

NO. 40
FEB. 1973

CSK NEWSLETTER

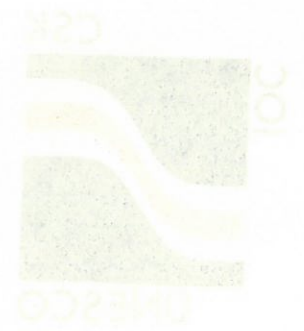


JAPAN OCEANOGRAPHIC DATA CENTER
Hydrographic Department, Maritime Safety Agency
Tokyo, Japan

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NO. 40
FEB. 1973

CSK NEWSLETTER



JAPAN OCEANOGRAPHIC DATA CENTER
Hydrographic Department, Maritime Agency
Tokyo, Japan

C O N T E N T S

I. Cruise Reports

1. Thailand
 - Chanthara (20 July - 17 August 1971)
2. Japan
 - Ryofu Maru (13 January - 2 March 1972)
 - Kofu Maru (5 February - 15 March 1972)
 - Shumpu Maru (22 February - 12 March 1972)
 - Seifu Maru (1 February - 14 March 1972)
 - Chofu Maru (27 January - 16 February 1972)
 - Keiten Maru (4 - 13 May 1972)
 - Takuyo (13 - 31 May 1972)
3. USSR
 - Orlick (11 April - 24 June 1972)

II. Abstracts of the Papers on CSK

III. Publication Received

IV. Data Received

- Japan (Takuyo-4crs., Ryofu Maru-2crs., Kofu Maru, Shumpu Maru, Seifu Maru-2crs.)
- Singapore (Changi-4crs.)
- Thailand (Chanthara)

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I. CRUISE REPORT

The following cruise reports were received by the Center from each participating agencies of Thailand, Japan and USSR.

1. Thailand

1.1 Chanthara

(1) Operating Agency

Hydrographic Department, Royal Thai Navy

(2) Personnel

Scientists:

CDR. V. Bhumisawasdi (Cruise Leader)

LCDR. V. Yamchoti

Lt. P. Chomsookprakit

Lt. Jg. V. Kingkeo

(3) Cruise Itinerary

20 July - 17 August 1971

(4) Region

MSQ No. 026 (Gulf of Thailand)

(5) Type of Observation

Serial:

No. of Stas. - 40

Data - T, S, O₂

Sampling Depths - Sea water samples are collected from various depths by Nansen bottles.

Max. Sample Depth - 67 m

Meteorological : Wind, Bar., Air Temp.; dry, wet, Hum., Weather, Clouds, Vis.

Surface : Color, Transp., Sea, Swell

2. Japan

2.1 Ryofu Maru

(1) Operating Agency

Marine Department, Japan Meteorological Agency

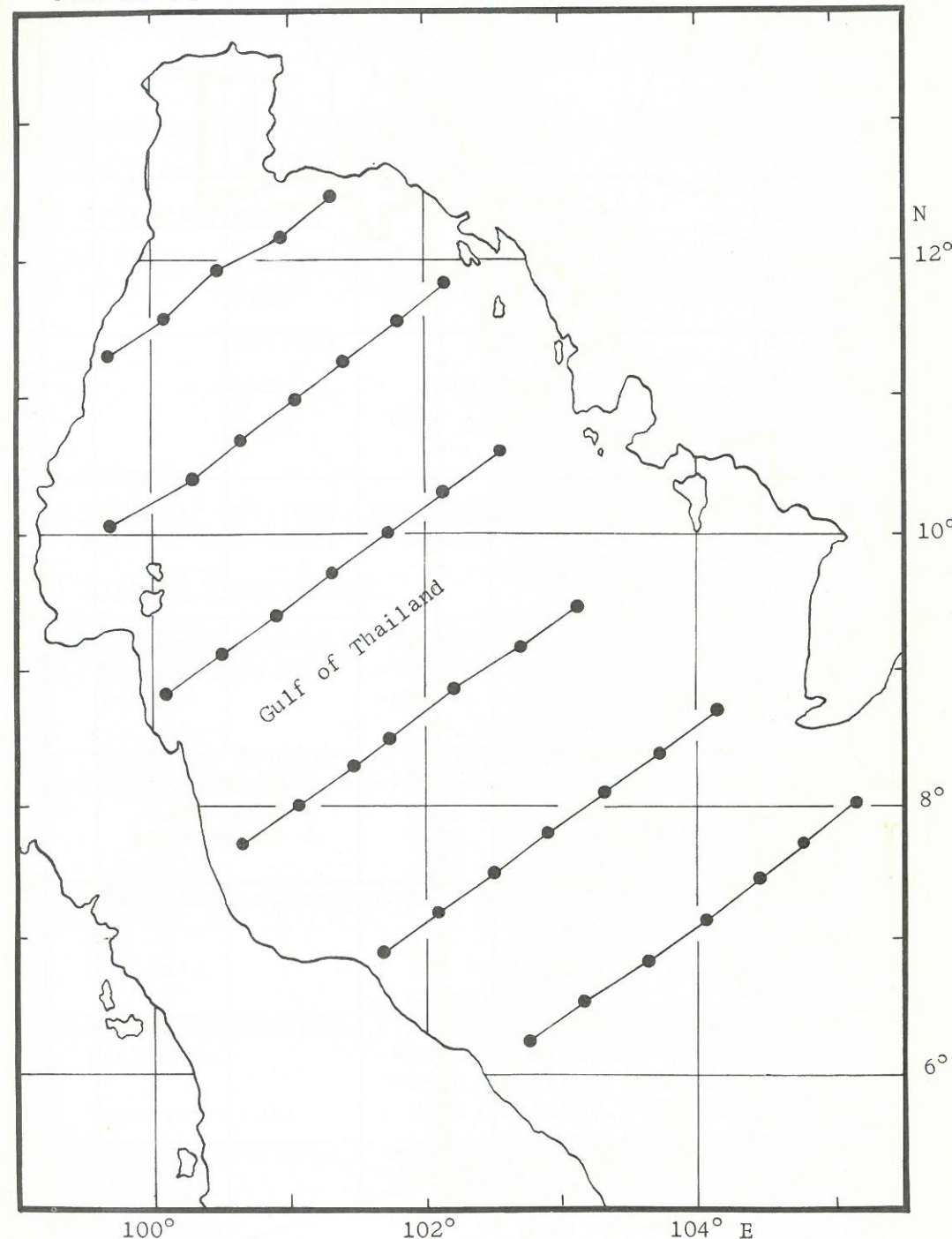
(2) Personnel

Scientists:

T. Sawara, T. Akiyama, Y. Kawarada,

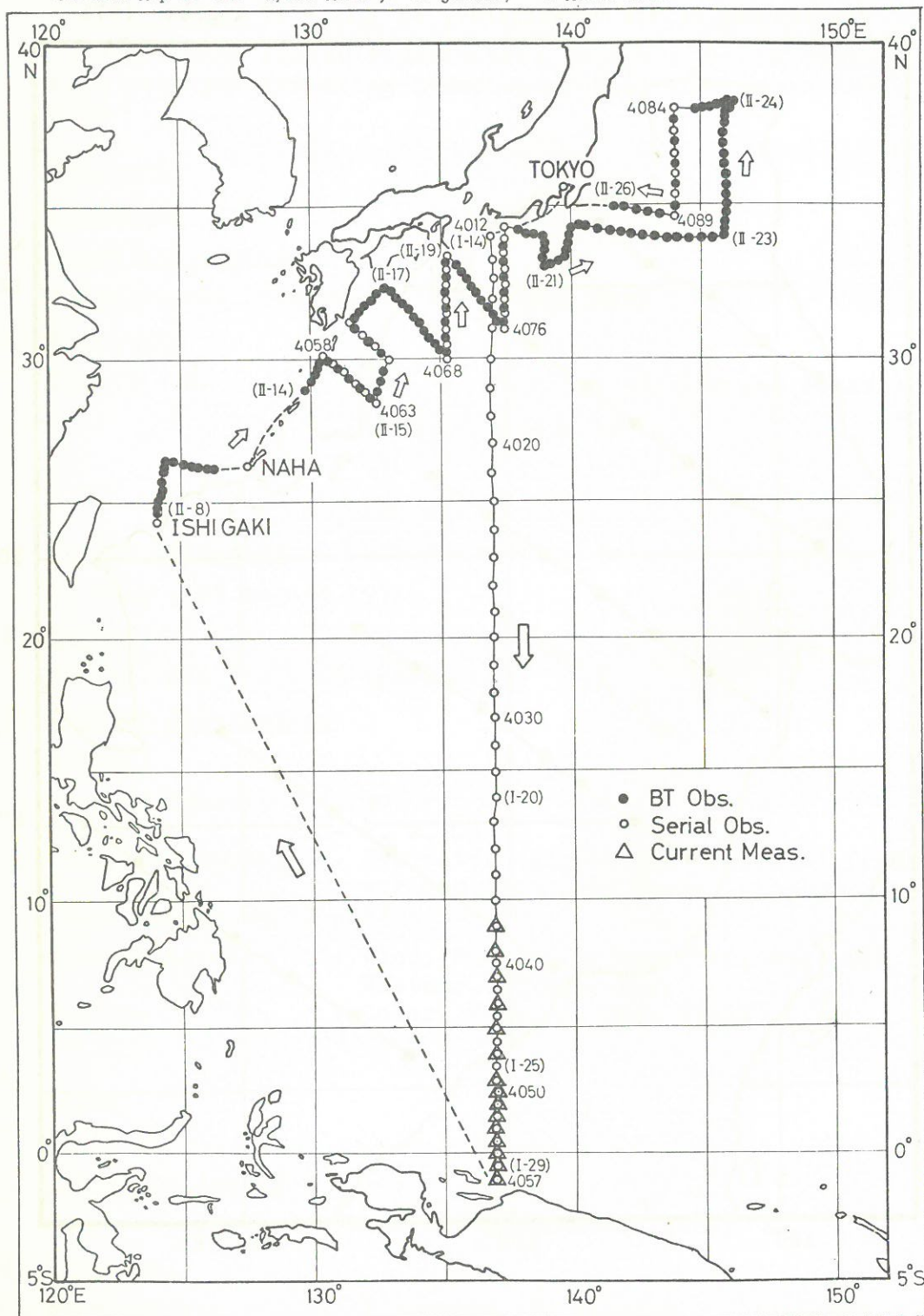
T. Urashima, A. Sano, T. Yura.

Station Map of the "Chanthara", 20 July - 17 August 1971



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Station Map of the "Ryofu Maru", 13 January - 2 March 1972



K. Nagasaka, N. Sato, I. Maeda,
N. Kubo (Marine Department, JMA)
S. Ohnishi, N. Baba (Kobe Marine
Observatory)

Captain: K. Shirakawa

Officers and Crew: 22

(3) Cruise Itinerary

| Port | Arrive | Depart |
|----------|-------------|--------------|
| Tokyo | | 13 Jan. 1972 |
| Ishigaki | 4 Feb. | 8 Feb. |
| Naha | 10 Feb. | 13 Feb. |
| Tokyo | 2 Mar. 1972 | |

(4) Region

MSQ Nos. 023, 059, 095, 130, 131, 322 (West of North Pacific and South of Japan)

(5) Type of Observation

Serial:

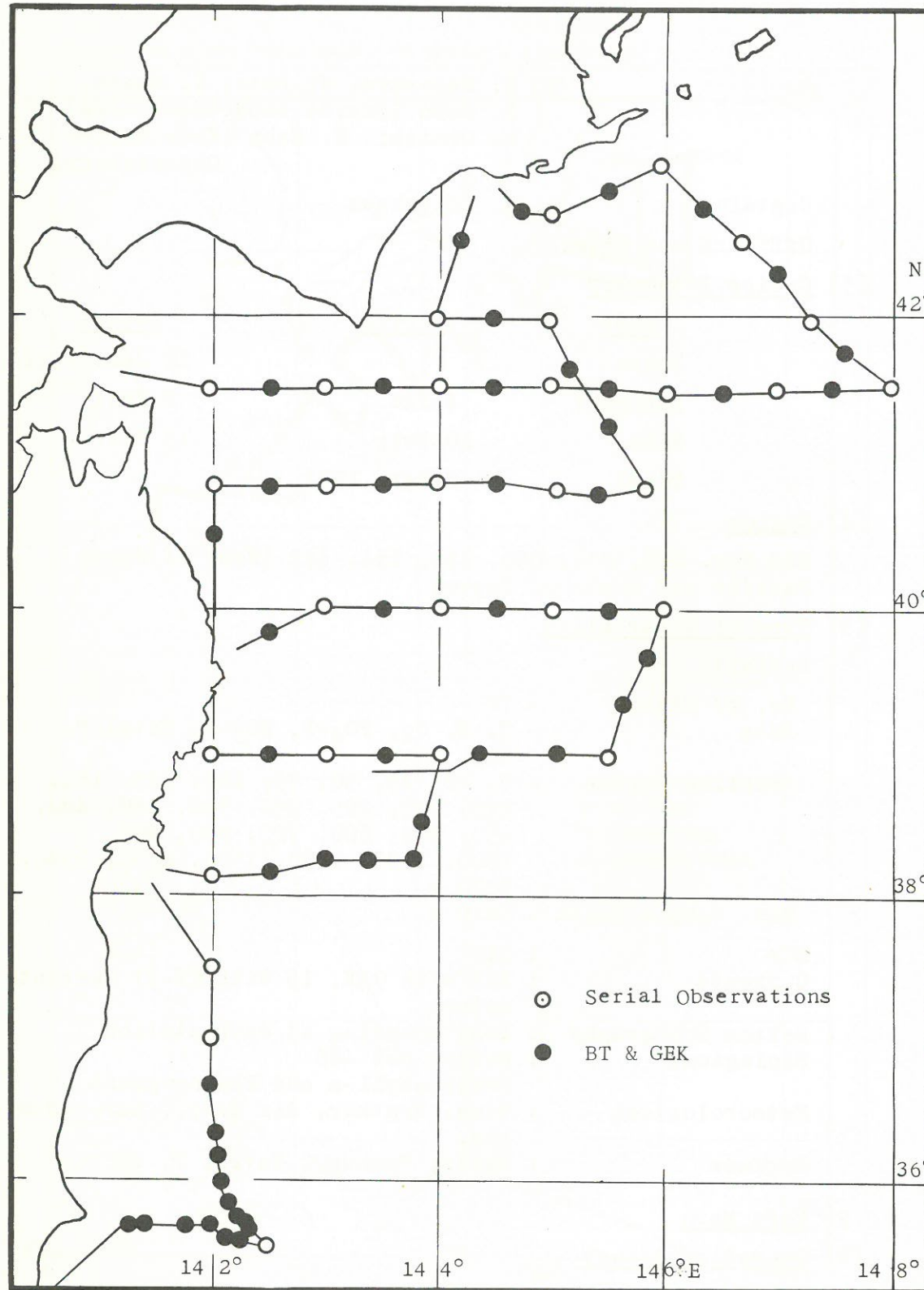
- No. of Stas. - 78
- Data - T, S, O₂, PO₄-P, NO₃-N, Total-P, CO₂, etc.
- Sampling Depths - 0, 10, 25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1500, 2000, 2500, 3000 m
- Max. Sample Depth - 3010 m
- BTs : 210
- Currents : 163 with GEK, 15 with TS-II current-meters
- Bottom Topography : Echo sounding at each station
- Biological : Norpac net -66
Chlorophyll-a and Phaeopigment -63
- Meteorological : Wind, Weather, Air temp., Bar., Hum., etc.
- Surface : Color, Transp., Waves, T, S

2.2 Kofu Maru

(1) Operating Agency

Hakodate Marine Observatory, JMA

Station Map of the "Kofu Maru", 5 February - 15 March 1972



(2) Personnel

Scientists: S. Hosoda, K. Karoji, K. Komura,
I. Terashima, S. Hamano, H. Hayashi,
T. Konya, S. Wakaki, N. Ishikawa,
H. Okubo

Captain: C. Naka

Officers and Crew: 24

(3) Cruise Itinerary

| Port | Arrive | Depart |
|----------|--------------|-------------|
| Hakodate | | 5 Feb. 1972 |
| Kushiro | 8 Feb. | 10 Feb. |
| Miyako | 12 Feb. | 18 Feb. |
| Shiogama | 25 Feb. | 29 Feb. |
| Hakodate | 15 Mar. 1972 | |

(4) Region

MSQ Nos. 130, 166 (East of Japan)

(5) Type of Observation

Serial:

No. of Stas. - 30
Data - T, S, O₂, PO₄-P, NO₃-N, Si, etc.
Sampling Depths - 0, 10, 20, 30, 50, 75, 100, 150,
200, 250, 300, 400, 500, 600, 700,
800, 1000, 1200m
Max. Sample Depth - 1290 m

BTs : 79
Currents : 68 with GEK
Biological : Norpac net-14
Meteorological : Wind, Weather, Air temp., Bar.,
Clouds, etc.
Surface : Color, Transp., swell, Waves, T, S

2.3 Shumpu Maru

(1) Operating Agency

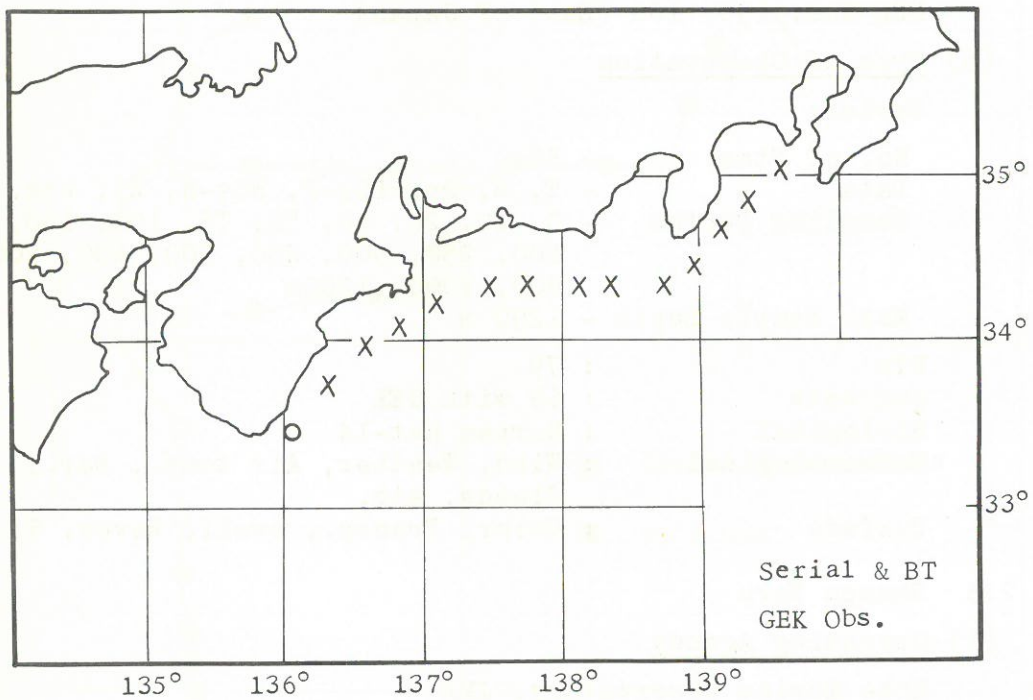
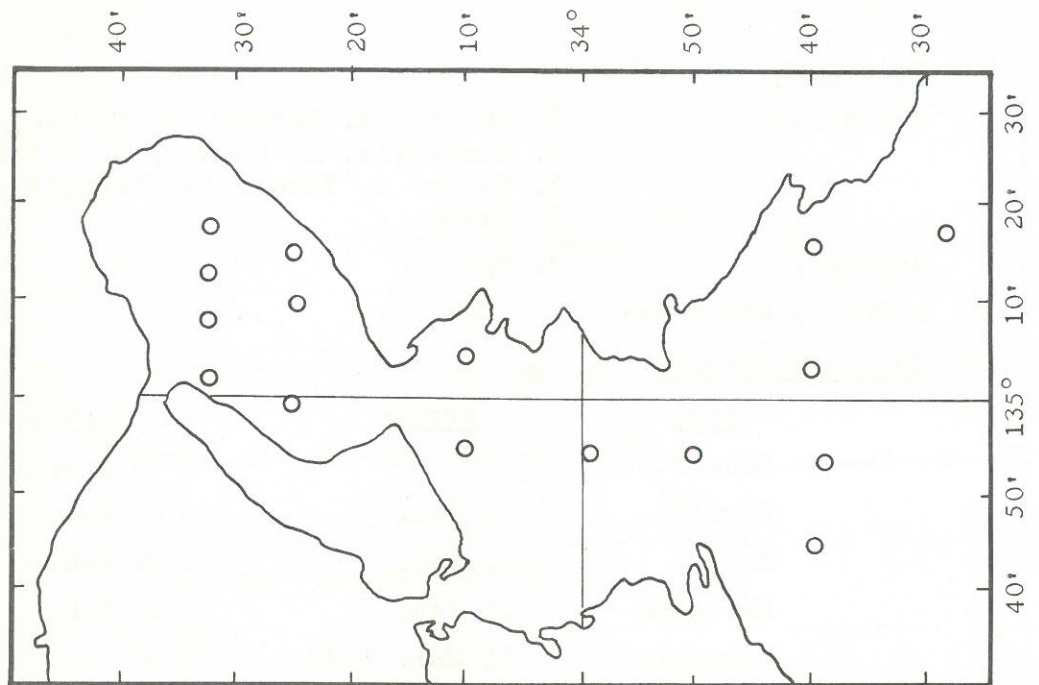
Kobe Marine Observatory, JMA

(2) Personnel

Scientists: S. Fukase, K. Yamamoto, K. Irie,
K. Kuroda, K. Shuto, K. Hori

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Station Map of the "Shumpu Maru", 22 February - 12 March 1972



Captain: S. Sasaki
 Officers and Crew: 16

(3) Cruise Itinerary

| Port | Arrive | Depart |
|-----------|--------------|--------------|
| Kobe | | 22 Feb. 1972 |
| Tanabe | 23 Feb. | 25 Feb. |
| Kushimoto | 26 Feb. | 29 Feb. |
| Tokyo | 2 Mar. | 9 Mar. |
| Kobe | 12 Mar. 1972 | |

(4) Region
 MSQ No. 131 (Osaka Bay-Kii Channel and South of Japan)

(5) Type of Observation

Serial

No. of Stas. - 17
 Data - T, S, O₂, P, NO₂-N, etc.
 Sampling Depths - 0, 10, 20, 30, 50, 75, 100, 150, 200, 300, 400, 500, 600, 700, 800, 1000, 1200, 1500 m
 Max. Sample Depth - 1191 m

BTs : 30
 Currents : 12 with GEK
 Biological : 17 with Norpac net; vertical 150-0 m
 Meteorological : Wind, Weather, Air temp.; dry, wet, Bar., Clouds, Vis.
 Surface : Color, Transp., Waves, Swell

2.4 Seifu Maru

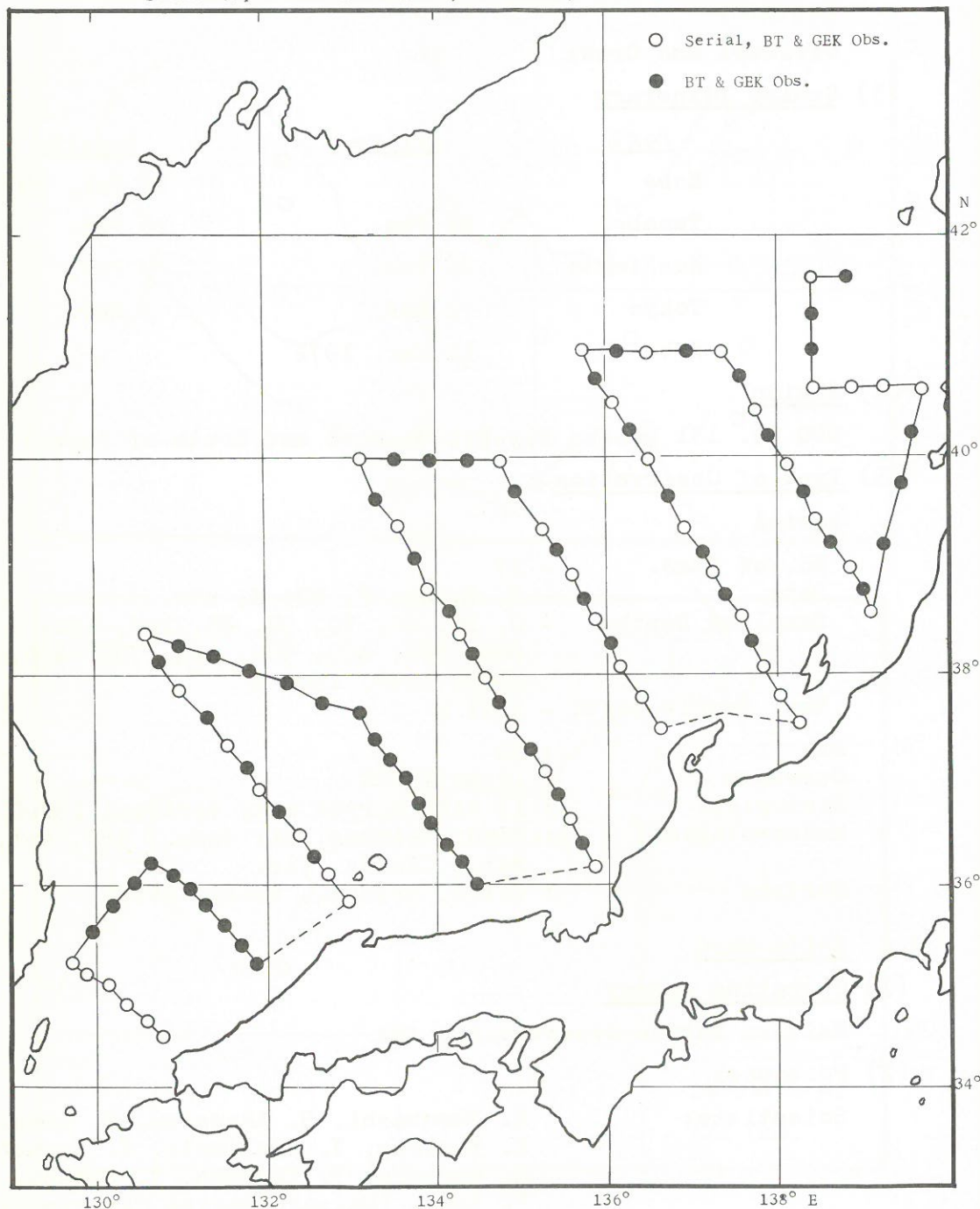
(1) Operating Agency
 Maizuru Marine Observatory, JMA

(2) Personnel

Scientists: K. Furuhashi, H. Akamatsu, M. Ohwada, K. Tanioka, Y. Hashimoto, K. Hayashi, M. Morioka, T. Yasuoka, Y. Sawada, Y. Tsuji (Maizuru Marine Observatory) K. Yamamoto (Kobe Marine Observatory)

Captain: M. Nakamura
 Officers and Crew: 22 Other Members: 2

Station Map of the "Seifu Maru", 1 February - 14 March 1972



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(3) Cruise Itinerary

| <u>Port</u> | <u>Arrive</u> | <u>Depart</u> |
|-------------|---------------|---------------|
| Maizuru | | 1 Feb. 1972 |
| Saigo | 5 Feb. | 6 Feb. |
| Maizuru | 10 Feb. | 14 Feb. |
| Nanac | 18 Feb. | 18 Feb. |
| Hakodate | 27 Feb. | 2 Mar. |
| Tokyo | 4 Mar. | 9 Mar. |
| Maizuru | 14 Mar. 1972 | |

(4) Region

MSQ Nos. 131, 167 (Japan Sea)

(5) Type of Observation

Serial:

- No. of Stas. - 50
- Data - T, S, O₂, PO₄-P
- Sampling Depths - 0, 10, 20, 30, 50, 75, 100, 125, 150, 200, 250, 300, 400, 500, 600 m
- Max. Sample Depth - 726 m

- BTs : 113
- Currents : 113 with GEK
- Biological : Norpac net-23
- Meteorological : Every 3 hours; Wind, Weather, Air temp., Bar., Hum., etc.
- Surface : Color, Transp., Waves, T, S

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2.5 Chofu Maru

(ROSCOP)

| | |
|--|----------------------------------|
| SHIP OR PLATFORM Chofu Maru | SCIENTIST IN CHARGE S. Yamano |
| INSTITUTION OR OPERATING AGENCY Nagasaki Marine Observatory, JMA | |
| EXPEDITION, PROJECT, AND/OR ORIGINATOR'S CRUISE NO. CSK, Cruise No. 72-01 | COUNTRY Japan |

DATE OF CRUISE
 FROM: 27 DAY / 1 MONTH / 1972 YEAR TO: 16 DAY / 2 MONTH / 1972 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 | | | | | | | |
| D 1 SERIAL STATIONS | 36 | a | a | | PC,MT | a. | NMO, JMA |
| D 2 STD | | | | | | b. | |
| D 3 OXYGEN | 36 | a | a | | PC,MT | c. | |
| D 4 PHOSPHATES | 36 | a | a | | PC,MT | d. | |
| D 5 TOTAL-P | | | | | | e. | |
| D 6 NITRATES | | | | | | f. | |
| D 7 NITRITES | | | | | | | |
| D 8 TRACE ELEMENTS | | | | | | | |
| D 9 pH | | | | | | | |
| D 10 ALKALINITY | | | | | | | |
| D 11 SILICATES | | | | | | | |
| D 12 RADIOACTIVITY | | | | | | | |
| D 13 ISOTOPE CHEMISTRY | | | | | | | |
| D 14 OTHER DISSOLVED GASES | | | | | | | |
| F D FINAL DISPOSITION OF DATA (NATIONAL REPOSITORY, INSTITUTION, REGIONAL CENTER, OR WORLD DATA CENTERS) | | | | | | | |
| D 15 BATHYTHERMOGRAPH (XBT) (NO. OF DROPS) | | | | | | a. | JODC |
| D 16 BATHYTHERMOGRAPH (MECH.) (NO. OF DROPS) | 63 | a | a | | PUB | b. | MD, JMA |
| D 17 TRANSPARENCY (NO. OF OBS.) | 15 | a | a | | PUB | c. | NMO, JMA |
| D 18 SOUND VELOCIMETER DATA | | | | | | d. | |
| D 19 INSTRUMENTED WAVE RECORDING (✓) | | | | | | e. | |
| D 20 TIDES (✓) | | | | | | f. | |
| D 21 SEA (✓) | ✓ | a | a | | PUB | | |
| D 22 SWELL (✓) | ✓ | a | a | | PUB | | |
| D 23 ICE (✓) | | | | | | | |
| D 24 BOTTOM TEMPERATURE (≤ 10M FROM BOTTOM) | 17 | a | a | | PC,MT | | |
| D 25 SEA SURFACE TEMPERATURE (✓) | ✓ | a | c | | RDC | | |
| CURRENT MEASUREMENTS | | | | | | | |
| C 1 CURRENT METERS | | | | | | | |
| C 1 CONTINUOUS TIME SERIES (NO. OF DAYS) | | | | | | | |
| C 2 GEK | 37 | a | a | | PUB | | |
| C 3 DROGUES (✓) | | | | | | | |
| C 4 SWALLOW FLOATS (✓) | | | | | | | |
| C 5 SURFACE DRIFTERS (NO. RELEASED) | | | | | | | |
| C 6 BOTTOM DRIFTERS (NO. RELEASED) | | | | | | | |
| METEOROLOGY | | | | | | | |
| M 1 UPPER AIR OBSERVATIONS (✓) | | | | | | | |
| M 2 SURFACE METEOROLOGICAL OBS. (✓) | ✓ | a | a | | PUB | | |
| BIOLOGY | | | | | | | |
| B 1 PRIMARY ORGANIC PRODUCTION | | | | | | | |
| B 2 PHYTOPLANKTON PIGMENT CONCENTRATION | | | | | | | |
| B 3 PARTICULATE ORGANIC MATTER | | | | | | | |
| B 4 DISSOLVED ORGANIC MATTER | | | | | | | |
| B 5 NEUSTON AND PLEUSTON | | | | | | | |
| B 6 BACTERIA AND OTHER MICROORGANISMS | | | | | | | |
| B 7 PHYTOPLANKTON | | | | | | | |
| B 8 ZOOPLANKTON | 10 | a | a | | PIIB | | |
| B 9 FISH EGGS AND/OR LARVAE | | | | | | | |
| B 10 MICRONEKTON | | | | | | | |
| B 11 INVERTEBRATE NEKTON | | | | | | | |

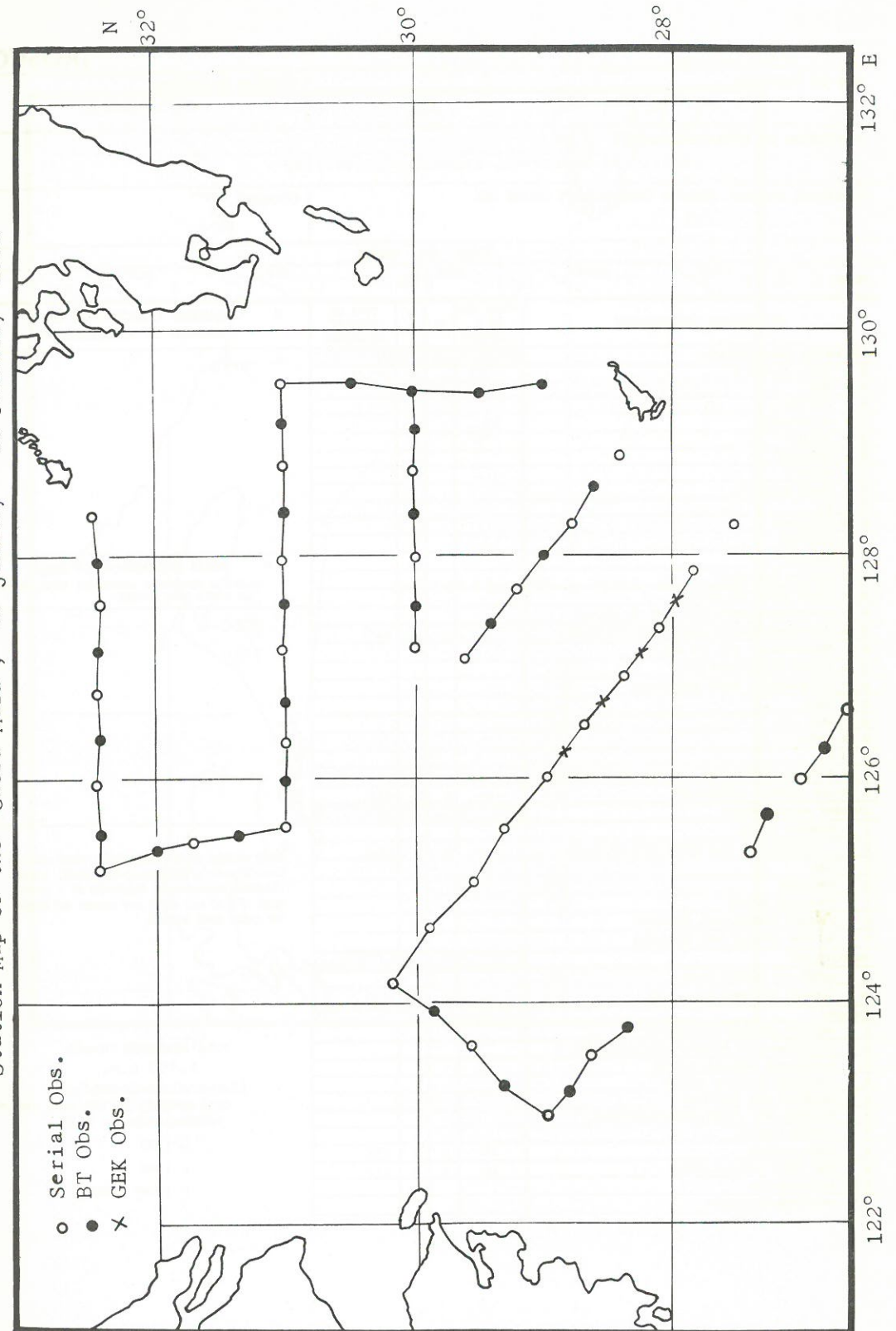
Δ ENTER NUMBER OF STATIONS, EXCEPT WHEN ANNOTATED OTHERWISE FOLLOWING PARAMETER. WHEN OBSERVED PARAMETER IS FOLLOWED BY A CHECK MARK (✓) DO NOT ENTER ANY NUMBER BUT ENTER THE CHECK MARK INSTEAD.

TOTAL KILOMETERS STEAMED:
2,610 n.m.

DATA REPORTED ON THIS FORM ARE DECLARED NATIONAL PROGRAM (DNP):

(✓) YES
() NO
() PART (SPECIFY)

Station Map of the "Chofu Maru", 27 January - 16 February 1972



2.6 Keiten Maru

(ROSCOP)

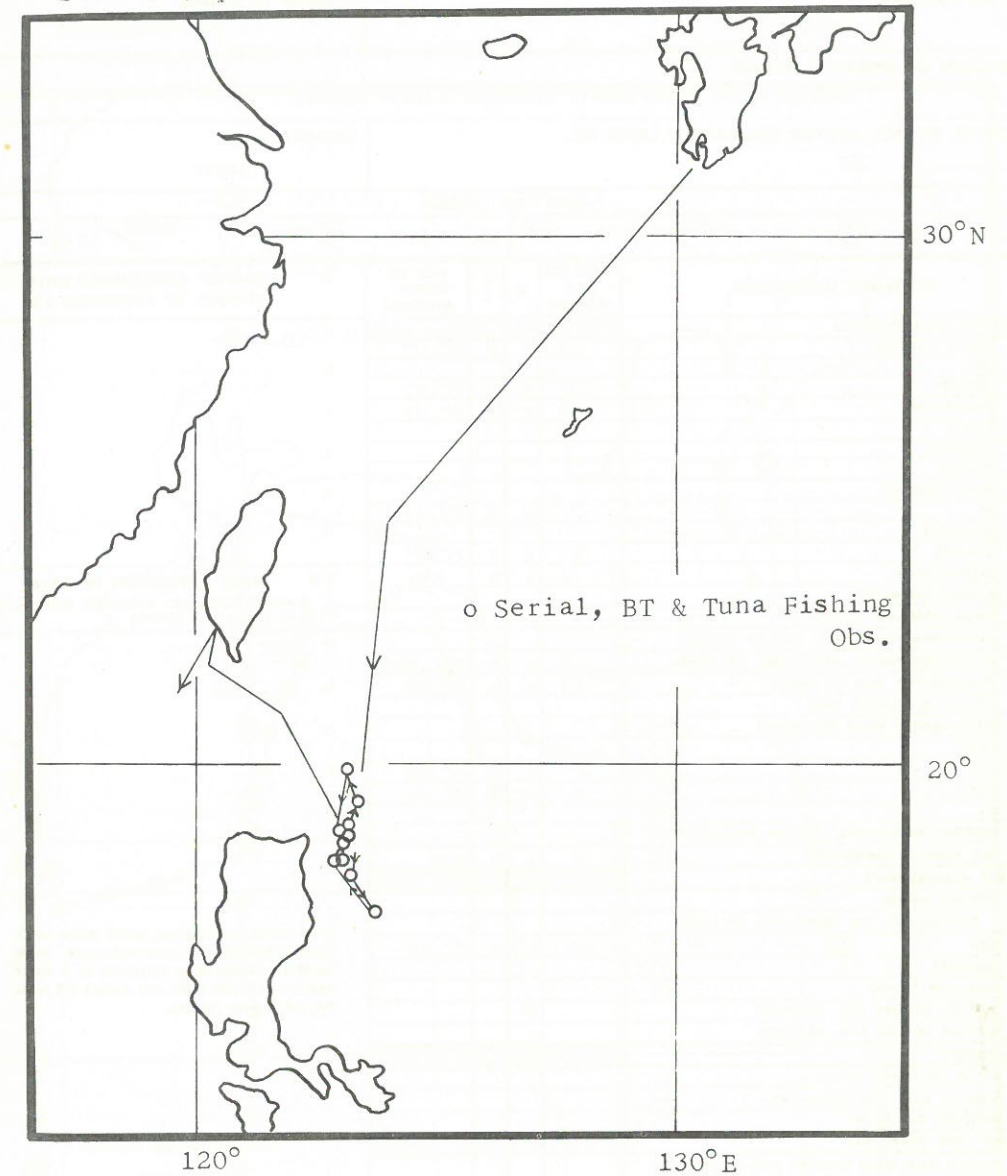
| | | | |
|---|-----------------------------|-------------------------------------|------------------------------|
| SHIP OR PLATFORM Keiten Maru | | SCIENTIST IN CHARGE T. Takahashi | |
| INSTITUTION OR OPERATING AGENCY Faculty of Fisheries, Kagoshima University | | | |
| EXPEDITION, PROJECT, AND/OR ORIGINATOR'S CRUISE NO. CSK | | COUNTRY Japan | |
| DATE OF CRUISE | | | |
| FROM: | 4 DAY / 5 MONTH / 1972 YEAR | TO: | 13 DAY / 5 MONTH / 1972 YEAR |

| PROGRAMS UNDERTAKEN | TOTAL NO. OF Δ STATIONS | F D | | TYPE OF FORMAT AVAILABLE | Q | QUERIES CONCERNING DATA SHOULD BE ADDRESSED TO: |
|---|--------------------------------|-----|---|--------------------------|----------|--|
| | | a | b | | | |
| DESCRIPTIVE OCEANOGRAPHY | | | | | | |
| D 1 SERIAL STATIONS | 10 | a | a | PC, MT | a. | FFKU |
| D 2 STD | | | | | b. | |
| D 3 OXYGEN | | | | | c. | |
| D 4 PHOSPHATES | | | | | d. | |
| D 5 TOTAL-P | | | | | e. | |
| D 6 NITRATES | | | | | f. | |
| D 7 NITRITES | | | | | | |
| D 8 TRACE ELEMENTS | | | | | | |
| D 9 pH | | | | | | |
| D 10 ALKALINITY | | | | | | |
| D 11 SILICATES | | | | | | |
| D 12 RADIOACTIVITY | | | | | | |
| D 13 ISOTOPE CHEMISTRY | | | | | | |
| D 14 OTHER DISSOLVED GASES | | | | | | |
| D 15 BATHYTHERMOGRAPH (XBT) (NO. OF DROPS) | | | | | | |
| D 16 BATHYTHERMOGRAPH (MECH.) (NO. OF DROPS) | 10 | a | b | RDS | F D | FINAL DISPOSITION OF DATA (NATIONAL REPOSITORY, INSTITUTION, REGIONAL CENTER, OR WORLD DATA CENTERS) |
| D 17 TRANSPARENCY (NO. OF OBS.) | | | | | a. | JODC |
| D 18 SOUND VELOCIMETER DATA | | | | | b. | FFKU |
| D 19 INSTRUMENTED WAVE RECORDING (✓) | | | | | c. | |
| D 20 TIDES (✓) | | | | | d. | |
| D 21 SEA (✓) | | | | | e. | |
| D 22 SWELL (✓) | | | | | f. | |
| D 23 ICE (✓) | | | | | | |
| D 24 BOTTOM TEMPERATURE ($\leq 10M$ FROM BOTTOM) | | | | | | |
| D 25 SEA SURFACE TEMPERATURE (✓) | ✓ | a | b | RDS | | |
| CURRENT MEASUREMENTS | | | | | | |
| C 1 CURRENT METERS | | | | | | |
| C 1 CONTINUOUS TIME SERIES (NO. OF DAYS) | 10 | a | b | RDC | Δ | ENTER NUMBER OF STATIONS, EXCEPT WHEN ANNOTATED OTHERWISE FOLLOWING PARAMETER. WHEN OBSERVED PARAMETER IS FOLLOWED BY A CHECK MARK (✓) DO NOT ENTER ANY NUMBER BUT ENTER THE CHECK MARK INSTEAD. |
| C 2 GEK (✓) | | | | | | |
| C 3 DROGUES (✓) | | | | | | |
| C 4 SWALLOW FLOATS (✓) | | | | | | |
| C 5 SURFACE DRIFTERS (NO. RELEASED) | | | | | | |
| C 6 BOTTOM DRIFTERS (NO. RELEASED) | | | | | | |
| METEOROLOGY | | | | | | |
| M 1 UPPER AIR OBSERVATIONS (✓) | | | | | | |
| M 2 SURFACE METEOROLOGICAL OBS. (✓) | ✓ | a | b | RDS | | |
| BIOLOGY | | | | | | |
| B 1 PRIMARY ORGANIC PRODUCTION | | | | | | |
| B 2 PHYTOPLANKTON PIGMENT CONCENTRATION | | | | | | |
| B 3 PARTICULATE ORGANIC MATTER | | | | | | |
| B 4 DISSOLVED ORGANIC MATTER | | | | | | |
| B 5 NEUSTON AND PLEUSTON | | | | | | |
| B 6 BACTERIA AND OTHER MICROORGANISMS | | | | | | |
| B 7 PHYTOPLANKTON | | | | | | |
| B 8 ZOOPLANKTON | 10 | a | b | RDC | | |
| B 9 FISH EGGS AND/OR LARVAE | 10 | a | b | RDC | | |
| B 10 MICRONEKTON | | | | | | |
| B 11 INVERTEBRATE NEKTON | | | | | | |

TOTAL KILOMETERS STEAMED:
1,500 n.m.
(Kagoshima-Kaohsiung
DATA REPORTED ON THIS FORM ARE DECLARED
NATIONAL PROGRAM (DNP):

(✓) YES
() NO
() PART (SPECIFY)

Station Map of the "KEITEN MARU", 4 - 13 May 1972



(ROSCOP)

2.7 Takuyo

| | | | |
|--|------------------------------|---------------------------------------|------------------------------|
| SHIP OR PLATFORM Takuyo | | SCIENTIST IN CHARGE S. Nakabayashi | |
| INSTITUTION OR OPERATING AGENCY Hydrographic Department, Maritime Safety Agency | | | |
| EXPEDITION, PROJECT, AND/OR ORIGINATOR'S CRUISE NO. CSK | | COUNTRY Japan | |
| DATE OF CRUISE | | | |
| FROM: | 13 DAY / 5 MONTH / 1972 YEAR | TO: | 31 DAY / 5 MONTH / 1972 YEAR |

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| PROGRAMS UNDERTAKEN | TOTAL NO. OF Δ STATIONS | Q | F | D | TYPE OF FORMAT AVAILABLE | Q | QUERIES CONCERNING DATA SHOULD BE ADDRESSED TO: |
|--|-------------------------|---|---|---|--------------------------|----|---|
| DESCRIPTIVE OCEANOGRAPHY | | | | | | | |
| D 1 SERIAL STATIONS | 30 | a | a | | PC,MT | a. | HD, MSA |
| D 2 STD | | | | | | b. | |
| D 3 OXYGEN | 30 | a | a | | PC,MT | c. | |
| D 4 PHOSPHATES | 30 | a | a | | PC,MT | d. | |
| D 5 TOTAL-P | | | | | | e. | |
| D 6 NITRATES | | | | | | f. | |
| D 7 NITRITES | | | | | | | |
| D 8 TRACE ELEMENTS | | | | | | | |
| D 9 pH | 30 | a | a | | PC,MT | | |
| D 10 ALKALINITY | | | | | | | |
| D 11 SILICATES | 30 | a | a | | PC,MT | | |
| D 12 RADIOACTIVITY | 2 | a | b | | | | |
| D 13 ISOTOPE CHEMISTRY | | | | | | | |
| D 14 OTHER DISSOLVED GASES | | | | | | | |
| F D FINAL DISPOSITION OF DATA (NATIONAL REPOSITORY, INSTITUTION, REGIONAL CENTER, OR WORLD DATA CENTERS) | | | | | | | |
| D 15 BATHYTHERMOGRAPH (XBT) (NO. OF DROPS) | | | | | | a. | JODC |
| D 16 BATHYTHERMOGRAPH (MECH.) (NO. OF DROPS) | 93 | a | a | | RDC, PUB | b. | HD, MSA |
| D 17 TRANSPARENCY (NO. OF OBS.) | 12 | a | a | | PC,MT | c. | |
| D 18 SOUND VELOCIMETER DATA | | | | | | d. | |
| D 19 INSTRUMENTED WAVE RECORDING (✓) | | | | | | e. | |
| D 20 TIDES (✓) | | | | | | f. | |
| D 21 SEA (✓) | ✓ | a | a | | PC,MT | | |
| D 22 SWELL (✓) | ✓ | a | a | | PC,MT | | |
| D 23 ICE (✓) | | | | | | | |
| D 24 BOTTOM TEMPERATURE (≤ 10M FROM BOTTOM) | | | | | | | |
| D 25 SEA SURFACE TEMPERATURE (✓) | ✓ | a | b | | RDC | | |
| CURRENT MEASUREMENTS | | | | | | | |
| C 1 CURRENT METERS | | | | | | | |
| C 1 CONTINUOUS TIME SERIES (NO. OF DAYS) | | | | | | | |
| C 2 GEK | 100 | a | a | | PC,MT | | |
| C 3 DROGUES (✓) | | | | | | | |
| C 4 SWALLOW FLOATS (✓) | | | | | | | |
| C 5 SURFACE DRIFTERS (NO. RELEASED) | | | | | | | |
| C 6 BOTTOM DRIFTERS (NO. RELEASED) | | | | | | | |
| METEOROLOGY | | | | | | | |
| M 1 UPPER AIR OBSERVATIONS (✓) | | | | | | | |
| M 2 SURFACE METEOROLOGICAL OBS. (✓) | | | | | | | |
| M 3 INCIDENT RADIATION (✓) | | | | | | | |
| GEOLOGY AND GEOPHYSICS | | | | | | | |
| G 1 DREDGE AND GRAB SAMPLES (NO. OF SAMPLES) | | | | | | | |
| G 2 CORES (NO. CORES) | | | | | | | |
| G 3 SEISMIC—REFLECTION PROFILES (Km) | | | | | | | |
| G 4 SEISMIC—REFRACTION PROFILES | | | | | | | |
| G 5 HEAT FLOW | | | | | | | |
| G 6 GRAVITY (Km) | | | | | | | |
| G 7 MAGNETIC (Km) | | | | | | | |
| G 8 CHEMICAL ANALYSIS OF SEDIMENT (✓) | | | | | | | |

Δ ENTER NUMBER OF STATIONS, EXCEPT WHEN ANNOTATED OTHERWISE FOLLOWING PARAMETER. WHEN OBSERVED PARAMETER IS FOLLOWED BY A CHECK MARK (✓) DO NOT ENTER ANY NUMBER BUT ENTER THE CHECK MARK INSTEAD.

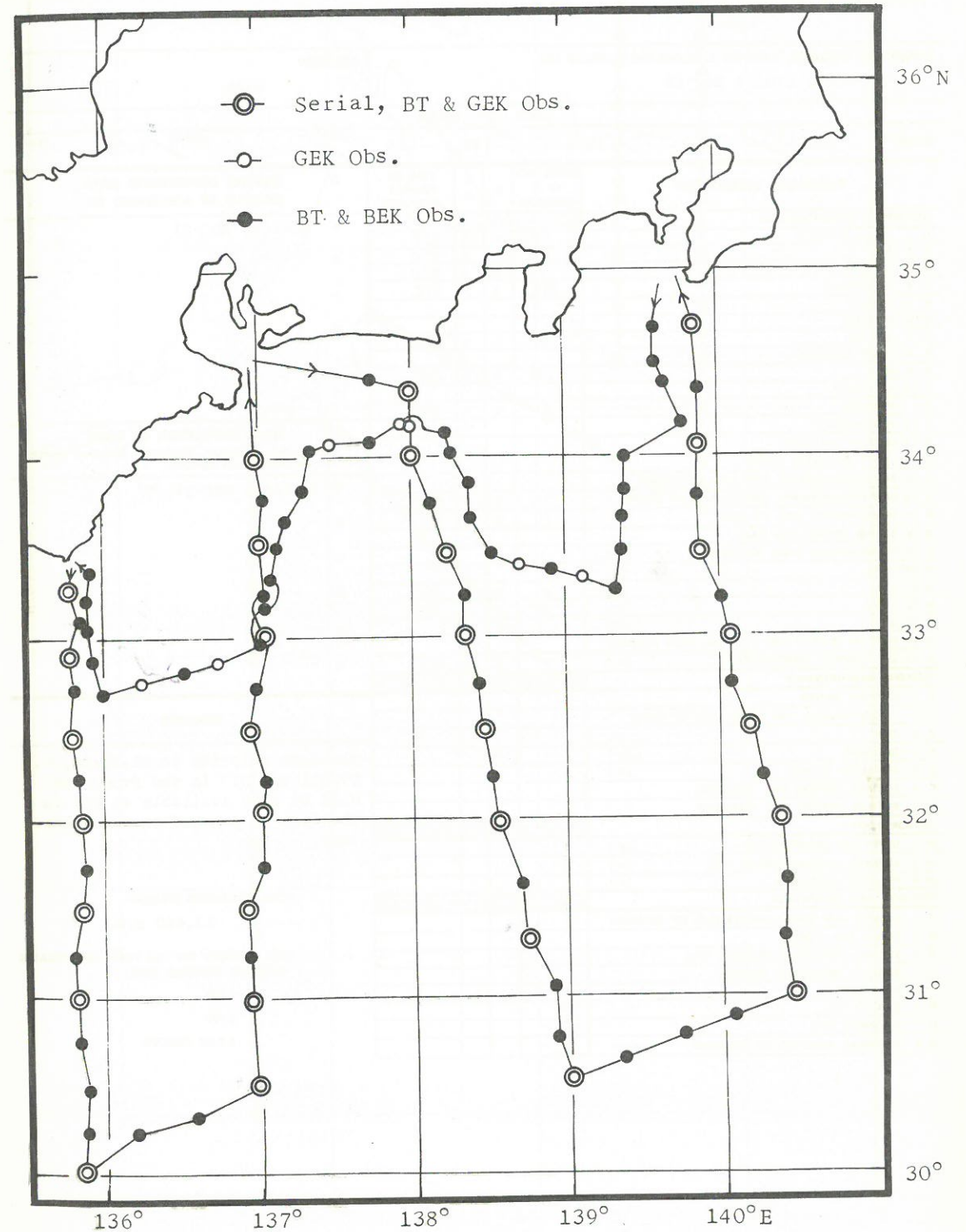
TOTAL KILOMETERS STEAMED:

1,700 n.m.

DATA REPORTED ON THIS FORM ARE DECLARED NATIONAL PROGRAM (DNP):

- (✓) YES
- () NO
- () PART (SPECIFY)

Station Map of the "TAKUYO", 13 - 31 May 1972



3. USSR
3.1 Orlick

(ROSCOP)

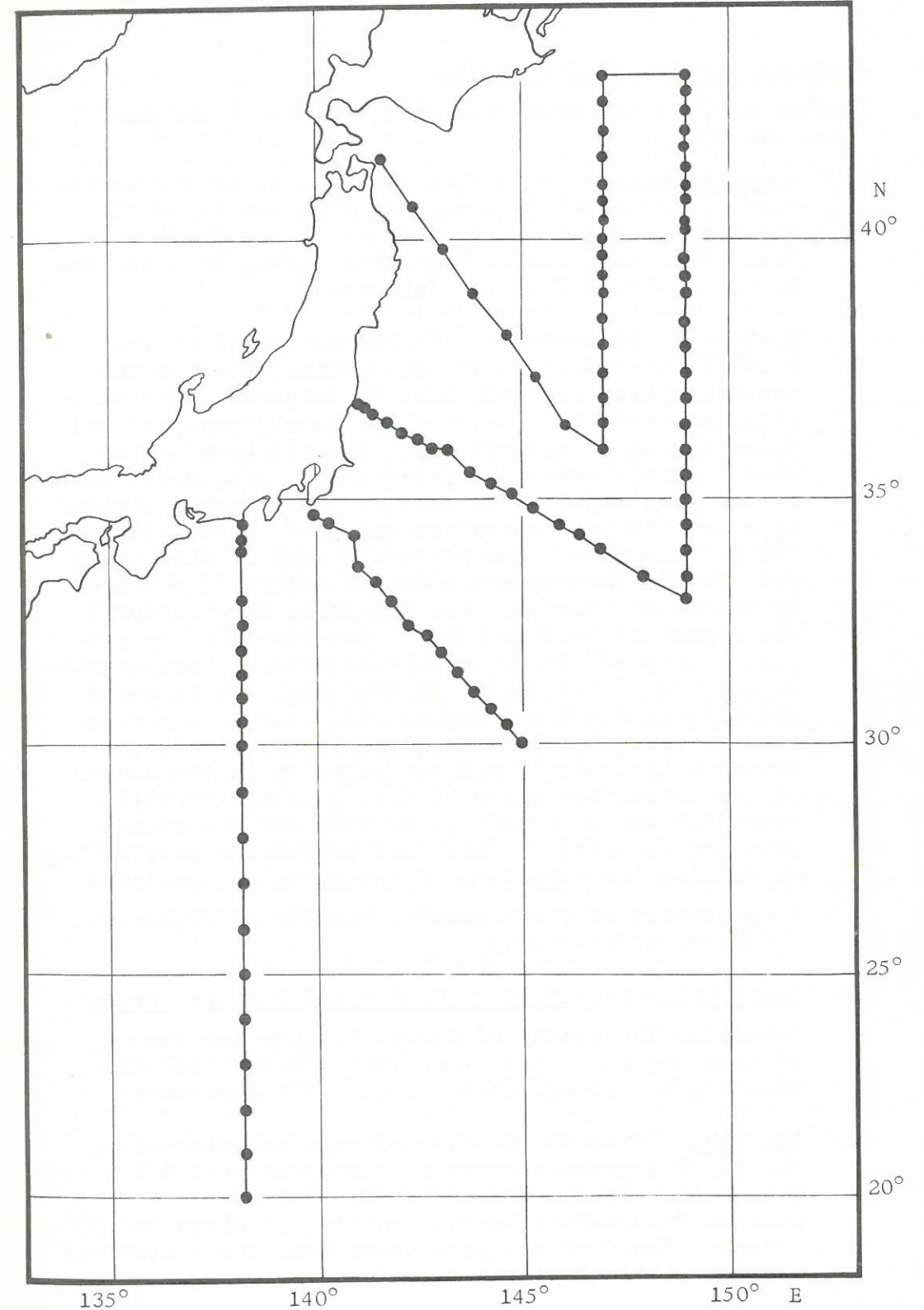
| | |
|---|---------------------------------------|
| SHIP OR PLATFORM Orlick | SCIENTIST IN CHARGE Pavlichev V.P. |
| INSTITUTION OR OPERATING AGENCY TINRO | |
| EXPEDITION, PROJECT, AND/OR ORIGINATOR'S CRUISE NO. CSK, Cruise No. 22 | COUNTRY USSR |
| DATE OF CRUISE FROM: 11 DAY / 4 MONTH / 1972 YEAR TO: 24 DAY / 6 MONTH / 1972 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 | | | | | | | |
| D 1 SERIAL STATIONS | 99 | a | a | | RDC | a. | Moscow, WDC-B1 |
| D 2 STD | 99 | a | a | | RDC | b. | |
| D 3 OXYGEN | 56 | a | a | | RDC | c. | |
| D 4 PHOSPHATES | 51 | a | a | | RDC | d. | |
| D 5 TOTAL-P | | | | | | e. | |
| D 6 NITRATES | | | | | | f. | |
| D 7 NITRITES | 51 | a | a | | RDC | | |
| D 8 TRACE ELEMENTS | | | | | | | |
| D 9 pH | 56 | a | a | | RDC | | |
| D 10 ALKALINITY | | | | | | | |
| D 11 SILICATES | 51 | a | a | | RDC | | |
| D 12 RADIOACTIVITY | | | | | | | |
| D 13 ISOTOPE CHEMISTRY | | | | | | | |
| D 14 OTHER DISSOLVED GASES | | | | | | | |
| D 15 BATHYTHERMOGRAPH (XBT) (NO. OF DROPS) | | | | | | | |
| D 16 BATHYTHERMOGRAPH (MECH.) (NO. OF DROPS) | 37 | a | a | | RDC | a. | Moscow, WDC-B1 |
| D 17 TRANSPARENCY (NO. OF OBS.) | 15 | a | a | | RDC | b. | |
| D 18 SOUND VELOCIMETER DATA | | | | | | c. | |
| D 19 INSTRUMENTED WAVE RECORDING (✓) | | | | | | d. | |
| D 20 TIDES (✓) | | | | | | e. | |
| D 21 SEA (✓) | ✓ | a | a | | RDC | f. | |
| D 22 SWELL (✓) | ✓ | a | a | | RDC | | |
| D 23 ICE (✓) | | | | | | | |
| D 24 BOTTOM TEMPERATURE (≤ 10M FROM BOTTOM) | | | | | | | |
| D 25 SEA SURFACE TEMPERATURE (✓) | ✓ | a | a | | RDC | | |
| CURRENT MEASUREMENTS | | | | | | | |
| C 1 CURRENT METERS | | | | | | | |
| C 2 CONTINUOUS TIME SERIES (NO. OF DAYS) | | | | | | | |
| C 2 GEK (✓) | | | | | | | |
| C 3 DROGUES (✓) | | | | | | | |
| C 4 SWALLOW FLOATS (✓) | | | | | | | |
| C 5 SURFACE DRIFTERS (NO. RELEASED) | | | | | | | |
| C 6 BOTTOM DRIFTERS (NO. RELEASED) | | | | | | | |
| METEOROLOGY | | | | | | | |
| M 1 UPPER AIR OBSERVATIONS (✓) | | | | | | | |
| M 2 SURFACE METEOROLOGICAL OBS. (✓) | | | | | | | |
| M 3 INCIDENT RADIATION (✓) | | | | | | | |
| GEOLOGY AND GEOPHYSICS | | | | | | | |
| G 1 DREDGE AND GRAB SAMPLES (NO. OF SAMPLES) | | | | | | | |
| G 2 CORES (NO. CORES) | | | | | | | |
| G 3 SEISMIC—REFLECTION PROFILES (Km) | | | | | | | |
| G 4 SEISMIC—REFRACTION PROFILES | | | | | | | |
| G 5 HEAT FLOW | | | | | | | |
| G 6 GRAVITY (Km) | | | | | | | |
| G 7 MAGNETIC (Km) | | | | | | | |
| G 8 CHEMICAL ANALYSIS OF SEDIMENT (✓) | | | | | | | |

REMARKS
The data relating to D1, D3, D4, D7, D9, D11 and D17 in the Programme will be also available at KDC in the form of punched card and mag. tape.

TOTAL KILOMETERS STEAMED:
13,460 n.m.
DATA REPORTED ON THIS FORM ARE DECLARED NATIONAL PROGRAM (DNP):
(✓) YES
() NO
() PART (SPECIFY)

Station Map of the "Orlick", 11 April - 24 June 1972



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II. ABSTRACTS OF THE PAPERS ON CSK

(Continued from the previous issue, No. 39 of the CSK Newsletter)

- (85) Masaaki Chaen*: A Possibility of Finding the Variation of the Kuroshio Transport from the Value of Salinity of the Subsurface Water in the East China Sea. Mem. Fac. Fish., Kagoshima Univ., Vol. 21, No. 1, pp. 23-30, 1972. (in Japanese)

Abstract: In order to find the variation of the Kuroshio transport in the East China Sea from the oceanographic elements, such as temperature or salinity, the relations between the total transport and temperatures or salinities of the different water masses constructing the Kuroshio are discussed, based on the geostrophic transport of the Kuroshio divided by every 1°C in temperature and 0.1‰ in salinity on the T-S diagram. The materials used in this study are the CSK oceanographic data along 125°E occupied by the Keiten Maru and the Kagoshima Maru in April and August of 1965 to 1970. The ratio of the partial transport of the subsurface water (thermosteric anomaly 440cl/t-240cl/t) to the total one is about 40% both in April and August. An instructive relation is found between the total transport of the Kuroshio ($Tt \text{ km}^3\text{h}^{-1}$) and the salinity in the center of the subsurface water ($S \text{ ‰}$): $Tt=210(S-34.5)+35$, where the value of 34.5 is adopted for the standard value of salinity. This fact suggests a possibility of finding the variation of the Kuroshio transport.

* Laboratory of Oceanography, Faculty of Fisheries, Kagoshima University

- (86) Seiji Higashikawa*, Toru Nishi* and Sumihiro Arima*:

Submarine Topography of Ryukyu Islands and its Adjacent Region. Mem. Fac. Fish., Kagoshima Univ., Vol. 21, No. 1, pp. 63-70, 1972. (in Japanese)

Abstract: From the results of echo sounding along the 125°E longitude covering the areas of the Philippine Basin, Ryukyu Trench, Ryukyu Island-ridges, Okinawa Trough-like Basin, Continental Slope and Continental Shelf of the East China Sea, the following characteristic features were found.

1. The Philippine Basin from 20°-00.0'N to 21°-10.0'N sounded 5700-5900m in depth and with only very slight relief, but therefrom northwards to 22°-00.0'N, the depth becomes 700-800m thus showing a high relief of the bottom configuration. From the marginal area of the trench, to the Ryukyu Trench the bottom topography is irregular and the slope is rather gentle.

2. On the southern slope of the Ryukyu Island-ridges the depths at 2400m and 5900m reveal step-topography, above which the slope inclines at 3° and 5°-30', respectively.

3. At 25°-00.0'N, 125°-00.0'E about 30km west-north-west of Miyako Island a rugged topography exists, and the structural topography of Miyako Positive is exhibited.

4. The Okinawa Trough-like Basin shows a rather fiat topography, and at its central parts exists a submarine ridge whose summit measures 850m in height and the shallowest part is at 25°-34.8'N, 125°-03.8'E where the depth recorded is 1199m.

5. At 85km northeast of Cape Sekibi Syo is the Sekibi Syo Northeast Spur (tentative name) extending southeast the continental shelf. At its central part is a saddle-shaped depressed area.

6. On the continental shelf at 50-70m and at 90-110m is developed a terrace topography.

* Training Ship Kagoshima Maru, Faculty of Fisheries, Kagoshima University

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III. PUBLICATION RECEIVED

The Kuroshio II - Proceedings of the Second Symposium on the Results of the Cooperative Study of the Kuroshio and Adjacent Regions, Tokyo, September 28 - October 1, 1970.

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IV. DATA RECEIVED

Catalogue of Data Received by KDC (JODC), 1 November 1972 - 28 February 1973

| Date Received Mo. Day/Yr. | KDC Ref. No. | Ship | Agency | Period | Area | No. of Stas. | Serial Data | BTS | Currents | Bottom Topography | Biological | Surface |
|------------------------------|-----------------|-------------|--------|------------------|-------------------------|--------------------|-------------|-------|----------|----------------------|------------------|---------|
| <u>JAPAN</u> | | | | | | | | | | | | |
| 11.07/72 | 49K150 | Takuyo | HDMSA | 03.08-03.25,1972 | S. & E. Japan | 23 | T S O P | Si PH | | D | | |
| 11.07/72 | 49K151 | Takuyo | HDMSA | 05.13-05.30,1972 | S. Japan | 30 | T S O P | Si PH | | D | | |
| 11.07/72 | 49K152 | Takuyo | HDMSA | 08.14-08.30,1972 | S. & E. Japan | 34 | T S O P | Si PH | | D | | |
| 01.19/73 | 49K153 | Takuyo | HDMSA | 10.25-11.13,1972 | S. Japan | 29 | T S O P | Si PH | | D | | |
| 02.02/73 | 49K154 | Ryofu Maru | MDJMA | 01.13-03.02,1972 | W. Norpac & S. Japan | 78 | T S O P TP | | | D | Chl. a Phaeo. | |
| 02.02/73 | 49K155 | Kofu Maru | HMOJMA | 02.05-03.15,1972 | E. Japan | 30 | T S O P | N3 Si | | D | | |
| 02.02/73 | 49K156 | Shumpu Maru | KMOJMA | 02.22-03.12,1972 | S. Japan | 17 | T S O P | N2 | | D | | |
| 02.02/73 | 49K157 | Seifu Maru | MMOJMA | 02.01-03.14,1972 | Japan Sea | 50 | T S O P TP | N2 N3 | | D | | |
| 02.02/73 | 49K158 | Ryofu Maru | MDJMA | 06.01-07.30,1972 | W. Norpac & S. Japan | 86 | T S O P TP | N3 | | D | Chl. a Phaeo. | |
| 02.02/73 | 49K159 | Seifu Maru | MMOJMA | 07.19-08.18,1972 | Japan Sea | 73 | T S O P TP | N2 N3 | 142 | | | T |
| <u>SINGAPORE</u> | | | | | | | | | | | | |
| 11.09/72 | SIK007 | Changi | MFRD | 09.16-09.27,1972 | S. China Sea | 25 | T | | | | F | |
| 11.09/72 | SIK008 | Changi | MFRD | 10.07-10.12,1972 | S. China Sea | 3 | T | | | | F | |
| 11.14/72 | SIK009 | Changi | MFRD | 10.24-10.29,1972 | S. China Sea | 3 | T | | | | F | |
| 02.20/73 | SIK010 | Changi | MFRD | 11.15-11.25,1972 | S. China Sea | 10 | T | | | | | D |
| <u>THAILAND</u> | | | | | | | | | | | | |
| 02.02/73 | 86K015 | Chanthara | RTN | 07.20-08.17,1971 | Gulf Thailand | 40 | T S O | | | | | D |