NO. 52 MAR. 1978

## CSK NEWSLETTER



## JAPAN OCEANOGRAPHIC DATA CENTER

Hydrographic Department, Maritime Safety Agency Tokyo, Japan

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I. RESOLUTIONS RELATING TO CSK ADOPTED BY THE ASSEMBLY AT THE

TENTH SESSION OF THE IOC (Unesco, Paris, 27 October-10 November 1977, IOC-X/3, Annex II)

#### Resolution X-11

CO-OPERATIVE STUDY OF THE KUROSHIO AND ADJACENT REGIONS/WESTERN PACIFIC

The Intergovernmental Oceanographic Commission,

A

Recalling resolutions IX-12, EC-VII.20 and EC-VIII.6,

Noting that the International Co-ordination Group for the Co-operative Study of the Kuroshio and adjacent regions(CSK) held its eleventh (and final) session in Noumea, New Caledonia, 30 June-4 July 1977, together with the meeting of the ad hoc Task Team for the Western Pacific (WESTPAC), 27-29 June 1977,

Approves the Summary Reports of the eleventh session of the ICG for CSK (document IOC/CSK-XI/3), and of the ad hoc Task Team for the WESTPAC (document IOC/WESTPAC ad hoc-I/3);

Expresses its appreciation to the Government of France for its courtesy in hosting the above-mentioned meetings;

<u>Instructs</u> the Secretary, in consultation with the Division of Marine Sciences of Unesco, to approach the Government of Japan, with a request that they host the Fourth CSK Symposium in late 1978 or early 1979;

Expresses its thaks to the members of the International Coordination Group for CSK, and in particular its International Co-ordinator, Professor Kiyoo Wadati, for their successful operation of the co-operative study;

 $\frac{\text{Decides}}{(\text{WESTPAC})} \text{ to establish the Working Group for the Western Pacific } \frac{(\text{WESTPAC})}{(\text{WESTPAC})} \text{ with the terms of reference as contained in Annex V of document IOC/WESTPAC } \frac{\text{ad hoc-I/3}}{\text{ad hoc-I/3}}, \text{ to invite the interested Member States to joint this Working Group and to convene the first session of this Group in conjunction with the Fourth CSK Symposium;}$ 

<u>Instructs</u> the Working Group for WESTPAC to hold a workshop to define the priorities among the scientific programme developed by the above-mentioned Task Team (document IOC/WESTPAC ad hoc-I/3, Annex III), in conjunction with the first meeting of the

Group, taking into account the proposals made by the workshop referred to in recommendation SEATAR-III.2;

<u>Welcomes</u> the invitation of CCOP/SOPAC to IOC to co-operate closely with WESTPAC in the fields of marine geology and geophysics and related activities in the CCOP/SOPAC region, through a joint mechanism;

<u>Welcomes</u> further the invitation of CCOP to IOC to co-operate closely with WESTPAC on programmes of marine geology and geophysical research in the vicinity of the CCOP member countries;

Recommends that the countries within the various subregions of the WESTPAC, such as those of the South Pacific and of the East Asian regions, formulate their own subregional programmes in consultation with co-operating countries from outside the subregion;

Requests Member States of the IOC who wish to co-operate in the implementation of a subregion's programme, to announce their cruises well in advance and involve scientists from a subregion in the planning, execution and evaluation phases of each project;

<u>Invites</u> all interested Member States and international organizations to provide personnel and/or financial support for the establishment of a full-time WESTPAC Secretariat to be located within the region.

В

Noting with appreciation that the report and recommendations of the third session of the Joint CCOP-IOC Working Group on IDOE Studies of East Asia Tectonics and Resources(SEATAR), held in Manila, 27-28 September 1977, were approved by CCOP, co-sponsor of the Group, at its fourteenth session, held in Manila, 21 September - 4 October 1977.

Approves the above-mentioned report and all recommendations contained therein; and

Expresses its readiness to co-operate closely with the CCOP Seretariat in the organization and implementation of the Workshop referred to in SEATAR-III recommendation 2, to be held in Singapore in October/ November 1978, in conjunction with the fourth session of SEATAR, both of which will precede the fifteenth session of CCOP.

\* \* \* \* \* \* \* \* \* \* \* \* \*

## II. THE FOURTH CSK SYMPOSIUM (PRELIMINARY INFORMATION)

Following Recommendation 2 of the 11th session of ICG/CSK and IOC resolution X-11, the Japanese National Commission for UNESCO is planing to hold the Fourth CSK Symposium and has nominated Professor Dr. A. y. Takenouti, both as the convener and the chairman of its Steering Committee.

The announcement of the Symposium and call for papers will be issued officially, in due course, jointly by the Intergovernmental Oceanographic Commission and the Japanese National Commission for UNESCO. The following is the outline of the organization of the Symposium as prepared by the Steering Committee.

## FOURTH SYMPOSIUM ON THE CO-OPERATIVE STUDY OF THE KUROSHIO AND ADJACENT REGIONS (CSK)

Tokyo, Japan, 14-17 February 1979

The Co-operative Study of the Kuroshio and Adjacent Regions(CSK) started in 1964 under the auspices of the Intergovernmental Oceanographic Commission of Unesco, ended its field phase in 1977. Earlier symposium have been convened: Kuroshio-I in Honolulu, Hawaii (29 April -2 May 1968); Kuroshio-II in Tokyo (28 September-1 October 1970); and Kuroshio-III in Bankok (26-29 May 1973), to review the results achieved and to discuss the perspectives of ongoing and future research in the region.

PROGRAMME: The Fourth CSK Symposium is additionally a terminal exercise; it will therefore also review the entire CSK programme and discuss the implications of these results for future international marine scientific programmes in the Western Pacific(WESTPAC).

Scientists who have taken part in CSK activities together with others interested in the marine scientific problems of the region, are invited to review and discuss results and new concepts related to the following programme outline of the 4th CSK Symposium:

- (1) The Symposium will be based upon fundamental contributions to physical, chemical and biological oceanography;
- (2) Interdisciplinary subjects will be covered by sessions on:
  - (a) air-sea interaction;
  - (b) dynamics of the Kuroshio current;
  - (c) marine geochemistry;
  - (d) biological productivity and living resources of the sea;
  - (e) quality of the environment;
- (3) Special sessions to plan future research in the Western Pacific will be included on:

- (a) physical, chemical and bilogical oceanography in those regions which belong to the Western Pacific, which were not covered by the CSK programme;
- (b) marine geology and geophysics throughout the Western Pacific region.

SCHEDULE:	Date	Session	
	Feb. 14, am	Opening of Symposium	
	from 14, pm to	16, am Panel Meetings	
	from 16, pm to		
		Discussion and Adoption	OI
		Report	
	from 17, pm to	18, am Excursion	

WORKING LANGUAGE: English

PROCEDURES AND DEADLINES: Information on intended papers should reach the Secretariat of the Steering Committee for the Fourth CSK Symposium on the form attached to the "Announcement", which will be distributed later, by 31 August 1978. Those who intend to participate and/or contribute papers to the Symposium should submit the following to the address shown below:

- 1. Preliminary Registration Form
- 2. Title and Abstract of the paper Approximately 100 words with the name(s) of author(s), double spaced, type written in black on white paper (ca. 21 x 27.5 cm).

A number of speakers will be invited by the Steering Committee to present comprehensive major papers which will provide focal points for the Symposium's discussion. In addition, contributed papers may be accepted by the Steering Committee. Authors from Member States which have participated in the CSK should communicate their contribution through their National Correspondent.

Interested scientists are invited to contact, in their earliest convenience, to the following address:

Address: Professor Dr. A. Y. Takenouti c/o Secretariate Steering Committee for the Fourth CSK Symposium International Science Division Ministry of Education. Science and Culture 2-2, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo 100, Japan

III. CRUISE REPORTS (ROSCOP)

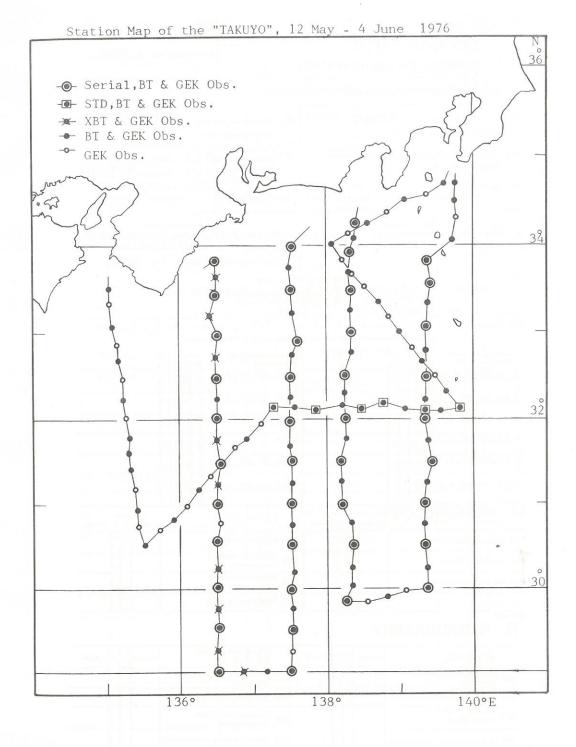
ROSCOP (2nd edition)

## **OCEANOGRAPHY** \_\_\_\_\_\_

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H12 Mechanical bathythermograph (no. of drops)	104	a	A	1, 8	3 Н	24 Nitrates	13351			
H13 Bathythermograph-expendable (no. of drops)	9	a	A	1,	3 H	25 Nitrites				
H14 Sound velocity stations					Н	26 Silicates	41	a	A	1
H15 Acoustic stations					Н	27 Alkalinity				
H16 Transparency					Н	28 pH	41	a	A	1
H80 Other measurements					H	31 Radioactivity	2	а	A	1
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P - POLLUTION										
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003 Currents measured from ship drift					D09	Tidal observations (duration)	-	+	1	
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005 Drifters (number)					D90	Other		1	-	
006 Swallow floats (number)								1		
B - BIOLOGY							1			
02 Phytoplankton pigments			1		B21	Commercial benthic crustacean	1		1	
108 Phytoplankton			1		B27	Deep scattering layers				
309 Zooplankton			1	Sam e	B28	Acoustical reflections on marine organisms	1			
310 Neuston		1			B29	Biologic sounds				
311 Nekton					в30	Bioluminescence	14,737		-	
312 Invertebrate nekton					В3	Vitamin concentrations				
313 Pelagic eggs and larvae					В3	2 Aminoacid concentration				
B14 Pelagic fish		1			В3	3 Hydrocarbon concentrations			1	
318 Zoobenthos					В3	7 Taggings				
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B51 Identification					В6	1 Behaviour				



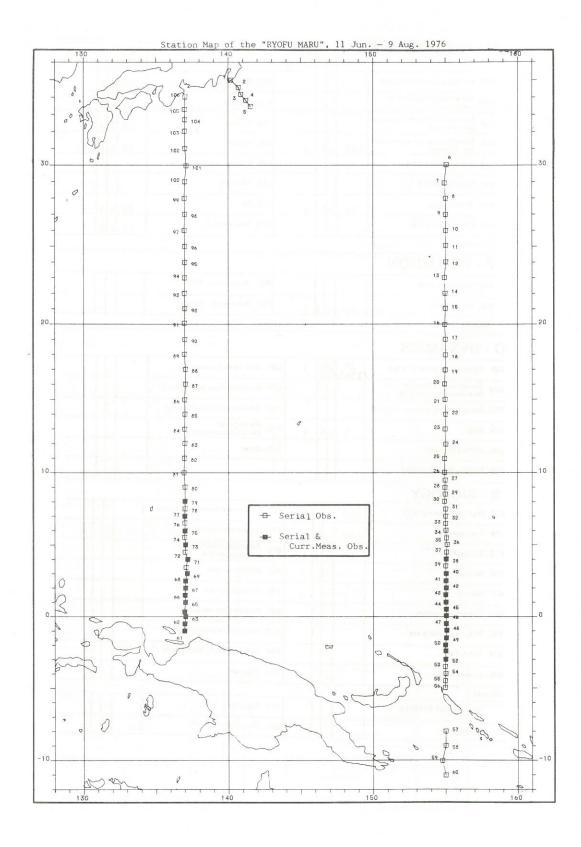
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ROSCOP (2nd edition)

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H - HYDROGRAPHY				
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(no. of drops) H14 Sound velocity stations	107	a	A	3	-+	6 Silicates	20	a	A	4
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H16 Transparency	51	a	A	4			20	a-	A	4
H80 Other measurements	<u> </u>				H3	0 Trace elements	19	a	A	1
Remarks								<del>/</del>		
P - POLLUTION	1	_					1	1	_	
PO1 Suspended solids					PO	7 Waste water : BOD				
PO2 Heavy metals	19	a	A	1	PO	B Waste water : Nitrates				
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O - DYNAMICS										
001 Current meters (no. of stat.)	28	a	A	1	D07	Drift cards (no. released)	T	T	П	
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	107	a	A	-	B27	Deep scattering layers	+	t	$\dagger$	
108 Phytoplankton	107	a	T		929	Acoustical reflections on	1	$^{\dagger}$	$\dagger$	
109 Zooplankton	83	a	A	1	-	marine organisms Biologic sounds	+	$\dagger$	+	
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12 Invertebrate nekton	-	+	1			Vitamin concentrations	-	+	+	-
813 Pelagic eggs and larvae		1	1			Aminoacid concentration	-	+	+	-
314 Pelagic fish		1	1		B33	Hydrocarbon concentrations	-	1	+	-
318 Zoobenthos					B37	Taggings		1		
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351 Identification					B61	Behaviour		1	1	



ROSCOP (2nd edition)

## OCEANOGRAPHY

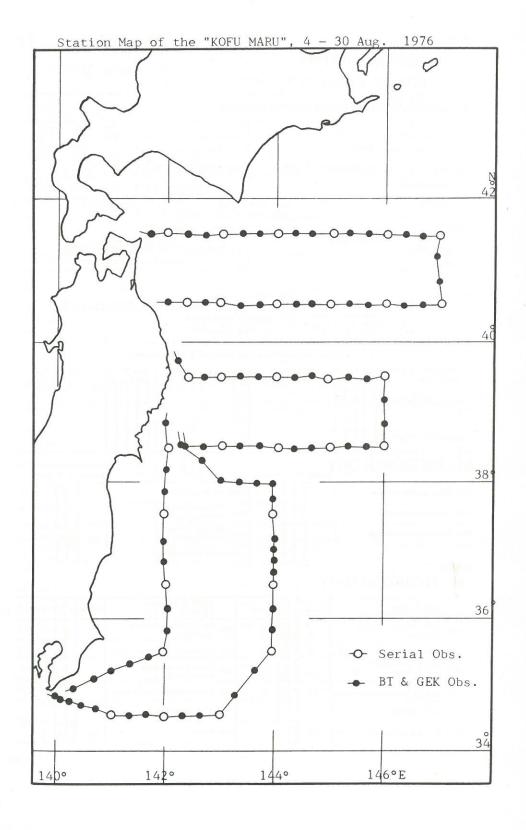
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H10 Vertical profiles (STD/CTD)			1		H22 Phosphates	31	a	A	1
H11 sub-surface measurements underway		1	T		H23 Total · P	1 31	a		-
H12 Mechanical bathythermograph (no. of drops)	109	L	A	8	H24 Nitrates	1			
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H14 Sound velocity stations		1	1		H26 Silicates				
H15 Acoustic stations		T			H27 Alkalinity				
H16 Transparency		1	T		н28 рН				
H80 Other measurements		T	T		H31 Radioactivity				
Remarks		_					_		
P - POLLUTION									
P01 Suspended solids		T	Τ		PO7 Waste water : BOD	T	П	П	
PO2 Heavy metals		t	$\dagger$		PO8 Waste water : Nitrates				
Remarks		_	1					_	
D - DYNAMICS									
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OO1 Current meters (no. of stat.)  Current meters (average		L	Н		D07 Drift cards (no. released)		1	1	
duration of measurement)					D08 Bottom drifters (no, released)				
003 Currents measured from ship drift					D09 Tidal observations (duration)				
004 GEK	108	a	A	1	D10 Sea and swell (no. of observations)			1	
05 Drifters (number)					D90 Other			T	
06 Swallow floats (number)							1	T	
B - BIOLOGY						1		_	
02 Phytoplankton pigments			П		B21 Commercial benthic crustacean	1. 1	7	T	
08 Phytoplankton			Ħ		B27 Deep scattering layers		1	1	
09 Zooplankton			П		B28 Acoustical reflections on marine organisms		1	1	
10 Neuston					B29 Biologic sounds		1	1	
11 Nekton			H		B30 Bioluminescence			1	
12 Invertebrate nekton			1		B31 Vitamin concentrations		1	1	
13 Pelagic eggs and larvae			H		B32 Aminoacid concentration		1	1	
14 Pelagic fish			$\parallel$		B33 Hydrocarbon concentrations		1	1	
18 Zoobenthos			H		B37 Taggings			1	
ernarks		_	11				_	_	
BS TYPES OF STUDIES			П		B60 Physiology			T	
51 Identification			11		B61 Behaviour		1	1	



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ROSCOP (2nd edition) DATA CENTRE: J.O.D.C. **OCEANOGRAPHY** REFERENCE No : R. 76062 GENERAL CRUISE INVENTORY A - GENERAL INFORMATION ON WORK PERFORMED NO PART A01 Expedition/Project \_ C S K A91 Declared national prog. ? V Cruise No. or name 7607 Exchange restricted ? A92 Co-operative YES NO programme? A02 Ship or platform Shumpu Maru (JFDG) Name C S K Platform type 01 internationally? ✓ By whom? K. Wadati A03 Country A04 Organization (KMO) A05 Chief scientist(s) Japan Kobe Marine Observatory K. Kuroda A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS Whom to query KMO; 7-178 Nakayamate Dori, a\_MD, JMA b\_KMO Ikutaku, Kobe, Japan AOB Generalocean areas Inland Sea(Seto Naikai) & Philippine Sea A07 10,210,717,61 Date : from : DAY MONTH YEAR A09 Type(s) of marine zone(s) 2.810.717,61 04, 05, 06 A10 Geographic area Liii N/S Longitude Liii E/W Latitude If all data were collected at a fixed station, fill in the co-ordinates Discipline and type of Index 10 x 10 measurements | | Oc| L | G | G | Discipline and type of measurements Index 10 x 10 Index 1° x 1° | Oc| L | G | G | Oc L G G M, HS, HP, HC, P, D, 1 31 M, HS, HP, HC, P, D, M - METEOROLOGY Number I I Format Number I I Format M01 Upper air observations M04 Ice observations M05 Occasional standard measurements M02 Incident radiation M06 Systematic standard measurements M03 Air-sea interface studies 86 M90 Other measurements Remarks H - HYDROGRAPHY NEAR SEA FLOOR HS SURFACE Format ( < 10 m) H01 Continuous temperature recording Continuous temperature 3 X X 3 H06 Continuous salinity recording H02 Continuous salinity recording H03 Discrete temperature measurements H07 Discrete temperature 87 measurements H04 Discrete salinity measurements 87 H08 Discrete salinity measurements HC CHEMICAL HP PHYSICAL

	Number	I	1	Format			Number	i	1	Format
H10 Vertical profiles (STD/CTD)	10	b	A	3	Н	22 Phosphates	27	ab	A	1
H11 sub-surface measurements underway		T			н	23 Total - P	4	a	A	1
H12 Mechanical bathythermograph (no. of drops)	76	a	A	1,	8 H	24 Nitrates	4	a	A	1
H13 Bathythermograph-expendable (no. of drops)		1			н	25 Nitrites	27	a	A	1
H14 Sound velocity stations					Н	26 Silicates				
H15 Acoustic stations		T			н	27 Alkalinity				
H16 Transparency	24	ab	A	1	н	28 pH	15	a	A	1
H80 Other measurements					н	31 Radioactivity				
Remarks		1						_		
P - POLLUTION										
PO1 Suspended solids		T	T		P	07 Waste water : BOD		T	T	
PO2 Heavy metals	4	a	A	1	P	08 Waste water : Nitrates				
Remarks		1-								
- DYNAMICS										
001 Current meters (no. of stat.)	T	T	П		D07	Drift cards (no. released)	T	T	T	
O2 Current meters (average duration of measurement)		+			D08	Bottom drifters (no. released)		1		
03 Currents measured from ship drift		t			D09	Tidal observations (duration)	1	T	-	
04 GEK	74	a b	A	1, 3	D10	Sea and swell (no. of observations)		T	T	
05 Drifters (number)		10			1	Other		1	T	
06 Swallow floats (number)		T								
B - BIOLOGY		1								
02 Phytoplankton pigments	22	a	A	1	B21	Commercial benthic crustacean	11	T	T	
08 Phytoplankton	9	a	1.		B27	Deep scattering layers		1		
09 Zooplankton	22	a	1		B28	Acoustical reflections on marine organisms			T	
10 Neuston		1			B29	Biologic sounds		1		
11 Nekton		1	1		B30	Bioluminescence	1			
12 Invertebrate nekton		1	1		B31	Vitamin concentrations		-		
13 Pelagic eggs and larvae		1	1		B32	Aminoacid concentration				
114 Pelagic fish	1	1	+		B33	Hydrocarbon concentrations				
18 Zoobenthos		1	1		B37	Taggings		I		
Bernarks								T	1	1
BS TYPES OF STUDIES					B60	) Physiology		1	1	-
B51 Identification		T	T		B61	Behaviour				

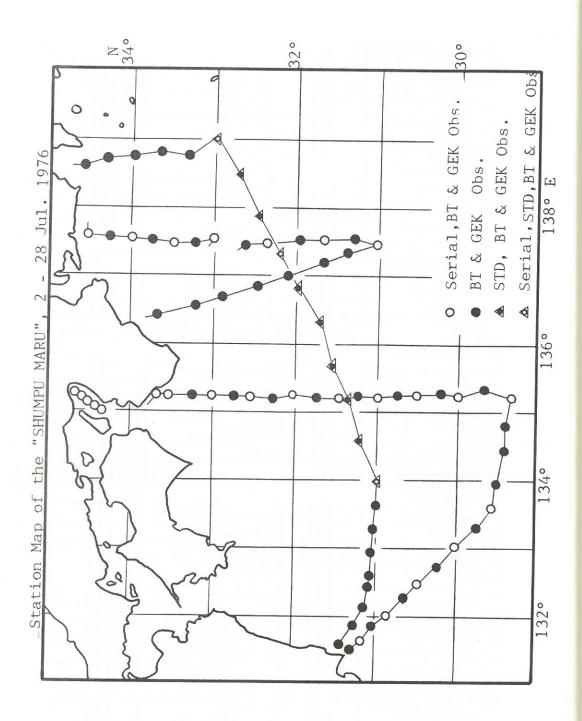
H - HYDROGRAPHY (Continued)

H21 Oxygen

30

H09 Classical oceanographic stations

30



ROSCOP (2nd edition)					A00		7	0	n	C		
OCEANOGRAF	РНҮ	,				CENTR						
GENERAL CRUIS			E١	NTOR		RENCE	No : R.	760	06	4		
A - GENERAL INFORMATION (	ON WO	) F	RK	PERFO	RMED							
A01 Expedition/Project C S K			_		A91 Declared national prog.	7 VE		°	-	PART		
Cruise No. or name 76-07					Exchange restricted ?			7				
A02 Ship or platform <u>Chofu Maru</u> Platform type <u>01</u>	ı(JP(	χ	)		A92 Co-operative YES NO Name C S K Co-ordinated By whom? K. Wadati							
A03 Country Japan				nization ki Ma	(NMO) A05	Chief scie	entist(s)					
	AND A	DC	DRE	SSES OF	ORGANIZATIONS AND PERSONS							
NMO Whom to query					A NMO; 11-51, Min	osition on a	fdata mate-	-cl	10	Nagasa		
b_MD,JMA			0.000		B_MD, JMA; 1-3-4	Ote-n	nachi,	Ct				
c					Tokyo	, 104	Japar	)				
Date: from: 1,00,717  DAY MONTH YE  to: 0.6.0,817	BAR	-		East	ocean areas China Sea (Tung Hai of marine zone(s)	L)						
	itude	L	-	•				-		F/W		
Discipline and type of measurements Oct L G G  M,HS,HP,P,D,B  1 2 1 2	Ind	ex.	1° x	14		ex 10 x 1		dex	1* 3	1*		
M,HS,HP,D 1312												
M - METEOROLOGY	umber i	_	1	Format			Number	ı	ı	Format		
MO1 Upper air observations					M04 Ice observations							
MO2 Incident radiation		T	1		M05 Occasional standard measurements							
403 Air-sea interface studies					M06 Systematic standard measurements		118	а	A	1		
					M90 Other measurements							
Remarks H - HYDROGRAPH)	1											
HS SURFACE	lumber	i	1	Formet	NEAR SEA FLOOR (    10 m)		Number	i	1	Format		
H01 Continuous temperature recording	Х	a	A	3	H05 Continuous temperate recording	re						
H02 Continuous salinity recording	X	a	A	3	H06 Continuous salinity re	cording				- :		
H03 Discrete temperature measurements					H07 Discrete temperature measurements		23	a	A	1		
H04 Discrete salinity measurements					H08 Discrete salinity meas	urements	23	a	Α	1		
HP PHYSICAL					HC CHEMICAL							

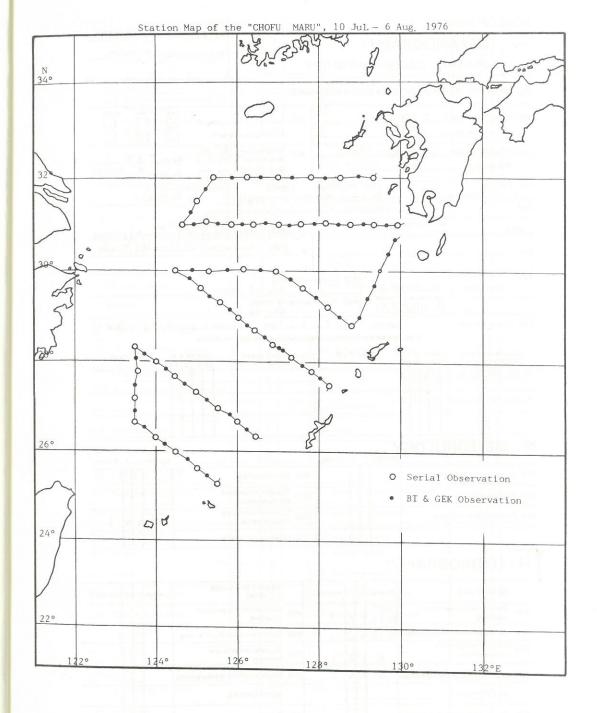
H21 Oxygen

46 a A 1

H09 Classical oceanographic stations

45 a A 1

	Number	1	1	Forma			William A. D. Tar	Number	1	1	Format
H10 Vertical profiles (STD/CTD)		T			1	22 Ph	osphates	9		A	7
H11 sub-surface measurements underway		T			1	23 To	tal - P	3	a	A	1
H12 Mechanical bathythermograph (no. of drops)	82	a	Α	8	1	24 Nit	trates	3	a	A	1
H13 Bathythermograph-expendable (no. of drops)	14	la	A	3	1	25 Nit	trites	19	a	A	1
H14 Sound velocity stations					Н	26 Sili	icates	1	-		-
H15 Acoustic stations		T			Н	27 Alk	calinity				
H16 Transparency	23	3	A	1	Н	28 pH		3	1	A	1
H80 Other measurements	23	a	Λ		Н	90 Otl	her measurements COD	3	a	A	1
Remarks							NH3-N	3	la	A	1
P - POLLUTION	- 18			PEN	A_						
P01 Suspended solids	10	T	П		P	07 Wa	ste water : BOD	1	Γ		
P02 Heavy metals	2	1		-	P	08 Wa	ste water : Nitrates		-		
Remarks	2	b	В	1				1	_	_	10
Monanda Septiment		-	_								
D - DYNAMICS					,		A Partie of		1		- grad
01 Current meters (no. of stat.)					D07	Drift o	cards (no. released)				
O2 Current meters (average duration of measurement)					D08	Botto	m drifters (no. released)				
03 Currents measured from ship drift					D09	Tidal	observations (duration)	77			
04 GEK	58	a	A	1	D10		d swell f observations)				11,9
05 Drifters (number)					D90	Other					
06 Swallow floats (number)								ORO			
B - BIOLOGY						7.					
2 Phytoplankton pigments	26	a	A	1	B21	Comm	ercial benthic crustacean		T	T	
08 Phytoplankton	9	a	A	1	B27	Deep s	cattering layers				
09 Zooplankton	9	a	A	1	B28		tical reflections on e organisms				
10 Neuston					B29	Biolog	ic sounds		T	T	- 1
11 Nekton		T			B30	Biolum	ninescence	DOF			
12 Invertebrate nekton			H		B31	Vitami	in concentrations	45	1	T	
13 Pelagic eggs and larvae		1	H		B32	Amino	pacid concentration	-	1		
14 Pelagic fish		-			B33	Hydro	carbon concentrations		1	1	
18 Zoobenthos		1			B37	Taggin	ngs	1	1	1	
emarks		1			1			1	_	-	
BS TYPES OF STUDIES		T	П		B60	Physio	ology	and a limit	T		
		-	H		B61			38	1	1	



l		
	17	8

ROSCOP (2nd edition) DATA CENTRE: J.O.D.C. OCEANOGRAPHY REFERENCE No : R. 76065 GENERAL CRUISE INVENTORY A - GENERAL INFORMATION ON WORK PERFORMED A01 Expedition/Project C S K A91 Declared national prog. 7 V Cruise No. or name \_\_\_\_76-07 Exchange restricted? A02 Ship or platform Seifu Maru (JPVB) A92 Co-operative YES NO programme? Name C S K Platform type \_\_\_\_\_ Co-ordinated internationally? By whom? K. Wadati A03 Country A04 Organization (MMO) A05 Chief scientist(s)
I. Fujiwara Maizuru Marine Observatory A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS Final disposition of data

A MMO; Shimofukui, Maizuru-shi, Japan a MMO JMA; Ote-machi, Chiyoda-Ku, Tokyo A07 A08 General ocean areas Date: from: [0.810.717.6] Sea of Japan to: 1,410,817,6 A09 Type(s) of marine zone(s) 04, 06 N/S Longitude L A10 Geographic area Latitude If all data were collected at a fixed station, fill in the co-ordinates Discipline and type of Index 10 x 10 measurements IOcLLIGIGI Discipline and type of measurements Index 10 x 10 Index 1° x 1° M HS. HP. HC. D, B M, HS, HP, HC, D, B 1 4 1 3 M - METEOROLOGY M01 Upper air observations M04 Ice observations M05 Occasional standard M02 Incident radiation measurements M06 Systematic standard measurements MO3 Air-sea interface studies M90 Other measurements Remarks H - HYDROGRAPHY NEAR SEA FLOOR HS SURFACE (≤ 10 m) 3700 H01 Continuous temperature recording Continuous temperature mile a A recording 3700 mile

	Number	1	1	Form	at I		Number	1	1	Form
H10 Vertical profiles (STD/CTD)		1	t			H22 Phosphates		t	T	
H11 sub-surface measurements underway		T	T			H23 Total - P	1	T		
H12 Mechanical bathythermograph (no. of drops)	26	a	A	1,	8	H24 Nitrates		T		
H13 Bathythermograph expendable (no. of drops)	42	T	1	1,		H25 Nitrites				
H14 Sound velocity stations		1	T			H26 Silicates	23	a	A	1
H15 Acoustic stations		T	T			H27 Alkalinity				
H16 Transparency			T			H28 pH	23	a.	A	1
H80 Other measurements						H31 Radioactivity		۵.	-	*-
Remarks			-				1	-		
P - POLLUTION								HL-SS		
PO1 Suspended solids		Γ	T			PO7 Waste water : BOD	T	Γ	П	
PO2 Heavy metals		T	T			PO8 Waste water : Nitrates	1			
Remarks		-	_				4	_		
O - DYNAMICS	,				_					
01 Current meters (no. of stat.)					DO	7 Drift cards (no. released)		Ш		
O2 Current meters (average duration of measurement)					DO	8 Bottom drifters (no. released)				
03 Currents measured from ship drift					DO	9 Tidal observations (duration)				
04 GEK	94	a	A	1, 3	DI	Sea and swell (no. of observations)			1	
05 Drifters (number)					D9	0 Other			T	
06 Swallow floats (number)										
B - BIOLOGY										
2 Phytoplankton pigments					B2	Commercial benthic crustacean				
08 Phytoplankton			T		B2	Deep scattering layers				
09 Zooplankton					B2	Acoustical reflections on marine organisms			П	
10 Neuston					B25	Biologic sounds			П	
11 Nekton					B30	) Bioluminescence			П	
12 Invertebrate nekton					вз	Vitamin concentrations			П	
3 Pelagic eggs and larvae					В3	2 Aminoacid concentration				
4 Pelagic fish			T		В3	Hydrocarbon concentrations				
IR Zochenthor			1		B3	Taccings			$\sqcap$	

H06 Continuous salinity recording

HO8 Discrete salinity measurements

H07 Discrete temperature measurements

HC CHEMICAL

H21 Oxygen

H02 Continuous salinity recording

H04 Discrete salinity measurements

H09 Classical oceanographic stations

X

H03 Discrete temperature measurements

HP PHYSICAL

B60 Physiology

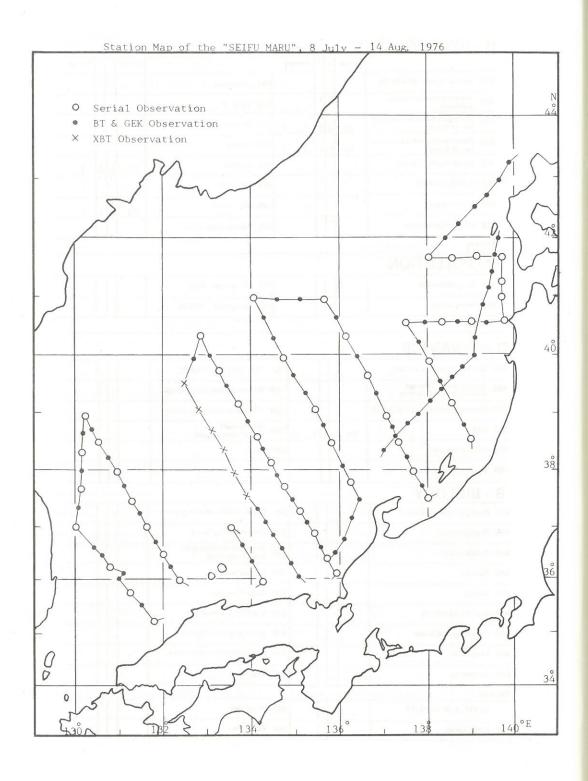
B61 Behaviour

Remarks

**B51** Identification

BS TYPES OF STUDIES





ROSCOP (2nd edition) DATA CENTRE: J.O.D.C. **OCEANOGRAPHY** REFERENCE No : R. 76063 GENERAL CRUISE INVENTORY A - GENERAL INFORMATION ON WORK PERFORMED A01 Expedition/Project \_ C S K A91 Declared national prog. ? Cruise No. or name \_\_\_ Exchange restricted? A92 Co-operative YES NO programme? A02 Ship or platform Kaiyo (8LYT) Platform type \_\_\_ Co-ordinated internationally? By whom? K. Wadati A04 Organization A05 Chief scientist(s) A03 Country Hydrogr.Dept., MSA(HD, MSA) A. Kosugi Japan NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS Final disposition of data

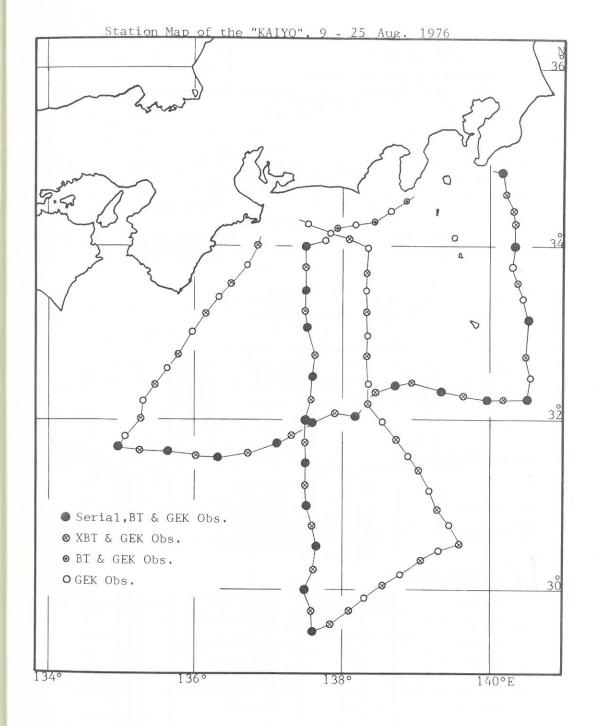
A HD, MSA; 5-3-1 Tsukiji, Chuo-Ku, Whom to query a \_ HD, MSA Tokyo, 104 Japan A08 General ocean areas Date: from: [0.910,817.6] Philippine Sea DAY MONTH YEAR A09 Type(s) of marine zone(s) to: [2,5]08 17,6] Latitude LiliN/S Longitude LiliE/W A10 Geographic area If all data were collected at a fixed station, fill in the co-ordinates Index 10 x 10 Index 1° x 1° Discipline and type of measurements Index 10 x 10 Discipline and type of measurements | Oc | L | G | G | M, HS, HP, HC, D M.HS.HP.HC,D M - METEOROLOGY Number i I Format M04 Ice observations M01 Upper air observations M05 Occasional standard M02 Incident radiation M06 Systematic standard measurements MO3 Air-sea interface studies M90 Other measurements Remarks H - HYDROGRAPHY NEAR SEA FLOOR HS SURFACE ( < 10 m) H01 Continuous temperature recording HO5 Continuous temperature recording H06 Continuous salinity recording H02 Continuous salinity recording H03 Discrete temperature measurements H07 Discrete temperature measurements 94 H08 Discrete salinity measurements H04 Discrete salinity measurements HC CHEMICAL

H21 Oxygen

HP PHYSICAL

H09 Classical oceanographic stations

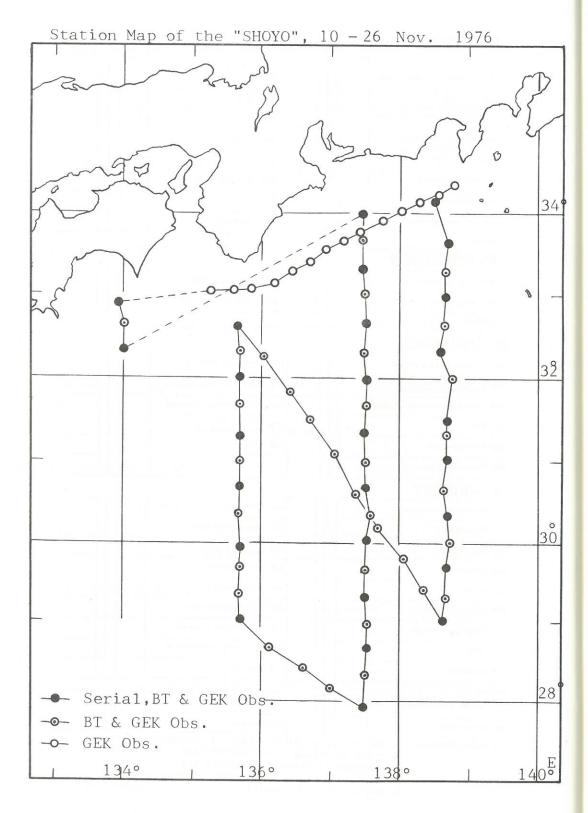
	Number	Ti	Ti	Format			Number	1	1	Forma
H10 Vertical profiles (STD/CTD)		T	T		H22	Phosphates	1 20			-
H11 sub-surface measurements underway		$\dagger$	H		+	Total - P	3	T	A	1
H12 Mechanical bathythermograph (no. of drops)	127	a	A	8	H24	Nitrates	14	a	A	1
H13 Bathythermograph-expendable	6	a	A	8	H25	Nitrites	17	a	A	1
(no. of drops) H14 Sound velocity stations	0		-		H26	Silicates	+-	-	-	-
H15 Acoustic stations					H27	Alkalinity	+			
H16 Transparency	27		A	-	H28	pH	1			-
H80 Other measurements	24	a	A	1	H31	Radioactivity	3	a.	A	1
Remarks			Ш							
P - POLLUTION								_		
		Т			T007	W	1	Г		
P01 Suspended solids		-			-	Waste water : BOD	-	L		
PO2 Heavy metals					P08	Waste water : Nitrates				
Remarks								_		
- DYNAMICS										
01 Current meters (no. of stat.)		П	T		D07 D	rift cards (no. released)			П	
Current meters (average duration of measurement)		H	+		D08 B	ottom drifters (no, released)			H	
03 Currents measured from ship drift		H	+		D09 Ti	dal observations (duration)			H	
04 GEK	119	2	1	1	DIN Se	a and swell o. of observations)			+	
05 Drifters (number)			1	-	D90 Ot			H	H	-
D6 Swallow floats (number)		1	$\dagger$	-				H	1	
B - BIOLOGY										
2 Phytoplankton pigments	10	2	A	1	B21 Co	ommercial benthic crustacean	T	Г	П	
08 Phytoplankton		a	П	1	B27 De	ep scattering layers	1		H	
09 Zooplankton	10	a	П	1		coustical reflections on arine organisms		1	H	-
10 Neuston	10	a	ע	1		ologic sounds		1		
1 Nekton		-	H		B30 Bi	oluminescence		1	H	
2 Invertebrate nekton			H		B31 Vi	tamin concentrations		1	H	
3 Pelagic eggs and larvae			H		B32 A	minoacid concentration		1	+	
4 Pelagic fish		-	H		B33 Hy	ydrocarbon concentrations		-	H	
8 Zoobenthos		-	H		B37 Ta	oggings		1	1	
	37 .	_	Ш					-	-	
marks Nomma - Ch 1								_		-
BS TYPES OF STUDIES	Net		П		B60 Ph	ysiology				





ROSCOP (2nd edition)					DA	TA CENTRE	. J.(	).[	).(	).
OCEANOGRA	PHY					FERENCE N				
GENERAL CRUIS	SE IN	VE	EN	TORY	32300	PENEMOE N	0			
- GENERAL INFORMATION	ON WO	OR	KI	PERFO	RMED					
A01 Expedition/Project C S K					A91 Declared national pr		] [		P	ART
Cruise No. or name					Exchange restricted	NO L	] [ <u>v</u>			
.02 Ship or platform Shoyo (J Platform type 01	COD)	_			A92 Co-operative programme?  Co-ordinated internationally?	Nan	ne <u>C</u> S			dati
03 Country Japan	A04 HD			nization A	A	5 Chief scie Akira K				
.06 NAM	ES AND A	DD	RE:	SSES OF C	RGANIZATIONS AND PERS	DNS				
HD, MSA	·		1	1	A HD, MSA; 5-3-		ji, C		0-	Ku,
			_		В	70, 104	apan			
07		Τ.	0.5		c					
07 Date: from: 1.011.11	7, 6	A	80		ocean areas Philippine Sea					
to: 12.611.11		A	09		of marine zone(s)					
	atitude	L	1	. 1 .	04, 06 N/S Longitud	le L	: :		E .	E/W
		olle	cte	d at a fix	ed station, fill in the co-ord					./ **
Discipline and type of Index 10 x 10 measurements   Oc. L   G   G	Ind	ен 1	×	14	Discipline and type of measurements	Index 10 x 10		dex	1° x	1*
M, HP, HC, D   1   2   1   3										
M,HP,HC,D 1313										
1 - METEOROLOGY	/ Number i	1		Format			Number	i	1	Format
01 Upper air observations					M04 Ice observations					
02 Incident radiation					M05 Occasional standard measurements		Х	a	A	1
03 Air-sea interface studies					M06 Systematic standard measurements					
					M90 Other measurements					
emarks H - HYDROGRAPH	IY		1_							
HS SURFACE	Number	i	ı	Format	NEAR SEA FLOO ( ≤ 10 m)	DR	Number	i	1	Format
H01 Continuous temperature recording					H05 Continuous temper	erature				
H02 Continuous salinity recording					H06 Continuous salini	y recording				
H03 Discrete temperature measurements					H07 Discrete temperat	ure				
H04 Discrete salinity measurements					H08 Discrete salinity n	neasurements				
HP PHYSICAL					HC CHEMICAL					
H09 Classical oceanographic stations	27	a	A	1	H21 Oxygen		27	а	A	1
	- /									

	Number	1	1	Formet		Number	:	1	Forma
H10 Vertical profiles (STD/CTD)					H22 Phosphates	27	a	A	1
H11 sub-surface measurements					H23 Total - P	41	d	A	1
H12 Mechanical bathythermograph		-			H24 Nitrates		-		
(no. of drops)	61	a	A	1, 8			-		
(no. of drops)		L	H		H25 Nitrites		-		
H14 Sound velocity stations			Ц		H26 Silicates	27	a	A	1
H15 Acoustic stations					H27 Alkalinity				
H16 Transparency		L		-	H28 pH	27	a	A	1
H80 Other measurements					H31 Radioactivity				
Remarks								_	
P - POLLUTION									
PO1 Suspended solids					PO7 Waste water : BOD				
PO2 .Heavy metals			T		PO8 Waste water : Nitrates				
Remarks	1	1_	1					-	
O - DYNAMICS									
	T	П	П		D07 Drift cards (no. released)		T	П	
OO1 Current meters (no. of stat.)	-	H	-				+	H	
duration of measurement)	-	H			DOB Bottom drifters (no. released)		+	H	
003 Currents measured from ship drift					D09 Tidal observations (duration)		+		
004 GEK	75	a	A	1, 3	D10 (no. of observations)		1	Ц	
005 Drifters (number)		Ц			D90 Other		1		
006 Swallow floats (number)									
B - BIOLOGY									
02 Phytoplankton pigments		T	T		B21 Commercial benthic crustacean				
08 Phytoplankton		1	1		B27 Deep scattering layers		I		
809 Zooplankton		t	1		B28 Acoustical reflections on marine organisms		1		
310 Neuston		$\dagger$	t		B29 Biologic sounds		1	1	
311 Nekton	-	-	+		B30 Bioluminescence		+	1	
	1	+	+	1	B31 Vitamin concentrations	-	+	+	
312 Invertebrate nekton		+	+	-	B32 Aminoacid concentration		+	+	-
313 Pelagic eggs and larvae	-	+	1	-	B33 Hydrocarbon concentrations	-	+	+	
314 Pelagic fish		+	+	-		-	+	+	+
318 Zoobenthos	13	1			B37 Taggings			1	1
Remarks	T	1	Т	T	B60 Physiology	T	T	T	Г
BS TYPES OF STUDIES		+	1	-		-	+	+	-
B51 Identification		1	1		B61 Behaviour	l pri	nt	ir	lg.
* Data Format: 1. ma 3. gr 6. an 7. di	aph r	ec e r	or re	ding cordi ordin	l blication, 2. automatic	. ·pun	ich	ied	d



## IV. PUBLICATIONS

The following 20 volumes of the "Data Report of CSK" series were published by KDC(JODC) from October 1977 to February 1978.

Book No.	Ship & Area	Period	KDC Ref.
381	Shoyo Maru Western Pacific	2 Oct. 1973 - 7 Jan. 1974	49K191
393	Shoyo <sup>M</sup> aru Western Pacific	2 Oct. 30 Nov. 1974	49K202
395	Ryofu Maru Western <b>P</b> acific	14 Jan 10 Feb. 1975	49K195
396	Kofu Maru East of Japan	4 Feb 14 Mar. 1975	49K201
397	Shumpu Maru Seto Naikai, Kii Channel & South of Japan	1 - 27 Feb. 1975	49K2O3
399	Seifu Maru Japan Sea	3 Feb 2 Mar. 1975	49K196
400	Takuyo South of Japan	7 - 24 Mar. 1975	49K197
401	Takuyo South of Japan	5 - 25 May 1975	49K207
403	Suro No. 3 South of Korea	2 - 20 June 1975	24K052
406	Ryofu Maru Western Pacific	10 June - 8 Aug. 1975	49K205
408	Shumpu Maru Seto Naikai, South of Japan	3 July - 4 Aug. 1975	49K211
409	Chofu Maru East China Sea	12 July - 12 Aug. 1975	49K200
410	Seifu Maru Japan Sea	5 July - 12 Aug. 1975	49K204
411	Kaiyo South of Japan	11 Aug 3 Sept. 1975	49K208

Book No.	Ship & Area	Period	KDC Ref.
413	Takuyo East China Sea & South of Japan	18 Oct 16 Nov. 1975	49K217
415	Ryofu Maru Western Pacific & East China Sea	14 Jan 17 Feb. 1976	49K209
417	Shumpu Maru Osaka Bay & South of Japan	2 - 27 Feb. 1976	49K215
418	Chofu Maru East China Sea	9 - 21 Feb. 1976	49K210
419	Seifu Maru Japan Sea	3 Feb 15 Mar. 1976	49K212
420	Shoyo South of Japan	10 - 24 Mar. 1976	49K218

\* \* \* \* \* \* \* \* \* \* \* \* \* \* \*

V. <u>DATA RECEIVED</u> Catalogue of Data Received by KDC (JODC), 1 October 1977 - 28 February 1978

									-	7	
KDC Mo.Day/Yr. Ref. No.	KDC Ref. No.	Ship Code*	Agency	Period	Area	No. of Stas.	Serial	BTs	Currents	Торовтарћу	Biological
10.01/77	JAPAN 49K231	RY	МЪЈМА	06.04-08.02,1977	Western Pacific	107	T S O P TP N2 N3 NH PH	116	13	Q	Phaeo. Chl.a
10.01/77	49K232	CH	NMOJMA	07.12-08.13,1977	East China Sea	63	T S O P TP N2 N3 NH PH COD	129	81	Q	Phaeo. Chl.a
10.01/77	49K233	SH	КМОЈМА	01.29-02.26,1977	South of Japan	30	T S O P N2 N3 PH COD	83	77	Q	Phaeo. Chl.a
10.12/77	49K234	KO	НМОЈМА	02.08-03.14,1977	South of Hokkaido & East of Japan	, 23	T S O P TP N2 N3 NH PH COD			Q	Phaeo. Chl.a
02.10/78	49K235	SI	ММОЈМА	07.08-08.12,1977 Japan Sea	Japan Sea	38	T S O P TP N2 N3 NH PH COD	84	84	Q	Phaeo. Chl.a

Ryofu Maru Chofu Maru Shumpu Maru Kofu Maru Seifu Maru

RY CH SH KO SI

Ship Code\*

JAPAN