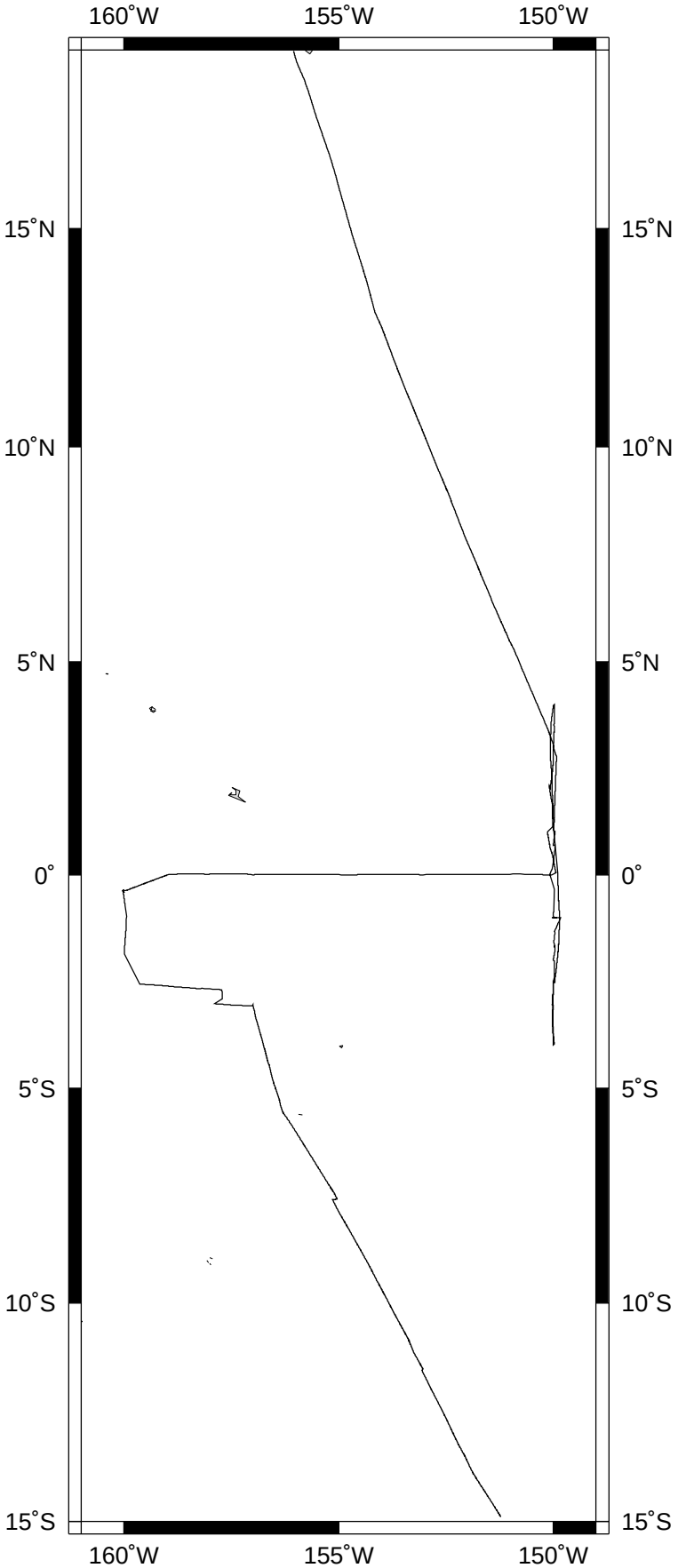

Cruise: ARES04WT

Begin date (dd/mm/yyyy): 02/04/1971 End date: 29/04/1971

Data collected (# points): twtt: 3343 tcor: 3343 mtot: 3078 manm: 3078

File: ARES04WT.gmtd

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Cruise level information
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cruise-id::ARES04WT
cruise-name::ARIES LEG 4
cruise-narrative::current studies from Tahiti to Hawaii
science-themes::Physical Oceanography
scientific-party-equipment::current meters
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cruise-start-date::1971-04-01
cruise-start-port::PAPEETE,TAHITI
latitude-start::-14.90129
longitude-start::208.7854
cruise-end-date::1971-04-29
cruise-end-port::HONOLULU,HAWAII
latitude-end::18.97439
longitude-end::203.9507
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latitude-minimum::-14.90130
longitude-minimum::199.95081
latitude-maximum::18.97439
longitude-maximum::210.17570
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data-corrected-for-ship-draft::YES
data-corrected-for-tides::NO
data-types::depth_sec magnetic_field magnetic_anomaly
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pi-city-state-zip::Seattle,WA 98115-0070
pi-email::taft@pmel.noaa.gov
pi-fax::206-526-6744
pi-institution::NOAA/Pacific Marine Environmental Laboratory
pi-name::Taft, Bruce
pi-phone::206-526-4146
pi-street-address::NOAA Building 3, Bin C15700, 7600 Sand Point Way NE
pi-title::Retired
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SIO Log weekly reports
Aries Expedition Leg 04

THOMAS WASHINGTON - ARIES EXPEDITION. Dr. Bruce A. Taft - Dr. Rudolf H. Bieri, GRD, Scientists-in-Charge, 3/31 - 4/30/71.

Washington - ARIES Expedition - Dr. Bruce A. Taft/Dr. Rudolg H. Bieri, GRD, Scientist-in-Charge. 3/31 - 4 /30/71. Report: DTG 251850Z, March 1971:
We are beginning to learn something about the ecology of the great South Pacific Central water mass. The weather for the past tow weeks has been very calm and this has allowed us to carry out all the work we had planned plus some additional studies. We have observed some of the clearest water I have ever seen, with [secchi?] disk readings of at least 57 meters. Total chlorophyll in the water column is about 2 mg per square meter. There is a very pronounced chlorophyll maximum at 140 to 150 meters. In spite of the clear water and low standing crop of phytoplankton the zooplankton biomass is surprisingly high and quite consistent, however, upper zone section is not abundant. We have been dipnetting small flying fish, Myctophidae and a few smallish oceanic squid. Strangely enough, juvenile pelagic puffer fish are one of the most commonest elements of the neuston. We occasionally see tuna, shark and dolphin fish, but they are rare. There are almost no birds and this correlates well with the fact that our dipnetting results have been very meager. There appears to be a very sharply attenuated vertical biomass profile. There is almost no bathypelagic fauna below 800 meters. Although we have seen few myctophidae on the surface, our 300 meter plankton trawl catches many small ones. These may be the main predator on the relatively abundant zooplankton which in turn are eaten by the small squid and flying fish. These carnivora probably grow because on our last trip during southern hemisphere winter, the squid, flying fish, and myctophidae were all fairly large. There is evidence of pollution even here, our surface neuston tows contain lumps of a thick tar-like substance that is not from our ship, for there are barnacles growing on them.
McGowan

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MGD77 file information
4ARES04WTMGD77           5511320030627SCRIPPS INSTITUTION OF OCEANOGRAPHY    01
USA               R/V THOMAS WASHINGTON1SHIP  TAFT B.                       02
ARIES LEG 4                                                                 03
19710401PAPEETE,TAHITI                  19710429HONOLULU,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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