

## **General Disclaimer**

### **One or more of the Following Statements may affect this Document**

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.
- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.
- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.
- This document is paginated as submitted by the original source.
- Portions of this document are not fully legible due to the historical nature of some of the material. However, it is the best reproduction available from the original submission.

"Made available under NASA sponsorship  
in the interest of early and wide dis-  
semination of Earth Resources Survey  
Program information and without liability  
for any use made thereof."

E7.6-10.052  
CR-145592

A NEW CURRENT DROGUE SYSTEM FOR  
REMOETELY MONITORING SHELF CURRENT CIRCULATION

V. Klemas and G. Davis  
College of Marine Studies  
University of Delaware

and

W. Whelan and G. Tornatore  
ITT Electro-Physics Laboratories  
Columbia, Maryland

October 30, 1975  
Report on Significant Results  
NASA LANDSAT CONTRACT NAS5-20983  
UN 20570

Prepared for  
GODDARD SPACE FLIGHT CENTER  
GREENBELT, MD 20771

(E76-10052) A NEW CURRENT DROGUE SYSTEM FOR  
REMOETELY MONITORING SHELF CURRENT  
CIRCULATION (Delaware Univ.) 2 p HC \$3.50

N76-12625

CSC 08C

Unclas

G3/48 00052

## SIGNIFICANT RESULTS

A new ocean current drogue system has been developed for use in the coastal zone and continental shelf region. The method features an extremely simple radio-sonde device whose position is determined from a pair of cooperative shore stations. These ocean sondes follow the tradition of the atmospheric radiosonde in that they are economically disposable at the end of their mission. Thus, the risks and costs of re-recovery are avoided. The system has been successfully tested in a number of environments, including the North Atlantic in two winter coastal storms. Tracking to the edge of the Baltimore and Wilmington trenches has been achieved. Any of several methods for position-fixing are available, including conventional radio direction-finding, inverse Loran, and re-broadcast of Loran-C or Omega signals. However, for operations out to 100 miles or so, the radio direction-finding method is recommended. The new drogue system is presently used in conjunction with remote sensing aircraft and satellites to chart current circulation at ocean waste disposal sites 40 miles off Delaware's coast.