

M66 15040057

TASADAY EXPEDITION

LEG 5

R/V T. WASHINGTON

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH, MAGNETIC AND SUBBOTOM PROFILER DATA

Yokohama, Japan (13 Sept. 1973)

to

Singapore (6 Oct. 1973)

Chief Scientist, Leg 5 - D. E. Karig

Computer Tech - J. D. Ott

Resident Marine Tech - M. P. Hausman

Post-Cruise Processing by -- S. M. Smith, U. Albright, O. McConnell, W. Keith

Prepared by

Underway Data Processing Group

S.I.O. Geological Data Center

Scripps Institution of Oceanography

La Jolla, California

Dec. 27, 1973

Preliminary Report and Index of Navigation, Depth, Magnetic and Subbottom Profiler Data

Contents:

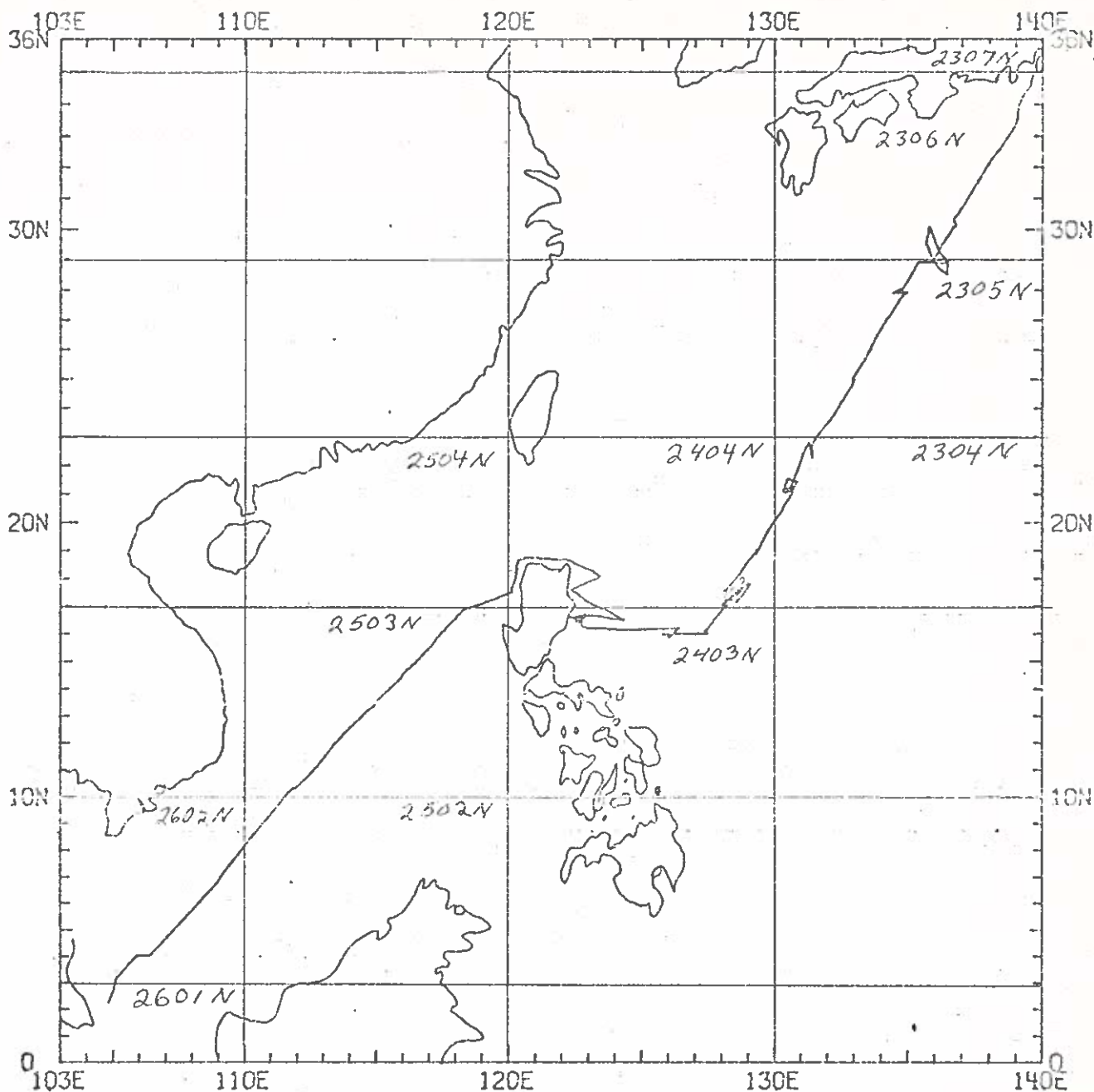
Index Chart - gives track of cruise leg and boundaries of depth compilation plots (see below).

Track Charts - annotated with dates (day/month) and hour ticks. The scale (.3"/deg. long) is the same as the index charts of previous SIO cruises published as Report IMR TR-25.

Profiles - Depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (greater than 30 degrees) are annotated. Sections of track having subbottom profiler (airgun) records have a solid black line along the bottom of the profile.

For information on the availability and reproduction costs of data in the following form contact T. E. Chase; Curator, Geological Data Center, Scripps Institution of Oceanography La Jolla, California 92037 (714-453-2000, Ext. 1534):

1. Navigation listing of times and positions of course and speed changes, fixes and drift velocity.
 2. Depth compilation plots - in fathoms (assumed sound velocity of 800 fm./sec.) at approximately 1 mile spacing, plotted at 4" degree with standard U.S. Navy Oceanographic Office BC series boundaries (see index chart).
 3. Plots of magnetic anomaly profiles along track-map scale = 1.2"/degree; anomaly scale between 15°N and 15°S latitude = 500 gamma/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamma/inch from values retrieved at approximately 1 mile spacing and regional field removed using the 1965 IGRF.
 4. Card Decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center).
 5. S.I.O. Sample Index - list of beginning and end times and positions of all underway records as well as all other samples (geology, biology, physical oceanography, etc.) collected on the cruise leg.
 6. Microfilm or Xerox copies of:
 - a. Echosounder records - 12 and 3.5 kHz frequency
 - b. Subbottom profiler records (airgun)
 - c. Magnetometer records
 - d. Underway Data Log
-



TASADAY EXPEDITION

LEG 5

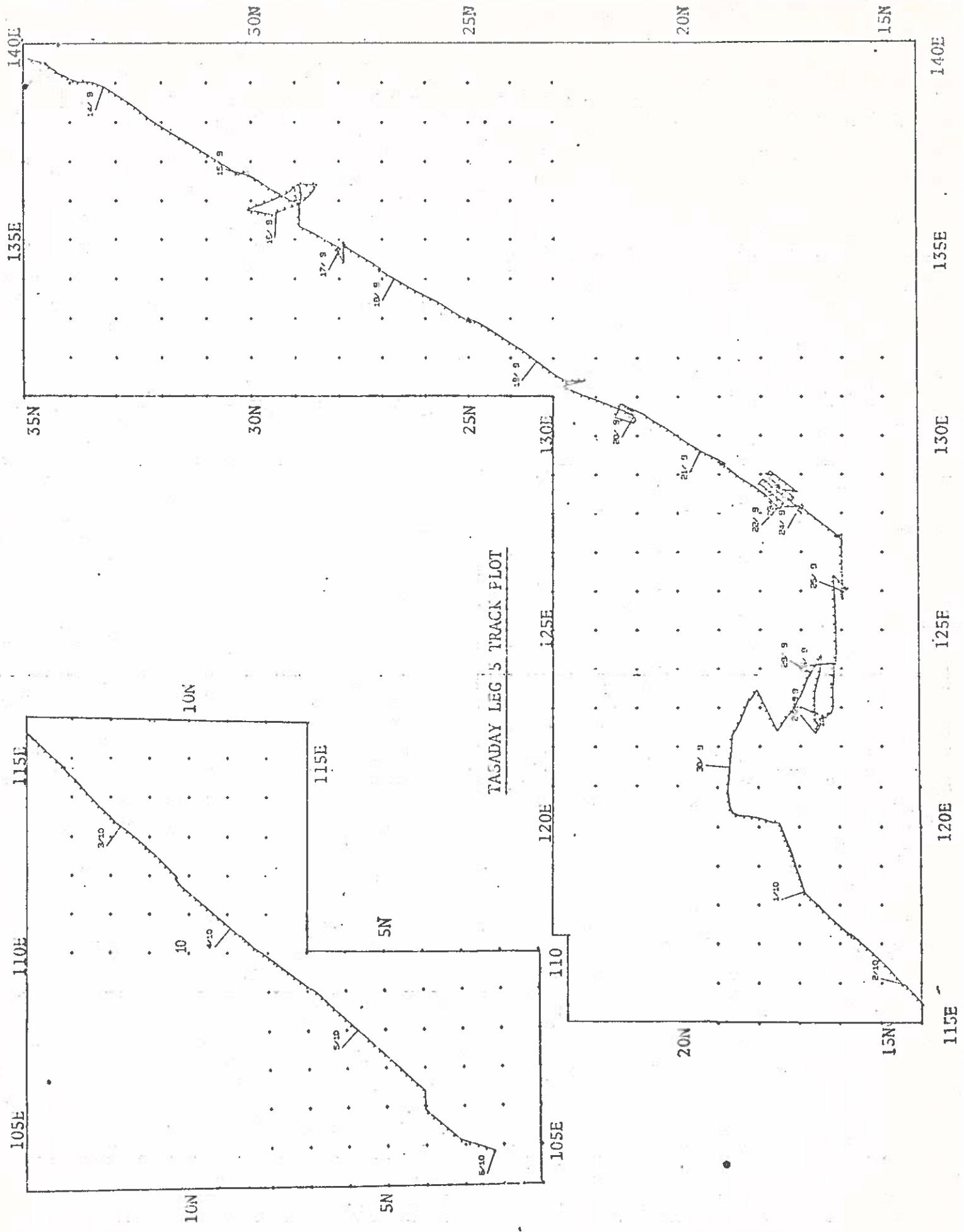
R/V T. WASHINGTON

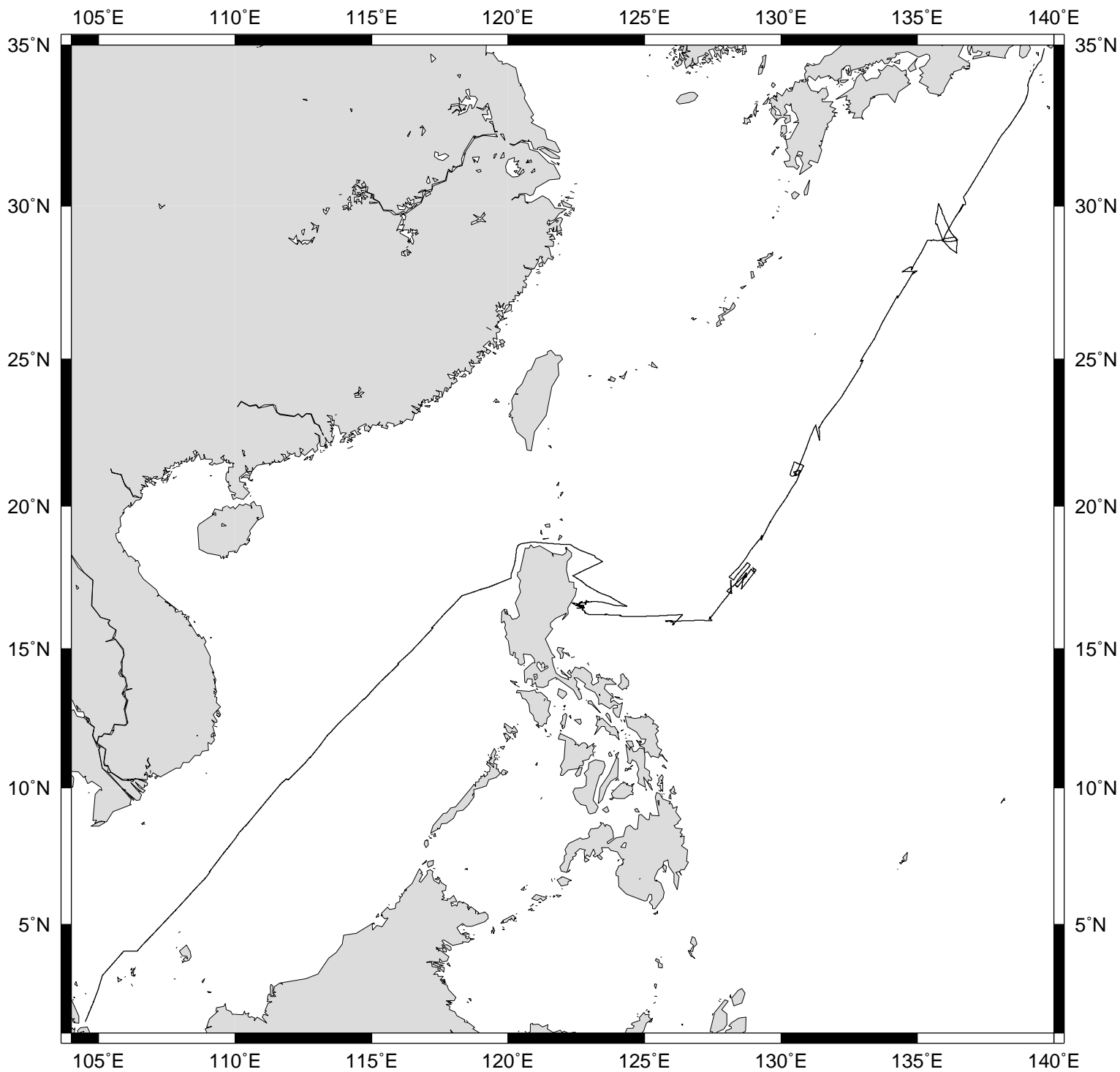
CHIEF SCIENTIST - D.E. KARIG

Yokohama - Singapore (13 Sept. - 6 Oct. 1973)

TOTAL MILEAGE

- 1) Cruise - 4961 miles
- 2) Magnetics - 4582 miles
- 3) Bathymetry - 4738 miles
- 4) Seismic Reflection - 3427 miles





Cruise: TSDY05WT

Begin date (dd/mm/yyyy): 13/09/1973 End date: 06/10/1973

Data collected (# points): twtt: 5173 tcor: 5173 mtot: 4873 manm: 4873

File: TSDY05WT.gmtd

Cruise level information

cruise-id::TSDY05WT
cruise-name::TASADAY LEG 5
cruise-narrative::Goals are to dredge and survey along the Bonin Arc in quiet o
fsilicic rocks symptomatic of early interarc basin development, investigate central
basin fault in vicinity of Taiwan, Studies off northeast coast of Luzon where an arc
reversal is suspected, and heat flow of the Philippine Sea and Bonin Arc.
science-themes::Geological Oceanography, Marine Geophysics
scientific-party-equipment::2 METER HEAT PROBE, ROCK DREDGE, GRAVITY CORE, TRIP GRAVITY
CORE (WITH PISTON CORE), PISTON CORE, SEISMIC RUN, REFRACTION AND/OR WIDE ANGLE
REFLECTION, AIRGUN

cruise-start-date::1973-09-13
cruise-start-port::YOKOHAMA
latitude-start::34.906
longitude-start::139.65741
cruise-end-date::1973-10-06
cruise-end-port::SINGAPORE
latitude-end::1.4065
longitude-end::104.5077

latitude-minimum::1.40650
longitude-minimum::104.50770
latitude-maximum::34.90600
longitude-maximum::139.65741

data-corrected-for-ship-draft::YES
data-corrected-for-tides::NO
data-types::depth_sec magnetic_field magnetic_anomaly subbottom_3.5 seismic_reflection

pi-city-state-zip::Ithaca, NY 14853
pi-email::dek9@cornell.edu
pi-fax::
pi-institution:: Cornell University, Department of Earth and Atmospheric Sciences
pi-name::Karig, Daniel E.
pi-phone::(607)255-3679
pi-street-address::2142 Snee Hall
pi-title::Professor Emeritus

SIO Log weekly reports
Tasaday Expedition Leg 05

Thomas Washington; DTG 171430Z Sept 73. Weekly report. Anisotropy station in Shikoku Basin successfully completed. Piston core rig tested and proved impossible because outboard sheave mislocated. Will use stern method. Presently dredging on Palau-Kyushu Ridge. Karig.

Thomas Washington 241015Z Sept 73. Weekly report. Ship finally reconfigured for geological work. Three piston cores, three empty dredges, and eight heat flow stations so far. Two reversed sonobuoy refractions profiles in west Philippine Basin indicated thin second layer and crust. Detailed survey of Central basin fault being analyzed. We are now moving to incipient trench east of Luzon. Karig.

Thomas Washington 010730Z Oct 73. Weekly report. Philippine Sea work finished and heading down China Sea. Central Basin fault survey indicates zone of en-echelon fractures suggesting strike slip origin. Heat flow in vicinity normal. Second layer and total crust thinner than oceanic. Incipient subduction east of Luzon has folded the continental rise sediments into a small trench slope break. No igneous rocks dredged or cored. Karig

MGD77 file information			
4TSDY05WTMGD77	5513320030711	SCRIPPS INSTITUTION OF OCEANOGRAPHY	01
USA	R/V THOMAS WASHINGTON	SHIP KARIG D.E.	02
TASADAY LEG 5			03
19730913YOKOHAMA	19731006	SINGAPORE	04
SATNAV,AUTOLOG GYRO + EMLOG		LINEAR INTERP.BETWEEN ADJACENT FIXES	05
3.5-12KHZ/GIFFT RECORDERS/WIDE BEAM		ANAL.RECORDS,CARDS,35MMFILM(3.5KHZ)	06
VARIAN MFD PROTON PRECESSION MOD 4970		ANAL.RECORDS,CARDS	07
			08
20TO300CU.IN.AIRGUN,10-300HZ,EDO PSR RECANAL.RECORDS,35MM MICROFILM			09
A(I1,A8,I3,I4,3I2,F5.3,F8.5,F9.5,I1,F6.4,F6.1,I2,I1,3F6.1,I1,F5.1,F6.0,			10
F7.1,F6.1,F5.1,A5,A6,I1)			11
0501SECONDSWEEP14630005 MINUTE INTERVAL			12
05006	03IGRF 1965	LIN. INTERP.POINTS WITHIN ONE DEGREE SQUARE	13
			14
			15
			16
			17
			18
			19
			20
			21
			22
			23
			24