

CRUISE
NUMBER

9603

DAILY LOG
INSTITUTE OF OCEAN SCIENCES
OCEAN PHYSICS

DATE

Feb. 26 - Mar. 1, 96

VESSEL

Vector.

PROJECT

Georgia Strait.

Captain: Don Hardy First Officer: _____
Second Officer: _____ Third Officer: _____

Cruise Participants / Agencies:

Scientific Personnel: Party Chief: Tom Juhasz

Name	Watch	Cabin	Name	Watch	Cabin
<u>Mary O'Brien</u>	<u>FS</u>		<u>08-12</u>	<u>12-16</u>	
<u>Sarah Groulx</u>	<u>FS</u>		<u>16-20</u>	<u>20-24</u>	
<u>Tom Juhasz</u>	<u>Chief</u>		<u>08-12</u>	<u>12-16</u>	
<u>John Love</u>	<u>Str</u>		<u>16-20</u>	<u>20-24</u>	
<u>Robin Brown</u>	<u>Str</u>		<u>08-12</u>	<u>12-16</u>	
<u>Dave Paton</u>	<u>Port</u>		<u>00-04</u>	<u>04-08</u>	
<u>Dayue Chang</u>	<u>Port</u>		<u>00-04</u>	<u>04-08</u>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Second leg of cruise: Party Chief: _____

Name	Watch	Cabin	Name	Watch	Cabin
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Data logging system: Unit no.: _____

Program Name: _____ Program version: _____
CTD deck unit make: Gouldline model: 87107 serial no.: OE
Computer make: ASI 486/66 model: _____ serial no.: FORI 52097

1st CTD make: Gouldline model: 8715 serial no.: 58482
Temperature sensor
coefficients: slope: _____ serial no.: 43201
offset: _____
Conductivity sensor
coefficients: slope: _____ serial no.: 58816
offset: _____
Pressure sensor range: _____ psi serial no.: _____
coefficients: FSP: _____ dB offset: _____
Transmissometer
model: SeaTech serial no.: EPR 004548 (OE)
coefficients: slope: _____ offset: _____

Comments: _____

Alurometer (SeaTech) low sensitivity settings at 04/93 (OE)
EPR# 000050
00 Rosette EPR# 00583 10 bottles

2nd CTD make: _____ model: _____ serial no.: _____
Temperature sensor model: _____ serial no.: _____
coefficients: slope: _____ offset: _____
Conductivity sensor model: _____ serial no.: _____
coefficients: slope: _____ offset: _____
Pressure sensor range: _____ psi serial no.: _____
coefficients: FSP: _____ dB offset: _____
Transmissometer model: _____ serial no.: _____
coefficients: slope: _____ offset: _____

Winches:

Ocean Ecology
1. make: 329 model: 329 serial no.: 1233 use: CTD
2. make: _____ model: _____ serial no.: _____ use: _____
3. make: _____ model: _____ serial no.: _____ use: _____
4. make: _____ model: _____ serial no.: _____ use: _____
5. make: _____ model: _____ serial no.: _____ use: _____
6. make: _____ model: _____ serial no.: _____ use: _____
7. make: _____ model: _____ serial no.: _____ use: _____

Salinometer: make: _____ model: _____ serial no.: _____

SAIL System:

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

Remote temperature model: _____ serial no.: _____

Flow sensor model: _____ serial no.: _____

Other sensors: (special for this cruise)

Name: _____ 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: _____ bin length (2x): _____
Sampling interval: _____ sec pulse length: _____
Blank beyond transmit: _____ pings per ensemble: _____
Pulse cycle time: _____
% pings good threshold: _____

Comments: _____

Feb 26/96

→ two computers connected using WIN 95 - NetBEUI protocol. 2nd computer is SMD US 486 S/N ST1208866

hrs (local)

1000

- depart I.O.S. for stations up Boundary Pass

1045

- determined Sail will not be available for this cruise. Cancelled Loop salinities.

1130

clean/rinse cond cell (TD) with DMQ - cell does not look particularly clean
clean windows of fluorometer and transmissometer.

test Rosette dragging - OK SET pointer to posn 12 DECK UNIT TO START.

ACQUISITION Computer SET TO LOCAL TIME (PST) GPS set to LOCAL TIME

Feb. 27, 96

1038 PST launched mooring GSCM3-A in 349m water at $49^{\circ}06.025'$
 $123^{\circ}29.564'$

STATION	DOWNCAST	UPCAST	COMMENTS
D8A	96030002	-	no upcast file - water collected @ 230m for S.T.
D7A	96030003	96030004	bottles
D6A	96030005	96030006	no bottles
S103	96030007	96030008	bottles
M103	96030009	96030010	bottles
G101	96030011	96030012	"
G102	96030013	96030015	"
V101	96030016	96030017	" 96030014 is short upcast file - ignore
V102	96030018	96030019	"
V103	96030020	96030021	
V104	96030022	96030023	
V105	96030024	96030025	
G103	96030026	96030027	
G104	96030028	96030029	
N101	96030030	96030031	nil met ext
N102	96030032	96030033	
N103	96030034	96030035	
N104	96030036	96030037	along axis of Georgia Strait
N105	96030038	96030039	side 3 96030007
N106	96030040	96030041	M103 96030009
N107	96030042	96030043	G101 96030011
			G102 96030013
			V103 96030020
N103	96030044	96030045	oxy gen calibration cast, G103 96030026
			G104 96030028
			N103 96030034

Nil met ext

YEAR	1996			MONTH	FEBRUARY		SHIP	VECTOR			CRUISE	96-03			PAGE	1	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				
26	D6A	ROS	11:46	BE	2	48 42 12	123 15 33	GPS	350					96030002.*				
			11:55	EN		48 42 08	123 15 49	GPS						x				
			trip 10 bottles @ 250m			-	no data file recorded			250.5	7.844	.73263	80.98	29.960				
			12:04															
					Bottle #7	GO-FLO	did not close (bottom valve)						increase tension					
					#10	WIDEWIN	did not close (lanyard hang up)											
26	D7A	ROS	13:04	BE	0003	48 44.00	123 08.61		172					downcast				
26	D7A	ROS	13:09	EN		48 43.99	123 08.76											
26	D7A	ROS	13:05	BE	0004	48 43.99	123 08.76		176	170		9	Reup	upcast - bottles				
26	D7A	ROS	13:25	EN										see Rosette log sheets OXY / NUTS / SALINITY				
26	D6A	ROS	14:05	BE	0005	48 45 94	123 2.43		230m					no bottles / downcast				
26			14:12	BO		48 45 98	123 2.50											
26	D6A	ROS	14:12	BE	0006	48 45 97	123 2.51		222			0		upcast Cole - no bottles				
26			14:18	EN		48 45 93	123 2.58											
26	S103	ROS	15:32	BE	0007	48 51.85	123 05.09	GPS	167	197				downcast pinger on.				
			15:38	BO		48 51.75	123 04.91	↓	↓									
			15:38	BE	8.	48 51.74	123 04.80			158	O ₂ /	10		upcast → dropping bottles				
			15:55	EN		48 51.53	123 04.47						RWD					

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

Feb 20/95

Review Bottle Salinity vs CTD salinity for selected stations

e.g. D7A
G102

CTD salinities are about 0.2 LOW!

we tried comparing BOTTLE SALINITIES with TAG Salinities and salinities in the upcast HDR files - there was little difference between TAG and upCAST HDR file values

NOTE: Bottle #1 always leaks air (vents). - leave out of analysis?
bottle #4 always leaks air (vents)

Questions for Doug:

- when was this last calibrated?
- are the calibration data correctly entered?

1034 (PST) Feb. 28 deployed mooring GSCM4-A in 408m water.
at position. $49^{\circ}16.006'$ $123^{\circ}46.493'$

INSTITUTE OF OCEAN SCIENCES

CAST TYPE -	BOT -	bottle cast	ROS -	rosette	USW -	sea water loop	TIME CODE -	BE -	beginning time of cast	DE -	deployment time	POSITION CODE -	RAD -	RADAR
	CTD -	ctd	NET -	net haul				BO -	bottom time of cast	MR -	messenger release		GPS -	GLOBAL
	MOR -	mooring	DRF -	dritter				EN -	end of cast	RE -	recover mooring		LOR -	LORAN

PST

DAILY LOG

OCEAN PHYSICS

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YEAR 1996			MONTH FEB			SHIP Vector			CRUISE 9603					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	
26	V103	ROS	2203	BE	20	49 05 980	123 29 350	GPS	352	350		10			
26		ROS	2210	BO	20/21	49 06 12	123 29 13	GPS							
26	V103	ROS	2229	EN	21	49 06 246	123 28 990								
26	V104	ROS	2313	BE	22	49 08 722	123 23 421	GPS	193	188					
26	V104	ROS	2321	BO	22/23	49 08 72	123 23 45	GPS				10			
26	V104	ROS	2332	EN	23	49 08 67	123 23 53	GPS							
27	FD12	Box Core	0041												
27	FD12	Benthic Core	0140												
27	FD22	Benthic Core	0212												
27	FD22	Box Core	0239												
27	V105	ROS	11:46	BE	24			GPS	59	55				steep topography	
			11:49	BO/EN				GPS							
		ROS	11:49	BO	25	49 11.47	123 17.85	GPS				6		up cast	
		ROS	11:56	EN		49 11.50	123 17.97	GPS						forgot to tag samples!	
27	G103	ROS	13:20	BE	26	49 10.3	123.33.5		382	373				downcast	
			13:30	BO		49 10.2	123.33.47								
			13:31	BO	27	49 10.16	123.33.4					10		up cast -	
				EN											

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96030029 is UPCAST - NOT DOWNCAST as noted in comment - change comments to reflect this.

Calibration bottle 3 thermometers bottle #1 Cast # 35

SNO	AUX	MAIN	CTD	Temp	Tag #1	Depth
			Ratio	Temp	Sal	
20011	3.20	9.51				
	3.20	9.52	0.79948	9.583	31.007	399
15765	4.20	9.52				
	4.10	9.51				

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YEAR	1996				MONTH	Feb		SHIP	Vector			CRUISE	9603 str of Georgia		PAGE	OF
DAY (LTP)	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	G104	ROS	1449	BE	28	49 12.64	123 40.126	GPS	403	390					downcast	
27	G104		1459	BO	28	49 12.62	123 40.127									
27	G104		1500	BE	29	49 12.62	123 40.127			23		10			upcast change COMMENTS - dho	
27	G104		1520	EN	29	49 12.65	123 39.97								IS UPCAST NOT DOWNCAST	
	NI01	ROS	1620	BE	30	49 13 308	123 51 421									
27	NI01	ROS	1624	BO	30/31	49 13 270	123 51 458					7.				
27	NI01	ROS	1658	EN	31	49 14 64	123 48 84									
27	NI02	ROS	1706	BE	32	49 14 714	123 48 745		377							
27	NI02	ROS	1714	BO	32/33	49 14 711	123 48 794			350		10.				
27	NI02	ROS	1727	EN	33	49 14 77	123 48 74									
27	NI03	ROS	1806	BE	34	49 15 924	123 46 095									
27	NI03	ROS	1817	BO	34/35	49 16 030	123 45 982					10.			UPCAST 1821 WHT	
27	NI03	ROS	1859	EN	35	49 17 35	123 43 64								THERM BOTTLE #1	
27	NI04	ROS	1924	BE	36	49 17 794	123 42 474		300	293						
27	NI04	ROS	1933	BO	36/37	49 17 807	123 42 426					10.				
27	NI04	ROS	1950	EN	37	49 18.16	123 39 86									
27	NI05	ROS	2035	BE	38	49 19 63 123 39 63	123 39 757		265	260						
	NI05	ROS	2042	BO	38/39	49 19 56	123 38 80									

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 GPS - GLOBAL
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N103 -log across network to E: (shows c:\9603\c?)

- cannot log to E:

"There is a problem with drive E!"

DAILY LOG

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YEAR	MONTH				SHIP				CRUISE				PAGE	OF
1996	February				Vector				96-03 Str of Georgia					
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	NI05	ROS	2134	EN	39	49 21 36	123 34.97							
27	NI06	ROS	2148	BE	40	49 21 39.4	123 35.046		168					
27	NI06	ROS	2152	BO	40/41	49 21 36	123 35 06					9.		
27	NI06	ROS	2200	EN	41	49 21 43.5	123 35.059		168					
27	NI07	ROS	2247	BE	42	49 22 42.6	123 33.277							
27	NI07	ROS	2249	BO	42/43	49 22 52	123 32.90		49			5.		
27	NI07	ROS	2254	EN	43	49 22 54	123 32.89							
28	FD3	Box Core	0041											
28	FD3	Beuthos Core	0117											
28	FD43	Beuthos Core	0143											
28	FD43	Box Core	0158											
28	NI03	ROS	1109	BE	44	49 15.98	123 46.017		408	406				downcast for OXYGEN
		ROS	1117	BO		49 16.013	123 45.949							INTERCALIBRATION
		ROS	1119		45	49 16.02	123 45.95							upcast
		ROS												
28	TEST	ROS	1500											problem with DRIVE-F:
28	FD-5	box core	1252						377					
28	FD-5	beuthos core	1356						402					

CAST TYPE -

BOT -

bottle cast

CTD -

ctd

MOR -

mooring

ROS -

rosette

NET -

net haul

DRF -

dritter

USW -

sea water loop

TIME CODE -

BE -

beginning time of cast

BO -

bottom time of cast

EN -

end of cast

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deployment time

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messenger release

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recover mooring

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RADAR

GPS -

GLOBAL

LOR -

LORAN

Feb. 28 96

1330 - 2100 (local)

- completed Smith-Mac grab sampling along lines
FD-0, FD4, FD2 and FD1 for a total of 21 samples

2100

- departed for mooring site GSCM-2

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	
28	FD06	S-M grab	1512						240						
	FD05	✓	1528						182						
	FD04	✓	1550						152						
	FD03	✓	1600						111						
	FD02	✓	1612						86						
	FD01	✓	1635						52						
	FD41	✓	1652						107						
	FD42	✓	1705						150						
	FD44	✓	1740						190						
	FD45	✓	1757						208						
	FD46	✓	1810						226						
	FD26	✓	1836						187						
	FD25	✓	1852						173						
	FD24	✓	1907						150						
	FD23	✓	1918						125						
	FD21	✓	1932						7						
	FD11	✓	1956						70						
	FD12	✓	2013						140						

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[illegible]

Feb 29, 96.

0800 PST on station GSCM-2 for deployment - preparations on deck.

0942 PST - deployed mooring GSCM-2-A in 210 m water at
position: $48^{\circ}50.852'$ $123^{\circ}07.044'$

- and depart for mooring GSCM1-A preparing en route.

1121 PST - deployed mooring GSCM1-A in 150 m water at
position: $48^{\circ}44.470'$ $123^{\circ}08.376'$

- depart for I.O.S.

1330 - arrive I.O.S. - commence unloading.