

CRUISE
NUMBER

9636

DAILY LOG

INSTITUTE OF OCEAN SCIENCES
OCEAN PHYSICS

DATE

Sep. 9-13, 1996

VESSEL

C.S.S. Vector

PROJECT

Georgia Straits

Captain: Don Hardy First Officer: Sean
Second Officer: Leonard Third Officer: _____
Cruise Participants / Agencies: OSAP Div & Robie Macdonald
Scientific Personnel: Party Chief: Tom Juhász

Name	Watch	Cabin	Name	Watch	Cabin
<u>Mary O'Brien</u>	_____	_____	_____	_____	_____
<u>Melanie Gennetville</u>	_____	_____	_____	_____	_____
<u>Tom Juhász</u>	_____	_____	_____	_____	_____
<u>John Love</u>	_____	_____	_____	_____	_____
<u>Bernard Minkley</u>	_____	_____	_____	_____	_____
<u>Doug Anderson</u>	_____	_____	_____	_____	_____
<u>Joe Linganti</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: _____ model: _____ serial no.: _____
Computer make: _____ model: _____ serial no.: _____

1st CTD make: WOC E 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: _____

Comments: _____

Date Time (ZDT)

- Sep 9 0800 - complete backing + set up.
- 1100 - depart 1.05 for Boundary Passage stations
- flat calm - no wind - sunny
- completed DTA to bottom.
- power drop out problems in CTD system
- collected filter water for Mary at 150 m depth.
- cleaned all connectors as a 1st step.
- winch had problems lifting weight
- removed $\frac{1}{2}$ ballast wts approx 200lb
- removed ballast wt bridle - not needed.
- moved onto D7A.
- cleaning all connectors solved problems with CTD system
- completed Rosette at D7A and CTD at D6A without problems.
- set up for mooring recovery at GSCM1-B
- 1507 - on station GSCM1-B for recovery
- manoeuvring to stop.
- 1512 - stopped - listened for pingers
- received both strong signals.
- 1516 - ranged on release - no response.
- sent CDF for XPND responds with single xpnd.
- 1518 - range 258, 269, 266 m.
- sent ABCE - received positive response
1520 - sighted on surface.
- 1537 - all onboard and heading for GSCM2-B while GSI was cleaned + demobbed.

(PDT)

Date Time

Sep 9 1641

- on station GSCM2-B

- listened to pingers

- received 2 strong signals.

- sent XPND - no response.

1644

- sent CDF for XPND

- 495 m range, 518 m, 505 m = 473 m distant,
- moving closer.

1651

- repositioned.

- 296 m range = 208 m distant.

1653

- sent ADCF - received positive response.

1654

- sighted on surface.

- clean up on deck

- move to Rosette/CTD's along GT Line.

1996		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
9	D08A	ROS			1				347			2		150m 2 bottles down
	D08A	"			3									2 is aborted cast. Was able to trip only 1 bottle due to power problems.
	D07A	"	20:45	BE	4	48°43.98	123° 8.37	GPS			1-19			down
	"	"	20:48	BO	4	48 44.02	123 8.36	"		155				
	"	"	21:00	EN	5	48 44.08	123 8.03	"						up
	D06A	"	21:29	BE	6	48°46.00	123° 2.27	"	230					down
	D06A	"	21:34	BO	6	48°	123°							
	D06A	"	21:38	EN	7	48°46.04	123° 2.21	"						up
10	SI03	"	01:50	BE	8	48°51.85	123° 05.12	"	159		10 - 18			
	"		1:55	BO	8	48 51.75	123 05.15	"						
	"		1:56	BE	9	48 51.74	123 05.15	"						
	"		2:11	EN	9	48 51.44	123 05.34	"						
10	MI03	"	2:57	BE	10	48 55.29	123 10.81	"	125		19 - 26			
	MI03	"	3:00	BO	10	48 55.27	123 10.83	"						
	MI03	"	3:16	EN	"	48 55.18	123 10.73	"						
10	GI01	"	4:10	BE	12	48 58.53	123 16.48	"	162		27 - 35			
	GI01	"	4:15	BO	12	48 58.54	123 16.46	"						
	GI01	"	4:34	EN	13	48 58.46	123 16.89	"						

CAST TYPE -

ROS -

ROS -

USW -

TIME CODE

BE

BO

EN

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 1996			MONTH SEPT			SHIP VECTOR				CRUISE 9636				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	
10	G102	ROS	5:13	BE	14	49 02.60	123 23.36	GPS	258	250					
10	G102	"	5:33	BO	14	49 02.53	123 23.36	GPS			36-48	13			
10	G102	"	6:00	EN	15	49 02.18	123 23.33	"							
10	V103	"	6:59	BE	16	49 05.98	123 29.07	"	335	330					
10	V103	"	7:05	BO	16	49 06.01	123 29.05	"			49-62	14			
10	V103	"	7:28	EN	17	49 06 02	123 28.92	"							
10	G103	"	8:35	BE	18	49 10.22	123 33.53	"	371	360					
"	"	"	8:44	BO	18	49 10.18	123 33.45	"			63-77				
"	"	"	9:08	EN	19	49 10.28	123 33.52	"							
"	G104	"	10:12	BE	20	49 12.60	123 40.36	"	382						
"	"	"	10:18	BO	20	49 12.59	123 40.40	"			76-91			Good cast	
"	"	"		EN	21			"							
"	N101	"	19:19	BE	22	49 13.31	123 51.42	"	108		92-99	8			
"	"	"	19:27	BO	22	49 13.30	123 51.48								
"	"	"	19:22	EN	23										
"	N102	"	20:11	BE	24	49 14.67	123 48.76		322		100-111	12		Sample 112 is missing due to a bottle not tripping	
"	"	"	20:18	BO	24	49 14.68	123 48.77								
"	"	"	20:39	EN	25	49 14.65	123 48.77								

CAST TYPE -

BOT -
CTD -
MOR -
bottle cast
ctd
mooring

ROS -
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 cast

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

POSITION CODE -

RAD -
GPS -
LOR -
RADAR
GLOBAL
LORAN

Date	Time	(PDT)
Sep 10	0800	- again excellent conditions.
		- On station GSCM4-B for recovery.
		- sent XPND - no response.
		- sent CDF - single response
		- sent XPND - range 455m 458m = 273m distant
0805		- sent ADEH - positive response.
		- range 484 492
		- mooring did not rise.
		- moving closer.
		- sighted on surface. - before we even start moving ship - we are obviously getting impatient
0808		- cleanup on deck
		- preparing new GSCM4-C for redeployment
		1125
		- launched mooring GSCM4-C in 408m depth. at position 49°15.997', 123°46.572'
		- watched mooring submerge.
1125		- head to NIOI for Pos/CTD along NI and VI Lines.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1996		09		Vector		96-36								
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
10	NIO3	ROS	21:23	BE	26	49 15.982	123 45.975		401					
	"	"	21:30	BO	26	49 15.98	123 45.99							
	"	"	21:37	EW	27	49	123							tripped again at 300. Cast aborted at 250 m. lost power.
	"	"	21:58	BE	28	49 15.97	123 45.97		409		113-126	14		Repeat in order to do bottles
	"	"	22:06	BO	28	49 15.95	123 45.99							
	"	"	22:27	FW	29	49 15.93	123 45.82							
10	NIO4	"	23:23	BE	30	49 17.98	123 42.36		291		127-139	13		Had to retrigger at 200, 125. Bottle 7 misfired.
	"	"	23:30	BO	30	49 17.80	123 42.38							
	"	"	23:51	FW	31	49 17.81	123 42.40							
11	NIO5	"	0046	BE	32	49 19.61	123 38.69		260		140-151	12		
	"	"	0052	BO	32	49 19.58	123 38.71							
	"	"	0110	FW	33	49 19.47	123 38.81	GPS						
11	NIO6	"	2:16	BE	34	49 21.34	123 35.04	GPS	163		152-161			
"	"	"	2:20	BO	34	49 21.33	123 35.02	"						
"	"	"	2:32	EW	35	49 21.30	123 35.10	"						
"	NIO7	"	3:26	BE	36	49 22.59	123 32.87	"	50		162-166			
"	"	"	3:29	BO	36	49 22.60	123 32.86	"						
"	"	"	3:36	EW	37	49 22.60	123 32.93	"						

CAST TYPE -

BOT -

bottle cast
ctd -
MOR - mooring

ROS -

rosette
NET -
DRF - net haul
drifter

USW -

sea water loop

TIME CODE -

BE -

BO -

EN -

beginning time of cast
bottom time of cast
end of cast

DE -

MR -

RE -

deployment time
messenger release
recover mooring

POSITION CODE -

RAD -

GPS -

LOR -

RADAR
GLOBAL
LORAN

Date Time (PDT)

Sep. 11 0800 - cooler wind pickup. 15 kts
- on station GSCM3-B for recovery, service + redeployment.

- sent XPND - no response

- sent CDF XPND IN - received single answer.

- sent XPND ranges 340, 342, 343, 346 m
- we are directly on top, = 73 m
→ and move off. distant

0808 - new location range 405 m = 203 m
402 m. distant

0809 - sent BDFH - received positive confirmation
+ double ping.

- range 341

0811 - sighted on surface

- cleanup on deck and prepare for redeployment.

1147 - launched mooring GSCM3-C in
342 m water at position:
49 05.981 123° 29.550.

- set up for comparative Guideline (WGE)
+ seabird CTD casts at
GSCM3 - site.

1230
- 1515

- completed comparative CTD casts
between Guideline (WGE) and
both new seabird CTDs # 0447 and
0443

- the primary thermometer on # 0447 failed.

- 1515

- depart for CTDs at MI and SI
lines. - app. 1 1/2 hr. run.

-

YEAR			MONTH			SHIP			CRUISE				PAGE		OF	
1996			09			VECTOR			9636							
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		
11	VIO5	ROS	5:00	BE	38	49 11.44	123 17.81	GPS	50	45	167-171					
11	"	"	5:01	BO	38	49 11.43	123 17.80	"								
11	"	"	5:08	EN	39	49 11.50	123 17.89	"								
11	VIO4	"	5:42	BE	40	49 08.68	123 23.55	"	185	175	172-182	11				
11	"	"	5:48	BO	40	49 08.69	123 23.55	"								
11	"	"	6:08	EN	41	49 08.76	123 23.56	"								
11	VIO3	"		BE	42						183-194	12 14				
11	"	"	7:49	BO	42	49 05.97	123 27.08	"								
11	"	"		EN	43											
	VIO2	"	9:23	BE	44	49 04.50	123 32.27							* cast #44 shows the station # VIO3, but it is VIO2		
	"	"		BO	44/45	49 04.48	123 32.24				195-208	14				
	"	"	9:48	EN	45	49 04.50	123 32.19									
	VIO1	"	10:44	BE	46	49 02.91	123 35.41				209-215	7				
	"	"	10:47	BO	46/47	49 02.93	123 35.43									
	"	"	10:56	EN	47	49 02.90	123 35.41									
11	NEWS	Gulldrik CTD	20:20	BE	48	49 05.627	123 29.905	GPS	348					Comparison cast with Sea-Bird - Down		
11	"	"	20:26	BO	48	49 5.62	123 29.95	"								
11	"	"	20:33		49	49 5.61	123 29.96	"	348					up		

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

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 1996			MONTH September			SHIP Vector			CRUISE 96-36				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
11	NEWS	Sea Rid	20:48	BE	50	49° 05.603	123° 30.110		344					Serial # 0437
"	"	"	21:31	BE	51	49 05.678	123 29.627		349					"
"	"	"	21:42	DE	52	49 05.718	123 29.785							"
"	"	"	21:58	BE	53	49 05.794	123 30.036		365					serial # 0443
"	MT01	Guild CTD	23:47	BE	54	48 52.37	123 14.60	GPS	150					
"	"	"	23:51	BO	54	48 52.36	123 14.65	"						
"	"	"	23:55	EN	55	48 52.31	123 14.63	"						
12	MI02	"	00:36	BE	56	48 53.82	123 12.72	"	143					
"	"	"	00:40	BO	56	48 53.81	123 12.65	"						
"	"	"	00:41	FW	57	48 53.87	123 12.66	"						
"	MI03	"	00:59	BE	58	48 55.25	123 10.75	"	128					
"	"	"	01:04	BO	58	48 55.22	123 10.72	"						
"	"	"	01:07	EN	59	48 55.20	123 10.69	"						
"	MI04	"	1:22	BE	60	48 56.12	123 09.57	"	120					
"	"	"	1:25	BO	60	48 56.11	123 09.56	"						
"	"	"	1:28	EN	61	48 56.10	123 09.53	"						
"	MI05	"	1:39	BE	62	48 57.06	123 08.26	"	113					
"	"	"	1:41	BO	62	48 57.08	123 08.25	"						

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

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 1996			MONTH Sept			SHIP VECTOR				CRUISE 9636				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	
12	WIO5	CTD	1:44	EN	63	48 57.09	123 08.21	GPS	113						
"	WIO6	"	1:53	BE	64	48 57.98	123 07.06	"	127						
"	"	"	01:55	BO	64	48 57.995	123 07 003	"							
"	"	"	01:58	EN	65	48 57.980	123 07 .06	"							
"	WIO7	"	2:10	BE	66	48 58.82	123 05.88	GPS	51						
"	"	"	2:11	BO	66	48 58.82	123 05.85	"							
"	"	"	2:13	EN	67	48 58.877	123 05.808	"							
"	SIO8	"	2:51	BE	68	48 56.47	122 58.99	"	43						
"	SIO8	"	2:52	BO	68	48 56.48	122 59.01	"							
"	SIO8	"	2:54	EN	69	48 56.47	122 59.05	"							
"	SIO7	"	3:06	BE	70	48 55.56	123 00.21	"	130						
"	SIO7	"	3:10	BO	70	48 55.52	123 00.19	"							
"	SIO7	"	3:26	EN	71	48 54.53	123 01.41	"	152						
"	SIO6	"	3:30	BE	72	48 54.52	123 01.39	"	152						
"	SIO6	"	3:32	BO	72	48 54.50	123 01.40	"							
"	SIO6	"	3:34	EN	73	48 54.48	123 01.42	"							
"	SIO5	"	3:43	BE	74	48 53.67	123 02.70	"	160						
"	SIO5	"	3:47	BO	74	48 53.67	123 02.70	"							

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

YEAR			MONTH			SHIP			CRUISE			PAGE			OF
1996			SEPT			VECTOR			9636						
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	
12	SI05	CTD	3:52	EN	75	48 53.66	123 02.74	GPS							
"	SI04	"	4:01	BE	76	48 52.73	123 03.93	"	155						
"	"	"	4:05	BO	76	48 52.70	123 04.02	"							
"	"	"	4:09	EN	77	48 52.64	123 04.06	"							
"	SI03	"	4:18	BE	78	48 51.81	123 05.13	"	155						
"	"	"	4:22	BO	78	48 51.78	123 05.18	"							
"	"	"	4:26	EN	79	48 51.76	123 05.28	"							
"	SI02	"	4:37	BE	80	48 50.46	123 06.99	"	215						
"	"	"	4:43	BO	80	48 50.42	123 07.09	"							
"	"	"	4:48	EN	81	48 50.41	123 07.08	"							
"	SI01	"	5:02	BE	82	48 49.18	123 08.78	"	115						
"	"	"	5:05	BO	82	48 49.17	123 08.81	"							
"	"	"	5:08	EN	83	48 49.24	123 08.75	"							
"	NEWS	Gulb CTD	19:18	BE	84	48 42.04	123 15.09	"	365					Comparison Cast Sea-Bird - WOCF	
"	"	"	19:25	BO	84	48 42.05	123 15.19	"							
"	"	"	19:33	EN	85	48 42.00	123 15.13	"							
"	"	Sea Bird	19:44	BE	86	48 42.081	123 15.094	"	366					Serial # 0437	
"	"	"		BE	87	48 42.094	123 15.142	"	365						

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

Date Time (PDT)

Sep. 11 2130 - completed CTD's along
SI and MI Lines

- ship anchors in Plumber Sound
over night.

Sep. 12 0700 - head out for mooring deployments
at GSCM2 and GSCM1.
- prepare GSCM2 on deck in transit.
- flat calm conditions - sunny pleasant.
0921 PDT - launched GSCM2-C in.
212 m water (corrected)
at 48° 50.8' 16", 123° 07.208'
- watched mooring submerge
- depart for GSCM1 for deployment.

0953 - launched GSCM1-C in 152 m
depth (corrected) at position
48° 44.46' 11", 123° 08.530'
- watched mooring submerge

- move to ≈ 360 m deep hole in
Haro Str. for comparative Seabird/
Guideline CTD casts.

Cast #84 Wocce
CTD comparison cast with
Seabird
In previous cast Seabird
primary temperature sensor
malfunctioned at 150 m.
The cable has been changed for
this cast on the primary sensor.
If sensor malfunctions it will
be returned to Seabird for
replacement.