

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

(Issued May 1989)

ROUNDAABOUT EXPEDITION

LEG 14

=====

R/V Washington

Suva, Fiji (25 January 1989)  
to  
Nuku'Alofa, Tonga (31 January 1989)

Chief Scientist:

James Hawkins - Scripps Institution of Oceanography

Resident Marine Technician - Geoff Hargreaves

Post-Cruise Processing and Report Preparation  
by Geological Data Center, Scripps Institution of Oceanography

Data Collection and Processing Funded by NSF  
Grant Number OCE87-02835

NOTE: This is an index of underway geophysical data edited and processed after the completion of the cruise leg and is intended primarily for informal use within the institution. This document is not to be reproduced or distributed outside Scripps without prior approval of the chief scientist or the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

GDC Cruise I.D.# 239

INFORMAL REPORT AND INDEX OF NAVIGATION  
AND UNDERWAY GEOPHYSICAL DATA

Processed by the Geological Data Center  
Scripps Institution of Oceanography

Contents:

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Index Chart - gives track of cruise leg, dates, ports, and mileage of each type of data collected.

Track Charts - annotated with dates and hour ticks.

Profiles - depth, magnetic anomaly and gravity free air anomaly vs. distance. Sections of track having subbottom profiles (airgun or watergun) records have a wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow black line.

Sample Index - list of beginning and end times and positions of all underway records as well as all other samples and measurements (geology, biology, physical oceanography, etc.) collected on the cruise leg.

NOTE: One or more of the underway data types may not be collected on a given cruise leg.

For information on the availability and reproduction costs of data in the following forms, contact S. M. Smith, Curator, Geological Data Center, Scripps Institution of Oceanography, La Jolla, CA 92093. Phone (619)534-2752.

1. Navigation listing with times and positions of course and speed changes, fixes and drift velocity.
2. Depth compilation plots - compilation plots at the traditional scale of 4in/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$  degree beam width) depths retrieved at one minute intervals of ship time.
3. Plots of depths, magnetics or gravity profiles along track - custom plots at various map and profile scales on Mercator projection may be requested.
4. Separate time series files of navigation, depth, gravity and magnetics as well as these data merged in the MGD77 Exchange format on magnetic tape.
5. Microfilm or Xerox copies of:
  - a. Echosounder records - 12 and 3.5 kHz frequency
  - b. Subbottom profiler records
  - c. Magnetometer records
  - d. Underway data log book

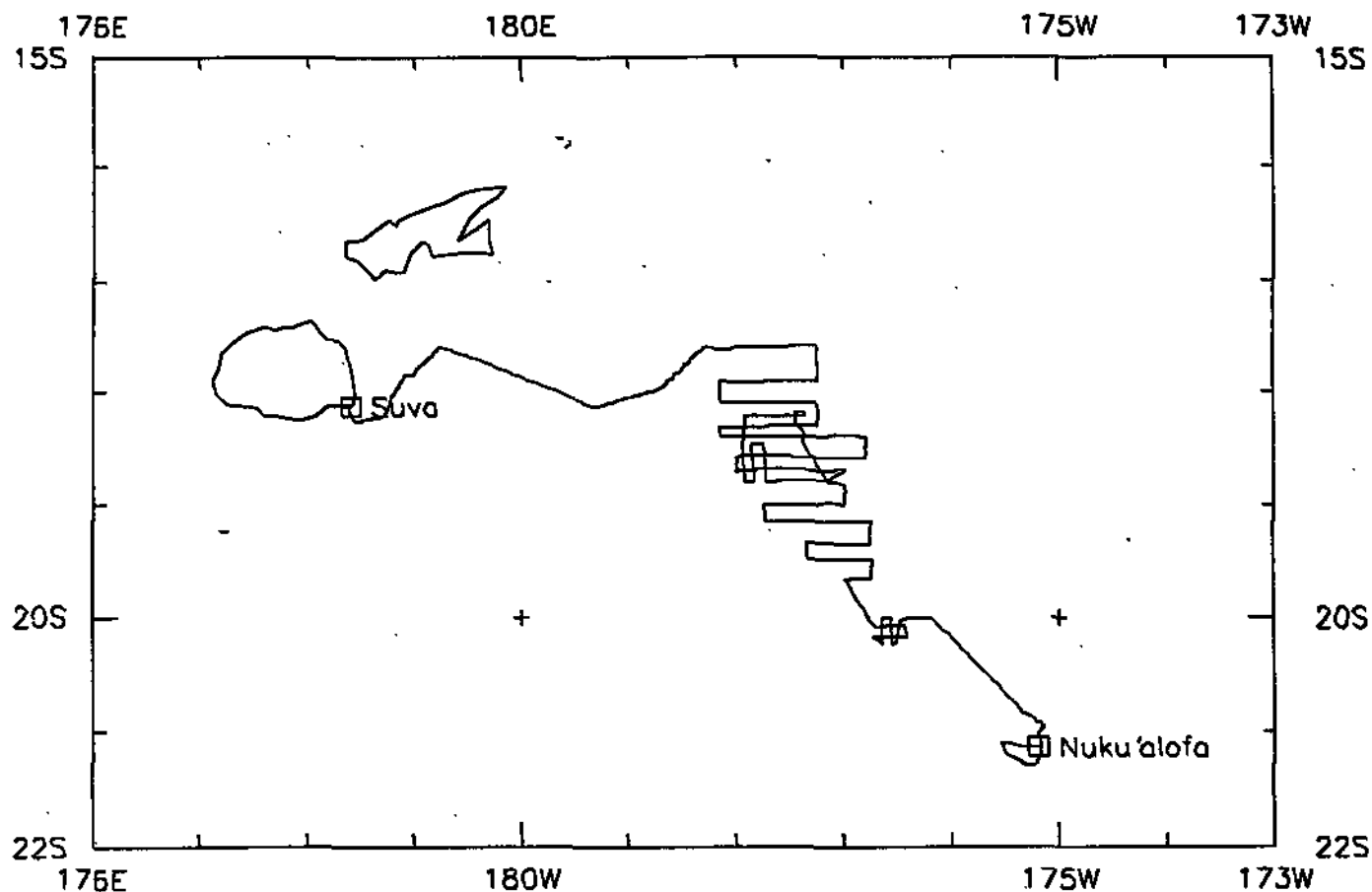
Revised September 1987

## **SIO Sea Beam Data**

The following forms are available, subject to approval of the cruise leg chief scientist:

- 1) Archive copy of contour swath books generated in real time on board ship available for inspection at the data center.
- 2) Microfilm (35mm flowfilm) containing swath books plus, for some cruises, the Sea Beam monitor record and navigation list.
- 3) Sea Beam merged tapes - Sea Beam data merged with navigation. (Navigation is edited to the extent that DR courses and speeds are edited and poor fixes are removed after inspection of drift vectors between fix pairs. No editing is done on the basis of adjusting to overlapping Sea Beam swaths.)
- 4) Archive contour plots - 16"/degree chart scale, with contour interval nominally 50m, are generated for all transit lines. Some survey areas are plotted at appropriate scales as well. Available for inspection at data center; additional copies may be generated from plot files stored on tape.
- 5) Custom generated plots of Sea Beam swaths on Mercator projection in four colors at variable plot scales and contour intervals. There are provisions to adjust positions of individual track lines and to edit out beams (bad data or overlapping data on inside of turns).

revised October 1986



# ROUNDABOUT, LEG 14 (RNDB14WT)

## ROUNDABOUT EXPEDITION LEG 14

### CHIEF SCIENTIST:

James Hawkins (Scripps Institution of Oceanography)

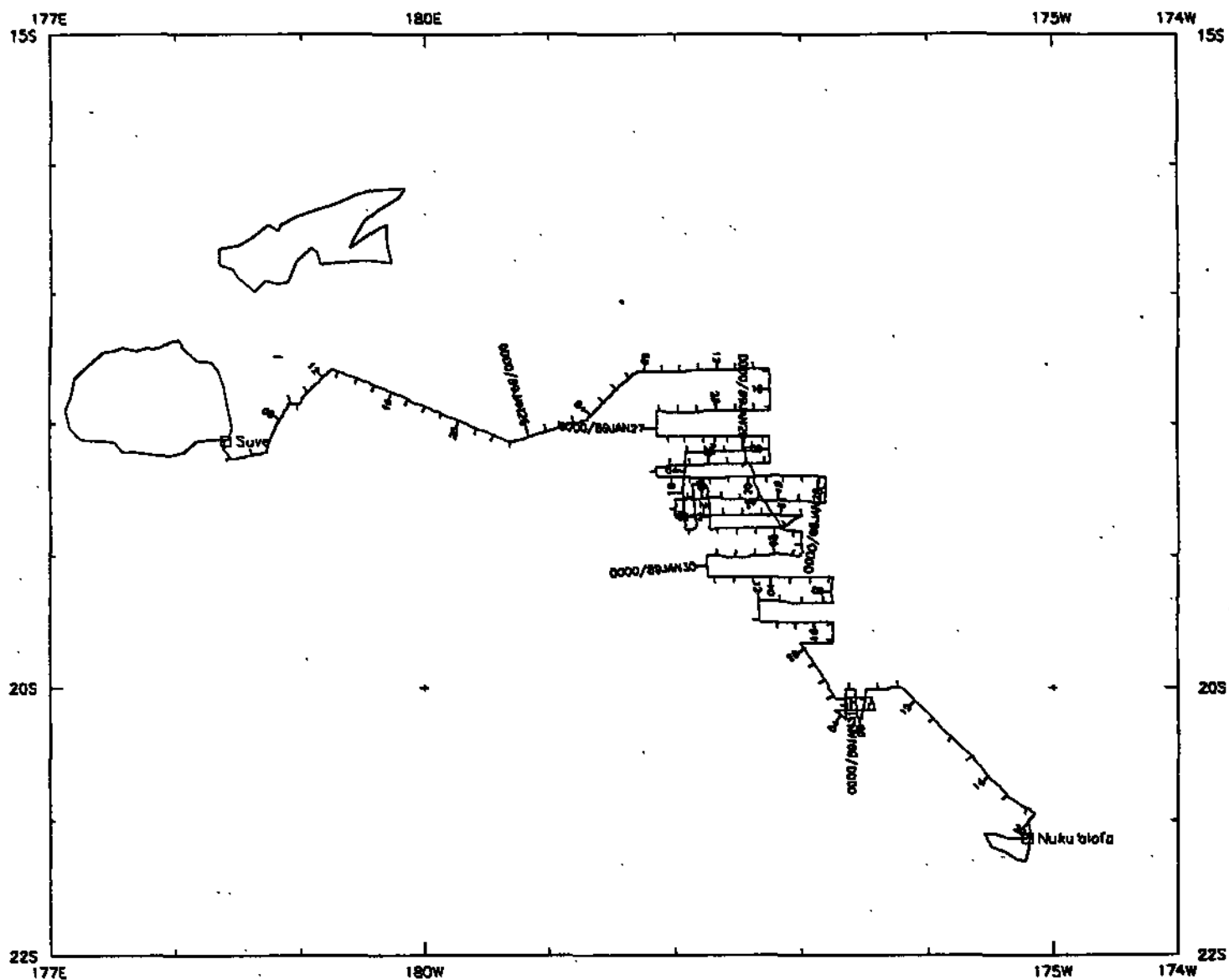
PORTS: Suva, Fiji - Nuku'Alofa, Tonga

DATES: 25 January - 30 January 1989

SHIP: R/V T. Washington

### TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

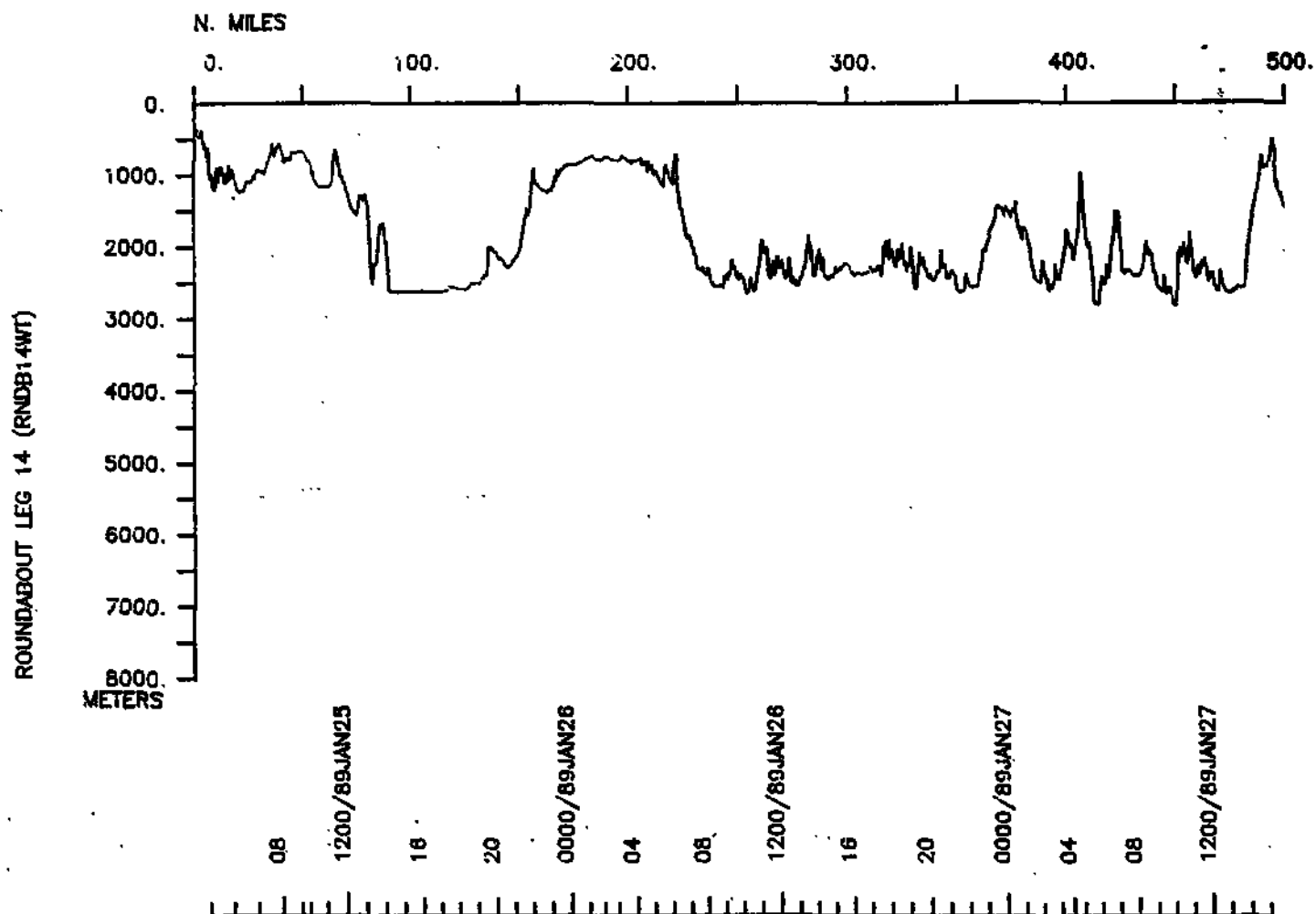
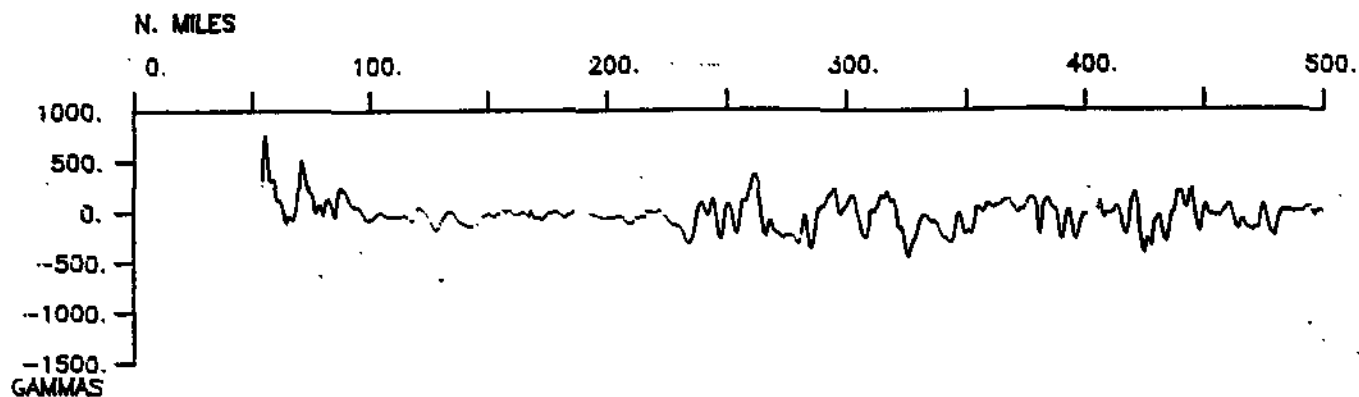
- 1) Cruise - 1394 miles
- 2) Bathymetry - 1394 miles
- 3) Magnetics - 1354 miles
- 4) Seismic Reflection - 1294 miles
- 5) Gravity - collected but not processed
- 6) Sea Beam - 1394 miles



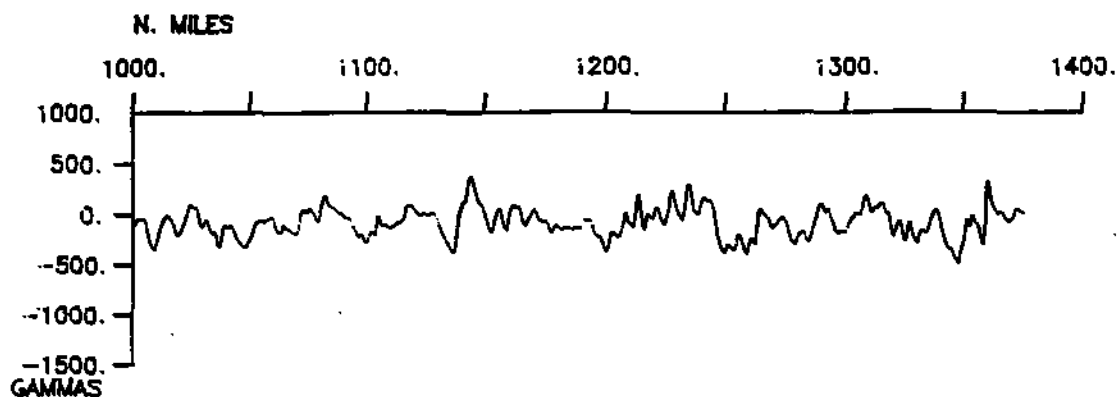
ROUNDABOUT, LEG 14 (RNDB14WT) R/V Thomas Washington

Dates: January 25 to February 1, 1989

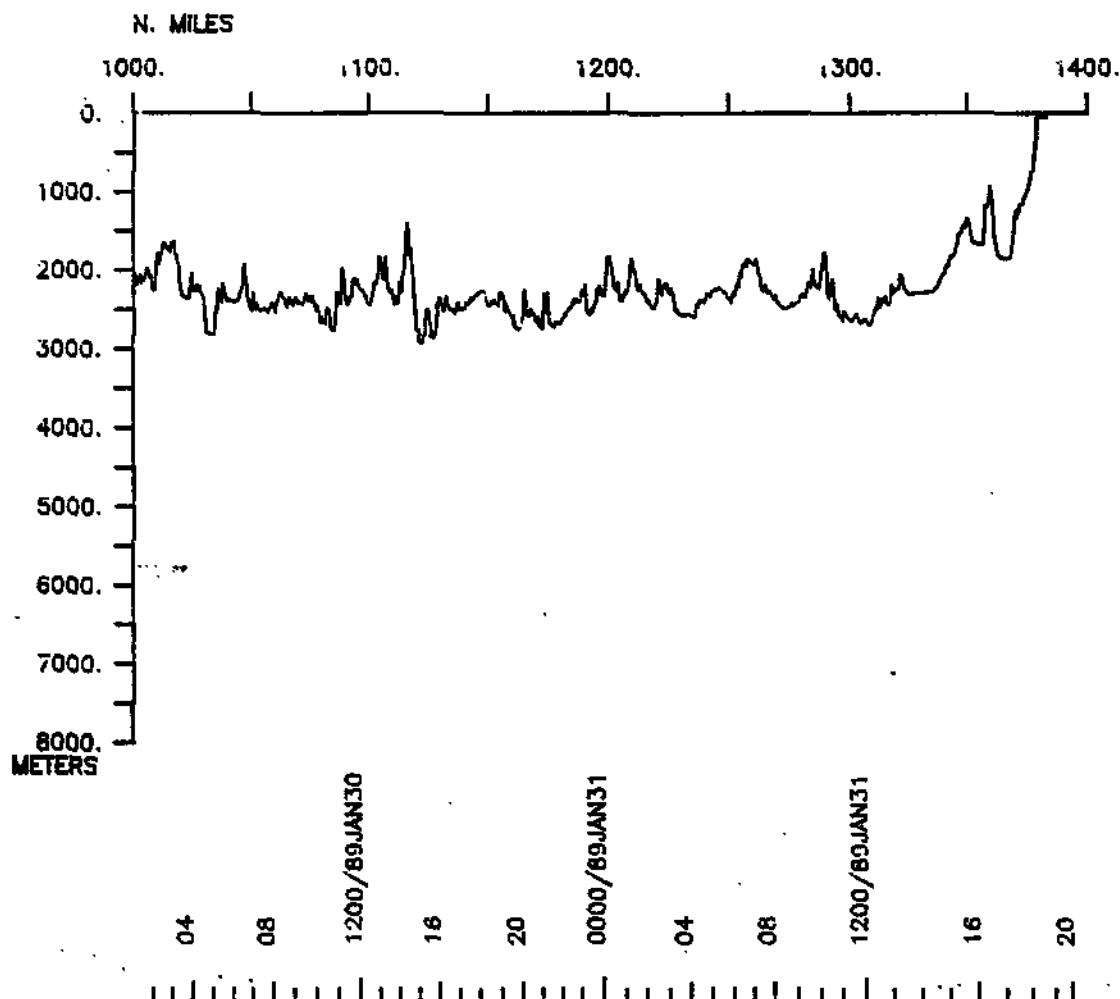
Ports: Suva, Fiji to Nukunono, Tonga



SEABEAM

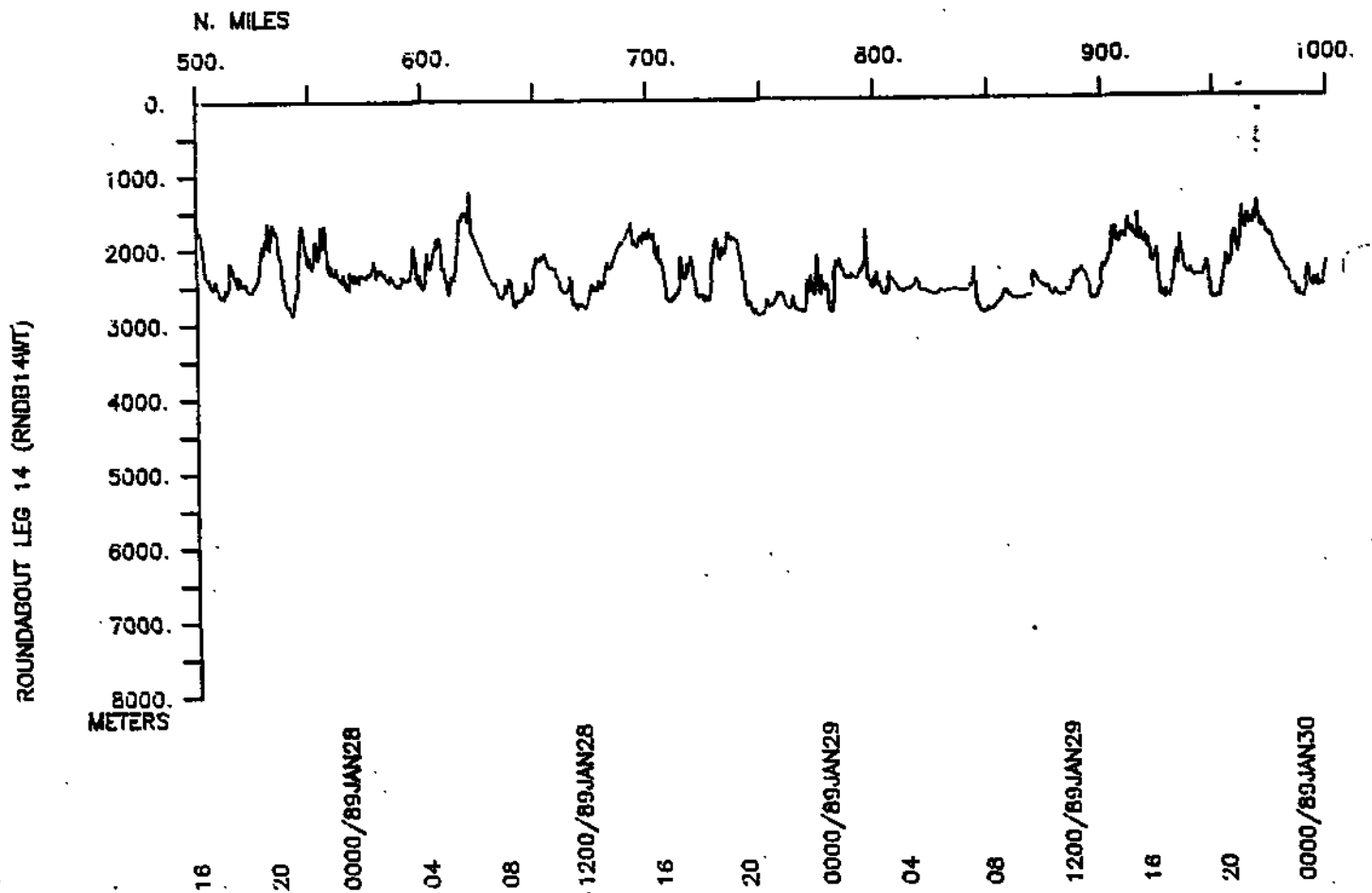
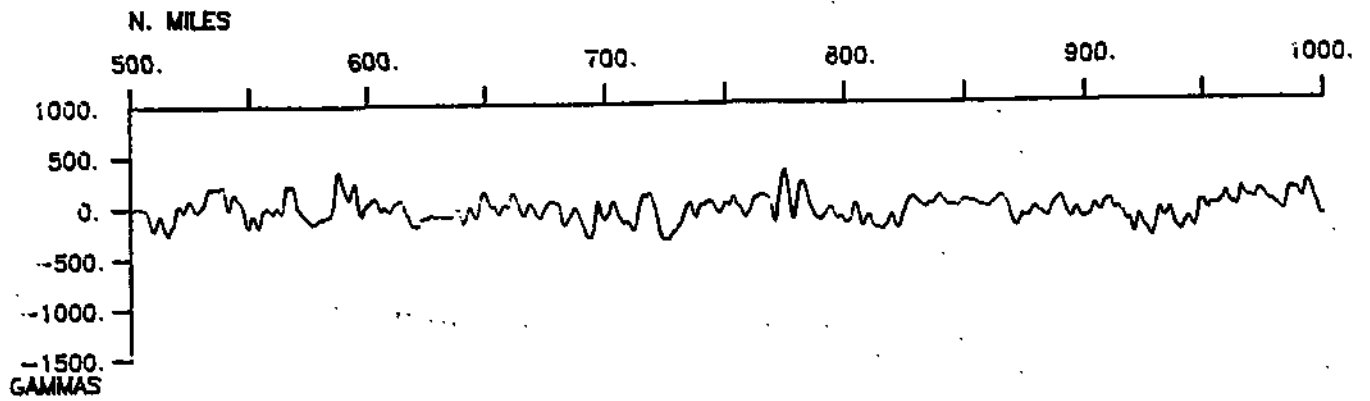


ROUNDABOUT LEG 14 (RND14WT)



[REDACTED]

[REDACTED]





# S.I.O. SAMPLE INDEX

(Issued May 1989)

## ROUNDABOUT EXPEDITION

Leg 14

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R/V T. Washington

Suva, Fiji (25 January 1989)  
to  
Nuku'Alofa, Tonga (31 January 1989)

Chief Scientist:

J. Hawkins (Scripps Institution of Oceanography)

The Sample Index is a first level interdisciplinary listing of time, position, sample identification and disposition of all samples, records and measurements collected on this cruise leg. The index data are encoded at sea by the resident marine technician and processed on shore by the S.I.O. Geological Data Center shortly after the completion of the cruise leg.

Positions are interpolated on the basis of sample time by comparison to a single, edited navigation file. Samples beginning at one time and position and ending at another are entered on two consecutive lines. Disposition and sample type are represented by three and four character codes to permit further computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GDC Cruise I.D.# 239

\*\*\*\*PORTS\*\*\*\*

0420 250189	LGPT B SUVA, FIJI	18-013S 178-041E sRNDB14WT
2016 310189	LGPT E NUKU'ALOFA, TONGA	21-050S 175-124W sRNDB14WT

\*\*\*\*PERSONNEL\*\*\*\*

	***NAME***	***TITLE***	***AFFILIATION***	**CRID**
PECS GRD	HAWKINS, J.	CHIEF SCIENTIST	SCRIPPS INSTITUTION	RNDB14WT
PEST PMC	HAWKINS, D.	WATCH STANDER	SCRIPPS INSTITUTION	RNDB14WT
PESP VOL	BOYER, M.	VOLUNTEER	NON-SCRIPPS EMPLOYEE	RNDB14WT
PEAT STS	CRAMPTON, P.	AIRGUN TECH.	SCRIPPS INSTITUTION	RNDB14WT
PEST GRD	FLORENDO, F.	GRAD STUDENT	SCRIPPS INSTITUTION	RNDB14WT
PEBE STS	HAINES, C.	SEABEAM ENGINEER	SCRIPPS INSTITUTION	RNDB14WT
PERT STS	HARGREAVES, G.	RESIDENT TECH.	SCRIPPS INSTITUTION	RNDB14WT
PEGF SIO	LAHAV, D.	GRAD STUDENT	SCRIPPS INSTITUTION	RNDB14WT
PEST SIO	NILSON, K.	GRAD STUDENT	SCRIPPS INSTITUTION	RNDB14WT
PESP GBN	PARSON, L.	SCIENTIST	ENGLAND	RNDB14WT
PEST SIO	RUBEN, K.	GRAD STUDENT	SCRIPPS INSTITUTION	RNDB14WT
PEBO STS	SMITH, S.	SEABEAM OPERATOR	SCRIPPS INSTITUTION	RNDB14WT
PECT STS	STUBER, D.	COMPUTER TECH.	SCRIPPS INSTITUTION	RNDB14WT

\*\*\*\*NOTES\*\*\*\*

#AN 'X' IN THE (B)EGIN/(E)ND COLUMN FOLLOWING THE SAMPLE CODE INDICATES NO  
 #SAMPLE OR DATA RECOVERED. A 'C' INDICATES CONTINUATION OF DATA COLLECTION  
 #FROM BEFORE THE BEGINNING OR AFTER THE END OF A PARTICULAR LEG. (MOORED  
 #BOTTOM INSTRUMENTS, FOR EXAMPLE.) THE NUMBER APPEARING IN THE COLUMNS  
 #BETWEEN THE SAMPLE IDENTIFIER AND THE DISPOSITION CODE, FOR MANY SAMPLE  
 #ENTRIES, IS THE WATER DEPTH IN CORRECTED METERS. POSITIONS ARE IN TENTHS  
 #OF MINUTES.

#GMT	DDMMYY	LOC	T	SAMP	SAMPLE	DISP			CRUISE
#TIME	DATE	TIME	Z	CODE	IDENTIFIER	CODE	LAT.	LONG.	LEG-SHIP

\*\*\*UNDERWAY DATA CURATOR - S. M. SMITH EXT. 42752

\*\*\*LOG BOOKS\*\*\*

0401	250189			LBUW	B UNDERWAY WATCH LOG	GDC	18-087S	178-238E	sRNDB14WT
1855	310189			LBUW	E UNDERWAY WATCH LOG	GDC	21-009S	175-120W	sRNDB14WT

\*\*\* ECHO SOUNDER RECORDS \*\*\*

0424	240189			MBMR	B SEABEAM MONITOR R-01	GDC	18-087S	178-238E	sRNDB14WT
1855	310189			MBMR	E SEABEAM MONITOR R-01	GDC	21-009S	175-120W	sRNDB14WT

0424	250189			DPR3	B 3.5 KHZ R-01	GDC	18-095S	178-236E	sRNDB14WT
0110	260189			DPR3	E 3.5 KHZ R-01	GDC	18-033S	178-597W	sRNDB14WT

0114	260189			DPR3	B 3.5 KHZ R-02	GDC	18-031S	178-591W	sRNDB14WT
0648	280189			DPR3	E 3.5 KHZ R-02	GDC	18-344S	177-363W	sRNDB14WT

0653	280189			DPR3	B 3.5 KHZ R-03	GDC	18-343S	177-371W	sRNDB14WT
0333	310189			DPR3	E 3.5 KHZ R-03	GDC	20-103S	176-434W	sRNDB14WT

0343	310189			DPR3	B 3.5 KHZ R-04	GDC	20-110S	176-435W	sRNDB14WT
1855	310189			DPR3	E 3.5 KHZ R-04	GDC	21-009S	175-120W	sRNDB14WT

\*\*\* SEA BEAM ARCHIVE SWATH BOOKS \*\*\*

0443	250189			MBSB	B SB ARC SWATH BK 01	GDC	18-128S	178-242E	sRNDB14WT
1512	270189			MBSB	E SB ARC SWATH BK 01	GDC	18-240S	178-088W	sRNDB14WT

1512	270189			MBSB	B SB ARC SWATH BK 02	GDC	18-240S	178-088W	sRNDB14WT
2040	290189			MBSB	E SB ARC SWATH BK 02	GDC	19-001S	177-191W	sRNDB14WT

2040	290189			MBSB	B SB ARC SWATH BK 03	GDC	19-001S	177-191W	sRNDB14WT
1855	310189			MBSB	E SB ARC SWATH BK 03	GDC	21-009S	175-120W	sRNDB14WT

#GMT	DDMMYY	LOC T	SAMP	SAMPLE	DISP			CRUISE
#TIME	DATE	TIME Z	CODE	IDENTIFIER	CODE	LAT.	LONG.	LEG-SHIP

\*\*\* SEISMIC REFLECTION RECORDS \*\*\*

0945	250189		SPRF	B 2 SEC AIRGUN R-01	GRD	17-515S	178-574E	sRNDB14WT
0000	270189		SPRF	E 2 SEC AIRGUN R-01	GRD	18-024S	178-087W	sRNDB14WT
0006	270189		SPRF	B 2 SEC AIRGUN R-02	GRD	18-033S	178-087W	sRNDB14WT
0000	300189		SPRF	E 2 SEC AIRGUN R-02	GRD	19-045S	177-443W	sRNDB14WT
0002	300189		SPRF	B 2 SEC AIRGUN R-03	GRD	19-048S	177-443W	sRNDB14WT
1100	310189		SPRF	E 2 SEC AIRGUN R-03	GRD	20-001S	176-142W	sRNDB14WT
0945	250189		SPRS	B 4 SEC AIRGUN R-01	GRD	17-515S	178-574E	sRNDB14WT
0000	270189		SPRS	E 4 SEC AIRGUN R-01	GRD	18-024S	178-087W	sRNDB14WT
0006	270189		SPRS	B 4 SEC AIRGUN R-02	GRD	18-033S	178-087W	sRNDB14WT
0000	300189		SPRS	E 4 SEC AIRGUN R-02	GRD	19-045S	177-443W	sRNDB14WT
0000	300189		SPRS	B 4 SEC AIRGUN R-03	GRD	19-045S	177-443W	sRNDB14WT
1200	300189		SPRS	E 4 SEC AIRGUN R-03	GRD	19-205S	177-199W	sRNDB14WT
1203	300189		SPRS	B 4 SEC AIRGUN R-04	GRD	19-209S	177-200W	sRNDB14WT
1100	310189		SPRS	E 4 SEC AIRGUN R-04	GRD	20-001S	176-142W	sRNDB14WT

\*\*\* MAGNETIC (EARTH TOTAL FIELD) RECORDS \*\*\*

0957	250189		MGRA	B MAGNETIC ANALOG R-01	GDC	17-514S	178-583E	sRNDB14WT
1855	310189		MGRA	E MAGNETIC ANALOG R-01	GDC	21-009S	175-120W	sRNDB14WT

\*\*\* CONTINUOUS COMPUTER LOGGED GRAVITY \*\*\*

0401	250189		GVCR	B GRAVITY	GDC	18-087S	178-238E	sRNDB14WT
1855	310189		GVCR	E GRAVITY	GDC	21-009S	175-120W	sRNDB14WT

\*\*\* END SAMPLE INDEX