard J. Langfelder, Donald B. Stafford, and Michael Amein (May, 1970. Prior Discussion: Feb., 1971). closure . . . . .</p>	761
<p><b>FRAMEWORK PLAN FOR OHIO BASIN NAVIGATION TO 2020,<sup>a</sup></b> by Theodore A. Kent (Aug., 1970. Prior Discussion: Feb., 1971). by James W. Nisbet . . . . .</p>	761
<p><b>NUMERICAL MODEL FOR TSUNAMI RUN-UP,</b> by Kenneth L. Heitner and George W. Housner (Aug., 1970). errata . . . . .</p>	766
<p><b>FLUME EXPERIMENTS ON ALTERNATE BAR FORMATION,<sup>a</sup></b> by Hai-Yain Chang, Darly B. Simmons, and David A. Woolhiser (Feb., 1971. Prior Discussion: Aug., 1971). by R. A. Callander . . . . . by Mohammad Akram Gill . . . . .</p>	766 768
<p><b>INTERACTION OF WAVES WITH SUBMERGED OBJECTS,<sup>a</sup></b> by C. J. Garrison and V. Seetharama Rao (May, 1971). by Subrata K. Chakrabarti . . . . .</p>	771
<p><b>WIND AND SURGE DAMAGE DUE TO HURRICANE CAMILLE,<sup>a</sup></b> by H. C. S. Thom and R. D. Marshall (May, 1971). by Melvin W. Jackson . . . . .</p>	775

---

<sup>a</sup> Discussion period closed for this paper. Any other discussion received during this discussion period will be published in subsequent Journals.

---

**TECHNICAL NOTES****Proc. Paper 8491**

---

<b>RIVER BED TRANSPORT RELATED TO MEANDER MIGRATION RATES</b>	
by Charles R. Neill . . . . .	783
<b>WAVE TRAIN DIRECTION ANALYSIS</b>	
by Subrata K. Chakrabarti . . . . .	787
<b>ESTIMATION OF WAVE PARAMETERS AT MARINE CONSTRUCTION</b>	
by Yu M. Krylov, S. S. Strekalov, and V. F. Tsyploukhin . . . . .	793