Atlas of
Physical and Chemical Data
North Pacific Surveys

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INTRODUCTION

This atlas is a supplement to the data record published in MS Report (O & L) No. 43 (April 1959) dealing with the oceanographic cruise carried out during the period January 20 to February 15, 1959 in the eastern sub-Arctic region. It contains horizontal distributions of temperature, salinity, oxygen, dynamic topography, and fresh water content; and vertical sections of temperature, salinity, oxygen and sigma-t (σt). No description of the oceanographic features or their variations compared to former periods is given. Some of the previous data in this region have been reviewed (Tully and Dodimead, 1957; Dodimead, 1958).

The surfaces chosen for the horizontal distributions are standard oceanographic depths or surfaces, which, because of the current research work in this Group, are considered to be important in the description and understanding of the oceanography of this region. Generally, they are based on the salinity structure, which is, with minor variations, a permanent feature of this region. A brief description of some of these surfaces and their significance with reference to the report in which they are discussed is given:

Properties at 10 metres depth are representative of the distribution of the properties from the surface to the top of the halocline during the winter.

"D" denotes the top of the halocline (Tully and Barber, 1959).

"L" denotes the bottom of the halocline (Tully and Barber, 1959).

Salinity 33.8‰ generally coincides with the bottom of the halocline (Tully and Barber, 1959).

The surface at σt = 26.60 is below the level of seasonal influence (Tully, Dodimead and Tabata, 1959).

The presentation of the data in the horizontal plots and the vertical sections was made under the direction of Mr. A.J. Dodimead. The illustration plates were drawn by Mr. R.L. Johnston.

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