



Cruise: 7TOW06WT

Begin date (dd/mm/yyyy): 04/06/1970 End date: 29/06/1970

Data collected (# points): twtt: 4953 tcor: 4953 mtot: 4927 manm: 4927

File: 7TOW06WT.gmt

Cruise level information

cruise-id::7TOW06WT
cruise-name::SEVEN TOW LEG 6
cruise-narrative::seismic study off Hawaii
science-themes::Marine Geophysics
scientific-party-equipment::airgun

cruise-start-date::1970-06-03
cruise-start-port::APIA, SAMOA
latitude-start::-13.78059
longitude-start::188.248
cruise-end-date::1970-06-29
cruise-end-port::HONOLULU, HAWAII
latitude-end::21.1935
longitude-end::201.9861

latitude-minimum::-13.78060
longitude-minimum::188.24800
latitude-maximum::21.67421
longitude-maximum::202.08239

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

pi-city-state-zip::La Jolla, CA 92093-0220
pi-email::jwinterer@ucsd.edu
pi-fax::
pi-institution::Scripps Institution of Oceanography, UCSD
pi-name::Winterer, Edward L.
pi-phone::(858)534-2360
pi-street-address::9500 Gilman Drive Mail Code: 0220
pi-title::Research Professor of Geology, Emeritus

SIO Log weekly reports
Seven Tow Expedition Leg 06

WASHINGTON - 7-TOW EXPEDITION - Leg VI - Dr. E. L. Winterer, SIO, Scientist-in-Charge, 6/4-29/70. 171835Z - Magnetic and bathymetric surveys completed on:

1. double seamount at 09 15N 158 20W. Flattish summit areas at 800 fms capped by mound of sediment 0.2 sec thick. Dredged volcanics, no fossils.
2. Jacqueline seamount at 09 20N 163 10W. Summit at 700 fms flattish and sediment capped. Dredged volcanics and middle Eocene pelagic limestone. Manganese coating 7 cm thick. Paleomagnetic latitude on Equator. Additional dredge hauls on banks.
3. 05 10N 161 30W. Summit 650 fms. Recovered volcanics and pelagic foram ooze (lower Pliocene) plus pelagic limestone (possibly Oligocene).
4. 05 50N 160 45W. Summit 750 fms. Recovered volcanics and pelagic foram ooze (lower Pliocene).
5. 08 20N 164 15W. Summit 500 fms. Recovered volcanics and pelagic foram ooze. No true guyots recognized. No shallow water fossils dredged.

WASHINGTON- 7TOW EXPEDITION, Leg VI. Dr. E. L. Winterer, SIO, Scientist-in-Charge, 6/3-29/70. 101918Z-Completed magnetic survey and dredging of seamount at 02 45 N 165 W, near DSDP site 66. Oldest fossils late tertiary planktonic forams. Computed paleomagnetic latitude about 02 degrees south. Hydrocast at 08 31 S, 168 43 W, shows striking breaks in curves at 4500 M, suggesting strong deep current through Reids Passage.

WASHINGTON - 7-TOW EXPEDITION, Leg VI, Dr. E. L. Winterer, SIO, Scientist-in-Charge, 6/4-29/70. 2382329Z - Twelve successful heat flow stations, six cores and six dredges completed during past week. Found site and basalt form seamounts in eastern part of basin. Rock determinations confirmed by thin sections on board ship. Six out of fourteen heat flow stations in area high. Four of these close to ridge axis. The other two next to seamounts in eastern region. Completed detailed chemical station in trench south of Samoa and three deep water temperature stations on way to Swains Island. 040030Z June, departed Apia 031345 - Local 040045Z.

T. WASHINGTON - 7-TOW EXPEDITION, Leg VI - Dr. E.L. Winterer, SIO, Scientist-in-Charge, 6/4-29/70. Magnetic survey and dredging results during past week as follows:

1. Seamount at 08 20 north 164 22 west, 1400 M, dredged basalt and pelagic foram limestone (middle eocene).
2. Seamount at 12 04 north 165 50 west, 1400 M, dredged volcanic rocks, pelagic foram ppze (lower Pliocene), pelagic foram limestone (eocene), and cretaceous (senonian) planktonic forams in volcanoclastic rock. Paleomagnetic latitude 23 degrees south.
3. Seamount at 10 18 north 168 00 west, 1800 M, dredged volcanic rocks and hard limestone with mid Eocene planktonic forams. Paelomagnetic latitude 38 degrees south.
4. Seamount at 14 27 north 168 59 west 1500 M, dredged fresh angular albite-actinolite schist and schist breccia with Eocene planktonic forams in matrix.
5. Ridge at 15 39 north 169 18 west 1800 M, dredged volcanic breccia with early Eocene planktonic forams in carbonate matrix.
6. Ridge at 18 00 north 169 00 west 1900 M, dredged volcanic rocks and foram ooze (quaternary with reworked pliocene and eocene). Deep hydrocasts at 12 30 north 165 30 west and at 1800 north 169 15 west at the two deepest passages across Line Island barrier.

MGD77 file information			
47TOW06WTMGD77	5511320030627	SCRIPPS INSTITUTION OF OCEANOGRAPHY	01
USA	R/V THOMAS WASHINGTON	SHIP WINTERER E.L.	02
SEVEN TOW LEG 6			03
19700603APIA,SAMOA	19700629	HONOLULU,HAWAII	04
SATNAV,AUTOLOG GYRO + EMLOG		LINEAR INTERP.BETWEEN ADJACENT FIXES	05
12KHZ/GIFFT RECORDER/WIDE(60DEG)BEAM		ANALOGUE RECORDS,PUNCHED CARDS	06
VARIAN MFD PROTON PRECESSION MOD 4970		ANAL.RECORDS,CARDS	07
			08
40CU.IN.AIRGUN,10-300HZ,PDR MK 10 REC.		ANAL.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.AT 30DEG C/C OR 500MI ALONG TRACK	13
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