

1. Introduction

This is an atlas showing the 30-year mean of marine meteorological elements of the Sea of Okhotsk calculated from data sets compiled by NOAA (COADS: Comprehensive Ocean Atmosphere Data Set) over the period 1950–1979.

Up to now, several reports or climatological charts have been published concerning the meteorological conditions of the Sea of Okhotsk, but these are limited to a description of a short period of 1 to 2 weeks (Kato 1985, Ogata 1969) or can not give detailed features because of insufficient data points (Japan Meteorological Agency 1977, U.S. Weather Bureau and U.S. Navy Hydrographic Office 1961).

COADS used in the present study, however, gives the monthly mean of meteorological elements averaged in each $2^{\circ} \times 2^{\circ}$ area from 1854 to 1979, and the number of observations compiled is extremely large except for areas where sea ice is formed in winter. As most data of COADS were collected by voluntary observation of merchant vessels, the accuracy is not so high as that of the data collected by research vessels, and the distribution of observation sites is not uniform, but they are useful to climatic studies because of their large quantities.

2. Data

We have used the file MSTG (Monthly Summary Trimmed Groups) in COADS. This file contains the monthly mean values of wind, surface air temperature, sea surface temperature, cloud amount, and relative humidity in each $2^{\circ} \times 2^{\circ}$ area from 1854 to 1979. We averaged these data over the period 1950–1979, to draw monthly mean charts of each element, i.e., surface wind speed, surface wind vector, surface air temperature, sea surface temperature, cloud amount, and relative humidity.

The total numbers of observations used to draw these charts are:

wind	1,194,780
surface air temperature	1,218,517
sea surface temperature	1,086,627
cloud amount	1,015,330
relative humidity	469,967

The monthly numbers of observations in each $2^{\circ} \times 2^{\circ}$ area are shown in Fig. 1. 1 to Fig. 1. 12. It should be remembered that few observations were carried out in sea-ice areas in winter, and that those observations reported for such areas were carried out in

the open water, not on the ice cover.

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