CIVIL, CONSTRUCTION, AND ENVIRONMENTAL ENGINEERING

OREGON STATE UNIVERSITY

College of Engineering

SOLLITT, Charles K. **BIRTH DATE**
Associate Professor August 8, 1943

DEGREES

B.S., Civil Engineering, University of Washington, 1966
M.S., Civil Engineering, University of Washington, 1968
Ph.D., Civil Engineering, Massachusetts Institute of Technology, 1972

ACADEMIC POSITIONS

Assistant Professor, Oregon State University, 1972-1978.
Associate Professor, Oregon State University, 1978-Present
Director, O.H. Hinsdale Wave Research Laboratory, Oregon State University, l980-Present
Chairman, Ocean Engineering Program, Oregon State University, 1984-1990

NON-ACADEMIC POSITIONS

Research Assistant, Massachusetts Institute of Technology, 1969-1972
Coastal Engineer, U.S. Army Corps of Engineers, New England Div., Waltham, MA, l969
Research Assistant, University of Washington, 1967-1968
Surveyor and Structural Inspector, Washington State Highway Commission, Seattle and Spokane, WA, Summers 1962-1966.

Consultant to:

CH2M-Hill, Corvallis, 1973, 1974, 1977, l982
Dames and Moore, San Francisco, 1976-1977
Jones and Jones, Portland, l983, l984, l985

FIELDS OF SPECIALIZATION

Wave-structure-foundation interaction, rubble structure behavior, offshore wave-current measurement systems, and laboratory wave modeling

PROFESSIONAL ACTIVITIES

Professional Societies

American Association for the Advancement of Science
American Society of Civil Engineering

Professional Recognition

Chi Epsilon
Sigma Xi
Past Chairman, ASCE Technical Committee on Ocean Engineering
NSF Technical Advisory Committee on Engineering Research Centers, 1989

PUBLICATIONS

Technical Journals

"Wave Transmission by Overtopping," (with R.H. Cross), Proc. ASCE, J.W.W.H., Vol. 98, No. WW3, August 1972.

"Wave Attenuation by a Porous Walled Breakwater," (with E.P. Richey), Proc. ASCE, J.W.W.H., Vol. 96, No. WW3, August 1970.

"Large Scale Model Testing of a Submerged Wave Attenuation Device," (with D.S. Huber), in *Closed Loop*, The Magazine of Mechanical Testing, April 1976.

"Geotextile Stabilization of Seabeds: Theory," (with W.G. McDougal), Butterworth & Co., Ltd., Journal of Engineering Structures, Vol. 6, pp. 211-216, July 1984.

"Geotextile Stabilization of Seabeds: Large Scale Experiments," (with W.G. McDougal), Butterworth and Co., Ltd., Journal of Engineering Structures, Vol. 6, pp. 217-222, July 1984.

"Hinged Floating Breakwater," (with P.A. Leach, W. G. McDougal), Proc. ASCE, J.W.P.C.O.E., Vol. III, No. 5., pp. 895-909, September, l985.

"Wave-Induced Forces on Buried Pipeline," (with McDougal, Monkmeyer, and Davidson), Proc. ASCE Journal of W.P.C.O.E., Vol. 114, No. 2, pp. 220-236, March 1988.

"Wave Interaction with Rubble Toe Protection," (with Sulisz and McDougal), Journal of Ocean Engineering, Vol. 16, No. 5/6, pp. 463-473, 1989.

"Response of Finite Depth Seabed to Waves and Caisson Motion," (with Tsai and McDougal), Proc. of ASCE Journal of W.P.C.O.E., Vol. 116, No. 1, pp. 1-20, January 1990.

"Vertical Membrane Floating Breakwater," (with McDougal and Liu), Proc. of Acta Oceanologica Sinica, China Ocean Press, Vol. 11, No. 4, pp. 603-624, 1992.

Conference Proceedings

"Wave Attenuation by a Porous Walled Breakwater," (with E.P. Richey), Proc. ASCE Conference, Civil Engineering in the Oceans II, Miami, FL, 1969.

"Wave Transmission Through Permeable Breakwaters," (with R.H. Cross), Proc. of 13th International Conference on Coastal Engineering, ASCE, Vancouver, B.C., July 1972.

"Physical Changes in Estuarine Sediments Accompanying Channel Dredging," (with S.D. Crane), Proc. of 14th International Conference on Coastal Engineering, ASCE Copenhagan, Denmark, July 1974.

"Large Scale Model Testing of the FMC Submerged Wave Attenuation Device," (with D.S. Huber), ASCE Structural Engineering Convention, New Orleans, April 1975.

"Large Scale Model Test of Placed Stone Breakwaters," (with D.H. DeBok), Proc. of 15th International Conference on Coastal Engineering, ASCE, Honolulu, HI, July 1976.

"Non-Conservative Wave Interaction with Fixed Rectangular Structures," (with R.L. Steimer) Proc. of 16th International Conference on Coastal Engineering, Hamburg, Germany, September 1978.

"Analytical Modeling of Geotextiles in Ocean Engineering Applications," (with W.G. McDougal), Proc. Oceans '81, IEEE, Boston, September 1981.

"Frequency Response Characterization of Current Meters," (with T.L. Dibble), Proc. Oceans '81, IEEE, Boston, Vol. 1, p. 250-256, September l981.

"Geotextile Applications in Buried Marine Pipelines," (with W.G. McDougal), ASCE Nat. Convention, Las Vegas, April 1982.

"Geotextile Stabilization of Seabeds: Theory," (with W.G. McDougal), Proc., Ocean Structural Dynamic Symposium '82, Corvallis, September 1982.

"Geotextile Stabilization of Seabeds: Large Scale Experiments," (with W.G. McDougal), Proc., Ocean Structural Dynamics Symposium '82, Corvallis, September 1982.

"Ship Deployable Floating Breakwater," (with P.A. Leach, W.G. McDougal), Proc. ASCE, Coastal Structures '83, Arlington, VA, March l983.

"Wave Forces on Buried Marine Pipelines," (with S.H. Davidson and W. G. McDougal), Proc. ASCE, Pipelines in Adverse Environments II, San Diego, November l983.

"Design of Scrap Tire Reefs on Fish Habitats," (with T.I. Kim), Proc. of 5th Congress, Intl. Assoc. for Hyd. Des., Vol. III, pp. 473-490, August 1986.

"Mechanically Coupled Flap Type Breakwaters: Theory and Experiment," (with Lee, McDougal, and Perry), Proc. Ocean Structural Dynamics Symposium '86, pp. 730-757, September 1986.

"Mechanically Coupled Buoyant Flaps: Theory and Experiment," (with Lee, McDougal, and Perry), Proc. 20th Intl. Conf. on Coastal Engrg., Vol. III, pp. 2445-2462, November 1986.

"An Analytical Model for Ocean Wave-Soil-Caisson Interaction," (with Tsai and McDougal), Proc. 20th Intl. Conf. on Coastal Engrg., Vol. III, pp. 2314-2328, November 1986.

"Verification of the Analytical Model for Ocean Wave-Soil-Caisson Interaction," (with McDougal and Tsai), Proc. 20th Intl. Conf. on Coastal Engrg., Vol. III, pp. 2089-2103, November 1986.

"New Designs for Acoustic and Resistive Wave Profilers," (with T.L. Dibble), Proc. XIII Congress of Intl. Assoc. of Hyd. Res. Workshop on Instrumentation for Hydraulics Laboratories, Ottawa, pp. 185-200, August 1989.

"Overview of the SUPERTANK Data Collection Project," (with N.C. Kraus and J.M. Smith), Poster Session for Am. Geophysical Union Conference, December 1991.

"SUPERTANK Laboratory Data Collection Project," (with N.C. Kraus and J.M. Smith), Proc. ASCE 23rd Intl. Conf. on Coastal Engrg., Venice, Italy, pp. 2191-2204, October 1, 1992.

"Flexible Membrane Wave Barrier," (with G.O. Thompson, W.G. McDougal, and W.R. Bender), Proc. ASCE Civil Engineering in the Oceans V, College Station, Texas, pp. 129-148, November 1992.

"Wave Runup on a Dolos Armored Slope: Large Scale Experiments," (with Elina Dretta), Proc. International Symposium on Waves - Physical and Numerical Modeling, Vancouver, B.C., Vol. III, pp. 1354-1363, August 1994.

Reports and Others

"Attenuation of Deep Water Waves by a Porous Walled Breakwater," (with E.P. Richey), Technical Report No. 25, W.W. Harris Hydraulics Laboratory, University of Washington, January 1969.

"Pneumatic Destratification of Density Layers," (with E.P Richey), Fisheries Research Papers, Vol. 3, No. 2, Washington Department of Fisheries, 1970.

"Wave Transmission by Overtopping," (with R.H. Cross), Technical Note No. 15, Ralph M. Parsons Laboratory, Massachusetts Institute of Technology, July 1971.

"Wave Reflection and Transmission at Permeable Breakwaters," Technical Report No. 147, Ralph M. Parsons Laboratory, Massachusetts Institute of Technology, March 1972.

"Effects of Hopper Dredging and in Channel Spoiling at Coos Bay, Oregon," (with L.S. Slotta, et al), Final Report, Oregon State University, July 1973.

"Effects of Shoal Removal by Propeller Wash, December 1973, Tillamook Bay, Oregon," (with L.S. SLotta, et al), Final Report to Army Corps of Engineers, Portland District, July 1974.

"Dredging in Estuaries - Guide for EIS Review," (with K.J. Williamson, et al), Final Report to NSF/RANN, Grant No. ENV71-01908-A03, March 1977, 89 pages.

"Dredging in Estuaries - Technical Manual of EIS Review," (with K.J. Williamson, et al) Final Report to NSF/RANN Grant No. ENV71-01908-A03, March 1977, 312 pages.

"Environmental Impacts of Dredging in Estuaries," (with K.J. Willamson, et al), Final Report NSF/RANN Grant No. ENV71-01908-A03, July 1977, 675 pages.

"Wave Interaction with Pile Supported Harbor Facilities," (with J.H. Dummer), Sea Grant Report ORES-X-80-001, February 1980.

"Coos Bay Offshore Disposal Site Investigation, Phase I," (with D.R. Hancock, et al), U.S. Army Corps of Engineers, Portland District, March 1980.

"Wave Forces on Submerged Artificial Reefs Fabricated From Scrap Tires," (with T.I. Kim, D.R. Hancock), Sea Grant Report ORESU-T-81-003, July 1981.

"Ocean Wave-Soil-Geotextile Interaction," (with W.G. McDougal, et al), Sea Grant Report ORESU-X-82-001, November 1981.

"Coos Bay Offshore Disposal Site Investigation, Phase II and III," (with P.O. Nelson, et al.), U.S. Army Corps of Engineers, Portland District, l982.

"Coos Bay Offshore Disposal Site Investigation, Phase IV and V," (with D.R. Hancock and P.O. Nelson), U.S. Army Corps of Engineers, Portland District, l984.

"Threshold Conditions for Seabed Drifters in Wave and Wave/Current Environments," U.S. Army Corps of Engineers, Coastal Engineering Research Center, Vicksburg, MS, 1991.

RESEARCH

Current Research

"Rapidly Installed Breakwater System," U.S. Army Corps. of Engineers, Phase I - $41,514; Phase II - $57,906.

"Core-Loc Armor Unit: Large Scale Model Studies," U.S. Army Corps of Engineers, $67,416.

"Pt. Loma Outfall Reballast Studies," Parsons Engineering Science, Inc., $56,737.

"Arctic Artificial Island Stability Studies," (with W.G. McDougal), Coastal Frontiers, Inc., $88,180.