

## UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER Report SIT-DL-78-2020	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle)  AN EXPERIMENTAL STUDY OF A METHOD TO ATTENUATE SURFACE WAVES OVER A LIMITED REGION OF THE OPEN OCEAN		5. TYPE OF REPORT & PERIOD COVERED  Final
		6. PERFORMING ORG. REPORT NUMBER SIT-DL-78-2020
7. AUTHOR(s)  Richard I. Hires		8. CONTRACT OR GRANT NUMBER(s)  N 00014-77-C-0702
9. PERFORMING ORGANIZATION NAME AND ADDRESS DAVIDSON LABORATORY Stevens Institute of Technology Hoboken, New Jersey 07030		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Department of the Navy OFFICE OF NAVAL RESEARCH Arlington, Virginia 22217		12. REPORT DATE June 1978
		13. NUMBER OF PAGES 28 pages; 23 figures
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report)  Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)  Wave Attenuation; Wave-Current Interaction; Wave Refraction		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  An experimental investigation of the refraction of surface gravity waves by relatively narrow (of the order of or less than one wave length) and shallow, laterally sheared, surface currents was undertaken to determine the feasibility of employing artificially-generated currents to achieve local wave damping in the ocean. In the experiments, single frequency wave trains (wave length, $\lambda_0$ , in still water) were initially propagated in the same direction as the direction of the current in the		