

CRUISE
NUMBER

9601

DAILY LOG
INSTITUTE OF OCEAN SCIENCES
OCEAN PHYSICS

DATE

20 Feb to 8 March 1996

VESSEL

J.P. Tully

PROJECT

Dell 450DE s/n I1SMH

2nd CTD make: _____ model: WOCE serial no.: 59901
Temperature sensor serial no.: 51429
coefficients: slope: _____ offset: _____
Conductivity sensor serial no.: 59607
coefficients: slope: _____ offset: _____
Pressure sensor range: 6000, _____ psi
coefficients: FSP: _____ dB
Transmissometer serial no.: 182D / 192D
coefficients: slope: _____ offset: _____

Winches:

1. make: _____	model: <u>329</u>	serial no.: <u>1483</u>	use: <u>STD/Rosette</u>
2. make: _____	model: <u>329</u>	serial no.: <u>1482</u>	use: <u>STD spore</u>
3. make: _____	model: <u>420</u>	serial no.: <u>1432</u>	use: <u>hydro</u>
4. make: <u>Swann</u>	model: <u>320</u>	serial no.: <u>1207</u>	use: <u>take drum</u>
5. make: <u>electric</u>	model: <u>455</u>	serial no.: <u>1451</u>	use: <u>spooling</u>
6. make: _____	model: _____	serial no.: _____	use: _____
7. make: _____	model: _____	serial no.: _____	use: _____

Salinometer: make: Guildline model: 8410 serial no.: 59879

SAIL System:

Program version: _____ Time zone: LTC
Sampling interval: 120 sec
CTF module no.: _____ serial no.: _____

Remote temperature model: _____ serial no.: _____
Flow sensor model: _____ serial no.: _____

Other sensors: (special for this cruise)

Name: fluorometer module ID: _____ serial no.: _____
Name: _____ module ID: _____ serial no.: _____
Name: _____ module ID: _____ serial no.: _____

Comments: _____

ADCP Setup:

Program version: _____ number of depth bins: _____
Time zone: LTC bin length (2x): _____
Sampling interval: 600 sec pulse length: _____
Blank beyond transmit: _____ pings per ensemble: _____
Pulse cycle time: _____
% pings good threshold: _____

Comments: _____

20 Feb 96

1021 PST Ignor I.O.S. fully

1300 Pump system ready to test in Seawater Inlet.

0008 START CTD CAST - 13 BOTTLES

WOCE computer on local time. Changed to UTC after cast.

0033 ROSETTE ON DECK

0051 CTD ONLY - VERY NOISY CAST - CHECKING ALL CONNECTIONS

0102 CTD ON DECK

18-47

CTD signal fixed by adjusting position of SIGNAL (BALANCE pot. inside deck unit).

2210 PST finally got ADCP system to accept navigation data. Howard was to check out system but did not actually run the program.

0716 Loc

1516 UTC

MP01 CTD CAST

oxygen standard V_b ① -.001 ④ -.001 .002.

② -.001 ③ .004

③ .002 ④ .002

error on demand 1

24

0914 PST RAM down and sounder switched over to it.

MP02 Cleared down sounder line

oxygen V_2 ① .715
 .709
 .715

NEXT PAGE

Casts done with our CTD and Jim Bishop's Transmissometer:

MP12 36/37

MP20 54/55

MP26 77/78

MP12 87/88

48 23 / 125 00

9603 / 96-11

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE						PAGE		OF	
1996		FEB		Tully		9601									
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
20	S3	Pump													
21	S3	ROS	0008	BE	1	48 35 71	123 30 06	E	227					down cast	
				BO		48 35 79	123 30 01	BO		221		13	H.M	1 ST ROSSETTE	
			0016	BE	2	48 35 79	123 30 01				1-13	13		ALL TRIGGERED	
	S3	ROS	0037	EN		48 35 593	123 29 546								
	S3	CTD	0051	BE	3	48 35 92	123 29 99	E	228					NOISY SYSTEM ^{NHP adjusted} VR2 in d	
	S3	↓	0057	BO		48 35 86	123 30 06	BO	2	220			H.M.	CHECKING ALL WIRING	
	S3	↓	0057	BE	4	48 35 88	123 30 03								
✓	S3	CTD	0102	EN		48 35 91	123 30 00								
21	JF01	LOOP	0525	BE	—	48 16.19	123 29.98		155	LOOP	L1	1	FW	S, chl, nut. + 180	
21	JF02		0722	BE	—	48 18.23	123 59.67		186		L2		H.M.	S, chl, nut. + 018	
21	JF03	Loop	1008	BE		48 26.95	124 29.91		231	Loop	L3		H.M.	S%; CHL; NUT # 018.	
21	JF04	Loop	1326	BE		48 32.361	125 03.128		55	Loop	L4		H.M.	S% / CHL / NUTS / 018	
21	MA01	CTD	1523	BE	5	48 34.71	125 30.16		110		L5	9.382	H.M.	START CAST	
21	↓	↓	1526	BO		48 34.77	125 30.18			100				@ DEPTH	
21	↓	↓	1526	BE	6	48 34.78	125 30.16						T.S.		
21	MA01	CTD	1531	EN		48 34.80	125 30.22							ON DECK	

CAST TYPE - BOT - bottle cast
CTD - ctd
MOR - mooring

ROS - rosette
NET - net haul
DRF - drifter

USW - sea water loop

TIME CODE -

BE - beginning time of cast
BO - bottom time of cast
EN - end of cast

DE - deployment time
MR - messenger release
RE - recover mooring

POSITION CODE - RAD - RADAR
GPS - GLOBAL
LOR - LORAN

GPS was not connected to →
acquisition unit for this
cluster

30-35

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

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1996		Feb				9601		2						
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
21	MP02	CTD	1747	BE	7	48 36.12	126 00.16		117				BM	
			1753	BO	7	48 36.20	126 00.27			112,			WR	
			1753	BE	8									
	MP02	CTD	1759	EN	8	48 36.24	126 00.41							
		Loop	1800								L6 10.080			sd, chl, Dig, ml, DMS
21	MP03	CTD	1950	BE	9	48 38.17	126 19.938		800				CM	
			2003	BO	9	48 38.22	126 20.00						WR	
			2004	BE	10	"	"						NHP	
	MP03	CTD	2014	EN	10	48 38.52	126 20.11						BRD	
		Loop	1952			48 38.17	126 19.94				L7 9.935		WR	sd, chl, Dig, ml, DMS
21	MP04	ROS	2219	BE	11	48 39.225	126 40.041		1330					Soon cast (68-11)
21		ROS	2225	BO	11/12	48 39.26	126 40.027			150	14-34	21		two bottles didn't work at 1300m
21	MP04	ROS	2255	EN	12	48 39.47	126 40.26							70m
22	MP04	ROS	0050	BE	13	48 38.43	126 40.28		1334					START CAST
		ROS	0111	BO	13	48 38.61	126 40.65			1318				@ DEPTH
		ROS	0111	BE	14						35-57	23		START UP
	MP04	ROS	0154	EN	14	48 38.87	126 40.80							ON DECK
		Loop												

CAST TYPE - BOT - bottle cast
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 TIME CODE - BE - beginning time of cast
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 POSITION CODE - RAD - RADAR
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21/2/96

0301 UTC

1901 Loc

CTD ONLY TO 1300m @ MP04

22/2/96

0730 UT - two net tows for UBC

0800 Loc

1400 UTC

ROSETTE FOR MUN TO 10m - ALL 23 BOTTLES TRIPPED

1500 UTC

2 NET TOWS 50m + 100m FOR MUN

0900 PST

changed CTD blocks for large pump cable block
start letting out pump cable

1145 PST (1945)

pump cable all back onboard

1430-1600 PST (0000)

Zooplankton NET collections for UBC.

1730 PST (0130)

I.B. - PUMP CAST

1900 PST (0300)

PUMP CAST ABORTED DUE TO WEATHER (J. ANDERSON'S CALL)

~~23/2/96~~

~~1020 UTC~~

~~UBC net tows~~

23 Feb

0800 PST

0930 " (1730)

1000 "

1230 PST

1430 end

Kerlan rope put onto hydro wire
left meter cast

Go-Flo casts

Zooplankton collections: 2x bonus nets + 2x non-quantitative collections

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22	MP04	CTD	0309	BE	15	48 38.92	126 40.10		1328					CTD ONLY
22	MP04	USW	0313	Loop		48 38 970	126 40 150	Loop			L8 8.662			Loops S% / CHL / NUT / O ₁₈
22	MP04	CTD	0329	BO	15	48 38.89	126 40.25			1320				@ DEPTH
22	MP04	CTD	0329	BE	16	48 38.91	126 40.25							START UP
22	MP04	CTD	0351	EN	16	48 39.04	126 40.56							ON DECK
22	MP04	ROS	1417	BE	17	48 37.47	126 35.86		1300		57-79	23		MUN ROSETTE TO 10m
22		ROS	1418	BO	17/18	48 37.47	126 35.88			12				ALL 23 BOTs @ 10m
22	MP04	ROS	1436	EN	18	48 37.90	126 36.13							
	MP04	PUMP			—									
23	MP04	NET	1200	EN	19	48.38.93	126.39.86			150m				ZOOPLANKTON collections
23	MP04	PAR	1608		20	48.39.560	126 41.729			50m				LIGHT CAST
23	MP04	BOT	1756		21	48.39.513	126.41.715			40M	80 - 85	12 ^(2 per DEPTH)		SHALLOW BIO 60-120S
23	MP04	NET	2030	BE						150m				ZOOPLANKTON collections
23	MP04	Net	2230	EN		48 40 01	126 53 10							
24	MP05	CTD	0027	BE	22	48 41.55	127 09 48	GPS	2003					CTD CAST
24		CTD	0052	BO	22	48 41.49	127 09 75	↓		1500				AT DEPTH
24	MP05	Loop	0031	Loop	Loop	48 41 537	127 09 577	↓			L9 8.794			Loops S% / CHL / NUTS / O ₁₈
24	MP05	CTD	0114	EN	23	48 41 66	127 10.21	GPS						ON DECK

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

24/2/96

0052 UTC - CTD CAST TO 1500m Wrong station in header file. Corrected.

1946 PST Sta MPO6 CTD to 1500, keep samples.

2254 Sta MPO7

0848 UTC changed transmissometer on 58483 CTD from #197 to #598
due to differences observed between downcast and upcasts
in transmissivity

1138 UT Comparison of transmissometer values on MPO8 down & up casts showed
good correlation

1339 STM MPO9 CTD $\rightarrow$ 1500m + Loops

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1956		Feb.				9601								
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
24	MP06	CTD	0346	BE	24	48 44.61	127 39.61	GPS	2546					
24	MP06	Loop	0350	EN		48 44.59	127 39.58				L10	8484		
24	MP06	CTD	0407	BO	24/25	48 44.64	127 39.59			1505				
24	MP06	CTD	0429	EN	25	48 44.64	127 39.69							
24	MP07	CTD	0703	BE	26	48 46.52	128 09.76		2506					
	MP07	Loop	0707	EN		48 46.49	128 09.79				L11.	8.305		
		CTD	0726	BO	26	48 46.28	128 09.92			1501.				
		CTD	0728	BE	27	48 46.29	128 09.84	GPS						
24	MP07	CTD	0749	EN	27	48 46.21	128 09.71							
24	MP08	CTD	1025	BE	28	48 48.96 N	128 39.76 W		2525					
	MP08	Loop	1033	EN		48 48.95	128 39.90				L12	8.300	NHP	S% ₀₀ /CHL/NUTS/018
		CTD	1050	BO	29	48 49.03	128 39.99			x 1510				
		CTD	1051	BE	29	48 49.03	128 39.99							
	MP08	CTD	1115	EN	29	48 49.26	128 40.11						NHP	
24	MP09	CTD	1339	BE	30	48 51.41	129 09 60		2353					CTD TO 1500
24	MP09	Loop	1344	Loop	-	48 51 38	129 09 615				L13	7.967		Loops - S% ₀₀ /CHL/NUTS/018
24	MP09	CTD	1408	BO	30	48 51 51	129 09 62	GPS		1502				AT DEPTH
24	MP09	CTD	1408	BE	31	48 51 51	129 09 62							START UP

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
dritter

USW - sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

25/2/96

0022 - CTD TO 1500 m WITH UVIC TRANSMITOMETER / CTD PACKAGE HOOKED DIRECTLY BENEATH CTA(58483)

0719 - CTD cast at MP13; Transmissometer ~~lens~~ not cleaned prior to deployment
readings low by $\sim 2\%$

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1996		Feb								9601						
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS		
24	MP09	CTD	1431	EN	31	48 51.68	129 09.66	GPS		1502				ON DECK		
24	MP10	CTD	1713	BE	32	48 53.67	129 39.69		2665				WR	CTD to 1500		
24	MP10	Loop	1717	-		48 53.68	129 39.7					L14 7.330		CM	Loops S%o/CHL/NUTS/O18	
24	MP10	CTD	1732	BO	32	48 53.70	129 39.72				1504				at depth	
24	MP10	CTD	1733	BE	33	48 53.70	129 39.72								Start up	
24	MP10	CTD	1754	EN	33	48 53.76	129 39.81								On deck	
24	MP11	CTD	2051	BE	34	48 56.06	130 09.86		2760							
24	MP11	Loop	2054	-		48 56.02	130 09.88				L15 7.390		NHP	S%o/NUTS/CHL/O18		
24	MP11	CTD	2112	BO	34	48 55.99	130 10.12			1507						
24	MP11	CTD	2112	BE	35	48 55.99	130 10.10									
24	MP11	CTD	2137	EN	35	48 56.32	130 09.88						NHP			
25	MP12	CTD	0024	BE	36	48 58.09	130 39.46	GPS	3245					CTD TO 1500 ± UVIC TRANS		
25	MP12	Loop	0040	Loop	-	48 58.257	130 39.516	GPS			L16 7.290			Loop-S%o/NUT/CHL/O18		
25	MP12	CTD	0055	BO	36	48 58.38	130 39.55			1501				CTD TO DEPTH		
25	MP12	CTD	0055	BE	37	48 58.38	130 39.54							START UP		
25	MP12	CTD	0117	EN	37	48 58.54	130 39.63							CTD ON DECK		
25	MP13	CTD	0717	BE	38	49 02.41	131 39.66									
25		loop	0724	EN	-	49 02.46	131 39.59		2945		L17 7.270					
CAST TYPE - BOT - bottle cast FOS - rosette LISW - sea water loop TIME CODE -																

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

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GLOBAL
LORAN

25/2/96

1341 UTC - MP 14 CTD CAST TO 1500 m (MIXED TO 90 m)

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
25	MP13	CTD	0748	BO	38	49 02.64	131 39.63	GPS		1509					
25	MP13	CTD	0747	BE	39	49 02.63	131 39.63								
25	MP13	CTD	0807	EN	39	49 03.00	131.39.47	L					NHP		
25	MP14	CTD	1340	BE	40	49 07 37	132 39.91	GPS	3325					START CAST → 1500 m	
25	MP14	Loops	1347	Loop	—	49 07 36	132 40 014				L18 7.936			Loops- S‰/CHL/NUTS/O ₂	
25	MP14	CTD	1403	BO	40	49 07 39	132 40.22			1500				@ DEPTH	
25	MP14	CTD	1403	BE	41	49 07 38	132 40.23							START UP	
25	MP14	CTD	1426	EN	41	49 07 64	132 40.44	✓						CTD ON DECK	
25	MP15	CTD	1932	BE	42	49 12 00	133 40.04		3412				WR		
25	MP15	Loop	1935		—	49 12 02	133 40.09				L19 7.936		BM	Loops- S‰/CHL/NUTS/O ₂	
25	MP15	CTD	1950	BO	42	49 12 13	133 40.18			1500					
25	MP15	CTD	1951	BE	43	49 12.13	133 40.18							mixed layer > 100m	
25	MP15	CTD	2010	EN	43	49 12.08	133 40.41	↓					NHP		
26	MP16	ROS	0049	BE	44	49 16.77	134 40.24	GPS	3638		86-108	23		ROSETTE TO 150m -VBC	
26	MP16	Loop	0050	Loop	—	49 16	134 40			163	L20 7.581			Loops- S‰/CHL/NUTS/O ₂	
26	MP16	ROS	0052	BO	44	49 16.76	134 40.25			163					
26	MP16	ROS		BE	45										
26	MP16	ROS	0241	GN	45	49 16.32	134 40.44								

CAST TYPE -

BOT -
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MOR -bottle cast
ctd
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drifter

USW - sea water loop

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bottom time of cast
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messenger release
recover mooring

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LOR -RADAR
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0435 UTC Nearing end of pump recovery. A short in the cable caused the cast to be terminated when about 6 pumps had been deployed. Pump sampling is being postponed until the problem with the cable is found & repaired.

2021 PST Rosette cast at MP16, Salinity sensor has a problem.

0800 UT - miscommunication on 800m - which operator didn't get stop command. Sampled over 20 metres.

0915 on 58485 CTD conductivity cell showing similar errors to Rosette CTD (!) } → trace
- second set of MP16 loop samples drawn, to be consistent with other CTD casts
0300 Loc NET TOWS FOR U.B.C. / MUN / RCM { labels are in pen: "MP16 CTD"

0750 Loc } ROSETTE CAST FOR MUN - 23 BOTTLES @ 10m
1550 UTC }

1625 UTC NO DMS FROM GO FLO BIOLOGY CAST

1104 PST complete analyzing oxygen samples for MP16.

1910 PST Sh MP17 cancelled due to weather, Loop samples taken.

3854

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1996		Feb.				9601								
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
26	MP16	ROS	0559	BE	46	49 16.63	134 40.11	GPS	3640		109-131	23		
		ROS	0702	BO	46	49 16.32	134 40.39			3655				40m above bottom
		ROS	0702	BE	47	49 16.32	134 40.40							
26	MP16	ROS	0847	EN	47	49 15.87	134 40.78						NHP	back on board
26	MP16	CTD	0908	BE	48	49 16.99	134 40.25	GPS	3640	1517				
26	MP16	loop	0915			49 16.93	134 40.25				421 7.598		NHP	(marked "CTD") Loop 50/00, NUTS, CHL, OIB
26	MP16	CTD	0925	BO	48	49 16.91	134 40.32			1517				
26	MP16	CTD	0926	BE	49	49 16.91	134 40.32							
26	MP16	CTD	0944	EN	49	49 16.90	134 40.41						NHP	
26	MP16	ROS	1556	BE	50	49 16.58	134 42.19	GPS	3707					
26	MP16	ROS	1557	BO	50	49 16.62	134 42.15			10m	131-153	23		ROS CAST FOR M.U.N
26	MP16	ROS	1557	BE	51	49 16.62	134 42.15							23 BOTTLES @ 10m
26	MP16	ROS	1628	EN	51	49 16.62	134 43.84							
26	MP16	Goflo	1625			49 16.64	134 43.08			100m	154-159	6		Go-Flo's (BIOLOGY) NO DMS
26	MP16	PAN	1745			49 14.906	134 46.412			100m				LIGHT CAST
27	MP17	Loop	0313	BE		49 20.83	135 39.52				L22			loop samples only
27	MP18	Loop	1004			49 26.02	135 40.17				L23			loop samples only

CAST TYPE - BOT - bottle cast
CTD - ctd
MOR - mooring

ROS - rosette
NET - net haul
DRF - drifter

USW - sea water loop

TIME CODE - BE - beginning time of cast
BO - bottom time of cast
EN - end of cast

DE - deployment time
MR - messenger release
RE - recover mooring

POSITION CODE - RAD - RADAR
GPS - GLOBAL
LOR - LORAN

27/2/96

1535 UTC - MP 19 CTD TO 1500 m

* NOTE - SPARE ROSETTE FOUND KNOCKED OVER BY WAVES OVERNITE - BOTTOM WELDS BROKEN but no Niskin bottles were broken. The frame is beyond repair.

2110 UTC - MP 20 slung Jim Bishop's transmissometer underneath CTD for this cast.

2220 UTC - Deployed surface drifter for AES (Bob McCarter) as we left P20. Looks like ~15m drogue. #24451

0258 UTC 28/2/96 MP 21 CTD TO 1500 m - * NOTE DATA VERY 'NOISY' DOWNCAST - UPCAIST WAS CLEAR
MY GUESS - SOMETHING STUCK IN THE COND. CELL CLEARED @ ~1300 m DOWNCAST

0827 - bridge noting 1 knot subsurface current, stationary at surface

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1996		Feb.				9601								
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
27	MP 19	CTD	1535	BE	52	49 29.92	137 40.08	GPS	3931					CTD IN WATER
27	MP 19	Loop	1541		—	48° 29 839	137 40 140	↓			L 24	6.724		Loops - S‰/CHL/NUTS/0.18
27	MP 19	CTD	1555	BO	52	49 29.89	137 40.15	↓		1502				@ DEPTH
27	MP 19	CTD	1555	BE	53	49 29.89	137 40.15	↓						START UP
27	MP 19	CTD	1615	EN	53	49 30.09	137 40.15	↓						CTD ON DECK
27	MP20	CTD	2122	BE	54	49 33.93	138 40.26	↓	3967					CTD + TURNS
27	MP20	Loop	2128		—	49 33.86	138 40.36	↓			L 25	6.349	NHP	S‰/CHL/NUTS/0.18(X2)
27	MP20	CTD	2143	BO	54	49 33.96	138 40.43	↓		1507				
27	MP20	CTD	2144	BE	55	49 33.96	138 40.43	↓						
27	MP20	CTD	2205	EN	55	49 34.05	138 40.30	↓					NHP	
27	MP20	DRF	2220	DE	—	49 34.242	138 40.749							#24451 for AES
28	MP21	CTD	0257	BE	56	49 37 92	139 40 16	GPS	3960					START CAST
28	MP21	Loop	0303		—	49 37 935	139 40 063	↓			L 26	6.396		Loops - S‰/CHL/NUTS/0.18
28	MP21	CTD	0322	BO	56	49 38 11	139 40 33	↓		1500				@ DEPTH
28	MP21	CTD	0322	BE	57	49 38 11	139 40 33	↓						START UP
28	MP 21	CTD	0347	EN	57	49 38 22	139 40 55	↓						ON DECK
28	MP22	CTD	0817	BE	58	49 41 98	140 39.94	↓	3899					
28	MP22	loop	0823		—	49 42.02	140 39.96	↓			L 27	6.410	NHP	S‰/NUTS/CHL/0.18

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
old
mooringROS -
NET -
DRF -rosette
net haul
dritter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

0853 UT — line length discrepancy ^{on winch} with pressure sensor on CTD
winch says 1050m, pressure sensor says 950 (up cast)

0903 UT " " 700m " " " 600
" " 360m " " " 340
" " 250m " " " 240

— then pretty much equal to surface NHP

(at depth at end of downcast, winch said 1535, CTD said 1510)
— really 100m extra cable out due to currents?

1319 UTC MP 23 CTD TO 1500m

1855 UTC MP 24 Basoon checking beam compensator for air leak

29/2/96

0018 MP 25 - CTD TO 1500m

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1996		FEB				9601								
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
28	MP 22	CTD	0842	BO	58	49 41.92	140 39.66	GPS		1510				
28	MP 22	CTD	0843	BE	59	49 41.92	140 39.66	↓						
28	MP 22	CTD	0907	EN	59	49 41.75	140 39.28	↓						CTD on board
28	MP 23	CTD	1319	BE	60	49 45 96	141 40 06	GPS	4054					CTD TO 1500
28	MP 23	Loop	1324	—	—	49 45 970	141 40 233	↓			L 28	6.162		Loops: S‰/CHL/NUIS/O.0
28	MP 23	CTD	1345	BO	60	49 45 87	141 40 58	↓		1503				@ Depth
28	MP 23	CTD	1345	BE	61	49 45 87	141 40 58	↓						START UP
28	MP 23	CTD	1409	EN	61	49 45 68	141 41 03	↓						CTD on DECK
28	MP 24	CTD	1810	BE	62	49 50.27	142 39.98	GPS	3990				WR	CTD TO 1500
28	MP 24	Loop	1816	EN	—	49 50.27	142 39.85	↓			L 29	6.102	BM	Loops: S‰/CHL/NUIS/O.0
28	MP 24	CTD	1831	BO	62	49 50.33	142 39.58	↓		1505				@ Depth
28	MP 24	CTD	1831	BE	63	49 50.33	142 39.58	↓						Start up
28	MP 24	CTD	1850	EN	63	49 50.50	142 39.51	↓						CTD on Deck
29	MP 25	CTD	0017	BE	64	49 59.80	143 36 26	GPS	4135					
29	MP 25	Loop	0024	Loop	—	49 59 702	143 36 244	↓			L 30	6.074		Loops: S‰/CHL/NUIS/O.0
29	MP 25	CTD	0042	BO	64	49 59.49	143 36 18	↓		1501				
29	MP 25	CTD	0042	BE	65	49 59.49	143 36 18	↓						
29	MP 25	CTD	0107	EN	65	49 59.47	143 35 97	↓						

CAST TYPE - BOT - bottle cast
CTD - ctd
MOR - mooring

ROS - rosette
NET - net haul
DRF - drifter

USW - sea water loop

TIME CODE - BE - beginning time of cast
BO - bottom time of cast
EN - end of cast

DE - deployment time
MR - messenger release
RE - recover mooring

POSITION CODE - RAD - RADAR
GPS - GLOBAL
LOR - LORAN

29/2/96

0355 UTC - MP35 - CTD CAST TO 1500 m - CAST ABORTED @ 500 m DUE TO NOISE - BOTH T & C COMPLETELY FUZZED OUT - UPCAIST ONLY SLIGHTLY BETTER

0735 - FDA deployed 10 mi E of P26. 11 traps (2 at 105+110m w/NaCl only for Rot/dicel).

0914 - subsurface current ~ 1.5 knots shifting ship per bridge.

Deck unit has high current unable to trip bottles at 50. and above. - cast aborted
No samples at 50, 25, 10 + 0 m (#179-182)

1608 UTC - deployed productivity drifter for 1/2 daylight period

1535 UTC Released JGOFS mooring near P26.

1645 UTC Recovery of mooring started SO 02.763 144 58.001.

1800 PST Begin shear change for MULVFS

transmissometer in water

deployed

pumps on

~1845

2106

2108

2140

0118

0208 PST

0400 Cast completed
Pumps off

49 59.345

145 00.596

49 59.691

145.01.232

49 59.8

145.00.

0745 PST Switched depth transducer from RAM to starboard mount. RAM to be withdrawn.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF					
1996		Feb													
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
29	MP 35	CTD	0356	BE	66	50 00 15	144 18 27	GPS	4149					START CAST	
29	MP 35	Loop	0404		—	50 00 330	144 18 338	↓			L31 6.054			Loops: S% / CHL / NUTS / O ₁₀	
29	MP 35	CTD	0407	BO	66	50 00 35	144 18 30			503					CAST TOO MOISTY: ABORTED
29	MP 35	CTD	0407	BE	67	50 00 35	144 18 30								@ 500 m
29	MP 35	CTD	0415	EN	67	50 00 47	144 18 22								ON DECK
29	MP26	DRF	0735	DE		50 00.09 S	144 43.319 W							FD★ deployed	
29	MP26	ROS	0908	BE	68	49 59.80	144 59.76	↓	4250	4300 dB	160-178	19		CTD failure at 50m on up cast	
29	MP26	ROS	1025	BO	68	49 59.07	144 58.76								4376 on counter
29	MP26	ROS	1025	BE	69	49 59.07	144 58.76								
29	MP26	ROS	1205	EN	69	49 58.23	144 57.64								
29	MP26	DRF	1608	BE	—	50 00.21	144 58.31	↓	4278	100 m	—	9		CH 72 Prod. drifter	
29	MP26	MOR	1645	RE	—	50 02.76	144 58.02							Recover JGDFS mooring	
29	P26	GoFlo	1410	BE		50 00	145 00				179-187	9		Go-Flo sampler in upper 100 m for pr. prod. dist. all.	
	"	GoFlo	1500	EN		"	"				188-210			Samples in upper 225m for SPOM	
01	MP26	ROS	1649	BA	70	49 59.67	145 01.68	GPS	4250			23		ROSETTE TO 10 m FOR	
01	MP26	ROS	1650	BO	70	49 59.66	145 01.66	↓		10 m				KEN & JEN (MUN)	
01	MP26	ROS													(Cast 70 down & up)
01	MP26	ROS	1702	EN	70	49 59.55	145 1.78								ON DECK

CAST TYPE -

BOT -

bottle cast

CTD -

cid

MOR -

mooring

ROS -

rosette

NET -

net haul

DRF -

drifter

USW -

sea water loop

TIME CODE -

BE -

beginning time of cast

BO -

bottom time of cast

EN -

end of cast

DE -

deployment time

MR -

messenger release

RE -

recover mooring

POSITION CODE -

RAD -

RADAR

GPS -

GLOBAL

LOR -

LORAN

34.17.3

Sd 41

1 March 96

0920 PST finished analyzing oxygen samples from Deep Rosette cast #69.

oxygen Blanks .002
.001
.001

Standard ① .712 .709

② .710 .713 .710

③ .709 .710 .710

average = .710

0830

GO FLO'S / LIGHT METER

MO - GO - FLO'S

2200 UTC - changed transmissometer on Rosette from #182D to #192D. Did not change transmissometer coefficients in CTD acquisition program (~~need to be calculated~~) so following casts have incorrect transmissivity in header files. [Coefficients changed to correct ones 0800 UTC Mar 2/96]

Mar. 1, 16:00 PST

17:00 PST

~~22~~

Tucker Trawl in water @ P26.

Tucker Trawl out of water, P26.

2/3/96 UTC (0002-0100)

2/3/96

0300 - MP-26 - 3000 m CAST FOR MAUREEN 23 BOTTLES NOTE - NOISY C CELL (SALINITY) - DISCREPANCY IN THE THERMISTORS #2 LOOKS OK - #1 OFF BY 0.4 HIGH

0450 Cast 72, only 22 bottles closed on rosette (SPDM cast for Maureen soon)

23:30 (PST) - Tucker Trawl cancelled because of weather (gusting to 35+ knots) and equipment failure (rails holding nets on ripped off on last cast). ~~fixed~~
= 07:30 (UTC)

1046 #75 - incorrect setting for this cast "DOCK" - needs to be edited. (done)

1240 UTC P26 # 77 CTD CAST TO 1500 m WITH J. BISHOP TRANSMITOMETER

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	MONTH				SHIP				CRUISE				PAGE		OF	
1996	March								9601							
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS		
01	MP26	PAR	1729			49 59.380	145 01.915			50				shallow light cast		
01	MP26	Goflo	1729							80	211-216	12		shallow Goflos 5-80m		
02	MP26	NET	0002			5000.0 ?	145 00.0 ?			250				TUCKER TRAWL		
02	MP26	ROS	0253	BE	71	50 00 16	145 00 09	GPS	4249					START CAST		
02	MP26	ROS	0343	BO	71	50 00 23	144 59 55			3000	217-238	22		ROSETTE FOR MAURGEN		
02	MP26	ROS	0343	BE	72	50 00 24	144 59 55							Trans #182D		
02	MP26	ROS	0438	EN	72	49 59 97	144 59 53							ON DECK		
02	MP26	CTD	0943	BE	73	50° 00.40	144 59.90	GPS	4245					test cast for #58483		
02	MP26	CTD	0955	BO	73	49 59.85	144 59.89			1005				-no transmissometer		
02	MP26	CTD	0955	BE	74	49 59.85	144 59.89							-failure in thermometer		
02	MP26	CTD	1028	EN	74	50 00.16	144 59.92						NHP	at 930m		
02	MP26	CTD	1041	BE	75	50 00.21	145 00.08	GPS	4252					test cast for #53501		
02	MP26	CTD	1106	BO	75	50 00.38	145 00.30			1500						
02	MP26	CTD	1108	BE	76	50 00.38	145 00.30									
02	MP26	CTD	1131	EN	76	50 00.54	144 59.78						NHP			
02	MP26	CTD	1244	BE	77	50 00 03	145 00 13	GPS	4250					CTD CAST E J.B. TRANSM.		
02	MP26	CTD	1312	BO	77	50 00 31	145 00 36			1500						
02	MP26	CTD	1312	BE	78	50 00 30	145 00 34									

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
dritter

USW - sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

Alice float turned on at 16:26:00
deployed 17:21 @ 50 09.97 145 05.83

1210 PST Released messenger on FDA to close traps.

1240 PST Began recovery of FDA

3/3/96

MP35- 0100 CTD CAST TO 1500 m (2 STYRO CUPS)

1958 PST Dell computer 450DE has time error of 5 min.
20:00 reset computer clock.

4/3/96

STN "ALICE" 50 42 006 140 00 098 CTD CAST TO 1500 m

Mar 4/96
0010UTC Med-evac. of 1 crew (Don Casey) by US Coast Guard. Suspected appendicitis
50 37.33N 136 44.47W.

YEAR	MONTH				SHIP				CRUISE				PAGE		OF
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
02	MP 26	CTD	1338	EN	78	50 00 57	145 00 55	GPS	4250	1500				on DECK	
02	MP 26	ROS	1415	BE	79	50 00 05	145 00 25	GPS	4250					Poc ROSETTE → 1500	
02	MP 26	ROS	1442	BO	79	50 00 18	145 00 25	↓		1500				e DEPTH	
02	MP 26	ROS	1442	BE	80	50 00 20	145 00 25	↓	4250		240-256	17		#254 hung up, no sample	
02	MP 26	ROS	1538	EN	80	50 00 82	145 00 11	↓						ON DECK	
02	MP 26	DRF	1707	DE	—	50 00.57	145 07.07	GPS						DEPLOY AES DRIFT	
2	"	DRF	1721	DE	—	50 00 970	145 05.83							Deploy ALACE	
2	MP 26	DRF	2040	RE	—	49 58.96	144 41.80		4250	1000	—	11 traps		Recover FD★	
3	MP 35	CTD	0055	BE	81	50 00 19	144 17 90	GPS	4222					START CTD CAST	
3	MP 35	CTD	0115	BO	81	50 00 35	144 17 70	↓		1503					
3	MP 35	CTD	0115	BE	82	50 00 35	144 17 70	↓							
3	MP 35	CTD	0133	EN	82	50 00 39	144 17 47	↓						END CAST - ON DECK	
4	ALACE FLT	CTD	0226	BE	83	50 41 99	140 00 16	GPS	3804					START ALACE CTD CAST	
4	ALACE	CTD	0247	BO	83	50 42 07	140 00 16	↓		1502					
4	ALACE	CTD	0247	BE	84	50 42 08	140 00 16	↓							
4	ALACE	CTD	0307	EN	84	50 42 29	140 00 04	↓						END CAST	
4	ALACE	Loop	0228	EN	—	50 42 016	140 00 091	GPS						Loop - S% / C% / NUTS / O ₂	
4	—	Loop	1849	EN		50 16.74	137 20.68							Sal. only.	

CAST TYPE - BOT - bottle cast
CTD - ctd
MOR - mooring

ROS - rosette
NET - net haul
DRF - drifter

USW - sea water loop

TIME CODE - BE - beginning time of cast
BO - bottom time of cast
EN - end of cast

DE - deployment time
MR - messenger release
RE - recover mooring

POSITION CODE - RAD - RADAR
GPS - GLOBAL
LOR - LORAN

Mar 5

1625 UTC

Pumps deployed. Ground fault detected by ship's crew, stopping operation. Several pumps retrieved to attempt to isolate problem.

1055 PST pump cable back on board. Short detected at end of cable.

6/3/96

1130 UTC

MP 12

CTD to 1500 m

1306

MP 12

ROSETTE TO BOTTOM * NOIST SALINITY READING 300m $\rightarrow$ 450m on DOWN CAST

SALINITY CRAPPED OUT @ 900m - BOUNCES BETWEEN 34 AND +35

— one of the cell electrodes had a white "skin" around it. Burned off with HCl. Bubbles formed on this electrode when CTD running with salt water in the conductivity cell.

1330 PST

Legend Station MP12

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF					
1996		March				5601									
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
4	—	Loop	0451			50 03.83	136 15.60							sd only.	
5	MP16	CTD	1325	BE	85	49 17 12	134 39 85	GPS	3640					CTD FOR J.B. 1000m	
5	MP16	CTD	1341	BO	85	49 17 06	134 39 88	↓		1003					
5	MP16	CTD	1341	BE	86	49 17 06	134 39 87								
5	MP16	CTD	1355	EN	86	49 17 01	134 39 90								END CTD - ON DECK
5	MP16	PUMP		BE	—									MULVFS pumps	
5	MP16	"	1625	BO	—	49 16.44	134 40.26		3640						
5	MP16	"	1855	EN	—										
6	—	loop	0039	EN		49 10.89	133 23.83		3352.						
6	—	loop	0517	EN		49 05.48	132 13.05		2709						
6	MP12	CTD	1131	BE	87	48 58.07	130 40.04		3243	1518					
6	MP12	loop	1142			48 58.06	130 39.78						NHP	SAL‰, NUTS, CHL, O ₂	
6	MP12	CTD	1155	BO	87	48 57.97	130 39.70							J. BISHOP'S TRANSMISSOMETER	
6	MP12	CTD	1156	BE	88	48 57.97	130 39.70							SLUNG BELOW CTD.	
6	MP12	CTD	1216	EN	88	48 58 10	130 39 75							CTD/TRANS. ON DECK	
6	MP12	ROS	1253	BE	89	48 58 12	130 38 71	GPS	3247					ROSETTE TO BOTTOM-20	
6	MP12	ROS	1346	BO	89	?	?	↓		3280					
6	MP12	ROS	1346	BE	90	?	?					257 - 279	23		

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

Mar 6

MP12 - during rosette cast, GPS ~~antenna~~ failed. ADCP loses positions also.

0900 PST New antenna on GPS. System functioning.

Mar 7

1020 UTC - winds at 35kt from SE; decided with bridge to put off Rosette until daylight.

1217 UTC - not enough time - decided to do CTD only

1229 UTC - CTD to 1500 m

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

[illegible]

CAST TYPE -

BOT -
CTD -
MOR -

bottle cast
ctd
mooring

ROS -
NET -
DRF -

rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

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EN-

beginning time of cast
bottom time of cast
end of cast

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MR -
RE -

deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -

RADAR
GLOBAL
LORAN