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**Meteorological Data Report at Chaivo, Northern Sakhalin,
November 2003 – October 2004^{*,**}**

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Abstract: Observations of meteorological and sea-ice variables were carried out at Chaivo, northern Sakhalin during the period from November 2003 to October 2004, as part of the Japan-Russia cooperative research project "Sea Ice Studies off the Okhotsk Sea Coast of Sakhalin". Time series of surface radiative temperature were summarized in this report. Such as wind, air temperature, humidity, solar radiation and atmospheric pressure were not obtained due to malfunction of the data logger.

要旨:「日本・ロシア両国によるオホーツク海・サハリン沖海氷の共同調査」の一環として、北サハリンのチャイボで、気象及び海氷の観測調査を2003年11月から2004年10月まで実施した。本報告では、オホーツク海とチャイボ湾とを結ぶクレイエ海峡に面する気象観測所で収集した表面輝度温度の観測資料を提示する。データロガー不調のため風速、気温、湿度、日射量、大気圧は観測できなかった。

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Key words: Meteorological variables, Sea ice, Chaivo, Northern Sakhalin, Sea of Okhotsk

キーワード: 気象要素、海氷、チャイボ、北サハリン、オホーツク海

I. Introduction

As part of the Japan-Russia cooperative research project, "Sea Ice Studies off the Okhotsk Sea Coast of Sakhalin", observations of meteorological and sea-ice variables were carried out at Chaivo, northern Sakhalin (Fig. 1) during the period from November 2003 to October 2004 to characterize atmospheric variables and sea-ice formation in northern Sakhalin throughout all the year round. Time series of surface radiative temperature obtained at an automatic weather station of the Chaivo Research Station (Fig. 2), located near the shore of Kleye Strait are shown in this report. Prior to this study, field experiments of meteorological and sea-ice studies had been carried out at the Chaivo Research Station since 1992, as part of the Japan-Russia cooperative research project, "Sea Ice Studies off the Okhotsk Sea Coast of Sakhalin". Some of the meteorological variables and sea-ice characteristics obtained from this project were reported in Shirasawa *et al.* (1994, 1996, 1998, 2000, 2001, 2002 and 2003).

II. Meteorological variables at Chaivo Research Station

The Chaivo Research Station (52°21.50'N, 143°11.93'E) is located near the shore of Kleye Strait, which links Chaivo Bay to the Sea of Okhotsk (Fig. 1). The Chaivo Research Station has been operated all the year round by the JSC Sakhalin Projects (former Sakhalin Oil and Gas Institute). An automatic weather station (Data Logger SQ-1201, Grant Instruments Ltd.) was installed on the roof of Chaivo Research Station about 6 m high from the ground in order to obtain general meteorological variables such as air temperature, humidity, wind speed and direction, radiation and atmospheric pressure through all the year round (Fig. 2). Two radiative temperature sensors (Tasco Co., Ltd.) were also installed at the edge of the shore near the station (Fig. 2). One sensor being faced to the sea surface to measure the surface temperature, the other was faced to the sky to measure the diffuse sky temperature.

Time series records of surface radiative temperature are shown in Fig. 3. It appears that apparent diurnal periodicity in the surface radiative temperature exists throughout the whole year.

In this report the time is used in the Japanese Standard Time (JST).

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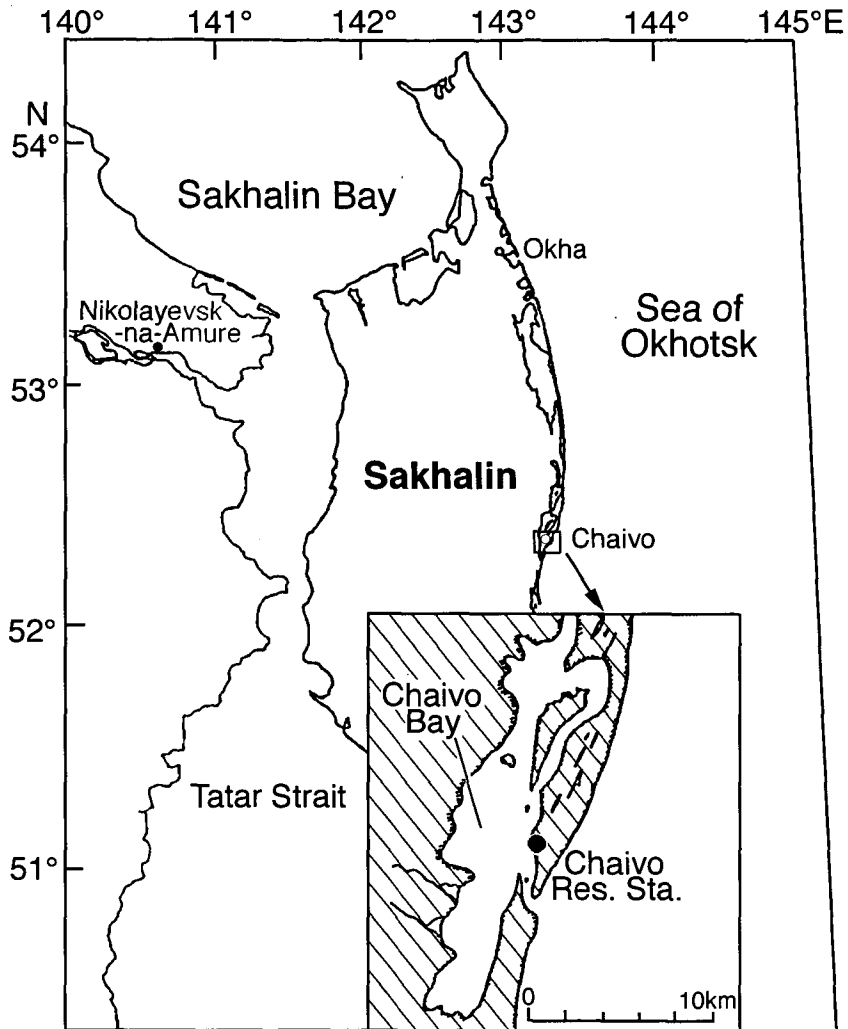


Fig. 1 Study area.

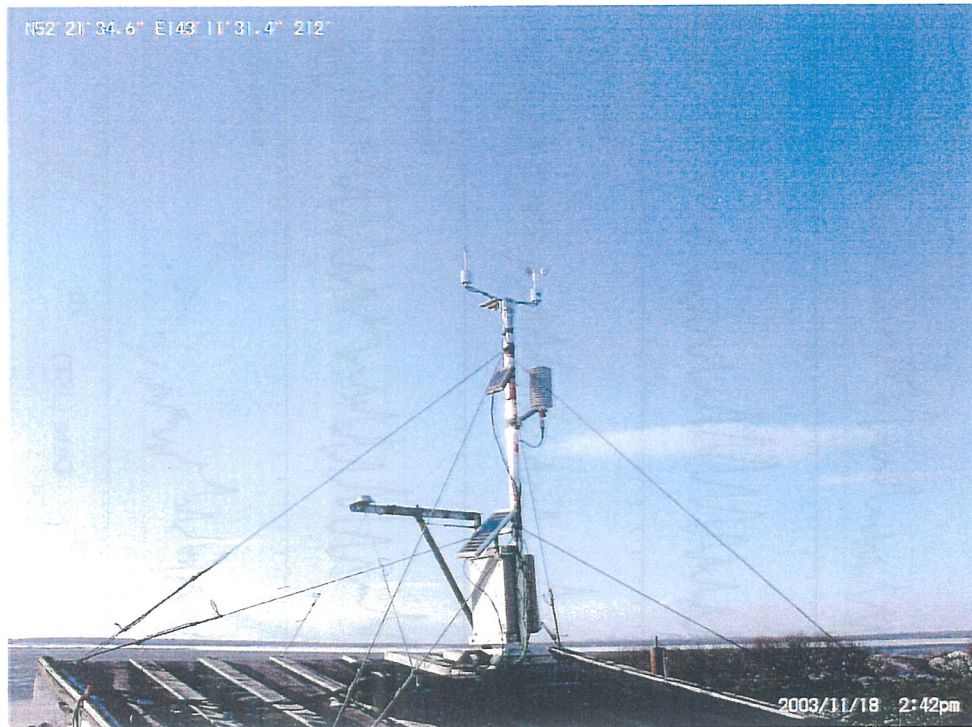


Fig. 2 An automatic weather station (top) and surface radiative temperature sensors installed at the edge of the shore at Kleye Strait near Chaivo Research Station (bottom).

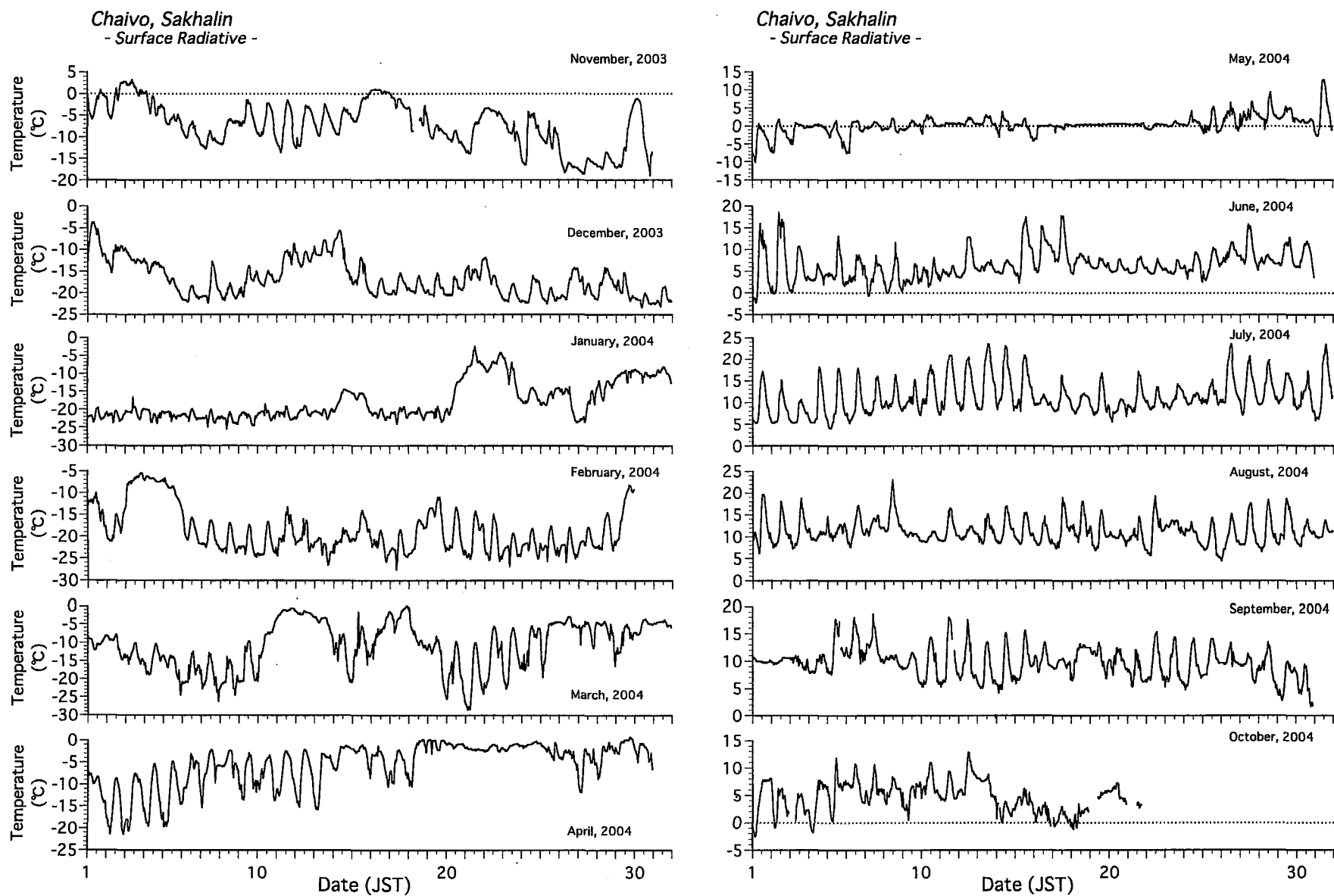


Fig. 3 Surface radiative temperature during the period from November 2003 to October 2004 at Chaivo Research Station.

List of the Data Report series related to Sakhalin Ice Studies

- Shirasawa, K., Ikeda, M., Ishikawa, M., Takatsuka, T., Kodama, Y., Aota, M., Takahashi, S., Takizawa, T., Polomoshnov, A., Truskov, P., and Astafiev, V. (1994) Meteorological Data Report for the Sea Ice Studies off the Okhotsk Sea Coast of Sakhalin. *Low Temperature Science, Ser. A., 53. Data Report.* 165-256.
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