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N89-28136**Applications of the Coastal Zone Color Scanner
in Oceanography**

by

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Research activities has continued to be focused on the applications of the Coastal Zone Color Scanner (CZCS) imagery in oceanography. A number of regional studies have been completed including investigations of temporal and spatial variability of phytoplankton populations in the South Atlantic Bight, Northwest Spain, Weddell Sea, Bering Sea, Caribbean Sea and in tropical Atlantic Ocean. Also, Frank Muller-Karger who was supported to work at GSFC by the NASA Graduate Researchers Assistantship Program completed his Ph.D. requirements at the University of Maryland. His dissertation research was a study of biological variability in the Caribbean Sea and Eastern tropical Atlantic Ocean.

In addition to the regional studies, much work was dedicated to developing ancillary global scale meteorological and hydrographic data sets to complement the global CZCS processing products (see discussion below). To accomplish this, SEAPAK's image analysis capability was complemented with an interface to GEMPAK (Severe Storm Branch's meteorological analysis software package) for the analysis and graphical display of gridded data fields. Plans are being made to develop a similar interface to SEAPAK for hydrographic data using EPIC (a hydrographic data analysis package developed by NOAA/PMEL). A Director's Discretionary Fund

proposal was approved for the support of a dedicated data programmer/analyst to be located at the NASA Climate Data System (NCDS). He handles the implementation of selected meteorological and hydrographic data sets into NCDS.

Over the last year, a major effort has been the processing of the CZCS data set. This is a collaboration among members of the Oceans and Ice Branch (Code 671), Code 630, and the University of Miami. The Code 671 component has the responsibility of quality control of the final products. Finally, during the last year, plans for a CZCS follow-on mission, SeaWiFS, have progressed to the point where it appears that the mission will be approved for a 1991 launch on LandSat-6.