

Consec. Cast # <b>001</b>		Vessel <b>SURVEYOR</b>		Proj. & Leg <b>TSUNAMI: leg 1</b>		Event # <b>2</b>		Vessel Sta. I.D. <b>S 132</b>		Instructions <b>34-08-01</b>				Sta. Designation <b>BPR-11</b>																								
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg. Min.		E or W	Date JD = Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	1025.0 Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																	
<b>001</b>	<b>15</b>	<b>24</b>	<b>32</b>	<b>7</b>	<b>N</b>	<b>15</b>	<b>59</b>	<b>19</b>	<b>W</b>	<b>13</b>	<b>SEP</b>	<b>82</b>	<b>17</b>	<b>40</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>4</b>	<b>8</b>	<b>2</b>	<b>9</b>	<b>5</b>	<b>1</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>6</b>	<b>7</b>	<b>BPR-11</b>
CTD <b>SEABIRD</b> Type & SN <b>9-1220-B</b>				Monitor Checks				Times JD/Time				Data Location																										
Press. SN <b>26072</b>				on Deck at Surface				Data on <b>257/ 18:18:40</b>				Tape/Diskette I.D. File Name/Header																										
Temp. SN <b>710</b>				Press. _____				at Surface <b>18:20:</b>				_____ <b>13 SEP 1982.DAT</b>																										
Cond. SN <b>304</b>				Temp. _____				Start Down <b>1822</b>				_____																										
_____				Cond. _____				at Bottom <b>1833</b>				_____																										
_____				Other _____				Start Up <b>1839</b>				_____																										
								at Surface <b>1851</b>				Remarks <b>All CTD times are ahead (+1) one hour from GMT. Wx time is correct.</b>																										
								Data off <b>1852</b>																														

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1			496	1833	1838										504.3	3.50	34.214	81		1
2																				2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

Initials **ADAM**  
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Consec. Cast # <u>002</u>		Vessel <u>SURVEYOR</u>		Proj. & Leg <u>TSUMAMI LEG 1</u>		Event # <u>4</u>		Vessel Sta. I.D. <u>S 132</u>		Instructions <u>54-88-01</u>				Sta. Designation <u>BPR-16</u>																
Consec. Cast #	Latitude <u>N</u> or S			Longitude <u>E</u> or W			Date JD = <u>258</u> Day Mo. Yr.			Time GMT <u>0628</u> Hr. Min.		Dry Bulb	Wet Bulb	1025.0 Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.							
	Deg.	Min.	S	Deg.			Day	Mo.	Yr.	Hr.	Min.																			
<u>002</u>	<u>53</u>	<u>22</u>	<u>27</u>	<u>N</u>	<u>154</u>	<u>19</u>	<u>25</u>	<u>W</u>	<u>14</u>	<u>SEP</u>	<u>88</u>	<u>06</u>	<u>28</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>8</u>	<u>3</u>	<u>2</u>	<u>4</u>	<u>10</u>	<u>280</u>	<u>20</u>	<u>82</u>	<u>24</u>	<u>48</u>	<u>5</u>	<u>BPR</u>	<u>16</u>
CTD <u>SEABIRD</u> Type & SN <u>9-1220-B</u>				Monitor Checks								Times JD/Time				Data Location														
Press. SN <u>26072</u>				on Deck at Surface								Data on <u>258/011</u>				Tape/Diskette I.D. File Name/Header														
Temp. SN <u>710</u>				Press. _____								at Surface <u>0112</u>				_____ <u>14 SEP 0106.DAT</u>														
Cond. SN <u>304</u>				Temp. _____								Start Down <u>0114</u>				_____														
_____				Cond. _____								at Bottom <u>0128</u>				_____														
_____				Other _____								Start Up <u>0129</u>				_____														
_____				_____								at Surface <u>0149</u>				Remarks <u>All CTD times are ahead one (+1) hour from GMT. Wx time is correct.</u>														
_____				_____								Data off <u>0150</u>				_____														

Pos	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1			<u>502</u>	<u>0128</u>	<u>NO BATTLE</u>														1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials KMM

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Consec. Cast # <b>003</b>		Vessel <b>SURVEYOR</b>		Proj. & Leg <b>TSUNAMI LEG 1</b>		Event # <b>7</b>		Vessel Sta. I.D. <b>S 132</b>		Instructions <b>54-88-01</b>				Sta. Designation <b>BPR 12</b>																																					
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD = <b>258</b>			Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1025.1	SS	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m <b>4339</b>	Sta. Name or I.D.																											
	Deg.	Min.			Deg.		Day		Mo.	Yr.																																									
<b>003</b>	<b>5</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>N</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>2</b>	<b>5</b>	<b>9</b>	<b>8</b>	<b>W</b>	<b>1</b>	<b>4</b>	<b>S</b>	<b>E</b>	<b>P</b>	<b>8</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>0</b>	<b>9</b>	<b>5</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>3</b>	<b>10</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>8</b>	<b>6</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>9</b>	<b>B</b>	<b>P</b>	<b>R</b>	<b>1</b>	<b>2</b>
CTD <b>SEABIRD</b> Type & SN <b>9-1220-13</b>				Monitor Checks				Times JD/Time				Data Location																																							
Press. SN <b>26072</b>				on Deck				at Surface				Data on <b>258/2231</b>				Tape/Diskette I.D.				File Name/Header																															
Temp. SN <b>710</b>				Press. _____				_____				at Surface <b>2233</b>				_____				_____																															
Cond. SN <b>304</b>				Temp. _____				_____				Start Down <b>2234</b>				_____				_____																															
_____				Cond. _____				_____				at Bottom <b>2255</b>				_____				_____																															
_____				Other _____				_____				Start Up <b>2300</b>				_____				_____																															
_____				_____				_____				at Surface <b>2324</b>				Remarks <b>All CTD times are ahead one (+1) hour from GMT. We time is correct.</b>				_____																															
_____				_____				_____				Data off <b>2324</b>				_____				_____																															
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	g R																																
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.																																			
<b>1</b>			<b>508</b>	<b>2255</b>	<b>2300</b>												<b>34.224</b>	<b>87</b>		<b>1</b>																															
<b>2</b>																				<b>2</b>																															
<b>3</b>																				<b>3</b>																															
<b>4</b>																				<b>4</b>																															
<b>5</b>																				<b>5</b>																															
<b>6</b>																				<b>6</b>																															
<b>7</b>																				<b>7</b>																															
<b>8</b>																				<b>8</b>																															
<b>9</b>																				<b>9</b>																															
<b>10</b>																				<b>10</b>																															
<b>11</b>																				<b>11</b>																															
<b>12</b>																				<b>12</b>																															

Initials **DMM**

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## TOPMAST - CAST SHEET

Pg. 1 of 5

Consec. Cast # <b>005</b>		Vessel <b>SURVEYOR</b>		Proj. & Leg <b>SU-88-01, LEG 1</b>		Event # <b>10</b>		Vessel Sta. I.D. <b>8</b>		Instructions										Sta. Designation <b>MAST-8</b>											
Consec. Cast #		Latitude Deg. Min.		Longitude Deg. Min.		Date JD = <b>259</b> Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		V.S.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
005		540569 N		1575756 W		15 SEP 88		1245		09		209		013		64		180		30		88		8		5203		MAST 8			
CTD <b>SEABIRD</b> Type & SN <b>9-1220-B</b>				Monitor Checks				Times JD/Time				Data Location																			
Press. SN <b>26072</b>				on Deck at Surface				Data on <b>259/1300</b>				Tape/Diskette I.D. File Name/Header																			
Temp. SN <b>710</b>				Press. <b>Not recorded</b>				at Surface <b>1301</b>				<b>TOPMAST 15 SEP 1988</b>																			
Cond. SN <b>304</b>				Temp. _____				Start Down <b>1302</b>				_____																			
_____				Cond. _____				at Bottom <b>1345</b>				_____																			
_____				Other _____				Start Up <b>1350</b>				_____																			
_____				_____				at Surface <b>1441</b>				Remarks <b>Fines one hour ahead of GMT</b>																			
_____				_____				Data off <b>1441</b>				<b>* Unprotected thermometer failed - H</b>																			

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	2	E	1536	1345	1350					1557.536	2.118		34.548	1559.5	2.12	34.539	79		1
2	21	B	947	1413	1418					753.082	3.037		34.339	* 1620.2	3.02	34.308	102		2
3	20	H	14	1434	1439					-	-		-	-	10.63	32.521	22		3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Readings from LOG file ↑

Initials AMM

Consec. Cast # <u>006</u>		Vessel <u>SURVEYOR</u>		Proj. & Leg <u>SU-88-01 LEG-1</u>		Event # <u>11</u>		Vessel Sta. I.D. <u>7</u>		Instructions										Sta. Designation <u>MAST-7</u>																																	
Consec. Cast #	Latitude Deg. Min. S		Longitude Deg. E or W		Date JD = <u>259</u> Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																																
<u>006</u>	<u>5</u>	<u>4</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>5</u>	<u>N</u>	<u>1</u>	<u>5</u>	<u>8</u>	<u>0</u>	<u>5</u>	<u>4</u>	<u>0</u>	<u>W</u>	<u>1</u>	<u>5</u>	<u>S</u>	<u>E</u>	<u>P</u>	<u>8</u>	<u>8</u>	<u>1</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>9</u>	<u>8</u>	<u>1</u>	<u>1</u>	<u>6</u>	<u>4</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>4</u>	<u>3</u>	<u>5</u>	<u>8</u>	<u>M</u>	<u>A</u>	<u>S</u>	<u>T</u>	<u>7</u>
CTD SEABIRD Type & SN <u>9-1220-B</u>				Monitor Checks				Times JD/Time				Data Location																																									
Press. SN <u>26072</u>				on Deck at Surface				Data on <u>259/1553</u>				Tape/Diskette I.D. File Name/Header																																									
Temp. SN <u>710</u>				Press. <u>.02</u> <u>1.3</u>				at Surface <u>1555</u>				<u>TOPMAST</u> <u>15 SEP 1550</u>																																									
Cond. SN <u>304</u>				Temp. <u>9.880</u> <u>10.788</u>				Start Down <u>1556</u>																																													
				Cond. <u>.792</u> <u>32.626</u>				at Bottom <u>1630</u>																																													
				Other <u>—</u>				Start Up <u>1735</u>																																													
								at Surface <u>1735</u>																																													
								Data off <u>1735</u>				Remarks <u>Times 1 hr ahead of GMT.</u>																																									
												<u>* Therm. stabilized for 1 minute rather than 5 mins.</u>																																									
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.																																		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.																																					
<u>1</u>	<u>2</u>	<u>E</u>	<u>1518</u>	<u>1630</u>	<u>1635</u>					<u>1527.625</u>	<u>2.141</u>		<u>34.542</u>	<u>1523.9</u>	<u>2.12</u>	<u>34.535</u>	<u>66</u>		<u>1</u>																																		
<u>2</u>	<u>21</u>	<u>B</u>	<u>752</u>	<u>1707</u>	<u>1708</u>					<u>761.138</u>	<u>3.070</u>		<u>34.336</u>	<u>* 717.5</u>	<u>3.58</u>	<u>34.330</u>	<u>55</u>		<u>2</u>																																		
<u>3</u>	<u>20</u>	<u>H</u>	<u>16</u>	<u>1731</u>	<u>1732</u>					<u>—</u>	<u>—</u>		<u>—</u>	<u>Therm. lost</u>		<u>32.629</u>	<u>19</u>		<u>3</u>																																		
<u>4</u>																			<u>4</u>																																		
<u>5</u>																			<u>5</u>																																		
<u>6</u>																			<u>6</u>																																		
<u>7</u>																			<u>7</u>																																		
<u>8</u>																			<u>8</u>																																		
<u>9</u>																			<u>9</u>																																		
<u>10</u>																			<u>10</u>																																		
<u>11</u>																			<u>11</u>																																		
<u>12</u>																			<u>12</u>																																		

Readings from LOG file +

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Consec. Cast # 007		Vessel SURVEYOR		Proj. & Leg SU-88-01 LEG I		Event # 14		Vessel Sta. I.D. 2		Instructions										Sta. Designation TOPMAST 2														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 260 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
007		5433 09 N			15832 46 W			16 SEP 88			00 11 10		2 10 2		09 57		22 01		88 61										945		MAST 2			
CTD SEABIRD Type & SN 9-1220-B		Monitor Checks										Times JD/Time				Data Location																		
Press. SN 26072		on Deck					at Surface					Data on 260 / 0111				Tape/Diskette I.D.					File Name/Header													
Temp. SN 710		Press. 001					5.997					at Surface 0112				TOPMAST					16 SEP 0103.DAT													
Cond. SN 304		Temp. 10.342					10.188					Start Down 0113									16 SEP 0145.DAT													
		Cond. 0					31.793					at Bottom 0139																						
		Other										Start Up 0148																						
												at Surface 0234																						
												Data off																						
																Remarks TWO FILE'S - DOWNCAST UPGAST					Times are 1 hr ahead of GMT													

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1	✓	2	E	935m	0139	0147	873.2	3.266	34.287		884.003	3.251		34.291	891.1	3.25	34.296	46		1
2	✓																			2
3	✓	21	B	430m	0211	0216	434.423	4.014	34.075		434.640	4.015		34.075	435.3	4.03	34.078	58		3
4	✓																			4
5	✓	17	G	15m	0229	0234	14.932	10.217	31.796		14.445	10.224		31.794	—	10.22	31.801	69		5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

Readings from screen ↑

Readings from LOG file

Initials

Jh

Pg. 4 of 5

Initials   H



Pg. 5 of 5

Initials Jm