

CHEMICAL OCEANOGRAPHY IN THE SOUTH ATLANTIC OCEAN, ADJACENT TO NORTH - EASTERN BRAZIL

By Taizo OKUDA

INTRODUCTION

We have as yet very little available data as to oceanographic observation in the South Atlantic Ocean especially in the area adjacent to Brazil. The data available have been obtained by "Meteor" (1926), "Discovery" (1931) "Toko- Maru" (1957), "Crawford" (1957-1958), "Almirante Saldanha" (1957-1960), and "Atlantis" (1959).

Since 1957, the oceanographic observations in the South Atlantic Ocean adjacent to Brazil have been conducted as a part of the program of the International Geophysical Year. As a part of the series of this program, the oceanographic observations in the sea adjacent to north eastern Brazil were made by the "Almirante Saldanha", Oceanographic Ship of the Brazilian Navy, from August to October 1959. These observations extend from latitude 13° to 3.5° S. and from longitude 30°W. to the coast of Brazil. The oceanographical data were published by the "Diretoria de Hidrografia e Navegação" of the Brazilian Navy.

The author, by invitation of the Brazilian Navy, participated in the oceanographic observation in the northern area from 9°S., and was in charge of the analysis of inorganic phosphorus, total phosphorus and inorganic nitrogen such as ammonia-N, nitrite-N, and nitrate-N.

This report deals with the general features of oceanographic conditions, with especial reference to the major features of chemical oceanography in this area. Although the data presented in this paper were obtained from a relative narrow area, they furnish information on the chemical and physical oceanographic conditions.

ACKNOWLEDGMENT

The author wishes to express his gratitude to Cte. Paulo Moreira da Silva, Commander of "Almirante Saldanha" Oceanographic Ship of the Brazilian Navy, for his invitation to make the observations and for his invaluable advice. Thanks are also due to all members of the "Almirante Saldanha" for their kind collaboration on the cruise. Equal

