

Preliminary Report
of
The Hakuho Maru Cruise KH-87-1
(WESTPAC)

22 January-10 March 1987

Studies on Deep Circulations in the Western North Pacific
and in the Philippine Sea

Ocean Research Institute

University of Tokyo

1988

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by

The Scientific Members of the Cruise

Edited by

Toshihiko TERAMOTO and Keisuke TAIRA

Preface

The cruise was designed to investigate deep circulations in the western North Pacific and in the Philippine Sea based on the studies of physical and chemical oceanography. The subtropical gyre is a large clockwise circulation in the upper layer of the whole North Pacific Ocean. The Kuroshio, the western boundary current of the gyre, is originated from the North Equatorial Current, and it begins to flow at an intensified speed in the east of Taiwan. The Kuroshio flows into East China Sea, and then it goes eastward in the south of Kyushu, Shikoku and Honshu. The eastward flow in the east of Izu Ridge is renamed as the Kuroshio Extension. The Kuroshio Extension is connected to the North Pacific Current, which is flowing eastward across the North Pacific Ocean. The current turns southward in the west of the North American Continent, and then it turns westward as the North Equatorial Current.

About 3000 m below the sea surface, Philippine Sea is almost separated from the North Pacific Ocean by long submarine ridges, Izu-Ogasawara Ridge, Mariana Ridge, Yap Ridge and Palau Ridge. Deep circulations are separated under the single subtropical gyre in the surface layer of the North Pacific Ocean. The highest latitude in the Philippine Sea is about 35 N, and the deep water is not formed there. The deep water and bottom water are supplied through deep gaps around the Yap Trench from the Pacific Ocean. The Yap Trench is located at the southeastern corner of Philippine Sea. There are two possible routs for the bottom water to flow into Philippine Sea, one westward

flow to reach the western boundary of the sea, and the other northward flow along the eastern boundary. The former is suggested by a model of abyssal circulations accepted for other oceans, and the latter is anticipated from the westward flow under the Kuroshio, which has been confirmed with moored current meters by Japanese investigators.

The subjects carried out during the cruise are as follows: 1) Direct measurements of deep currents with moorings of current meters on the eastern slope of the Izu-Ogasawara Ridge, in the deepest portion of the Izu-Ogasawara Trench and along the western boundary of the Philippine Sea. 2) The CTD casts along latitudes of 12 N and 13 N from 127 E to 144 E in the Philippine Sea. 3) Moorings of sediment traps in the Shikoku Basin and in the Izu-Ogasawara Trench. 4) Field tests of acoustic instruments. 5) Measurements of heat fluxes. 6) Survey of aerosol distribution in the Philippine Sea.

The cruise was composed with three legs:

Leg 1: 22 January - 6 February 1987, from Tokyo to Guam

Leg 2: 8 February - 19 February 1987, from Guam to Cebu

Leg 3: 25 February - 10 March 1987, from Cebu to Tokyo

The graduate students from Korea, Indonesia and China had participated in the cruise as one of the Westpac Programs.

August 1988

Toshihiko TERAMOTO and Keisuke TAIRA

Retirement of Professor Toshihiko Teramoto

Dr. Toshihiko Teramoto, the professor of physical oceanography at Ocean Research Institute, University of Tokyo, was retired in March 1987. He had joined the Ocean Research Institute from its start in 1962 as a research associate. He was appointed as the associate professor in 1965, and the professor in 1973. The cruise of KH-87-1 of the R/V Hakuho Maru was a farewell voyage to Professor Teramoto. He is the Professor Emeritus of the University of Tokyo, and works at Kanagawa University. We wish to thank him for his excellent leadership and heartfelt encouragements during the cruise.



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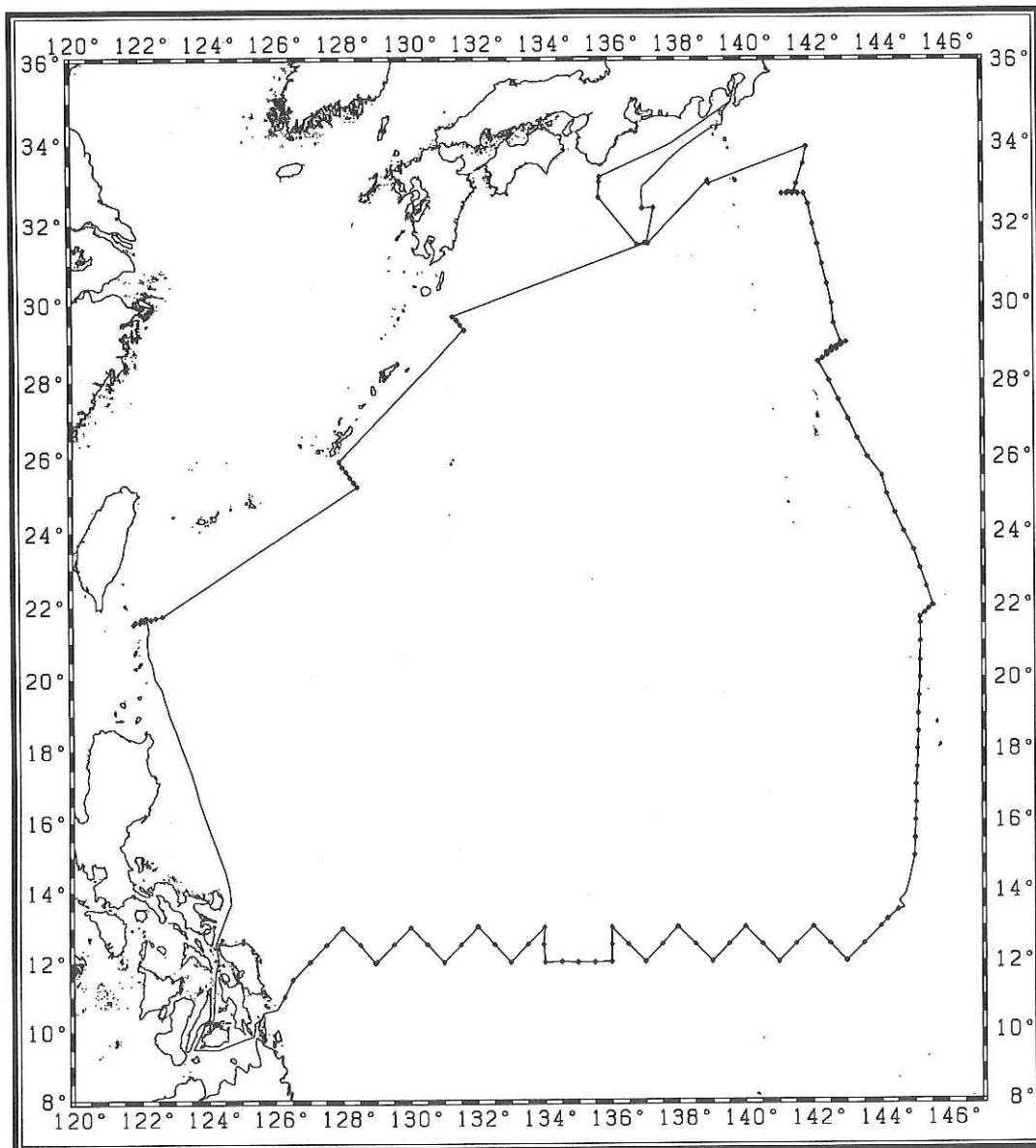
II. Scientists aboard

Toshihiko TERAMOTO ³⁾ ,	Ocean Research Institute, University of Tokyo (Chief Scientist)
Keisuke TAIRA ^{1,2)} ,	Ocean Research Institute, University of Tokyo (Deputy Chief Scientist for Leg 1 and Leg 2)
Toshisuke NAKAI,	Ocean Research Institute, University of Tokyo
Masao FUKASAWA,	Ocean Research Institute, University of Tokyo
Masaki KAWABE,	Ocean Research Institute, University of Tokyo
Hiroataka OTOBE,	Ocean Research Institute, University of Tokyo
Shoji KITAGAWA,	Ocean Research Institute, University of Tokyo
Masanobu HAMATANI,	Ocean Research Institute, University of Tokyo
Toshiaki SHINODA,	Ocean Research Institute, University of Tokyo
YANG, Sung-Kee	Ocean Research Institute, University of Tokyo
Sunao MASUMITSU,	Ocean Research Institute, University of Tokyo
Shinichiro NORIKI,	Faculty of Fisheries, Hokkaido University
Shuichi WATANABE,	Faculty of Fisheries, Hokkaido University
Yutaka WATANABE,	Faculty of Fisheries, Hokkaido University
Chizuru SAITOH,	Faculty of Fisheries, Hokkaido University
Yuji KASHINO,	Faculty of Science, Hokkaido University
Yoshitsugu HAGIHARA,	Faculty of Science, Hirosaki University
Seiki MATSUMOTO,	Faculty of Science, Hirosaki University
Kentaro ANDO ^{1,2)} ,	Faculty of Science, Tohoku University
XIE, Shangping ^{1,2)} ,	Faculty of Science, Tohoku University
Kazuhiro KAWAGUCHI,	Faculty of Science, Tokyo University
Minoru NAKANO,	Res. Inst. of Atmospherics, Nagoya University

Yasunori HANAFUSA	Faculty of Science, Kyoto University
ZHANG, Qian ³⁾ ,	Faculty of Science, Kyoto University
Hiroshi ICHIKAWA ³⁾ ,	Faculty of Fisheries, Kagoshima University
Irawan MIHARJO,	Faculty of Fisheries, Kagoshima University
Toru YAMASHIRO ^{2,3)} ,	Faculty of Technology, Kagoshima University
Masoto KATO	Faculty of Technology, Kagoshima University
Toshiya NAKANO,	Nagasaki Marine Observatory, Japan Meteorological Agency
Noriaki MASUNAGA ¹⁾ ,	Fukui Prefectural Fisheries Laboratory
Hideyuki MURAKAMI ¹⁾ ,	Kaiyo-Denshi Ltd.

-
- 1) Participating Leg 1,
 - 1,2) Participating Leg 1 and Leg 2,
 - 2,3) Participating Leg 2 and Leg 3,
 - 3) Participating Leg 3.

III. Track chart of the Cruise KH-87-1

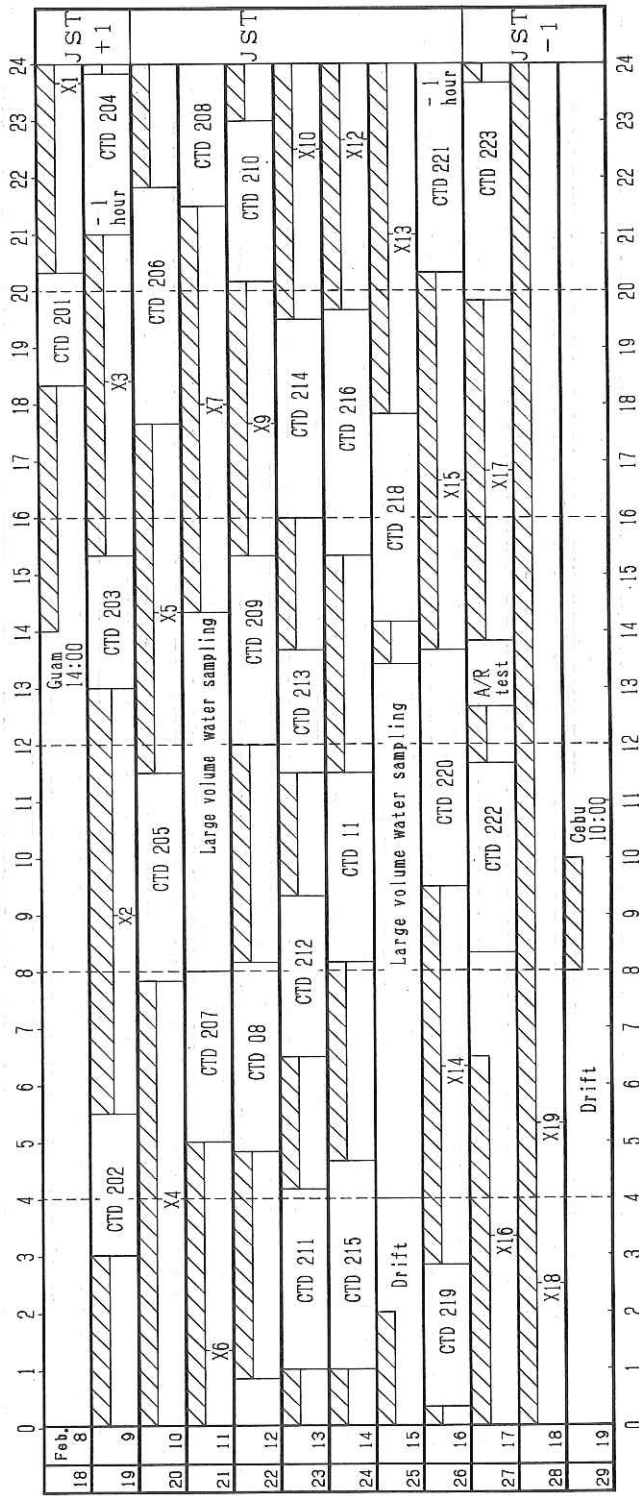


IV. Time tables of the Cruise

Leg. 1 Tokyo-Guam

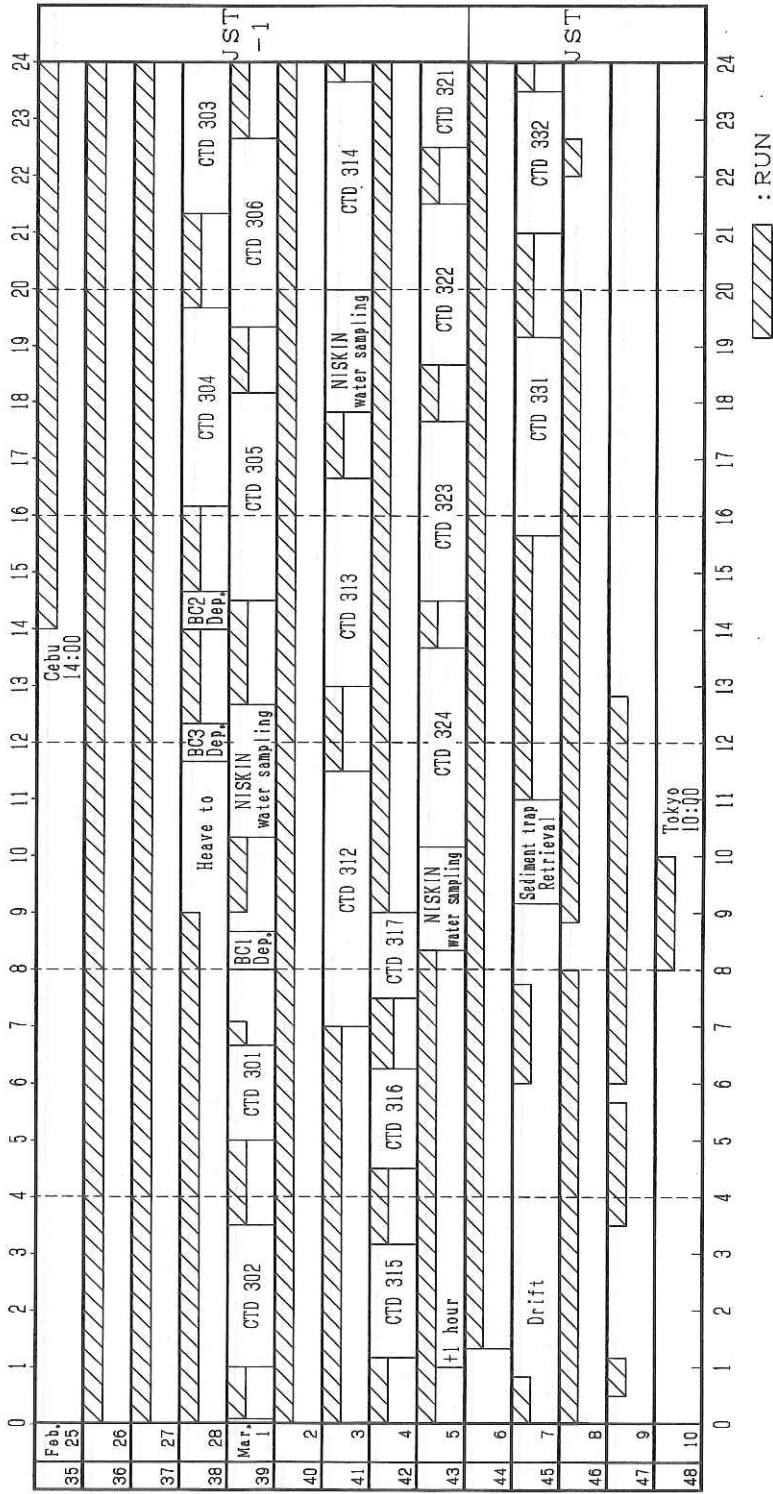
Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Leg. 2 Guam - Cebu



▨ : RUN

Leg. 3 Cebu-Tokyo



1. Moorings of current meters on the eastern flank of
the Izu-Ogasawara Ridge and off Basii Channel
Masao FUKASAWA (Ocean Research Institute, University of Tokyo)

Distribution of chemical tracers has suggested that the deep water and bottom water are flowing northward slowly in the wide interior region of the North Pacific Ocean. This may also suggest that an equatorward flow exists along the western boundary of the North Pacific Ocean. The deep western boundary current of the North Pacific has not been confirmed yet by direct measurements. The Izu-Ogasawara Ridge is a western boundary for the deep and bottom waters in the North Pacific.

Four moorings were deployed on the eastern flank of the Izu-Ogasawara Ridge (Fig.1.1) to obtain current information on the expected deep boundary current. Two Aanderaa current meters were attached to each mooring line as shown in Fig.1.3.

The Philippine Sea is separated from the North Pacific Ocean by Izu-Ogasawara Ridge, Mariana Ridge, Yap Ridge and Palau Ridge. Bottom water (North Pacific Bottom Water) can enter into Philippine Sea only through two gaps, one between Mariana Ridge and Yap Ridge, and the other between Yap Ridge and Palau Ridge. Spreading and mixing of the bottom water are forming an abyssal/deep circulation peculiar to the Philippine Basin.

During the present cruise, three moorings were deployed on the eastern shelf-slope of the Basii Channel (Fig.1.2) as one of filed

programs of the ABCDE(Abyssal Boundary Current and Deep water Exchange) group, represented by Prof. M. Chaen of Kagoshima University. The ABCDE is one of major subgroups of the Priority Area Program "Dynamics of the Deep Ocean Circulation", sponsored by Ministry of Education, Science and Culture. The shelf-slope off Basii Channel is important to examine continuation of the westward current under the Kuroshio (Fukasawa and Teramoto, 1986; and Fukasawa, et al, 1986). Three moorings were deployed as shown in Fig.1.4.

References

- Fukasawa, M. and T. Teramoto (1986): Characteristics of deep current off Cape Shiono-misaki before and after formation of the Large Meander of the Kuroshio in 1981. *J. Oceanogr. Soc. Japan*, 42, 53-68.
- Fukasawa, M., T. Teramoto and K. Taira (1986): Abyssal current along the northern periphery of Shikoku Basin. *J. Oceanogr. Soc. Japan*, 42, 459-472.

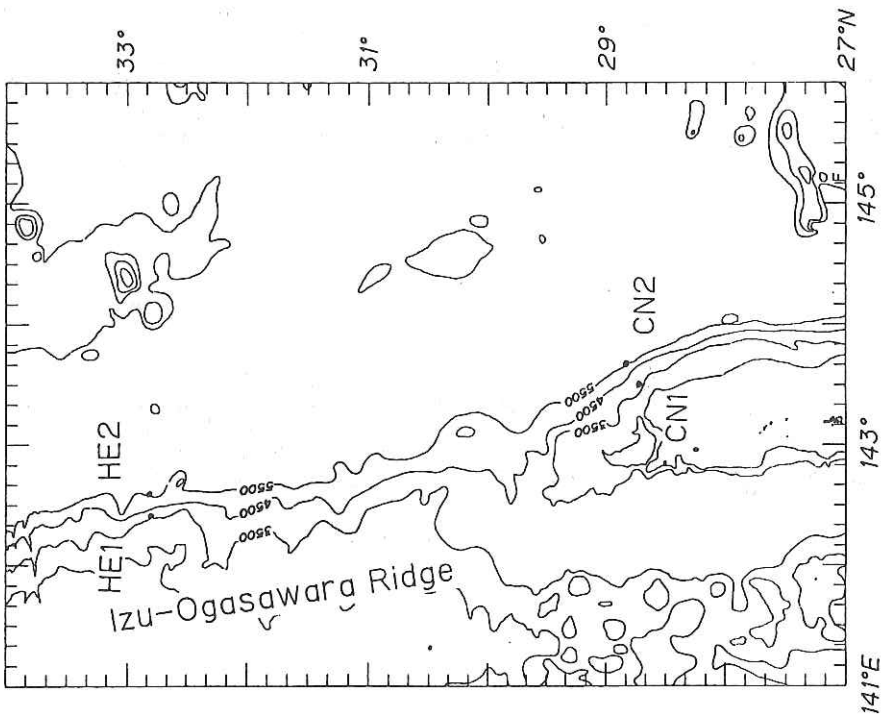


Fig.1.1. Location of mooring stations above the eastern flank of Izu-Ogasawara Ridge.

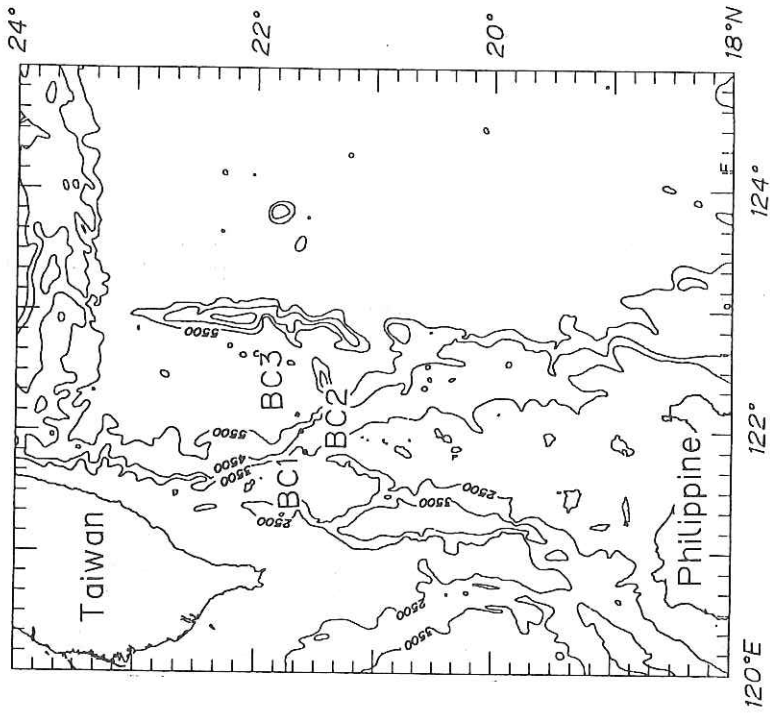


Fig.1.2. Location of mooring stations above the shelf-slope off the Basii Channel.

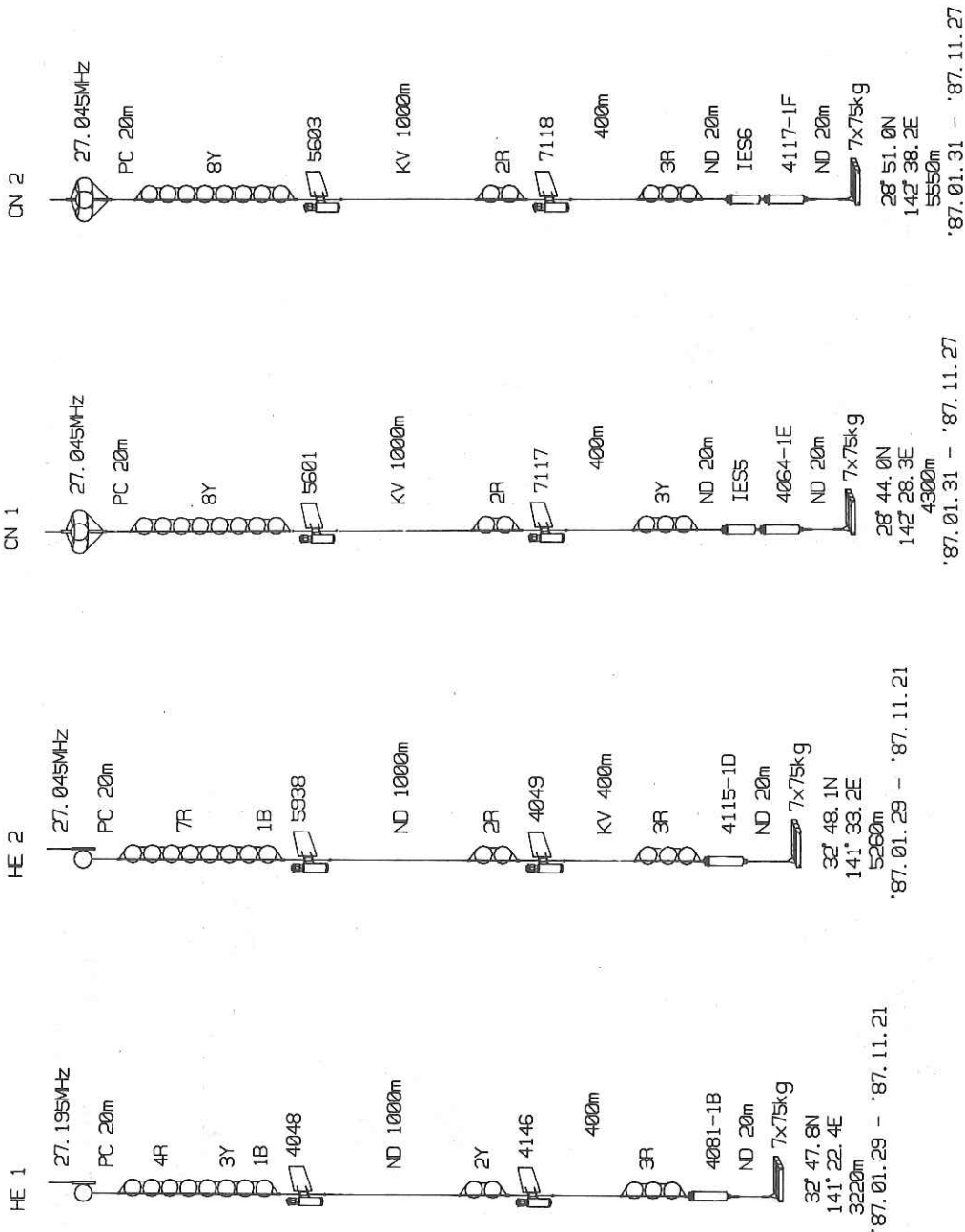


Fig.1.3. Schematics of mooring lines deployed near the Izu Ridge at the stations shown in Fig.1.1.



Fig.1.4. Schematics of mooring lines deployed off the Basii Channel

at the stations shown in Fig.1.2.

2. Measurements of bottom currents in the Izu-Ogasawara Trench
Keisuke TAIRA (Ocean Research Institute, University of Tokyo)

On 28 January 1987, one long mooring line with three current meters was deployed on the axis of the Izu-Ogasawara Trench at a position of $33^{\circ}54.8'N$ and $141^{\circ}54.'E$ where 9205 m deep (Fig.2.1). Because most of oceanographic instruments available on a commercial base are limited to have depth capability upto about 6500 m, an acoustic release and a current meter are newly developed for the mooring at the Division of Physical Oceanography, Ocean Research Institute, University of Tokyo. Deepest trenches are located along the northern and western margins of the North Pacific Ocean as well as the Philippine Sea. Japan Trench and Izu-Ogasawara Trench, both of them with water depth exceeding 9000 m, are located at a distance less than 200 km from Honshu. There was a strong scientific requirement for measurements of the bottom current in the deepest trenches.

Fig.2.2 shows schematically the mooring line deployed in the Izu-Ogasawara Trench. A titanium housing is used for the acoustic release moored at 9186 m depth. The housing was tested at a pressure of 1100 kgf/cm^2 in the laboratory. An acoustic transducer of narrow-beam was used both for the underwater unit and the shipboard unit. Three current meters were set at depth of 9185 m, 8385 m and 7585 m. The current meter was designed and assembled by Shoji Kitagawa (Ocean Research Institute, University of Tokyo). A titanium housing 40.0 cm long and 8.6 cm in diameter is used for the pressure case

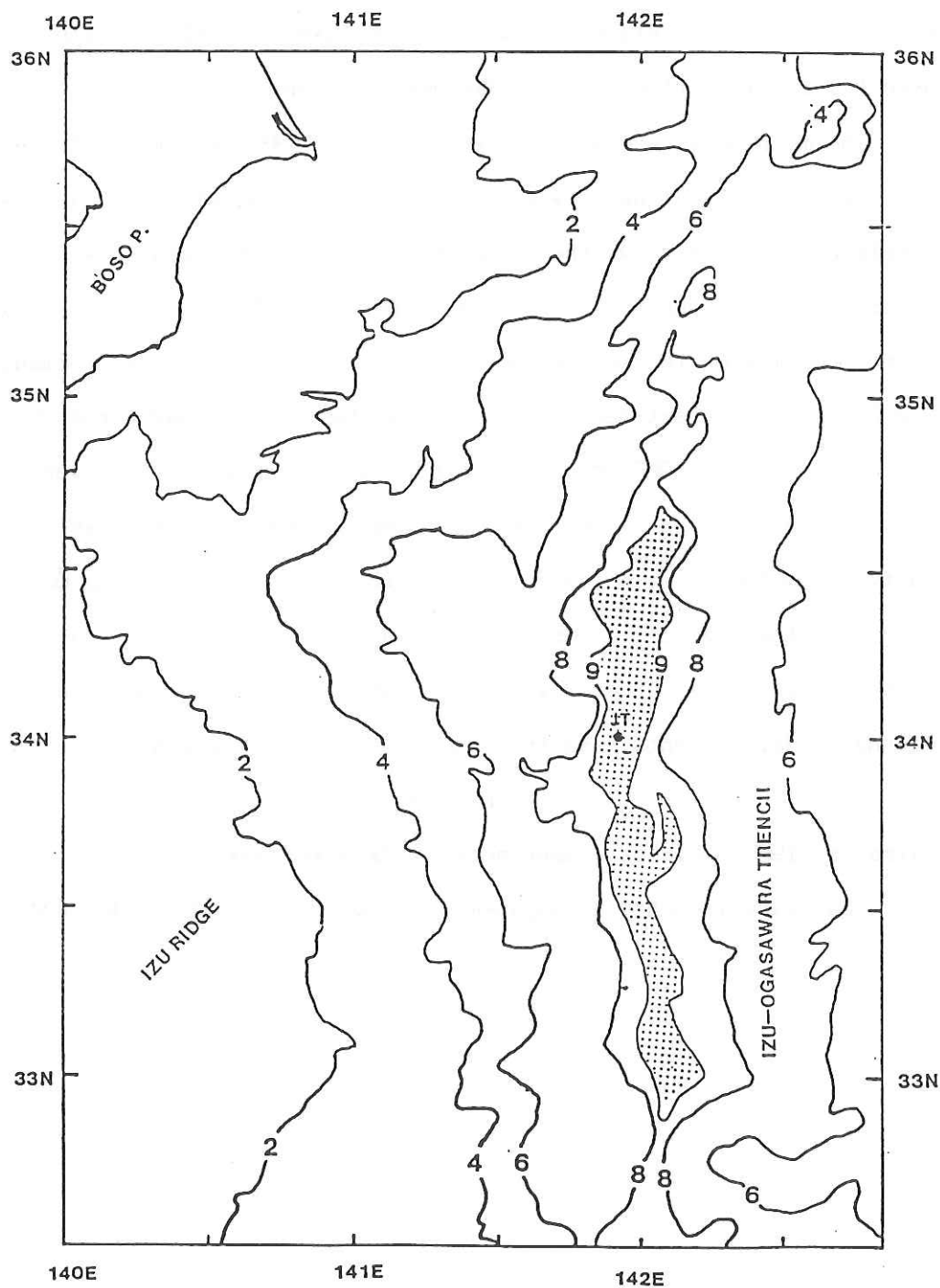
containing electric circuits, memory boards and batteries. Revolution of an Aanderaa rotor and orientation of a magnetic compass are recorded on a solid-state memory (Fig.2.3). Deep-sea glass balls were used for the main floatation of the mooring line.

The mooring line was retrieved on 10 May 1987 from the R/V Tansei Maru. The acoustic link between the release and the shipboard unit was excellent. Fig.2.4 shows the change of slant ranges measured with the acoustic release during the retrieval operation. The mooring line was found floating on the sea surface one hour after the release command. Fig.2.5 shows current records at three depths for 102 days from 29 January to 11 May 1987. Mean flows and fluctuating velocities were very similar to each other. The mean flow of about 1 cm/sec was eastward in the first 40 days, and southward in the succeeding 60 days. Fluctuating velocities are composed with semidiurnal tidal currents, inertial currents with a period of 20 hour and 50 minutes, diurnal tidal currents, and the longer period fluctuations.

Reference

Taira, K.(1987): Direct measurements of bottom current in Izu Ogasawara Trench. (in Japanese), Chigakuzasshi, 96-7, 429-434.

Fig.2.1. Location of mooring station in Izu-Ogasawara Trench and bottom contours around the station.



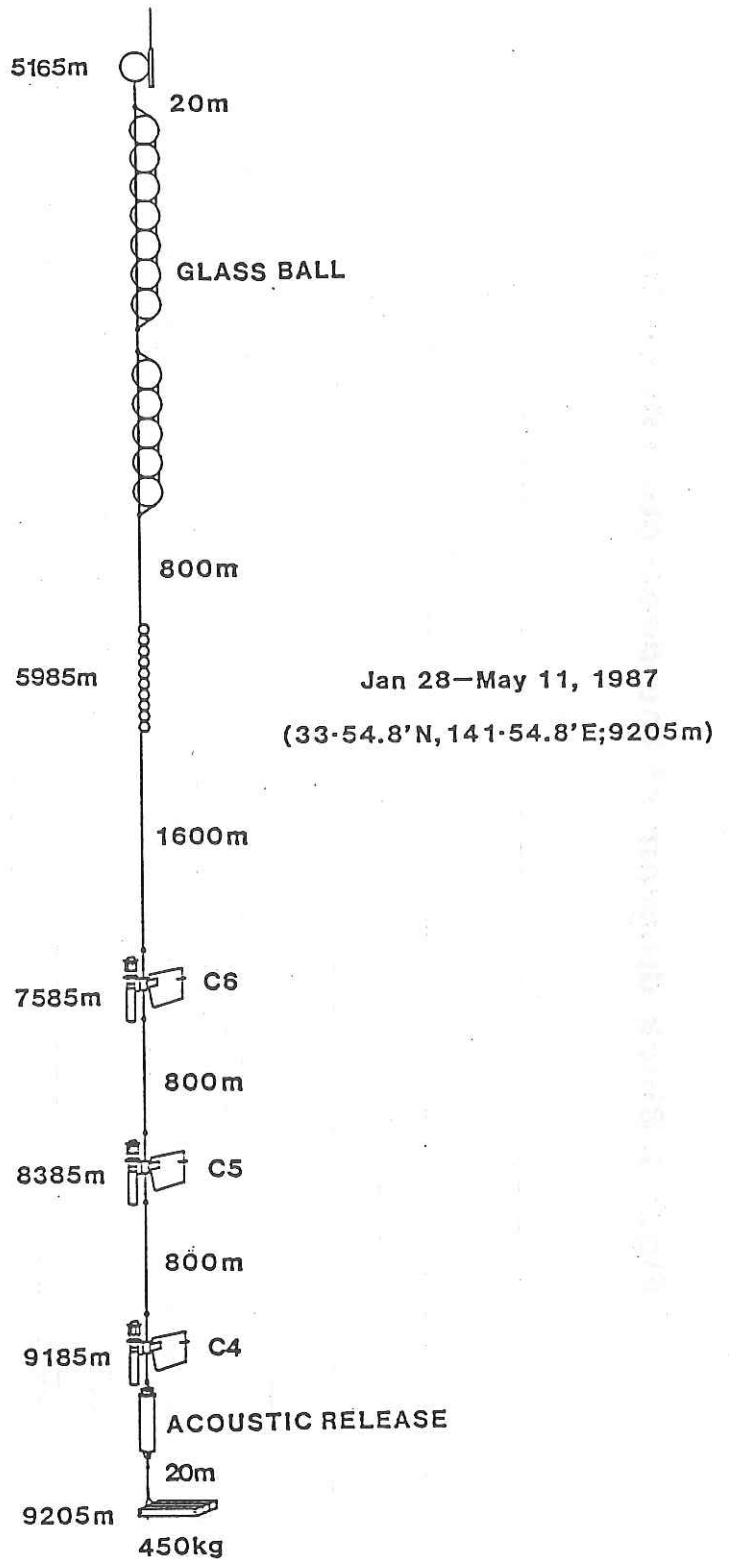
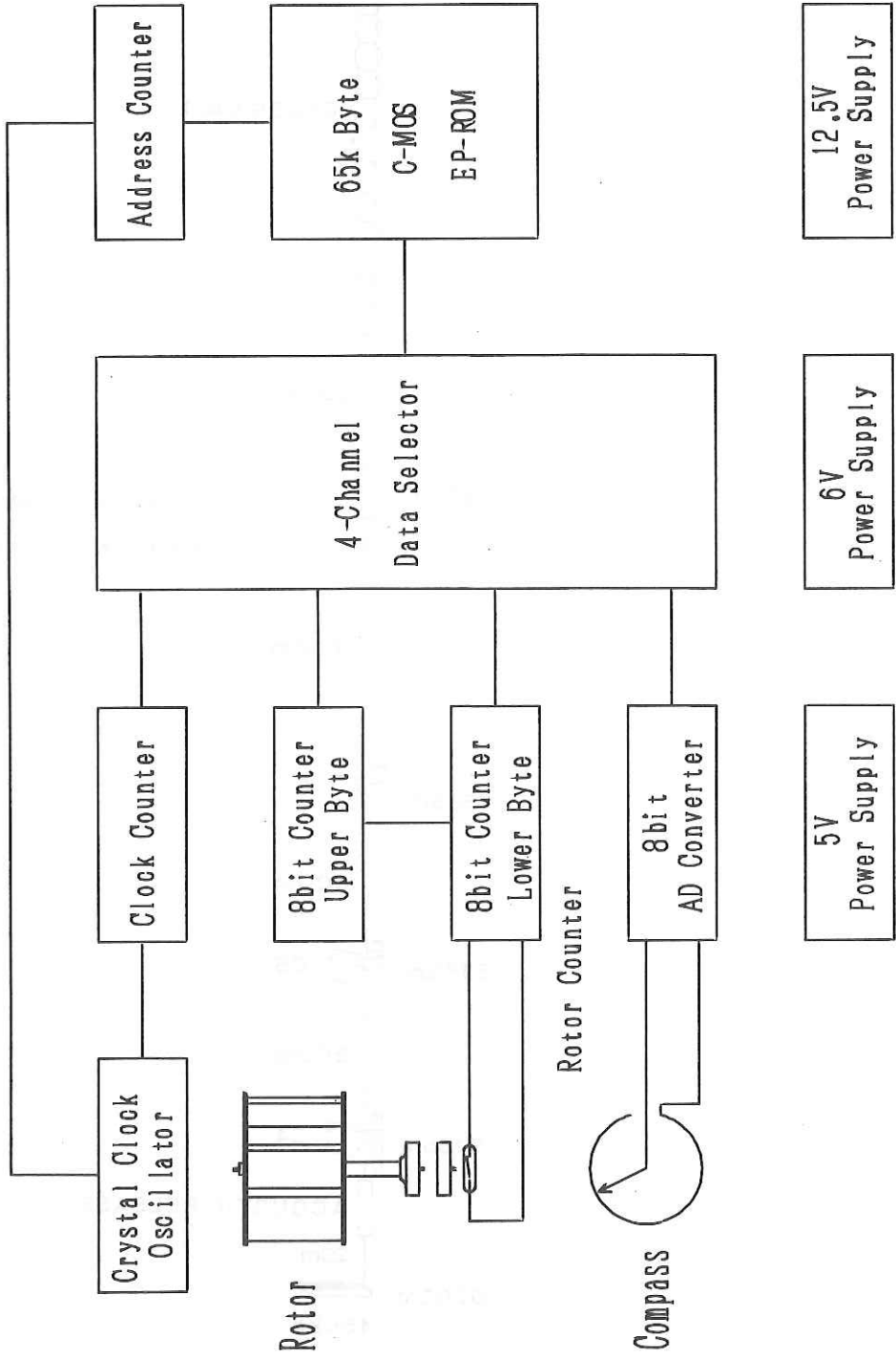


Fig.2.2. The mooring line deployed in the Izu-Ogasawara Trench.

Fig.2.3. Block diagram of the deep current meter.



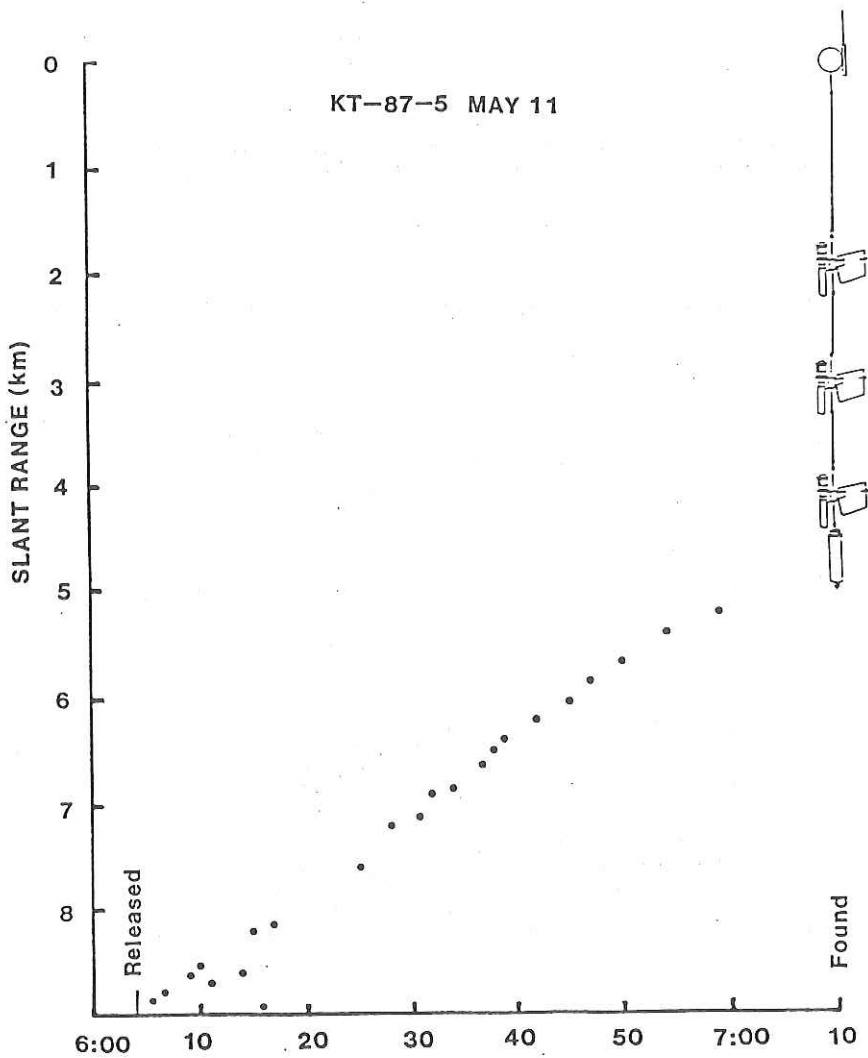


Fig.2.4. The slant range measured with the acoustic release during retrieval of the mooring line.

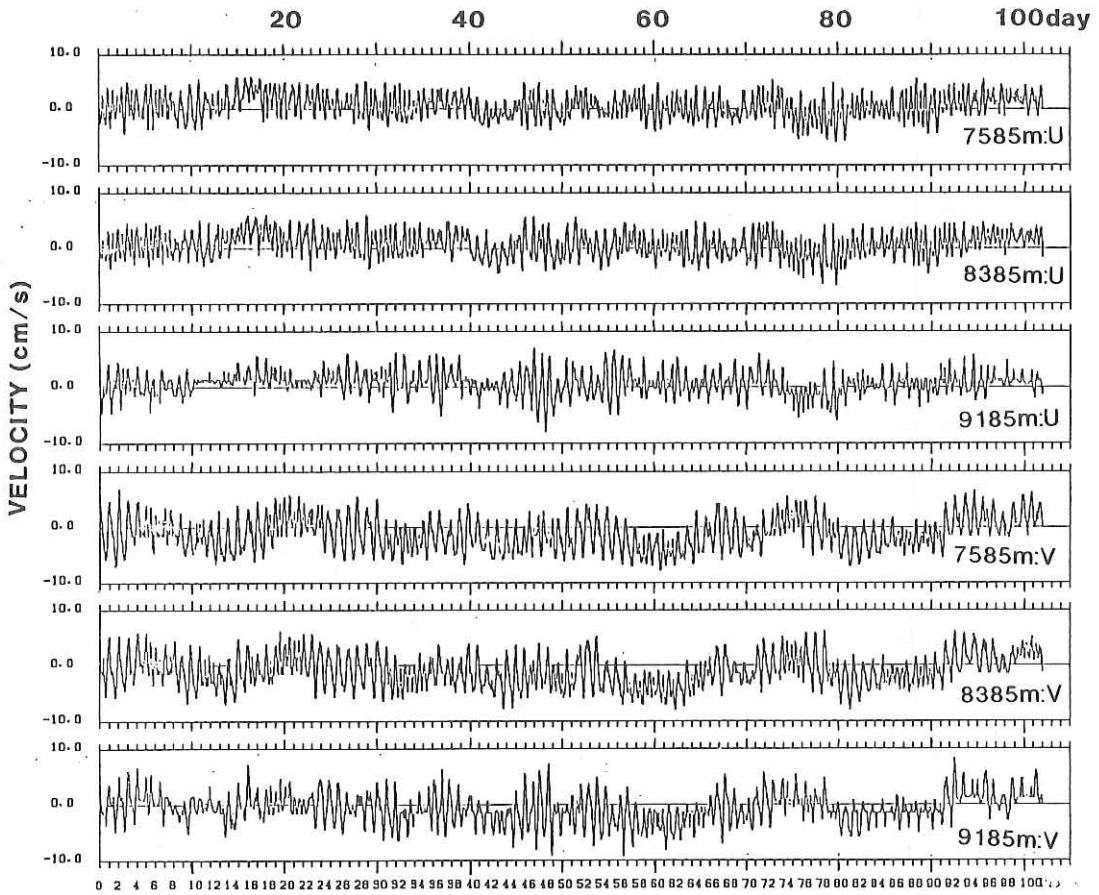


Fig.2.5. Current records at three depths in the Izu-Ogasawara Trench for 102 days from 29 January to 10 May 1987.

3. Temperature and salinity in the southern Philippine Sea

along 12 N and 13 N

Keisuke TAIRA (Ocean Research Institute, University of Tokyo)

Deep casts of the conductivity-temperature-depth(CTD) were carried out along 12 N and 13 N latitudes on a zigzag course from Guam to Cebu during the leg 2 of the cruise. The deep casts were made at 24 stations: 10 stations along 13 N from 144 E to 128 E, 13 stations along 12 N from 143 E to 127 E, and 2 stations along 12°30'N at 135°30'E and 133°30'E (Fig.3.1). The CTD observations were designed to confirm the deep and bottom waters flowing into the Philippine Sea from the North Pacific. The Philippine Sea is separated from the North Pacific by the long submarine ridges. There is a deep gap through Yap Trench around 10 N. The waters at 5000 m or more depth are connected with those in the North Pacific, and the water exchange in the deep layers is anticipated.

The east-west sections are taken to examine whether the bottom water flows directly northward along the eastern boundary or it flows westward first and then northward along the western boundary. The zig-zag course was taken to delineate zonal structure at two latitudes, and to estimate zonal and meridional structure of the velocity field of the North Equatorial Current. The number of the CTD casts was increased around 135 E to examine the effect of bottom topography of the Kyushu-Palau Ridge on the density structure.

Fig.3.2 shows potential temperature along 12 N from 127 E to

143E. A peak of the bottom topography around 135 E shows the Kyushu-Palau Ridge. In the layers upper than 3000 db the isotherms show a small gradient in the zonal direction. The gradients are minimal in the layers from 1000 db to 2000 db. On the other hand, a remarked zonal contrast is revealed below 4000 db. A cold water is existing to the east of the Kyushu-Palau Ridge, and a warm water to the west of the ridge. A core of the cold water is located in a gap between the Kyushu-Palau Ridge and the West Mariana Ridge. The lowest temperature was 1.05 C in the deepest layer. On the other hand, bottom water west to the Kyushu-Palau Ridge had higher temperature more than 1.21 C. Fig.3.3 shows salinity section along 12 N from 127 E to 143 E. Zonal gradients were small in the layers upper than about 2000 db. In the layers deeper than 4000 db, salinity was higher to the east of the Kyushu-Palau Ridge than that to the west of the ridge. The lowest temperature and the highest salinity at the bottom layer in the gap between the Kyushu-Palau Ridge and the West Marian Ridge indicate that the bottom water is flowing into Philippine Sea through the gap.

Fig.3.4 shows potential temperature along 13 N from 128 E to 144 E. The zonal gradients were small in the layers upper than 2000 db, and the temperature was lowest at the bottom layers in the gap between the Kyushu-Palau Ridge and the West Marian Ridge. Fig.3.4 shows salinity section along 13 N. A core of high salinity water is revealed in the bottom layer east to the Kyushu-Palau Ridge. The distributions of salinity and potential temperature at 12 N and 13 N confirmed that the bottom water was flowing into the Philippine Sea

through the gap between the Kyushu-Palau Ridge and the West Mariana Ridge and that the bottom water was flowing northward along the eastern boundary of Philippine Sea.

Note: The CTD data were not corrected (see, page 55)

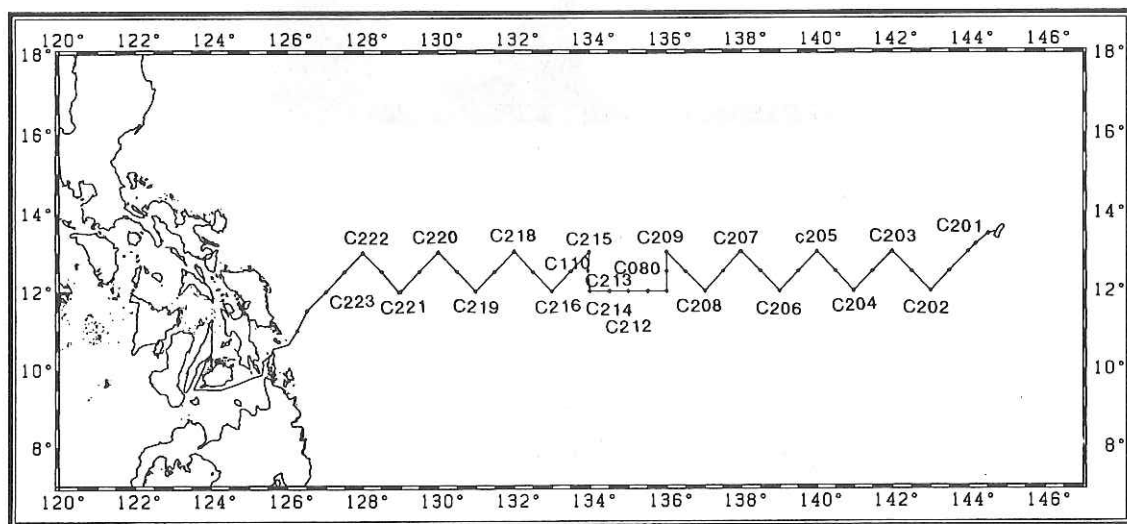


Fig.3.1.The CTD stations of the leg 2.

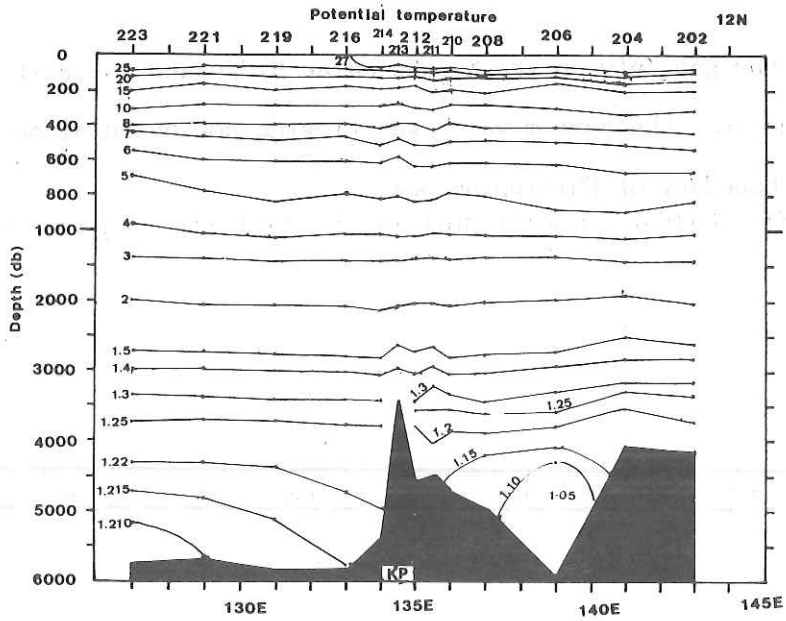


Fig.3.2. Potential temperature section along 12 N,

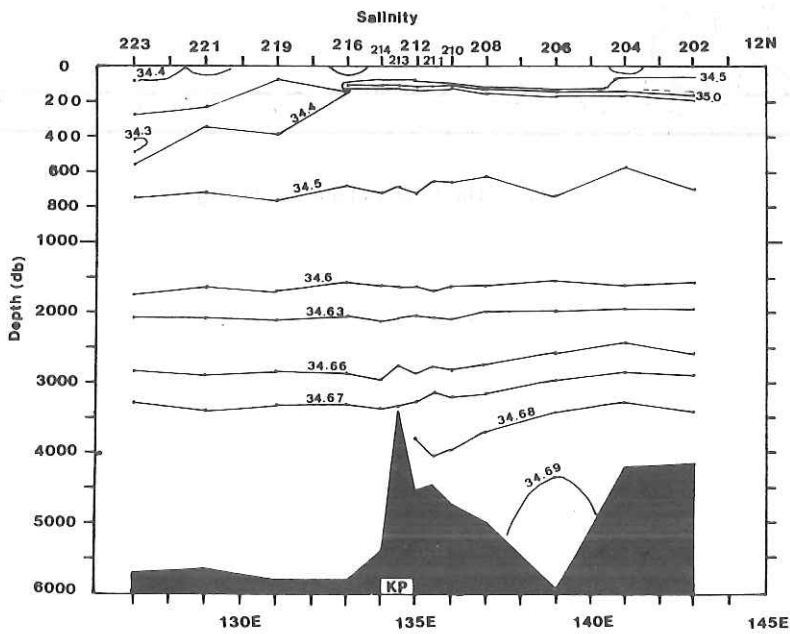


Fig.3.3. Salinity section along 12 N.

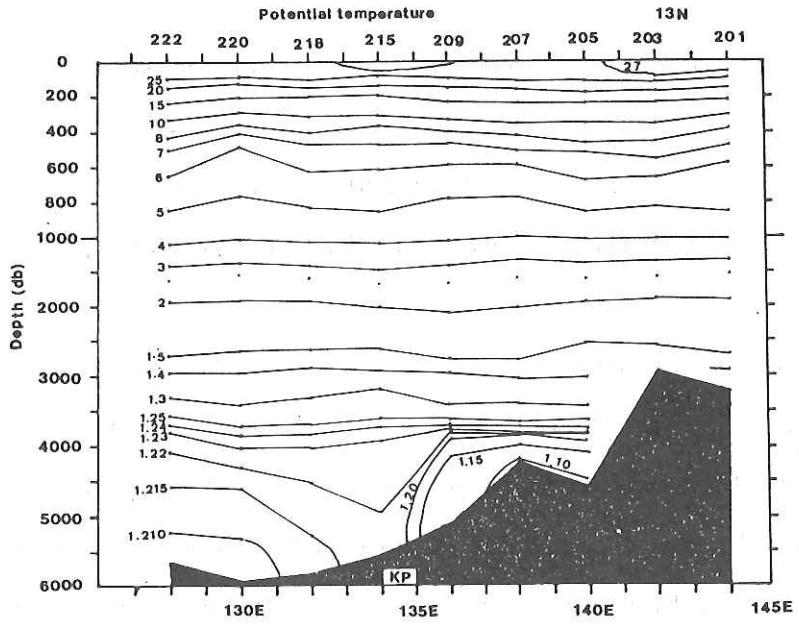


Fig.3.4. Potential temperature section along 13 N.

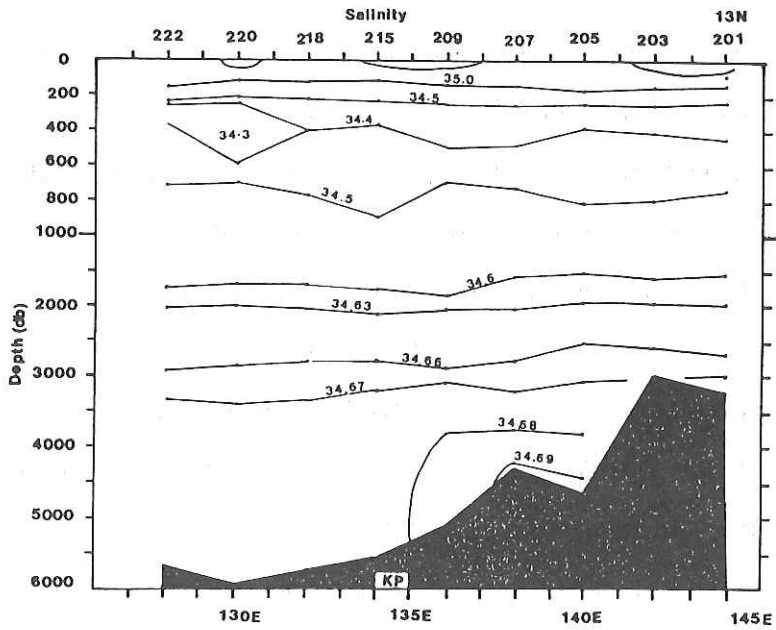


Fig.3.5. Salinity section along 13 N.

4. Moorings of sediment traps in the Shikoku Basin
and in the Izu-Ogasawara Trench

Sinichiro NORIKI and Chizuru SAITOH

(Faculty of Fisheries, Hokkaido University)

Particles setting through water column transport various chemical substances from the surface layer to the abyss. The moored sediment traps have been used for estimation of vertical mass flux and for studying of removal processes of chemical elements (e.g., Honjo, et al., 1982; Noriki et al., 1985 and 1986). In this cruise, we deployed two moorings of time series sediment traps, one in the Shikoku basin (Site SB) and the other in the Izu-Ogasawara Trench. The mooring systems were illustrated in Fig.4.1. The mooring in the Shikoku Basin was kept from 26 January to 7 March 1987. The mooring in the Izu-Ogasawara Trench will be retrieved in 1988.

The sediment traps of NH type have six sampling cylinders of polivinyll chloride. Each cylinder is 25 cm in diameter and 57 cm long. Rotaion of the cylinders is programmed by using a timer. The hinged lids of the cylinders are closed before the retrievalment by a messenger system (Noriki, et al., 1986). A sediment trap of ND type is the same size as the ND type as shown in Fig.4.2. and four samples are obtained (see, Tsunogai, et al., 1986).

The sample collected in each receiving cup was filtered through a pre-weighed Nuclepore filter (0.6μ m) and dry weight was measured. Chemical analysis was made by the method of Noriki et al.(1980). The

clay content was estimated by assuming that clay contained 8% of Al. Total particulate fluxes observed with the ND type traps at Site "SB" were 47-141 mg/m² day (see Table 4.1).

The mean fluxes of total particulate clay and opal in the open ocean are shown in Fig.4.3. Total particulate flux at Site "AO" in the Antarctic Ocean was the largest among those observed in the open ocean (Noriki et al., 1986). The mean flux at Site "SB" was 100 mg/m² day, which is one tenth that at Site "AO" but still several times as large as those measured at Sites "EP" in the eastern Pacific.

Previously we have found that the fraction of biogenic silicate (opal) was large for the large total particulate flux. It suggests that total particulate flux depends strongly on the production of opaline silica in the surface layer. The opal flux is not so large for the large total particulate flux, but the clay flux is large at Site "SB". These results suggest that the particulate fluxes in the Shikoku Basin and the adjacent area depend on the airborne lithogenic particles.

This work was conducted in collaboration with S. Tsunogai and members of Laboratory of Analytical Chemistry, Faculty of Fisheries, Hokkaido University.

Reference

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- Noriki, S. and S. Tsunogai (1986): Deep-Sea Research, 33, 903-912.
- Noriki, S., K. Nakanishi, T. Fukawa, M. Uematsu, T. Uchida and S. Tsunogai (1980): Bulletin of Faculty of Fisheries, Hokkaido

University, 31, 354-361

Noriki, S., N. Ishimori, K. Harada and S. Tsunogai (1985): Marine Chemistry, 17, 75-89.

Tsunogai, S., S. Noriki, K. Harada, T. Kurosaki, Y. Watanabe and M. Maeda (1986): Journal of Oceanographic Society of Japan.

Table 1. Total flux and the major four components of the settling particles.

Duration	Depth (km)	Total flux (mg/m ² day)	C.F. (%)	Clay (%)	Opal (%)	CaCO ₃ (%)
87.1.26	1.73	56	6.0	58.1	5.6	29.9
87.2. 5		84	12.0	54.7	7.0	28.8
87.2.15		139	11.7	59.8	7.6	25.7
87.2.25		141	16.5	51.6	12.6	22.4
87.3. 7						
87.1.26	2.76	85	6.0	71.3	2.2	23.3
87.2. 5		47	9.0	67.0	4.0	27.5
87.2.15		128	10.0	62.5	6.5	25.1
87.2.25		116	12.1	56.4	10.5	22.9
87.3. 7						
87.1.26	3.78	69	7.6	77.0	2.3	23.1
87.2. 5		127	8.9	70.0	4.1	22.0
87.2.15		106	7.5	81.9	1.0	20.1
87.2.25		115	9.3	71.1	3.0	24.0

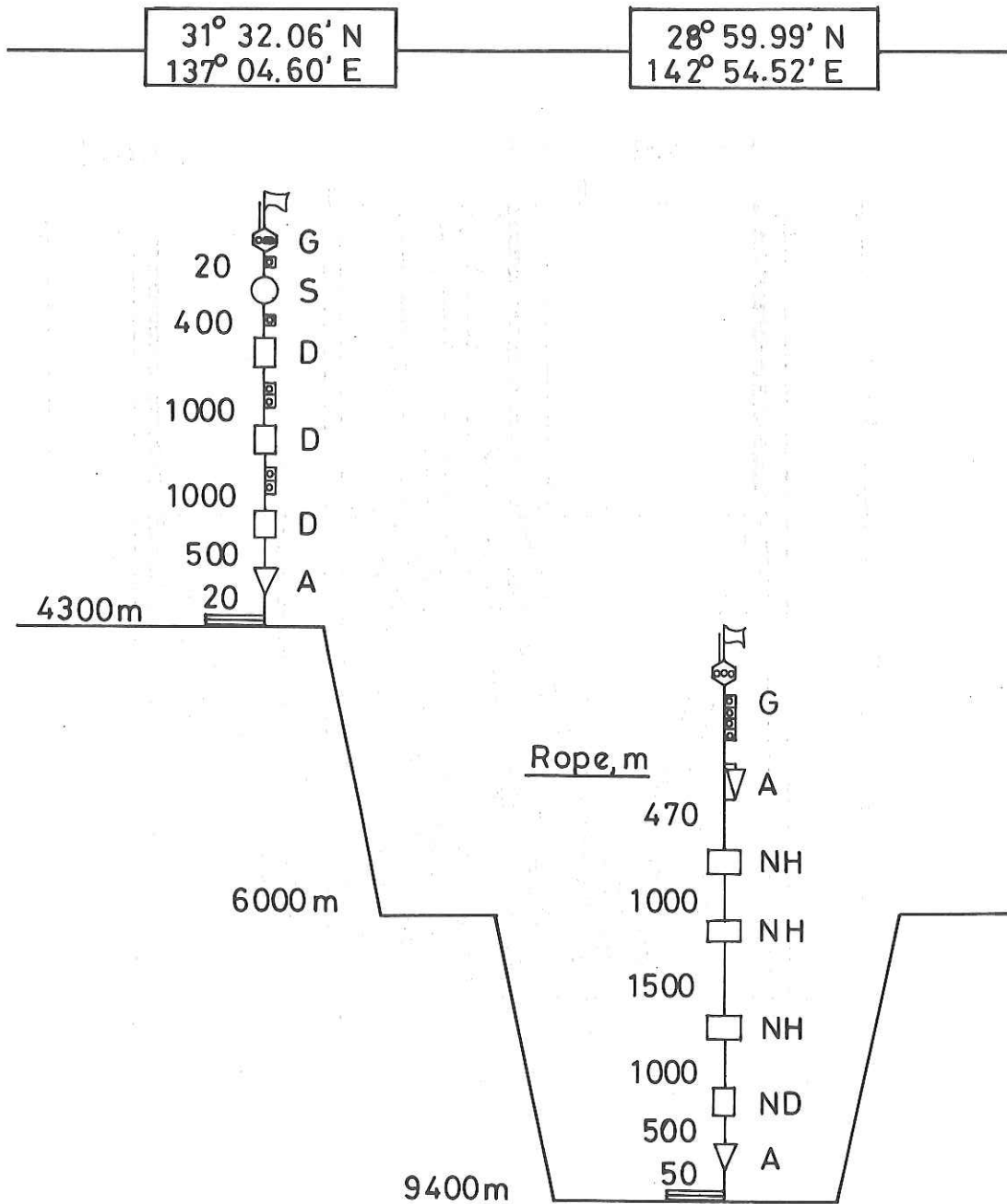


Fig.4.1. Moorings of the sediment traps. D: D-type sediment trap, ND: ND-type sediment trap, NH: NH-type sediment trap, S: Sound source, G: Glass ball, and A: Acoustic release.

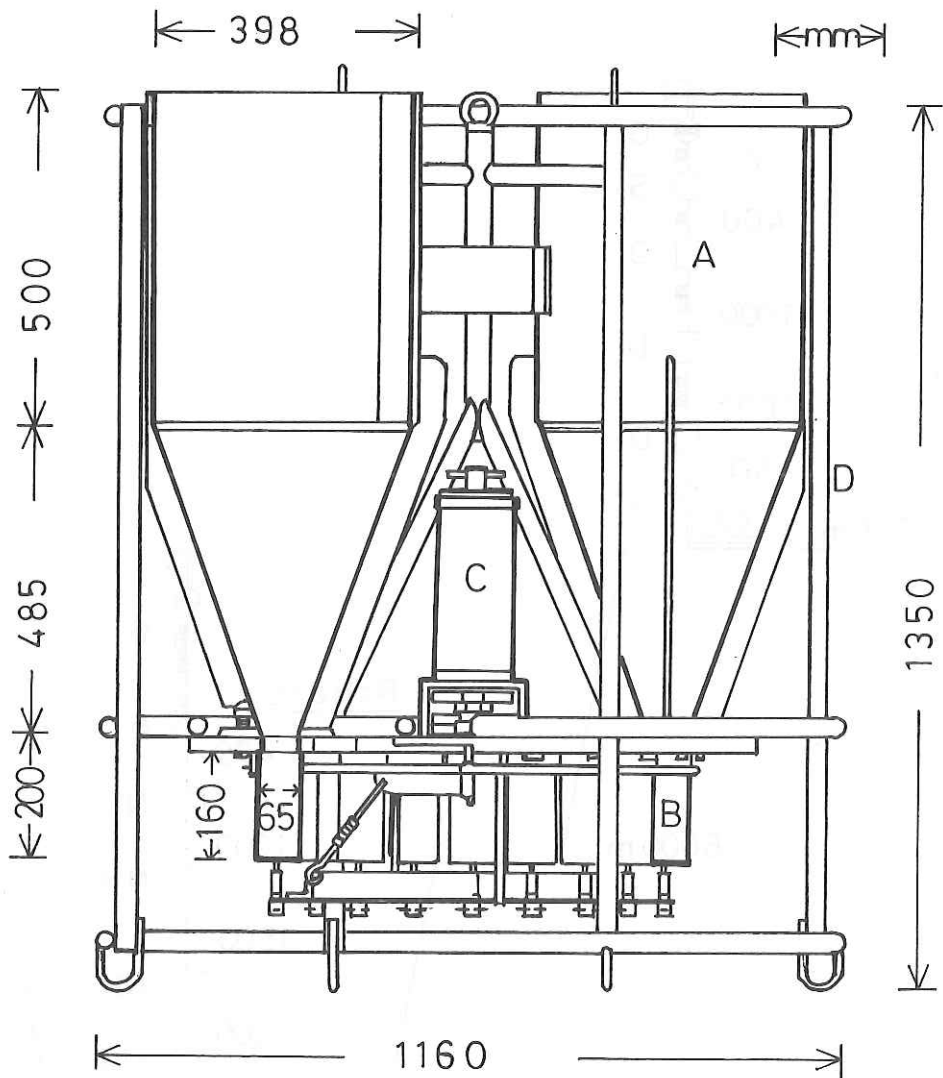


Fig.4.2. Details of the ND-type sediment trap. A: Funnel, B: Receiving cup, C: Time controller, and D: Stainless steel frame.

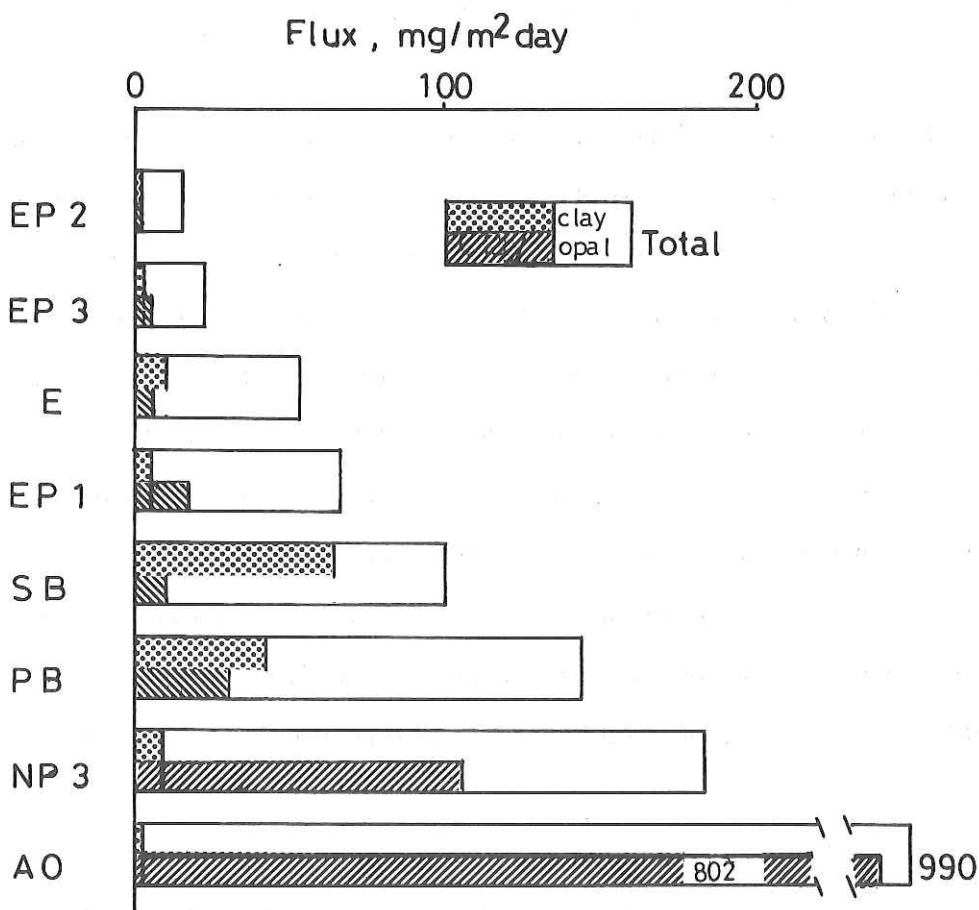


Fig.4.3. Mean fluxes of total particulate, clay and opal in the open ocean. EP1: Eastern Pacific (37N, 128W), EP2: Eastern Pacific (32N, 124W), EP3: Eastern Pacific (18N, 117W), E: Tropical Atlantic (14N, 54W), SB: Shikoku Basin, PB: Panama Basin (5N, 82W), NP3: Northern North Pacific (48N, 176E), and AO: Antarctic Ocean (61S, 150E).

5. Distribution of chemical tracers in the Philippine Sea

S. WATANABE, S. NORIKI, C. SAITOH and Y. WATANABE

(Faculty of Fisheries, Hokkaido University)

Nutrients and radionuclides are useful chemical tracers to study the circulation and the age of sea waters. Especially radiocarbon in the deep ocean is a powerful tracer for the processes of circulation and mixing. Many investigators have measured radiocarbon and reported the results of flow patterns derived from their distributions. (e.g., Broecker et al. 1986). Recently Tsunogai (1987) suggested that a combination of dissolved oxygen and dissolved silica is useful to distinguish water type and to study the deep-water circulation.

In this cruise we measured dissolved oxygen, dissolved silica, dissolved phosphate, pH and alkalinity at each CTD station. Radiocarbon activity of deep water was determined at six stations.

Nutrients and dissolved oxygen

Water samples were collected from 13 depths at each CTD station (including surface water) using Rosette multi-samplers. Dissolved oxygen contents were obtained by Winkler method, and dissolved silica and phosphate concentration were determined with colorimetric analysis.

A part of result is shown in Fig. 5.1 and Fig. 5.2. Dissolved oxygen contents of deep water in the Mariana Basin are slightly higher than in the Philippine Basin. Dissolved silica and phosphate

concentrations are uniform in the Philippine Sea and about $147 \mu g$ at/l and $2.46 \mu g$ at/l, respectively. Alkalinity and pH are kept to be almost constant.

Radiocarbon and tritium activity measurements

About 300 samples of one liter water were collected at CTD station in the Philippine Sea. The water samples were collected at six stations using a 200 l large volume sampler. Dissolved inorganic carbon was extracted immediately onboard and converted to benzene in the laboratory. Its radiocarbon activity was determined with the liquid scintillation method. Results on deep waters in this cruise are shown in Table 5.1. These activities are almost equal to the values of the North Pacific GEOSECS Project and to other results.

This work was conducted in collaboration with S. Tsunogai and M. Nakajima, Laboratory of Analytical Chemistry, Faculty of Fisheries, Hokkaido University.

Reference

- Broecker, W. S. et al. (1986): Hydrography, chemistry, and radio-isotopes in the southern Asian Basin, *J. Geophys. Res.*, 91, 14345-14354.
- Tsunogai, S. (1987): Deep-water circulation in the North Pacific deduced from Si-O diagram. *J. Oceanogr. Soc., Japan*, 43, 77-87.

Table 5.1. Radiocarbon of the deep waters in the Philippine Sea.

Station	Location		Depth(m)	$\Delta^{14}\text{C}$ (per mil)
ST-1	31.5N	136.9N	3500	-212± 14
207	13.0N	138.9N	4000	-222± 19
303	21.6N	122.1N	4500	-204± 16
314	25.5N	128.3N	4500	-200± 16
324	29.3N	131.7N	4500	-218± 17

$\Delta^{13}\text{C}$ values are assumed 0 per mil.

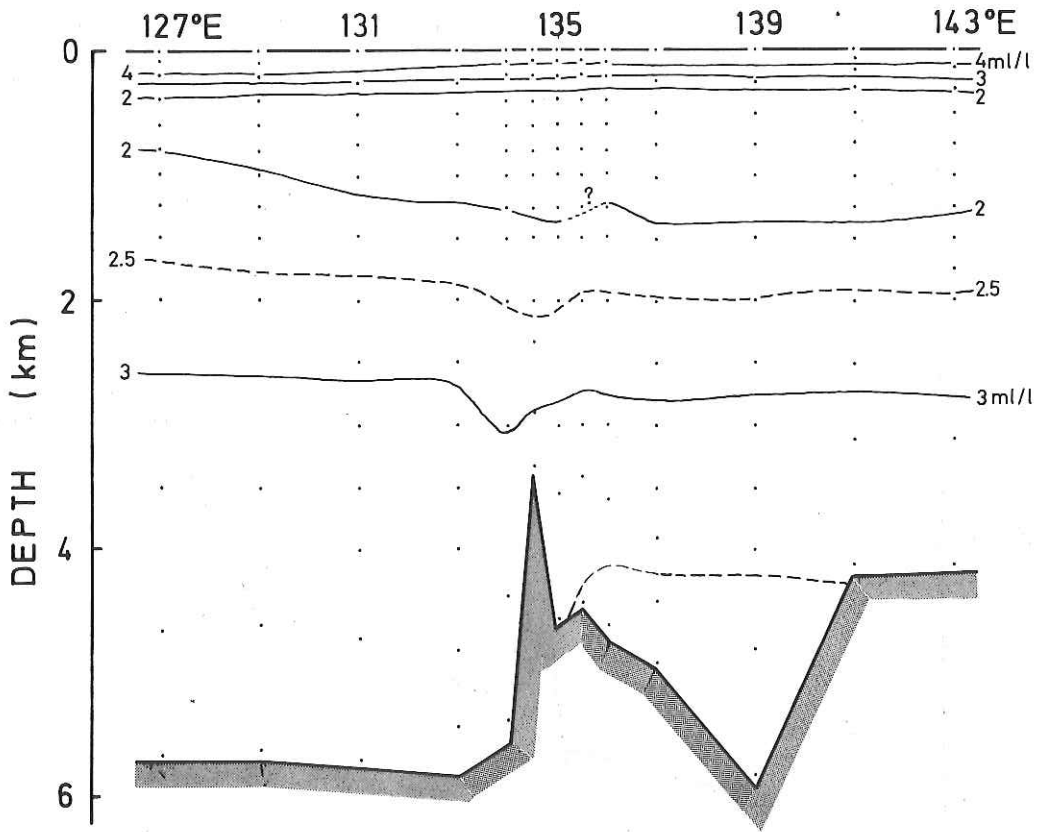


Fig.5.1. Section of dissolved oxygen along 12N of the Philippine Sea.

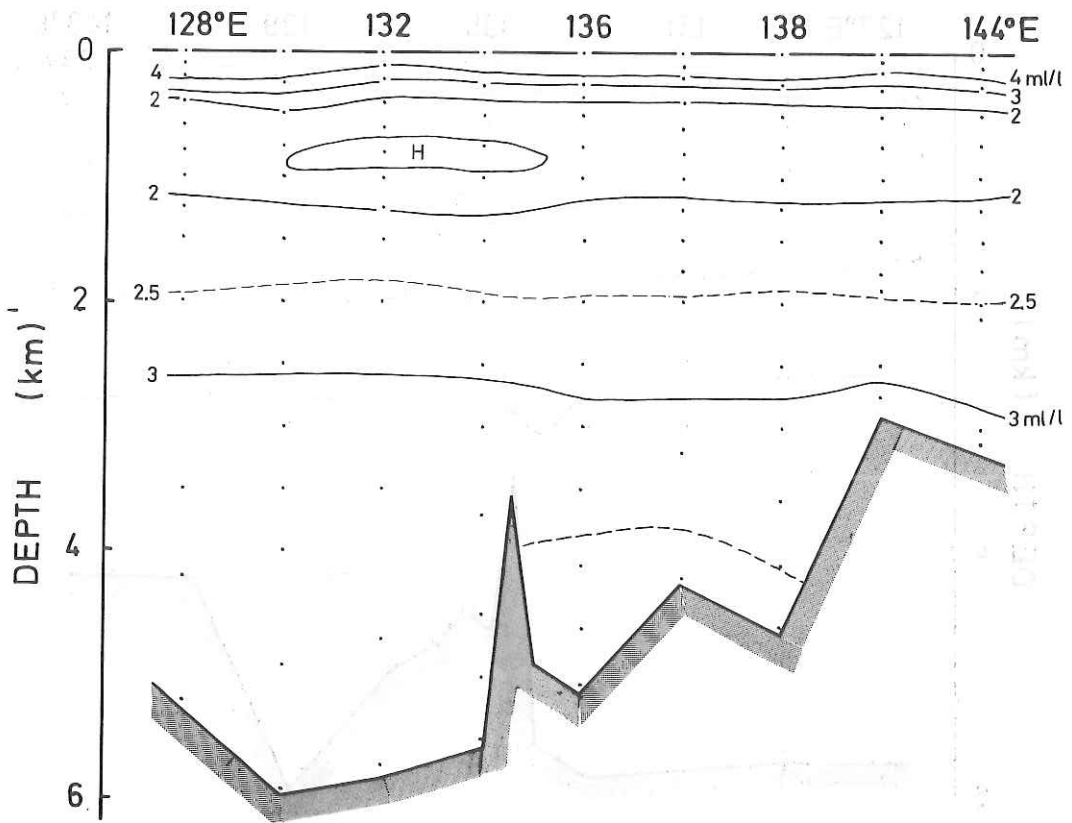


Fig.5.2. Section of dissolved oxygen along 13N of the Philippine Sea.

6. Field test of acoustic instruments.

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and

Hideyuki MURAKAMI (Kaiyo-Denshi, Ltd.)

Sea water is almost opaque to radio waves, and sound waves are widely used for signal transmission and remote-sensing in the ocean. Attenuation of sound waves in the ocean is dependent of their frequency, and the low frequency waves can be traced for a long distance. When the waves propagate through a layer of minimum sound speed, i.e., the sofar channel, detectable distance is more than several hundred km. Acoustic signals of several hundred Hz are used for tracking of sofar floats and remote-sensing with ocean acoustic tomography.

An acoustic transducer with a bending element and a resonator was lowered with a winch wire. The resonator was composed with an iron tube 40 cm in diameter and 100 cm long, and it was tuned for a frequency of 700 Hz. A receiver with arrayed hydrophones was used to detect the signal from the transducer. The transducer was lowered down to 4000 m, and the signal was received clearly. However, the amplifying gain of the receiver was high and variation of towing tension due to ship motion caused a large noise.

An echo detector tested in the cruise is a prototype model of inverted echo sounder (IES) for the deep sea. The IES is an acoustic instrument to measure travel time for a pulse of 10 kHz sound waves

from the moored depth to the sea surface. A variation of sound speed profile changes the travel time. When an IES is moored under the Kuroshio, lateral shifts of current axis are always accompanying a change of sound speed profile. We developed an IES in 1984 (Taira, et al., 1984), and several sets of the IES were moored under the Kuroshio. We found a relation of the travel time to an index temperature of the Kuroshio axis. Operation of the developed IES was limited within 3500 m, because the acoustic power of emitted pulse was small. We have improved the transducer by increasing the power and by changing directional beam pattern. A tethered test of the new model was made during the leg 1 of the cruise. We used an echo detector being composed with the new transducer and a solid-state, wave-form recorder. The echo detector is changed into an IES by a change of operational program of a micro-processor. The echo-detector was attached to the underwater unit of the CTD. The records were obtained during a deep cast of the CTD. Voltage of an echo of the transmitted pulse from the sea surface is plotted against the depth of the echo detector in Fig. 6.1. The voltage of the echo was always higher than that of the noise down to 6000 m depth. The result assures that the newly developed IES can be used in a deep sea of 6000 m depth.

Reference

- Taira, K., M. Fukasawa, T. Otokuni, S. Kitagawa, H. Murakami, T. Teramoto and M. Kawabe (1984): Development of an IES and detection of the Kuroshio axis. (in Japanese) Ocean Sciences Monthly, 16, 179-186.

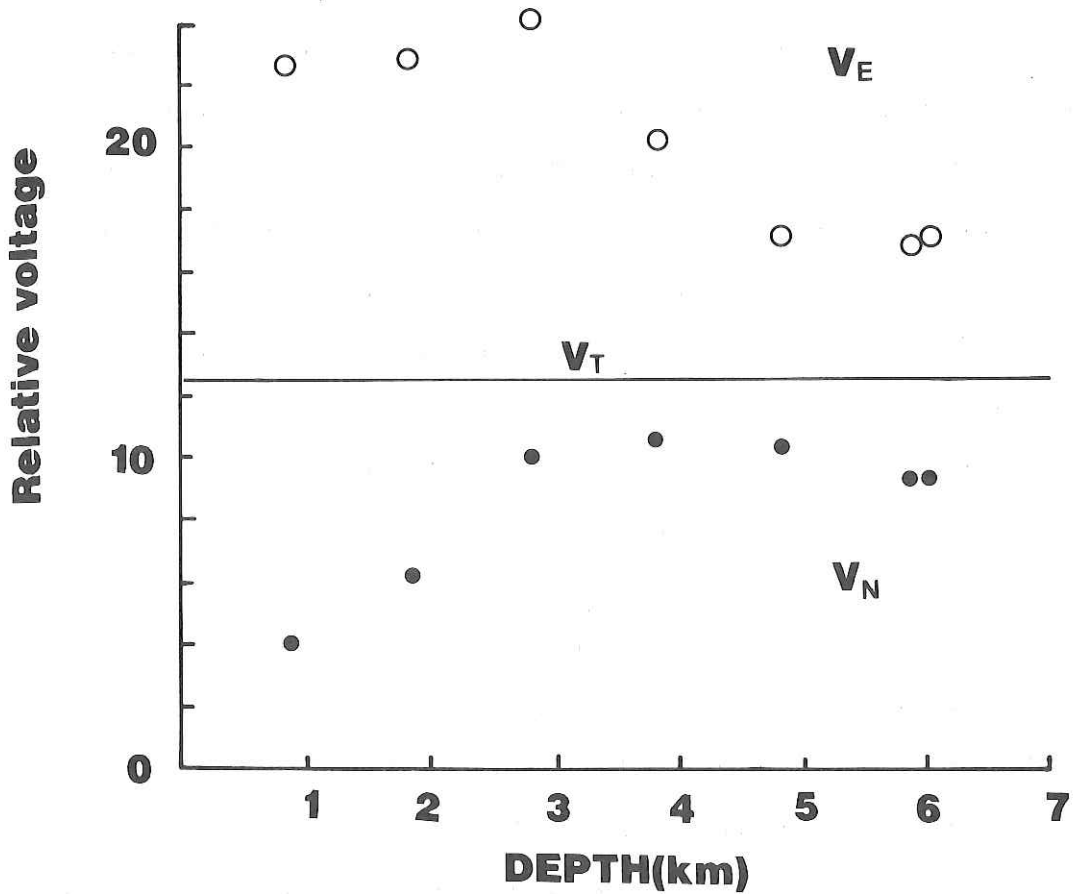


Fig.6.1. Voltage of the echo from the sea surface (V_E) and the noise (V_N) against the tethered depth of the echo detector. The line V_T is a suggested threshold level for the deep IBS.

7. Radiation measurement and heat budget on the sea surface.

Hiroataka OTOBE(Ocean Research Institute, University of Tokyo)

Downward fluxes of short-wave and long-wave radiation were measured directly onboard and estimation of the heat budget at the sea surface was made in the western North Pacific. A short-wave sensor (Neo Pyranometer, Model MS-41, Eiko Seiki Sangyo Co., Tokyo) and a long-wave sensor (Ishikawa Radiometer Model RL-5, Ishikawa Sangyo Co., Tokyo) both of them mounted on gimbals were installed on a handrail of the upperbridge of the vessel.

Heat budget at the sea surface is given by

$$Q = R_n - (LE + H) \quad (1)$$

and

$$R_n = (1 - r)S - \epsilon(\sigma T^4 - L) \quad (2)$$

where R_n is the net radiation flux, LE the latent heat flux, H the sensible heat flux, r albedo, S downward short-wave radiation, T sea surface temperature, ϵ emissivity of sea water, and σ Stefan-Boltzman constant, L downward long-wave radiation. The sensible and the latent heat fluxes were estimated by an aerodynamic bulk method (Kondo, 1975) from the routine meteorological data obtained every three hours. Payne's table (Payne, 1972) was used for the values of albedo r . The results are shown in Figs. 7.1- 7.7.

References

Kondo, J. (1975): Air-sea bulk transfer coefficients in diabatic condition. *Boundary-Layer Meteorology*, 9, 91-112.

Payne, R.E. (1972): albedo of the sea surface. Journal of Atmospheric Sciences, 29, 959-970.

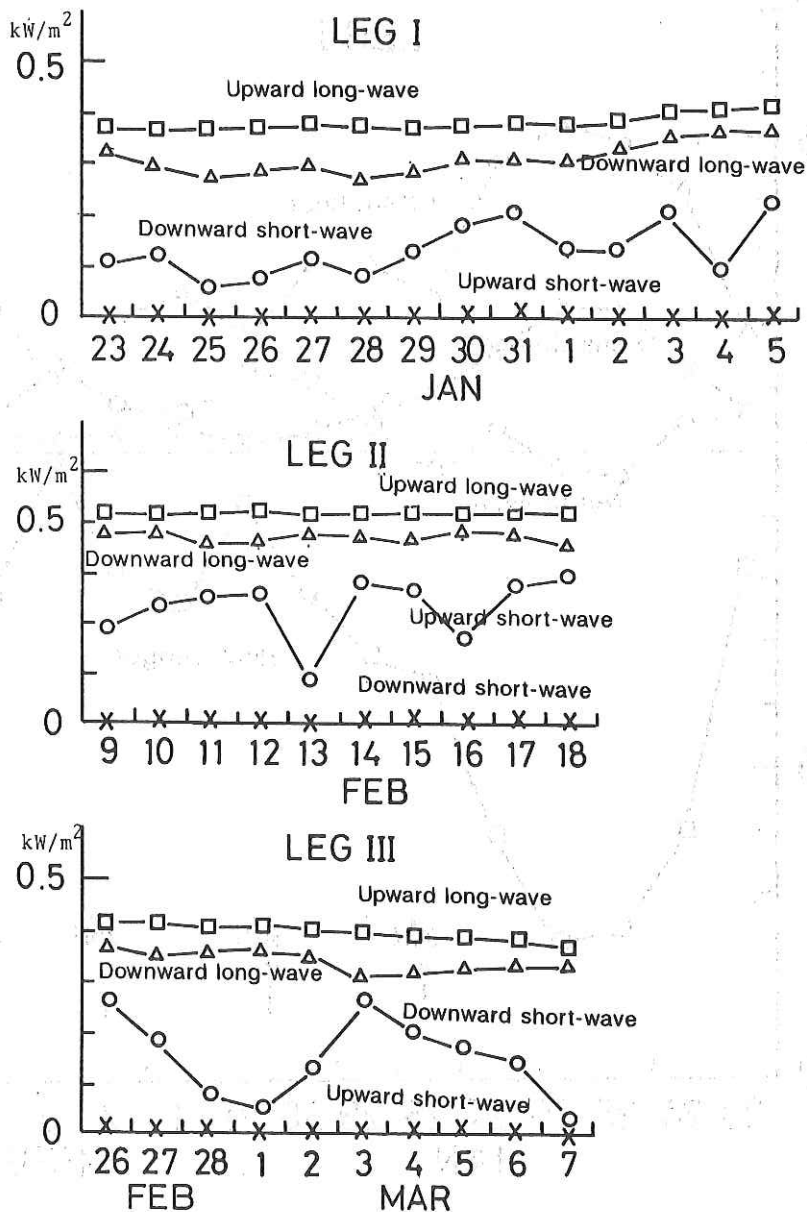


Fig.7.1. Day-to-day variation of the radiation fluxes during leg 1 (upper panel), leg 2 (middle panel) and leg 3 (lower panel).

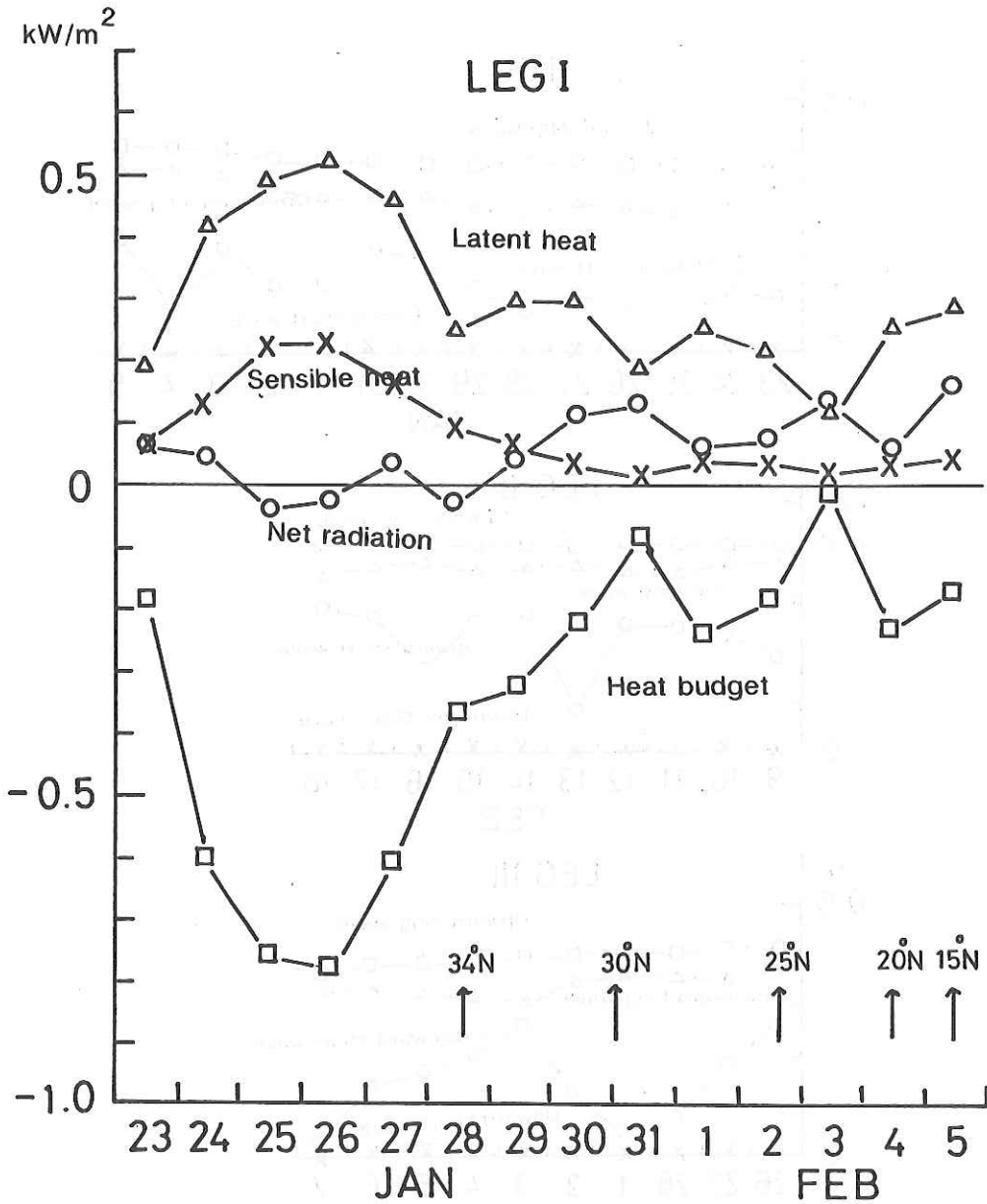


Fig.7.2. Day-to-day variation of the surface heat budget and its components during leg 1.

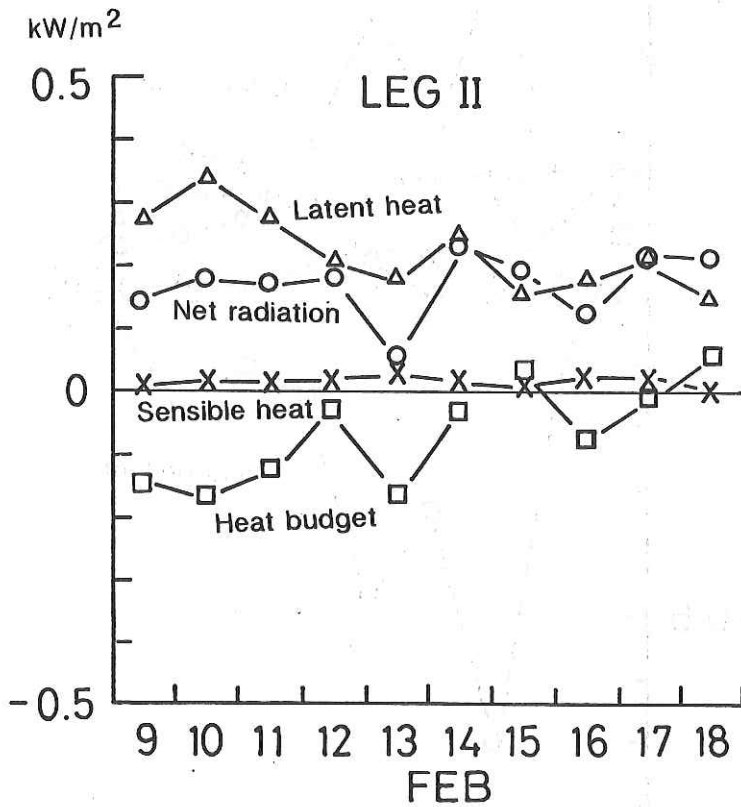


Fig.7.3. Day-to-day variation of the surface heat budget and its components during leg 2.

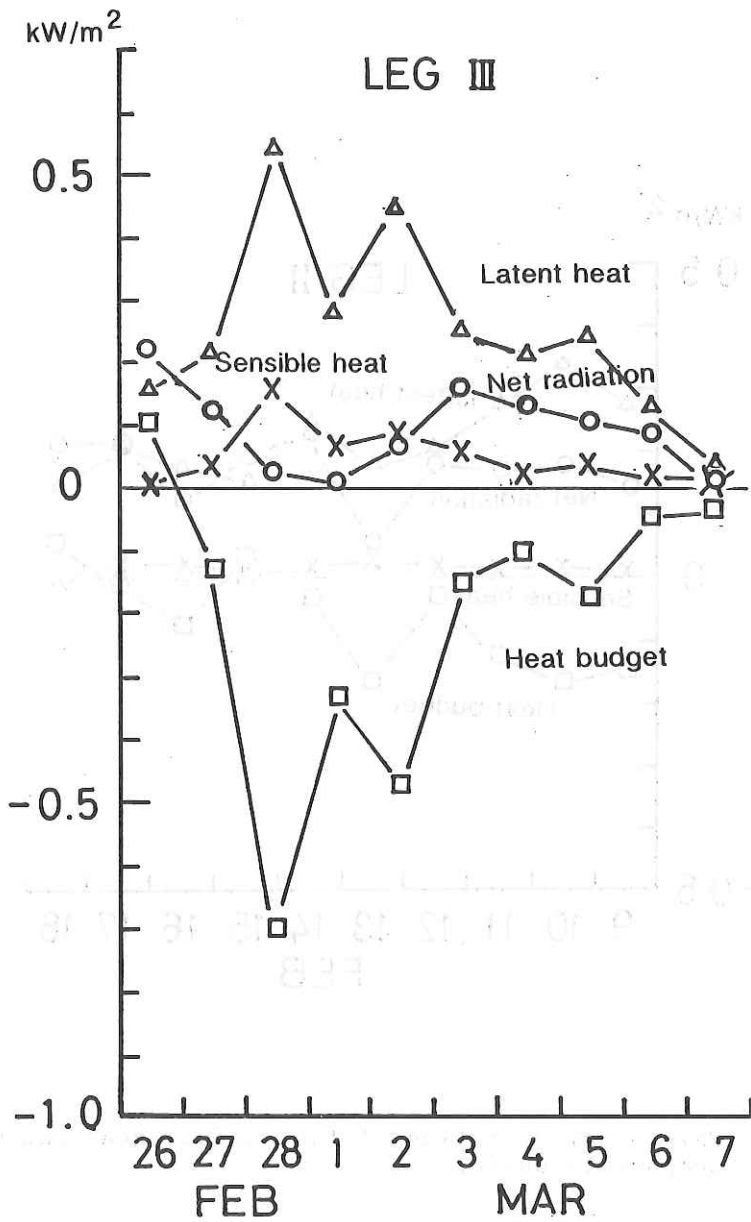


Fig.7.4. Day-to-day variation of the surface heat budget and its components during leg 3.

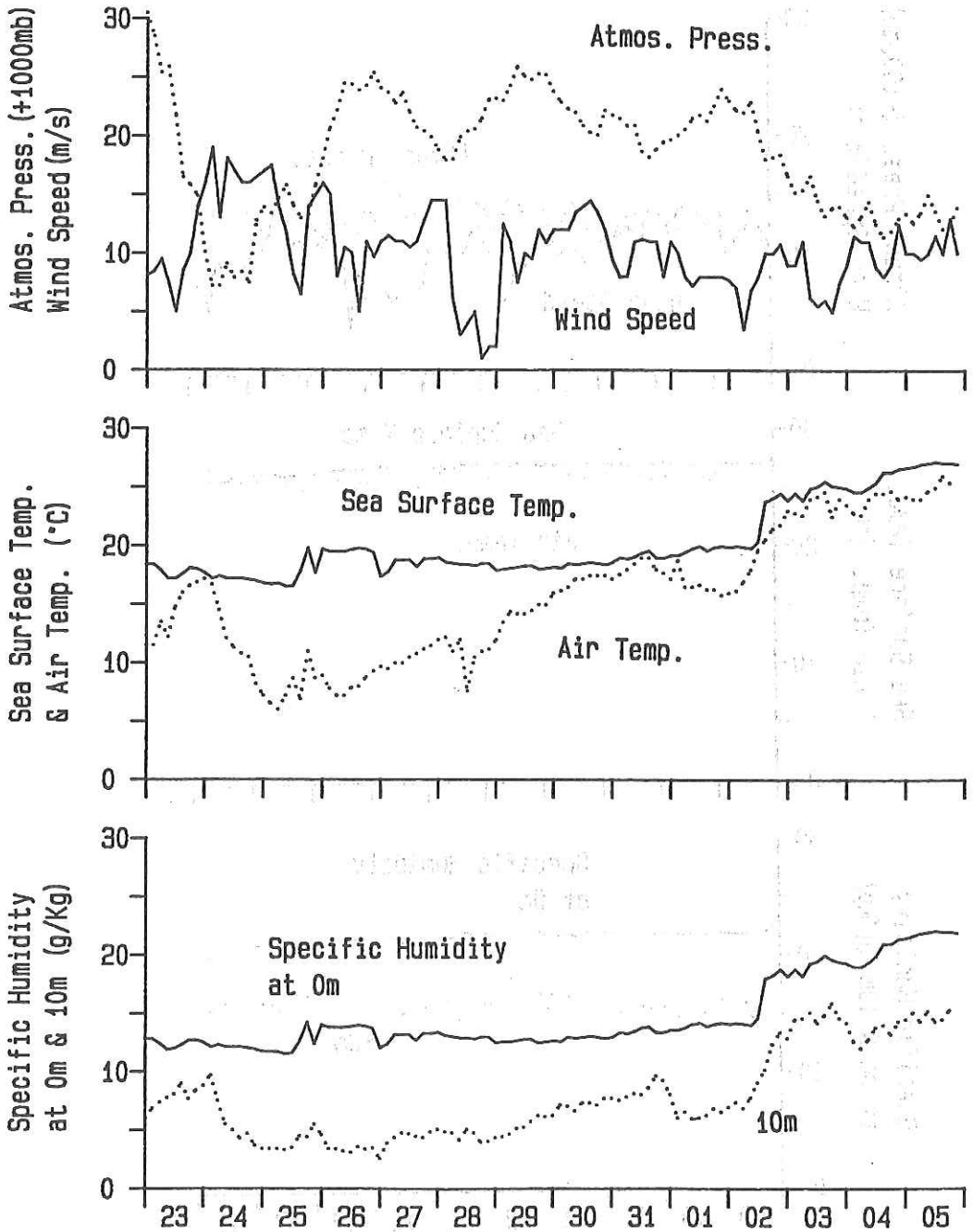


Fig.7.5. Variation of surface meteorological elements at 3 hour interval during leg 1.

KH-87-1 LEG II.

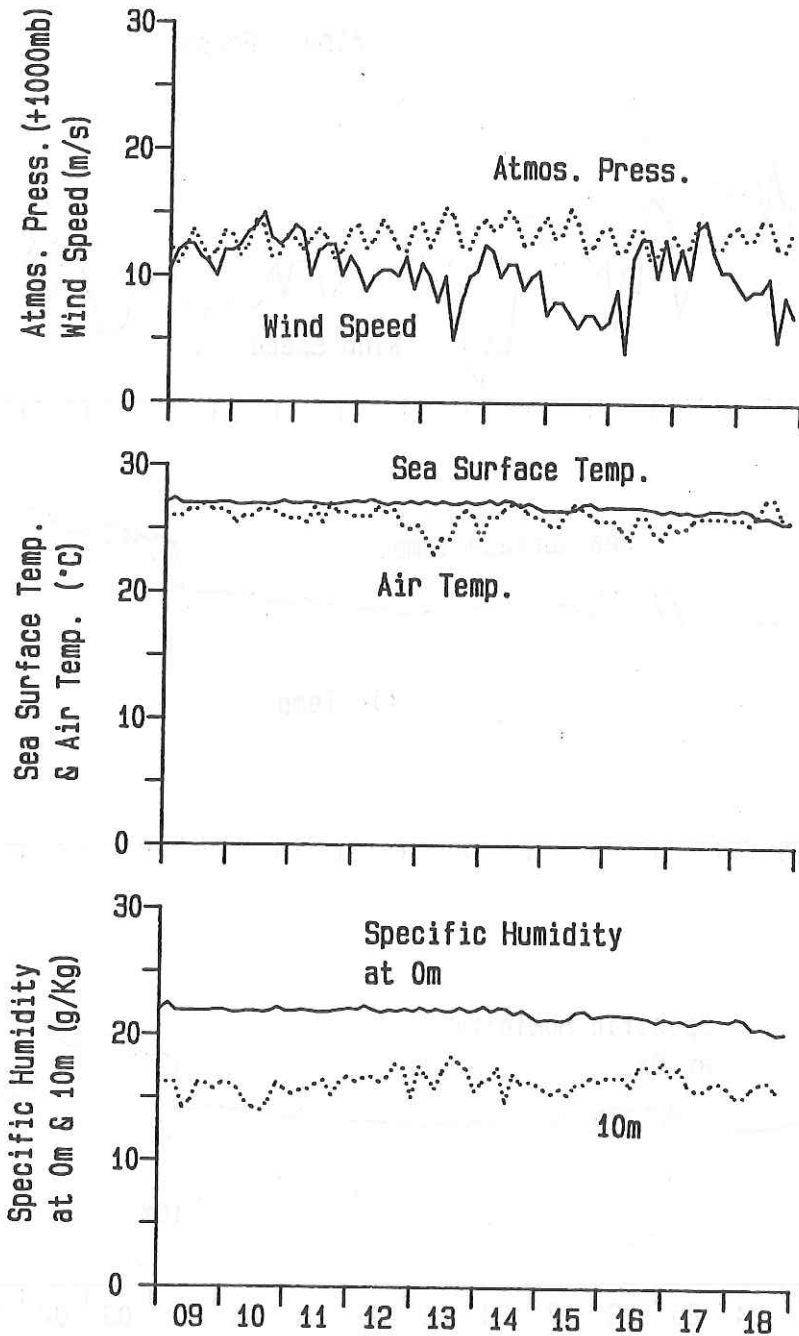


Fig.7.6. Variation of surface meteorological elements at 3 hour interval during leg 2.

KH-87-1 LEG III.

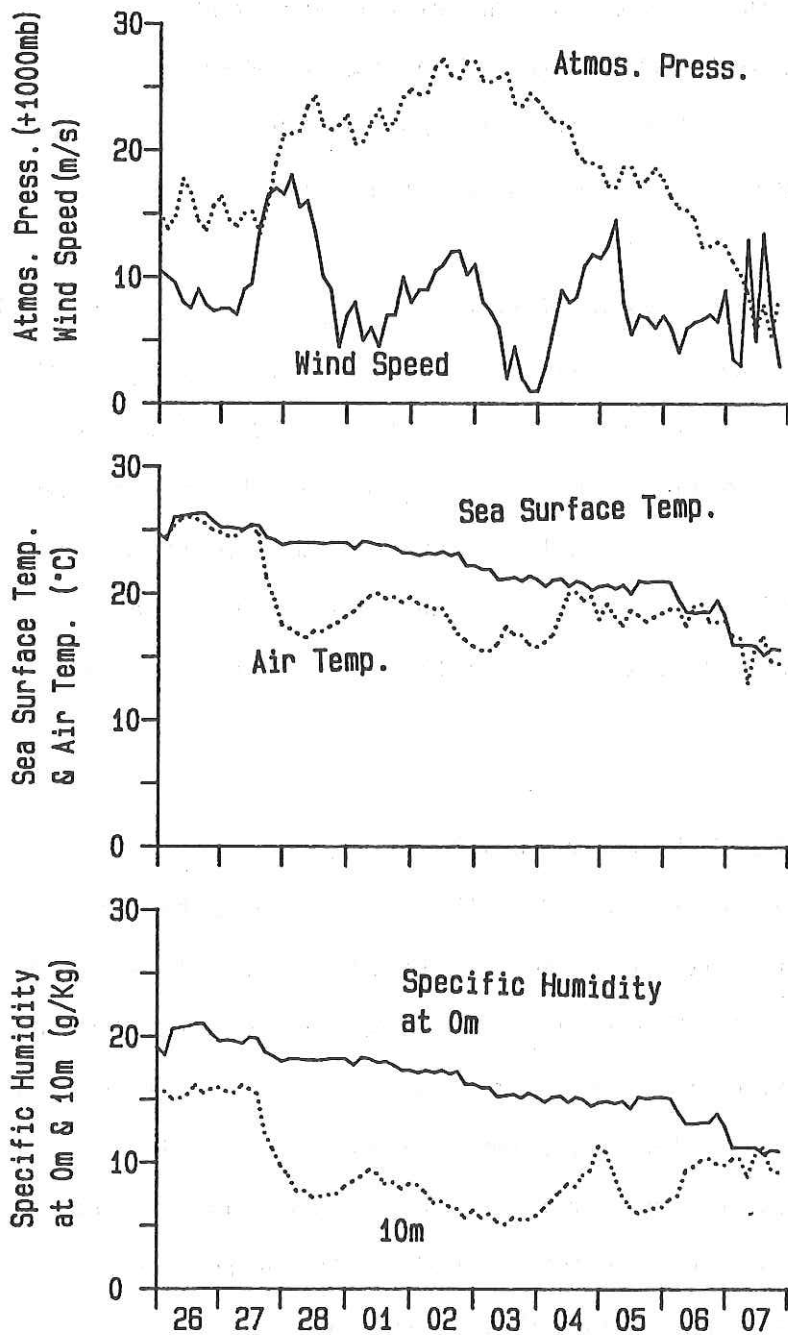


Fig.7.7. Variation of surface meteorological elements at 3 hour interval during leg 3.

8. The XBT Observations

- The Subtropical Mode Water in 1987 winter-

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Introduction

In the cruise of the R/V Hakuho Maru KH-87-1, we made XBT (T-7 probe) observations on her course at intervals of latitudinal 30 minutes from 34 N to 20 N, in order to clarify the distribution of the Subtropical Mode Water (STMW) in 1987 winter. In this report, we will describe the subsurface distribution and the outcrop area of the STMW, based on the XBT data together with other related data. This report is an extended abstract of work to be published in its full form elsewhere.

The Subtropical Mode Water in the XBT section

Figs.8.1(a) and (b) show the XBT vertical temperature section and layers with temperature gradient less than $0.4\text{ }^{\circ}\text{C}/20\text{m}$ (i.e., $2 \times 10^{-2}\text{ }^{\circ}\text{C}/\text{m}$), respectively. The depths of XBT data were calculated by an empirical equation proposed by Hanawa and Yoritaka (1987). It is found that the layers with low temperature gradient correspond to the surface mixed layer, the subsurface layer (200-400 m) with temperature approximately ranging from 19 C to 16 C and the deeper layer with temperature lower than about 7 C below the main thermocline.

Fig.8.2 shows the relationship between the potential vorticity

and the temperature gradient, which was calculated from the data of the 137 E line obtained by the Japan Meteorological Agency: the data from the Kuroshio axis to 20 N and with temperature from 21 C to 15 C obtained in winter from 1967 to 1987. It is seen that the layers with temperature gradient less than $2 \times 10^{-2} \text{ cm s}^{-1}$ agree with those with potential vorticity less than $200 \times 10^{-14} \text{ cm s}^{-1}$. Suga et al. (1987) found that this value of the potential vorticity is appropriate index of the STMW which was observed in the subsurface layer of the 137°E section. That is, we can regard the layers with low temperature gradient observed in the subsurface layer from the Kuroshio axis to about 23° N as the STMW. This water also appeared in the 137 E section obtained in late January, 1987 by JMA and in the XBT section of the JENEX-87 (Japanese El Nino Experiment, Japan Marine Science and Technology Center).

Suga et al. (1987) showed that the apparent oxygen utilization (AOU) can be used as an index of "age", i.e., the elapsed time from the formation, of the STMW appeared in the 137 E section. From the data of the 137 E section in 1987 winter, we calculated AOU and found that these STMWs were formed in 1986 winter in the area of the Kuroshio Extension.

Outcrop area of STMW in 1987 winter

Fig. 8.3 shows the monthly mean SST 16-19 C zones of March in 1986 and 1987, which can be regarded as the outcrop area of STMW (see, Hanawa 1987). These were redrawn from "The Ten-Day Marine Report"

regularly published by the JMA. The clear difference between the distributions of the two years exists : the latitudinal width of this zone in 1987 is narrower than that in 1986 and the 19 C isotherm in 1986 surrounds the sea south of Japan, but not in 1987. The above difference is also seen in the temperature distribution at depth of 100 m as shown in Fig.8.4. These temperature distributions at the sea surface and at depth of 100 m suggest that the STMW formation rate in 1987 is small compared with that in 1986.

Discussion

In this report, we showed the existence of the STMW in the XBT section and briefly described the difference of the outcrop area of the STMW between 1986 and 1987 winters.

Watanabe and Hanawa(1987) and Hanawa et al.(1988) showed that SST in the mid-latitudes of the western North Pacific is strongly affected by the winter monsoon in the east Asia, and in general during the ENSO events the monsoon is relatively weak compared with the other years. The 1987 winter monsoon is very weak as shown in Fig.8.5 which is the scatter plots of the seasonal mean monsoon index and Southern Oscillation Index (see, Watanabe and Hanawa, 1987). That is, the data described in the present report support the above findings for the surface thermal condition in the mid-latitudes of the western North Pacific during the ENSO events.

This study was performed as a part of the Ocean Mixed Layer Experiment, OMLET (Chairman : Prof. Y. Toba), one of the Japanese WCRP

activities, which were financially supported by the Ministry of Education, Science and Culture, Japan.

Reference

- Hanawa, K.(1987) : Interannual variations in the winter-time outcrop area of Subtropical Mode Water in the western North Pacific. *Atmosphere-Ocean*, 25, 358-374.
- Hanawa, K. and H. Yoritaka(1987) : Detection of systematic error in XBT data and their correction. *J. Oceanogr. Japan*, 43, 68-76. 68-76.
- Hanawa, K., T.Watanabe, N. Iwasaka, T. Suga and Y. Toba(1987) : Surface thermal condition in the western North Pacific during the ENSO events. *J. Meteorol. Soc. Japan*, 28, 445-456.
- Suga, T., K. Hanawa and Y. Toba(1987) : Study on Subtropical Mode Water based on the long-term observations along 137 E line. (In preparation).
- Watanabe, T., and K. Hanawa(1987) : Relationship between SST of the western North Pacific and monsoon and Southern Oscillation Indices. (In preparation.)

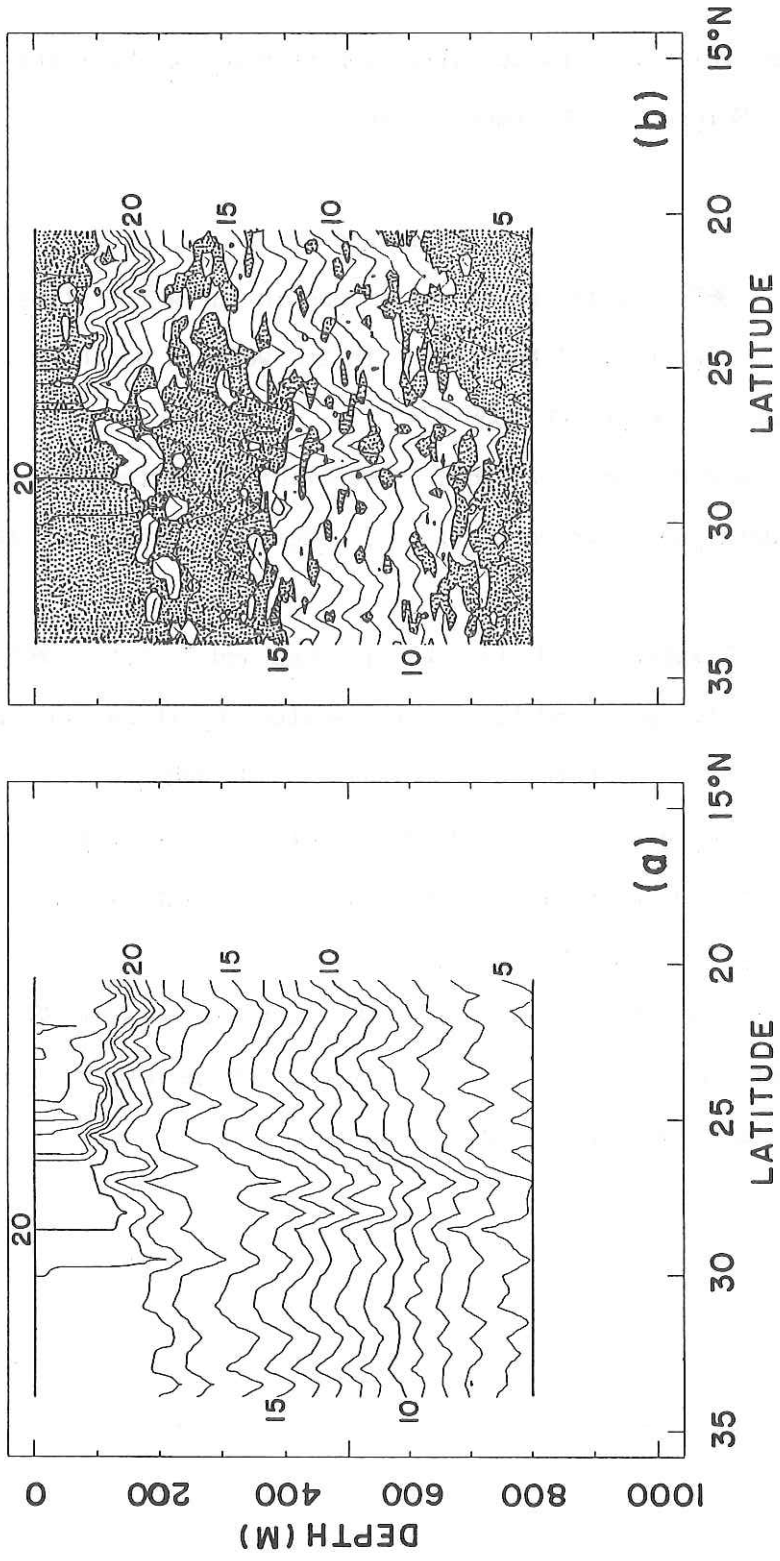


Fig.8.1.1. Vertical XBT section (a) and the layers with temperature gradient lower than $2 \times 10^{-2} \text{ } ^\circ\text{C m}^{-1}$ (dotted area).

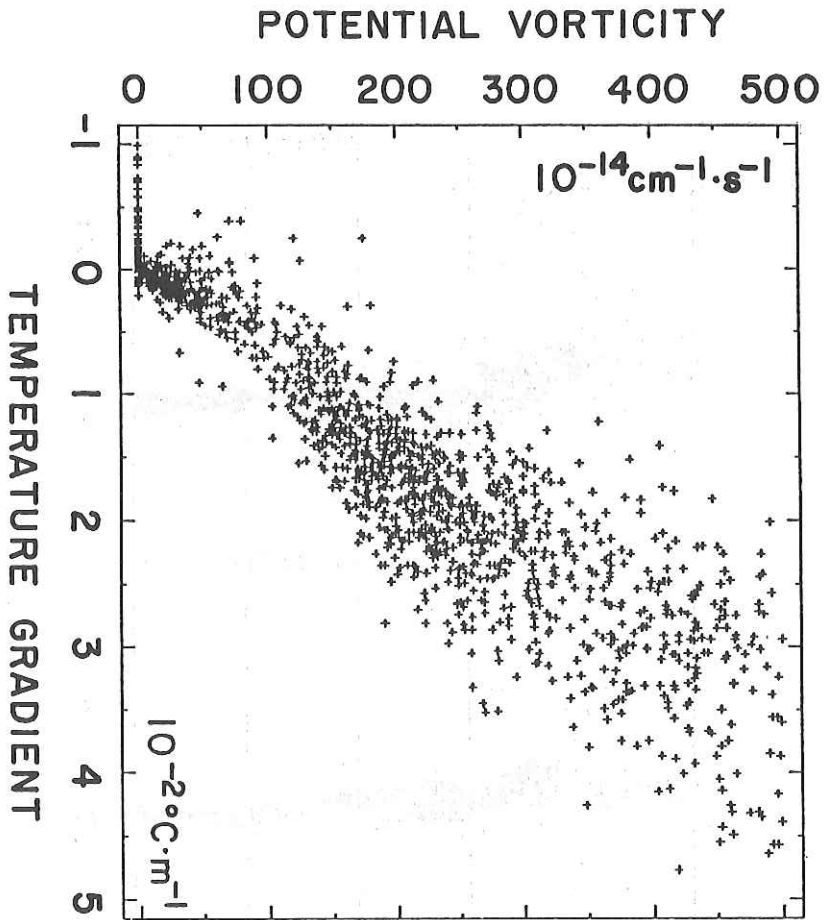


Fig.8.2. Relationship between temperature gradient and potential temperature. The data used are obtained on the 137 E line in winter from 1967 to 1987 by Japan Meteorological Agency.

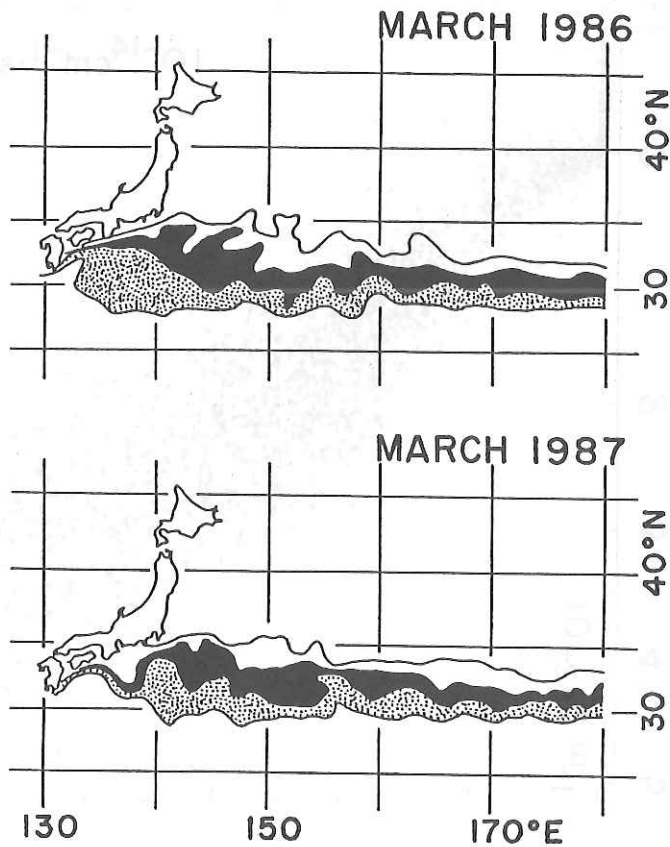


Fig.8.3. Monthly mean SST 16-19°C zones of March 1986 and 1987, which were redrawn from the "Ten-day Marine Report" by the JMA (Nos. 1421 for 1986 and 1457 for 1987).

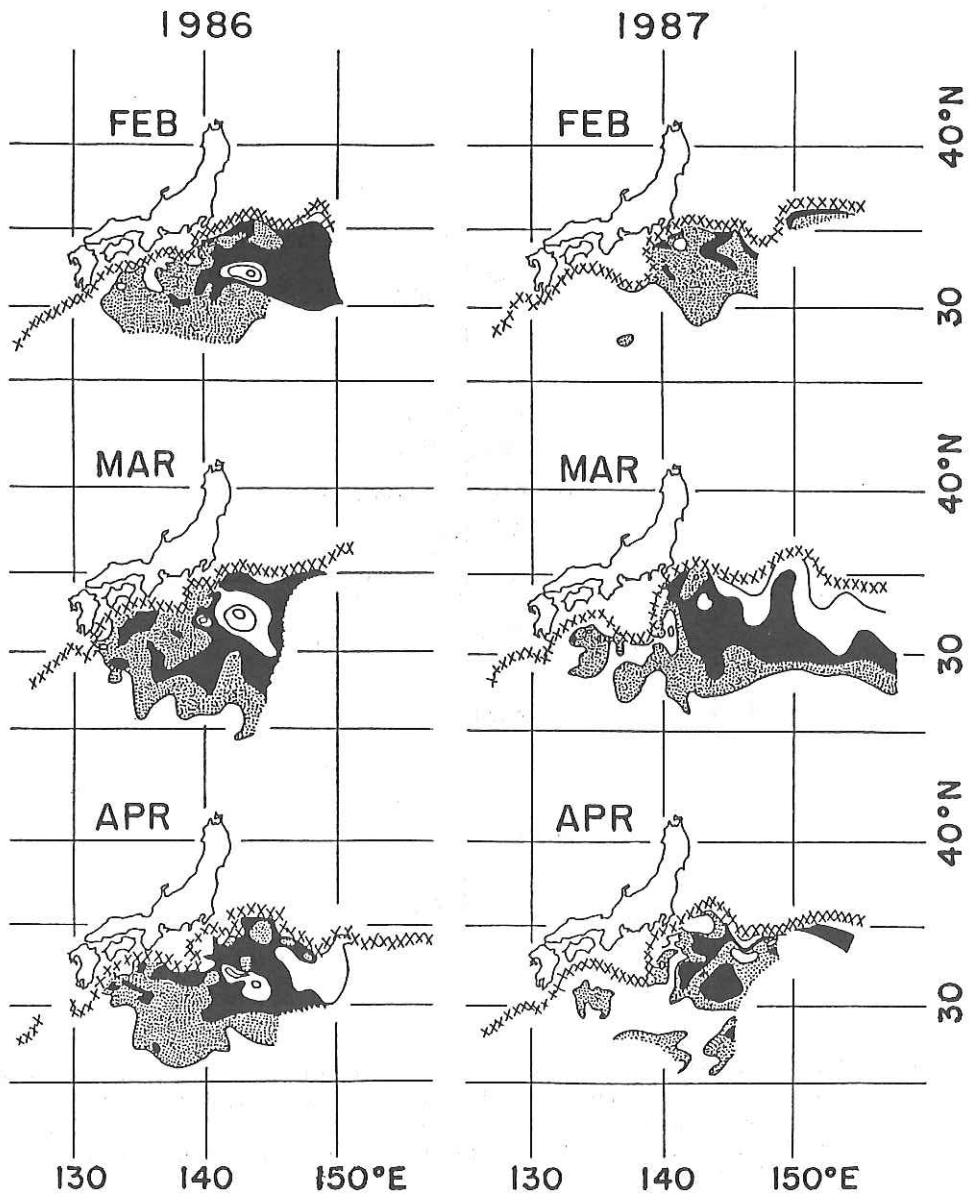


Fig.8.4. Temperature distributions from February to April at depth of 100m. Symbols x denote the approximate Kuroshio axis. (Redrawn from the "Ten-Day Marine Report" by the JMA, for 1986, Nos. 1419, 1422 and 1425, and for 1987, Nos. 1455, 1458, and 1461)

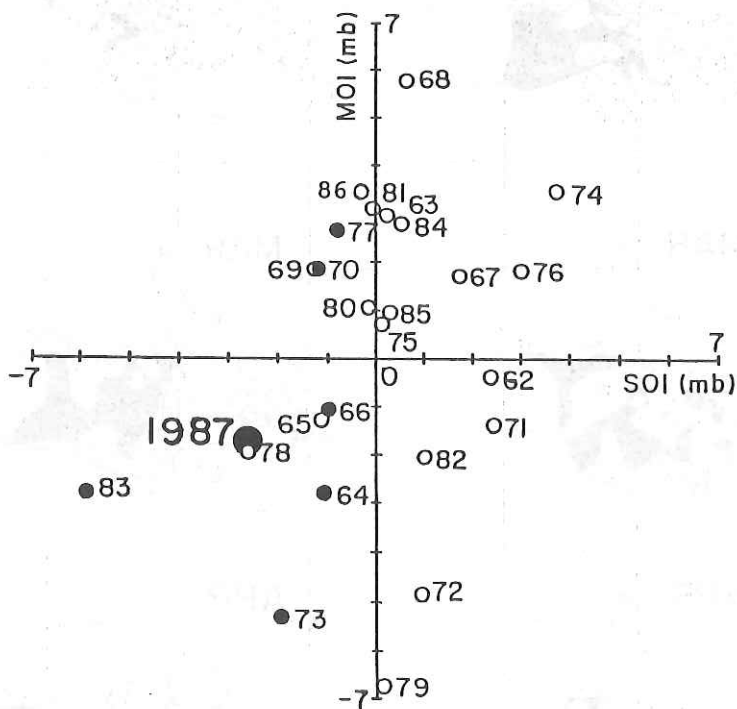


Fig.8.5. Scatter plots of the seasonal-mean monsoon index (MOI) and the Southern Oscillation index (SOI) for the winter from December to February (see Watanabe and Hanawa, 1987). Numerals denote years and black circles show winters during the ENSO events.

VI. Data Report

We made hydrographic observations by using a Mark IIIb CTD, Neil Brown Instruments System, with a Multi-Bottle Sampler, General Ocean. From the sampled water, dissolved oxygen (D.O., *ml/l*), pH value (Ph), alkalinity (Alk, *m eq/l*), phosphate ($\text{PO}_4\text{-P}$, $\mu\text{ g at/l}$), and silica ($\text{SiO}_2\text{-Si}$, $\mu\text{ g at/l}$) were determined, and they are tabulated in the following pages. While we operated the water sampler, CTD values were read out for correction of the CTD. We determined salinity of the sampled water by using a laboratory salinometer (Autosal 8400-A, Guildline) and the IAPSO standard sea waters. The salinity from the CTD were corrected by adding -0.00467 as a result of the comparison (see Fig.A1). Reversing thermometers were used to check temperature from the CTD. Temperature from the CTD was corrected by adding 0.02945 °C as shown in Fig.A2. Corrected salinity and temperature at selected depths are tabulated in the following pages.

The calibration of the CTD in the above procedures were made by Toshisuke Nakai, Ocean Research Institute, University of Tokyo.

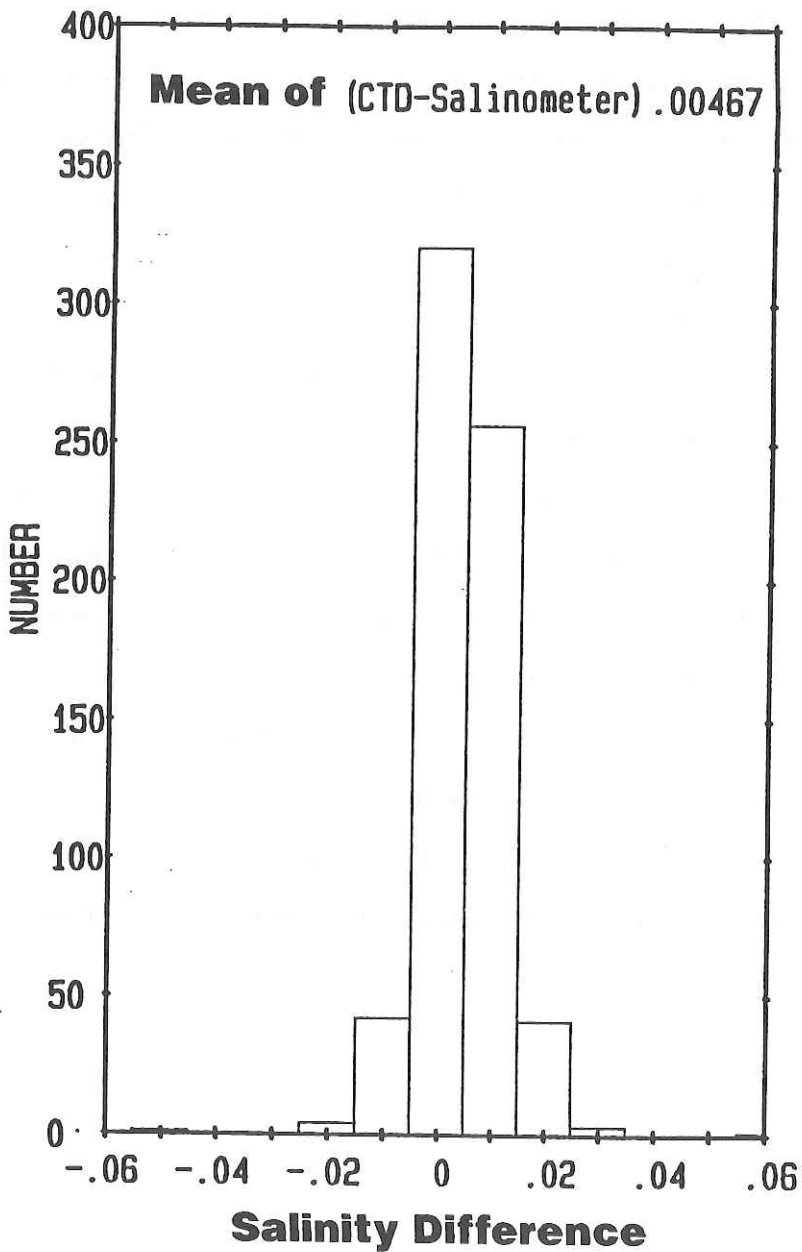


Fig.A1. Histogram of the salinity difference between CTD and salinometer for total number of data 670.

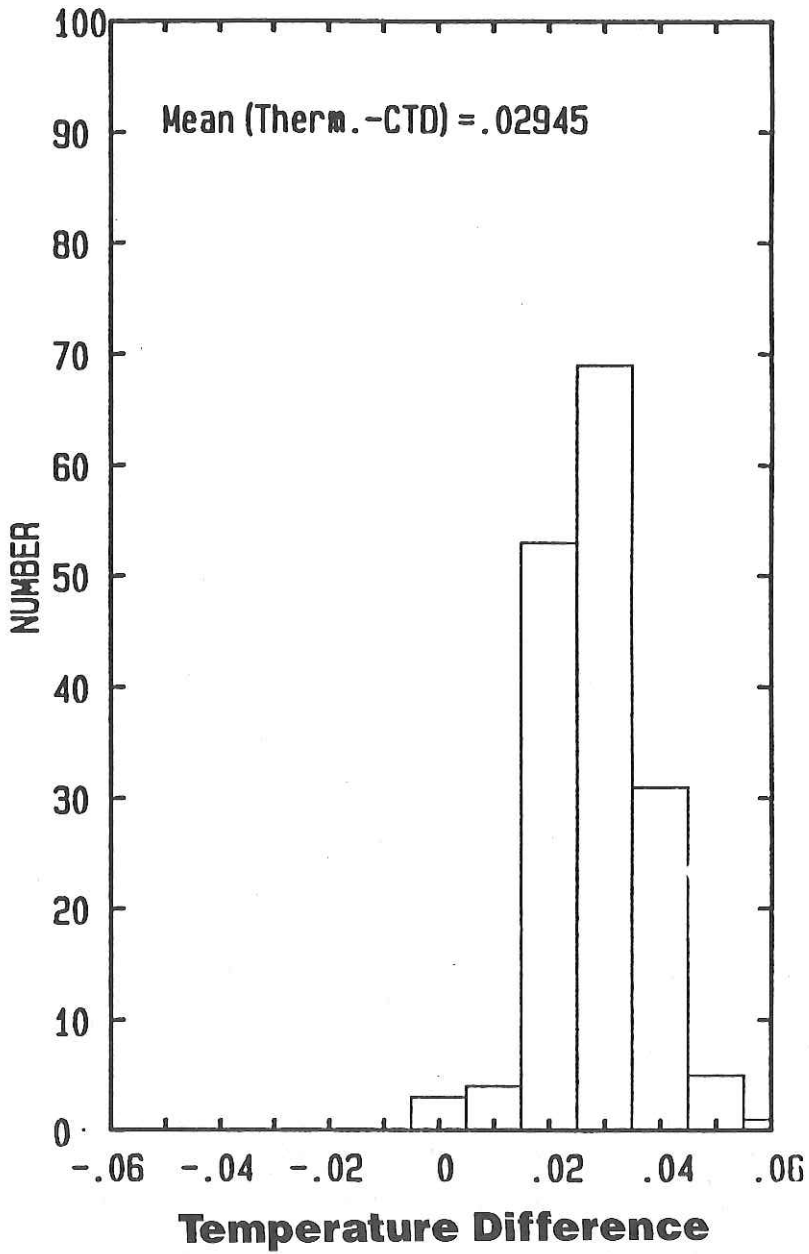


Fig.A2. Histogram of the temperature difference between CTD and reversing thermometers for total number of data 168.

Station		Water depth(m)		Date/Time		Position					
ST01		4170-3890		25 Jan 19:57-22:04		31-28.9'N 136-55.7'E (START)					
				1987		31-26.0'N 136-59.4'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si	
0	0	20.2			34.808	4.91	8.297	2.381	0.13	1.8	
12	51	20.388	48.032	34.807	34.687	3.47	7.809	2.504	2.68	140.1	
11	101	20.346	48.062	34.807	34.792	4.84	8.208	2.384	0.21	5.2	
10	254	17.970	45.711	34.798	34.803	4.19	8.306	2.380	0.44	6.3	
9	502	10.765	38.369	34.339	34.355	3.51	7.977	2.383	1.49	34.7	
8	752	5.877	33.988	34.331	34.323	2.04	7.726	2.429	2.40	82.3	
7	1001	3.797	32.306	34.401	34.394	1.52	7.654	2.457	2.83	108.5	
6	1250	3.014	31.790	34.478	34.470	1.62	7.654	2.476	2.93	130.5	
5	1499	2.457	31.464	34.547	34.538	1.93	7.683	2.489	2.86	144.2	
4	1751	2.140	31.327	34.591	34.584	2.33	7.711	2.496	2.90	152.3	
3	2499	1.653	31.259	34.662	34.650	3.02	7.776	2.499	2.65	148.5	
2	3499	1.487	31.513	34.691	34.683	3.43	7.804	2.505	2.71	149.0	
1	4006	1.524	31.725	34.693	34.683	3.52	7.797	2.502	2.53	143.6	

Station		Water depth(m)		Date/Time		Position					
ST02		2470		29 Jan 12:41-13:44		32-45.4'N 141-09.4'E (START)					
				1987		32-46.0'N 141-09.2'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si	
0	0	18.5			34.799	5.05	8.282	2.368	0.13	0.6	
12	51	18.470	46.143	34.800	34.756	5.05	8.283	2.357	0.14	0.7	
11	101	18.457	46.152	34.800	34.780	5.02	8.281	2.363	0.13	1.1	
10	200	18.445	46.181	34.799	34.778	4.99	8.277	2.365	0.15	0.7	
9	400	14.820	42.507	34.638	34.614	4.01	8.115	2.361	0.73	12.0	
8	600	9.165	36.863	34.276	34.244	3.28	7.900	2.369	1.64	43.1	
7	801	5.383	33.391	34.131	34.115	2.25	7.701	2.389	2.69	82.1	
6	1000	3.961	32.345	34.277	34.263	1.19	7.603	2.432	2.97	116.9	
5	1249	3.227	31.935	34.429	34.420	1.32	7.626	2.461	3.01	136.0	
4	1549	2.598	31.572	34.504	34.493	1.34	7.650	2.478	3.23	149.3	
3	1850	2.277	31.454	34.551	34.532	1.42	7.655	2.488	2.99	155.0	
2	2149	1.953	31.338	34.607	34.583	1.97	7.680	2.493	2.94	161.2	
1	2449	1.811	31.352	34.631	34.612	2.23	7.703	2.493	3.02	163.0	

Station		Water depth(m)		Date/Time		Position					
JT		8980-8980		28 Jan 18:27-20:54		33-52.9'N 141-55.8'E (START)					
				1987		33-51.6'N 141-56.8'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si	
0	0	18.6			34.768	5.02	8.249	2.368	0.15	1.2	
12	100	18.505	46.189	34.791	34.776	5.01	8.272	2.365	0.17	1.3	
11	240	17.666	45.446	34.820	34.801	4.48	8.211	2.367	0.33	3.3	
10	500	12.757	40.407	34.492	34.455	3.77	8.025	2.366	1.13	23.1	
9	740	6.373	34.211	34.089	34.074	2.99	7.761	2.380	2.33	70.6	
8	1000	4.063	32.434	34.276	34.256	1.43	7.616	2.425	3.10	114.0	
7	1500	2.680	31.604	34.480	34.478	1.06	7.594	2.472	3.06	155.5	
6	2000	2.119	31.402	34.582	34.585		7.642	2.484	2.96	166.4	
5	3000	1.613	31.418	34.665	34.657		7.732	2.500	2.66	166.2	
4	4000	1.486	31.688	34.690	34.674	3.35	7.775	2.502	2.51	160.6	
3	5000	1.504	32.042	34.699	34.686		7.797	2.497	2.57	156.7	
2	6000	1.608	32.439	34.701	34.686	3.57	7.794	2.498	2.67	150.1	
1	6500	1.673	32.638	34.700							

Station		Water depth(m)		Date/Time		Position				
ST03		3100-3100		29 Jan 15:51-16:57		32-45.4'N 141-19.9'E (START)				
1987						32-46.0'N 141-19.9'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	18.6			34.792	5.05	8.283	2.351	0.14	11.6
12	100	18.513	46.202	34.796	34.783	4.98	8.283	2.351	0.14	0.4
11	200	18.435	46.165	34.794	34.777	4.90	8.267	2.362	0.19	0.9
10	400				34.632	4.11	8.128	2.366	0.64	11.1
9	600	9.107	36.790	34.257	34.249	3.49	7.914	2.367	1.82	40.5
8	1000	4.021	32.402	34.281	34.266	1.27	7.638	2.429	2.91	114.3
7	1250	3.195	31.899	34.420	34.400	1.24	7.611	2.453	3.08	139.1
6	1500	2.693	31.621	34.488	34.481	1.27	7.612	2.473	3.02	153.2
5	1899	2.173	31.398	34.568	34.524	1.61	7.644	2.487	2.97	161.6
4	2199	1.928	31.338	34.609	34.594	2.07	7.698	2.492	2.94	165.0
3	2500	1.744	31.320	34.639	34.623	2.38	7.712	2.498	2.93	165.7
2	2800	1.569	31.304	34.665	34.650	2.79	7.750	2.500	2.96	163.6
1	3101	1.497	31.365	34.677	34.662	3.05	7.770	2.499	2.59	159.4

Station		Water depth(m)		Date/Time		Position				
ST04		4460-4850		29 Jan 19:15-20:49		32-45.6'N 141-30.6'E (START)				
1987						32-46.6'N 141-31.8'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	18.4			34.785	5.10	8.280	2.352	0.19	2.0
12	249	17.726	45.496	34.809	34.791	4.55	8.222	2.357	0.30	3.7
11	500	12.647	40.303	34.493	34.477	3.85	8.035	2.349	1.09	22.2
10	750	6.614	34.453	34.114	34.102	3.12	7.819	2.366	2.11	61.1
9	999	4.196	32.536	34.258	34.248	1.45	7.652	2.413	2.97	113.3
8	1250	3.263	31.930	34.385	34.383	0.97	7.615	2.440	3.09	139.3
7	1499	2.769	31.673	34.471	34.461	1.07	7.633	2.458	3.26	152.0
6	2000	2.050	31.347	34.587	34.662	2.97	7.784	2.480	2.62	160.6
5	3098	1.519	31.381	34.675	34.672	3.17	7.792	2.484	2.64	159.7
4	3399	1.471	31.456	34.683	34.676	3.31	7.799	2.486	2.63	155.0
3	3700	1.451	31.550	34.687	34.684	3.60	7.811	2.480	2.53	154.3
2	4000	1.419	31.633	34.694	34.696	3.64	7.818	2.480	2.45	151.7
1	4345	1.411	31.748	34.700						

Station		Water depth(m)		Date/Time		Position				
ST05		6850-6900		29 Jan 23:55-02:36		32-46.9'N 141-41.4'E (START)				
1987						32-48.1'N 141-43.2'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	18.4			34.810	5.06	8.286	2.365	0.18	2.4
12	301	16.699	44.445	34.761						
11	601	9.947	37.610	34.300	34.297	2.93	7.955	2.361	1.53	36.5
10	899	4.923	33.083	34.197	34.189	1.90	7.713	2.397	2.82	96.0
9	1201	3.376	31.990	34.363	34.357	0.97	7.634	2.443	3.19	137.3
8	1501	2.722	31.639	34.478	34.471	1.04	7.650	2.463	3.22	155.0
7	2000	2.068	31.362	34.586	34.578	1.74	7.690	2.481	3.02	162.5
6	3500	1.490	31.509	34.683	34.675	3.14	7.776	2.498	2.78	161.1
5	4800	1.484	31.959	34.697	34.688	3.61	7.824	2.485	2.58	153.6
4	5100	1.501	32.070	34.697	34.691	3.68	7.832	2.486	2.37	152.5
3	5406	1.529	32.191	34.699	34.692	3.69	7.826	2.484	2.54	150.6
2	5700	1.563	32.310	34.699	34.693	3.65	7.834	2.487	2.50	148.8
1	6002	1.601	32.432	34.699	34.696	3.69	7.836	2.482	2.62	148.8

Station Water depth(m) Date/Time					Position					
St06 6800-7100 30 Jan 05:39-07:50					32-46.5'N 141-51.2'E (START)					
1987					32-48.7'N 141-52.9'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	18.6			34.793	5.09	8.283	2.362	0.15	2.4
12	301	16.550	44.308	34.770						
11	601	9.469	37.146	34.278	34.270	3.50	7.940	2.364	1.57	39.9
10	903	4.994	33.142	34.191	34.191	1.88	7.679	2.401	2.65	94.8
9	1202	3.381	31.994	34.362	34.355	1.05	7.592	2.447	3.07	135.2
8	1500	2.707	31.616	34.468	34.465	0.95	7.600	2.462	3.26	156.7
7	2002	2.070	31.360	34.581	34.581	1.58	7.657	2.485	3.07	167.6
6	3499	1.494	31.511	34.682	34.679	3.19	7.780	2.495	2.66	161.4
5	4797	1.485	31.959	34.697	34.688	3.58	7.814	2.483	2.66	154.7
4	5100	1.511	32.078	34.697	34.689	3.66	7.817	2.480	2.60	153.3
3	5388	1.535	32.190	34.698	34.692	3.70	7.821	2.486	2.45	152.4
2	5693	1.567	32.310	34.697	34.691	3.76	7.822	2.487	2.45	151.8
1	5997	1.601	32.430	34.698	34.693	3.76	7.830	2.483	2.59	150.5

Station Water depth(m) Date/Time					Position					
ST08 8460-8340 31 Jan 19:38-21:38					28-59.8'N 143-03.2'E (START)					
1987					28-59.6'N 143-03.3'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	19.4			34.466	5.06	8.286	2.360	0.14	2.5
12	300	16.385	44.116	34.745	34.738	4.41	8.181	2.361	0.49	7.3
11	599	9.131	36.831	34.276	34.228	3.62	7.923	2.360	1.53	39.3
10	899	4.761	32.948	34.207	34.205	1.71	7.656	2.401	2.73	96.9
9	1199	3.232	31.882	34.386	34.390	0.99	7.591	2.443	3.11	138.2
8	1500	2.536	31.498	34.504	34.499	1.13	7.602	2.466	3.03	156.3
7	1999	1.962	31.282	34.602	34.597	1.96	7.683	2.482	2.93	162.6
6	3500	1.486	31.504	34.681	34.680	3.21	7.769	2.488	2.51	156.5
5	4802	1.477	31.953	34.696	34.690	3.61	7.825	2.489	2.42	151.1
4	5100	1.503	32.071	34.696	34.692	3.67	7.832	2.487	2.37	149.9
3	5406	1.534	32.194	34.697	34.690	3.71	7.826	2.489	2.31	148.4
2	5700	1.568	32.313	34.697	34.692	3.72	7.825	2.487	2.38	148.1
1	6002	1.606	32.434	34.696	34.692	3.73	7.828	2.483	2.42	147.0

Station Water depth(m) Date/Time					Position					
ST09 9100-9100m 1 Feb 00:40-02:50					28-54.3'N 142-55.0'E (START)					
1987					28-53.9'N 142-56.0'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	19.6			34.805	5.00	8.286	2.356	0.10	2.5
12	300	17.001	44.776	34.790	34.785	4.59	8.210	2.355	0.37	4.8
11	601	9.749	37.400	34.274	34.273	3.64	7.947	2.355	1.49	35.4
10	900	4.898	33.053	34.188	34.192	1.79	7.670	2.394	2.67	92.0
9	1200	3.345	31.980	34.384	34.381	1.05	7.603	2.438	2.94	132.8
8	1500	2.606	31.555	34.499	34.495	1.25	7.622	2.463	3.02	150.4
7	1999	1.998	31.307	34.594	34.592		7.673	2.476	2.92	160.4
6	3500	1.501	31.515	34.678	34.675	3.20	7.774	2.484	2.64	151.1
5	4796	1.479	31.952	34.695	34.694	3.67	7.807	2.480	2.50	147.9
4	5100	1.503	32.071	34.696	34.692	3.67	7.805	2.482	2.44	147.4
3	5399	1.534	32.191	34.696	34.696	3.71	7.807	2.480	2.43	142.3
2	5700	1.568	32.312	34.696	34.692	3.70	7.814	2.479	2.47	146.9
1	6000	1.604	32.432	34.696						

Station Water depth(m) Date/Time					Position					
ST10 7050-7150 1 Feb 05:59-08:00					28-49.5'N 142-47.1'E (START)					
1987					28-49.5'N 142-47.5'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	19.3			34.825	5.05	8.282	2.364	0.13	2.7
12	301	16.524	44.285	34.773	34.766	4.52	8.205	2.360	0.38	3.9
11	599	9.851	37.500	34.279	34.286	3.68	7.938	2.352	1.52	33.9
10	900	4.859	33.029	34.200	34.202		7.646	2.401	2.55	94.2
9	1201	3.255	31.912	34.397	34.395		7.629	2.444	3.05	136.0
8	1501	2.594	31.545	34.500	34.504	1.29	7.633	2.466	3.04	154.6
7	1999	1.956	31.278	34.604	34.605	2.07	7.702	2.480	2.95	158.2
6	3499	1.469	31.490	34.682	34.684	3.22	7.777	2.484	2.51	159.0
5	4801	1.469	31.944	34.694	34.697	3.64	7.801	2.482	2.38	149.9
4	5101	1.497	32.066	34.697	34.695	3.66	7.802	2.482	2.41	148.5
3	5405	1.531	32.190	34.696	34.697	3.69	7.802	2.482	2.43	147.9
2	5699	1.564	32.308	34.696	34.696	3.72	7.802	2.484	2.42	146.9
1	6017	1.603	32.436	34.696	34.696	3.67	7.806	2.480	2.42	146.6

Station Water depth(m) Date/Time					Position					
ST11 5000-5230m 1 Feb 10:56-12:38					28-45.4'N 142-38.5'E (START)					
1987					28-45.6'N 142-39.4'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	20.4			34.917	4.56	8.299	2.359	0.08	0
12	299	16.490	44.264	34.784	34.775	4.91	8.214	2.293	0.34	0
11	601	10.225	37.834	34.266	34.269		7.979	2.343	1.38	43.2
10	900	5.111	33.225	34.169	34.169	1.99	7.675	2.384	2.65	83.1
9	1200	3.328	31.968	34.387	34.387	1.07	7.583	2.440	3.04	127.8
8	1501	2.646	31.582	34.489	34.494	1.17	7.606	2.458	3.07	135.9
7	1801	2.184	31.363	34.563	34.569	1.62	7.660	2.472	3.04	159.7
6	2000	2.030	31.332	34.590	34.593	1.95	7.682	2.472	2.98	151.6
5	3300	1.518	31.453	34.673	34.674	3.08	7.782	2.484	2.68	157.8
4	3601	1.469	31.526	34.682	34.679	3.23	7.795	2.487	2.61	156.6
3	3900	1.451	31.620	34.687	34.683	3.36	7.814	2.492	2.60	155.4
2	4200	1.446	31.722	34.690	34.690	3.50	7.818	2.489	2.60	152.9
1	4502	1.456	31.834	34.693	34.690	3.53	7.796	2.486	2.59	152.1

Station Water depth(m) Date/Time					Position					
ST12 4000-4010 1 Feb 15:00-16:26					28-40.2'N 142-29.6'E (START)					
1987					28-40.4'N 142-29.7'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	19.7			34.871	5.08	8.290	2.359	0.04	0
12	299	16.751	44.521	34.784	34.764	4.76	8.215	2.353	0.27	0
11	600	9.592	37.206	34.224	34.213	3.97	7.933	2.346	1.43	14.2
10	899	4.980	33.083	34.139	34.128	1.91	7.675	2.381	2.77	82.6
9	1199	3.407	32.020	34.367	34.360	1.09	7.594	2.433	3.15	122.0
8	1499	2.666	31.598	34.489	34.482	1.35	7.620	2.455	3.09	147.5
7	1800	2.205	31.380	34.562	34.553	1.78	7.681	2.471	2.86	148.9
6	1999	1.997	31.306	34.594	34.587	2.00	7.689	2.475	2.88	155.3
5	2702	1.672	31.344	34.650	34.641	2.68	7.739	2.482	2.87	158.2
4	2999	1.573	31.383	34.665	34.657	2.91	7.751	2.481	2.70	157.2
3	3300	1.511	31.448	34.674	34.661	3.07	7.766	2.481	2.59	157.5
2	3600	1.481	31.536	34.681	34.672	3.23	7.804	2.480	2.53	156.6
1	3900	1.438	31.610	34.688	34.686	3.41	7.789	2.481	2.48	154.1

Station Water depth(m) Date/Time					Position					
ST13 2260-2260m 1 Feb 18:15-19:08					28-34.4'N 142-20.9'E (START)					
1987					28-33.9'N 142-21.0'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	20.4			34.867	5.11	8.290	2.340	0.03	
12	49	19.828	47.592	34.870	34.854	5.08	8.291	2.341	0.04	
11	100	19.784	47.556	34.859	34.847	5.06	8.280	2.339	0.05	
10	201	17.806	45.577	34.828	34.814	4.61	8.205	2.333	0.27	
9	400	14.901	42.590	34.641	34.632	4.43	8.133	2.380	0.62	
8	600	10.021	37.639	34.260	34.251	4.00	7.955	2.327	1.36	26.1
7	800	6.041	33.942	34.092	34.084	2.62	7.733	2.349	2.36	75.6
6	999	4.172	32.500	34.241	34.231	1.31	7.613	2.390	3.05	133.6
5	1152	3.473	32.051	34.359	34.349	1.11	7.550	2.417	3.11	158.9
4	1300	3.061	31.811	34.428	34.420	1.11	7.590	2.431	3.15	101.9
3	1600	2.465	31.491	34.520	34.519	1.27	7.676	2.434	3.16	156.9
2	1899	2.030	31.290	34.589	34.579	1.88	7.674	2.462	2.94	160.0
1	2202	1.796	31.239	34.627	34.623	2.45	7.695	2.465	2.88	156.4

Station Water depth(m) Date/Time					Position					
ST14 1970-1940 1 Feb 20:49-21:46					28-30.2'N 142-13.0'E (START)					
1987					28-29.8'n 142-13.3'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	20.2			34.902	5.05	8.292	2.338	0.02	12
11	50	20.283	48.103	34.911	34.897	5.04	8.298	2.339	0.02	
10	102	20.294	48.137	34.911	34.895	5.01	8.293	2.338	0.03	
9	201	17.797	45.554	34.816	34.805	4.65	8.219	2.332	0.25	
8	400	15.240	42.954	34.671	34.665	4.47	8.125	2.326	0.57	
7	601	10.001	37.622	34.261	34.256	3.97	7.968	2.321	1.36	19.0
6	798	5.573	33.535	34.104	34.098	2.33	7.695	2.352	2.50	82.4
5	999	4.148	32.483	34.245	34.235	1.33	7.634	2.392	2.93	111.4
4	1101	3.682	32.186	34.328	34.318	1.19	7.594	2.417	3.07	125.6
3	1398	2.736	31.609	34.479	34.471	1.34	7.620	2.442	3.17	143.8
2	1699	2.212	31.342	34.559	34.550	1.61	7.631	2.456	3.01	140.0
1	1922	2.039	31.306	34.587	34.587	1.97	7.675	2.458	3.02	132.3

Station Water depth(m) Date/Time					Position					
STHU1 5800-5810 3 Feb 02:45-05:48					23-30.3'N 144-59.3'E (START)					
1987					23-30.1'N 144-58.6'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	24.4			35.057	4.79	8.363	2.366	0.04	0.84
12	100	21.852	49.737	34.921	34.905	4.73	8.287	2.354	0.05	1.30
11	201	17.150	44.894	34.801	34.792	4.48	8.211	2.343	0.31	3.47
10	400	13.252	40.847	34.501	34.493	4.15	8.044	2.333	0.82	14.7
9	600	8.367	36.048	34.191	34.186	2.98	7.868	2.340	1.70	43.0
8	800	5.239	33.338	34.217	34.210	1.77	7.717	2.401	2.69	88.1
7	1000	3.835	32.293	34.346	34.341	1.28	7.617	2.420	2.92	120.8
6	1196	3.243	31.950	34.457	34.452	1.42	7.644	2.436	2.98	134.9
5	1399	2.772	31.676	34.521	34.519	1.68	7.682	2.447	2.92	143.4
4	1598	2.427	31.486	34.556	34.553	1.86	7.716	2.460	2.92	148.4
3	2002	2.032	31.352	34.612	34.605	2.41	7.746	2.468	2.73	150.0
2	4002	1.477	31.680	34.689	34.683	3.51	7.802	2.474	2.52	149.6
1	5707	1.542	32.295	34.701	34.695	3.88	7.824	2.468	2.43	141.6

Station		Water depth(m)		Date/Time		Position				
ST18		6200-6200		3 Feb 14:25-16:21		21-59.1'N 145-34.0'E (START)				
				1987		21-59.0'N 145-34.5'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	25.4			34.967	4.62			0.06	0.99
12	299	16.251	43.989	34.750	34.743	4.58			0.39	5.79
11	599	8.453	36.126	34.191	34.187	3.08			1.95	42.6
10	899	4.685	32.981	34.323	34.319	1.31			2.91	100.2
9	1199	3.262	31.989	34.482	34.472	1.48			2.96	133.6
8	1500	2.582	31.576	34.551	34.544	1.85			2.85	145.5
7	2000	1.996	31.326	34.619	34.613	2.42			2.76	152.0
6	3500	1.470	31.494	34.685	34.677	3.32			2.55	152.4
5	4800	1.456	31.937	34.700	34.692	3.78			2.48	144.5
4	5100	1.474	32.051	34.703	34.692	3.79			2.37	142.8
3	5400	1.505	32.170	34.701	34.694	3.82			2.40	141.1
2	5700	1.537	32.290	34.702	34.694	3.87			2.44	141.6
1	6005	1.574	32.412	34.702	34.693	3.87			2.44	141.2

Station		Water depth(m)		Date/Time		Position				
ST17		4510-4530		3 Feb 18:49-20:17		21-53.0'N 145-26.2'E (START)				
				1987		21-52.9'N 145-26.7'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	25.1			34.962				0.06	
12	300	16.309	44.050	34.753	34.690				1.21	42.7
11	600	8.393	36.062	34.180	34.183				2.88	107.4
10	900	4.409	32.750	34.338	34.335				3.10	138.3
9	1200	3.132	31.865	34.470	34.462				2.94	147.5
8	1500	2.500	31.511	34.558	34.552				2.97	150.8
7	1799	2.143	31.357	34.600	34.591				2.78	153.2
6	2000	1.958	31.295	34.622	34.613				2.57	153.4
5	3299	1.489	31.434	34.681	34.675				2.67	153.0
4	3599	1.473	31.531	34.684	34.675				2.59	150.9
3	3898	1.445	31.618	34.691	34.680				2.48	148.2
2	4199	1.428	31.710	34.695	34.689				2.42	146.2
1	4500	1.430	31.816	34.699	34.687				2.44	145.8

Station		Water depth(m)		Date/Time		Position				
ST16		4460-4290m		3 Feb 22:52-00:25		21-45.8'N 145-18.4'E (START)				
				1987		21-45.0'N 145-19.1'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	25.0			34.564				0.06	
12	300	16.821	44.591	34.784	34.773	8.365	2.354		0.38	3.3
11	600	8.943	36.589	34.204	34.195	8.210	2.344		1.68	37.6
10	901	4.351	32.674	34.308	34.305	7.909	2.339		3.00	108.5
9	1201	3.167	31.913	34.490	34.485	7.639	2.400		3.00	135.6
8	1501	2.522	31.530	34.558	34.547	7.668	2.437		3.00	145.5
7	1800	2.149	31.362	34.599	34.593	7.698	2.453		2.93	150.9
6	2000	1.960	31.293	34.618	34.614	7.723	2.460		2.91	153.1
5	3194	1.520	31.419	34.677	34.668	7.731	2.465		2.74	154.0
4	3500	1.479	31.500	34.684	34.674	7.739	2.472		2.54	153.4
3	3792	1.461	31.592	34.688	34.678	7.805	2.472		2.69	151.3
2	4100	1.425	31.672	34.693	34.683	7.808	2.470		2.65	148.2
1	4405	1.426	31.780	34.698	34.687	7.813	2.469		2.65	148.2
						7.815	2.468		2.39	146.7

Station Water depth(m) Date/Time					Position					
ST15 3670-3700m 4 Feb 02:38-03:48					21-39.7'N 145-10.3'E (START)					
1987					21-39.4'N 145-10.7'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	24.6			35.010	4.67	8.359	2.360	0.05	
12	300	16.902	44.683	34.793	34.785	4.74	8.218	2.343	0.30	2.9
11	600	9.001	36.653	34.215	34.205		7.907	2.341	1.62	37.7
10	900	4.293	32.628	34.315	34.309	1.34	7.630	2.410	2.91	110.3
9	1200	3.250	31.984	34.488	34.488	1.60	7.651	2.447	3.07	133.5
8	1500	2.559	31.556	34.551	34.548	1.86	7.675	2.464	2.98	147.4
7	1801	2.192	31.399	34.599	34.590	2.25	7.705	2.466	2.84	150.8
6	2001	1.943	31.278	34.617	34.609	2.41	7.723	2.470	2.77	154.7
5	2400	1.730	31.277	34.648	34.640	2.80	7.748	2.476	2.75	154.6
4	2701	1.655	31.338	34.661	34.651	2.93	7.762	2.480	2.76	154.5
3	2996	1.550	31.369	34.673	34.663	3.13	7.772	2.477	2.63	154.2
2	3300	1.475	31.423	34.682	34.672	3.31	7.788	2.476	2.72	153.7
1	3598	1.431	31.499	34.690	34.678	3.49	7.798	2.478	2.60	150.9

Station Water depth(m) Date/Time					Position					
STHU2 2740-2700 5 Feb 12:13-13:09					14-59.9'N 145-00.2'E (START)					
1987					14-59.7'N 145-00.5'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.2								
12	200	17.813	45.576	34.821						
11	399	9.577	37.166	34.286						
10	601	5.779	33.882	34.385						
9	800	4.850	33.236	34.498						
8	1001	4.123	32.704	34.530						
7	1198	3.569	32.323	34.559						
6	1399	3.024	31.948	34.583						
5	1599	2.665	31.732	34.602						
4	1800	2.363	31.564	34.618						
3	2001	2.076	31.407	34.633						
2	2499	1.733	31.326	34.659						
1	2699	1.644	31.334	34.668						

Station		Water depth(m)		Date/Time		Position				
STC201		3200-3170		8 Feb 19:22-20:24		12-59.7'N 143-59.3'E (START)				
						12-59.5'N 143-59.1'E (END)				
1987										
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.2			34.222	4.43	8.315	2.289	0.10	0.1
12	101	25.392	53.410	34.929	34.908	4.46	8.303	2.334	0.13	1.2
11	250	12.712	40.216	34.454	34.448	3.56	7.995	2.313	1.08	17.2
10	500	6.607	34.649	34.457	34.447	1.56	7.719	2.369	2.54	66.6
9	750	5.084	33.434	34.509	34.502	1.77	7.693	2.389	2.62	86.6
8	1000	4.016	32.624	34.548	34.539	1.91	7.722	2.412	2.82	108
7	1250	3.228	32.059	34.576	34.569	2.07	7.738	2.434	2.88	127
6	1502	2.757	31.763	34.591	34.591	2.14	7.703	2.438	2.79	141
5	1750	2.273	31.467	34.620	34.617	2.34	7.706	2.450	2.79	148
4	1998	2.046	31.382	34.636	34.631	2.54	7.723	2.457	2.73	148
3	2101	1.979	31.369	34.640	34.636	2.54	7.735	2.455	2.67	149
2	3000	1.606	31.419	34.674	34.667	3.08	7.750	2.459	2.62	152
1	3099	1.604	31.454	34.674	34.663	3.13	7.778	2.464	2.62	152

Station		Water depth(m)		Date/Time		Position				
STC202		4160-4140m		9 Feb 04:12-05:42		11-59.8'N 142-59.7'E (START)				
						11-59.3'N 142-59.2'E (END)				
1987										
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.1			34.255	4.53	8.343	2.292	0.11	1.3
12	51	27.154	54.300	34.267	34.681	3.45	7.783	2.460	2.60	148
11	149	20.802	48.823	35.031	35.031	3.85	8.194	2.339	0.32	3.0
10	300	10.269	37.839	34.361	34.348	2.62	7.862	2.320	1.68	29.7
9	501	7.517	35.514	34.497	34.488	1.44	7.692	2.355	2.50	54.6
8	750	5.590	33.886	34.508	34.503	1.78	7.710	2.379	2.61	77.0
7	1001	4.427	32.986	34.544	34.543	1.91	7.711	2.405	2.72	102
6	1250	3.534	32.322	34.568	34.563	2.00	7.696	2.429	2.77	118
5	1496	2.851	31.847	34.595	34.589	2.15	7.709	2.442	2.69	132
4	1750	2.406	31.578	34.615	34.617	2.38	7.728	2.453	2.67	144
3	2001	2.155	31.477	34.634	34.628	2.53	7.728	2.453	2.62	145
2	3100	1.540	31.402	34.677	34.670	3.21	7.784	2.464	2.58	149
1	4098	1.507	31.738	34.688	34.679	3.49	7.787	2.464	2.59	148

Station		Water depth(m)		Date/Time		Position				
STC203		2970-2910m		9 Feb 13:08-15:18		12-59.8'N 142-00.0'E (START)				
						12-58.9'N 141-59.8'E (END)				
1987										
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.0			34.266	4.55	8.379	2.305	0.07	1.1
12	50	27.076	54.216	34.261	34.249	4.43	8.384	2.303	0.08	1.2
11	153	21.871	49.974	35.078	35.072	3.87	8.248	2.361	0.33	2.7
10	301	11.501	39.045	34.411	34.417	2.87	7.934	2.336	1.96	26.5
9	499	7.838	35.774	34.461	34.454	1.37	7.718	2.368	2.34	55.8
8	751	5.586	33.870	34.493	34.488	1.71	7.724	2.396	2.56	78.4
7	999	4.155	32.741	34.541	34.533	1.89	7.714	2.427	2.80	105
6	1250	3.353	32.158	34.563	34.559	1.95	7.719	2.445	2.73	123
5	1500	2.759	31.764	34.591	34.586	2.14	7.733	2.455	2.67	136
4	1749	2.348	31.526	34.613	34.609	2.34	7.744	2.464	2.75	143
3	1891	2.178	31.444	34.623	34.619	2.43	7.740	2.469	2.76	146
2	2500	1.702	31.302	34.662	34.656	2.91	7.806	2.480	2.54	150
1	2740	1.660	31.363	34.668	34.665	3.07	7.791	2.477	2.51	151

Station	Water depth(m)	Date/Time			Position						
STC204	4200-4500m	9 Feb 22:10-23:45			11-58.7'N 140-59.9'E (START)						
					1987						
					11-57.5'N 140-59.3'E (END)						
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si	
0	0	27.0			34.316	4.53	8.378	2.304	0.07	0.8	
12	50	27.114	54.340	34.321	34.306	4.45	8.376	2.294	0.08	1.5	
11	149	19.827	47.753	34.967	34.959	3.85	8.182	2.344	0.64	3.9	
10	299	10.784	38.494	34.536	34.527	1.71	7.827	2.340	2.09	31.9	
9	501	7.183	35.210	34.497	34.490	1.55	7.727	2.355	2.40	57.1	
8	773	5.632	33.942	34.517	34.509	1.70	7.728	2.385	2.61	74.1	
7	1000	4.569	33.105	34.536	34.533	1.84	7.745	2.409	2.77	97.6	
6	1252	3.633	32.404	34.561	34.555	1.98	7.708	2.434	2.79	116	
5	1501	2.865	31.856	34.589	34.578	2.09	7.725	2.450	2.73	133	
4	2000	2.043	31.380	34.635	34.628	2.64	7.741	2.464	2.69	146	
3	2495	1.683	31.285	34.664	34.655	2.90	7.773	2.468	2.54	150	
2	3099	1.565	31.423	34.677	34.668	2.90	7.794	2.471	2.56	151	
1	4098	1.492	31.727	34.690	34.681	3.43	7.824	2.468	2.58	150	

Station	Water depth(m)	Date/Time			Position						
STC205	4620-4600	10 Feb 9:37-11:27			12-58.1'N 139-59.1'E (START)						
					1987						
					12-56.3'N 139-57.5'E (END)						
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si	
0	0	26.8			34.576	4.44	8.377	2.325	0.06	1.2	
12	250	14.208	41.762	34.558	34.546	3.76	8.096	2.328	0.82	11.8	
11	500	7.318	35.276	34.436	34.434	1.41	7.726	2.365	2.56	59.3	
10	756	5.631	33.911	34.491	34.489	1.64	7.752	2.391	2.56	77.8	
9	999	4.467	33.011	34.533	34.536	1.86	7.729	2.413	2.80	98.4	
8	1249	3.380	32.188	34.571	34.572	2.04	7.738	2.433	2.70	122	
7	1500	2.738	31.753	34.600	34.603	2.19	7.745	2.447	2.81	134	
6	2002	2.021	31.365	34.639	34.641	2.62	7.759	2.464	2.70	149	
5	2500	1.675	31.280	34.663	34.660	2.94	7.779	2.471	2.53	150	
4	3000	1.621	31.429	34.670	34.665	3.07	7.799	2.466	2.57	150	
3	3580	1.549	31.587	34.680	34.675	3.28	7.837	2.467	2.52	149	
2	4099	1.490	31.723	34.688	34.684	3.55	7.821	2.464	2.44	146	
1	4585	1.483	31.885	34.693	34.688	3.73	7.852	2.460	2.44	146	

Station	Water depth(m)	Date/Time			Position						
STC206	5950-5520	10 Feb 19:38-21:50			11-59.9'N 138-58.8'E (START)						
					1987						
					11-59.2'N 138-56.8'E (END)						
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si	
0	0	27.0			34.351	4.48	8.373	2.306	0.08	1.3	
12	251	12.814	40.370	34.508	34.485	3.04	7.976	2.326	1.21	21.0	
11	501	6.923	34.938	34.459	34.454	1.47	7.740	2.368	2.80	62.4	
10	750	5.449	33.762	34.510	34.507	1.70	7.711	2.393	2.77	80.1	
9	1003	4.392	32.957	34.546	34.540	1.82	7.716	2.412	2.81	99.2	
8	1502	2.831	31.833	34.597	34.593	2.15	7.726	2.450	2.78	134	
7	1999	2.171	31.488	34.631	34.625	2.51	7.772	2.463	2.75	148	
6	2500	1.757	31.348	34.659	34.652	2.87	7.777	2.466	2.68	149	
5	3000	1.584	31.400	34.673	34.666	3.13	7.807	2.468	2.64	148	
4	3499	1.528	31.541	34.682	34.677	3.33	7.818	2.466	2.56	147	
3	3989	1.484	31.680	34.688	34.682	3.42	7.817	2.464	2.54	147	
2	4800	1.458	31.936	34.696	34.691	3.73	7.832	2.454	2.50	145	
1	5800	1.560	32.337	34.697	34.692	3.83	7.824	2.453	2.48	143	

Station		Water depth(m)		Date/Time		Position				
STC207		4260-4500m		11 Feb 6:36-08:04		12-59.9'N 137-58.8'E (START)				
				1987		12-59.9'N 137-58.3'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	26.9			34.540	4.47	8.348	2.326	0.09	1.4
12	101	26.565	54.430	34.779	34.723	4.42	8.362	2.264	0.07	1.4
11	200	16.997	44.705	34.769	34.764	3.98	8.135	2.339	0.49	6.5
10	401	8.898	36.661	34.411	34.404	1.69	7.749	2.351	2.22	52.2
9	601	6.006	34.150	34.456	34.447	1.57	7.706	2.383	2.60	74.4
8	802	5.045	33.426	34.515	34.503	1.78	7.711	2.404	2.81	95.5
7	1001	4.159	32.746	34.541	34.531	1.89	7.754	2.424	2.87	105
6	1248	3.240	32.065	34.572	34.560	2.10	7.715	2.442	2.86	126
5	1500	2.743	31.758	34.600	34.591	2.18	7.722	2.452	2.74	135
4	1749	2.386	31.563	34.618	34.609	2.41	7.734	2.461	2.73	141
3	2000	2.171	31.488	34.631	34.622	2.51	7.723	2.473	2.73	148
2	3201	1.586	31.476	34.674	34.666	3.18	7.780	2.481	2.63	148
1	4202	1.437	31.716	34.692	34.683	3.65	7.830	2.460	2.53	144

Station		Water depth(m)		Date/Time		Position				
STC208		4950-4900		11 Feb 23:01-00:50		11-59.7'N 136-59.2'E (START)				
				1987		11-59.1'N 136-58.5'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.3			34.335	4.44	8.371	2.333	0.03	1.0
12	251	11.123	38.658	34.402	34.390	2.67	7.896	2.434	1.64	25.1
11	501	7.002	35.026	34.476	34.466	1.50	7.731	2.383	2.56	60.0
10	752	5.443	33.765	34.519	34.510	1.69	7.721	2.407	2.65	78.2
9	1000	4.428	32.983	34.540	34.533	1.80	7.716	2.421	2.71	97.9
8	1500	2.844	31.842	34.595	34.588	2.09	7.734	2.457	2.76	133
7	2000	2.156	31.475	34.632	34.625	2.47	7.757	2.466	2.70	146
6	2499	1.797	31.380	34.656	34.649	2.84	7.776	2.476	2.74	150
5	2997	1.639	31.443	34.669	34.660	3.01	7.774	2.478	2.56	151
4	3500	1.564	31.569	34.677	34.669	3.24	7.792	2.477	2.46	150
3	3900	1.507	31.668	34.687	34.676	3.35	7.789	2.478	2.47	148
2	4402	1.496	31.834	34.691	34.680	3.55	7.774	2.481	2.46	144
1	4899	1.538	32.034	34.692	34.679	3.60	7.828	2.471	2.46	144

Station		Water depth(m)		Date/Time		Position				
STC008		5300-5290		12 Feb 06:31-08:23		12-29.4'N 136-28.8'E (START)				
				1987		12-29.2'N 136-28.6'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.1								
12	250	12.307	39.892	34.513	34.492					
11	501	7.056	35.032	34.430	34.421					
10	750	5.453	33.758	34.502	34.495					
9	999	4.282	32.852	34.539	34.545					
8	1502	2.902	31.892	34.593	34.589					
7	1999	2.157	31.476	34.632	34.629					
6	2501	1.815	31.396	34.655	34.650					
5	3000	1.610	31.420	34.671	34.668					
4	3500	1.540	31.550	34.680	34.672					
3	4000	1.493	31.692	34.688	34.682					
2	4500	1.521	31.887	34.690	34.683					
1	5200	1.588	32.170	34.689	34.686					

Station Water depth(m) Date/Time					Position					
STC209 5100-5180 12 Feb 13:32-15:21					12-59.0'N 135-59.0'E (START)					
1987					12-57.8'N 135-57.7'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.0			34.339	4.43	8.368	2.324	0.04	0.7
12	250	14.559	42.110	34.566	34.578	3.97	8.092	2.332	0.81	9.9
11	501	6.960	34.922	34.404	34.399	1.51	7.717	2.364	2.63	62.7
10	750	5.320	33.652	34.517	34.517	1.84	7.723	2.396	2.66	81.1
9	1000	4.271	32.850	34.547	34.548	1.91	7.714	2.418	2.70	102
8	1499	2.956	31.936	34.590	34.591	2.20	7.728	2.445	2.71	130
7	1999	2.244	31.548	34.627	34.628	2.51	7.703	2.461	2.66	143
6	2499	1.831	31.406	34.652	34.650	2.80	7.768	2.467	2.60	149
5	2995	1.618	31.424	34.670	34.668	3.11	7.783	2.473	2.64	150
4	3500	1.537	31.547	34.679	34.677	3.39	7.805	2.470	2.57	148
3	4105	1.497	31.731	34.687	34.684	3.59	7.831	2.468	2.50	146
2	4600	1.525	31.923	34.689	34.687	3.67	7.815	2.466	2.45	145
1	5060	1.573	32.114	34.691	34.687	3.57	7.813	2.466	2.40	144

Station Water depth(m) Date/Time					Position					
STC210 4710-5000 12 Feb 21:31-23:00					12-00.0'N 135-58.8'E (START)					
1987					11-59.6'N 135-57.6'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.1			34.317	4.52	8.375	2.315	0.06	0.8
12	101	23.582	51.630	35.004	35.002	4.15	8.274	2.377	0.18	2.4
11	202	14.884	42.469	34.624	34.614	3.14	8.049	2.350	1.06	13.6
10	400	8.087	35.980	34.484	34.479	1.52	7.739	2.371	2.40	49.1
9	600	6.391	34.532	34.495	34.491	1.58	7.734	2.389	2.61	65.3
8	800	5.247	33.605	34.514	34.511	1.78	7.727	2.404	2.67	83.2
7	1010	4.447	33.004	34.541	34.537	1.91	7.724	2.421	2.74	97.8
6	1250	3.484	32.279	34.570	34.568	2.04	7.723	2.446	2.86	119
5	1502	3.023	31.883	34.455	34.590	2.21	7.719	2.458	2.80	132
4	1999	2.219	31.671	34.805	34.624	2.52	7.742	2.471	2.70	145
3	3000	1.625	31.686	34.983	34.664	3.13	7.791	2.482	2.63	150
2	3599	1.519	31.568	34.680	34.678	3.34	7.814	2.480	2.58	148
1	4588	1.527	31.920	34.688	34.685	3.62	7.816	2.476	2.56	145

Station Water depth(m) Date/Time					Position					
STC211 4490-4500 13 Feb 02:37-04:10					11-59.7'N 135-29.5'E (START)					
1987					11-59.5'N 135-28.4'E (END)					
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.1			34.186	4.45	8.365	2.295	0.05	0.8
12	101	22.754	50.826	35.047	35.022	4.12	8.246	2.355	0.19	2.2
11	201	14.705	42.267	34.600	34.494	3.67	8.060	2.328	0.84	11.2
10	400	7.921	35.819	34.474	34.473	1.61	7.751	2.363	2.36	49.2
9	598	6.205	34.366	34.499	34.496	1.72	7.718	2.391	2.59	67.2
8	800	5.226	33.591	34.519	34.516	1.80	7.748	2.397	2.75	82.9
7	1000	4.378	32.938	34.539	34.539	2.06	7.704	2.418	2.79	100
6	1250	3.424	32.228	34.572	34.571	2.24	7.746	2.442	2.87	120
5	1500	2.862	31.855	34.592	34.595	2.23	7.688	2.449	2.85	132
4	2000	2.206	31.518	34.631	34.633	3.57	7.782	2.466	2.72	144
3	3003	1.604	31.414	34.668	34.670	3.13	7.809	2.470	2.62	150
2	3399	1.522	31.496	34.677	34.678	3.36	7.808	2.469	2.58	148
1	4400	1.532	31.859	34.685	34.682	3.58	7.853	2.466	2.51	145

Station		Water depth(m)		Date/Time		Position				
STC212		4600-4560		13 Feb 07:47-09:25		11-59.8'N 134-58.7'E (START)				
				1987		11-59.5'N 134-57.9'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.1			34.332	4.31	8.340	2.295	0.06	0.6
12	102	22.021	50.087	35.056	35.047	3.87	8.227	2.348	0.18	2.1
11	202	13.264	40.767	34.496	34.594	3.21	7.981	2.317	1.17	16.4
10	398	7.878	35.774	34.469	34.470	1.47	7.754	2.350	2.42	51.0
9	601	6.499	34.624	34.489	34.486	1.64	7.763	2.369	2.66	64.8
8	800	5.161	33.530	34.516	34.515	1.70	7.724	2.389	2.75	84.2
7	1000	4.434	32.986	34.537	34.536	1.78	7.690	2.410	2.85	98.7
6	1249	3.585	32.362	34.563	34.564	1.90	7.704	2.424	2.83	117
5	1502	2.880	31.872	34.592	34.590	2.07	7.723	2.443	2.80	132
4	2001	2.242	31.546	34.626	34.625	2.37	7.763	2.457	2.69	144
3	3012	1.622	31.432	34.667	34.664	3.03	7.785	2.466	2.54	149
2	3550	1.532	31.560	34.678	34.674	3.21	7.816	2.465	2.55	148
1	4549	1.532	31.910	34.686	34.683	3.41	7.823	2.465	2.42	146

Station		Water depth(m)		Date/Time		Position				
STC213		3400-3200		13 Feb 12:32-13:46		12-00.1'N 134-29.7'E (START)				
				1987		12-00.0'N 134-29.6'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.1			34.355	4.44	8.348	2.308	0.05	1.4
12	100	23.372	51.458	35.041	35.010	3.99	8.273	2.346	0.12	2.1
11	200	14.045	41.572	34.548	34.552	3.35	8.039	2.324	0.95	13.0
10	399	7.969	35.852	34.463	34.461	1.47	7.756	2.357	2.39	51.1
9	601	6.009	34.180	34.487	34.483	1.59	7.749	2.383	2.68	71.8
8	801	5.197	33.565	34.518	34.516	1.72	7.701		2.71	83.8
7	1000	4.339	32.906	34.541	34.540	1.94	7.772	2.417	2.73	100
6	1249	3.415	32.217	34.569	34.565	1.92	7.705	2.440	2.88	121
5	1500	2.948	31.927	34.588	34.589	2.09	7.703	2.453	2.78	131
4	2000	2.224	31.530	34.626	34.625	2.41	7.752	2.468	2.67	144
3	2349	1.895	31.396	34.646	34.643	2.66	7.745	2.468	2.59	148
2	2900	1.630	31.396	34.666	34.663	2.98	7.759	2.473	2.63	149
1	3353	1.568	31.516	34.673	34.670	3.14	7.793	2.479	2.61	148

Station		Water depth(m)		Date/Time		Position				
STC214		5400-5480		13 Feb 17:46-19:35		11-58.7'N 133-59.1'E (START)				
				1987		11-57.9'N 133-58.3'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.2			34.287	4.24	8.370	2.296	0.08	1.6
12	101	22.010	50.114	35.089	35.078	3.74	8.204	2.352	0.24	3.4
11	200	13.829	41.360	34.545	34.539	3.14	7.999	2.328	1.14	16.5
10	402	8.172	36.038	34.461	34.458	1.46	7.753	2.352	2.36	50.0
9	601	6.206	34.356	34.485	34.482	1.56	7.715	2.377	2.66	68.8
8	802	5.154	33.527	34.519	34.515	1.89	7.719	2.397	2.80	85.8
7	1000	4.234	32.816	34.546	34.543	1.97	7.714	2.418	2.84	102
6	1250	3.471	32.266	34.568	34.567	1.97	7.714	2.431	2.86	119
5	1499	2.871	31.864	34.594	34.592	2.14	7.741	2.446	2.87	131
4	1998	2.247	31.550	34.627	34.624	2.41	7.749	2.460	2.73	142
3	3000	1.637	31.438	34.665	34.660	2.96	7.755	2.469	2.70	149
2	4346	1.591	31.888	34.680	34.674	3.30	7.810	2.466	2.62	147
1	5366	1.713	32.322	34.680	34.674	3.29	7.803	2.467	2.56	147

Station		Water depth(m)		Date/Time		Position				
STC215		5550-5600		14 Feb 02:49-04:50		12-59.7'N 133-58.6'E (START)				
				1987		12-59.2'N 133-57.0'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.1			34.315	4.51	8.360	2.287	0.09	1.3
12	251	12.530	40.060	34.471	34.458	3.08	7.963	2.317	1.34	20.1
11	502	6.961	34.974	34.460	34.448	1.66	7.696	2.363	2.57	60.8
10	751	5.430	33.752	34.518	34.506	2.06	7.708	2.380	2.81	77.8
9	1000	4.475	33.027	34.542	34.535	1.94	7.710	2.401	2.87	94.6
8	1500	3.061	32.015	34.574	34.563	2.15	7.739	2.435	2.81	130
7	2000	2.178	31.487	34.623	34.614	2.51	7.730	2.455	2.77	145
6	2500	1.752	31.339	34.654	34.646	2.88	7.764	2.460	2.71	150
5	2998	1.582	31.394	34.669	34.662	3.34	7.793	2.460	2.67	148
4	3699	1.534	31.615	34.679	34.669	3.45	7.801	2.464	2.56	147
3	4491	1.605	31.948	34.679	34.672	3.43	7.800	2.466	2.54	147
2	4997	1.666	32.166	34.680	34.672	3.45	7.816	2.466	2.53	147
1	5503	1.731	32.379	34.679	34.672	3.47	7.788	2.466	2.52	146

Station		Water depth(m)		Date/Time		Position				
STC011		5660-5660		14 Feb 09:46-11:38		12-31.2'N 133-30.8'E (START)				
				1987		12-32.1'N 133-31.4'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	27.2								
12										
11	1014	4.638	33.178	34.543						
10										
9	1991	2.314	31.600	34.621						
8										
7	2493	1.858	31.424	34.648						
6										
5	3003	1.634	31.437	34.665						
4										
3	4585	1.617	31.990	34.680						
2										
1	5602	1.745	32.420	34.678						

Station		Water depth(m)		Date/Time		Position				
STC216		5830-5700m		14 Feb 17:04-19:07		11-59.7'N 132-58.6'E (START)				
				1987		11-59.4'N 132-58.4'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	26.9			34.389	4.57	8.375	2.296	0.06	1.4
12	250	11.673	39.244	34.469	34.454	2.65	7.918	2.319	1.65	27.8
11	501	6.781	34.811	34.460	34.449	1.61	7.714	2.360	2.66	63.2
10	750	5.359	33.685	34.515	34.503	1.84	7.724	2.387	2.78	80.2
9	1000	4.376	32.939	34.543	34.531	1.91	7.722	2.405	2.81	100
8	1501	2.944	31.926	34.590	34.579	2.21	7.725	2.439	2.79	130
7	1999	2.281	31.579	34.626	34.611	2.52	7.763	2.452	2.71	142
6	2500	1.859	31.428	34.649	34.637	2.85	7.767	2.459	2.71	149
5	2999	1.630	31.433	34.666	34.651	3.15	7.780	2.460	2.59	150
4	3501	1.550	31.555	34.675	34.660	3.33	7.796	2.455	2.48	148
3	4002	1.560	31.743	34.679	34.668	3.38	7.806	2.459	2.47	147
2	4800	1.641	32.081	34.680	34.663	3.46	7.802	2.461	2.53	146
1	5420	1.719	32.343	34.679	34.668	3.47	7.801	2.460	2.53	146

Station		Water depth(m)		Date/Time		Position				
STC218		5800-5910		15 Feb 15:52-17:50		13-00.5'N 131-59.1'E (START)				
						1987				
						13-00.4'N 131-58.3'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	26.9			34.569	4.52	8.370	2.309	0.06	1.3
12	100	23.615	51.795	35.107	35.094	4.05	8.279	2.343	0.12	2.4
11	201	14.043	41.574	34.551	34.545	3.43	8.038	2.316	1.05	15.5
10	400	8.163	36.004	34.433	34.428	1.50	7.751	2.341	2.43	49.2
9	599	6.233	34.378	34.484	34.491	1.68	7.716	2.372	2.70	69.4
8	800	5.213	33.570	34.508	34.507	2.07	7.719	2.388	2.81	84.3
7	1000	4.361	32.918	34.534	34.536	1.92	7.712	2.407	2.83	101
6	1251	3.563	32.343	34.563	34.560	1.99	7.703	2.427	2.86	116
5	1500	2.812	31.803	34.582	34.582	2.23	7.732	2.440	2.84	136
4	2000	2.054	31.384	34.629	34.625	2.63	7.755	2.454	2.67	146
3	3496	1.540	31.543	34.673	34.672	3.36	7.808	2.460	2.62	147
2	4700	1.627	32.035	34.679	34.673	3.45	7.814	2.461	2.56	146
1	5709	1.755	32.461	34.678	34.673	3.43	7.812	2.460	2.51	147

Station		Water depth(m)		Date/Time		Position				
STC219		5770-5610		16 Feb 01:01-02:53		11-59.5'N 131-59.6'E (START)				
						1987				
						11-58.3'N 131-59.4'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	26.9			34.323	4.76	8.359	2.308	0.04	1.5
12	251	11.434	38.976	34.427	34.417	2.91	7.924	2.333	1.59	25.6
11	501	6.612	34.656	34.459	34.461	1.60	7.715	2.372	2.58	65.6
10	751	5.343	33.663	34.506	34.506	1.82	7.718	2.395	2.81	81.9
9	1002	4.366	32.928	34.539	34.537	1.94	7.726	2.421	2.87	100
8	1501	2.950	31.929	34.587	34.592	2.20	7.720	2.452	2.75	130
7	1999	2.195	31.504	34.626	34.633	2.58	7.732	2.464	2.72	144
6	2498	1.812	31.388	34.651	34.654	2.87	7.757	2.468	2.71	150
5	3000	1.626	31.429	34.665	34.663	3.12	7.766	2.472	2.59	151
4	3498	1.558	31.560	34.674	34.676	3.35	7.797	2.473	2.51	148
3	3995	1.556	31.737	34.678	34.681	3.40	7.799	2.474	2.45	148
2	4699	1.627	32.034	34.678	34.683	3.43	7.743	2.478	2.48	147
1	5701	1.754	32.458	34.678	34.683	3.51	7.801	2.474	2.42	147

Station		Water depth(m)		Date/Time		Position				
STC220		5920-5730		16 Feb 11:40-13:43		12-58.6'N 129-58.9'E (START)				
						1987				
						12-58.0'N 129-57.2'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	26.7			34.345	4.57	8.370	2.304	0.05	2.0
12	250	13.280	40.801	34.494	34.493	3.82	8.060	2.326	1.00	14.4
11	502	6.267	34.221	34.322	34.323	1.96	7.766	2.373	2.46	76.3
10	749	5.366	33.689	34.513	34.516	1.90	7.723	2.388	2.72	78.9
9	996	4.357	32.920	34.542	34.545	1.96	7.745	2.412	2.86	99.1
8	1501	2.897	31.876	34.580	34.586	2.26	7.733	2.446	2.86	132
7	2001	2.097	31.422	34.629	34.634	2.62	7.792	2.465	2.78	145
6	2499	1.750	31.336	34.653	34.653	2.92	7.772	2.465	2.71	149
5	3001	1.605	31.412	34.667	34.666	3.18	7.771	2.469	2.70	149
4	3499	1.550	31.553	34.674	34.672	3.33	7.813	2.468	2.57	148
3	3990	1.555	31.734	34.678	34.676	3.44	7.819	2.468	2.57	146
2	4899	1.647	32.116	34.678	34.678	3.50	7.817	2.464	2.57	146
1	5898	1.776	32.535	34.677	34.678	3.47	7.823	2.468	2.57	146

Station		Water depth(m)		Date/Time		Position				
STC221		5660-5700		17 Feb 22:04-24:00		11-59.4'N 128-58.3'E (START)				
				1987		11-58.8'N 128-57.2'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	26.5			34.379				0.04	1.6
12	101	22.419	50.451	35.024	35.021				0.25	3.7
11	200	13.981	41.506	34.544					0.93	13.0
10	400	8.035	35.849	34.394	34.392				2.40	51.3
9	600	6.050	34.204	34.473	34.472				2.75	71.1
8	800	4.995	33.386	34.521	34.522				2.75	86.6
7	1001	4.201	32.786	34.545	34.544				2.80	103
6	1250	3.480	32.268	34.561	34.562				2.86	119
5	1500	2.942	31.922	34.588	34.589				2.86	129
4	2000	2.199	31.509	34.627	34.627				2.81	144
3	3499	1.549	31.552	34.674	34.673				2.62	147
2	4598	1.614	31.990	34.678	34.677				2.58	147
1	5600	1.738	32.414	34.678	34.679				2.55	146

Station		Water depth(m)		Date/Time		Position				
STC222		5230-5350m		17 Feb 10:06-11:46		12-58.4'N 127-57.0'E (START)				
				1987		12-57.7'N 127-55.6'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	26.4			34.602				0.04	0.2
12	102	24.544	52.764	35.106	35.098				0.07	1.3
11	202	16.205	43.840	34.695	34.718				0.49	12.7
10	400	9.141	36.912	34.441	34.433				2.27	43.2
9	600	6.280	34.394	34.453	34.450				2.62	70.0
8	800	5.340	33.683	34.508	34.505				2.74	86.6
7	1000	4.341	32.902	34.535	34.532				2.77	101
6	1250	3.603	32.375	34.559	34.557				2.78	116
5	1501	2.949	31.922	34.580	34.572				2.77	131
4	2001	2.068	31.397	34.629	34.625				2.71	146
3	3497	1.529	31.535	34.675	34.670				2.64	146
2	4198	1.565	31.814	34.678	34.672				2.52	146
1	5199	1.680	32.241	34.679	34.674				2.50	146

Station		Water depth(m)		Date/Time		Position				
STC223		5710-5770m		17 Feb 21:55-23:40		11-58.8'N 126-59.5'E (START)				
				1987		11-57.6'N 126-58.8'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	26.4			34.369				0.04	0.8
12	100	26.531	53.926	34.442	34.419				0.05	1.1
11	201	15.999	43.618	34.678	34.676				0.82	9.6
10	404	7.988	35.768	34.352	34.347				2.31	52.8
9	601	5.315	33.490	34.411	34.397				2.60	88.8
8	800	4.612	33.065	34.545	34.534				2.70	92.4
7	1000	3.768	32.420	34.566	34.554				2.73	109
6	1250	3.262	32.098	34.588	34.580				2.85	122
5	1496	2.843	31.838	34.594	34.587				2.82	131
4	2000	2.122	31.445	34.631	34.628				2.71	144
3	3501	1.542	31.548	34.675	34.665				2.57	147
2	4650	1.618	32.012	34.680	34.670				2.58	146
1	5654	1.741	32.434	34.680	34.674				2.52	147

Station		Water depth(m)		Date/Time		Position				
STC304		4800-4800		28 Feb 17:54-19:46		21-39.5'N 122-17.6'E (START)				
				1987		21-39.0'N 122-17.9'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	23.8								
12	252	18.082	45.863	34.818						
11	501	9.874	37.591	34.394	34.375					
10	778	5.631	33.832	34.391	34.333					
9	1001	4.058	32.620	34.499	34.478					
8	1250	3.151	31.986	34.570	34.551					
7	1499	2.753	31.762	34.595	34.577					
6	2000	2.224	31.524	34.619	34.597					
5	2500	1.774	31.359	34.655	34.636					
4	3001	1.627	31.435	34.670	34.648					
3	3799	1.554	31.671	34.683	34.661					
2	4301	1.583	31.870	34.685	34.665					
1	4799	1.625	32.074	34.688						

Station		Water depth(m)		Date/Time		Position				
STC303		4410-4570m		28 Feb 22:35-00:05		21-35.8'N 122-06.1'E (START)				
				1987		21-35.9'N 122-06.7'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	23.9			34.780	4.63	8.331	2.352	0.03	2.2
12	252	17.232	44.913	34.728	34.726					
11	499	11.044	38.740	34.449	34.447	4.08	8.162	2.353	0.56	10.4
10	751	5.819	34.042	34.451	34.448	3.24	7.956	2.366	1.38	38.8
9	1000	4.489	32.991	34.486	34.486	2.27	7.766	2.419	2.40	95.1
8	1250	3.540	32.301	34.537	34.544	2.08	7.739	2.435	2.55	112
7	1499	2.839	31.824	34.579	34.578	2.14	7.722	2.448	2.64	127
6	1747	2.382	31.548	34.605	34.605	2.30	7.747	2.466	2.72	138
5	1998	2.110	31.429	34.625	34.622	2.35	7.743	2.470	2.70	142
4	3000	1.662	31.461	34.666	34.669	2.59	7.745	2.467	2.64	144
3	3399	1.561	31.530	34.678	34.678	3.08	7.805	2.477	2.64	145
2	3901	1.555	31.708	34.684	34.683	3.32	7.787	2.478	2.55	145
1	4398	1.580	31.902	34.687		3.37	7.798	2.476	2.50	145

Station		Water depth(m)		Date/Time		Position				
STC302		3260-3320		1 Mar 02:27-03:34		21-36.1'N 121-58.4'E (START)				
				1987		21-37.0'N 121-59.0'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	23.5			34.812	4.81	8.319	2.356	0.03	1.8
12	100	23.639	51.436	34.813	34.800	4.62	8.332	2.354	0.03	2.7
11	199	21.275	49.114	34.860	34.840	4.24	8.251	2.356	0.22	4.5
10	400	12.587	40.210	34.500	34.490	3.77	8.002	2.355	1.17	28.8
9	600	8.812	36.648	34.391	34.370	2.87	7.889	2.376	1.98	58.5
8	800	5.258	33.546	34.436	34.428	2.10	7.774	2.418	2.40	99.7
7	999	4.335	32.869	34.504	34.497	2.19	7.750	2.439	2.63	116
6	1248	3.202	32.021	34.559	34.555	2.62	7.746	2.462	2.70	133
5	1498	2.891	31.868	34.578	34.572	2.28	7.733	2.468	2.70	137
4	1750	2.521	31.662	34.595	34.585	2.31	7.723	2.475	2.72	140
3	2105	2.107	31.471	34.628	34.624	2.58	7.748	2.476	2.62	144
2	2600	1.751	31.379	34.657	34.648	2.91	7.783	2.480	2.58	145
1	3100	1.618	31.464	34.670	34.660	3.19	7.797	2.482	2.59	145

Station		Water depth(m)		Date/Time		Position				
STC301		2210-2300		1 Mar 05:43-06:42		21-31.9'N 121-48.0'E (START)				
				1987		21-32.0'N 121-48.4'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	24.0								
12	101	24.052	51.788	34.757	34.750					
11	202	21.157	48.908	34.791	34.780					
10	399	10.749	38.429	34.459	34.455					
9	600	7.800	35.720	34.393	34.390					
8	801	5.345	33.644	34.458	34.455					
7	1001	4.202	32.754	34.506	34.507					
6	1200	3.395	32.154	34.540	34.539					
5	1500	2.886	31.869	34.583	34.583					
4	1701	2.567	31.689	34.603	34.604					
3	2000	2.347	31.631	34.618	34.613					
2	2188	1.961	31.391	34.645	34.634					
1	2188	1.961	31.391	34.645	34.639					

Station		Water depth(m)		Date/Time		Position				
STC305		4830-4830m		1 Mar 16:09-17:04		21-41.6'N 122-26.1'E (START)				
				1987		21-41.1'N 122-25.5'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	23.7			34.834	4.76	8.346	2.372	0.03	2.1
12	250	17.071	44.822	34.789		3.17	7.931	2.308	1.60	42.8
11	500	9.881	37.558	34.354	34.350	1.72	7.683	2.413	2.60	91.8
10	749	5.271	33.397	34.277	34.272	1.76	7.700	2.446	2.71	116
9	1000	4.218	32.722	34.452	34.452	2.28	7.726	2.471	2.79	133
8	1250	3.169	31.972	34.536	34.532	2.28	7.722		2.71	140
7	1502	2.625	31.646	34.589	34.587	2.43	7.755	2.482	2.73	145
6	1750	2.317	31.496	34.609	34.608	2.90	7.757	2.487	2.74	146
5	1999	2.056	31.386	34.630	34.629	3.23	7.794	2.490	2.57	147
4	3000	1.609	31.418	34.669	34.667	3.37	7.796	2.488	2.57	146
3	3796	1.556	31.670	34.681	34.676	3.45	7.805	2.492	2.44	146
2	4300	1.578	31.864	34.683	34.680	3.47	7.812	2.495	2.46	145
1	4800	1.627	32.073	34.685	34.682	3.48	7.806	2.494	2.48	144

Station		Water depth(m)		Date/Time		Position				
STC306		4710-4760m		1 Mar 20:46-22:35		21-43.8'N 122-38.9'E (START)				
				1987		21-42.6'N 122-38.8'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	23.1			34.826	4.76	8.327	2.355	0.01	1.5
12	252	16.809	44.548	34.776		3.59	7.940	2.342	1.35	28.9
11	504	10.392	37.977	34.295	34.291	1.85	7.720	2.387	2.49	84.0
10	759	5.631	33.717	34.270	34.267	1.78	7.694	2.427	2.68	112
9	1000	4.288	32.777	34.445	34.443	2.04	7.721	2.458	2.72	135
8	1250	2.972	31.800	34.535	34.534	2.20	7.706	2.468	2.69	142
7	1498	2.389	31.431	34.580	34.580	2.49	7.760	2.471	2.70	144
6	1749	2.119	31.327	34.613	34.614	2.76	7.751	2.478	2.67	145
5	1998	1.948	31.290	34.628	34.630	3.16	7.785	2.484	2.64	147
4	2999	1.599	31.409	34.670	34.665	3.29	7.800	2.482	2.60	146
3	3699	1.555	31.634	34.680	34.677	3.40	7.809	2.483	2.58	144
2	4199	1.565	31.819	34.684	34.679	3.40	7.828	2.482	2.49	144
1	4699	1.619	32.033	34.685	34.681	3.37	7.818	2.483	2.49	144

Station		Water depth(m)		Date/Time		Position				
STC312		7280-6600m		3 Mar 09:03-11:33		25-12.4'N 128-27.9'E (START)				
				1987		25-10.9'N 128-29.7'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	21.0			34.903	4.90	8.311	2.384	0.10	2.0
12	250	17.549	45.312	34.802	34.787					
11	501	10.767	38.371	34.340	34.332	4.32	8.202	2.381	0.36	6.3
10	751	5.892	33.926	34.247	34.241	3.57	7.974	2.374	1.43	30.2
9	1001	4.347	32.823	34.436	34.430	1.96	7.731	2.403	2.50	81.8
8	1249	3.197	31.981	34.516	34.512	1.74	7.691	2.444	2.72	114
7	1498	2.538	31.538	34.552	34.546	1.91	7.685	2.466	2.76	134
6	1999	1.983	31.317	34.623	34.624	1.93	7.698	2.463	2.80	144
5	2981	1.612	31.413	34.669	34.664	2.58	7.739	2.480	2.85	148
4	4001	1.562	31.748	34.683	34.677	3.20	7.774	2.489	2.76	148
3	5492	1.697	32.352	34.686	34.681	3.45	7.806	2.489	2.56	146
2	6000	1.765	32.563	34.687	34.686	3.52	7.804	2.486	2.50	146
1	6494	1.835	32.763	34.684	34.680	3.53	7.806	2.501	2.50	146

Station		Water depth(m)		Date/Time		Position				
STC313		5960-6060m		3 Mar 14:37-16:41		25-21.1'N 128-21.7'E (START)				
				1987		25-20.9'N 128-22.0'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	21.2			34.906	4.92	8.323	2.377	0.07	2.2
12	251	17.907	45.691	34.820	34.809	4.30	8.222	2.366	0.45	5.4
11	499	10.925	38.542	34.364	34.359	3.50	7.982	2.367	1.37	30.8
10	750	6.091	34.113	34.257	34.253	1.94	7.763	2.403	2.48	81.5
9	1000	4.145	32.603	34.389	34.390	1.72	7.674	2.440	2.80	115
8	1250	3.065	31.844	34.490	34.488	1.68	7.679	2.463	2.89	136
7	1500	2.621	31.622	34.565	34.555	2.29	7.706	2.482	2.74	142
6	1750	2.286	31.462	34.600	34.595	2.36	7.717	2.491	2.67	145
5	2000	2.048	31.374	34.622	34.615	2.60	7.749	2.498	2.69	146
4	3000	1.628	31.432	34.666	34.659	3.12	7.778	2.494	2.48	147
3	4802	1.619	32.067	34.685	34.679	3.50	7.821	2.499	2.50	146
2	5300	1.672	32.270	34.684	34.680	3.47	7.808	2.503	2.49	146
1	5800	1.735	32.477	34.685	34.680	3.52	7.815	2.497	2.52	146

Station		Water depth(m)		Date/Time		Position				
STC314		4900-4890m		3 Mar 21:58-23:42		25-28.2'N 128-15.8'E (START)				
				1987		25-27.2'N 128-15.5'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	21.3			34.894	4.79	8.318	2.346	0.06	2.4
12	250	17.148	44.900	34.790	34.770	4.29	8.168	2.336	0.39	6.8
11	500	10.820	38.449	34.369	34.356	3.46	7.964	2.337	1.43	32.1
10	750	6.023	34.093	34.303	34.307	1.91	7.708	2.382	2.46	81.8
9	1000	3.939	32.442	34.414	34.413	1.48	7.670	2.422	2.76	118
8	1075	3.964	32.565	34.495	34.491	1.88	7.731	2.426	2.77	118
7	1400	2.710	31.628	34.529	34.524	1.90	7.705	2.450	2.85	141
6	1600	2.407	31.477	34.565	34.560	2.09	7.734	2.458	2.76	144
5	1801	2.215	31.413	34.591	34.587	2.34	7.722	2.459	2.34	82.8
4	2500	1.729	31.318	34.652	34.642	3.15	7.777	2.471	2.58	146
3	3819	1.541	31.665	34.681	34.670	4.44	7.797	2.471	2.54	146
2	4319	1.566	31.860	34.683	34.672	3.44	7.822	2.468	2.52	145
1	4818	1.612	32.066	34.685	34.675	3.41	7.802	2.471	2.50	145

Station		Water depth(m)		Date/Time		Position				
STC315		3020-3100m		4 Mar 01:58-03:07		25-37.0'N 128-08.2'E (START)				
				1987		25-36.5'N 128-08.5'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	20.6			34.895	5.04	8.308	2.345	0.06	2.6
12	100	20.608	48.427	34.889	34.871	4.89	8.287	2.343	0.06	2.6
11	199	19.585	47.408	34.867	34.836	4.42	8.244	2.339	0.24	4.1
10	400	14.257	41.901	34.583	34.568	4.20	8.094	2.326	0.81	13.7
9	600	8.644	36.405	34.299	34.287	2.84	7.857	2.351	1.92	51.0
8	811	5.632	33.806	34.345	34.328	1.89	7.747	2.389	2.62	88.2
7	1000	4.321	32.804	34.442	34.433	1.76	7.720	2.413	2.77	112
6	1250	3.102	31.891	34.507	34.498	1.89	7.703	2.439	2.84	134
5	1492	2.568	31.560	34.550	34.541	2.10	7.705	2.450	2.82	143
4	1749	2.268	31.438	34.591	34.578	2.41	7.725	2.455	2.83	144
3	1957	2.068	31.368	34.615	34.604	2.67	7.744	2.455	2.76	145
2	2461	1.791	31.351	34.645	34.633	2.93	7.770	2.465	2.66	146
1	2961	1.565	31.365	34.669	34.661	3.20	7.781	2.469	2.59	145

Station		Water depth(m)		Date/Time		Position				
STC316		2250-2250		4 Mar 05:08-06:06		25-44.7'N 128-01.2'E (START)				
				1987		25-45.0'N 128-00.8'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	21.2								
12	100	21.227	49.087	34.912	34.910					
11	200	18.819	46.618	34.851	34.859					
10	399	13.887	41.510	34.552	34.560					
9	600	8.921	36.610	34.247	34.253					
8	800	5.558	33.721	34.329	34.404					
7	1001	4.135	32.629	34.429	34.444					
6	1200	3.188	31.917	34.474	34.481					
5	1500	2.565	31.561	34.551	34.560					
4	1700	2.358	31.486	34.579	34.635					
3	2000	1.980	31.313	34.620	34.624					
2	2202	1.888	31.322	34.631	34.636					
1	2201	1.887	31.322	34.632	34.637					

Station		Water depth(m)		Date/Time		Position				
STC317		1660-1670m		4 Mar 07:51-08:34		25-53.8'N 127-55.2'E (START)				
				1987		25-53.8'N 127-55.0'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	22.9			34.568					
12	100	20.494	48.288	34.869	34.865					
11	199	19.187	46.974	34.840	34.838					
10	400	14.518	42.176	34.603	34.601					
9	600	9.312	37.020	34.299	34.304					
8	799	5.331	33.538	34.351	34.355					
7	1000	4.093	32.615	34.457	34.464					
6	1100	3.590	32.245	34.494	34.502					
5	1100	3.590	32.246	34.496	34.501					
4	1399	2.709	31.630	34.532	34.538					
3	1400	2.709	31.630	34.532	34.540					
2	1601	2.416	31.482	34.561	34.567					
1	1601	2.420	31.482	34.557	34.567					

Station		Water depth(m)		Date/Time		Position				
STC324		5000-5000m		5 Mar 11:56-13:37		29-20.5°N 131-41.2°E (START)				
				1987		29-20.3°N 131-41.6°E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	20.4			34.869	5.06	8.297	2.366	0.06	1.8
12	249	18.829	46.658	34.858	34.858	4.91	8.280	2.366	0.08	2.8
11	498	14.065	41.747	34.572	34.572	4.03	8.094	2.350	0.79	15.0
10	750	7.853	35.806	34.364	34.363	2.47	7.830	2.390	2.08	67.6
9	1000	4.145	32.624	34.414	34.415	1.65	7.669	2.437	2.75	116
8	1250	3.101	31.852	34.462	34.466	1.53	7.685	2.456	2.88	137
7	1500	2.578	31.552	34.526	34.528	1.83	7.683	2.467	2.88	145
6	1750	2.252	31.407	34.570	34.575	2.20	7.697	2.474	2.82	146
5	2000	2.013	31.328	34.604	34.607	2.40	7.715	2.478	2.77	148
4	3000	1.559	31.373	34.667	34.669	3.22	7.789	2.488	2.45	147
3	3900	1.553	31.702	34.680	34.678	3.33	7.802	2.488	2.55	146
2	4400	1.600	31.914	34.680	34.676	3.40	7.788	2.490	2.45	146
1	4900	1.654	32.125	34.681	34.674	3.38	7.788	2.491	2.46	146

Station		Water depth(m)		Date/Time		Position				
STC323		4130-4270m		5 Mar 15:59-17:45		29-29.0°N 131-33.7°E (START)				
				1987		29-30.0°N 131-35.1°E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	21.1			34.857	4.84	8.324	2.361	0.07	2.3
12	199	19.343	47.166	34.869	34.864	4.98	8.295	2.364	0.10	2.8
11	400	15.931	43.673	34.710	34.707	4.24	8.164	2.352	0.58	10.0
10	599	10.520	38.238	34.396	34.397	3.48	7.952	2.365	1.50	41.2
9	799	5.760	33.914	34.343	34.346	1.96	7.750	2.406	2.53	91.1
8	1000	3.829	32.339	34.406	34.411	1.45	7.648	2.433	2.91	122
7	1251	2.984	31.762	34.476	34.479	1.64	7.675	2.455	2.91	139
6	1500	2.504	31.494	34.533	34.537	1.87	7.668	2.468	2.89	145
5	1753	2.235	31.395	34.572	34.575	2.14	7.695	2.476	2.80	146
4	2000	1.995	31.314	34.604	34.608	2.42	7.734	2.475	2.79	147
3	3099	1.538	31.394	34.671	34.672	3.21	7.787	2.485	2.56	146
2	3599	1.529	31.574	34.678	34.677	3.33	7.783	2.484	2.56	146
1	4100	1.559	31.778	34.681	34.682	3.39	7.787	2.487	2.54	146

Station		Water depth(m)		Date/Time		Position				
STC322		3870-3750m		5 Mar 20:02-21:26		29-35.7°N 131-27.5°E (START)				
				1987		29-36.6°N 131-29.5°E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	21.1			34.854	4.87	8.309	2.371	0.02	1.9
12	250	18.798	46.583	34.822		3.49	8.009	2.374	1.20	30.5
11	525	11.854	39.526	34.460	34.461	1.83	7.720	2.423	2.53	91.6
10	750	5.464	33.617	34.330	34.332	1.67	7.685	2.436	2.76	108
9	864	4.571	32.924	34.392	34.395	1.45	7.654	2.448	2.89	124
8	1000	3.651	32.188	34.413	34.417	1.58	7.701	2.465	2.90	139
7	1228	2.943	31.721	34.482	34.489	1.88	7.670	2.473	2.90	146
6	1498	2.435	31.441	34.543	34.544	2.19	7.715	2.481	2.84	147
5	1735	2.182	31.347	34.577	34.580	2.50	7.755	2.487	2.72	148
4	1997	1.975	31.296	34.606	34.610	3.18	7.774	2.495	2.69	147
3	2853	1.591	31.342	34.662	34.664	3.33	7.809	2.498	2.62	147
2	3350	1.529	31.482	34.674	34.675	3.32	7.793	2.500	2.58	146
1	3849	1.539	31.672	34.679	34.682	3.41	7.818	2.495	2.57	146

Station		Water depth(m)		Date/Time		Position				
STC321		3050-2990m		5 Mar 23:31-00:57		29-41.7'N 131-20.4'E (START)				
				1987		29-42.5'N 131-22.2'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	21.1			34.891					
12	300	16.329	44.003	34.694	34.692					
11	502	11.620	39.290	34.455	34.453					
10	800	4.490	32.813	34.378	34.376					
9	1007	3.444	32.035	34.444	34.454					
8	1299	2.729	31.583	34.505	34.514					
7	1505	2.360	31.386	34.552	34.560					
6	1995	1.940	31.268	34.610	34.621					
5	1995	1.940	31.268	34.610	34.616					
4	2493	1.689	31.277	34.648	34.651					
3	2494	1.688	31.277	34.649	34.647					
2	3003	1.548	31.366	34.669	34.673					
1	3001	1.549	31.366	34.669	34.671					

Station		Water depth(m)		Date/Time		Position				
STC331		4010-4010m		7 Mar 17:16-19:06		32-26.4'N 137-18.5'E (START)				
				1987		32-27.9'N 137-18.6'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	16.0			34.747	5.28	8.249	2.375	0.29	8.1
12	100	15.591	43.262	34.757	34.779	5.22	8.233	2.377	0.31	10.1
11	248	10.768	38.314	34.392	34.401	3.34	7.969	2.378	1.50	37.6
10	500	5.274	33.305	34.292	34.302	1.83	7.719	2.417	2.60	95.4
9	752	3.404	31.866	34.416	34.419	1.38	7.654	2.453	2.94	131
8	1001	2.758	31.473	34.494	34.508	1.66	7.691	2.470	2.80	144
7	1251	2.358	31.273	34.546	34.532	2.00	7.709	2.478	2.81	147
6	1500	2.073	31.160	34.584	34.566	2.24	7.720	2.482	2.80	149
5	1753	1.870	31.111	34.612	34.588	2.54	7.768	2.489	2.72	150
4	2000	1.735	31.110	34.633	34.614	2.76	7.778	2.488	2.72	151
3	2997	1.479	31.307	34.673	34.652	3.34	7.826	2.494	2.63	149
2	3500	1.481	31.499	34.680	34.663	3.42	7.817	2.495	2.58	147
1	4002	1.519	31.709	34.681	34.665	3.38	7.817	2.493	2.56	146

Station		Water depth(m)		Date/Time		Position				
STC332		4090-4090m		7 Mar 22:31-23:41		32-23.7'N 137-00.6'E (START)				
				1987		32-21.5'N 137-01.0'E (END)				
No.	P _{CTD}	T _{CTD}	C _{CTD}	S _{CTD}	S _{AUTO}	DO	pH	Alk	PO ₄ -P	SiO ₂ -Si
0	0	15.8								

ST01 87/ 1/25 19:57 31-28.9N 136-55.7E 4170M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	19	20.336	34.800	20.333	1.024609	
40	39	20.313	34.812	20.305	1.024712	
60	59	20.318	34.814	20.306	1.024798	
80	79	20.320	34.813	20.305	1.024884	
100	99	20.320	34.815	20.301	1.024973	
120	119	20.322	34.813	20.299	1.025059	
140	139	20.318	34.813	20.291	1.025146	
160	159	20.312	34.807	20.281	1.025230	
180	179	19.242	34.702	19.209	1.025519	
200	199	18.661	34.706	18.625	1.025759	
250	249	18.333	34.816	18.288	1.026145	
300	298	16.838	34.750	16.787	1.026681	
350	348	15.892	34.688	15.835	1.027077	
400	397	14.371	34.593	14.311	1.027567	
450	447	13.238	34.528	13.173	1.027982	
500	497	10.881	34.365	10.818	1.028547	
550	546	9.270	34.335	9.207	1.029038	
600	596	7.881	34.294	7.818	1.029464	
650	645	6.936	34.275	6.873	1.029821	
700	695	6.015	34.223	5.951	1.030144	
750	745	5.829	34.351	5.761	1.030501	
800	794	4.831	34.274	4.765	1.030801	
850	843	4.570	34.334	4.501	1.031110	
900	893	4.161	34.353	4.091	1.031406	
950	942	3.821	34.392	3.749	1.031708	
1000	992	3.610	34.413	3.536	1.031980	
1100	1091	3.243	34.448	3.164	1.032509	
1200	1189	3.030	34.478	2.945	1.033015	
1300	1288	2.833	34.499	2.742	1.033512	
1400	1387	2.637	34.525	2.540	1.034013	
1500	1486	2.464	34.546	2.361	1.034506	
1600	1584	2.325	34.566	2.215	1.034993	
1700	1683	2.202	34.581	2.086	1.035474	
1800	1781	2.093	34.597	1.970	1.035954	
1900	1880	2.004	34.609	1.874	1.036427	
2000	1978	1.921	34.621	1.784	1.036900	
2200	2175	1.797	34.639	1.645	1.037830	
2400	2371	1.688	34.655	1.520	1.038756	
2600	2568	1.610	34.666	1.426	1.039670	
2800	2764	1.540	34.676	1.339	1.040580	
3000	2960	1.500	34.683	1.281	1.041478	
3200	3156	1.486	34.686	1.247	1.042366	
3400	3352	1.488	34.689	1.229	1.043248	
3600	3547	1.492	34.689	1.212	1.044125	
3800	3743	1.506	34.691	1.205	1.044996	
4000	3938	1.523	34.690	1.199	1.045861	

ST02	87/ 1/29	12:41	32-45.4N	141-09.4E	2470M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	20	18.510	34.795	18.507	1.025077
40	39	18.482	34.799	18.475	1.025175
60	59	18.481	34.799	18.470	1.025263
80	79	18.474	34.799	18.460	1.025352
100	99	18.463	34.794	18.445	1.025438
120	119	18.458	34.796	18.436	1.025529
140	139	18.449	34.797	18.424	1.025620
160	159	18.446	34.798	18.417	1.025709
180	179	18.447	34.798	18.415	1.025795
200	199	18.439	34.796	18.403	1.025884
250	248	17.724	34.806	17.680	1.026289
300	298	16.839	34.759	16.788	1.026688
350	348	16.169	34.714	16.112	1.027032
400	397	14.902	34.639	14.840	1.027845
450	447	13.780	34.561	13.714	1.027892
500	497	11.863	34.427	11.796	1.028406
550	546	10.517	34.356	10.449	1.028831
600	596	8.981	34.225	8.913	1.029228
650	645	7.617	34.113	7.550	1.029590
700	695	6.781	34.108	6.713	1.029941
750	744	6.032	34.099	5.964	1.030270
800	794	5.556	34.111	5.486	1.030574
850	843	4.865	34.155	4.795	1.030931
900	893	4.524	34.204	4.452	1.031242
950	942	4.364	34.233	4.288	1.031514
1000	992	4.052	34.255	3.974	1.031799
1100	1091	3.657	34.337	3.574	1.032371
1200	1189	3.315	34.402	3.227	1.032920
1300	1288	3.044	34.451	2.950	1.033448
1400	1387	2.845	34.473	2.745	1.033946
1500	1486	2.675	34.491	2.569	1.034436
1600	1584	2.539	34.508	2.427	1.034921
1700	1683	2.455	34.519	2.335	1.035393
1800	1781	2.324	34.540	2.198	1.035879
1900	1880	2.215	34.558	2.082	1.036360
2000	1978	2.064	34.581	1.925	1.036849
2200	2175	1.924	34.606	1.770	1.037788
2400	2372	1.801	34.627	1.631	1.038719

JT	87/ 1/28	18:27	33-52.9N	141-55.8E	8980M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	18.645	34.800	18.642	1.025046
40	39	18.577	34.801	18.570	1.025152
60	59	18.548	34.794	18.537	1.025242
80	79	18.528	34.791	18.514	1.025332
100	99	18.505	34.790	18.487	1.025425
120	119	18.494	34.787	18.472	1.025513
140	139	18.482	34.787	18.457	1.025603
160	159	18.452	34.788	18.423	1.025700
180	179	18.444	34.789	18.412	1.025790
200	199	18.372	34.765	18.336	1.025878
250	248	17.421	34.800	17.378	1.026359
300	298	16.794	34.775	16.744	1.026711
350	348	15.934	34.718	15.877	1.027090
400	397	15.089	34.654	15.026	1.027454
450	447	14.084	34.581	14.017	1.027842
500	497	12.756	34.488	12.686	1.028273
550	546	11.264	34.394	11.193	1.028721
600	596	10.180	34.336	10.107	1.029101
650	645	8.759	34.241	8.687	1.029502
700	695	7.372	34.138	7.301	1.029874
750	744	6.149	34.085	6.080	1.030242
800	794	5.818	34.138	5.746	1.030559
850	843	5.393	34.190	5.319	1.030886
900	893	4.731	34.169	4.657	1.031188
950	942	4.516	34.210	4.439	1.031476
1000	992	4.063	34.268	3.985	1.031808
1100	1091	3.664	34.325	3.581	1.032360
1200	1190	3.336	34.365	3.248	1.032888
1300	1288	3.071	34.409	2.977	1.033411
1400	1387	2.849	34.450	2.749	1.033927
1500	1486	2.680	34.475	2.574	1.034423
1600	1584	2.516	34.497	2.404	1.034915
1700	1683	2.386	34.529	2.267	1.035410
1800	1781	2.279	34.546	2.153	1.035891
1900	1880	2.185	34.564	2.052	1.036369
2000	1978	2.118	34.577	1.978	1.036840
2200	2175	1.961	34.602	1.806	1.037780
2400	2372	1.851	34.622	1.680	1.038708
2600	2568	1.753	34.636	1.566	1.039627
2800	2764	1.677	34.649	1.473	1.040539
3000	2960	1.612	34.662	1.390	1.041445
3200	3156	1.569	34.668	1.328	1.042340
3400	3352	1.542	34.674	1.282	1.043229
3600	3547	1.514	34.679	1.234	1.044114
3800	3743	1.496	34.684	1.195	1.044993
4000	3938	1.486	34.687	1.163	1.045865
4200	4133	1.479	34.690	1.134	1.046734
4400	4328	1.479	34.692	1.111	1.047597
4600	4523	1.484	34.693	1.093	1.048456
4800	4717	1.493	34.694	1.077	1.049310
5000	4911	1.503	34.696	1.062	1.050159
5200	5106	1.519	34.697	1.053	1.051003
5400	5300	1.539	34.697	1.046	1.051843
5600	5494	1.560	34.698	1.040	1.052678
5800	5687	1.583	34.698	1.036	1.053511
6000	5881	1.607	34.698	1.032	1.054338
6200	6075	1.633	34.696	1.029	1.055160
6400	6268	1.659	34.697	1.026	1.055980
6500	6364	1.673	34.697	1.025	1.056388

ST03 87/ 1/29 15:51 32-45.4N 141-19.9E 3100M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	20	18.571	34.795	18.568	1.025062	
40	39	18.549	34.799	18.542	1.025158	
60	59	18.544	34.798	18.533	1.025246	
80	80	18.537	34.794	18.522	1.025337	
100	99	18.560	34.753	18.542	1.025384	
120	119	18.442	34.803	18.420	1.025540	
140	140	18.442	34.796	18.417	1.025624	
160	159	18.436	34.792	18.407	1.025706	
180	179	18.433	34.792	18.401	1.025795	
200	199	18.435	34.791	18.399	1.025881	
250	248	17.438	34.788	17.395	1.026345	
300	298	16.725	34.762	16.675	1.026718	
350	348	15.701	34.697	15.645	1.027127	
400	397	14.525	34.612	14.464	1.027549	
450	447	13.475	34.524	13.410	1.027928	
500	497	11.993	34.431	11.926	1.028383	
550	546	10.510	34.337	10.442	1.028817	
600	596	9.010	34.213	8.942	1.029215	
650	645	7.508	34.126	7.442	1.029616	
700	695	6.727	34.104	6.660	1.029946	
750	744	5.859	34.098	5.792	1.030294	
800	794	5.232	34.126	5.164	1.030630	
850	843	4.833	34.151	4.763	1.030931	
900	893	4.474	34.191	4.402	1.031239	
950	942	4.235	34.234	4.160	1.031531	
1000	992	4.018	34.263	3.941	1.031810	
1100	1091	3.656	34.333	3.573	1.032368	
1200	1189	3.281	34.396	3.193	1.032919	
1300	1289	3.066	34.437	2.972	1.033436	
1400	1387	2.892	34.459	2.792	1.033930	
1500	1487	2.696	34.481	2.590	1.034432	
1600	1585	2.519	34.506	2.407	1.034925	
1700	1683	2.403	34.524	2.284	1.035404	
1800	1781	2.291	34.543	2.165	1.035887	
1900	1880	2.177	34.564	2.044	1.036371	
2000	1978	2.066	34.579	1.927	1.036847	
2200	2175	1.929	34.605	1.775	1.037787	
2400	2372	1.799	34.626	1.629	1.038718	
2600	2568	1.709	34.641	1.523	1.039637	
2800	2764	1.563	34.663	1.361	1.040566	
3000	2960	1.513	34.672	1.293	1.041468	

ST04 87/ 1/19:15 32-45.6N 141-30.6E 4460M					
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	20	18.457	34.792	18.454	1.025088
40	39	18.443	34.798	18.436	1.025184
60	59	18.441	34.795	18.430	1.025270
80	79	18.440	34.794	18.426	1.025356
100	99	18.433	34.794	18.415	1.025446
120	119	18.434	34.793	18.412	1.025533
140	139	18.429	34.794	18.404	1.025621
160	159	18.422	34.779	18.393	1.025701
180	179	18.413	34.781	18.381	1.025791
200	199	18.402	34.786	18.366	1.025887
250	248	17.873	34.771	17.829	1.026225
300	298	16.846	34.741	16.795	1.026671
350	348	15.709	34.671	15.653	1.027106
400	397	14.352	34.582	14.292	1.027563
450	447	13.279	34.517	13.214	1.027965
500	497	11.935	34.421	11.868	1.028387
550	546	10.661	34.319	10.592	1.028776
600	596	9.449	34.244	9.379	1.029161
650	645	8.129	34.139	8.060	1.029528
700	695	6.999	34.119	6.930	1.029916
750	745	6.133	34.089	6.064	1.030249
800	794	5.585	34.095	5.515	1.030558
850	844	5.103	34.184	5.031	1.030922
900	893	4.773	34.208	4.699	1.031212
950	942	4.297	34.219	4.222	1.031511
1000	992	4.083	34.257	4.005	1.031796
1100	1091	3.638	34.303	3.555	1.032346
1200	1189	3.369	34.357	3.281	1.032878
1300	1288	3.123	34.396	3.029	1.033395
1400	1387	2.893	34.439	2.793	1.033913
1500	1486	2.721	34.467	2.615	1.034411
1600	1584	2.583	34.498	2.470	1.034907
1700	1683	2.382	34.523	2.263	1.035406
1800	1781	2.238	34.547	2.113	1.035896
1900	1880	2.132	34.560	2.000	1.036372
2000	1978	2.043	34.578	1.904	1.036850
2200	2175	1.884	34.604	1.730	1.037792
2400	2372	1.772	34.626	1.603	1.038723
2600	2568	1.673	34.642	1.488	1.039642
2800	2764	1.598	34.654	1.396	1.040554
3000	2960	1.543	34.663	1.323	1.041456
3200	3156	1.510	34.670	1.271	1.042351
3400	3352	1.471	34.676	1.213	1.043241
3600	3547	1.456	34.680	1.177	1.044123
3800	3743	1.447	34.683	1.147	1.045001
4000	3938	1.419	34.688	1.098	1.045878
4200	4133	1.412	34.691	1.069	1.046747

ST05	87/ 1/29	23:55	32-46.9N	141-41.4E	6850M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	18.524	34.805	18.521	1.025081
40	39	18.484	34.807	18.477	1.025180
60	59	18.433	34.802	18.422	1.025277
80	79	18.405	34.800	18.391	1.025370
100	99	18.366	34.797	18.348	1.025465
120	119	18.356	34.794	18.335	1.025553
140	139	18.358	34.795	18.333	1.025641
160	159	18.360	34.795	18.331	1.025728
180	179	18.361	34.794	18.329	1.025814
200	199	18.364	34.794	18.328	1.025901
250	248	17.381	34.792	17.338	1.026362
300	298	16.624	34.755	16.574	1.026736
350	348	15.826	34.707	15.769	1.027106
400	397	15.003	34.635	14.941	1.027459
450	447	13.677	34.553	13.611	1.027907
500	497	12.244	34.453	12.176	1.028351
550	546	11.234	34.389	11.163	1.028722
600	596	10.004	34.293	9.932	1.029099
650	645	8.699	34.215	8.627	1.029491
700	695	7.354	34.118	7.283	1.029861
750	744	6.746	34.122	6.673	1.030184
800	794	6.070	34.098	5.997	1.030491
850	843	5.503	34.154	5.428	1.030843
900	893	5.111	34.195	5.034	1.031157
950	942	4.496	34.182	4.419	1.031456
1000	992	4.392	34.246	4.312	1.031748
1100	1091	3.794	34.293	3.710	1.032317
1200	1190	3.447	34.343	3.358	1.032857
1300	1288	3.188	34.387	3.093	1.033381
1400	1387	2.967	34.432	2.866	1.033898
1500	1486	2.775	34.469	2.668	1.034406
1600	1589	2.601	34.494	2.487	1.034922
1700	1683	2.445	34.517	2.325	1.035393
1800	1782	2.317	34.540	2.191	1.035881
1900	1880	2.204	34.559	2.071	1.036363
2000	1978	2.107	34.577	1.967	1.036840
2200	2175	1.927	34.606	1.773	1.037788
2400	2372	1.812	34.624	1.642	1.038715
2600	2568	1.710	34.640	1.524	1.039636
2800	2764	1.633	34.655	1.430	1.040549
3000	2960	1.573	34.664	1.352	1.041453
3200	3156	1.533	34.671	1.293	1.042348
3400	3352	1.499	34.678	1.240	1.043239
3600	3547	1.480	34.681	1.201	1.044121
3800	3743	1.467	34.686	1.167	1.044998
4000	3938	1.461	34.689	1.139	1.045871
4200	4133	1.460	34.690	1.116	1.046738
4400	4328	1.458	34.692	1.091	1.047601
4600	4523	1.469	34.693	1.078	1.048458
4800	4717	1.483	34.694	1.068	1.049311
5000	4912	1.495	34.696	1.055	1.050160
5200	5106	1.510	34.696	1.044	1.051004
5400	5300	1.529	34.696	1.037	1.051845
5600	5494	1.550	34.696	1.031	1.052679
5800	5688	1.575	34.696	1.028	1.053512
6000	5881	1.600	34.696	1.025	1.054338

ST06 87/ 1/30 05:39 32-46.5N 141-51.2E 6800M

PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	18.855	34.817	18.852	1.025006
40	39	18.830	34.821	18.823	1.025104
60	59	18.832	34.821	18.821	1.025190
80	79	18.830	34.820	18.815	1.025278
100	99	18.824	34.820	18.806	1.025367
120	119	18.694	34.807	18.672	1.025477
140	139	18.541	34.802	18.516	1.025600
160	159	18.430	34.791	18.401	1.025707
180	179	18.378	34.792	18.346	1.025808
200	199	18.333	34.793	18.297	1.025908
250	248	17.098	34.791	17.055	1.026430
300	298	16.521	34.774	16.471	1.026775
350	348	15.808	34.685	15.752	1.027093
400	397	14.881	34.642	14.819	1.027493
450	447	13.766	34.549	13.700	1.027885
500	497	12.327	34.456	12.259	1.028336
550	546	11.124	34.371	11.053	1.028728
600	596	9.833	34.281	9.761	1.029122
650	645	8.441	34.193	8.370	1.029518
700	695	7.498	34.142	7.427	1.029857
750	744	6.497	34.125	6.426	1.030224
800	794	5.864	34.142	5.792	1.030555
850	843	5.434	34.161	5.360	1.030858
900	893	5.124	34.189	5.047	1.031150
950	942	4.543	34.197	4.466	1.031462
1000	992	4.298	34.252	4.218	1.031765
1100	1091	3.769	34.300	3.685	1.032327
1200	1190	3.382	34.360	3.293	1.032879
1300	1288	3.105	34.404	3.011	1.033404
1400	1387	2.920	34.440	2.820	1.033911
1500	1486	2.705	34.475	2.599	1.034420
1600	1584	2.542	34.499	2.430	1.034913
1700	1683	2.398	34.522	2.279	1.035403
1800	1781	2.259	34.545	2.134	1.035892
1900	1880	2.149	34.565	2.017	1.036374
2000	1978	2.061	34.581	1.922	1.036849
2200	2175	1.925	34.605	1.771	1.037787
2400	2372	1.790	34.628	1.620	1.038721
2600	2568	1.701	34.641	1.515	1.039639
2800	2764	1.640	34.653	1.437	1.040547
3000	2960	1.585	34.661	1.364	1.041449
3200	3156	1.535	34.670	1.295	1.042347
3400	3352	1.494	34.677	1.235	1.043239
3600	3547	1.475	34.682	1.196	1.044122
3800	3743	1.472	34.683	1.172	1.044995
4000	3938	1.466	34.686	1.144	1.045868
4200	4133	1.467	34.689	1.123	1.046736
4400	4328	1.466	34.691	1.099	1.047599
4600	4523	1.476	34.691	1.085	1.048455
4800	4717	1.486	34.692	1.071	1.049309
5000	4911	1.501	34.693	1.060	1.050157
5200	5106	1.517	34.694	1.051	1.051002
5400	5300	1.535	34.695	1.042	1.051842
5600	5494	1.557	34.695	1.037	1.052677
5800	5687	1.578	34.694	1.031	1.053509
6000	5881	1.601	34.695	1.026	1.054337

ST08	87/ 1/31	19:38	28-59.8N	143-03.2E	8460M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	19.363	34.798	19.360	1.024861
40	39	19.337	34.802	19.330	1.024959
60	59	19.315	34.804	19.304	1.025054
80	79	19.314	34.805	19.299	1.025142
100	99	19.311	34.807	19.292	1.025231
120	119	19.315	34.807	19.293	1.025319
140	139	19.313	34.807	19.287	1.025407
160	159	19.284	34.811	19.254	1.025504
180	179	18.540	34.818	18.508	1.025787
200	199	18.063	34.818	18.028	1.025995
250	248	17.440	34.811	17.397	1.026362
300	298	16.541	34.745	16.491	1.026749
350	348	15.724	34.698	15.668	1.027122
400	397	14.750	34.624	14.688	1.027507
450	447	13.711	34.546	13.645	1.027895
500	497	12.459	34.458	12.390	1.028310
550	546	11.188	34.359	11.117	1.028707
600	596	9.761	34.266	9.690	1.029123
650	645	8.399	34.186	8.328	1.029519
700	695	7.472	34.148	7.401	1.029865
750	744	6.690	34.124	6.618	1.030193
800	794	5.826	34.129	5.754	1.030550
850	843	5.434	34.153	5.360	1.030851
900	893	4.853	34.187	4.778	1.031185
950	942	4.500	34.217	4.423	1.031483
1000	992	4.025	34.267	3.948	1.031813
1100	1091	3.575	34.323	3.493	1.032369
1200	1190	3.276	34.371	3.188	1.032900
1300	1288	2.972	34.419	2.879	1.033432
1400	1387	2.746	34.457	2.648	1.033946
1500	1486	2.602	34.491	2.497	1.034445
1600	1584	2.450	34.518	2.339	1.034940
1700	1683	2.316	34.539	2.198	1.035428
1800	1781	2.193	34.558	2.069	1.035911
1900	1880	2.089	34.579	1.958	1.036393
2000	1978	2.018	34.594	1.879	1.036865
2200	2175	1.858	34.620	1.705	1.037807
2400	2372	1.756	34.636	1.587	1.038733
2600	2568	1.679	34.646	1.493	1.039645
2800	2764	1.618	34.657	1.415	1.040553
3000	2960	1.570	34.665	1.349	1.041454
3200	3156	1.526	34.671	1.286	1.042350
3400	3352	1.497	34.676	1.238	1.043238
3600	3547	1.476	34.680	1.197	1.044120
3800	3743	1.460	34.684	1.160	1.044999
4000	3938	1.451	34.687	1.129	1.045872
4200	4133	1.450	34.689	1.106	1.046739
4400	4328	1.453	34.691	1.086	1.047602
4600	4523	1.463	34.691	1.072	1.048458
4800	4717	1.476	34.693	1.061	1.049311
5000	4912	1.493	34.693	1.053	1.050159
5200	5106	1.511	34.693	1.045	1.051003
5400	5300	1.532	34.694	1.040	1.051842
5600	5494	1.554	34.694	1.035	1.052677
5800	5687	1.580	34.693	1.033	1.053508
6000	5881	1.605	34.694	1.030	1.054335

ST09	87/ 2/ 1	00:40	28-54.3N	142-55.0E	9100M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	20	19.657	34.834	19.654	1.024814
40	39	19.460	34.813	19.453	1.024936
60	59	19.390	34.804	19.379	1.025035
80	79	19.343	34.804	19.328	1.025134
100	99	19.310	34.806	19.291	1.025231
120	119	19.236	34.803	19.214	1.025336
140	139	19.228	34.802	19.202	1.025425
160	159	19.211	34.802	19.181	1.025517
180	179	19.195	34.805	19.162	1.025610
200	199	18.626	34.803	18.590	1.025842
250	248	17.418	34.797	17.375	1.026357
300	298	16.506	34.735	16.456	1.026749
350	348	15.533	34.673	15.477	1.027148
400	397	14.534	34.608	14.473	1.027543
450	447	13.322	34.516	13.257	1.027954
500	497	11.769	34.406	11.703	1.028408
550	546	10.391	34.290	10.323	1.028804
600	596	9.367	34.228	9.298	1.029163
650	645	8.021	34.166	7.952	1.029567
700	695	7.225	34.141	7.155	1.029899
750	745	6.528	34.124	6.457	1.030218
800	794	5.777	34.135	5.705	1.030561
850	844	5.275	34.168	5.202	1.030885
900	893	4.811	34.179	4.737	1.031184
950	942	4.419	34.219	4.343	1.031495
1000	992	4.068	34.262	3.990	1.031803
1100	1091	3.630	34.331	3.548	1.032369
1200	1190	3.261	34.393	3.174	1.032919
1300	1288	2.956	34.436	2.863	1.033447
1400	1387	2.740	34.474	2.642	1.033959
1500	1486	2.581	34.497	2.476	1.034452
1600	1584	2.398	34.526	2.287	1.034952
1700	1683	2.297	34.540	2.179	1.035430
1800	1781	2.177	34.562	2.053	1.035915
1900	1880	2.056	34.580	1.925	1.036399
2000	1978	1.972	34.596	1.834	1.036873
2200	2175	1.842	34.619	1.689	1.037809
2400	2372	1.745	34.634	1.576	1.038733
2600	2568	1.677	34.646	1.491	1.039645
2800	2764	1.621	34.654	1.418	1.040550
3000	2960	1.573	34.663	1.352	1.041451
3200	3156	1.540	34.667	1.300	1.042343
3400	3352	1.509	34.673	1.250	1.043234
3600	3547	1.477	34.678	1.198	1.044118
3800	3743	1.467	34.682	1.167	1.044996
4000	3938	1.462	34.685	1.140	1.045869
4200	4133	1.461	34.686	1.117	1.046734
4400	4328	1.459	34.688	1.092	1.047598
4600	4522	1.466	34.690	1.075	1.048456
4800	4717	1.477	34.692	1.062	1.049310
5000	4912	1.494	34.692	1.054	1.050159
5200	5106	1.512	34.692	1.046	1.051002
5400	5300	1.533	34.692	1.041	1.051841
5600	5494	1.555	34.692	1.036	1.052675
5800	5687	1.579	34.693	1.032	1.053508
6000	5881	1.604	34.693	1.029	1.054335

ST10 87/ 2/ 1 05:59 28-49.5N 142-47.1E 7050M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	19	19.769	34.809	19.766	1.024765	
40	39	19.743	34.812	19.735	1.024862	
60	59	19.746	34.812	19.735	1.024948	
80	79	19.752	34.814	19.737	1.025036	
100	99	19.753	34.813	19.734	1.025123	
120	119	19.755	34.813	19.732	1.025208	
140	139	19.752	34.814	19.725	1.025297	
160	159	19.660	34.801	19.630	1.025398	
180	179	19.332	34.809	19.298	1.025578	
200	199	18.606	34.836	18.570	1.025872	
250	248	17.281	34.806	17.238	1.026398	
300	298	16.590	34.771	16.540	1.026757	
350	348	16.176	34.741	16.119	1.027051	
400	397	15.341	34.668	15.278	1.027408	
450	447	14.415	34.583	14.347	1.027771	
500	497	13.289	34.506	13.217	1.028174	
550	546	11.963	34.395	11.889	1.028583	
600	596	10.167	34.242	10.094	1.029031	
650	646	9.259	34.231	9.184	1.029409	
700	695	7.808	34.142	7.735	1.029807	
750	744	6.783	34.116	6.710	1.030172	
800	794	6.224	34.119	6.150	1.030485	
850	844	5.429	34.092	5.355	1.030805	
900	893	5.099	34.175	5.022	1.031142	
950	942	4.643	34.213	4.565	1.031461	
1000	992	4.261	34.249	4.182	1.031768	
1100	1091	3.707	34.320	3.624	1.032351	
1200	1190	3.305	34.383	3.217	1.032907	
1300	1288	3.070	34.430	2.976	1.033429	
1400	1387	2.833	34.459	2.734	1.033937	
1500	1486	2.652	34.487	2.546	1.034436	
1600	1585	2.439	34.521	2.328	1.034945	
1700	1683	2.311	34.542	2.193	1.035430	
1800	1781	2.212	34.560	2.087	1.035910	
1900	1880	2.084	34.581	1.953	1.036395	
2000	1978	1.982	34.598	1.844	1.036873	
2200	2175	1.830	34.623	1.677	1.037814	
2400	2372	1.745	34.635	1.576	1.038733	
2600	2568	1.673	34.647	1.488	1.039647	
2800	2764	1.615	34.657	1.412	1.040553	
3000	2960	1.561	34.665	1.340	1.041454	
3200	3156	1.510	34.672	1.271	1.042353	
3400	3352	1.486	34.677	1.227	1.043240	
3600	3547	1.467	34.680	1.188	1.044122	
3800	3743	1.456	34.682	1.156	1.044998	
4000	3938	1.452	34.686	1.130	1.045871	
4200	4133	1.446	34.688	1.102	1.046739	
4400	4328	1.450	34.691	1.083	1.047602	
4600	4523	1.455	34.692	1.065	1.048460	
4800	4717	1.469	34.692	1.054	1.049312	
5000	4912	1.488	34.693	1.048	1.050160	
5200	5106	1.506	34.694	1.040	1.051003	
5400	5300	1.530	34.693	1.038	1.051842	
5600	5494	1.551	34.694	1.032	1.052677	
5800	5687	1.575	34.694	1.028	1.053509	
6000	5881	1.601	34.693	1.026	1.054336	

ST11 87/ 2/ 1 10:56 28-45.4N 142-38.5E 5000M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	19	20.396	34.904	20.393	1.024672	
40	39	20.374	34.909	20.366	1.024769	
60	59	20.352	34.901	20.340	1.024856	
80	79	20.205	34.903	20.190	1.024983	
100	99	20.160	34.897	20.141	1.025078	
120	119	19.741	34.842	19.718	1.025234	
140	139	19.272	34.846	19.246	1.025447	
160	159	18.611	34.842	18.582	1.025701	
180	179	18.215	34.815	18.183	1.025867	
200	199	17.800	34.833	17.765	1.026073	
250	248	17.080	34.795	17.037	1.026438	
300	298	16.483	34.763	16.433	1.026775	
350	348	15.845	34.718	15.788	1.027110	
400	397	14.927	34.637	14.865	1.027477	
450	447	13.317	34.503	13.252	1.027946	
500	497	11.976	34.397	11.909	1.028359	
550	546	10.375	34.272	10.307	1.028792	
600	596	8.588	34.147	8.522	1.029233	
650	645	8.038	34.124	7.969	1.029531	
700	695	7.092	34.086	7.023	1.029876	
750	744	6.424	34.076	6.353	1.030195	
800	794	5.802	34.061	5.730	1.030500	
850	844	5.214	34.135	5.141	1.030869	
900	893	4.946	34.181	4.871	1.031168	
950	943	4.493	34.223	4.416	1.031489	
1000	992	4.132	34.256	4.054	1.031790	
1100	1091	3.632	34.332	3.549	1.032370	
1200	1190	3.272	34.389	3.184	1.032915	
1300	1288	2.995	34.432	2.902	1.033440	
1400	1387	2.780	34.465	2.681	1.033948	
1500	1486	2.576	34.496	2.471	1.034452	
1600	1584	2.445	34.521	2.334	1.034943	
1700	1683	2.305	34.545	2.187	1.035433	
1800	1781	2.167	34.565	2.043	1.035920	
1900	1880	2.095	34.578	1.964	1.036391	
2000	1978	2.008	34.591	1.870	1.036864	
2200	2175	1.875	34.611	1.721	1.037800	
2400	2372	1.749	34.632	1.580	1.038731	
2600	2568	1.674	34.646	1.488	1.039645	
2800	2764	1.612	34.653	1.409	1.040551	
3000	2960	1.555	34.664	1.334	1.041454	
3200	3156	1.520	34.669	1.281	1.042349	
3400	3352	1.489	34.675	1.230	1.043238	

ST12	87/	2/	1	15:00	28-40.2N	142-29.6E	4000M
PRESSURE	DEPTH	T	S	POT-T	DENSITY		
20	19	19.813	34.857	19.810	1.024790		
40	39	19.769	34.858	19.761	1.024890		
60	59	19.767	34.857	19.756	1.024977		
80	79	19.765	34.856	19.750	1.025064		
100	99	19.700	34.837	19.681	1.025153		
120	119	19.246	34.841	19.224	1.025362		
140	139	18.973	34.832	18.947	1.025514		
160	159	18.708	34.837	18.679	1.025672		
180	179	18.247	34.835	18.215	1.025875		
200	199	17.797	34.825	17.762	1.026066		
250	248	17.158	34.798	17.115	1.026422		
300	298	16.780	34.780	16.730	1.026718		
350	348	16.125	34.734	16.068	1.027057		
400	397	15.079	34.646	15.016	1.027451		
450	447	13.740	34.545	13.674	1.027888		
500	497	12.651	34.456	12.581	1.028270		
550	546	11.552	34.343	11.480	1.028625		
600	596	9.328	34.196	9.259	1.029145		
650	645	8.817	34.162	8.744	1.029430		
700	695	7.359	34.077	7.288	1.029828		
750	745	6.584	34.069	6.512	1.030166		
800	794	5.929	34.077	5.856	1.030495		
850	844	5.467	34.104	5.393	1.030808		
900	893	4.899	34.135	4.824	1.031138		
950	942	4.607	34.170	4.530	1.031431		
1000	992	4.237	34.219	4.158	1.031747		
1100	1091	3.723	34.308	3.640	1.032339		
1200	1190	3.465	34.353	3.376	1.032863		
1300	1289	3.154	34.408	3.059	1.033401		
1400	1387	2.956	34.435	2.855	1.033902		
1500	1486	2.689	34.482	2.583	1.034428		
1600	1585	2.550	34.505	2.437	1.034920		
1700	1683	2.370	34.532	2.251	1.035415		
1800	1782	2.212	34.556	2.087	1.035908		
1900	1880	2.117	34.571	1.985	1.036385		
2000	1978	2.015	34.587	1.876	1.036860		
2200	2175	1.856	34.615	1.703	1.037804		
2400	2372	1.760	34.632	1.591	1.038729		
2600	2568	1.689	34.643	1.503	1.039641		
2800	2764	1.648	34.651	1.444	1.040544		
3000	2960	1.573	34.662	1.352	1.041451		
3200	3156	1.526	34.669	1.286	1.042347		
3400	3352	1.498	34.674	1.239	1.043236		
3600	3547	1.481	34.678	1.202	1.044117		
3800	3743	1.440	34.685	1.141	1.045003		

ST13	87/ 2/ 1	18:15	28-34.4N	142-20.9E	2260M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	19.959	34.875	19.956	1.024766
40	39	19.930	34.878	19.922	1.024862
60	59	19.907	34.874	19.896	1.024953
80	79	19.828	34.859	19.813	1.025050
100	99	19.792	34.854	19.773	1.025143
120	119	19.489	34.793	19.467	1.025262
140	139	18.755	34.831	18.730	1.025569
160	159	18.070	34.835	18.042	1.025831
180	179	17.888	34.825	17.856	1.025957
200	199	17.554	34.797	17.519	1.026105
250	248	16.824	34.789	16.782	1.026494
300	298	16.447	34.768	16.397	1.026789
350	348	15.796	34.711	15.740	1.027117
400	398	14.774	34.614	14.712	1.027495
450	447	13.142	34.488	13.078	1.027970
500	497	11.942	34.394	11.875	1.028364
550	546	11.124	34.336	11.053	1.028702
600	596	9.023	34.173	8.955	1.029180
650	645	8.335	34.147	8.265	1.029500
700	695	7.103	34.064	7.034	1.029858
750	744	6.462	34.075	6.391	1.030189
800	794	6.063	34.081	5.990	1.030478
850	844	5.477	34.103	5.403	1.030807
900	893	4.997	34.143	4.921	1.031132
950	942	4.401	34.199	4.325	1.031482
1000	992	4.240	34.221	4.161	1.031749
1100	1091	3.715	34.312	3.632	1.032343
1200	1190	3.278	34.385	3.190	1.032911
1300	1288	3.033	34.427	2.940	1.033431
1400	1387	2.792	34.463	2.693	1.033945
1500	1486	2.563	34.498	2.458	1.034455
1600	1584	2.425	34.522	2.314	1.034946
1700	1683	2.249	34.550	2.132	1.035444
1800	1781	2.136	34.568	2.012	1.035926
1900	1880	2.041	34.579	1.910	1.036400
2000	1978	1.973	34.594	1.835	1.036872
2200	2175	1.797	34.624	1.645	1.037819

ST14 87/ 2/ 1 20:49 28-30.2N 142-13.0E 1970M					
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	20.311	34.908	20.308	1.024697
40	39	20.290	34.912	20.282	1.024793
60	59	20.289	34.910	20.277	1.024879
80	79	20.293	34.911	20.278	1.024967
100	99	20.290	34.910	20.271	1.025053
120	119	20.291	34.907	20.268	1.025138
140	139	19.697	34.867	19.671	1.025352
160	159	18.842	34.829	18.813	1.025632
180	179	18.338	34.826	18.306	1.025845
200	199	17.650	34.807	17.615	1.026089
250	248	17.089	34.795	17.046	1.026436
300	298	16.597	34.766	16.547	1.026751
350	348	16.134	34.740	16.077	1.027060
400	397	14.753	34.616	14.691	1.027501
450	447	13.218	34.491	13.154	1.027957
500	497	11.923	34.384	11.856	1.028360
550	547	10.375	34.271	10.307	1.028792
600	596	9.903	34.251	9.831	1.029086
650	645	7.701	34.112	7.634	1.029575
700	695	7.160	34.100	7.090	1.029877
750	745	6.108	34.072	6.039	1.030239
800	794	5.623	34.087	5.552	1.030546
850	844	5.336	34.113	5.263	1.030834
900	893	4.908	34.149	4.833	1.031148
950	942	4.458	34.194	4.382	1.031470
1000	992	4.094	34.245	4.016	1.031786
1100	1091	3.610	34.334	3.528	1.032373
1200	1190	3.309	34.385	3.221	1.032907
1300	1288	3.098	34.420	3.004	1.033417
1400	1387	2.757	34.470	2.658	1.033955
1500	1494	2.485	34.510	2.381	1.034512
1600	1584	2.306	34.539	2.197	1.034975
1700	1683	2.218	34.550	2.102	1.035448
1800	1781	2.118	34.569	1.995	1.035929
1900	1880	2.043	34.582	1.912	1.036401

STHU1	87/ 2/ 3	02:45	23-30.3N	144-59.3E	5800M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	24.485	35.079	24.481	1.023644
40	39	24.459	35.084	24.450	1.023743
60	59	24.012	34.959	23.999	1.023868
80	79	23.013	34.909	22.996	1.024209
100	99	21.656	34.915	21.636	1.024685
120	119	20.095	34.896	20.072	1.025182
140	139	19.131	34.879	19.105	1.025509
160	159	18.546	34.864	18.517	1.025734
180	179	17.763	34.829	17.732	1.025990
200	199	17.296	34.804	17.262	1.026174
250	248	16.396	34.745	16.355	1.026563
300	298	15.585	34.674	15.537	1.026917
350	348	14.487	34.595	14.434	1.027323
400	397	12.911	34.447	12.855	1.027765
450	447	11.524	34.328	11.465	1.028172
500	497	10.310	34.257	10.249	1.028569
550	546	9.209	34.212	9.146	1.028954
600	596	8.158	34.176	8.094	1.029326
650	645	7.320	34.158	7.255	1.029672
700	695	6.650	34.157	6.583	1.029998
750	745	6.041	34.165	5.973	1.030322
800	794	5.546	34.179	5.476	1.030629
850	844	5.088	34.224	5.016	1.030955
900	893	4.730	34.237	4.656	1.031240
950	942	4.387	34.271	4.311	1.031540
1000	992	4.059	34.317	3.981	1.031848
1100	1091	3.593	34.390	3.511	1.032420
1200	1189	3.325	34.455	3.237	1.032961
1300	1288	2.981	34.489	2.888	1.033485
1400	1387	2.827	34.526	2.727	1.033990
1500	1486	2.614	34.537	2.509	1.034479
1600	1584	2.420	34.564	2.309	1.034980
1700	1683	2.314	34.573	2.196	1.035454
1800	1781	2.210	34.585	2.085	1.035930
1900	1880	2.092	34.601	1.961	1.036409
2000	1978	2.026	34.610	1.887	1.036877
2200	2175	1.882	34.629	1.728	1.037812
2400	2372	1.777	34.643	1.608	1.038735
2600	2568	1.688	34.654	1.502	1.039650
2800	2764	1.626	34.663	1.423	1.040557
3000	2960	1.574	34.669	1.353	1.041457
3200	3156	1.543	34.674	1.303	1.042348
3400	3352	1.508	34.679	1.249	1.043238
3600	3547	1.489	34.683	1.209	1.044121
3800	3743	1.472	34.685	1.172	1.044997
4000	3938	1.472	34.687	1.150	1.045868
4200	4133	1.470	34.690	1.125	1.046736
4400	4328	1.470	34.690	1.103	1.047598
4600	4522	1.474	34.692	1.083	1.048456
4800	4717	1.482	34.693	1.067	1.049310
5000	4912	1.488	34.695	1.048	1.050161
5200	5106	1.499	34.696	1.033	1.051007
5400	5300	1.512	34.697	1.020	1.051848
5600	5494	1.531	34.698	1.012	1.052685

ST18	87/ 2/ 3	14:24	21-59.1N	145-34.0E	6200M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	25.130	34.969	25.126	1.023365
40	39	25.093	34.975	25.084	1.023468
60	59	25.031	34.976	25.017	1.023574
80	79	24.977	34.990	24.959	1.023687
100	99	24.493	34.979	24.470	1.023911
120	119	23.570	35.025	23.544	1.024307
140	139	21.900	34.965	21.871	1.024828
160	159	20.384	34.865	20.353	1.025255
180	179	19.200	34.862	19.167	1.025653
200	199	18.190	34.835	18.154	1.025976
250	249	17.333	34.812	17.290	1.026390
300	298	16.640	34.766	16.590	1.026740
350	348	15.455	34.666	15.399	1.027161
400	398	14.311	34.574	14.251	1.027566
450	447	12.787	34.440	12.724	1.028008
500	497	11.159	34.313	11.095	1.028454
550	546	9.960	34.249	9.894	1.028850
600	596	8.782	34.193	8.715	1.029237
650	646	7.694	34.145	7.627	1.029602
700	695	6.737	34.152	6.670	1.029982
750	745	5.909	34.179	5.841	1.030351
800	794	5.242	34.234	5.174	1.030714
850	844	4.917	34.287	4.846	1.031027
900	893	4.660	34.320	4.586	1.031316
950	943	4.349	34.357	4.273	1.031613
1000	992	4.038	34.399	3.960	1.031916
1100	1091	3.651	34.447	3.568	1.032458
1200	1190	3.316	34.483	3.228	1.032984
1300	1288	3.044	34.511	2.950	1.033496
1400	1387	2.789	34.530	2.690	1.033998
1500	1486	2.601	34.547	2.496	1.034490
1600	1585	2.444	34.566	2.333	1.034982
1700	1683	2.300	34.580	2.182	1.035461
1800	1781	2.223	34.593	2.098	1.035934
1900	1880	2.105	34.603	1.973	1.036409
2000	1978	2.029	34.613	1.890	1.036879
2200	2175	1.880	34.633	1.726	1.037816
2400	2372	1.781	34.645	1.611	1.038736
2600	2568	1.699	34.653	1.513	1.039648
2800	2764	1.633	34.662	1.430	1.040555
3000	2960	1.560	34.672	1.339	1.041461
3200	3156	1.515	34.677	1.276	1.042355
3400	3352	1.488	34.681	1.229	1.043242
3600	3547	1.457	34.686	1.178	1.044127
3800	3743	1.444	34.689	1.144	1.045005
4000	3938	1.438	34.691	1.117	1.045877
4200	4133	1.433	34.694	1.090	1.046745
4400	4328	1.438	34.696	1.072	1.047608
4600	4523	1.446	34.696	1.056	1.048464
4800	4717	1.454	34.699	1.040	1.049320
5000	4911	1.463	34.699	1.024	1.050169
5200	5106	1.485	34.699	1.020	1.051012
5400	5300	1.505	34.700	1.014	1.051852
5600	5494	1.526	34.699	1.008	1.052687
5800	5687	1.549	34.699	1.003	1.053518
6000	5881	1.572	34.700	0.998	1.054346

ST17 87/ 2/ 3 18:49 21-53.0N 145-26.2E 4510M					
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	25.121	34.964	25.117	1.023364
40	40	24.976	34.979	24.967	1.023507
60	59	24.950	34.998	24.936	1.023615
80	79	24.936	35.003	24.918	1.023709
100	99	24.755	35.021	24.732	1.023864
120	119	24.708	35.024	24.681	1.023966
140	139	22.576	34.998	22.547	1.024662
160	159	21.732	34.957	21.699	1.024956
180	179	19.997	34.925	19.963	1.025491
200	199	18.578	34.847	18.542	1.025887
250	248	17.125	34.793	17.082	1.026425
300	298	16.366	34.748	16.316	1.026792
350	348	15.133	34.632	15.078	1.027207
400	398	13.705	34.499	13.646	1.027638
450	447	12.010	34.364	11.950	1.028105
500	497	10.519	34.272	10.457	1.028543
550	546	9.293	34.215	9.230	1.028941
600	596	7.850	34.160	7.787	1.029364
650	646	6.817	34.138	6.754	1.029733
700	695	6.025	34.178	5.961	1.030106
750	745	5.445	34.205	5.380	1.030436
800	794	4.966	34.269	4.899	1.030779
850	844	4.727	34.288	4.657	1.031054
900	893	4.520	34.341	4.447	1.031350
950	942	4.182	34.357	4.108	1.031634
1000	992	3.819	34.360	3.743	1.031911
1100	1091	3.495	34.414	3.414	1.032452
1200	1190	3.115	34.455	3.029	1.032987
1300	1288	3.009	34.507	2.916	1.033498
1400	1387	2.779	34.527	2.680	1.033998
1500	1486	2.604	34.547	2.499	1.034490
1600	1584	2.406	34.564	2.295	1.034982
1700	1683	2.277	34.582	2.160	1.035465
1800	1782	2.165	34.597	2.041	1.035946
1900	1880	2.070	34.607	1.939	1.036418
2000	1978	2.004	34.616	1.866	1.036884
2200	2175	1.884	34.630	1.730	1.037813
2400	2372	1.754	34.643	1.585	1.038738
2600	2568	1.677	34.656	1.491	1.039653
2800	2764	1.604	34.665	1.401	1.040561
3000	2960	1.547	34.671	1.327	1.041463
3200	3156	1.508	34.676	1.269	1.042355
3400	3352	1.491	34.679	1.232	1.043241
3600	3547	1.484	34.682	1.205	1.044120
3800	3743	1.463	34.686	1.163	1.044999
4000	3938	1.446	34.689	1.125	1.045874
4200	4133	1.428	34.692	1.085	1.046745
4400	4328	1.431	34.695	1.065	1.047608

ST16	87/ 2 / 3	22:52	21-45.8N	145-18.4E	4460M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	25.044	34.970	25.040	1.023393
40	39	24.941	34.997	24.932	1.023531
60	59	24.884	35.017	24.870	1.023649
80	79	24.753	35.044	24.735	1.023796
100	99	24.707	35.030	24.684	1.023885
120	119	24.111	35.000	24.084	1.024128
140	139	22.693	34.977	22.663	1.024611
160	159	21.457	34.965	21.425	1.025038
180	179	19.566	34.886	19.532	1.025576
200	199	18.452	34.789	18.416	1.025875
250	249	17.318	34.805	17.275	1.026388
300	298	16.491	34.747	16.441	1.026762
350	348	15.177	34.638	15.122	1.027202
400	398	14.126	34.552	14.066	1.027589
450	447	12.466	34.401	12.404	1.028043
500	497	10.983	34.297	10.920	1.028475
550	546	9.629	34.215	9.565	1.028883
600	596	8.342	34.168	8.277	1.029290
650	646	7.143	34.148	7.079	1.029691
700	695	6.188	34.165	6.124	1.030073
750	745	5.476	34.187	5.411	1.030417
800	794	4.944	34.256	4.877	1.030771
850	844	4.738	34.294	4.668	1.031057
900	893	4.345	34.303	4.274	1.031343
950	943	3.994	34.344	3.921	1.031649
1000	992	3.824	34.406	3.748	1.031947
1100	1091	3.444	34.457	3.363	1.032493
1200	1190	3.289	34.487	3.201	1.032991
1300	1288	2.955	34.515	2.862	1.033510
1400	1387	2.684	34.540	2.586	1.034019
1500	1493	2.511	34.557	2.406	1.034544
1600	1584	2.428	34.566	2.317	1.034981
1700	1683	2.281	34.580	2.164	1.035463
1800	1781	2.167	34.598	2.043	1.035945
1900	1880	2.068	34.608	1.937	1.036419
2000	1978	1.949	34.617	1.811	1.036893
2200	2175	1.844	34.631	1.691	1.037819
2400	2372	1.759	34.645	1.590	1.038739
2600	2568	1.664	34.656	1.479	1.039655
2800	2764	1.599	34.665	1.396	1.040562
3000	2960	1.544	34.671	1.324	1.041462
3200	3156	1.517	34.675	1.278	1.042353
3400	3352	1.486	34.679	1.227	1.043242
3600	3547	1.469	34.683	1.190	1.044124
3800	3743	1.460	34.686	1.160	1.045000
4000	3938	1.431	34.690	1.110	1.045877
4200	4133	1.423	34.692	1.080	1.046745
4400	4328	1.426	34.694	1.060	1.047609

ST15 87/ 2/ 4 02:38 21-39.7N 145-10.3E 3670M					
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	24.767	35.019	24.763	1.023514
40	39	24.735	35.021	24.726	1.023612
60	59	24.711	35.027	24.697	1.023709
80	79	24.703	35.030	24.685	1.023801
100	99	24.680	35.032	24.657	1.023895
120	119	24.305	35.021	24.278	1.024086
140	139	23.340	34.968	23.310	1.024418
160	159	22.747	34.965	22.713	1.024673
180	179	21.368	34.960	21.332	1.025146
200	199	19.983	34.854	19.945	1.025528
250	249	17.606	34.810	17.563	1.026320
300	298	16.751	34.784	16.701	1.026728
350	348	15.915	34.716	15.858	1.027093
400	398	14.351	34.573	14.291	1.027556
450	447	13.373	34.497	13.308	1.027929
500	497	11.819	34.344	11.752	1.028351
550	547	10.290	34.274	10.223	1.028810
600	596	8.589	34.181	8.523	1.029260
650	646	7.398	34.157	7.332	1.029659
700	695	6.202	34.142	6.137	1.030052
750	745	5.598	34.177	5.532	1.030393
800	794	5.168	34.247	5.100	1.030734
850	844	4.565	34.274	4.497	1.031064
900	893	4.329	34.306	4.258	1.031347
950	943	4.134	34.328	4.060	1.031618
1000	992	4.041	34.401	3.963	1.031916
1100	1091	3.651	34.455	3.568	1.032464
1200	1190	3.252	34.489	3.164	1.032997
1300	1288	2.994	34.504	2.901	1.033496
1400	1387	2.755	34.527	2.656	1.034000
1500	1486	2.601	34.552	2.496	1.034493
1600	1585	2.445	34.574	2.334	1.034985
1700	1683	2.321	34.586	2.203	1.035463
1800	1782	2.206	34.595	2.081	1.035938
1900	1880	2.031	34.607	1.901	1.036423
2000	1979	1.939	34.615	1.802	1.036896
2200	2175	1.826	34.630	1.673	1.037820
2400	2372	1.732	34.643	1.563	1.038741
2600	2568	1.675	34.656	1.489	1.039653
2800	2764	1.609	34.662	1.406	1.040559
3000	2960	1.545	34.671	1.325	1.041462
3200	3156	1.506	34.677	1.267	1.042356
3400	3352	1.455	34.682	1.197	1.043249
3600	3547	1.430	34.686	1.152	1.044132

STHU2 87/ 2/ 5 12:13 14-59.9N 145-00.2E 2740M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	20	27.150	34.400	27.146	1.022306	
40	39	27.093	34.401	27.083	1.022410	
60	59	27.035	34.411	27.020	1.022522	
80	79	26.924	34.751	26.904	1.022900	
100	99	25.934	35.071	25.910	1.023540	
120	119	24.296	35.164	24.269	1.024198	
140	141	23.041	35.141	23.011	1.024641	
160	159	21.082	35.036	21.050	1.025195	
180	179	19.654	34.930	19.620	1.025586	
200	199	19.084	34.913	19.047	1.025809	
250	249	15.516	34.624	15.476	1.026673	
300	298	12.751	34.426	12.709	1.027337	
350	348	10.931	34.322	10.887	1.027833	
400	398	9.557	34.284	9.511	1.028275	
450	447	8.127	34.284	8.080	1.028738	
500	497	7.528	34.293	7.477	1.029065	
550	546	6.595	34.328	6.543	1.029460	
600	596	5.776	34.393	5.723	1.029854	
650	646	5.513	34.434	5.457	1.030151	
700	695	5.181	34.461	5.122	1.030445	
750	744	4.923	34.483	4.861	1.030725	
800	794	4.739	34.494	4.674	1.030986	
850	843	4.525	34.504	4.457	1.031251	
900	893	4.327	34.517	4.256	1.031513	
950	942	4.206	34.525	4.131	1.031765	
1000	992	4.026	34.534	3.948	1.032022	
1100	1091	3.744	34.548	3.660	1.032526	
1200	1189	3.517	34.559	3.427	1.033019	
1300	1288	3.238	34.572	3.142	1.033520	
1400	1387	3.020	34.582	2.918	1.034010	
1500	1486	2.825	34.590	2.717	1.034495	
1600	1584	2.613	34.601	2.499	1.034985	
1700	1683	2.509	34.606	2.388	1.035455	
1800	1781	2.339	34.616	2.212	1.035938	
1900	1880	2.207	34.623	2.074	1.036412	
2000	1978	2.074	34.630	1.934	1.036886	
2200	2175	1.916	34.642	1.762	1.037817	
2400	2371	1.784	34.652	1.614	1.038740	
2600	2568	1.696	34.659	1.510	1.039653	

STC201	87/ 2/ 8	19:22	12-59.3N	143-59.3E	3200M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.251	34.207	27.247	1.022128
40	39	27.228	34.210	27.218	1.022223
60	59	27.172	34.217	27.157	1.022333
80	79	26.615	34.522	26.596	1.022825
100	99	25.178	35.038	25.155	1.023747
120	119	23.653	35.137	23.627	1.024367
140	139	20.925	35.002	20.897	1.025126
160	159	19.679	34.938	19.649	1.025498
180	179	19.171	34.904	19.138	1.025692
200	199	16.688	34.702	16.655	1.026241
250	249	13.258	34.472	13.222	1.027047
300	298	10.682	34.334	10.645	1.027664
350	348	8.737	34.286	8.699	1.028189
400	397	7.890	34.328	7.849	1.028584
450	447	7.391	34.414	7.346	1.028955
500	497	6.713	34.442	6.665	1.029305
550	546	6.292	34.460	6.241	1.029607
600	596	5.920	34.474	5.866	1.029899
650	645	5.577	34.485	5.520	1.030182
700	695	5.340	34.498	5.280	1.030453
750	744	5.070	34.505	5.007	1.030723
800	794	4.830	34.514	4.764	1.030990
850	843	4.680	34.523	4.610	1.031244
900	893	4.429	34.532	4.357	1.031513
950	942	4.240	34.536	4.165	1.031769
1000	992	4.136	34.537	4.057	1.032011
1100	1090	3.834	34.549	3.749	1.032515
1200	1189	3.353	34.563	3.264	1.033043
1300	1288	3.175	34.577	3.080	1.033532
1400	1387	2.953	34.586	2.852	1.034021
1500	1485	2.688	34.595	2.582	1.034516
1600	1584	2.479	34.607	2.367	1.035007
1700	1683	2.338	34.614	2.220	1.035482
1800	1781	2.238	34.620	2.113	1.035954
1900	1880	2.134	34.628	2.002	1.036426
2000	1978	2.065	34.632	1.925	1.036889
2200	2175	1.951	34.641	1.796	1.037812
2400	2371	1.818	34.651	1.648	1.038735
2600	2568	1.742	34.658	1.555	1.039645
2800	2764	1.649	34.663	1.445	1.040554
3000	2960	1.610	34.669	1.388	1.041451

STC202	87/ 2/ 9	04:12	11-59.8N	142-59.7E	4160M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.190	34.261	27.186	1.022188
40	39	27.164	34.268	27.154	1.022287
60	59	27.169	34.267	27.154	1.022371
80	79	27.174	34.267	27.154	1.022456
100	99	24.820	35.088	24.797	1.023894
120	119	22.929	35.125	22.903	1.024570
140	139	21.238	35.060	21.210	1.025084
160	159	19.439	34.928	19.409	1.025553
180	179	16.724	34.717	16.694	1.026156
200	199	15.009	34.582	14.978	1.026534
250	249	12.126	34.411	12.093	1.027227
300	298	10.375	34.347	10.339	1.027730
350	348	9.128	34.407	9.089	1.028218
400	397	8.526	34.476	8.483	1.028598
450	447	8.028	34.487	7.981	1.028913
500	497	7.485	34.490	7.434	1.029226
550	546	6.860	34.477	6.807	1.029537
600	596	6.535	34.484	6.478	1.029818
650	645	6.170	34.493	6.110	1.030106
700	695	5.783	34.499	5.720	1.030393
750	744	5.497	34.499	5.431	1.030660
800	794	5.220	34.509	5.151	1.030934
850	843	4.942	34.520	4.871	1.031207
900	893	4.717	34.524	4.643	1.031468
950	942	4.511	34.538	4.434	1.031734
1000	992	4.324	34.543	4.244	1.031991
1100	1090	3.912	34.556	3.827	1.032510
1200	1189	3.637	34.566	3.546	1.033010
1300	1288	3.416	34.567	3.318	1.033493
1400	1387	3.164	34.579	3.061	1.033989
1500	1485	2.926	34.589	2.817	1.034482
1600	1584	2.721	34.601	2.606	1.034970
1700	1683	2.536	34.608	2.415	1.035457
1800	1781	2.394	34.615	2.266	1.035930
1900	1880	2.292	34.623	2.157	1.036402
2000	1978	2.176	34.633	2.035	1.036876
2200	2175	1.986	34.641	1.830	1.037807
2400	2371	1.856	34.649	1.685	1.038728
2600	2568	1.694	34.660	1.508	1.039654
2800	2764	1.628	34.667	1.425	1.040560
3000	2960	1.556	34.674	1.335	1.041463
3200	3156	1.533	34.676	1.293	1.042352
3400	3352	1.498	34.681	1.239	1.043242
3600	3547	1.492	34.682	1.212	1.044119
3800	3742	1.492	34.684	1.191	1.044992
4000	3938	1.499	34.685	1.176	1.045862

STC203	87/ 2/ 9	13:08	12-59.8N	142-00.0E	2970M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.121	34.257	27.117	1.022207
40	40	27.076	34.259	27.066	1.022309
60	59	27.078	34.258	27.063	1.022393
80	79	27.082	34.259	27.062	1.022479
100	99	26.659	34.824	26.635	1.023125
120	119	25.197	35.036	25.169	1.023827
140	139	22.534	35.112	22.505	1.024759
160	159	20.251	34.973	20.220	1.025373
180	179	18.976	34.823	18.943	1.025680
200	199	16.845	34.723	16.811	1.026220
250	249	13.717	34.495	13.681	1.026969
300	298	11.723	34.409	11.684	1.027527
350	348	10.111	34.393	10.069	1.028038
400	397	9.043	34.406	8.998	1.028458
450	447	8.399	34.430	8.351	1.028809
500	497	7.556	34.444	7.505	1.029180
550	546	7.085	34.459	7.031	1.029490
600	596	6.745	34.460	6.687	1.029768
650	645	6.155	34.469	6.095	1.030088
700	695	5.861	34.481	5.798	1.030367
750	744	5.551	34.492	5.485	1.030646
800	794	5.268	34.500	5.199	1.030920
850	843	4.987	34.510	4.915	1.031194
900	893	4.683	34.522	4.609	1.031471
950	942	4.403	34.530	4.327	1.031742
1000	992	4.147	34.537	4.068	1.032008
1100	1091	3.829	34.547	3.744	1.032514
1200	1189	3.543	34.554	3.453	1.033011
1300	1288	3.207	34.568	3.111	1.033521
1400	1387	3.015	34.575	2.913	1.034005
1500	1485	2.737	34.590	2.630	1.034506
1600	1589	2.525	34.602	2.412	1.035019
1700	1683	2.380	34.609	2.261	1.035474
1800	1781	2.249	34.618	2.124	1.035951
1900	1880	2.108	34.627	1.976	1.036428
2000	1978	2.012	34.633	1.873	1.036898
2200	2175	1.839	34.648	1.686	1.037833
2400	2371	1.740	34.657	1.571	1.038751
2600	2568	1.682	34.661	1.496	1.039656

STC204	87/ 2/ 9	22:10	11-58.7N	140-59.9E	4200M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.162	34.331	27.158	1.022249
40	40	27.139	34.336	27.129	1.022347
60	59	27.148	34.336	27.133	1.022429
80	79	27.152	34.336	27.132	1.022514
100	99	26.801	34.772	26.777	1.023041
120	119	24.092	35.117	24.065	1.024221
140	139	21.926	35.072	21.897	1.024902
160	159	19.611	34.954	19.581	1.025528
180	179	18.058	34.833	18.026	1.025920
200	199	16.495	34.696	16.462	1.026281
250	249	11.785	34.402	11.752	1.027287
300	298	10.698	34.525	10.661	1.027811
350	348	9.392	34.467	9.352	1.028221
400	398	8.438	34.466	8.395	1.028605
450	447	7.639	34.487	7.593	1.028974
500	497	7.136	34.492	7.087	1.029282
550	546	6.798	34.497	6.745	1.029563
600	596	6.536	34.504	6.479	1.029834
650	645	6.277	34.509	6.217	1.030103
700	695	5.980	34.511	5.916	1.030375
750	744	5.816	34.513	5.748	1.030627
800	795	5.631	34.516	5.560	1.030889
850	843	5.338	34.523	5.264	1.031156
900	893	4.996	34.526	4.920	1.031432
950	942	4.829	34.530	4.749	1.031686
1000	992	4.488	34.537	4.407	1.031964
1100	1090	4.161	34.545	4.073	1.032469
1200	1189	3.871	34.555	3.777	1.032969
1300	1288	3.423	34.566	3.325	1.033491
1400	1387	3.192	34.577	3.088	1.033984
1500	1485	2.946	34.584	2.837	1.034474
1600	1584	2.702	34.596	2.587	1.034969
1700	1684	2.437	34.612	2.317	1.035475
1800	1781	2.291	34.621	2.165	1.035948
1900	1880	2.149	34.629	2.017	1.036425
2000	1978	2.054	34.634	1.915	1.036892
2200	2175	1.874	34.646	1.720	1.037827
2400	2371	1.733	34.658	1.564	1.038753
2600	2568	1.664	34.665	1.479	1.039662
2800	2764	1.625	34.669	1.422	1.040562
3000	2960	1.573	34.673	1.352	1.041459
3200	3156	1.527	34.679	1.287	1.042355
3400	3352	1.479	34.683	1.220	1.043245
3600	3547	1.466	34.686	1.187	1.044127
3800	3742	1.469	34.687	1.169	1.044999
4000	3938	1.486	34.687	1.163	1.045865

STC205	87/ 2/10	09:37	12-58.1N	139-59.1E	4620M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	20	26.995	34.579	26.991	1.022491
40	40	26.972	34.582	26.962	1.022586
60	59	26.975	34.582	26.960	1.022670
80	79	26.982	34.583	26.962	1.022755
100	99	25.770	35.101	25.746	1.023613
120	119	24.406	35.163	24.379	1.024162
140	139	23.264	35.145	23.234	1.024573
160	159	22.268	35.108	22.235	1.024919
180	179	19.912	34.935	19.878	1.025522
200	199	17.749	34.815	17.714	1.026071
250	249	14.452	34.556	14.414	1.026859
300	298	12.070	34.420	12.030	1.027469
350	348	10.370	34.454	10.327	1.028040
400	398	9.153	34.421	9.108	1.028451
450	447	8.408	34.438	8.360	1.028813
500	497	7.408	34.435	7.358	1.029196
550	546	6.836	34.442	6.783	1.029514
600	596	6.471	34.451	6.415	1.029802
650	645	6.290	34.457	6.230	1.030060
700	695	5.986	34.464	5.922	1.030336
750	744	5.592	34.485	5.526	1.030636
800	794	5.347	34.498	5.278	1.030908
850	843	5.147	34.507	5.074	1.031169
900	893	4.851	34.514	4.776	1.031442
950	942	4.536	34.522	4.459	1.031718
1000	992	4.366	34.530	4.286	1.031975
1100	1091	3.884	34.545	3.799	1.032505
1200	1189	3.549	34.561	3.458	1.033016
1300	1288	3.323	34.572	3.226	1.033509
1400	1387	3.003	34.584	2.901	1.034015
1500	1485	2.735	34.598	2.628	1.034513
1600	1584	2.620	34.605	2.506	1.034986
1700	1683	2.470	34.611	2.350	1.035464
1800	1781	2.311	34.621	2.185	1.035945
1900	1880	2.194	34.628	2.061	1.036418
2000	1978	2.076	34.635	1.936	1.036890
2200	2175	1.898	34.645	1.744	1.037823
2400	2371	1.770	34.655	1.601	1.038745
2600	2568	1.675	34.662	1.489	1.039659
2800	2764	1.639	34.665	1.436	1.040557
3000	2960	1.624	34.668	1.402	1.041448
3200	3156	1.599	34.671	1.358	1.042337
3400	3352	1.570	34.675	1.309	1.043225
3600	3547	1.543	34.678	1.262	1.044107
3800	3743	1.528	34.681	1.226	1.044985
4000	3938	1.508	34.683	1.185	1.045858
4200	4133	1.482	34.687	1.137	1.046731
4400	4328	1.480	34.688	1.112	1.047595
4600	4522	1.485	34.690	1.094	1.048452

STC206	87/ 2/10	19:38	11-59.9N	138-58.8E	5950M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	21	27.162	34.355	27.157	1.022274
40	40	27.137	34.362	27.127	1.022367
60	59	27.155	34.399	27.140	1.022475
80	79	26.117	34.983	26.098	1.023330
100	99	24.495	35.134	24.472	1.024028
120	119	22.751	35.108	22.726	1.024608
140	139	20.916	35.024	20.888	1.025146
160	159	18.516	34.860	18.487	1.025739
180	179	17.413	34.716	17.382	1.025990
200	199	15.628	34.634	15.596	1.026435
250	248	11.683	34.425	11.650	1.027324
300	298	10.400	34.392	10.364	1.027761
350	348	9.103	34.419	9.064	1.028232
400	397	8.296	34.398	8.253	1.028574
450	447	7.687	34.426	7.641	1.028919
500	497	6.949	34.448	6.901	1.029275
550	546	6.493	34.465	6.441	1.029582
600	596	6.223	34.492	6.168	1.029870
650	645	5.939	34.496	5.880	1.030140
700	695	5.711	34.493	5.649	1.030399
750	744	5.541	34.507	5.475	1.030660
800	794	5.354	34.514	5.285	1.030919
850	843	5.179	34.519	5.106	1.031174
900	893	4.868	34.524	4.793	1.031448
950	942	4.608	34.533	4.530	1.031717
1000	992	4.493	34.540	4.412	1.031966
1100	1090	3.972	34.556	3.886	1.032502
1200	1189	3.603	34.566	3.512	1.033013
1300	1288	3.257	34.575	3.161	1.033519
1400	1387	3.005	34.587	2.903	1.034016
1500	1485	2.805	34.597	2.697	1.034503
1600	1585	2.681	34.606	2.566	1.034986
1700	1683	2.519	34.610	2.398	1.035458
1800	1781	2.406	34.618	2.278	1.035931
1900	1880	2.278	34.625	2.144	1.036404
2000	1978	2.130	34.632	1.989	1.036880
2200	2175	1.974	34.643	1.819	1.037810
2400	2371	1.836	34.652	1.665	1.038733
2600	2568	1.734	34.659	1.547	1.039647
2800	2764	1.665	34.666	1.461	1.040553
3000	2960	1.600	34.671	1.378	1.041454
3200	3156	1.561	34.675	1.320	1.042346
3400	3351	1.530	34.679	1.270	1.043235
3600	3547	1.520	34.682	1.240	1.044114
3800	3743	1.500	34.683	1.199	1.044992
4000	3938	1.491	34.686	1.168	1.045864
4200	4133	1.466	34.689	1.122	1.046737
4400	4327	1.450	34.692	1.083	1.047603
4600	4522	1.456	34.692	1.066	1.048460
4800	4717	1.458	34.695	1.043	1.049316
5000	4911	1.467	34.696	1.028	1.050166
5200	5105	1.480	34.697	1.015	1.051011
5400	5299	1.506	34.696	1.015	1.051849
5600	5493	1.532	34.697	1.013	1.052684
5800	5687	1.559	34.695	1.013	1.053513

STC207	87/ 2/1106:36	12-59.9N	137-58.3E	4260M	
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.031	34.544	27.027	1.022451
40	39	27.003	34.549	26.993	1.022551
60	60	27.006	34.548	26.991	1.022635
80	79	27.006	34.548	26.986	1.022720
100	99	26.240	34.977	26.216	1.023372
120	119	24.281	35.146	24.254	1.024187
140	139	22.097	35.114	22.068	1.024885
160	159	20.256	34.994	20.225	1.025388
180	179	19.095	34.868	19.062	1.025684
200	199	17.469	34.761	17.434	1.026098
250	249	14.457	34.545	14.419	1.026849
300	298	11.610	34.412	11.571	1.027551
350	348	10.349	34.433	10.306	1.028026
400	398	8.719	34.405	8.675	1.028512
450	447	7.668	34.378	7.622	1.028884
500	497	7.158	34.411	7.109	1.029214
550	546	6.378	34.431	6.327	1.029572
600	596	5.962	34.453	5.908	1.029876
650	653	5.630	34.466	5.572	1.030195
700	695	5.501	34.489	5.440	1.030424
750	744	5.252	34.504	5.188	1.030697
800	794	5.009	34.514	4.942	1.030966
850	843	4.811	34.519	4.741	1.031223
900	893	4.580	34.524	4.507	1.031487
950	942	4.355	34.528	4.279	1.031747
1000	992	4.118	34.536	4.040	1.032012
1100	1091	3.701	34.550	3.618	1.032532
1200	1189	3.451	34.560	3.361	1.033029
1300	1288	3.121	34.572	3.026	1.033534
1400	1387	2.898	34.585	2.798	1.034027
1500	1485	2.744	34.597	2.637	1.034511
1600	1584	2.646	34.600	2.532	1.034980
1700	1683	2.491	34.610	2.371	1.035461
1800	1781	2.343	34.618	2.216	1.035938
1900	1880	2.272	34.623	2.138	1.036405
2000	1978	2.172	34.628	2.031	1.036872
2200	2175	1.956	34.641	1.801	1.037811
2400	2371	1.847	34.649	1.676	1.038730
2600	2568	1.758	34.657	1.571	1.039642
2800	2764	1.688	34.662	1.483	1.040547
3000	2960	1.637	34.666	1.414	1.041445
3200	3156	1.588	34.670	1.347	1.042338
3400	3352	1.559	34.674	1.298	1.043226
3600	3547	1.543	34.677	1.262	1.044107
3800	3742	1.527	34.681	1.225	1.044985
4000	3938	1.463	34.687	1.141	1.045869
4200	4133	1.436	34.690	1.093	1.046741

STC208	87/ 2/11	23:01	11-59.7N	136-59.2E	4950M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.194	34.342	27.190	1.022247
40	40	27.167	34.349	27.157	1.022347
60	59	27.169	34.347	27.154	1.022431
80	79	27.150	34.359	27.130	1.022532
100	99	25.486	34.972	25.463	1.023603
120	119	23.220	35.008	23.194	1.024396
140	139	21.110	34.991	21.082	1.025067
160	159	18.323	34.844	18.294	1.025775
180	179	17.026	34.730	16.996	1.026093
200	199	16.023	34.676	15.991	1.026377
250	249	12.369	34.452	12.335	1.027212
300	298	10.488	34.377	10.451	1.027734
350	348	9.122	34.400	9.083	1.028214
400	397	8.380	34.455	8.337	1.028605
450	447	7.702	34.463	7.656	1.028945
500	497	6.933	34.462	6.885	1.029288
550	546	6.468	34.490	6.416	1.029606
600	596	6.189	34.495	6.134	1.029878
650	645	5.812	34.508	5.754	1.030168
700	695	5.587	34.511	5.525	1.030429
750	744	5.344	34.514	5.279	1.030692
800	794	5.145	34.514	5.077	1.030948
850	843	4.891	34.523	4.820	1.031217
900	893	4.720	34.528	4.646	1.031470
950	942	4.478	34.537	4.401	1.031738
1000	992	4.301	34.538	4.221	1.031990
1100	1090	3.878	34.551	3.793	1.032511
1200	1189	3.501	34.565	3.411	1.033026
1300	1288	3.243	34.577	3.147	1.033523
1400	1387	3.015	34.586	2.913	1.034014
1500	1486	2.844	34.593	2.736	1.034495
1600	1584	2.666	34.598	2.552	1.034976
1700	1683	2.509	34.609	2.388	1.035458
1800	1781	2.381	34.617	2.254	1.035933
1900	1880	2.257	34.624	2.123	1.036407
2000	1978	2.149	34.630	2.008	1.036877
2200	2175	2.032	34.638	1.876	1.037799
2400	2371	1.861	34.648	1.690	1.038728
2600	2568	1.760	34.656	1.573	1.039641
2800	2764	1.684	34.662	1.480	1.040547
3000	2960	1.633	34.668	1.410	1.041447
3200	3156	1.595	34.672	1.354	1.042338
3400	3352	1.567	34.674	1.306	1.043225
3600	3547	1.540	34.678	1.259	1.044108
3800	3743	1.522	34.680	1.220	1.044985
4000	3938	1.498	34.684	1.175	1.045860
4200	4133	1.493	34.686	1.148	1.046728
4400	4328	1.496	34.687	1.128	1.047591
4600	4522	1.513	34.687	1.121	1.048446
4800	4717	1.529	34.688	1.112	1.049297

STC008	87/ 2/12	06:31	12-29.4N	136-28.8E	5300M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.160	34.338	27.156	1.022256
40	40	27.136	34.343	27.126	1.022354
60	59	27.139	34.343	27.124	1.022439
80	79	27.106	34.365	27.086	1.022552
100	99	24.786	35.010	24.763	1.023846
120	119	22.363	35.030	22.338	1.024661
140	140	20.909	34.975	20.881	1.025113
160	159	18.757	34.845	18.728	1.025665
180	179	16.874	34.712	16.844	1.026116
200	199	15.788	34.609	15.756	1.026380
250	249	12.107	34.429	12.074	1.027246
300	298	10.517	34.377	10.480	1.027728
350	348	9.284	34.407	9.244	1.028193
400	397	8.099	34.411	8.057	1.028616
450	447	7.554	34.412	7.508	1.028928
500	497	6.899	34.423	6.851	1.029263
550	546	6.472	34.441	6.421	1.029566
600	596	6.200	34.462	6.145	1.029849
650	645	5.860	34.477	5.802	1.030137
700	695	5.601	34.491	5.539	1.030412
750	744	5.407	34.496	5.342	1.030670
800	794	5.006	34.505	4.939	1.030959
850	843	4.754	34.513	4.684	1.031226
900	893	4.534	34.525	4.461	1.031493
950	942	4.298	34.530	4.222	1.031755
1000	992	4.071	34.539	3.993	1.032021
1100	1090	3.750	34.554	3.666	1.032529
1200	1189	3.480	34.562	3.390	1.033027
1300	1288	3.261	34.570	3.165	1.033516
1400	1387	3.090	34.582	2.987	1.034000
1500	1485	2.904	34.591	2.795	1.034486
1600	1584	2.694	34.602	2.579	1.034977
1700	1683	2.527	34.610	2.406	1.035456
1800	1781	2.373	34.618	2.246	1.035934
1900	1880	2.273	34.623	2.139	1.036403
2000	1978	2.136	34.632	1.995	1.036880
2200	2175	1.961	34.644	1.806	1.037813
2400	2371	1.821	34.652	1.651	1.038736
2600	2568	1.744	34.657	1.557	1.039644
2800	2764	1.673	34.662	1.469	1.040549
3000	2960	1.609	34.668	1.387	1.041451
3200	3156	1.575	34.672	1.334	1.042341
3400	3352	1.535	34.676	1.275	1.043232
3600	3547	1.524	34.679	1.243	1.044111
3800	3742	1.496	34.682	1.195	1.044991
4000	3938	1.493	34.684	1.170	1.045862
4200	4133	1.495	34.686	1.150	1.046729
4400	4327	1.513	34.686	1.144	1.047586
4600	4522	1.527	34.687	1.134	1.048443
4800	4717	1.546	34.686	1.128	1.049294
5000	4911	1.563	34.686	1.120	1.050139
5200	5105	1.587	34.686	1.118	1.050982

STC209	87/ 2/12	13:32	12-59.ON	135-59.OE	5100M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.037	34.333	27.033	1.022291
40	39	26.977	34.337	26.967	1.022399
60	59	26.976	34.337	26.961	1.022486
80	79	26.978	34.339	26.958	1.022573
100	99	25.087	35.064	25.064	1.023795
120	119	23.071	35.017	23.045	1.024446
140	139	21.169	35.043	21.141	1.025091
160	159	18.925	34.879	18.896	1.025649
180	179	17.653	34.806	17.622	1.025999
200	199	17.013	34.732	16.979	1.026187
250	249	13.976	34.498	13.939	1.026917
300	298	11.452	34.393	11.413	1.027567
350	348	9.457	34.351	9.417	1.028119
400	397	8.040	34.340	7.998	1.028569
450	447	7.294	34.391	7.249	1.028951
500	497	6.732	34.391	6.684	1.029263
550	546	6.262	34.456	6.211	1.029608
600	596	5.977	34.465	5.923	1.029883
650	645	5.619	34.490	5.562	1.030180
700	695	5.357	34.512	5.297	1.030462
750	744	5.193	34.516	5.129	1.030716
800	794	4.965	34.523	4.898	1.030979
850	843	4.799	34.528	4.729	1.031232
900	893	4.589	34.534	4.516	1.031493
950	942	4.409	34.540	4.333	1.031749
1000	992	4.260	34.543	4.180	1.032000
1100	1091	3.917	34.552	3.832	1.032507
1200	1189	3.663	34.563	3.571	1.033003
1300	1288	3.380	34.571	3.283	1.033501
1400	1387	3.124	34.582	3.021	1.033997
1500	1485	2.970	34.590	2.860	1.034476
1600	1584	2.779	34.598	2.663	1.034962
1700	1683	2.583	34.607	2.461	1.035446
1800	1781	2.471	34.614	2.342	1.035919
1900	1880	2.323	34.621	2.188	1.036395
2000	1978	2.226	34.626	2.084	1.036863
2200	2175	2.042	34.635	1.885	1.037796
2400	2371	1.883	34.647	1.711	1.038723
2600	2568	1.784	34.654	1.596	1.039636
2800	2764	1.697	34.654	1.492	1.040542
3000	2961	1.618	34.666	1.396	1.041451
3200	3156	1.578	34.671	1.337	1.042342
3400	3352	1.553	34.675	1.292	1.043227
3600	3547	1.539	34.677	1.258	1.044107
3800	3743	1.518	34.680	1.216	1.044987
4000	3938	1.492	34.684	1.169	1.045863
4200	4133	1.493	34.686	1.148	1.046729
4400	4328	1.507	34.687	1.138	1.047588
4600	4522	1.524	34.686	1.131	1.048443
4800	4717	1.543	34.687	1.125	1.049294
5000	4911	1.565	34.687	1.122	1.050139

STC210	87/ 2/12	21:31	12-00.0N	135-58.8E	4710M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	20	27.171	34.327	27.166	1.022244
40	40	27.146	34.332	27.136	1.022343
60	59	27.134	34.334	27.119	1.022433
80	79	24.926	34.981	24.908	1.023696
100	99	23.275	34.997	23.253	1.024286
120	119	21.291	35.008	21.267	1.024944
140	139	20.065	34.945	20.038	1.025314
160	159	17.747	34.644	17.719	1.025766
180	179	15.778	34.642	15.749	1.026319
200	199	14.095	34.488	14.065	1.026662
250	249	10.872	34.394	10.841	1.027453
300	298	9.572	34.427	9.537	1.027934
350	348	8.689	34.454	8.651	1.028330
400	397	7.880	34.477	7.839	1.028702
450	447	7.326	34.481	7.281	1.029018
500	496	6.963	34.486	6.914	1.029303
550	546	6.392	34.478	6.341	1.029608
600	596	6.226	34.487	6.171	1.029865
650	645	5.825	34.493	5.767	1.030155
700	695	5.520	34.501	5.459	1.030431
750	744	5.267	34.508	5.203	1.030698
800	794	4.996	34.520	4.929	1.030972
850	843	4.777	34.524	4.707	1.031232
900	893	4.568	34.532	4.495	1.031494
950	942	4.426	34.535	4.349	1.031744
1000	992	4.331	34.532	4.251	1.031984
1100	1091	3.945	34.551	3.859	1.032502
1200	1189	3.624	34.563	3.533	1.033009
1300	1288	3.301	34.572	3.204	1.033512
1400	1387	3.071	34.580	2.969	1.034001
1500	1485	2.881	34.590	2.772	1.034488
1600	1584	2.721	34.597	2.606	1.034968
1700	1682	2.537	34.605	2.416	1.035451
1800	1781	2.439	34.612	2.311	1.035922
1900	1879	2.335	34.617	2.200	1.036391
2000	1978	2.227	34.628	2.085	1.036865
2200	2175	2.033	34.635	1.877	1.037797
2400	2371	1.896	34.645	1.724	1.038721
2600	2568	1.797	34.653	1.609	1.039634
2800	2764	1.708	34.658	1.503	1.040542
3000	2960	1.642	34.663	1.419	1.041442
3200	3156	1.585	34.667	1.344	1.042337
3400	3352	1.545	34.674	1.285	1.043231
3600	3547	1.520	34.677	1.240	1.044110
3800	3743	1.513	34.679	1.211	1.044990
4000	3938	1.511	34.682	1.188	1.045857
4200	4133	1.497	34.683	1.152	1.046725
4400	4327	1.514	34.684	1.145	1.047585
4600	4522	1.527	34.684	1.134	1.048441

STC211	87/ 2/13	02:37	11-59.7N	135-29.5E	4490M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.189	34.285	27.185	1.022206
40	40	27.162	34.289	27.152	1.022305
60	59	27.163	34.291	27.148	1.022391
80	79	27.136	34.311	27.116	1.022501
100	99	23.873	34.962	23.851	1.024083
120	119	22.266	35.013	22.241	1.024674
140	140	20.124	34.913	20.097	1.025279
160	159	19.055	34.837	19.026	1.025583
180	179	17.269	34.732	17.238	1.026036
200	199	15.530	34.635	15.498	1.026459
250	249	12.726	34.429	12.691	1.027122
300	298	10.399	34.418	10.363	1.027781
350	348	9.382	34.436	9.342	1.028199
400	397	8.412	34.478	8.369	1.028618
450	447	7.783	34.451	7.737	1.028923
500	497	7.300	34.454	7.250	1.029226
550	546	6.822	34.483	6.769	1.029548
600	596	6.198	34.493	6.143	1.029874
650	645	6.002	34.500	5.943	1.030134
700	695	5.731	34.465	5.669	1.030373
750	744	5.427	34.510	5.362	1.030678
800	794	5.227	34.514	5.158	1.030936
850	843	5.049	34.517	4.977	1.031191
900	893	4.784	34.523	4.709	1.031458
950	942	4.540	34.531	4.463	1.031725
1000	992	4.311	34.538	4.231	1.031988
1100	1091	3.885	34.554	3.800	1.032512
1200	1189	3.554	34.560	3.463	1.033014
1300	1288	3.327	34.571	3.230	1.033507
1400	1387	3.095	34.579	2.992	1.033998
1500	1485	2.924	34.587	2.815	1.034480
1600	1584	2.784	34.591	2.668	1.034954
1700	1683	2.619	34.602	2.497	1.035438
1800	1781	2.463	34.610	2.334	1.035917
1900	1880	2.330	34.619	2.195	1.036393
2000	1978	2.203	34.627	2.061	1.036867
2200	2175	2.016	34.637	1.860	1.037801
2400	2371	1.822	34.648	1.652	1.038733
2600	2568	1.710	34.655	1.524	1.039648
2800	2764	1.652	34.660	1.448	1.040551
3000	2960	1.602	34.665	1.380	1.041449
3200	3156	1.541	34.671	1.301	1.042346
3400	3352	1.522	34.673	1.262	1.043231
3600	3547	1.524	34.676	1.243	1.044109
3800	3742	1.532	34.677	1.230	1.044981
4000	3938	1.532	34.678	1.208	1.045851
4200	4133	1.521	34.681	1.175	1.046720
4400	4328	1.533	34.681	1.163	1.047579

STC212	87/ 2/13	07:47	11-59.8N	134-57.9E	4560M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.101	34.353	27.097	1.022285
40	39	27.081	34.357	27.071	1.022381
60	59	27.089	34.357	27.074	1.022465
80	79	26.004	34.649	25.985	1.023113
100	99	23.522	34.985	23.500	1.024205
120	119	21.440	34.905	21.416	1.024824
140	139	18.654	34.760	18.629	1.025539
160	159	16.267	34.708	16.241	1.026168
180	179	15.279	34.613	15.251	1.026409
200	199	13.853	34.510	13.824	1.026730
250	248	11.035	34.409	11.004	1.027433
300	298	10.095	34.430	10.059	1.027844
350	348	8.808	34.445	8.769	1.028301
400	397	7.970	34.460	7.928	1.028674
450	447	7.547	34.459	7.501	1.028966
500	496	7.107	34.464	7.058	1.029263
550	546	6.727	34.477	6.674	1.029557
600	596	6.357	34.484	6.301	1.029844
650	645	5.986	34.479	5.927	1.030120
700	695	5.731	34.475	5.669	1.030382
750	744	5.423	34.506	5.358	1.030675
800	794	5.138	34.512	5.070	1.030947
850	843	4.942	34.520	4.871	1.031207
900	893	4.766	34.524	4.691	1.031463
950	942	4.587	34.529	4.509	1.031717
1000	992	4.496	34.533	4.415	1.031960
1100	1090	4.045	34.547	3.958	1.032485
1200	1189	3.714	34.557	3.622	1.032991
1300	1288	3.406	34.568	3.308	1.033495
1400	1387	3.088	34.580	2.985	1.034000
1500	1485	2.867	34.590	2.759	1.034490
1600	1584	2.708	34.597	2.593	1.034969
1700	1683	2.543	34.602	2.422	1.035448
1800	1781	2.430	34.612	2.302	1.035923
1900	1879	2.275	34.622	2.141	1.036402
2000	1978	2.184	34.627	2.043	1.036869
2200	2175	2.013	34.635	1.857	1.037799
2400	2371	1.835	34.647	1.664	1.038730
2600	2568	1.739	34.653	1.552	1.039641
2800	2764	1.678	34.658	1.474	1.040545
3000	2960	1.633	34.664	1.410	1.041444
3200	3156	1.600	34.667	1.359	1.042335
3400	3351	1.564	34.670	1.303	1.043221
3600	3547	1.518	34.676	1.238	1.044110
3800	3742	1.499	34.680	1.198	1.044989
4000	3938	1.488	34.682	1.165	1.045861
4200	4133	1.495	34.683	1.150	1.046725
4400	4327	1.514	34.683	1.145	1.047584

STC213	87/ 2/13	12:32	12-00.1N	134-29.7E	3400M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	20	27.044	34.434	27.039	1.022367
40	40	26.881	34.468	26.871	1.022531
60	60	27.018	34.353	27.003	1.022486
80	80	27.018	34.348	26.998	1.022571
100	99	23.462	34.996	23.440	1.024230
120	119	20.504	34.883	20.481	1.025063
140	139	18.833	34.836	18.807	1.025553
160	159	17.068	34.755	17.041	1.026015
180	179	15.609	34.629	15.580	1.026347
200	199	14.582	34.549	14.552	1.026603
250	248	11.567	34.408	11.535	1.027332
300	298	9.479	34.417	9.445	1.027942
350	348	8.590	34.449	8.552	1.028340
400	397	7.923	34.454	7.881	1.028677
450	447	7.325	34.449	7.280	1.028993
500	496	6.809	34.472	6.761	1.029314
550	546	6.213	34.469	6.163	1.029626
600	596	5.975	34.485	5.921	1.029901
650	646	5.790	34.492	5.732	1.030163
700	695	5.592	34.502	5.530	1.030422
750	744	5.410	34.507	5.345	1.030679
800	794	5.154	34.514	5.086	1.030947
850	843	4.895	34.521	4.824	1.031215
900	893	4.761	34.525	4.686	1.031464
950	942	4.586	34.531	4.508	1.031719
1000	992	4.409	34.536	4.328	1.031975
1100	1091	4.035	34.547	3.949	1.032488
1200	1189	3.735	34.557	3.643	1.032990
1300	1288	3.371	34.568	3.274	1.033500
1400	1387	3.204	34.573	3.100	1.033979
1500	1485	2.970	34.584	2.860	1.034472
1600	1584	2.785	34.593	2.669	1.034957
1700	1683	2.626	34.601	2.504	1.035440
1800	1781	2.506	34.608	2.377	1.035910
1900	1880	2.386	34.613	2.250	1.036382
2000	1978	2.229	34.624	2.087	1.036861
2200	2175	2.059	34.633	1.902	1.037792
2400	2371	1.859	34.645	1.688	1.038726
2600	2568	1.713	34.656	1.527	1.039648
2800	2764	1.648	34.659	1.444	1.040551
3000	2960	1.611	34.666	1.389	1.041448
3200	3156	1.568	34.670	1.327	1.042341

STC214	87/ 2/13	17:46	11-58.7N	133-59.1E	5400M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.148	34.285	27.144	1.022219
40	40	27.106	34.289	27.096	1.022323
60	59	27.107	34.290	27.092	1.022408
80	79	26.842	34.398	26.823	1.022660
100	99	23.500	35.079	23.478	1.024282
120	119	21.972	35.075	21.947	1.024805
140	139	19.180	34.790	19.154	1.025428
160	159	17.488	34.760	17.460	1.025917
180	179	15.430	34.627	15.402	1.026386
200	199	13.866	34.473	13.837	1.026698
250	249	11.164	34.446	11.132	1.027438
300	298	9.763	34.411	9.728	1.027887
350	348	8.842	34.449	8.803	1.028299
400	397	8.217	34.451	8.175	1.028627
450	447	7.772	34.445	7.726	1.028921
500	497	7.194	34.447	7.145	1.029237
550	546	6.576	34.443	6.524	1.029552
600	596	6.235	34.478	6.180	1.029857
650	645	5.867	34.496	5.809	1.030150
700	695	5.731	34.473	5.669	1.030378
750	744	5.456	34.501	5.391	1.030668
800	794	5.252	34.506	5.183	1.030927
850	843	4.921	34.521	4.850	1.031211
900	893	4.742	34.527	4.668	1.031467
950	942	4.543	34.533	4.466	1.031726
1000	992	4.260	34.539	4.180	1.031996
1100	1090	3.944	34.550	3.858	1.032501
1200	1189	3.653	34.560	3.561	1.033002
1300	1288	3.396	34.568	3.298	1.033496
1400	1387	3.173	34.576	3.069	1.033985
1500	1485	2.968	34.587	2.858	1.034474
1600	1584	2.781	34.595	2.665	1.034958
1700	1683	2.584	34.606	2.462	1.035445
1800	1781	2.442	34.614	2.314	1.035923
1900	1880	2.346	34.618	2.211	1.036391
2000	1978	2.266	34.625	2.123	1.036857
2200	2175	2.103	34.634	1.945	1.037786
2400	2371	1.946	34.641	1.773	1.038710
2600	2568	1.807	34.649	1.619	1.039629
2800	2764	1.717	34.656	1.512	1.040538
3000	2960	1.640	34.662	1.417	1.041440
3200	3156	1.588	34.668	1.347	1.042336
3400	3351	1.563	34.670	1.302	1.043221
3600	3547	1.550	34.672	1.269	1.044102
3800	3742	1.551	34.675	1.248	1.044976
4000	3938	1.563	34.675	1.238	1.045842
4200	4133	1.577	34.676	1.229	1.046706
4400	4327	1.596	34.675	1.224	1.047564
4600	4522	1.618	34.676	1.222	1.048417
4800	4717	1.641	34.677	1.220	1.049268
5000	4911	1.665	34.676	1.218	1.050112
5200	5105	1.691	34.675	1.218	1.050952

STC215	87/ 2/14	02:49	12-59.7N	133-58.6E	5550M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.143	34.325	27.139	1.022251
40	39	27.120	34.330	27.110	1.022348
60	60	27.123	34.330	27.108	1.022434
80	79	27.125	34.336	27.105	1.022523
100	99	23.995	35.081	23.973	1.024138
120	120	22.196	35.080	22.171	1.024750
140	139	20.272	34.965	20.245	1.025274
160	159	18.727	34.854	18.698	1.025680
180	179	16.148	34.672	16.119	1.026257
200	199	14.977	34.525	14.946	1.026498
250	248	12.737	34.447	12.702	1.027134
300	298	10.365	34.416	10.329	1.027786
350	348	8.379	34.374	8.342	1.028316
400	398	7.820	34.446	7.779	1.028687
450	447	7.432	34.452	7.387	1.028977
500	497	6.945	34.452	6.897	1.029279
550	546	6.482	34.448	6.430	1.029570
600	596	6.150	34.469	6.095	1.029862
650	645	5.947	34.490	5.888	1.030135
700	695	5.713	34.462	5.651	1.030375
750	744	5.483	34.512	5.417	1.030671
800	794	5.311	34.523	5.242	1.030931
850	843	5.127	34.526	5.054	1.031187
900	893	4.882	34.482	4.807	1.031413
950	942	4.590	34.517	4.512	1.031708
1000	992	4.456	34.536	4.375	1.031967
1100	1090	4.143	34.543	4.056	1.032470
1200	1189	3.861	34.553	3.767	1.032969
1300	1288	3.522	34.554	3.423	1.033468
1400	1387	3.259	34.563	3.154	1.033964
1500	1485	3.028	34.570	2.918	1.034453
1600	1584	2.760	34.586	2.644	1.034954
1700	1685	2.570	34.595	2.448	1.035452
1800	1781	2.409	34.603	2.281	1.035918
1900	1880	2.280	34.612	2.146	1.036395
2000	1978	2.156	34.622	2.015	1.036869
2200	2175	1.959	34.635	1.804	1.037807
2400	2371	1.836	34.645	1.665	1.038729
2600	2568	1.707	34.655	1.521	1.039648
2800	2764	1.644	34.660	1.440	1.040551
3000	2960	1.592	34.666	1.370	1.041451
3200	3156	1.561	34.670	1.321	1.042342
3400	3351	1.537	34.673	1.277	1.043228
3600	3547	1.534	34.675	1.253	1.044107
3800	3743	1.540	34.675	1.238	1.044979
4000	3938	1.551	34.676	1.226	1.045846
4200	4133	1.572	34.678	1.224	1.046708
4400	4328	1.594	34.676	1.222	1.047565
4600	4522	1.617	34.677	1.221	1.048418
4800	4717	1.641	34.677	1.220	1.049268
5000	4911	1.666	34.676	1.219	1.050113
5200	5105	1.691	34.677	1.218	1.050953
5400	5299	1.716	34.677	1.216	1.051791

STC011	87/ 2/14	09:46	12-31.2N	133-30.8E	5660M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	27.075	34.337	27.071	1.022282
40	39	27.053	34.341	27.043	1.022378
60	59	27.058	34.340	27.043	1.022462
80	79	27.061	34.341	27.041	1.022547
100	99	23.425	35.096	23.403	1.024317
120	119	21.355	35.025	21.331	1.024939
140	139	19.423	34.847	19.397	1.025408
160	159	16.757	34.709	16.730	1.026053
180	179	15.857	34.648	15.828	1.026305
200	199	14.111	34.552	14.081	1.026707
250	248	11.867	34.466	11.834	1.027320
300	298	9.742	34.316	9.707	1.027818
350	348	8.630	34.376	8.592	1.028276
400	397	8.001	34.435	7.959	1.028650
450	447	7.577	34.453	7.531	1.028956
500	497	6.890	34.451	6.842	1.029285
550	546	6.452	34.459	6.401	1.029584
600	596	6.131	34.468	6.076	1.029864
650	647	5.886	34.481	5.827	1.030146
700	695	5.631	34.492	5.569	1.030408
750	744	5.366	34.501	5.301	1.030680
800	794	5.150	34.513	5.082	1.030946
850	843	5.009	34.518	4.937	1.031197
900	893	4.842	34.523	4.767	1.031450
950	942	4.649	34.538	4.571	1.031715
1000	992	4.461	34.539	4.380	1.031970
1100	1090	4.082	34.547	3.995	1.032481
1200	1189	3.807	34.555	3.714	1.032978
1300	1288	3.524	34.562	3.425	1.033475
1400	1387	3.228	34.574	3.124	1.033978
1500	1485	2.989	34.583	2.879	1.034469
1600	1584	2.814	34.591	2.698	1.034951
1700	1683	2.670	34.600	2.547	1.035429
1800	1781	2.526	34.606	2.397	1.035906
1900	1880	2.400	34.613	2.264	1.036379
2000	1978	2.283	34.619	2.140	1.036850
2200	2175	2.094	34.630	1.937	1.037784
2400	2371	1.918	34.642	1.746	1.038713
2600	2568	1.780	34.651	1.592	1.039634
2800	2764	1.697	34.658	1.492	1.040542
3000	2960	1.631	34.663	1.409	1.041443
3200	3156	1.589	34.667	1.348	1.042336
3400	3351	1.565	34.670	1.304	1.043221
3600	3547	1.556	34.673	1.275	1.044102
3800	3742	1.556	34.674	1.253	1.044974
4000	3938	1.564	34.675	1.239	1.045842
4200	4133	1.578	34.677	1.230	1.046707
4400	4328	1.597	34.677	1.225	1.047565
4600	4522	1.618	34.676	1.222	1.048417
4800	4717	1.642	34.676	1.221	1.049266
5000	4911	1.666	34.676	1.219	1.050112
5200	5105	1.691	34.677	1.218	1.050953
5400	5299	1.717	34.676	1.217	1.051790
5600	5493	1.744	34.675	1.217	1.052623

STC216	87/ 2/14	17:04	11-59.7N	132-58.6E	5830M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	26.949	34.400	26.945	1.022369
40	39	26.857	34.511	26.847	1.022569
60	60	26.842	34.550	26.827	1.022689
80	79	25.545	34.906	25.526	1.023449
100	99	22.488	35.069	22.467	1.024568
120	119	20.107	34.908	20.084	1.025188
140	139	17.522	34.708	17.498	1.025782
160	159	16.654	34.694	16.627	1.026067
180	179	15.074	34.560	15.046	1.026415
200	199	13.892	34.528	13.863	1.026735
250	248	11.547	34.457	11.515	1.027374
300	298	9.984	34.414	9.948	1.027852
350	348	8.916	34.429	8.877	1.028271
400	397	8.011	34.410	7.969	1.028628
450	447	7.197	34.416	7.153	1.028985
500	496	6.742	34.450	6.694	1.029306
550	546	6.337	34.474	6.286	1.029612
600	596	6.105	34.481	6.050	1.029878
650	645	5.790	34.493	5.732	1.030160
700	695	5.519	34.506	5.458	1.030435
750	744	5.239	34.514	5.175	1.030707
800	794	5.089	34.519	5.021	1.030959
850	843	4.782	34.524	4.712	1.031232
900	893	4.548	34.534	4.475	1.031498
950	942	4.383	34.540	4.307	1.031753
1000	992	4.213	34.541	4.134	1.032003
1100	1090	3.815	34.555	3.730	1.032521
1200	1189	3.503	34.567	3.413	1.033027
1300	1288	3.304	34.574	3.207	1.033513
1400	1387	3.040	34.584	2.938	1.034009
1500	1485	2.879	34.590	2.770	1.034488
1600	1584	2.714	34.600	2.599	1.034970
1700	1682	2.590	34.607	2.468	1.035445
1800	1781	2.447	34.615	2.319	1.035922
1900	1879	2.342	34.621	2.207	1.036393
2000	1978	2.241	34.626	2.099	1.036861
2200	2175	2.048	34.636	1.891	1.037795
2400	2371	1.911	34.644	1.739	1.038717
2600	2568	1.796	34.652	1.608	1.039633
2800	2764	1.701	34.657	1.496	1.040541
3000	2960	1.640	34.662	1.417	1.041440
3200	3156	1.591	34.667	1.350	1.042336
3400	3351	1.560	34.672	1.299	1.043224
3600	3547	1.547	34.674	1.266	1.044104
3800	3742	1.551	34.675	1.248	1.044976
4000	3938	1.559	34.677	1.234	1.045845
4200	4133	1.575	34.677	1.227	1.046708
4400	4327	1.594	34.676	1.222	1.047565
4600	4522	1.616	34.677	1.220	1.048419
4800	4717	1.640	34.677	1.219	1.049268
5000	4911	1.665	34.677	1.218	1.050113
5200	5105	1.690	34.676	1.217	1.050953
5400	5299	1.715	34.677	1.215	1.051791

STC218	87/ 2/15	15:52	13-00.5N	131-59.1E	5800M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	26.777	34.578	26.773	1.022558
40	39	26.643	34.605	26.633	1.022707
60	59	26.636	34.610	26.621	1.022799
80	79	26.582	34.627	26.563	1.022915
100	99	25.498	34.950	25.475	1.023583
120	119	23.181	35.080	23.155	1.024462
140	139	20.252	34.942	20.225	1.025262
160	159	18.650	34.827	18.621	1.025680
180	179	16.468	34.679	16.438	1.026187
200	199	15.219	34.621	15.188	1.026518
250	249	11.650	34.351	11.617	1.027273
300	298	10.073	34.373	10.037	1.027804
350	348	9.067	34.413	9.028	1.028233
400	397	8.011	34.406	7.969	1.028625
450	447	7.381	34.427	7.336	1.028966
500	497	6.780	34.445	6.732	1.029298
550	546	6.525	34.457	6.473	1.029571
600	596	6.195	34.479	6.140	1.029863
650	645	5.955	34.490	5.896	1.030133
700	698	5.631	34.485	5.569	1.030416
750	744	5.393	34.495	5.328	1.030671
800	794	5.232	34.502	5.163	1.030926
850	843	4.993	34.509	4.921	1.031192
900	893	4.808	34.515	4.733	1.031449
950	942	4.575	34.527	4.497	1.031717
1000	992	4.368	34.529	4.288	1.031974
1100	1090	4.046	34.545	3.959	1.032483
1200	1189	3.654	34.550	3.562	1.032993
1300	1288	3.387	34.558	3.290	1.033489
1400	1387	3.095	34.567	2.992	1.033988
1500	1485	2.819	34.580	2.711	1.034489
1600	1584	2.645	34.589	2.531	1.034971
1700	1683	2.469	34.601	2.349	1.035456
1800	1781	2.296	34.608	2.170	1.035937
1900	1880	2.173	34.618	2.040	1.036412
2000	1978	2.066	34.626	1.926	1.036884
2200	2175	1.914	34.639	1.760	1.037816
2400	2371	1.782	34.649	1.612	1.038739
2600	2568	1.698	34.655	1.512	1.039649
2800	2764	1.630	34.660	1.427	1.040554
3000	2960	1.587	34.665	1.366	1.041451
3200	3156	1.557	34.669	1.317	1.042342
3400	3351	1.542	34.671	1.282	1.043226
3600	3547	1.540	34.672	1.259	1.044105
3800	3742	1.546	34.674	1.243	1.044976
4000	3938	1.556	34.674	1.231	1.045844
4200	4133	1.572	34.676	1.224	1.046706
4400	4327	1.592	34.676	1.221	1.047565
4600	4522	1.614	34.676	1.218	1.048417
4800	4717	1.638	34.676	1.217	1.049267
5000	4911	1.663	34.675	1.217	1.050111
5200	5106	1.688	34.675	1.215	1.050953
5400	5299	1.714	34.674	1.215	1.051789
5600	5494	1.740	34.675	1.213	1.052624

STC219	87/ 2/15	01:01	11-59.5N	131-59.6E	5770M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	26.962	34.323	26.958	1.022307
40	39	26.937	34.327	26.927	1.022405
60	59	26.893	34.359	26.878	1.022528
80	79	25.479	34.658	25.460	1.023282
100	99	22.544	34.805	22.523	1.024350
120	119	20.961	34.837	20.937	1.024904
140	139	19.044	34.798	19.018	1.025469
160	159	17.038	34.695	17.011	1.025976
180	179	15.669	34.632	15.640	1.026336
200	199	15.007	34.598	14.976	1.026548
250	249	11.531	34.390	11.499	1.027327
300	298	9.581	34.367	9.546	1.027885
350	348	8.682	34.376	8.644	1.028268
400	397	8.008	34.406	7.966	1.028626
450	447	7.416	34.426	7.371	1.028960
500	496	6.906	34.446	6.858	1.029280
550	546	6.459	34.455	6.408	1.029579
600	596	6.214	34.468	6.159	1.029852
650	645	5.846	34.483	5.788	1.030144
700	695	5.697	34.483	5.635	1.030395
750	744	5.510	34.496	5.444	1.030656
800	794	5.316	34.504	5.247	1.030916
850	843	5.048	34.511	4.976	1.031186
900	893	4.826	34.516	4.751	1.031447
950	942	4.602	34.524	4.524	1.031712
1000	992	4.450	34.533	4.369	1.031966
1100	1090	4.100	34.544	4.013	1.032475
1200	1189	3.821	34.554	3.728	1.032975
1300	1288	3.505	34.564	3.406	1.033479
1400	1387	3.213	34.573	3.109	1.033978
1500	1486	2.992	34.583	2.882	1.034470
1600	1584	2.814	34.593	2.698	1.034952
1700	1683	2.621	34.601	2.499	1.035437
1800	1781	2.485	34.608	2.356	1.035913
1900	1880	2.346	34.617	2.211	1.036389
2000	1978	2.223	34.623	2.081	1.036861
2200	2175	2.038	34.634	1.881	1.037796
2400	2371	1.867	34.644	1.696	1.038723
2600	2568	1.758	34.653	1.571	1.039639
2800	2764	1.688	34.657	1.483	1.040544
3000	2960	1.624	34.663	1.402	1.041444
3200	3156	1.588	34.668	1.347	1.042337
3400	3351	1.561	34.671	1.300	1.043222
3600	3547	1.550	34.672	1.269	1.044102
3800	3743	1.543	34.675	1.241	1.044978
4000	3938	1.554	34.676	1.229	1.045845
4200	4133	1.569	34.678	1.221	1.046709
4400	4328	1.591	34.676	1.220	1.047565
4600	4522	1.613	34.677	1.217	1.048418
4800	4717	1.638	34.675	1.217	1.049268
5000	4911	1.662	34.676	1.216	1.050112
5200	5105	1.687	34.676	1.214	1.050954
5400	5299	1.713	34.675	1.214	1.051790
5600	5493	1.739	34.676	1.212	1.052625

STC220 PRESSURE	87/ 2/16 DEPTH	11:40 T	12-58.6N S	129-58.9E POT-T	5920M DENSITY
20	20	26.742	34.322	26.738	1.022377
40	40	26.720	34.347	26.710	1.022489
60	59	26.711	34.385	26.696	1.022606
80	80	25.703	34.774	25.684	1.023301
100	99	22.490	35.060	22.469	1.024560
120	119	20.751	34.941	20.727	1.025040
140	139	18.767	34.796	18.741	1.025539
160	159	17.298	34.718	17.271	1.025931
180	179	15.934	34.650	15.905	1.026290
200	199	15.003	34.605	14.972	1.026554
250	249	11.856	34.353	11.823	1.027235
300	298	9.968	34.290	9.932	1.027759
350	348	8.512	34.380	8.474	1.028299
400	398	7.234	34.296	7.195	1.028659
450	447	6.349	34.327	6.308	1.029038
500	497	5.945	34.350	5.900	1.029341
550	546	6.018	34.430	5.968	1.029622
600	596	5.550	34.441	5.498	1.029922
650	645	5.122	34.411	5.068	1.030186
700	695	5.399	34.505	5.339	1.030450
750	744	5.123	34.569	5.059	1.030766
800	794	4.917	34.520	4.850	1.030983
850	843	4.698	34.528	4.628	1.031246
900	893	4.545	34.534	4.472	1.031500
950	942	4.394	34.536	4.318	1.031748
1000	991	4.273	34.543	4.193	1.031997
1100	1090	3.883	34.547	3.798	1.032507
1200	1190	3.539	34.559	3.448	1.033020
1300	1288	3.223	34.570	3.127	1.033520
1400	1387	3.030	34.575	2.928	1.034003
1500	1485	2.805	34.582	2.697	1.034492
1600	1584	2.668	34.591	2.554	1.034970
1700	1682	2.448	34.600	2.328	1.035459
1800	1781	2.269	34.611	2.143	1.035943
1900	1879	2.157	34.623	2.025	1.036418
2000	1978	2.056	34.630	1.917	1.036888
2200	2175	1.904	34.640	1.750	1.037817
2400	2371	1.779	34.647	1.609	1.038738
2600	2568	1.704	34.654	1.518	1.039648
2800	2764	1.655	34.659	1.451	1.040550
3000	2960	1.608	34.664	1.386	1.041447
3200	3156	1.583	34.666	1.342	1.042336
3400	3351	1.559	34.669	1.298	1.043222
3600	3547	1.549	34.672	1.268	1.044102
3800	3742	1.547	34.673	1.244	1.044975
4000	3938	1.557	34.675	1.232	1.045844
4200	4133	1.572	34.676	1.224	1.046708
4400	4328	1.591	34.676	1.220	1.047565
4600	4523	1.611	34.676	1.215	1.048421
4800	4717	1.634	34.676	1.213	1.049268
5000	4912	1.658	34.676	1.212	1.050116
5200	5105	1.682	34.676	1.210	1.050955
5400	5299	1.708	34.676	1.209	1.051792
5600	5493	1.734	34.675	1.207	1.052625
5800	5687	1.762	34.675	1.207	1.053454

STC221	87/ 2/16	22:04	11-59.4N	128-58.3E	5660M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	26.567	34.411	26.563	1.022499
40	39	26.547	34.457	26.537	1.022626
60	59	26.427	34.541	26.413	1.022813
80	80	24.462	34.954	24.444	1.023816
100	99	21.856	34.898	21.836	1.024616
120	119	19.398	34.850	19.376	1.025330
140	139	17.836	34.755	17.811	1.025741
160	159	16.149	34.667	16.123	1.026164
180	179	14.571	34.560	14.544	1.026525
200	199	13.938	34.520	13.909	1.026720
250	248	11.132	34.376	11.100	1.027390
300	298	9.690	34.462	9.655	1.027941
350	348	8.585	34.356	8.547	1.028268
400	397	7.915	34.414	7.874	1.028646
450	447	7.186	34.408	7.142	1.028980
500	496	6.769	34.434	6.721	1.029290
550	546	6.409	34.448	6.358	1.029581
600	596	6.064	34.467	6.009	1.029873
650	645	5.818	34.489	5.760	1.030152
700	695	5.537	34.497	5.476	1.030425
750	744	5.284	34.503	5.220	1.030692
800	794	5.018	34.515	4.951	1.030966
850	843	4.868	34.520	4.797	1.031218
900	893	4.676	34.527	4.602	1.031476
950	942	4.501	34.534	4.424	1.031734
1000	991	4.237	34.540	4.158	1.032000
1100	1090	3.960	34.547	3.874	1.032497
1200	1189	3.657	34.560	3.565	1.033001
1300	1288	3.386	34.563	3.289	1.033494
1400	1387	3.107	34.576	3.004	1.033994
1500	1485	2.928	34.586	2.819	1.034479
1600	1590	2.691	34.595	2.576	1.034997
1700	1682	2.546	34.605	2.425	1.035450
1800	1781	2.448	34.613	2.320	1.035920
1900	1879	2.340	34.615	2.205	1.036388
2000	1978	2.197	34.625	2.055	1.036866
2200	2175	2.007	34.636	1.851	1.037800
2400	2371	1.866	34.644	1.695	1.038723
2600	2568	1.739	34.653	1.552	1.039641
2800	2764	1.672	34.659	1.468	1.040546
3000	2960	1.620	34.663	1.398	1.041445
3200	3156	1.584	34.666	1.343	1.042336
3400	3351	1.554	34.670	1.293	1.043223
3600	3547	1.544	34.672	1.263	1.044103
3800	3742	1.542	34.674	1.240	1.044978
4000	3937	1.555	34.675	1.230	1.045844
4200	4133	1.570	34.675	1.222	1.046706
4400	4327	1.591	34.675	1.220	1.047564
4600	4522	1.613	34.675	1.217	1.048417
4800	4717	1.636	34.675	1.215	1.049267
5000	4911	1.661	34.674	1.215	1.050111
5200	5105	1.685	34.675	1.212	1.050955
5400	5299	1.711	34.675	1.212	1.051791
5600	5493	1.737	34.675	1.210	1.052625

STC222	87/ 2/1710:06	12-58.4N	127-57.0E	5230M	
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	26.434	34.589	26.430	1.022676
40	40	26.408	34.594	26.398	1.022774
60	59	26.407	34.608	26.393	1.022870
80	79	26.457	34.770	26.438	1.023063
100	99	25.810	34.951	25.786	1.023488
120	119	23.244	35.095	23.218	1.024456
140	139	21.250	35.027	21.222	1.025056
160	159	19.721	34.934	19.691	1.025483
180	179	17.910	34.820	17.878	1.025947
200	199	16.596	34.735	16.563	1.026290
250	249	14.507	34.581	14.469	1.026866
300	298	11.492	34.396	11.453	1.027561
350	348	9.734	34.296	9.693	1.028028
400	397	8.760	34.431	8.716	1.028524
450	447	7.967	34.440	7.920	1.028886
500	497	7.118	34.452	7.069	1.029253
550	546	6.672	34.458	6.620	1.029551
600	596	6.345	34.467	6.289	1.029833
650	646	6.060	34.476	6.001	1.030109
700	695	5.832	34.490	5.769	1.030378
750	744	5.601	34.497	5.535	1.030643
800	794	5.353	34.508	5.284	1.030914
850	843	5.083	34.514	5.011	1.031184
900	893	4.873	34.516	4.798	1.031442
950	942	4.668	34.529	4.590	1.031706
1000	992	4.446	34.532	4.365	1.031966
1100	1091	4.110	34.541	4.023	1.032474
1200	1189	3.803	34.550	3.710	1.032974
1300	1288	3.509	34.559	3.410	1.033475
1400	1387	3.203	34.567	3.099	1.033975
1500	1485	2.965	34.576	2.855	1.034466
1600	1584	2.779	34.584	2.663	1.034949
1700	1683	2.602	34.597	2.480	1.035439
1800	1781	2.473	34.608	2.344	1.035914
1900	1880	2.257	34.621	2.123	1.036405
2000	1978	2.081	34.626	1.941	1.036883
2200	2175	1.947	34.637	1.792	1.037809
2400	2371	1.832	34.644	1.661	1.038728
2600	2568	1.735	34.651	1.548	1.039640
2800	2764	1.659	34.658	1.455	1.040547
3000	2960	1.608	34.661	1.386	1.041445
3200	3156	1.564	34.666	1.323	1.042339
3400	3352	1.535	34.672	1.275	1.043227
3600	3547	1.526	34.674	1.245	1.044107
3800	3743	1.534	34.674	1.232	1.044981
4000	3938	1.547	34.676	1.223	1.045846
4200	4133	1.564	34.677	1.216	1.046710
4400	4328	1.585	34.676	1.214	1.047565
4600	4522	1.607	34.677	1.211	1.048420
4800	4717	1.631	34.676	1.210	1.049268
5000	4911	1.654	34.677	1.208	1.050115
5200	5106	1.679	34.677	1.207	1.050957
5400	5300	1.709	34.676	1.210	1.051792
5600	5494	1.733	34.676	1.206	1.052628

STC223	87/ 2/17	21:55	11-58.4N	126-59.5E	5710M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	26.577	34.373	26.573	1.022467
40	40	26.560	34.380	26.550	1.022565
60	59	26.565	34.384	26.551	1.022652
80	79	26.576	34.408	26.557	1.022752
100	99	24.643	34.731	24.620	1.023678
120	119	21.676	34.858	21.652	1.024723
140	139	19.513	34.849	19.487	1.025387
160	159	18.187	34.806	18.159	1.025780
180	179	17.210	34.762	17.179	1.026074
200	199	15.912	34.662	15.880	1.026392
250	249	12.666	34.406	12.632	1.027117
300	298	10.765	34.390	10.728	1.027694
350	348	9.235	34.352	9.195	1.028158
400	397	8.460	34.393	8.417	1.028543
450	447	6.847	34.274	6.804	1.028925
500	497	6.286	34.311	6.240	1.029263
550	546	6.089	34.388	6.039	1.029579
600	596	5.467	34.388	5.415	1.029893
650	645	5.111	34.393	5.057	1.030172
700	695	5.336	34.487	5.276	1.030444
750	744	4.781	34.485	4.720	1.030745
800	794	4.753	34.540	4.687	1.031020
850	843	4.434	34.537	4.366	1.031288
900	893	4.114	34.550	4.044	1.031567
950	942	3.991	34.561	3.918	1.031820
1000	992	3.850	34.564	3.774	1.032068
1100	1091	3.621	34.571	3.538	1.032559
1200	1189	3.449	34.582	3.359	1.033045
1300	1288	3.220	34.579	3.124	1.033527
1400	1387	3.086	34.590	2.983	1.034007
1500	1485	2.879	34.591	2.770	1.034490
1600	1584	2.754	34.596	2.639	1.034963
1700	1683	2.587	34.597	2.465	1.035438
1800	1781	2.435	34.606	2.307	1.035916
1900	1880	2.258	34.616	2.124	1.036400
2000	1978	2.143	34.627	2.002	1.036876
2200	2175	1.961	34.639	1.806	1.037809
2400	2371	1.813	34.648	1.643	1.038733
2600	2568	1.735	34.654	1.548	1.039644
2800	2764	1.672	34.660	1.468	1.040547
3000	2960	1.615	34.664	1.393	1.041446
3200	3156	1.584	34.667	1.343	1.042336
3400	3352	1.551	34.670	1.291	1.043225
3600	3547	1.543	34.673	1.262	1.044104
3800	3742	1.544	34.675	1.242	1.044977
4000	3938	1.554	34.676	1.229	1.045845
4200	4133	1.570	34.675	1.222	1.046707
4400	4327	1.591	34.676	1.220	1.047565
4600	4522	1.612	34.676	1.216	1.048418
4800	4717	1.635	34.676	1.214	1.049268
5000	4911	1.659	34.676	1.213	1.050113
5200	5105	1.683	34.676	1.210	1.050955
5400	5299	1.708	34.677	1.209	1.051793
5600	5493	1.733	34.676	1.206	1.052626

STC304 87/ 2/28 17:54 21-39.5N 122-17.6E 4800M					
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	24.129	34.797	24.125	1.023537
40	39	24.103	34.804	24.094	1.023637
60	59	24.103	34.804	24.090	1.023724
80	79	24.102	34.803	24.084	1.023809
100	99	23.982	34.795	23.960	1.023924
120	119	23.557	34.785	23.531	1.024129
140	139	22.733	34.832	22.703	1.024490
160	159	21.732	34.837	21.699	1.024864
180	179	20.377	34.879	20.342	1.025354
200	199	19.466	34.859	19.429	1.025668
250	249	18.376	34.829	18.331	1.026144
300	298	15.997	34.682	15.948	1.026828
350	348	13.967	34.555	13.915	1.027405
400	398	13.189	34.525	13.132	1.027768
450	447	10.991	34.439	10.934	1.028360
500	497	9.447	34.390	9.389	1.028826
550	546	8.537	34.401	8.477	1.029215
600	596	7.823	34.312	7.761	1.029487
650	645	6.460	34.231	6.399	1.029858
700	696	5.630	34.232	5.568	1.030207
750	744	5.450	34.392	5.385	1.030581
800	794	5.244	34.421	5.175	1.030861
850	843	5.069	34.449	4.997	1.031134
900	893	4.755	34.471	4.681	1.031422
950	942	4.247	34.465	4.172	1.031712
1000	992	3.846	34.490	3.770	1.032011
1100	1091	3.460	34.539	3.379	1.032555
1200	1189	3.271	34.556	3.183	1.033048
1300	1288	3.061	34.570	2.967	1.033541
1400	1387	2.910	34.588	2.809	1.034028
1500	1486	2.771	34.593	2.664	1.034504
1600	1584	2.616	34.600	2.502	1.034984
1700	1683	2.476	34.599	2.356	1.035454
1800	1781	2.369	34.605	2.242	1.035925
1900	1880	2.286	34.612	2.152	1.036393
2000	1978	2.217	34.617	2.075	1.036858
2200	2175	1.994	34.633	1.838	1.037800
2400	2372	1.821	34.649	1.651	1.038733
2600	2568	1.714	34.660	1.528	1.039651
2800	2764	1.669	34.663	1.465	1.040550
3000	2960	1.630	34.669	1.408	1.041448
3200	3156	1.607	34.672	1.365	1.042337
3400	3352	1.571	34.675	1.310	1.043224
3600	3547	1.554	34.680	1.273	1.044107
3800	3743	1.556	34.681	1.253	1.044980
4000	3938	1.562	34.682	1.237	1.045848
4200	4133	1.576	34.682	1.228	1.046712
4400	4328	1.590	34.684	1.219	1.047571
4600	4522	1.606	34.684	1.210	1.048426
4800	4717	1.624	34.685	1.204	1.049277

STC303 87/ 2/28 22:35 21-35.8N 122-06.1E 4410M					
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	24.003	34.767	23.999	1.023551
40	40	23.978	34.772	23.969	1.023651
60	60	23.958	34.769	23.945	1.023741
80	79	23.161	34.776	23.144	1.024065
100	99	21.421	34.814	21.401	1.024673
120	119	20.798	34.837	20.774	1.024948
140	139	20.119	34.806	20.092	1.025194
160	159	19.795	34.810	19.765	1.025370
180	179	18.228	34.771	18.196	1.025830
200	199	17.288	34.711	17.254	1.026103
250	248	16.463	34.690	16.422	1.026505
300	298	14.690	34.595	14.644	1.027057
350	348	13.032	34.507	12.983	1.027565
400	397	10.950	34.446	10.899	1.028150
450	447	10.654	34.418	10.598	1.028408
500	497	10.089	34.444	10.029	1.028755
550	546	8.989	34.417	8.927	1.029151
600	596	7.826	34.401	7.763	1.029555
650	646	6.690	34.424	6.628	1.029976
700	695	6.177	34.435	6.112	1.030287
750	744	5.591	34.428	5.525	1.030591
800	794	5.370	34.437	5.301	1.030855
850	843	5.300	34.452	5.226	1.031104
900	893	4.901	34.465	4.826	1.031397
950	942	4.752	34.468	4.673	1.031647
1000	992	4.573	34.476	4.491	1.031905
1100	1091	3.883	34.495	3.798	1.032466
1200	1189	3.588	34.516	3.497	1.032976
1300	1288	3.211	34.556	3.115	1.033510
1400	1387	2.950	34.558	2.849	1.033999
1500	1486	2.760	34.579	2.653	1.034494
1600	1584	2.616	34.588	2.502	1.034974
1700	1683	2.504	34.598	2.383	1.035449
1800	1781	2.292	34.605	2.166	1.035935
1900	1880	2.187	34.615	2.054	1.036408
2000	1978	2.103	34.625	1.963	1.036879
2200	2175	1.925	34.640	1.771	1.037814
2400	2371	1.802	34.649	1.632	1.038735
2600	2568	1.730	34.656	1.543	1.039645
2800	2764	1.688	34.660	1.483	1.040545
3000	2960	1.664	34.666	1.441	1.041440
3200	3156	1.575	34.672	1.334	1.042341
3400	3352	1.557	34.676	1.296	1.043229
3600	3547	1.561	34.677	1.279	1.044104
3800	3743	1.557	34.679	1.254	1.044979
4000	3938	1.560	34.680	1.235	1.045848
4200	4133	1.567	34.683	1.219	1.046714
4400	4328	1.580	34.684	1.209	1.047573

STC302 87/ 3/ 1 02:27 21-36.1N 121-58.4E 3260M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	19	23.650	34.804	23.646	1.023684	
40	39	23.614	34.809	23.605	1.023785	
60	59	23.619	34.808	23.606	1.023869	
80	79	23.614	34.807	23.597	1.023956	
100	99	23.599	34.809	23.577	1.024048	
120	119	23.488	34.805	23.462	1.024164	
140	139	23.231	34.810	23.201	1.024330	
160	159	23.078	34.808	23.044	1.024459	
180	179	22.531	34.814	22.493	1.024708	
200	199	21.502	34.816	21.462	1.025086	
250	249	19.014	34.810	18.968	1.025966	
300	298	16.792	34.725	16.742	1.026672	
350	348	14.673	34.603	14.619	1.027287	
400	398	13.554	34.538	13.496	1.027700	
450	447	11.410	34.397	11.352	1.028248	
500	497	10.016	34.399	9.956	1.028732	
550	546	9.262	34.388	9.199	1.029081	
600	596	8.494	34.369	8.428	1.029422	
650	646	7.893	34.386	7.825	1.029758	
700	695	6.513	34.356	6.447	1.030174	
750	745	6.415	34.417	6.344	1.030464	
800	794	5.209	34.428	5.141	1.030871	
850	844	4.879	34.467	4.808	1.031174	
900	893	4.761	34.480	4.686	1.031427	
950	942	4.572	34.489	4.494	1.031688	
1000	992	4.245	34.503	4.166	1.031970	
1100	1091	3.634	34.514	3.551	1.032513	
1200	1190	3.321	34.540	3.233	1.033029	
1300	1288	3.189	34.562	3.094	1.033518	
1400	1387	3.045	34.568	2.943	1.033996	
1500	1486	2.881	34.572	2.751	1.034452	
1600	1584	2.700	34.585	2.585	1.034961	
1700	1683	2.614	34.589	2.492	1.035428	
1800	1781	2.400	34.600	2.272	1.035917	
1900	1880	2.320	34.613	2.185	1.036389	
2000	1978	2.275	34.618	2.132	1.036850	
2200	2175	1.931	34.639	1.776	1.037813	
2400	2372	1.807	34.647	1.637	1.038734	
2600	2568	1.723	34.656	1.536	1.039647	
2800	2764	1.620	34.665	1.417	1.040559	
3000	2960	1.616	34.668	1.394	1.041450	

STC301	87/ 3/ 1	05:43	21-31.9N	121-48.0E	2210M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	24.133	34.567	24.129	1.023361
40	39	24.035	34.675	24.026	1.023559
60	59	24.039	34.697	24.026	1.023662
80	79	24.076	34.748	24.058	1.023775
100	99	24.078	34.759	24.056	1.023870
120	119	24.004	34.753	23.977	1.023973
140	139	23.496	34.750	23.466	1.024207
160	159	22.336	34.804	22.303	1.024669
180	179	21.386	34.781	21.350	1.025006
200	199	19.744	34.792	19.706	1.025544
250	249	17.992	34.711	17.948	1.026150
300	298	14.624	34.493	14.578	1.026993
350	348	11.762	34.478	11.716	1.027797
400	398	10.520	34.435	10.471	1.028221
450	447	9.281	34.409	9.230	1.028646
500	497	8.839	34.403	8.783	1.028940
550	546	8.271	34.409	8.212	1.029264
600	596	7.518	34.403	7.457	1.029607
650	645	6.512	34.409	6.451	1.029989
700	695	6.268	34.422	6.203	1.030262
750	744	6.147	34.424	6.078	1.030508
800	794	5.818	34.431	5.746	1.030788
850	843	5.394	34.450	5.320	1.031091
900	893	4.989	34.464	4.913	1.031384
950	942	4.796	34.474	4.717	1.031646
1000	992	4.326	34.494	4.246	1.031952
1100	1091	3.881	34.513	3.796	1.032479
1200	1189	3.608	34.532	3.517	1.032986
1300	1288	3.269	34.540	3.173	1.033490
1400	1387	3.051	34.566	2.949	1.033993
1500	1486	2.894	34.580	2.785	1.034478
1600	1584	2.767	34.588	2.651	1.034955
1700	1683	2.627	34.596	2.505	1.035434
1800	1781	2.560	34.602	2.430	1.035897
1900	1880	2.378	34.612	2.242	1.036381
2000	1978	2.356	34.606	2.212	1.036830

STC305	87/	3/	1	16:09	21-41.6N	122-26.1E	4830M
PRESSURE	DEPTH	T	S	POT-T	DENSITY		
20	19	23.798	34.814	23.794	1.023647		
40	39	23.687	34.829	23.678	1.023779		
60	59	23.442	34.889	23.429	1.023982		
80	79	23.378	34.924	23.361	1.024114		
100	99	23.356	34.928	23.334	1.024209		
120	119	23.297	34.957	23.271	1.024336		
140	139	22.153	34.892	22.124	1.024702		
160	159	20.944	34.903	20.912	1.025132		
180	179	19.288	34.857	19.255	1.025625		
200	199	18.392	34.818	18.356	1.025912		
250	248	16.422	34.747	16.381	1.026558		
300	298	14.941	34.637	14.895	1.027034		
350	348	13.576	34.526	13.525	1.027466		
400	397	12.318	34.417	12.263	1.027863		
450	447	10.881	34.310	10.824	1.028281		
500	497	9.807	34.353	9.748	1.028733		
550	546	7.787	34.187	7.730	1.029169		
600	596	7.081	34.182	7.022	1.029500		
650	645	6.457	34.191	6.396	1.029827		
700	695	6.141	34.319	6.077	1.030200		
750	745	5.523	34.266	5.457	1.030474		
800	794	4.937	34.315	4.870	1.030820		
850	843	4.627	34.378	4.558	1.031137		
900	893	4.284	34.440	4.213	1.031459		
950	942	3.962	34.470	3.889	1.031752		
1000	992	3.821	34.483	3.745	1.032009		
1100	1091	3.388	34.511	3.307	1.032540		
1200	1190	3.125	34.535	3.039	1.033050		
1300	1288	2.991	34.566	2.898	1.033545		
1400	1387	2.859	34.579	2.759	1.034027		
1500	1486	2.673	34.585	2.567	1.034511		
1600	1584	2.473	34.595	2.361	1.034998		
1700	1683	2.378	34.603	2.259	1.035469		
1800	1781	2.289	34.607	2.163	1.035937		
1900	1880	2.206	34.617	2.073	1.036407		
2000	1978	2.101	34.624	1.961	1.036879		
2200	2175	1.978	34.635	1.823	1.037804		
2400	2372	1.865	34.644	1.694	1.038724		
2600	2568	1.779	34.653	1.591	1.039636		
2800	2764	1.720	34.658	1.515	1.040539		
3000	2960	1.653	34.664	1.430	1.041440		
3200	3156	1.595	34.670	1.354	1.042337		
3400	3352	1.585	34.674	1.324	1.043221		
3600	3547	1.565	34.676	1.283	1.044102		
3800	3743	1.559	34.679	1.256	1.044977		
4000	3938	1.561	34.681	1.236	1.045847		
4200	4133	1.572	34.681	1.224	1.046710		
4400	4328	1.587	34.682	1.216	1.047571		
4600	4522	1.605	34.683	1.209	1.048425		
4800	4717	1.626	34.682	1.206	1.049273		

STC306	87/ 3/ 1	20:46	21-43.8N	122-38.9E	4710M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	23.259	34.830	23.255	1.023817
40	39	23.231	34.835	23.222	1.023916
60	59	23.250	34.835	23.237	1.023996
80	79	23.170	34.848	23.153	1.024117
100	99	22.277	34.905	22.256	1.024503
120	119	21.394	34.895	21.370	1.024829
140	139	20.746	34.888	20.718	1.025088
160	159	19.947	34.877	19.916	1.025380
180	179	19.578	34.879	19.544	1.025567
200	199	19.008	34.862	18.971	1.025788
250	248	17.038	34.775	16.996	1.026432
300	298	15.161	34.653	15.114	1.026998
350	348	13.883	34.548	13.831	1.027418
400	397	12.872	34.455	12.816	1.027780
450	448	11.208	34.338	11.150	1.028243
500	497	9.140	34.204	9.083	1.028734
550	546	8.238	34.184	8.179	1.029094
600	596	7.227	34.165	7.167	1.029465
650	645	6.433	34.172	6.372	1.029815
700	695	6.157	34.192	6.093	1.030098
750	748	5.631	34.259	5.563	1.030560
800	794	5.532	34.280	5.462	1.030709
850	843	5.236	34.301	5.163	1.030994
900	893	5.005	34.348	4.929	1.031292
950	942	4.652	34.405	4.574	1.031611
1000	992	4.257	34.444	4.178	1.031921
1100	1091	3.569	34.494	3.487	1.032504
1200	1189	3.151	34.523	3.064	1.033035
1300	1288	2.841	34.539	2.749	1.033544
1400	1387	2.521	34.564	2.425	1.034057
1500	1492	2.360	34.581	2.257	1.034576
1600	1584	2.301	34.589	2.191	1.035014
1700	1683	2.272	34.594	2.155	1.035477
1800	1781	2.157	34.608	2.033	1.035954
1900	1880	2.050	34.619	1.919	1.036429
2000	1978	1.962	34.624	1.824	1.036897
2200	2175	1.854	34.638	1.701	1.037823
2400	2371	1.773	34.648	1.604	1.038739
2600	2568	1.702	34.656	1.516	1.039650
2800	2764	1.639	34.663	1.436	1.040555
3000	2960	1.603	34.667	1.381	1.041451
3200	3156	1.556	34.672	1.316	1.042345
3400	3352	1.554	34.675	1.293	1.043227
3600	3547	1.548	34.676	1.267	1.044106
3800	3743	1.551	34.678	1.248	1.044979
4000	3938	1.553	34.681	1.228	1.045849
4200	4133	1.566	34.682	1.218	1.046713
4400	4328	1.583	34.682	1.212	1.047570
4600	4522	1.606	34.682	1.210	1.048424

STC312	87/ 3/ 3	09:03	25-12.4N	128-27.9E	7280M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	21.082	34.896	21.078	1.024481
40	39	21.033	34.906	21.025	1.024589
60	59	21.033	34.906	21.021	1.024675
80	79	20.786	34.889	20.770	1.024817
100	99	20.497	34.870	20.478	1.024967
120	119	20.425	34.862	20.402	1.025067
140	139	20.338	34.855	20.311	1.025173
160	159	20.243	34.849	20.212	1.025281
180	179	19.735	34.823	19.701	1.025482
200	199	18.933	34.815	18.896	1.025772
250	248	17.718	34.803	17.674	1.026288
300	298	16.277	34.721	16.228	1.026792
350	348	15.286	34.659	15.231	1.027194
400	397	13.945	34.553	13.886	1.027629
450	447	12.491	34.443	12.429	1.028069
500	497	10.893	34.319	10.830	1.028509
550	546	9.633	34.258	9.568	1.028915
600	596	8.627	34.227	8.561	1.029288
650	645	7.426	34.203	7.360	1.029690
700	695	6.836	34.208	6.768	1.030011
750	744	6.261	34.234	6.191	1.030343
800	794	5.517	34.244	5.447	1.030684
850	844	5.130	34.307	5.058	1.031014
900	893	4.931	34.363	4.855	1.031314
950	942	4.470	34.363	4.393	1.031602
1000	992	4.298	34.394	4.218	1.031877
1100	1091	3.983	34.464	3.897	1.032428
1200	1189	3.361	34.500	3.272	1.032992
1300	1288	3.088	34.522	2.994	1.033499
1400	1387	2.842	34.541	2.742	1.033999
1500	1486	2.666	34.558	2.560	1.034491
1600	1584	2.432	34.558	2.321	1.034974
1700	1683	2.260	34.580	2.143	1.035466
1800	1781	2.179	34.596	2.055	1.035942
1900	1880	2.101	34.605	1.969	1.036411
2000	1978	2.027	34.616	1.888	1.036881
2200	2175	1.874	34.632	1.720	1.037816
2400	2372	1.791	34.643	1.621	1.038733
2600	2568	1.735	34.652	1.548	1.039641
2800	2764	1.676	34.659	1.472	1.040546
3000	2960	1.625	34.665	1.403	1.041446
3200	3156	1.588	34.670	1.347	1.042339
3400	3352	1.567	34.673	1.306	1.043223
3600	3547	1.558	34.677	1.276	1.044104
3800	3743	1.560	34.679	1.257	1.044978
4000	3938	1.564	34.680	1.239	1.045846
4200	4133	1.575	34.681	1.227	1.046711
4400	4328	1.584	34.682	1.213	1.047570
4600	4522	1.598	34.683	1.203	1.048426
4800	4717	1.615	34.683	1.195	1.049277
5000	4911	1.637	34.684	1.191	1.050123
5200	5106	1.659	34.683	1.187	1.050965
5400	5300	1.684	34.684	1.186	1.051804
5600	5494	1.709	34.683	1.183	1.052636
5800	5688	1.736	34.684	1.182	1.053468
6000	5881	1.764	34.682	1.182	1.054292
6200	6074	1.792	34.682	1.181	1.055113
6400	6268	1.820	34.682	1.179	1.055932
6500	6364	1.835	34.681	1.179	1.056338

STC313 87/ 3/ 3 14:37 25-21.1N 128-21.7E 5960M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	20	21.282	34.869	21.278	1.024405	
40	39	21.177	34.899	21.169	1.024544	
60	59	21.179	34.901	21.167	1.024632	
80	79	21.181	34.901	21.165	1.024718	
100	99	21.181	34.904	21.161	1.024808	
120	119	20.682	34.863	20.658	1.024999	
140	139	20.453	34.859	20.426	1.025146	
160	159	19.887	34.855	19.857	1.025380	
180	179	19.369	34.861	19.335	1.025607	
200	199	18.618	34.838	18.582	1.025870	
250	248	17.390	34.789	17.347	1.026358	
300	298	15.915	34.698	15.866	1.026859	
350	348	15.106	34.644	15.051	1.027223	
400	397	13.745	34.536	13.686	1.027659	
450	447	12.397	34.434	12.335	1.028082	
500	497	10.851	34.362	10.788	1.028550	
550	546	9.866	34.282	9.801	1.028893	
600	596	8.237	34.181	8.173	1.029317	
650	645	7.271	34.248	7.206	1.029749	
700	695	6.262	34.239	6.197	1.030120	
750	744	5.631	34.279	5.563	1.030560	
800	794	5.082	34.276	5.015	1.030768	
850	844	5.012	34.366	4.940	1.031077	
900	893	4.511	34.366	4.438	1.031371	
950	942	4.175	34.384	4.101	1.031657	
1000	992	4.027	34.419	3.949	1.031932	
1100	1091	3.507	34.450	3.425	1.032477	
1200	1189	3.084	34.474	2.998	1.033006	
1300	1288	2.979	34.533	2.886	1.033522	
1400	1387	2.768	34.549	2.669	1.034016	
1500	1486	2.622	34.562	2.517	1.034499	
1600	1584	2.453	34.574	2.342	1.034984	
1700	1683	2.360	34.582	2.241	1.035456	
1800	1781	2.232	34.602	2.107	1.035940	
1900	1880	2.132	34.610	2.000	1.036411	
2000	1978	2.057	34.617	1.918	1.036879	
2200	2175	1.915	34.631	1.761	1.037808	
2400	2371	1.803	34.643	1.633	1.038731	
2600	2568	1.720	34.653	1.533	1.039644	
2800	2764	1.665	34.657	1.461	1.040546	
3000	2960	1.614	34.664	1.392	1.041446	
3200	3156	1.574	34.669	1.333	1.042339	
3400	3352	1.558	34.673	1.297	1.043225	
3600	3547	1.553	34.675	1.272	1.044104	
3800	3743	1.554	34.676	1.251	1.044977	
4000	3938	1.562	34.677	1.237	1.045844	
4200	4133	1.572	34.679	1.224	1.046709	
4400	4328	1.585	34.680	1.214	1.047569	
4600	4522	1.601	34.681	1.206	1.048424	
4800	4717	1.618	34.681	1.198	1.049274	
5000	4911	1.637	34.682	1.191	1.050122	
5200	5106	1.660	34.681	1.188	1.050963	
5400	5300	1.684	34.681	1.186	1.051801	
5600	5494	1.709	34.682	1.183	1.052635	
5800	5687	1.735	34.681	1.181	1.053465	

STC314 87/ 3/ 3 21:58 25-28.2N 128-15.8E 4900M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	19	21.204	34.902	21.200	1.024451	
40	39	21.161	34.907	21.153	1.024554	
60	59	21.163	34.907	21.151	1.024641	
80	79	21.161	34.905	21.145	1.024727	
100	99	21.156	34.903	21.136	1.024815	
120	119	21.147	34.901	21.123	1.024901	
140	139	20.664	34.871	20.637	1.025098	
160	159	20.213	34.876	20.182	1.025310	
180	179	19.415	34.861	19.381	1.025596	
200	199	18.726	34.843	18.690	1.025846	
250	248	17.602	34.815	17.559	1.026325	
300	298	16.733	34.764	16.683	1.026717	
350	348	15.096	34.643	15.041	1.027224	
400	397	13.994	34.547	13.935	1.027615	
450	447	12.777	34.449	12.714	1.028016	
500	497	11.422	34.371	11.357	1.028448	
550	546	10.144	34.330	10.077	1.028879	
600	596	8.314	34.293	8.249	1.029392	
650	645	7.086	34.205	7.022	1.029743	
700	695	6.546	34.264	6.479	1.030098	
750	744	6.107	34.309	6.038	1.030424	
800	794	5.561	34.290	5.491	1.030714	
850	844	5.341	34.347	5.267	1.031017	
900	893	4.943	34.383	4.867	1.031327	
950	942	4.539	34.417	4.462	1.031635	
1000	992	4.165	34.441	4.086	1.031931	
1100	1091	3.745	34.456	3.661	1.032453	
1200	1189	3.199	34.470	3.112	1.032989	
1300	1288	2.891	34.507	2.799	1.033511	
1400	1387	2.674	34.526	2.576	1.034009	
1500	1486	2.506	34.554	2.402	1.034507	
1600	1584	2.360	34.570	2.250	1.034992	
1700	1683	2.278	34.583	2.161	1.035466	
1800	1781	2.209	34.599	2.084	1.035941	
1900	1880	2.117	34.609	1.985	1.036412	
2000	1978	2.020	34.619	1.881	1.036884	
2200	2175	1.884	34.632	1.730	1.037814	
2400	2372	1.775	34.644	1.606	1.038735	
2600	2568	1.692	34.654	1.506	1.039649	
2800	2764	1.637	34.661	1.434	1.040554	
3000	2960	1.596	34.666	1.374	1.041451	
3200	3156	1.569	34.670	1.328	1.042341	
3400	3352	1.551	34.672	1.291	1.043225	
3600	3547	1.547	34.675	1.266	1.044105	
3800	3743	1.539	34.676	1.237	1.044979	
4000	3938	1.549	34.679	1.224	1.045848	
4200	4133	1.558	34.681	1.211	1.046713	
4400	4328	1.572	34.681	1.201	1.047572	
4600	4522	1.588	34.681	1.193	1.048427	
4800	4717	1.610	34.681	1.190	1.049276	

STC315 87/ 3/ 4 01:58 25-37.0N 128-08.2E 3020M					
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	20.657	34.885	20.654	1.024588
40	40	20.630	34.888	20.622	1.024685
60	59	20.634	34.889	20.622	1.024771
80	79	20.634	34.888	20.618	1.024858
100	99	20.616	34.886	20.596	1.024947
120	119	20.606	34.886	20.583	1.025038
140	139	20.597	34.887	20.570	1.025127
160	159	20.577	34.875	20.546	1.025210
180	179	20.204	34.858	20.169	1.025385
200	199	19.727	34.821	19.689	1.025571
250	249	17.859	34.791	17.815	1.026244
300	298	16.726	34.762	16.676	1.026717
350	348	15.419	34.661	15.364	1.027164
400	397	14.160	34.560	14.100	1.027588
450	447	12.685	34.457	12.622	1.028042
500	497	11.119	34.348	11.055	1.028489
550	547	9.967	34.317	9.901	1.028903
600	596	8.181	34.282	8.117	1.029405
650	645	6.794	34.240	6.731	1.029815
700	695	6.126	34.232	6.062	1.030134
750	744	5.912	34.317	5.844	1.030457
800	794	5.440	34.332	5.370	1.030764
850	843	5.106	34.377	5.034	1.031073
900	893	4.622	34.410	4.549	1.031391
950	942	4.373	34.430	4.297	1.031668
1000	992	4.137	34.445	4.059	1.031939
1100	1091	3.695	34.485	3.612	1.032482
1200	1189	3.282	34.501	3.194	1.033002
1300	1288	2.978	34.517	2.885	1.033509
1400	1387	2.714	34.536	2.616	1.034012
1500	1486	2.593	34.543	2.488	1.034488
1600	1585	2.457	34.564	2.345	1.034978
1700	1683	2.308	34.579	2.190	1.035460
1800	1781	2.204	34.594	2.079	1.035937
1900	1880	2.127	34.605	1.995	1.036408
2000	1978	2.052	34.614	1.913	1.036877
2200	2175	1.929	34.628	1.774	1.037805
2400	2371	1.840	34.636	1.669	1.038720
2600	2568	1.735	34.648	1.548	1.039639
2800	2764	1.617	34.661	1.414	1.040556

STC316 87/ 3/ 4 05:08 25-44.7N 128-01.2E 2250M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	19	21.271	34.913	21.267	1.024442	
40	40	21.255	34.917	21.247	1.024537	
60	59	21.258	34.916	21.246	1.024621	
80	79	21.256	34.916	21.240	1.024709	
100	99	21.255	34.916	21.235	1.024796	
120	119	21.235	34.913	21.211	1.024886	
140	139	20.738	34.856	20.711	1.025065	
160	159	20.356	34.864	20.325	1.025262	
180	179	19.964	34.876	19.930	1.025462	
200	199	19.050	34.852	19.013	1.025770	
250	248	17.789	34.802	17.745	1.026270	
300	298	17.123	34.783	17.072	1.026637	
350	348	15.813	34.697	15.757	1.027102	
400	397	14.359	34.582	14.299	1.027561	
450	447	13.251	34.492	13.186	1.027951	
500	497	11.794	34.391	11.727	1.028391	
550	546	10.117	34.302	10.050	1.028863	
600	596	8.942	34.238	8.875	1.029244	
650	645	8.076	34.287	8.007	1.029653	
700	695	6.775	34.284	6.707	1.030079	
750	745	5.914	34.324	5.846	1.030463	
800	794	5.442	34.346	5.372	1.030775	
850	844	5.069	34.341	4.997	1.031050	
900	893	4.765	34.373	4.691	1.031343	
950	942	4.497	34.391	4.420	1.031621	
1000	992	4.163	34.419	4.084	1.031914	
1100	1091	3.713	34.475	3.630	1.032472	
1200	1190	3.265	34.496	3.177	1.033001	
1300	1288	2.993	34.513	2.900	1.033504	
1400	1387	2.767	34.541	2.668	1.034009	
1500	1486	2.570	34.546	2.465	1.034492	
1600	1585	2.431	34.560	2.320	1.034978	
1700	1683	2.336	34.574	2.218	1.035453	
1800	1781	2.218	34.592	2.093	1.035934	
1900	1880	2.095	34.604	1.964	1.036412	
2000	1978	1.981	34.615	1.843	1.036887	
2200	2175	1.887	34.627	1.733	1.037809	

STC317	87/ 3/ 4	07:51	25-53.8N	127-55.2E	1660M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	20	21.196	34.905	21.192	1.024456
40	39	21.093	34.899	21.085	1.024567
60	59	20.761	34.868	20.749	1.024720
80	79	20.586	34.862	20.570	1.024850
100	99	20.533	34.870	20.514	1.024958
120	119	20.440	34.864	20.417	1.025065
140	139	20.317	34.854	20.290	1.025178
160	159	20.285	34.850	20.254	1.025270
180	179	20.032	34.853	19.998	1.025427
200	199	19.470	34.815	19.433	1.025633
250	248	18.354	34.826	18.309	1.026147
300	298	17.191	34.768	17.140	1.026609
350	348	15.318	34.652	15.263	1.027181
400	397	14.085	34.563	14.025	1.027606
450	447	13.002	34.479	12.938	1.027993
500	497	11.658	34.402	11.592	1.028427
550	546	10.514	34.319	10.446	1.028803
600	596	9.273	34.285	9.204	1.029224
650	645	8.344	34.231	8.274	1.029564
700	695	6.879	34.286	6.811	1.030065
750	745	5.827	34.329	5.760	1.030480
800	794	5.288	34.345	5.219	1.030795
850	843	4.586	34.355	4.517	1.031124
900	893	4.486	34.408	4.414	1.031407
950	942	4.302	34.441	4.227	1.031685
1000	992	4.035	34.454	3.957	1.031958
1100	1091	3.580	34.495	3.498	1.032505
1200	1189	3.096	34.501	3.010	1.033026
1300	1288	2.945	34.527	2.852	1.033521
1400	1387	2.708	34.527	2.610	1.034006
1500	1486	2.552	34.542	2.448	1.034492
1600	1584	2.431	34.553	2.320	1.034969

STC324 87/ 3/ 5 11:56 29-20.5N 131-41.2E 5000M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	19	19.846	34.839	19.843	1.024768	
40	39	18.983	34.850	18.976	1.025087	
60	59	18.893	34.855	18.882	1.025201	
80	79	18.878	34.857	18.863	1.025294	
100	99	18.876	34.857	18.858	1.025382	
120	119	18.876	34.858	18.854	1.025471	
140	139	18.878	34.857	18.852	1.025557	
160	159	18.868	34.857	18.839	1.025646	
180	179	18.861	34.857	18.828	1.025736	
200	199	18.854	34.858	18.817	1.025826	
250	248	18.845	34.857	18.799	1.026045	
300	298	17.933	34.826	17.880	1.026471	
350	348	16.920	34.780	16.861	1.026903	
400	397	16.018	34.705	15.953	1.027280	
450	447	14.968	34.637	14.898	1.027689	
500	497	13.595	34.530	13.522	1.028129	
550	546	12.350	34.418	12.274	1.028523	
600	596	10.509	34.305	10.435	1.029016	
650	646	9.668	34.373	9.591	1.029448	
700	695	8.844	34.357	8.765	1.029803	
750	745	7.892	34.354	7.813	1.030185	
800	794	6.542	34.364	6.465	1.030630	
850	844	5.853	34.367	5.776	1.030960	
900	893	5.160	34.373	5.083	1.031289	
950	942	4.493	34.387	4.416	1.031618	
1000	992	4.046	34.408	3.968	1.031920	
1100	1091	3.479	34.423	3.398	1.032460	
1200	1190	3.208	34.445	3.121	1.032968	
1300	1288	2.986	34.472	2.893	1.033472	
1400	1387	2.790	34.495	2.691	1.033970	
1500	1486	2.575	34.523	2.470	1.034473	
1600	1584	2.437	34.539	2.325	1.035029	
1700	1683	2.330	34.557	2.212	1.035439	
1800	1782	2.236	34.570	2.111	1.035915	
1900	1880	2.153	34.582	2.021	1.036387	
2000	1978	2.047	34.598	1.908	1.036865	
2200	2175	1.908	34.617	1.754	1.037799	
2400	2372	1.791	34.634	1.621	1.038726	
2600	2568	1.692	34.649	1.506	1.039645	
2800	2764	1.613	34.659	1.410	1.040555	
3000	2960	1.563	34.666	1.342	1.041455	
3200	3156	1.541	34.670	1.301	1.042345	
3400	3352	1.529	34.673	1.269	1.043230	
3600	3547	1.536	34.674	1.255	1.044106	
3800	3743	1.544	34.676	1.242	1.044978	
4000	3938	1.562	34.676	1.237	1.045843	
4200	4133	1.580	34.677	1.232	1.046706	
4400	4328	1.599	34.677	1.227	1.047565	
4600	4523	1.620	34.678	1.224	1.048418	
4800	4717	1.642	34.679	1.221	1.049269	

STC323 87/ 3/ 5 15:59 29-29.ON 131-33.7E 4130M					
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	21.153	34.845	21.149	1.024422
40	39	21.090	34.849	21.082	1.024529
60	59	21.067	34.849	21.055	1.024623
80	79	20.996	34.844	20.980	1.024726
100	99	20.505	34.836	20.486	1.024940
120	119	20.063	34.872	20.040	1.025171
140	139	19.807	34.870	19.780	1.025326
160	159	19.617	34.867	19.587	1.025460
180	179	19.422	34.864	19.388	1.025596
200	199	19.111	34.859	19.074	1.025761
250	248	18.865	34.855	18.819	1.026038
300	298	17.825	34.790	17.772	1.026470
350	348	16.872	34.766	16.813	1.026904
400	397	15.568	34.670	15.504	1.027357
450	447	14.531	34.597	14.462	1.027756
500	497	12.845	34.487	12.775	1.028255
550	546	11.256	34.353	11.185	1.028689
600	596	10.276	34.387	10.202	1.029123
650	646	8.798	34.377	8.725	1.029602
700	695	7.131	34.329	7.061	1.030060
750	745	6.277	34.324	6.207	1.030412
800	794	5.430	34.350	5.360	1.030779
850	844	4.923	34.364	4.852	1.031088
900	893	4.688	34.387	4.614	1.031364
950	942	4.238	34.395	4.163	1.031657
1000	992	3.899	34.394	3.823	1.031928
1100	1091	3.382	34.424	3.302	1.032473
1200	1190	3.039	34.462	2.954	1.033003
1300	1288	2.847	34.488	2.755	1.033502
1400	1387	2.630	34.514	2.533	1.034005
1500	1486	2.490	34.533	2.386	1.034492
1600	1585	2.362	34.549	2.252	1.034979
1700	1683	2.254	34.565	2.137	1.035456
1800	1781	2.171	34.576	2.047	1.035928
1900	1880	2.056	34.593	1.925	1.036407
2000	1978	1.969	34.605	1.831	1.036880
2200	2175	1.826	34.626	1.673	1.037817
2400	2372	1.716	34.642	1.548	1.038742
2600	2568	1.638	34.653	1.453	1.039657
2800	2764	1.587	34.661	1.385	1.040561
3000	2960	1.543	34.667	1.323	1.041460
3200	3156	1.533	34.670	1.293	1.042347
3400	3352	1.524	34.673	1.264	1.043231
3600	3547	1.527	34.674	1.246	1.044107
3800	3743	1.536	34.676	1.234	1.044979
4000	3938	1.550	34.676	1.225	1.045846

STC322 87/ 3/ 5 20:02 29-35.7N 131-27.5E 3870M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	19	21.249	34.843	21.245	1.024394	
40	39	21.219	34.844	21.211	1.024491	
60	59	21.220	34.845	21.208	1.024578	
80	79	21.214	34.845	21.198	1.024667	
100	99	21.138	34.837	21.118	1.024768	
120	119	21.052	34.831	21.028	1.024875	
140	139	20.961	34.829	20.933	1.024984	
160	159	20.775	34.829	20.743	1.025123	
180	179	20.560	34.816	20.525	1.025257	
200	199	20.162	34.841	20.124	1.025471	
250	248	19.192	34.819	19.146	1.025927	
300	298	17.532	34.771	17.480	1.026528	
350	348	16.579	34.721	16.521	1.026940	
400	397	15.461	34.663	15.397	1.027376	
450	447	13.684	34.539	13.618	1.027895	
500	497	12.414	34.469	12.345	1.028328	
550	546	11.438	34.463	11.366	1.028739	
600	596	9.394	34.386	9.324	1.029282	
650	645	7.878	34.357	7.810	1.029738	
700	695	6.308	34.340	6.243	1.030192	
750	745	5.491	34.315	5.426	1.030516	
800	794	5.022	34.361	4.955	1.030845	
850	844	4.740	34.387	4.670	1.031130	
900	893	4.279	34.405	4.208	1.031432	
950	943	3.947	34.400	3.874	1.031699	
1000	992	3.669	34.409	3.594	1.031969	
1100	1091	3.341	34.446	3.261	1.032495	
1200	1190	3.077	34.472	2.991	1.033005	
1300	1288	2.788	34.494	2.697	1.033514	
1400	1387	2.628	34.510	2.531	1.034002	
1500	1486	2.400	34.543	2.297	1.034514	
1600	1584	2.322	34.555	2.212	1.034986	
1700	1683	2.212	34.571	2.096	1.035465	
1800	1781	2.118	34.583	1.995	1.035940	
1900	1880	2.039	34.595	1.908	1.036411	
2000	1978	1.961	34.605	1.823	1.036881	
2200	2175	1.852	34.621	1.699	1.037810	
2400	2372	1.754	34.637	1.585	1.038733	
2600	2568	1.675	34.648	1.489	1.039647	
2800	2764	1.609	34.657	1.406	1.040554	
3000	2960	1.572	34.663	1.351	1.041451	
3200	3156	1.543	34.668	1.303	1.042343	
3400	3352	1.525	34.671	1.265	1.043229	
3600	3547	1.525	34.675	1.244	1.044108	
3800	3743	1.534	34.676	1.232	1.044979	

STC321	87/ 3/ 5	23:31	29-41.7N	131-20.4E	3050M
PRESSURE	DEPTH	T	S	POT-T	DENSITY
20	19	21.159	34.848	21.155	1.024423
40	39	21.139	34.850	21.131	1.024517
60	59	21.138	34.850	21.126	1.024604
80	79	21.103	34.843	21.087	1.024695
100	99	20.970	34.831	20.950	1.024810
120	119	20.533	34.813	20.510	1.025002
140	139	20.504	34.815	20.477	1.025098
160	159	20.132	34.816	20.101	1.025285
180	179	19.186	34.827	19.153	1.025629
200	199	18.424	34.782	18.388	1.025877
250	248	17.669	34.762	17.625	1.026269
300	298	16.506	34.687	16.456	1.026712
350	348	14.675	34.613	14.621	1.027295
400	397	12.867	34.467	12.811	1.027790
450	447	12.083	34.471	12.022	1.028173
500	497	11.492	34.443	11.427	1.028490
550	546	10.140	34.364	10.073	1.028907
600	596	8.208	34.358	8.144	1.029461
650	645	6.465	34.299	6.404	1.029910
700	695	5.760	34.325	5.698	1.030260
750	744	5.119	34.356	5.056	1.030599
800	794	4.446	34.381	4.383	1.030934
850	843	4.016	34.393	3.951	1.031227
900	893	3.681	34.408	3.614	1.031509
950	942	3.620	34.415	3.550	1.031751
1000	992	3.359	34.434	3.287	1.032026
1100	1091	3.099	34.466	3.021	1.032540
1200	1189	2.875	34.488	2.791	1.033042
1300	1288	2.698	34.505	2.608	1.033534
1400	1387	2.484	34.532	2.388	1.034081
1500	1485	2.374	34.546	2.272	1.034516
1600	1584	2.261	34.562	2.152	1.034998
1700	1683	2.159	34.577	2.043	1.035477
1800	1781	2.066	34.590	1.943	1.035952
1900	1880	1.997	34.599	1.867	1.036421
2000	1978	1.946	34.605	1.808	1.036883
2200	2175	1.834	34.623	1.681	1.037814
2400	2371	1.743	34.639	1.574	1.038736
2600	2568	1.655	34.650	1.470	1.039651
2800	2764	1.602	34.657	1.399	1.040555
3000	2960	1.547	34.665	1.327	1.041457

STC331 87/ 3/7 17:16 32-26.4N 137-18.5E 4010M						
PRESSURE	DEPTH	T	S	POT-T	DENSITY	
20	20	15.786	34.720	15.783	1.025670	
40	39	15.752	34.748	15.746	1.025788	
60	59	15.734	34.755	15.724	1.025886	
80	79	15.580	34.749	15.567	1.026005	
100	99	15.453	34.751	15.437	1.026123	
120	119	15.318	34.747	15.299	1.026238	
140	139	14.237	34.627	14.216	1.026472	
160	159	13.577	34.556	13.554	1.026646	
180	179	13.026	34.517	13.001	1.026817	
200	198	11.908	34.451	11.882	1.027077	
250	248	10.086	34.338	10.056	1.027550	
300	298	8.560	34.311	8.528	1.028011	
350	347	7.415	34.278	7.380	1.028390	
400	397	6.590	34.263	6.553	1.028727	
450	446	5.928	34.269	5.888	1.029052	
500	496	5.125	34.292	5.084	1.029404	
550	546	4.669	34.317	4.625	1.029711	
600	595	4.073	34.346	4.028	1.030036	
650	645	3.731	34.381	3.684	1.030334	
700	694	3.558	34.399	3.508	1.030598	
750	744	3.420	34.414	3.367	1.030856	
800	793	3.295	34.425	3.239	1.031109	
850	843	3.140	34.443	3.081	1.031371	
900	892	3.005	34.458	2.943	1.031629	
950	942	2.883	34.475	2.819	1.031885	
1000	991	2.776	34.487	2.709	1.032137	
1100	1090	2.600	34.511	2.527	1.032635	
1200	1189	2.453	34.531	2.373	1.033126	
1300	1287	2.344	34.547	2.258	1.033608	
1400	1386	2.210	34.564	2.118	1.034095	
1500	1485	2.098	34.579	1.999	1.034576	
1600	1583	2.012	34.591	1.906	1.035051	
1700	1682	1.924	34.604	1.812	1.035527	
1800	1780	1.869	34.612	1.749	1.035995	
1900	1879	1.802	34.622	1.675	1.036463	
2000	1977	1.748	34.630	1.614	1.036929	
2200	2174	1.651	34.643	1.501	1.037853	
2400	2371	1.585	34.652	1.419	1.038769	
2600	2567	1.526	34.662	1.344	1.039679	
2800	2763	1.490	34.668	1.290	1.040580	
3000	2959	1.473	34.671	1.254	1.041472	
3200	3155	1.469	34.674	1.231	1.042359	
3400	3351	1.475	34.675	1.217	1.043240	
3600	3546	1.487	34.676	1.207	1.044115	
3800	3742	1.503	34.677	1.202	1.044986	
4000	3937	1.518	34.677	1.194	1.045853	