

NO. 50

MAR. 1977

# *CSK NEWSLETTER*



**JAPAN OCEANOGRAPHIC DATA CENTER**

*Hydrographic Department, Maritime Safety Agency*

*Tokyo, Japan*

C O N T E N T S

- I. Extract of Reports relating to CSK from the Summary Report of Seventh Session of the Executive Council of the IOC, Bergen, Norway, 21 - 26 June 1976 (IOC/EC-VII/3).
- II. Cruise Reports (ROSCOP)
- Japan
- |             |                                  |
|-------------|----------------------------------|
| Hakuho Maru | (July 19 - August 22, 1974)      |
| Takuyo      | (October 28 - November 26, 1974) |
| Takuyo      | (March 7 - 27, 1975)             |
| Takuyo      | (May 8 - 25, 1975)               |
| Kaiyo       | (August 11 - September 3, 1975)  |
| Kofu Maru   | (February 4 - March 4, 1975)     |
| Kofu Maru   | (July 3 - 22, 1975)              |
| Shumpu Maru | (July 3 - August 8, 1975)        |
| Chofu Maru  | (July 12 - August 12, 1975)      |
| Seifu Maru  | (July 5 - August 12, 1975)       |
- III. Abstract of the Papers on CSK
- IV. Publications
- V. Data Received
- Japan (Takuyo - 2 crs., Shoyo, Kaiyo, Seifu Maru)

I. Extract of Reports relating to CSK from the Summary Report of Seventh Session of the Executive Council of the IOC, Bergen, Norway, 21 - 26 June 1976 (IOC/EC-VII/3, Original: in English).

5.7 CO-OPERATIVE STUDY OF THE KUROSHIO AND ADJACENT REGIONS (CSK)

It was noted that the Assembly had requested the Executive Council to consider further the matter of the future of IOC activities in the Western Pacific.

The delegate of Japan introduced the subject by referring to a letter of 24 April 1976 from the International Co-ordinator for CSK, Prof. K. Wadati, (doc. IOC/EC-VII/15 Add.). He also asked the Council to consider the proposal to terminate CSK in December 1976 and replace it by another project. He then informed the Council about a draft resolution that had been prepared jointly by Japan and the Philippines which suggests the establishment of an ad hoc group to work by correspondence on matters related to the formation and work of WESTPAC; this task team will report to the tenth session of the Assembly.

The representative of Unesco stated that Unesco would continue support to the maintenance and study of the plankton collection of the Regional Marine Biological Centre in Singapore but was ceasing support for sorting. He stressed that the plankton collection is an important resource for region.

The delegate from India supported this statement and reported that both the sorted and the unsorted collections at the Centre are in an excellent condition.

The delegate of Australia stated that both WESTPAC and CINCWIO offer the Commission an opportunity to re-examine its philosophy towards co-operative investigations. In regard to both these bodies he suggested a number of basic principles to guide the Commission's attitude to them.

Firstly, the member states of the Co-operative Investigation should establish very carefully the major problems that can only be solved by co-operative study. These problems must relate to the real needs of the region. The assistance of other United Nations agencies such as FAO, WMO and Unesco (Division of Marine Sciences), as well as IOC itself, should be sought to establish these basic problems. Subsidiary bodies of these agencies such as IPFC could also have a role.

Secondly, after the basic problems are established a proper scientific formulation of the programme necessary to achieve solutions, either within the means and expertise of the Member States or with external assistance, must be arrived at. The newly-formed Scientific Advisory Board could be a means to achieve this clear formulation of a programme. The IOC should then examine the programme in relation to its budget and other considerations before accepting responsibility.

Thirdly, an evaluation of the present state of knowledge of the oceanography of the region, particularly as it relates to basic problems, must be an integral part of the programme definition. The use of consultants, or scientific bodies such as SCOR, supervised by the Scientific Advisory Board could be the mechanism to achieve this evaluation.

Finally, the Working Committees for TEMA and IODE and in some circumstances for GIPME and IGOSS should have direct representation in the programme design and execution stages of the co-operative investigation. The role of these Working Committees in the success of any co-operative investigation cannot be over-estimated.

Resolution EC-VII.6 was adopted by vote: 11 for, 1 against with 8 abstentions. The Soviet delegate believed that the vote was illegal, because in his opinion the final paragraph of the resolution contravenes resolution IX-22: Regional Co-operation in Marine Science. The Secretary was instructed to check the legality of this resolution before taking any action.

RESOLUTION EC-VII.6

AD HOC TASK TEAM FOR THE WESTERN PACIFIC (WESTPAC)

The Executive Council,

Noting resolutions IX-12 and IX-22,

Recognizing the need to continue certain activities of CSK along the lines recommended by the ICG-CSK at its tenth session (recommendation CSK-X.1),

Decides to establish an ad hoc Task Team for WESTPAC to be composed of the national co-ordinators of the present countries participating in CSK, with the following terms of reference:

The ad hoc Task Team shall:

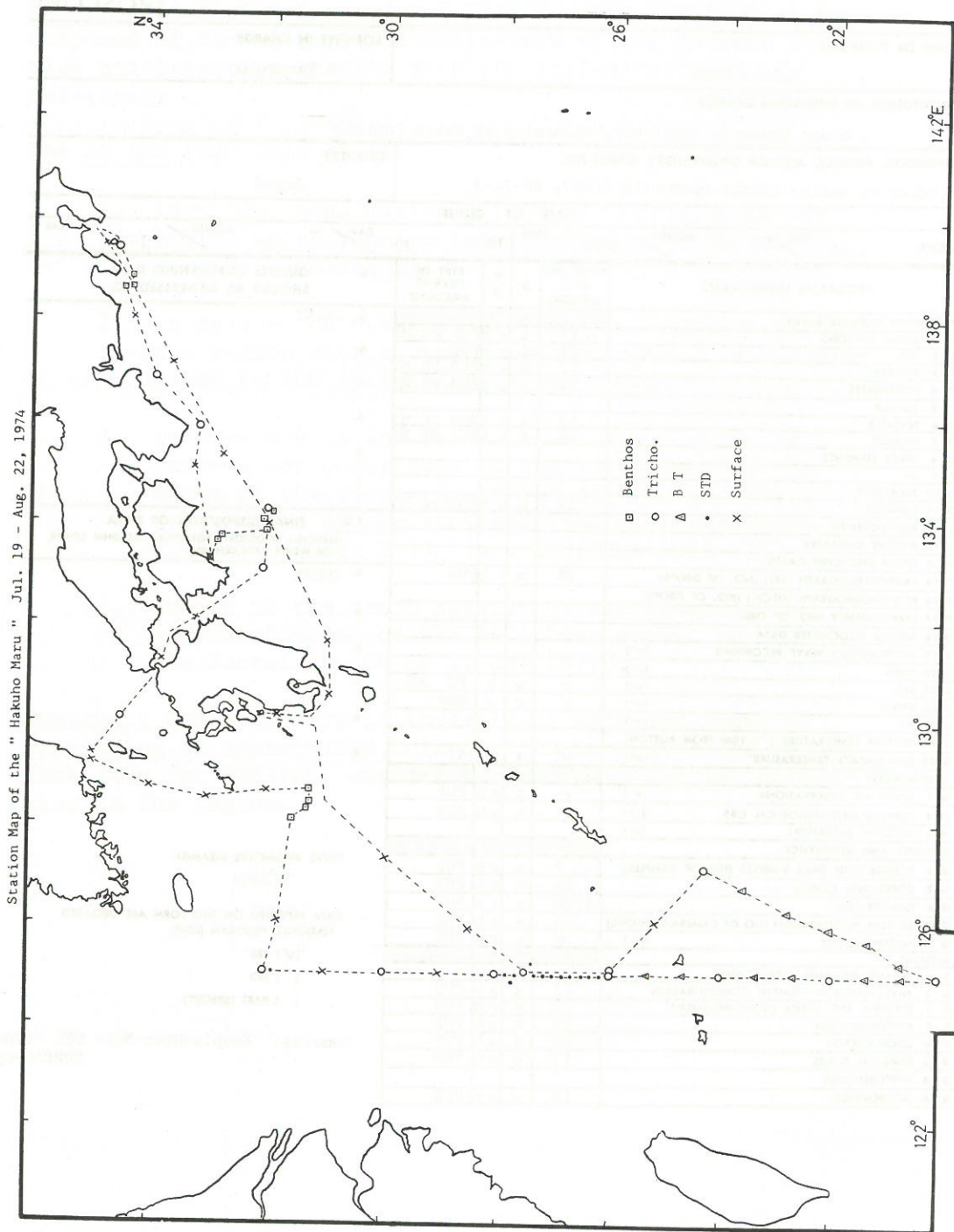
1. identify those marine scientific problems in the region which require international collaboration for their solution;
2. integrate the national scientific programme within the region with a view to giving them greater relevance to IOC activities in the region;
3. recommend ways and means by which the above programmes can contribute to the fulfilment of the needs of the countries in the region, as identified by the ad hoc regional TEMA meeting, Manila, 15-19 September 1975 (doc. IOC/TEMA-ASIA-I/3);
4. submit to the tenth session of the Assembly its recommendations on WESTPAC (these should be sent to the Secretary IOC by 31 May 1977);

Instructs the Secretary to investigate ways and means of appointing an appropriate scientist to work with the ad hoc Task Team for WESTPAC, and act as secretary for IOC activities in the region.

\* \* \* \* \*

(ROSCOP)

SHIP OR PLATFORM Hakuho Maru				SCIENTIST IN CHARGE G. Yamamoto					
INSTITUTION OR OPERATING AGENCY Ocean Research Institute, University of Tokyo (ORIUT)									
EXPEDITION, PROJECT, AND/OR ORIGINATOR'S CRUISE NO. Studies on marine biotic community (CSK), KH-74-3						COUNTRY Japan			
DATE OF CRUISE FROM: 19 DAY / 7 MONTH / 1974 YEAR TO: 22 DAY / 8 MONTH / 1974 YEAR									
PROGRAMS UNDERTAKEN				TOTAL NO. OF Δ STATIONS	Q	F D	TYPE OF FORMAT AVAILABLE	Q	QUERIES CONCERNING DATA SHOULD BE ADDRESSED TO:
DESCRIPTIVE OCEANOGRAPHY									a. ORIUT
D 1	SERIAL STATIONS		17	a	a	HPUB PC MT			b.
D 2	STD		21	a	a	HPUB			c.
D 3	OXYGEN		17	a	a	HPUB PC MT			d.
D 4	PHOSPHATES		17	a	a	HPUB PC MT			e.
D 5	TOTAL-P								f.
D 6	NITRATES		17	a	a	HPUB PC MT			
D 7	NITRITES		17	a	a	HPUB PC MT			
D 8	TRACE ELEMENTS								
D 9	pH								
D 10	ALKALINITY								
D 11	SILICATES		17	a	a	HPUB PC MT			
D 12	RADIOACTIVITY								
D 13	ISOTOPE CHEMISTRY								
D 14	OTHER DISSOLVED GASES								
D 15	BATHYTHERMOGRAPH (XBT) (NO. OF DROPS)		28	a	a	HPUB			F D FINAL DISPOSITION OF DATA (NATIONAL REPOSITORY, INSTITUTION, REGIONAL CENTER, OR WORLD DATA CENTERS)
D 16	BATHYTHERMOGRAPH (MECH.) (NO. OF DROPS)								a. ORIUT
D 17	TRANSPARENCY (NO. OF OBS.)								b.
D 18	SOUND VELOCIMETER DATA								c.
D 19	INSTRUMENTED WAVE RECORDING (✓)								d.
D 20	TIDES (✓)								e.
D 21	SEA (✓)	✓		a	b	PC MT			f.
D 22	SWELL (✓)	✓		a	a	RDS			
D 23	ICE (✓)								
D 24	BOTTOM TEMPERATURE (≤ 10M FROM BOTTOM)								
D 25	SEA SURFACE TEMPERATURE (✓)	✓		a	a	AT			
METEOROLOGY									
M 1	UPPER AIR OBSERVATIONS (✓)	✓		a	a	PUB			
M 2	SURFACE METEOROLOGICAL OBS. (✓)	✓		a	a	PUB			
M 3	INCIDENT RADIATION (✓)								
GEOLOGY AND GEOPHYSICS									
Q 1	DREDGE AND GRAB SAMPLES (NO. OF SAMPLES)		7	a	a	PUB			TOTAL KILOMETERS STEAMED: 7720Km
Q 2	CORES (NO. CORES)		25	a	a	PUB			DATA REPORTED ON THIS FORM ARE DECLARED NATIONAL PROGRAM (DNP): (✓) YES ( ) NO ( ) PART (SPECIFY)
Q 6	GRAVITY (Km)		7720	a	a	PUB			Remarks: Zooplankton Net- ORI -type NORPAC-type
Q 11	BOTTOM PHOTOGRAPHY (NO. OF CAMERA STATIONS)		13	a	a	PUB			
Q 12	PALEONTOLOGY (✓)	✓		a	a	PUB			
BIOLOGY									
B 1	PRIMARY ORGANIC PRODUCTION								
B 2	PHYTOPLANKTON PIGMENT CONCENTRATION		17	a	a	PUB			
B 6	BACTERIA AND OTHER MICROORGANISMS		2	a	a	PUB			
B 7	PHYTOPLANKTON		17	a	a	PUB			
B 8	ZOOPLANKTON		30	a	a	PUB			
B 13	DEMERSAL FISHES		13	a	a	PUB			
B 14	PHYTOBENTHOS								
B 15	ZOOBENTHOS		13	a	a	PUB			



ROSCOP (2nd edition)

**OCEANOGRAPHY**  
**GENERAL CRUISE INVENTORY**

A00  
DATA CENTRE: J.O.D.C  
REFERENCE No: R.75004

**A - GENERAL INFORMATION ON WORK PERFORMED**

A01 Expedition/Project Special Study of East China Sea  
Cruise No. or name 74-11

A02 Ship or platform Takuyo (JDRP)  
Platform type 01

A03 Country JAPAN

A04 Organization \_\_\_\_\_

A05 Chief scientist(s) I. Noguchi

A91 Declared national prog. ?  YES  NO  PART  
Exchange restricted?  YES  NO  PART

A92 Co-operative programme?  YES  NO Name Special Study of East China Sea  
Co-ordinated internationally?  YES  NO By whom? \_\_\_\_\_

A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS

Whom to query

a HD, MSA Final disposition of data HD, MSA, 3-1, Tsukiji, 5-chome, Chuo-ku, Tokyo

b \_\_\_\_\_ B \_\_\_\_\_

c \_\_\_\_\_ C \_\_\_\_\_

A07 Date: from: 28 10 74 DAY MONTH YEAR  
to: 26 11 74 DAY MONTH YEAR

A08 General ocean areas East China Sea & Philippine Sea

A09 Type(s) of marine zone(s) 06 07

A10 Geographic area Latitude \_\_\_\_\_ N/S Longitude \_\_\_\_\_ E/W

If all data were collected at a fixed station, fill in the co-ordinates

Discipline and type of measurements	Index 10 x 10				Index 1° x 1°	Discipline and type of measurements	Index 10 x 10				Index 1° x 1°
	Qc	L	G	G			Qc	L	G	G	
HS, HP, HC, D	1	3	1	2							
HP, P, O	1	3	1	3							

**M - METEOROLOGY**

	Number	i	l	Format		Number	i	l	Format
M01 Upper air observations					M04 Ice observations				
M02 Incident radiation					M05 Occasional standard measurements				
M03 Air-sea interface studies					M06 Systematic standard measurements				
					M90 Other measurements				

Remarks \_\_\_\_\_

**H - HYDROGRAPHY**

HS SURFACE				NEAR SEA FLOOR (< 10 m)					
	Number	i	l	Format		Number	i	l	Format
H01 Continuous temperature recording					H05 Continuous temperature recording				
H02 Continuous salinity recording					H06 Continuous salinity recording				
H03 Discrete temperature measurements					H07 Discrete temperature measurements	42	a	A	1
H04 Discrete salinity measurements					H08 Discrete salinity measurements	42	a	A	1
HP PHYSICAL					HC CHEMICAL				
H09 Classical oceanographic stations	42	a	A	1	H21 Oxygen	42	a	A	1

## H - HYDROGRAPHY (Continued)

	Number	i	l	Format		Number	i	l	Format
H10 Vertical profiles (STD/CTD)	11	a	A	1.2.3	H22 Phosphates	42	a	A	1
H11 sub-surface measurements underway					H23 Total - P	42	a	A	1
H12 Mechanical bathythermograph (no. of drops)	24	a	A	1.8	H24 Nitrates	42	a	A	1
H13 Bathythermograph-expendable (no. of drops)	121	a	A	1.8	H25 Nitrites	42	a	A	1
H14 Sound velocity stations					H26 Silicates	42	a	A	1
H15 Acoustic stations					H27 Alkalinity				
H16 Transparency					H28 pH	42	a	A	1
H80 Other measurements					H31 Radioactivity				

Remarks

## P - POLLUTION

P01 Suspended solids					P07 Waste water : BOD				
P02 Heavy metals	23	a	A	1	P10 Waste water : Other	15	a	A	1

Remarks

## D - DYNAMICS

D01 Current meters (no. of stat.)					D07 Drift cards (no. released)				
D02 Current meters (average duration of measurement)	1	a	A	1.2	D08 Bottom drifters (no. released)				
D03 Currents measured from ship drift					D09 Tidal observations (duration)				
D04 GEK	133	a	A	1.2	D10 Sea and swell (no. of observations)				
D05 Drifters (number)					D90 Other				
D06 Swallow floats (number)									

## B - BIOLOGY

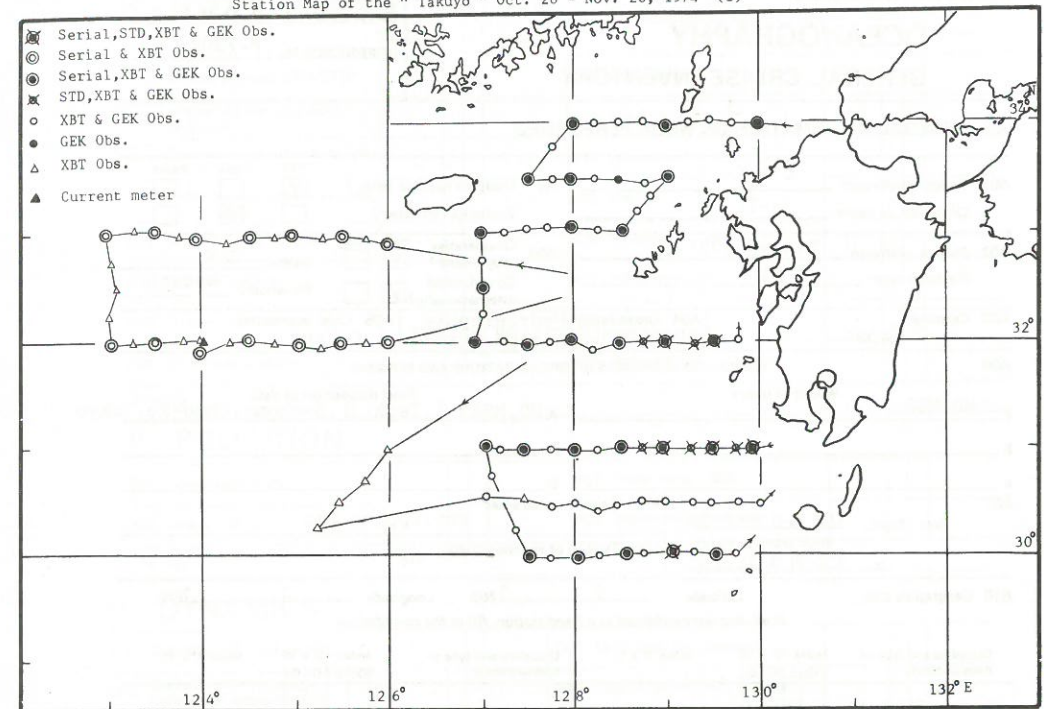
B02 Phytoplankton pigments					B21 Commercial benthic crustacean				
B08 Phytoplankton					B27 Deep scattering layers				
B09 Zooplankton					B28 Acoustical reflections on marine organisms				
B10 Neuston					B29 Biologic sounds				
B11 Nekton					B30 Bioluminescence				
B12 Invertebrate nekton					B31 Vitamin concentrations				
B13 Pelagic eggs and larvae					B32 Aminoacid concentration				
B14 Pelagic fish					B33 Hydrocarbon concentrations				
B18 Zoobenthos					B37 Taggings				

Remarks

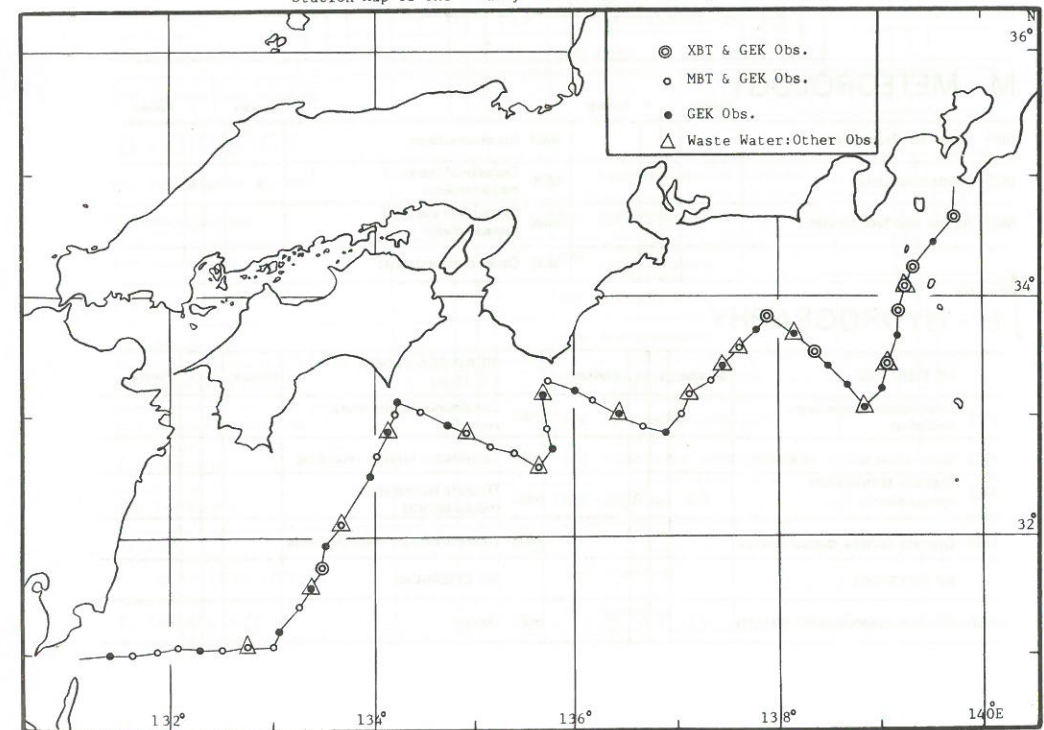
BS TYPES OF STUDIES					B60 Physiology				
B51 Identification					B61 Behaviour				

\* Data Format: 1. Manuscript or publication, 2. Automatic printing  
3. Graph recording, 4. Punched card, 5. Punched tape  
6. Analogue recording on magnetic tape  
7. Digital recording on magnetic tape  
8. Photograph, 9. Samples, 0. Other or unspecified

Station Map of the "Takuyo" Oct. 28 - Nov. 26, 1974 (1)



Station Map of the "Takuyo" Oct. 28 - Nov. 26, 1974 (2)



**OCEANOGRAPHY  
GENERAL CRUISE INVENTORY**

A00  
DATA CENTRE: J.O.D.C  
REFERENCE No: R.75027

**A - GENERAL INFORMATION ON WORK PERFORMED**

A01 Expedition/Project C S K Cruise No. or name 74-11	A91 Declared national prog. ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> PART Exchange restricted ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PART
A02 Ship or platform Takuyo (JDRP) Platform type 01	A92 Co-operative programme ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Co-ordinated internationally? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Name CSK By whom? Wadati
A03 Country Japan	A04 Organization Hydrographic Department Maritime Safety Agency (HD, MSA)
A05 Chief scientist(s) G. Ueno	

A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS

a HD, MSA Whom to query  
Final disposition of data  
A HD, MSA3-1, Tsukiji, 5-chome, Chuo-ku, Tokyo

b \_\_\_\_\_ B \_\_\_\_\_

c \_\_\_\_\_ C \_\_\_\_\_

A07 Date: from: 10, 7, 0, 3, 7, 5 to: 12, 7, 0, 3, 7, 5  
DAY MONTH YEAR

A08 General ocean areas  
Philippine Sea

A09 Type(s) of marine zone(s)  
06

A10 Geographic area Latitude \_\_\_\_\_ N/S Longitude \_\_\_\_\_ E/W

If all data were collected at a fixed station, fill in the co-ordinates

Discipline and type of measurements	Index 10 x 10				Index 1° x 1°	Discipline and type of measurements	Index 10 x 10				Index 1° x 1°
	Q	L	G	G			Q	L	G	G	
M, HS, HP, HC, D	1	3	1	3							

**M - METEOROLOGY**

Number i l Format				Number i l Format			
M01 Upper air observations				M04 Ice observations			
M02 Incident radiation				M05 Occasional standard measurements	X	a	A 1
M03 Air-sea interface studies				M06 Systematic standard measurements			
				M90 Other measurements			

Remarks

**H - HYDROGRAPHY**

HS SURFACE				NEAR SEA FLOOR (< 10 m)			
Number	i	l	Format	Number	i	l	Format
H01 Continuous temperature recording				H05 Continuous temperature recording			
H02 Continuous salinity recording				H06 Continuous salinity recording			
H03 Discrete temperature measurements	86	a	A 1	H07 Discrete temperature measurements			
H04 Discrete salinity measurements				H08 Discrete salinity measurements			
HP PHYSICAL				HC CHEMICAL			
H09 Classical oceanographic stations	31	a	A 1	H21 Oxygen	31	a	A 1

**H - HYDROGRAPHY (Continued)**

Number i l Format				Number i l Format			
H10 Vertical profiles (STD/CTD)				H22 Phosphates	31	a	A 1
H11 sub-surface measurements underway				H23 Total - P			
H12 Mechanical bathythermograph (no. of drops)	52	a	A 1, 8	H24 Nitrates			
H13 Bathythermograph-expendable (no. of drops)	7	a	A 1, 3	H25 Nitrites			
H14 Sound velocity stations				H26 Silicates	31	a	A 1
H15 Acoustic stations				H27 Alkalinity			
H16 Transparency				H28 pH	31	a	A 1
H80 Other measurements				H31 Radioactivity			

Remarks

**P - POLLUTION**

P01 Suspended solids				P07 Waste water : BOD			
P02 Heavy metals				P08 Waste water : Nitrates			

Remarks

**D - DYNAMICS**

D01 Current meters (no. of stat.)				D07 Drift cards (no. released)			
D02 Current meters (average duration of measurement)				D08 Bottom drifters (no. released)			
D03 Currents measured from ship drift				D09 Tidal observations (duration)			
D04 GEK	86	a	A 1, 3	D10 Sea and swell (no. of observations)			
D05 Drifters (number)				D90 Other			
D06 Swallow floats (number)							

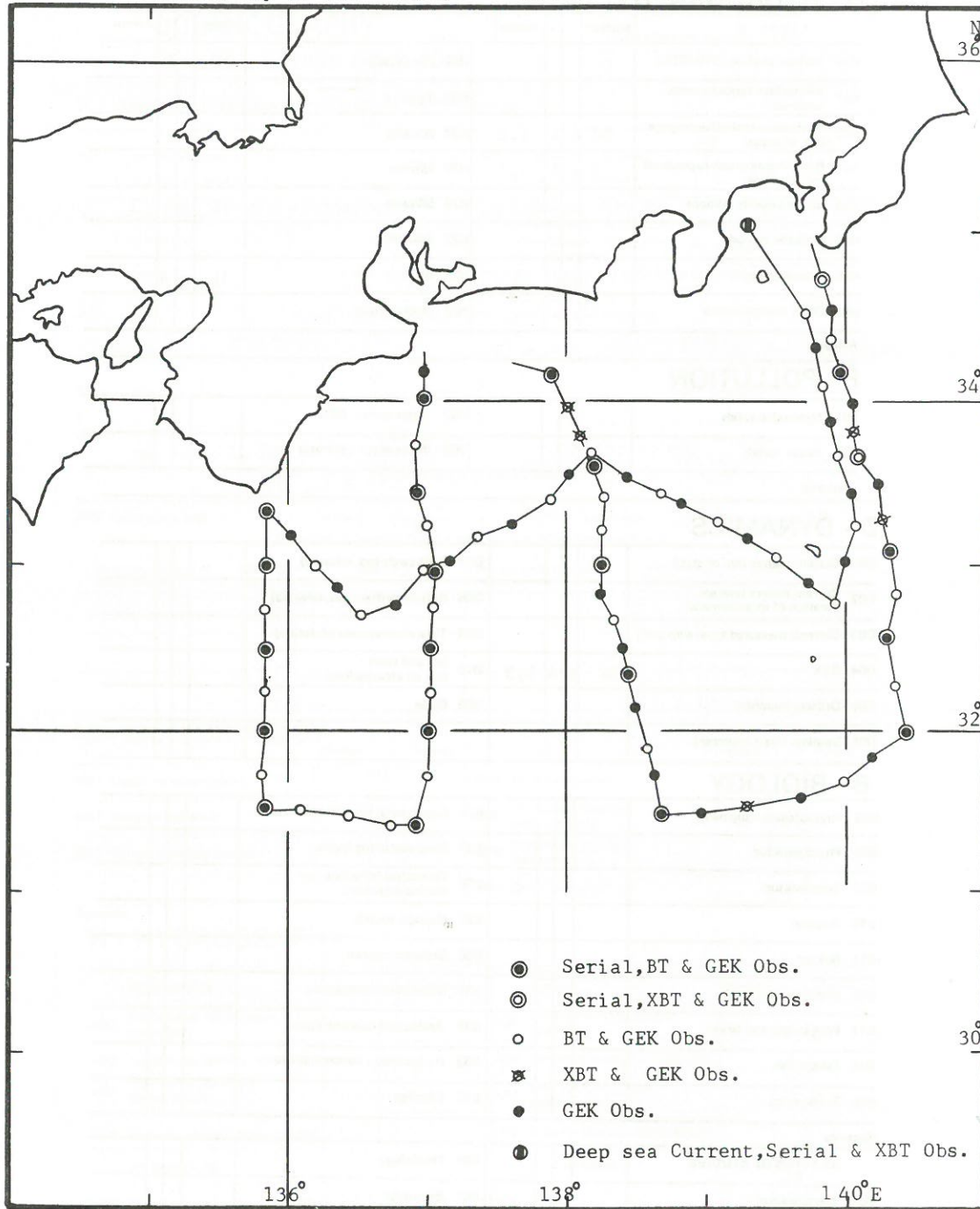
**B - BIOLOGY**

B02 Phytoplankton pigments				B21 Commercial benthic crustacean			
B08 Phytoplankton				B27 Deep scattering layers			
B09 Zooplankton				B28 Acoustical reflections on marine organisms			
B10 Neuston				B29 Biologic sounds			
B11 Nekton				B30 Bioluminescence			
B12 Invertebrate nekton				B31 Vitamin concentrations			
B13 Pelagic eggs and larvae				B32 Aminoacid concentration			
B14 Pelagic fish				B33 Hydrocarbon concentrations			
B18 Zoobenthos				B37 Taggings			

Remarks

BS TYPES OF STUDIES				B60 Physiology			
B51 Identification				B61 Behaviour			

Station Map of the "Takuyo" Mar. 7 - 27 1975



ROSCOP (2nd edition)

**OCEANOGRAPHY**  
**GENERAL CRUISE INVENTORY**

A00  
DATA CENTRE: J.O.D.C  
REFERENCE No: R. 76002

**A - GENERAL INFORMATION ON WORK PERFORMED**

A01 Expedition/Project <u>Current Measurement</u> Cruise No. or name <u>the 2nd</u>		A91 Declared national prog. ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> PART Exchange restricted ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PART
A02 Ship or platform <u>Takuyo (JDRP)</u> Platform type <u>01</u>		A92 Co-operative programme ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Name <u>CSK</u> Co-ordinated internationally ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO By whom? <u>K.Wadati</u>
A03 Country <u>Japan</u>	A04 Organization <u>Hydrographic Department, Maritime Safety Agency (HD, MSA)</u>	A05 Chief scientist(s) <u>K.Nishida</u>
A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS		
a <u>HD, MSA</u> Whom to query <u>Final disposition of data</u>		A <u>HD, MSA, 3-1, Tsukiji 5 Chome, Chuo-ku, Tokyo</u>
b _____		B _____
c _____		C _____
A07 Date: from: <u>08, 05, 75</u> DAY MONTH YEAR to: <u>25, 05, 75</u>		A08 General ocean areas <u>56 (Philippine Sea)</u>
		A09 Type(s) of marine zone(s) <u>06</u>

A10 Geographic area Latitude \_\_\_\_\_ N/S Longitude \_\_\_\_\_ E/W  
If all data were collected at a fixed station, fill in the co-ordinates

Discipline and type of measurements	Index 10 x 10				Index 1° x 1°	Discipline and type of measurements	Index 10 x 10				Index 1° x 1°
	Qc	L	G	G			Qc	L	G	G	
D, M, HP, HS, HC	1	3	1	3							
	1	3	1	4							

**M - METEOROLOGY**

Number	i	l	Format	Number	i	l	Format
M01 Upper air observations				M04 Ice observations			
M02 Incident radiation				M05 Occasional standard measurements	X	a	A 1
M03 Air-sea interface studies				M06 Systematic standard measurements			
				M90 Other measurements			

Remarks

**H - HYDROGRAPHY**

HS SURFACE				NEAR SEA FLOOR (< 10 m)			
Number	i	l	Format	Number	i	l	Format
H01 Continuous temperature recording				H05 Continuous temperature recording			
H02 Continuous salinity recording				H06 Continuous salinity recording			
H03 Discrete temperature measurements	93	a	A 1	H07 Discrete temperature measurements			
H04 Discrete salinity measurements				H08 Discrete salinity measurements			
HP PHYSICAL				HC CHEMICAL			
H09 Classical oceanographic stations	24	a	A 1,7	H21 Oxygen	24	a	A 1



## H - HYDROGRAPHY (Continued)

	Number	i	l	Format		Number	i	l	Format
H10 Vertical profiles (STD/CTD)					H22 Phosphates	24	a	A	1
H11 sub-surface measurements underway					H23 Total - P				
H12 Mechanical bathythermograph (no. of drops)	55	a	A	1, 8	H24 Nitrates				
H13 Bathythermograph-expendable (no. of drops)	12	a	A	1, 3	H25 Nitrites				
H14 Sound velocity stations					H26 Silicates	24	a	A	1
H15 Acoustic stations					H27 Alkalinity				
H16 Transparency					H28 pH	24	a	A	1
H80 Other measurements					H31 Radioactivity	2	a	A	1

Remarks

## P - POLLUTION

P01 Suspended solids					P07 Waste water : BOD				
P02 Heavy metals					P08 Waste water : Nitrates				

Remarks

## D - DYNAMICS

D01 Current meters (no. of stat.)					D07 Drift cards (no. released)				
D02 Current meters (average duration of measurement)					D08 Bottom drifters (no. released)				
D03 Currents measured from ship drift					D09 Tidal observations (duration)				
D04 GEK	92	a	A	1, 3	D10 Sea and swell (no. of observations)				
D05 Drifters (number)					D80 Other				
D06 Swallow floats (number)									

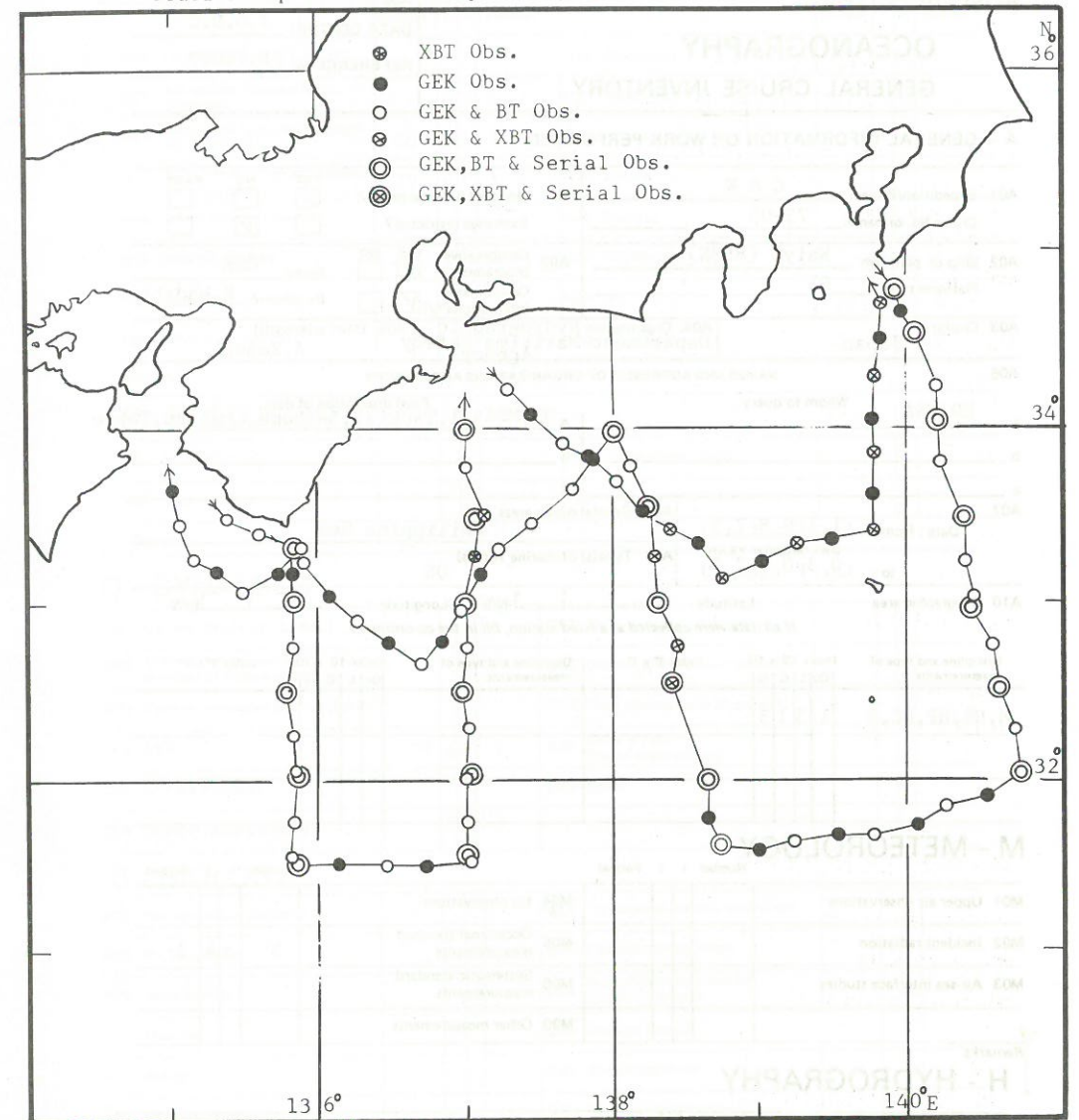
## B - BIOLOGY

B02 Phytoplankton pigments					B21 Commercial benthic crustacean				
B08 Phytoplankton					B27 Deep scattering layers				
B09 Zooplankton					B28 Acoustical reflections on marine organisms				
B10 Neuston					B29 Biologic sounds				
B11 Nekton					B30 Bioluminescence				
B12 Invertebrate nekton					B31 Vitamin concentrations				
B13 Pelagic eggs and larvae					B32 Aminoacid concentration				
B14 Pelagic fish					B33 Hydrocarbon concentrations				
B18 Zoobenthos					B37 Taggings				

Remarks

BS TYPES OF STUDIES					B60 Physiology				
B51 Identification					B61 Behaviour				

Station Map of the "Takuyo" May 8 - 25, 1975



ROSCOP (2nd edition)

**OCEANOGRAPHY  
GENERAL CRUISE INVENTORY**

A00  
DATA CENTRE: J.O.D.C  
REFERENCE No: R.76007

**A - GENERAL INFORMATION ON WORK PERFORMED**

A01 Expedition/Project C S K Cruise No. or name 75-05	A91 Declared national prog.? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> PART Exchange restricted? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PART
A02 Ship or platform Kaiyo (8LYK) Platform type 01	A92 Co-operative programme? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Name CSK Co-ordinated internationally? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO By whom? K.Wadati
A03 Country Japan	A04 Organization Hydrographic Department Maritime Safety Agency
A05 Chief scientist(s) A.Kosugi	

A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS

a Whom to query  
HD,MSA  
Final disposition of data  
A HD,MSA3-1, Tsukizizi, 5-chome, Chuo-ku, Tokyo

b \_\_\_\_\_ B \_\_\_\_\_

c \_\_\_\_\_ C \_\_\_\_\_

A07 Date: from: 1, 1, 0, 8, 7, 5  
DAY MONTH YEAR  
to: 0, 3, 0, 9, 7, 5

A08 General ocean areas  
Philippine Sea

A09 Type(s) of marine zone(s)  
06

A10 Geographic area Latitude \_\_\_\_\_ N/S Longitude \_\_\_\_\_ E/W  
If all data were collected at a fixed station, fill in the co-ordinates

Discipline and type of measurements	Index 10 x 10 O C L G G	Index 1° x 1°	Discipline and type of measurements	Index 10 x 10 O C L G G	Index 1° x 1°
M, HS, HP, HC, D	1 3 1 3				

**M - METEOROLOGY**

Number	i	l	Format	Number	i	l	Format
M01 Upper air observations				M04 Ice observations			
M02 Incident radiation				M05 Occasional standard measurements	X	a	A 1
M03 Air-sea interface studies				M06 Systematic standard measurements			
				M90 Other measurements			

Remarks

**H - HYDROGRAPHY**

HS SURFACE	Number	i	l	Format	NEAR SEA FLOOR (< 10 m)	Number	i	l	Format
H01 Continuous temperature recording					H05 Continuous temperature recording				
H02 Continuous salinity recording					H06 Continuous salinity recording				
H03 Discrete temperature measurements	121	a	A	1	H07 Discrete temperature measurements				
H04 Discrete salinity measurements					H08 Discrete salinity measurements				
<b>HP PHYSICAL</b>					<b>HC CHEMICAL</b>				
H09 Classical oceanographic stations	31	a	A	1	H21 Oxygen	31	a	A	1

**H - HYDROGRAPHY (Continued)**

Number	i	l	Format	Number	i	l	Format
H10 Vertical profiles (STD/CTD)				H22 Phosphates	31	a	A 1
H11 sub-surface measurements underway				H23 Total - P			
H12 Mechanical bathythermograph (no. of drops)	60	a	A	1, 8	H24 Nitrates		
H13 Bathythermograph-expendable (no. of drops)	29	a	A	1, 3	H25 Nitrites		
H14 Sound velocity stations				H26 Silicates	31	a	A 1
H15 Acoustic stations				H27 Alkalinity			
H16 Transparency				H28 pH	31	a	A 1
H80 Other measurements				H29 Chlorinity	31	a	A 1

Remarks

**P - POLLUTION**

P01 Suspended solids				P07 Waste water : BOD			
P02 Heavy metals				P08 Waste water : Nitrates			

Remarks

**D - DYNAMICS**

D01 Current meters (no. of stat.)				D07 Drift cards (no. released)			
D02 Current meters (average duration of measurement)				D08 Bottom drifters (no. released)			
D03 Currents measured from ship drift				D09 Tidal observations (duration)			
D04 GEK	121	a	A	1	D10 Sea and swell (no. of observations)		
D05 Drifters (number)				D90 Other			
D06 Swallow floats (number)							

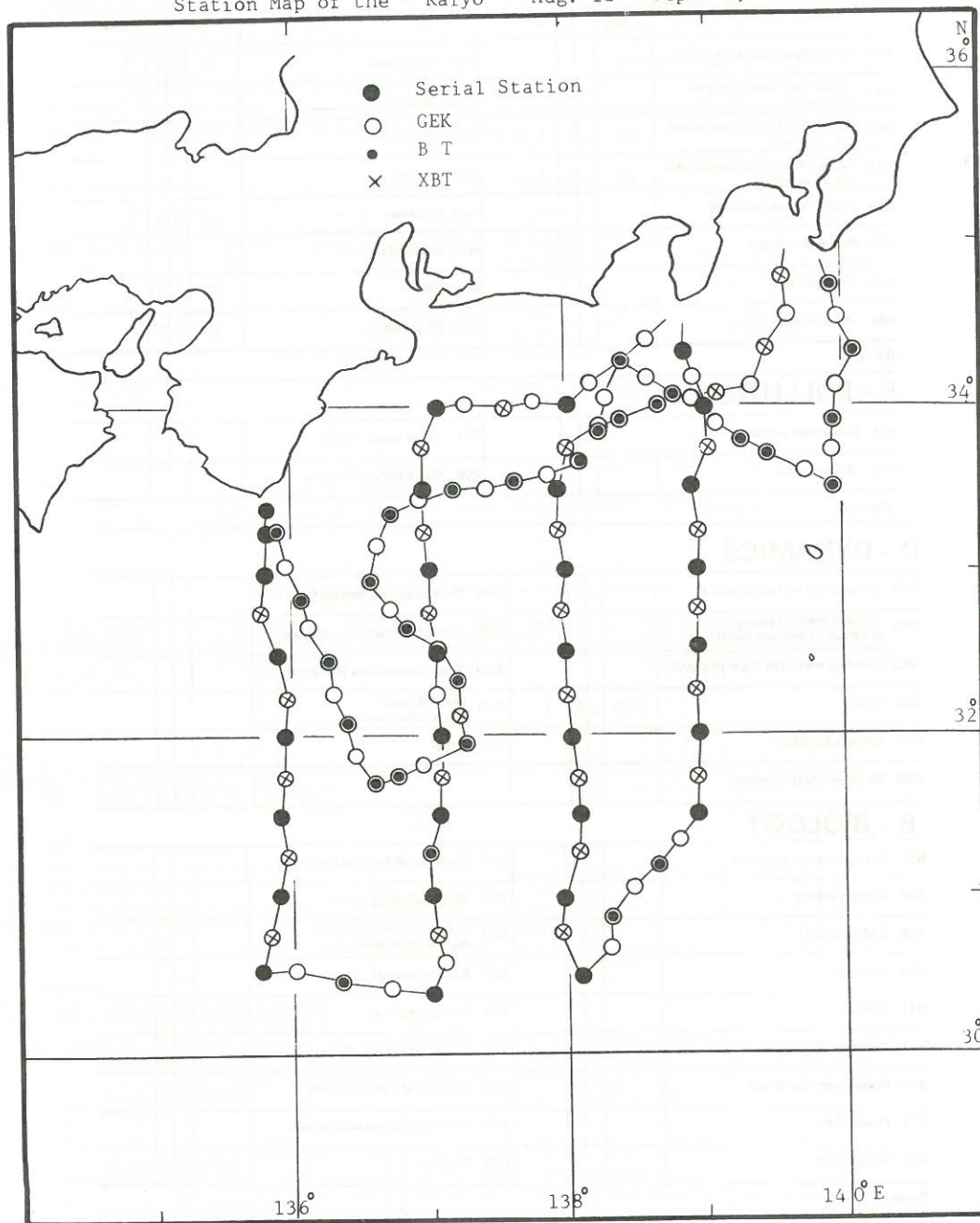
**B - BIOLOGY**

B02 Phytoplankton pigments				B21 Commercial benthic crustacean			
B08 Phytoplankton				B27 Deep scattering layers			
B09 Zooplankton				B28 Acoustical reflections on marine organisms			
B10 Neuston				B29 Biologic sounds			
B11 Nekton				B30 Bioluminescence			
B12 Invertebrate nekton				B31 Vitamin concentrations			
B13 Pelagic eggs and larvae				B32 Aminoacid concentration			
B14 Pelagic fish				B33 Hydrocarbon concentrations			
B18 Zoobenthos				B37 Taggings			

Remarks

<b>BS TYPES OF STUDIES</b>				B60 Physiology			
B51 Identification				B61 Behaviour			

Station Map of the "Kaiyo" Aug. 11 - Sept. 3, 1975



ROSCOP (2nd edition)

OCEANOGRAPHY  
GENERAL CRUISE INVENTORY

A00  
DATA CENTRE: J.O.D.C  
REFERENCE No: R.75019

A - GENERAL INFORMATION ON WORK PERFORMED

A01 Expedition/Project C S K Cruise No. or name 75-02	A91 Declared national prog. ? Exchange restricted? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PART <input type="checkbox"/>
A02 Ship or platform Kofu Maru(8JNZ) Platform type 01	A92 Co-operative programme ? Co-ordinated internationally? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Name CSK By whom? Wadati
A03 Country Japan	A04 Organization Hakodate Marine Observatory(H.M.O)
A05 Chief scientist(s) S. Kuronuma	

A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS

Whom to query  
a H.M.O. 181Akagawadorichyo Hakodate  
M.D.JMA city Hokkaido  
A H.M.O Final disposition of data  
B M.D. JMA  
C

A07 Date: from: 04/02/75  
DAY MONTH YEAR  
to: 14/03/75  
A08 General ocean areas  
North Pacific Ocean  
A09 Type(s) of marine zone(s)  
04, 06

A10 Geographic area Latitude \_\_\_\_\_ N/S Longitude \_\_\_\_\_ E/W  
If all data were collected at a fixed station, fill in the co-ordinates

Discipline and type of measurements	Index 10 x 10				Index 1° x 1°	Discipline and type of measurements	Index 10 x 10				Index 1° x 1°
	Qc	L	G	G			Qc	L	G	G	
H, Hs, Hp, Hc, P, D, B	1	3	1	4							
H, Hs, Hp, Hc, P, D, B	1	4	1	4							

M - METEOROLOGY

Number i l Format				Number i l Format			
M01 Upper air observations				M04 Ice observations			
M02 Incident radiation				M05 Occasional standard measurements			
M03 Air-sea interface studies				M06 Systematic standard measurements	X	a	A 1
				M90 Other measurements			

Remarks

H - HYDROGRAPHY

HS SURFACE				NEAR SEA FLOOR (< 10 m)					
	Number	i	l	Format		Number	i	l	Format
H01 Continuous temperature recording	x	a	A	3	H05 Continuous temperature recording				
H02 Continuous salinity recording	X	a	A	3	H06 Continuous salinity recording				
H03 Discrete temperature measurements					H07 Discrete temperature measurements				
H04 Discrete salinity measurements					H08 Discrete salinity measurements				
HP PHYSICAL				HC CHEMICAL					
H09 Classical oceanographic stations	26	a	A	1	H21 Oxygen	26	a	A	1

## H - HYDROGRAPHY (Continued)

	Number	i	l	Format		Number	i	l	Format
H10 Vertical profiles (STD/CTD)					H22 Phosphates	26	a	A	1
H11 sub-surface measurements underway					H23 Total - P	3	a	A	1
H12 Mechanical bathythermograph (no. of drops)	100	a	A	8	H24 Nitrates	3	a	A	1
H13 Bathythermograph-expendable (no. of drops)	6	a	A	3	H25 Nitrites	3	a	A	1
H14 Sound velocity stations					H26 Silicates				
H15 Acoustic stations					H27 Alkalinity				
H16 Transparency					H28 pH	3	a	A	1
H80 Other measurements					H31 Radioactivity	4	a	B	1

Remarks

## P - POLLUTION

P01 Suspended solids					P07 Waste water : BOD				
P02 Heavy metals	2	b	B	1	P08 Waste water : Nitrates				

Remarks

## D - DYNAMICS

D01 Current meters (no. of stat.)					D07 Drift cards (no. released)				
D02 Current meters (average duration of measurement)					D08 Bottom drifters (no. released)				
D03 Currents measured from ship drift					D09 Tidal observations (duration)				
D04 GEK	95	a	A		D10 Sea and swell (no. of observations)				
D05 Drifters (number)					D90 Other				
D06 Swallow floats (number)									

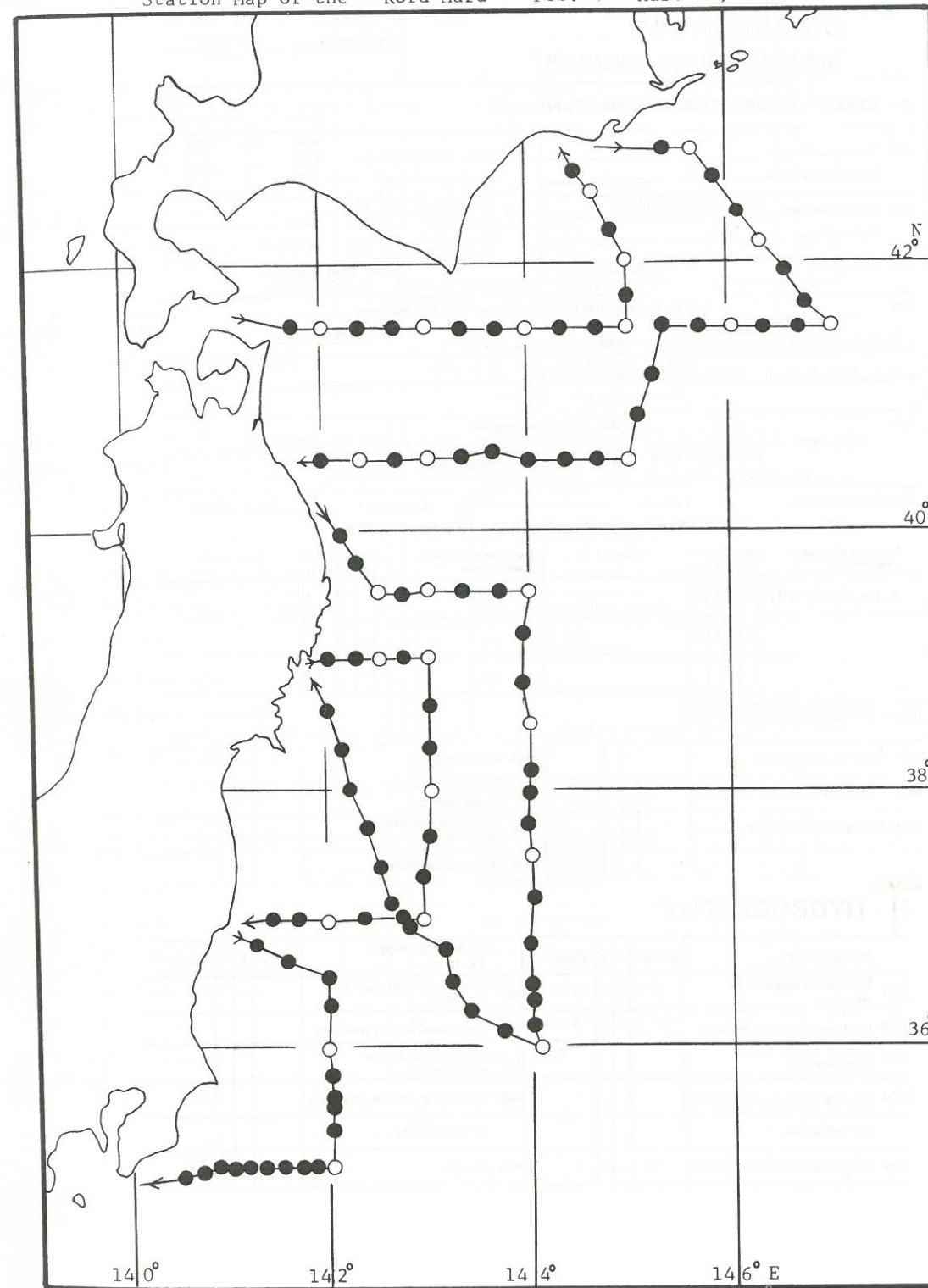
## B - BIOLOGY

B02 Phytoplankton pigments	6	a	A	1	B21 Commercial benthic crustacean				
B08 Phytoplankton	6	a	A	1	B27 Deep scattering layers				
B09 Zooplankton	4	a	A	1	B28 Acoustical reflections on marine organisms				
B10 Neuston					B29 Biologic sounds				
B11 Nekton					B30 Bioluminescence				
B12 Invertebrate nekton					B31 Vitamin concentrations				
B13 Pelagic eggs and larvae					B32 Aminoacid concentration				
B14 Pelagic fish					B33 Hydrocarbon concentrations				
B18 Zoobenthos					B37 Taggings				

Remarks

BS TYPES OF STUDIES					B60 Physiology				
B51 Identification					B61 Behaviour				

Station Map of the "Kofu Maru" Feb. 4 - Mar. 14, 1975



**OCEANOGRAPHY  
GENERAL CRUISE INVENTORY**

A00  
DATA CENTRE: J.O.D.C  
REFERENCE No.: R.76011

**A - GENERAL INFORMATION ON WORK PERFORMED**

A01 Expedition/Project Cruise No. or name: 75-06	A91 Declared national prog.? Exchange restricted?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PART <input type="checkbox"/>
A02 Ship or platform: Kofu-Maru(8JNZ) Platform type: 01	A92 Co-operative programme? Co-ordinated internationally?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Name: _____ By whom? _____
A03 Country: Japan	A04 Organization: Hakodate Marine Observatory	A05 Chief scientist(s): S. Kuronuma

A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS

Whom to query	Final disposition of data
a H.M.O.181 Akagawadorichyo Hakodate City Hokkaido	A H.M.O.
b M.D.JMA 1-3-4 Ohte Machi, Chiyodaku, Tokyo, Japan	B M.D.JMA
c _____	C _____

A07 Date: from: 03/07/75 to: 12/20/75  
DAY MONTH YEAR

A08 General ocean areas: North Pacific Ocean & Sea of Okhotsk

A09 Type(s) of marine zone(s): 04, 06

A10 Geographic area Latitude \_\_\_\_\_ N/S Longitude \_\_\_\_\_ E/W

If all data were collected at a fixed station, fill in the co-ordinates

Discipline and type of measurements	Index 10 x 10				Index 1° x 1°	Discipline and type of measurements	Index 10 x 10				Index 1° x 1°
	Qc	L	G	G			Qc	L	G	G	
M, Hs, Hp, Hc, D, B	1	4	1	4							
	1	4	1	5							

**M - METEOROLOGY**

Number	i	l	Format	Number	i	l	Format
M01 Upper air observations				M04 Ice observations			
M02 Incident radiation				M05 Occasional standard measurements			
M03 Air-sea interface studies				M06 Systematic standard measurements	X	a	A 1
				M90 Other measurements			

Remarks

**H - HYDROGRAPHY**

HS SURFACE	Number	i	l	Format	NEAR SEA FLOOR (< 10 m)	Number	i	l	Format
H01 Continuous temperature recording	X	a	A	3	H05 Continuous temperature recording				
H02 Continuous salinity recording	X	a	A	3	H06 Continuous salinity recording				
H03 Discrete temperature measurements					H07 Discrete temperature measurements				
H04 Discrete salinity measurements					H08 Discrete salinity measurements				
HP PHYSICAL					HC CHEMICAL				
H09 Classical oceanographic stations	34	a	A	1	H21 Oxygen	34	a	A	1

**H - HYDROGRAPHY (Continued)**

	Number	i	l	Format		Number	i	l	Format
H10 Vertical profiles (STD/CTD)					H22 Phosphates	34	a	A	1
H11 sub-surface measurements underway					H23 Total - P				
H12 Mechanical bathythermograph (no. of drops)	90	a	A	8	H24 Nitrates				
H13 Bathythermograph-expendable (no. of drops)	3	a	A	3	H25 Nitrites	2	a	A	1
H14 Sound velocity stations					H26 Silicates				
H15 Acoustic stations					H27 Alkalinity				
H16 Transparency					H28 pH				
H80 Other measurements					H31 Radioactivity				

Remarks

**P - POLLUTION**

P01 Suspended solids					P07 Waste water : BOD				
P02 Heavy metals					P08 Waste water : Nitrates				

Remarks

**D - DYNAMICS**

D01 Current meters (no. of stat.)					D07 Drift cards (no. released)				
D02 Current meters (average duration of measurement)					D08 Bottom drifters (no. released)				
D03 Currents measured from ship drift					D09 Tidal observations (duration)				
D04 GEK	86	a	A	1	D10 Sea and swell (no. of observations)				
D05 Drifters (number)					D90 Other				
D06 Swallow floats (number)									

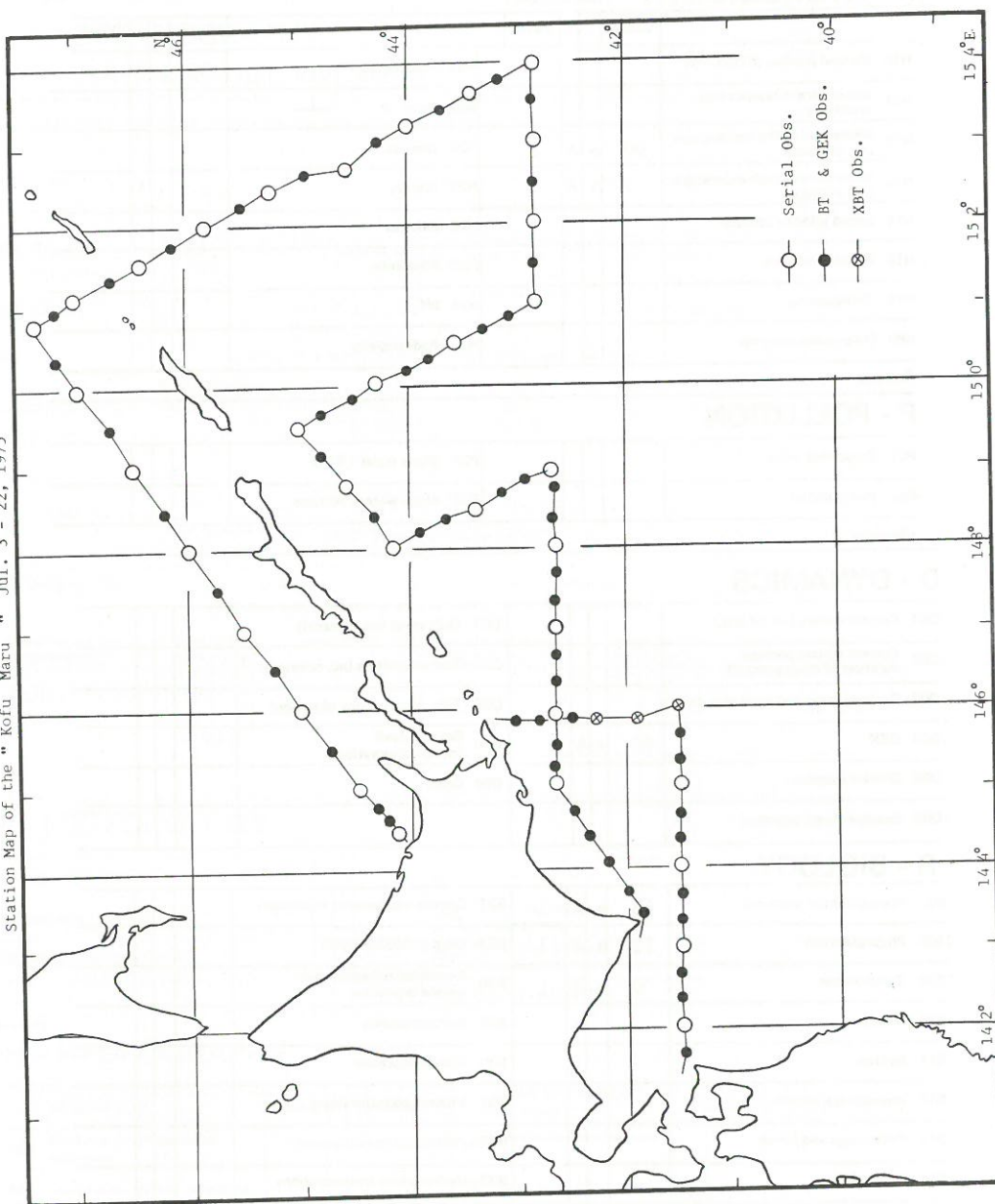
**B - BIOLOGY**

B02 Phytoplankton pigments	13	a	A	1	B21 Commercial benthic crustacean				
B08 Phytoplankton	13	a	A	1	B27 Deep scattering layers				
B09 Zooplankton	9	a	A	1	B28 Acoustical reflections on marine organisms				
B10 Neuston					B29 Biologic sounds				
B11 Nekton					B30 Bioluminescence				
B12 Invertebrate nekton					B31 Vitamin concentrations				
B13 Pelagic eggs and larvae					B32 Aminoacid concentration				
B14 Pelagic fish					B33 Hydrocarbon concentrations				
B18 Zoobenthos					B37 Taggings				

Remarks

BS TYPES OF STUDIES		Number	i	l	Format
B51 Identification					
B60 Physiology					
B61 Behaviour					

Station Map of the "Kofu Maru" Jul. 3 - 22, 1975



ROSCOP (2nd edition)

## OCEANOGRAPHY GENERAL CRUISE INVENTORY

A00  
DATA CENTRE: J.O.D.C  
REFERENCE No: R.75030

### A - GENERAL INFORMATION ON WORK PERFORMED

A01 Expedition/Project <u>C.S.K</u> Cruise No. or name <u>7507</u>	A91 Declared national prog. ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> PART Exchange restricted? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PART
A02 Ship or platform <u>Shumpu Maru</u> Platform type <u>01</u>	A92 Co-operative programme? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Co-ordinated internationally? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Name _____ By whom? <u>Wadati</u>
A03 Country <u>Japan</u>	A04 Organization <u>Kobe Marine Observatory</u> A05 Chief scientist(s) <u>Kenzo Shuto</u>

A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS

a <u>J.M.A Otemachi Chiyodaku Tokyo Japan</u>	Whom to query <u>K.M.O</u> Final disposition of data
b <u>K.M.O 178 Nakayamatedori Ikutaku</u>	B _____
c <u>Kobe Japan</u>	C _____

A07 Date: from: 0,3,0,7,5 DAY MONTH YEAR  
 to: 0,4,0,8,5 DAY MONTH YEAR

A08 General ocean areas Philippine Sea & Inland Sea

A09 Type(s) of marine zone(s) 04,05,06

A10 Geographic area Latitude \_\_\_\_\_ N/S Longitude \_\_\_\_\_ E/W

*If all data were collected at a fixed station, fill in the co-ordinates*

Discipline and type of measurements	Index 10 x 10				Index 1° x 1°				Discipline and type of measurements	Index 10 x 10				Index 1° x 1°						
	Qc	L	G	G	Qc	L	G	G		Qc	L	G	G	Qc	L	G	G			
M, Hs, Hp, Hc, P, B, D	1	3	1	3																
	1	2	1	3																
	1	2	1	2																

### M - METEOROLOGY

	Number	i	l	Format		Number	i	l	Format
M01 Upper air observations					M04 Ice observations				
M02 Incident radiation					M05 Occasional standard measurements				
M03 Air-sea interface studies					M06 Systematic standard measurements	96	a	A	1
					M90 Other measurements				

Remarks

### H - HYDROGRAPHY

HS SURFACE					NEAR SEA FLOOR (< 10 m)				
	Number	i	l	Format		Number	i	l	Format
H01 Continuous temperature recording	X	b	A	3	H05 Continuous temperature recording				
H02 Continuous salinity recording	X	b	A	3	H06 Continuous salinity recording				
H03 Discrete temperature measurements	130	a	b	A	H07 Discrete temperature measurements	44	a	b	A
H04 Discrete salinity measurements	130	a	b	A	H08 Discrete salinity measurements	44	a	b	A
HP PHYSICAL					HC CHEMICAL				
H09 Classical oceanographic stations	65	a	b	A	H21 Oxygen	65	a	b	A

### H - HYDROGRAPHY (Continued)

	Number	i	l	Format		Number	i	l	Format
H10 Vertical profiles (STD/CTD)					H22 Phosphates	65	a	b	A 1
H11 sub-surface measurements underway					H23 Total - P	47	a	b	A 1
H12 Mechanical bathythermograph (no. of drops)	95	a	b	A 1,8	H24 Nitrates	17	a	b	A 1
H13 Bathythermograph-expendable (no. of drops)					H25 Nitrites	35	a	b	A 1
H14 Sound velocity stations					H26 Silicates				
H15 Acoustic stations					H27 Alkalinity				
H16 Transparency	48	a	b	A 1	H28 pH	3	a	b	A 1
H80 Other measurements					H31 Radioactivity				

Remarks

### P - POLLUTION

P01 Suspended solids					P07 Waste water : BOD				
P02 Heavy metals	2	a	b	A 1	P08 Waste water : Nitrates				

Remarks

### D - DYNAMICS

D01 Current meters (no. of stat.)	1	a	b	A 1	D07 Drift cards (no. released)				
D02 Current meters (average duration of measurement)	1 day	a	b	A 1	D08 Bottom drifters (no. released)				
D03 Currents measured from ship drift					D09 Tidal observations (duration)				
D04 GEK	94	a	b	A 1	D10 Sea and swell (no. of observations)	96	a	b	A 1
D05 Drifters (number)					D90 Other				
D06 Swallow floats (number)									

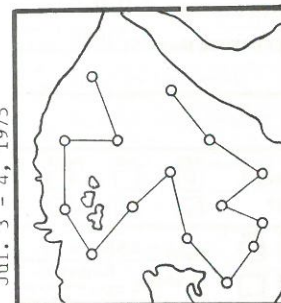
### B - BIOLOGY

B02 Phytoplankton pigments	57	a	b	A 1	B21 Commercial benthic crustacean				
B08 Phytoplankton	57	a	b	A 1	B27 Deep scattering layers				
B09 Zooplankton	56	a	b	A 1	B28 Acoustical reflections on marine organisms				
B10 Neuston					B29 Biologic sounds				
B11 Nekton					B30 Bioluminescence				
B12 Invertebrate nekton					B31 Vitamin concentrations				
B13 Pelagic eggs and larvae					B32 Aminoacid concentration				
B14 Pelagic fish					B33 Hydrocarbon concentrations				
B18 Zoobenthos					B37 Taggings				

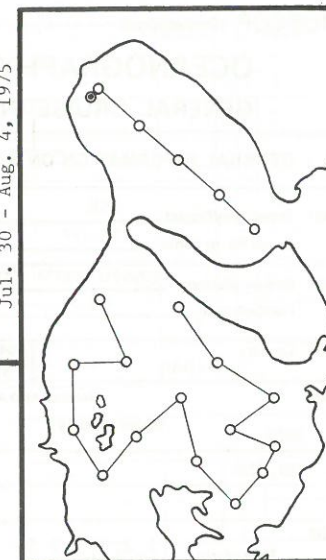
Remarks

BS TYPES OF STUDIES									
B51 Identification	7	a	b	A 1	B60 Physiology				
					B61 Behaviour				

Jul. 3 - 4, 1975

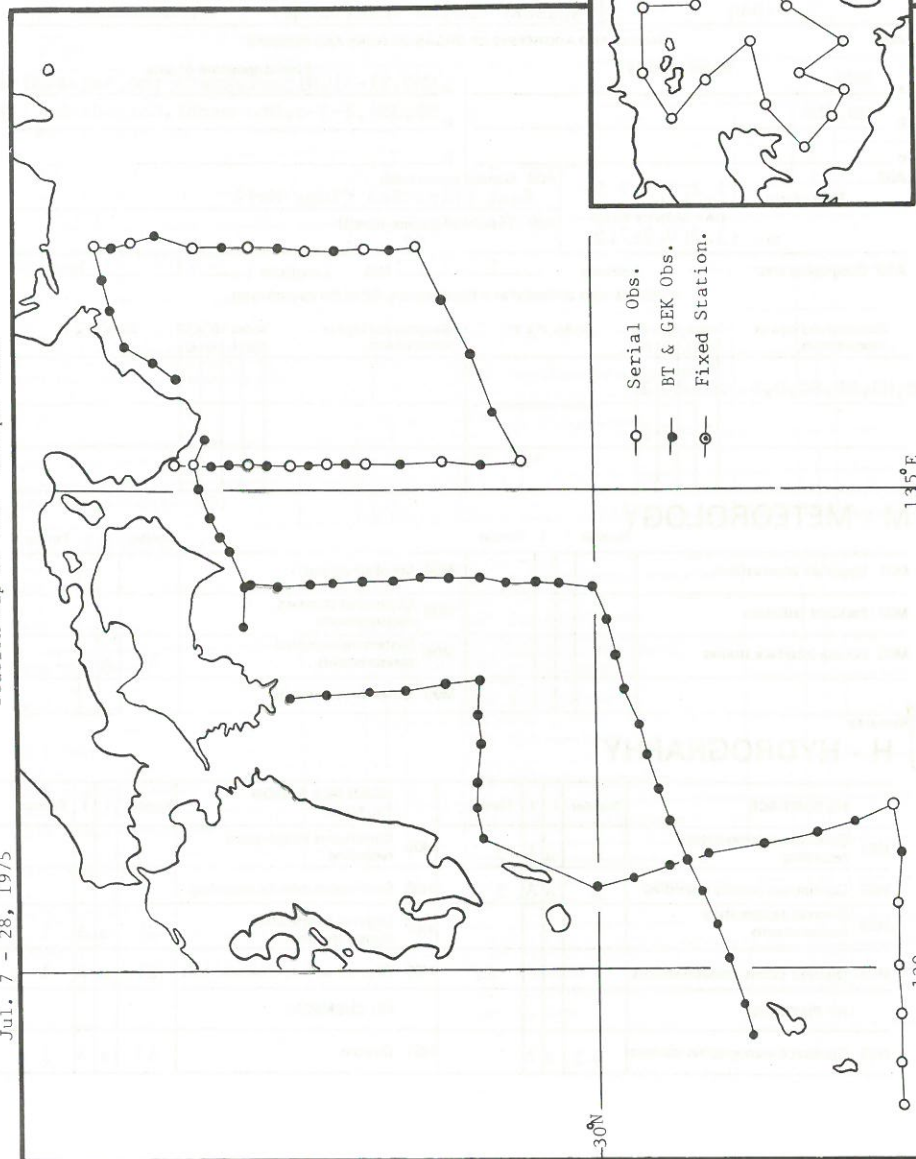


Jul. 30 - Aug. 4, 1975



Station Map of the "Shumpu Maru"

Jul. 7 - 28, 1975



ROSCOP (2nd edition)

**OCEANOGRAPHY  
GENERAL CRUISE INVENTORY**

A00  
DATA CENTRE: J.O.D.C  
REFERENCE No: R.75038

**A - GENERAL INFORMATION ON WORK PERFORMED**

A01 Expedition/Project Cruise No. or name	CSK 75-07	A91 Declared national prog.? Exchange restricted?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PART <input type="checkbox"/>
A02 Ship or platform Platform type	Chofu maru (JPQX) 01	A92 Co-operative programme? Co-ordinated internationally?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Name CSK By whom? Wadati
A03 Country	Japan	A04 Organization	Nagasaki Marine Observatory
		A05 Chief scientist(s)	M. Matsuzaki

A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS

Whom to query

a NMO  
b MD, JMA  
c

Final disposition of data  
A NMO, 11-51, Minamiyamate-cho, Nagasaki-shi  
B MD, JMA, 1-3-4, Ote-machi, Chiyoda-ku, Tokyo  
C

A07 Date: from: 1, 2, 0, 7, 7, 5  
DAY MONTH YEAR  
to: 1, 2, 0, 8, 1, 5

A08 General ocean areas  
East China Sea (Tung Hai)

A09 Type(s) of marine zone(s)  
07

A10 Geographic area Latitude Longitude N/S E/W  
If all data were collected at a fixed station, fill in the co-ordinates

Discipline and type of measurements	Index 10 x 10				Index 1° x 1°	Discipline and type of measurements	Index 10 x 10				Index 1° x 1°
	Qc	L	G	G			Qc	L	G	G	
M, HS, HP, HC, D, B	1	2	1	2							
	1	3	1	2							

**M - METEOROLOGY**

Number i l Format				Number i l Format			
M01 Upper air observations				M04 Ice observations			
M02 Incident radiation				M05 Occasional standard measurements			
M03 Air-sea interface studies				M06 Systematic standard measurements	X	a	A 1
				M90 Other measurements			

Remarks

**H - HYDROGRAPHY**

HS SURFACE				NEAR SEA FLOOR (< 10 m)			
Number	i	l	Format	Number	i	l	Format
H01 Continuous temperature recording	X	a	A 3	H05 Continuous temperature recording			
H02 Continuous salinity recording	X	a	A 3	H06 Continuous salinity recording			
H03 Discrete temperature measurements				H07 Discrete temperature measurements	21	a	A 1
H04 Discrete salinity measurements				H08 Discrete salinity measurements	21	a	A 1
HP PHYSICAL				HC CHEMICAL			
H09 Classical oceanographic stations	4	3	a A 1	H21 Oxygen	43	a	A 1

**H - HYDROGRAPHY (Continued)**

				Number i l Format			
H10 Vertical profiles (STD/CTD)				H22 Phosphates	9	a	A 1
H11 sub-surface measurements underway				H23 Total - P	3	a	A 1
H12 Mechanical bathythermograph (no. of drops)	75	a	A 8	H24 Nitrates	3	a	A 1
H13 Bathythermograph-expendable (no. of drops)	11	a	A 3	H25 Nitrites	3	a	A 1
H14 Sound velocity stations				H26 Silicates			
H15 Acoustic stations				H27 Alkalinity			
H16 Transparency	22	a	A 1	H28 pH	3	a	A 1
H80 Other measurements				H90 Other measurements	3	a	A 1

Remarks

**P - POLLUTION**

P01 Suspended solids				P07 Waste water : BOD			
P02 Heavy metals	2	b	B 1	P08 Waste water : Nitrates			

Remarks

**D - DYNAMICS**

D01 Current meters (no. of stat.)				D07 Drift cards (no. released)			
D02 Current meters (average duration of measurement)				D08 Bottom drifters (no. released)			
D03 Currents measured from ship drift				D09 Tidal observations (duration)			
D04 GEK	59	a	A 1	D10 Sea and swell (no. of observations)			
D05 Drifters (number)				D90 Other			
D06 Swallow floats (number)							

**B - BIOLOGY**

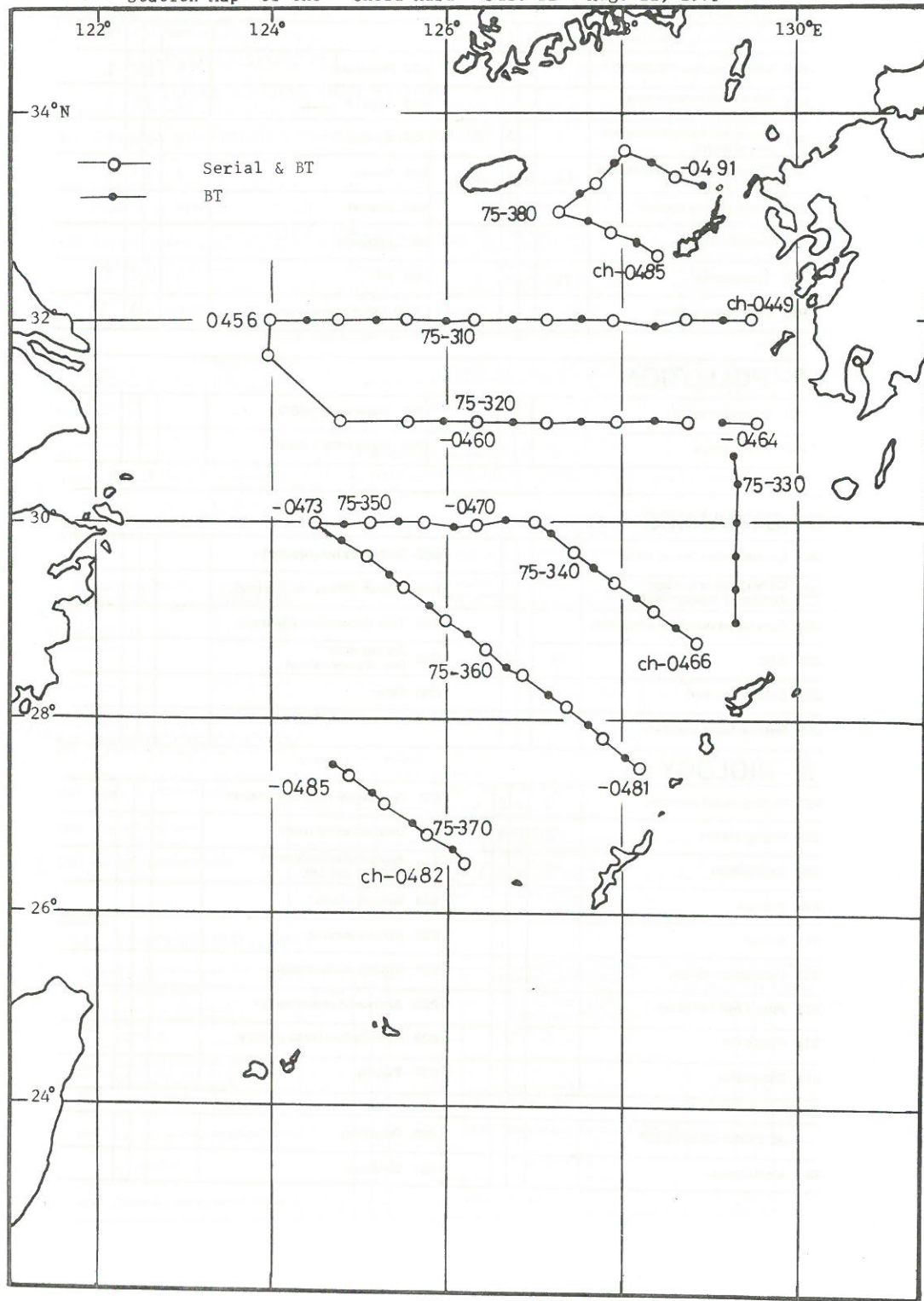
B02 Phytoplankton pigments	9	a	A 1	B21 Commercial benthic crustacean			
B08 Phytoplankton	9	a	A 1	B27 Deep scattering layers			
B09 Zooplankton	9	a	A 1	B28 Acoustical reflections on marine organisms			
B10 Neuston				B29 Biologic sounds			
B11 Nekton				B30 Bioluminescence			
B12 Invertebrate nekton				B31 Vitamin concentrations			
B13 Pelagic eggs and larvae				B32 Aminoacid concentration			
B14 Pelagic fish				B33 Hydrocarbon concentrations			
B18 Zoobenthos				B37 Taggings			

Remarks

BS TYPES OF STUDIES				Number i l Format			
B51 Identification				B60 Physiology			
				B61 Behaviour			



Station Map of the "Chofu Maru" Jul. 12 - Aug. 12, 1975



ROSCOP (2nd edition)

OCEANOGRAPHY  
GENERAL CRUISE INVENTORY

A00  
DATA CENTRE: J.O.D.C  
REFERENCE No: R.75036

A - GENERAL INFORMATION ON WORK PERFORMED

A01 Expedition/Project C S K	A91 Declared national prog.? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> PART
Cruise No. or name 75-06	Exchange restricted? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> PART
A02 Ship or platform Seifu-Maru (JPVB)	A92 Co-operative programme? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Name CSK
Platform type 01	Co-ordinated internationally? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO By whom? K.Wadati
A03 Country Japan	A04 Organization (MMO) Maizuru Marine Observatory
	A05 Chief scientist(s) I.Fujiwara
A06 NAMES AND ADDRESSES OF ORGANIZATIONS AND PERSONS	
a MMO Whom to query	Final disposition of data AMMO, Shimofukui Maizuru-shi, Japan
b	B
c	C
A07 Date: from: 0,5,10,7,17,5 to: 1,2,10,8,17,5 DAY MONTH YEAR	A08 General ocean areas Sea of Japan
	A09 Type(s) of marine zone(s) 04, 06

A10 Geographic area Latitude \_\_\_\_\_ N/S Longitude \_\_\_\_\_ E/W  
If all data were collected at a fixed station, fill in the co-ordinates

Discipline and type of measurements	Index 10 x 10			Index 1° x 1°			Discipline and type of measurements	Index 10 x 10			Index 1° x 1°		
	Qc	L	G	Qc	L	G		Qc	L	G	Qc	L	G
M, HS, HP, HC, D, B	1	3	12										
	1	3	13										
	1	4	13										

M - METEOROLOGY

	Number	i	l	Format		Number	i	l	Format
M01 Upper air observations					M04 Ice observations				
M02 Incident radiation					M05 Occasional standard measurements				
M03 Air-sea interface studies					M06 Systematic standard measurements	X	a	A	1
					M90 Other measurements				

Remarks

H - HYDROGRAPHY

HS SURFACE				NEAR SEA FLOOR (< 10 m)					
	Number	i	l	Format		Number	i	l	Format
H01 Continuous temperature recording	3800 miles	a	A	3	H05 Continuous temperature recording				
H02 Continuous salinity recording	3800 miles	a	A	3	H06 Continuous salinity recording				
H03 Discrete temperature measurements	X	a	A	1	H07 Discrete temperature measurements	7	a	A	1
H04 Discrete salinity measurements	X	a	A	1	H08 Discrete salinity measurements	7	a	A	1
HP PHYSICAL				HC CHEMICAL					
H09 Classical oceanographic stations	68	a	A	1	H21 Oxygen	68	a	A	1

## H - HYDROGRAPHY (Continued)

	Number	i	l	Format		Number	i	l	Format
H10 Vertical profiles (STD/CTD)					H22 Phosphates	36	a	A	1
H11 sub-surface measurements underway					H23 Total - P	3	a	A	1
H12 Mechanical bathythermograph (no. of drops)	146	a	A	8	H24 Nitrates	3	a	A	1
H13 Bathythermograph-expendable (no. of drops)					H25 Nitrites	3	a	A	1
H14 Sound velocity stations					H26 Silicates				
H15 Acoustic stations					H27 Alkalinity				
H16 Transparency	33	a	A	1	H28 pH	3	a	A	1
H80 Other measurements					H31 Radioactivity				

Remarks

## P - POLLUTION

P01 Suspended solids					P07 Waste water : BOD				
P02 Heavy metals					P08 Waste water : Nitrates				

Remarks

## D - DYNAMICS

D01 Current meters (no. of stat.)					D07 Drift cards (no. released)				
D02 Current meters (average duration of measurement)					D08 Bottom drifters (no. released)				
D03 Currents measured from ship drift					D09 Tidal observations (duration)				
D04 GEK	127	a	A	1	D10 Sea and swell (no. of observations)				
D05 Drifters (number)					D90 Other				
D06 Swallow floats (number)									

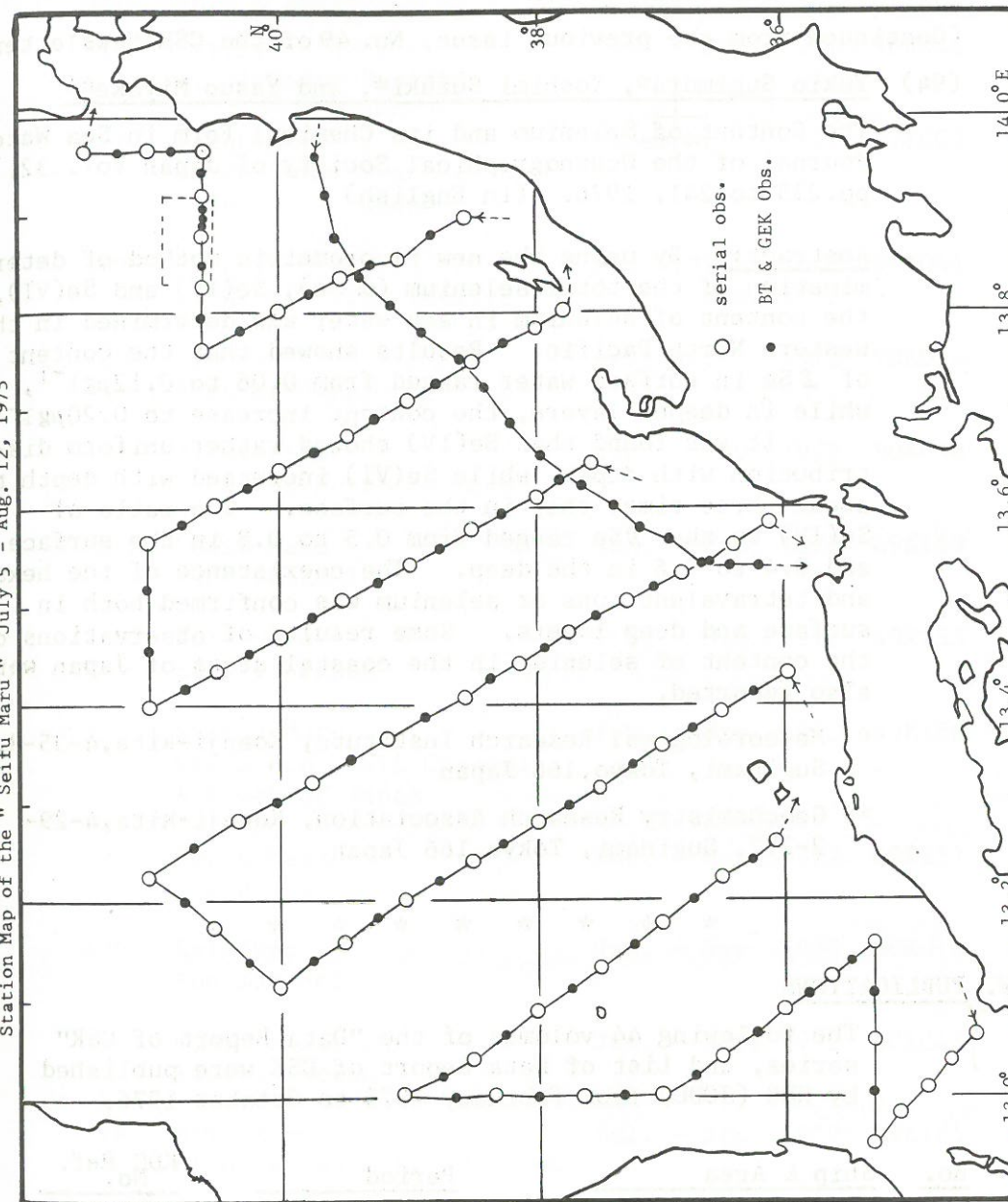
## B - BIOLOGY

B02 Phytoplankton pigments	11	a	A	1	B21 Commercial benthic crustacean				
B08 Phytoplankton	11	a	A	1	B27 Deep scattering layers				
B09 Zooplankton	11	a	A	1	B28 Acoustical reflections on marine organisms				
B10 Neuston					B29 Biologic sounds				
B11 Nekton					B30 Bioluminescence				
B12 Invertebrate nekton					B31 Vitamin concentrations				
B13 Pelagic eggs and larvae					B32 Aminoacid concentration				
B14 Pelagic fish					B33 Hydrocarbon concentrations				
B18 Zoobenthos					B37 Taggings				

Remarks Norpac Standard Net

BS TYPES OF STUDIES									
B51 Identification					B60 Physiology				
					B61 Behaviour				

Station Map of the "Seifu Maru" July 5 - Aug. 12, 1975



### III. ABSTRACT OF THE PAPER ON CSK

(Continued from the previous issue, No. 49 of the CSK Newsletter)

(94) Yukio Sugimura\*, Yoshimi Suzuki\*, and Yasuo Miyake\*\*

The Content of Selenium and its Chemical Form in Sea Water. Journal of the Oceanographical Society of Japan Vol. 32, pp.235 to 241, 1976. (in English)

Abstract: By using the new fluorometric method of determination of the total selenium ( $\Sigma$ Se), Se(IV) and Se(VI), the content of selenium in sea water was determined in the western North Pacific. Results showed that the content of  $\Sigma$ Se in surface water ranged from 0.06 to 0.12  $\mu\text{g l}^{-1}$ , while in deeper layers, the content increase to 0.20  $\mu\text{g l}^{-1}$ .

It was found that Se(IV) showed rather uniform distribution with depth, while Se(VI) increased with depth to about three times that in the surface. The ratio of Se(IV) to the  $\Sigma$ Se ranged from 0.5 to 0.8 in the surface and 0.4 to 0.6 in the deep. The coexistence of the hexa- and tetravalent ions of selenium was confirmed both in surface and deep layers. Some results of observations on the content of selenium in the coastal areas of Japan were also reported.

\* Meteorological Research Institute, Koenji-kita,4-35-8, Suginami, Tokyo,166 Japan

\*\* Geochemistry Research Association, Koenji-kita,4-29-2-217, Suginami, Tokyo,166 Japan

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### IV. PUBLICATIONS

The following 44 volumes of the "Data Report of CSK" series, and List of Data Report of CSK were published by KDC (JODC) from February 1975 to October 1976.

No.	Ship & Area	Period	KDC Ref. No.
259	Oshoro Maru South China Sea	Nov. - Dec. 1970	49K160
309	Orlick N. W. of the North Pacific	Jul. - Sep. 1971	90K035
315	Priboy W. of North Pacific	Jun. - Sep. 1971	90K043

No.	Ship & Area	Period	KDC Ref. No.
316	Priliv W. of North Pacific	Sep. - Oct. 1971	90K044
317	Jalanidhi South China Sea & Seribu Islands	December 1971	42K005
319	Priboy N. W. of North Pacific	Dec. 1971 - Feb. 1972	90K041
320	Priliv East of Japan	February 1972	90K036
321	A.I.Voeikov N. W. of North Pacific	Jan. - Feb. 1972	90K038
323	Chofu Maru East China Sea	Jan. - Feb. 1972	49K149
324	Kofu Maru East of Japan	Feb. - Mar. 1972	49K155
325	Shumpu Maru Osaka Wan, Kii Channel & South of Japan	Feb. - Mar. 1972	49K156
327	Seifu Maru Japan Sea	Feb. - Mar. 1972	49K157
329	Keledkeo Andaman Sea	Jan. - May. 1972	86K016
330	U.M. Schokalsky Pacific Ocean	Jan. - Apr. 1972	90K045
338	Kofu Maru Okhotsk Sea & E. of Japan	Jul. - Sep. 1972	49K164
339	Shumpu Maru Bungo Channel, Kii Channel & South of Japan	Jul. - Aug. 1972	49K162
343	Chofu Maru East China Sea	Jul. - Aug. 1972	49K166

No.	Ship & Area	Period	KDC Ref. No.
347	Samudera South China Sea & around Seribu Islands	Jul. - Aug. 1972	42K006
348	Orlick N. W. of North Pacific	Jul. - Sep. 1972	90K042
350	Oshoro Maru South China Sea & Indian Ocean	Nov. - Dec. 1972	49K175
351	Ryofu Maru W. of North Pacific & South of Japan	Jan. - Feb. 1973	49K163
352	Kofu Maru East of Japan	February 1973	49K174
353	Shumpu Maru Bungo Channel, Kii Channel & South of Japan	February 1973	49K170
354	Chofu Maru East China Sea	Jan. - Feb. 1973	49K161
355	Seifu Maru Japan Sea	Feb. - Mar. 1973	49K165
356	Shoyo S. E. of Japan	March 1973	49K168
358	Suro No. 3 South of Korea	Apr. - May 1973	24K048
359	Takuyo South of Japan	May 1973	49K171
360	Samudera Djakarta Bay & South China Sea	Jun. - Jul. 1973	42K007
361	Ryofu Maru West of Pacific	Jun. - Aug. 1973	49K172
362	Kofu Maru East of Japan	Jul. - Aug. 1973	49K177

No.	Ship & Area	Period	KDC Ref. No.
363	Shumpu Maru Osaka Wan, Kii Channel & South of Japan	Jul. - Aug. 1973	49K178
364	Chofu Maru East of Japan	Jul. - Aug. 1973	49K173
365	Seifu Maru Japan Sea	Jul. - Aug. 1973	49K176
366	Kaiyo South of Japan	August 1973	49K193
367	Suro No. 3 South of Korea	Aug. - Sep. 1973	24K049
369	Takuyo East China Sea	Oct. - Nov. 1973	49K185
373	Chofu Maru East China Sea	Jan. - Feb. 1974	49K179
374	Ryofu Maru West of Pacific	Jan. - Mar. 1974	49K180
375	Seifu Maru Japan Sea	Feb. - Mar. 1974	49K181
376	Keifu Maru Kii Channel & S. of Japan	Jan. - Feb. 1974	49K187
377	Kofu Maru East of Japan	Feb. - Mar. 1974	49K186
378	Takuyo South of Japan	May 1974	49K188
379	Suro No. 3 South of Korea	May Jun. 1974	24K050
	List of Data Report of CSK,	March 1976	

V. DATA RECEIVED

Catalogue of Data Received by KDC(JODC), 1 October 1976 - 31 January 1977

Mo. Day/Yr.	KDC Ref. No.	Ship Code	Agency	Period	Area	No. of Stas.	Serial	BTs	Current	Bottom Topography	Biological
11.29/76	49K217	TA	HDMSA	10.18-11.16, 1975	E. China Sea & S. Japan	56	T S O P	Si PH		D	
11.29/76	49K218	SY	HDMSA	03.10-03.24, 1976	S. of Japan	18	T S O P	Si PH		D	
11.29/76	49K219	TA	HDMSA	05.12-06.04, 1976	S. of Japan	41	T S O P	Si PH		D	
11.29/76	49K220	KA	HDMSA	08.09-08.25, 1976	S. of Japan	23	T S O P	Si PH		D	
01.10/76	49K221	SI	MNOJMA	07.08-08.14, 1976	Japan Sea & Wakasa Wan	50	T S O P TP N2 N3	PH	33 119	D	Phaeo. Chl. a

Ship Code

TA Takuyo KA Kaiyo  
SY Shoyo SI Seifu Maru