



Global Southern Ocean HYPM Mooring Model Analysis

designed for 4786m Depth



By: P. Chua

21-Jan-2015

DCN: 3201-00010

REV: B

REF.DES. GS02HYPM

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Contents

Revision History	2
Mooring Diagram	3
Element List	5
Rope List	6
Backup Buoyancy	7
No Current Static Tension	8
Steady State Launch Tension	9
No Current Static Solution - Parameter	10
Steady State Launch Tension - Parameter	16
Event #001 - Subduction [m]	19
Event #001 - Tension [kg]	20
Event #001 - Simulation Result	21
Event #001 - Simulation Parameter	26
Event #002 - Subduction [m]	31
Event #002 - Tension [kg]	32
Event #002 - Simulation Result	33
Event #002 - Simulation Parameter	38
Event #003 - Subduction [m]	43
Event #003 - Tension [kg]	44
Event #003 - Simulation Result	45
Event #003 - Simulation Parameter	50



Global Southern Ocean HYPM Mooring Model Analysis
 designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Revision History

3201-00010_Global_Southern_Ocean_HYPM_Mooring_Model_Analysis_2015-01-21_RevB

```

=====
Rev# | Date | Author | Description
-----
A | 31-Oct-2012 | C.Begler | Initial Release, ECR# 1303-00860
B | 21-Jan-2015 | P. Chua | Version without GSPP, with ARF, ECR# 1303-01381
=====
    
```



Global Southern Ocean HYPM Mooring Model Analysis

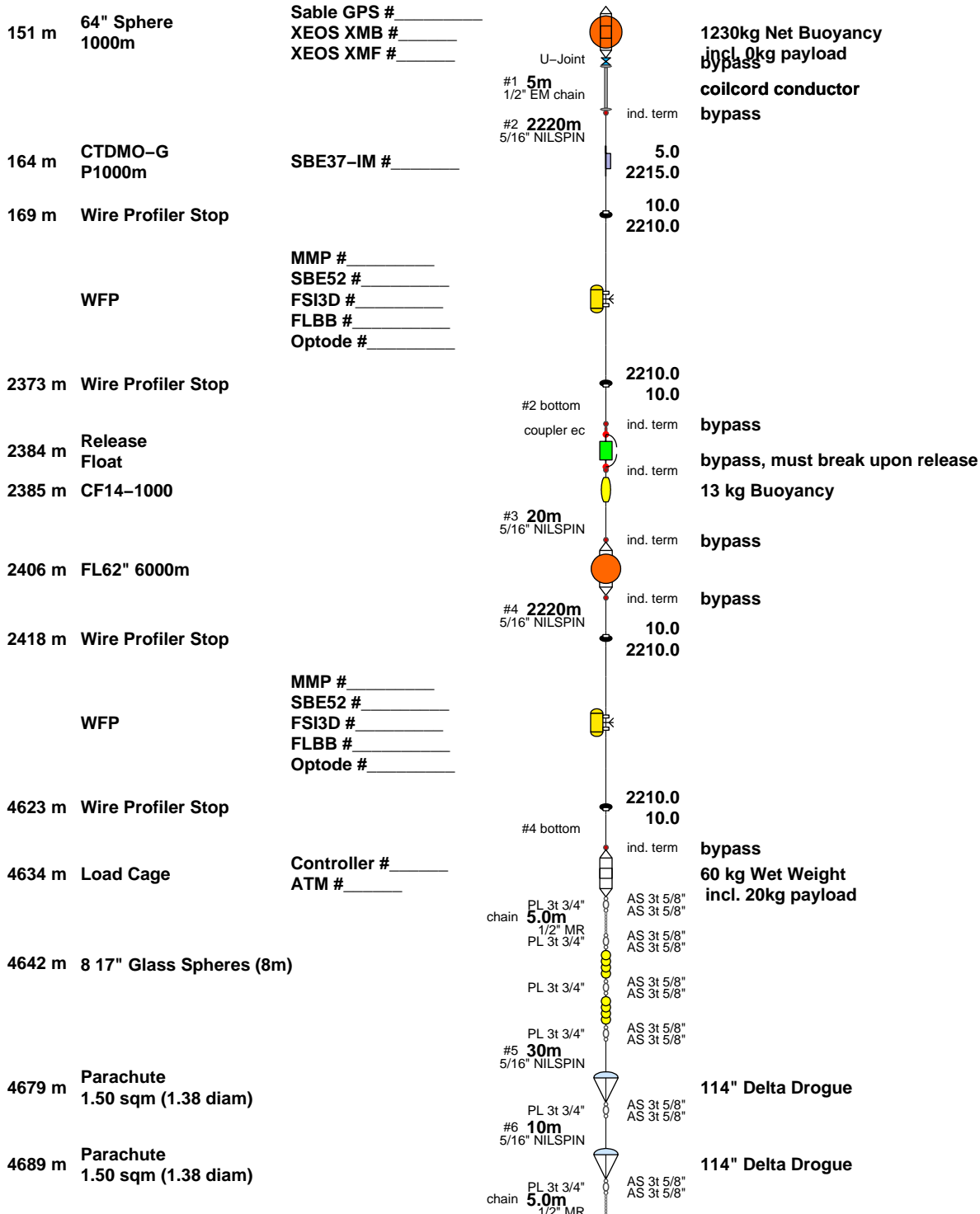
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
-------------	-------------	-----------------	--------	-------------------

Source: 21-Jan-2015 09:12:07, ...imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg
 Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

depth	component (incl. stretch)	instruments	rope # & Length	Distance from Upper / Lower rope end
-------	------------------------------	-------------	--------------------	-----------------------------------------



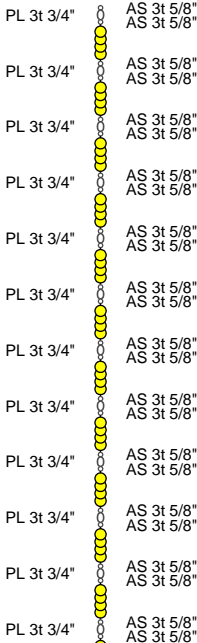


Global Southern Ocean HYPM Mooring Model Analysis
 designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
Source: 21-Jan-2015 09:12:07, ...\imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg				
Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)				
depth	component	instruments	rope #	Distance from
(incl. stretch)			& Length	Upper / Lower rope end

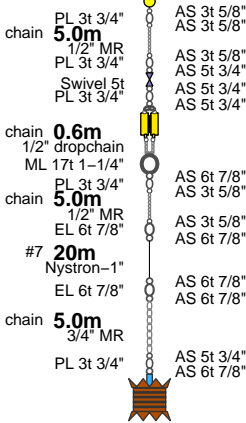
4697 m 48 17" Glass Spheres (51m)



4752 m Dual Release

ORE8242 # _____

ORE8242 # _____



4786 m double MACE Anchor
 3170 kg dry
 2742 kg wet



Global Southern Ocean HYPM Mooring Model Analysis

designed for 4786m Depth



By: P. Chua

21-Jan-2015

DCN: 3201-00010

REV: B

REF.DES. GS02HYPM

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Element List

Code	Count	Label	Weight in air	/	water

Components					
13	6	Inductive Termination	18.0 kg		14.4 kg
15	1	Special Coupler Eye-Clevis	8.0 kg		6.0 kg
17	1	45deg Universal Joint	25.0 kg		16.3 kg
32	41	5/8" Bolt Type Anchor Shackle (AS) 3.2t	31.2 kg		27.1 kg
33	4	3/4" Bolt Type Anchor Shackle (AS) 4.7t	4.9 kg		4.3 kg
34	5	7/8" Bolt Type Anchor Shackle (AS) 6.5t	8.9 kg		7.8 kg
53	23	3/4" Pear Link (PL) 2.7t	19.8 kg		17.0 kg
64	2	7/8" End Link (EL) 6.3t	2.4 kg		2.1 kg
76	1	1-1/4" Master Link (ML) 17t	5.5 kg		4.8 kg
94	1	SS Swivel 5t	6.2 kg		5.3 kg
225	1	62" float 6000m	1385.0 kg		-692.0 kg
256	1	Cable Float CF14 1000m	25.0 kg		-13.0 kg
274	14	4 17" Glass Sphere 204HR on 4m chain	1344.0 kg		-1232.0 kg
300	1	Load Cage w/ Controller, ACOMM	50.0 kg		60.0 kg
306	1	64" Syntactic Sphere 1000m	1100.0 kg		-1230.0 kg
338	2	Wire Profiler Stop	10.0 kg		1.0 kg
339	2	Wire Profiler Stop	10.0 kg		1.0 kg
340	2	Wire Following Profiler	140.0 kg		-0.0 kg
374	1	CTDMO-G P1000m IM, clamp on	3.8 kg		2.8 kg
478	1	Dual Acoustic Release	77.0 kg		61.0 kg
479	1	Acoustic Release in Float	121.0 kg		-0.0 kg
480	1	DropChain 1/2"-4ft	7.8 kg		6.8 kg
491	2	Parachute	NaN kg		-0.0 kg

Components weight :			4403.5 kg		-2929.3 kg

Ropes					
103	4500m	5/16" 3x19 Jac. NILSPIN wire	1404.0 kg		958.5 kg
113	20m	Samson Nystron 1"	10.1 kg		2.0 kg
141	5m	EM chain 1/2", 2.7t	90.0 kg		35.0 kg
181	20m	Mooring (MR) chain 1/2", 2.7t	70.0 kg		60.8 kg
183	5m	Mooring (MR) chain 3/4", 6.0t	38.0 kg		33.1 kg

Ropes weight :			1612.1 kg		1089.3 kg

Summary					
			Components	4403.5 kg	-2929.3 kg
			Ropes	1612.1 kg	1089.3 kg
522	1	double MACE Anchor	3170.0 kg		2742.1 kg

Mooring total weight :			9185.6 kg		902.1 kg



Global Southern Ocean HYPM Mooring Model Analysis designed for 4786m Depth



By: P. Chua

21-Jan-2015

DCN: 3201-00010

REV: B

REF.DES. GS02HYPM

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Rope List

#	Code	Length	Label	Weight in air	/	water
1	141	5m	EM chain 1/2", 2.7t	90.0 kg		35.0 kg
2x	103	2220m	5/16" 3x19 Jac. NILSPIN wire	692.6 kg		472.9 kg
3x	103	20m	5/16" 3x19 Jac. NILSPIN wire	6.2 kg		4.3 kg
4x	103	2220m	5/16" 3x19 Jac. NILSPIN wire	692.6 kg		472.9 kg
	181	5m	Mooring (MR) chain 1/2", 2.7t	17.5 kg		15.2 kg
5	103	30m	5/16" 3x19 Jac. NILSPIN wire	9.4 kg		6.4 kg
6	103	10m	5/16" 3x19 Jac. NILSPIN wire	3.1 kg		2.1 kg
	181	5m	Mooring (MR) chain 1/2", 2.7t	17.5 kg		15.2 kg
	181	5m	Mooring (MR) chain 1/2", 2.7t	17.5 kg		15.2 kg
	181	5m	Mooring (MR) chain 1/2", 2.7t	17.5 kg		15.2 kg
7	113	20m	Samson Nystron 1"	10.1 kg		2.0 kg
	183	5m	Mooring (MR) chain 3/4", 6.0t	38.0 kg		33.1 kg

Symmetric Marker: 6

#	Length	Type	Position of Markers [m]
2x	2220m	5/16" NILSPIN:	5, 10, 2210, 2215
4x	2220m	5/16" NILSPIN:	10, 2210



Global Southern Ocean HYPM Mooring Model Analysis designed for 4786m Depth

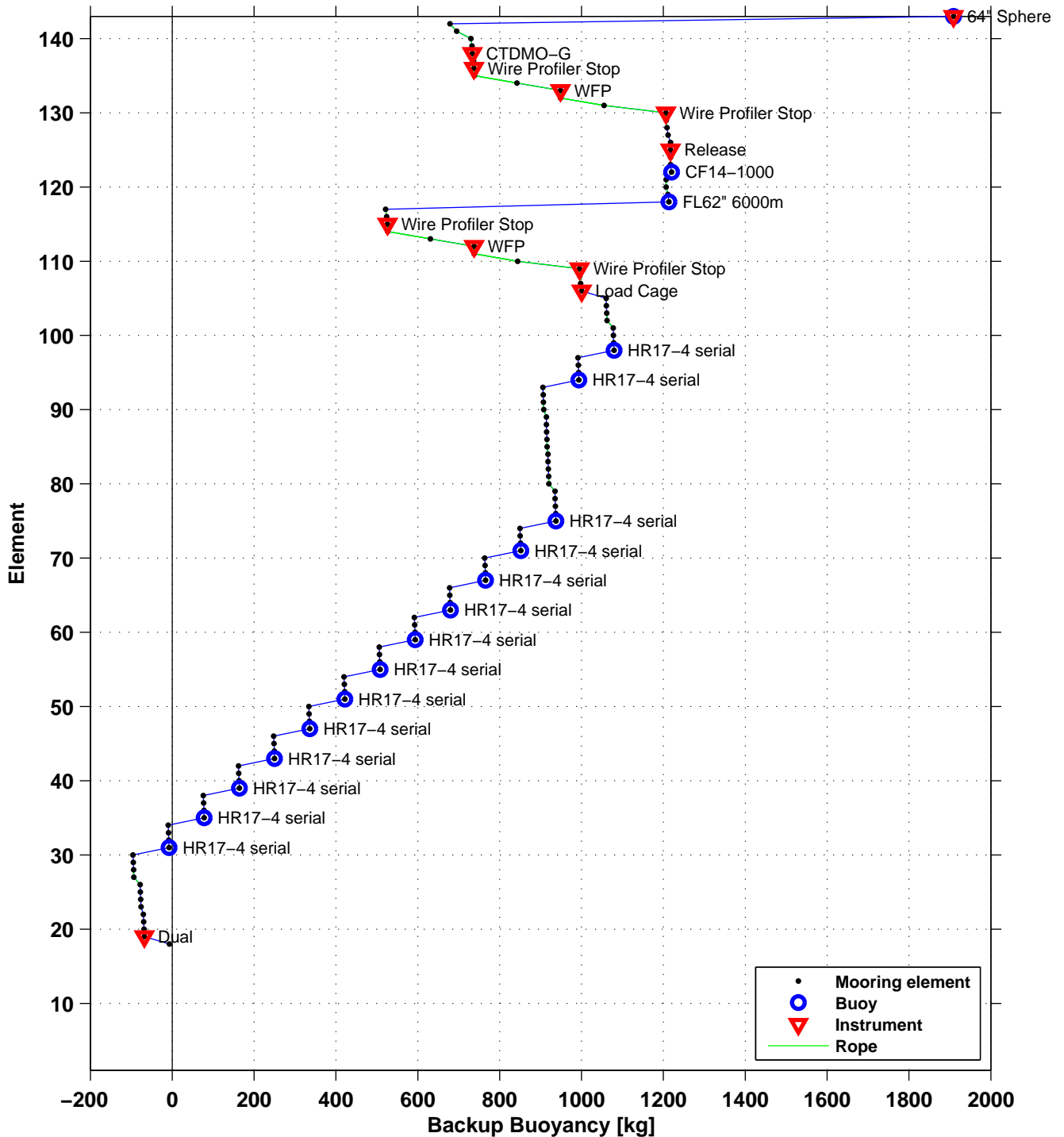


By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
-------------	-------------	-----------------	--------	-------------------

Source: 21-Jan-2015 09:12:07, ...imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Backup Buoyancy



NO Current Vertical anchor load : 1840 kg
Wet safe anchor weight : 2300 kg (125%, max: 500 kg)
Wet / Dry MACE anchor weight : 2742 kg / 3170 kg



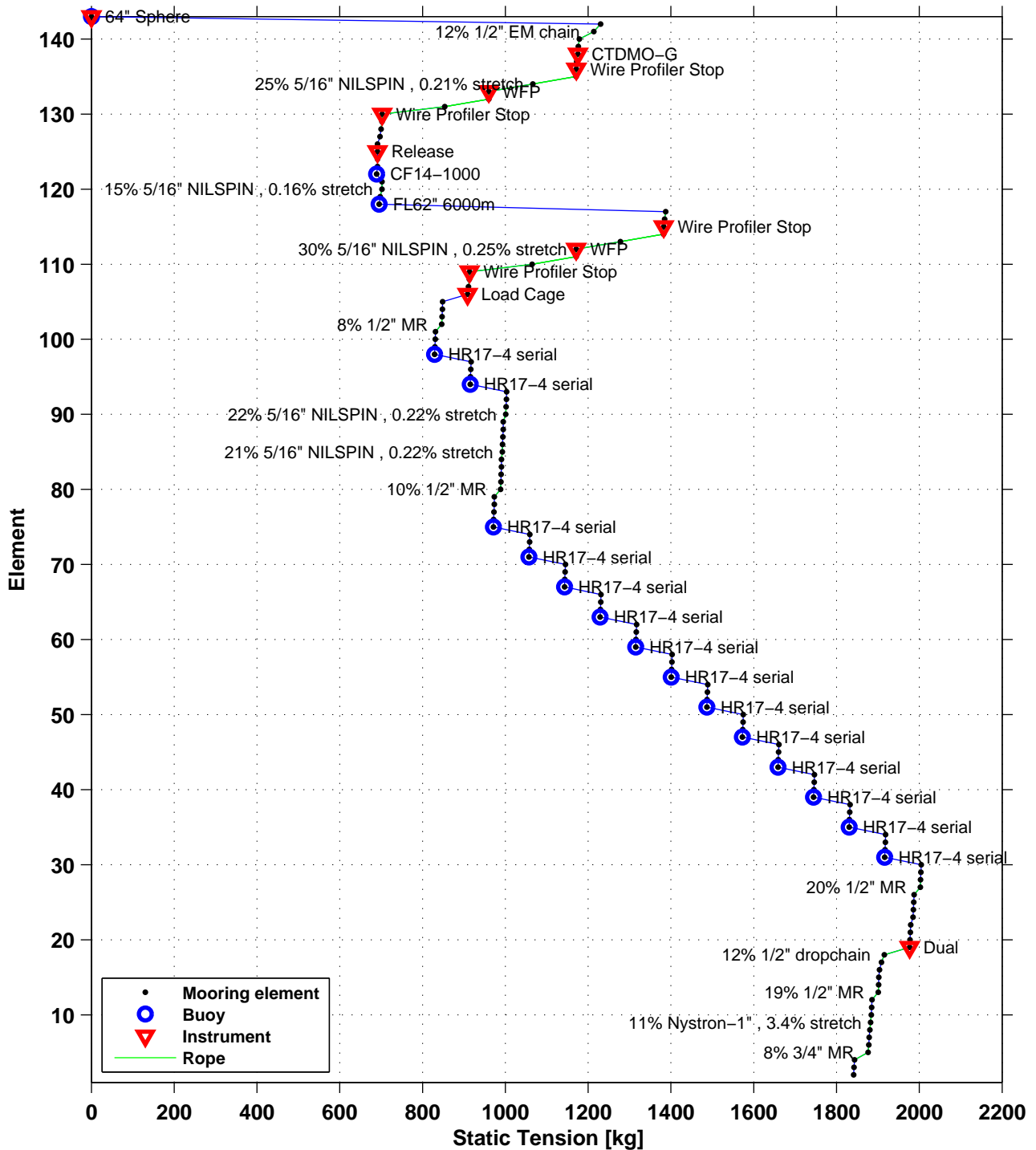
Global Southern Ocean HYPM Mooring Model Analysis designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
-------------	-------------	-----------------	--------	-------------------

Source: 21-Jan-2015 09:12:07, ...imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg
 Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

No Current Static Tension



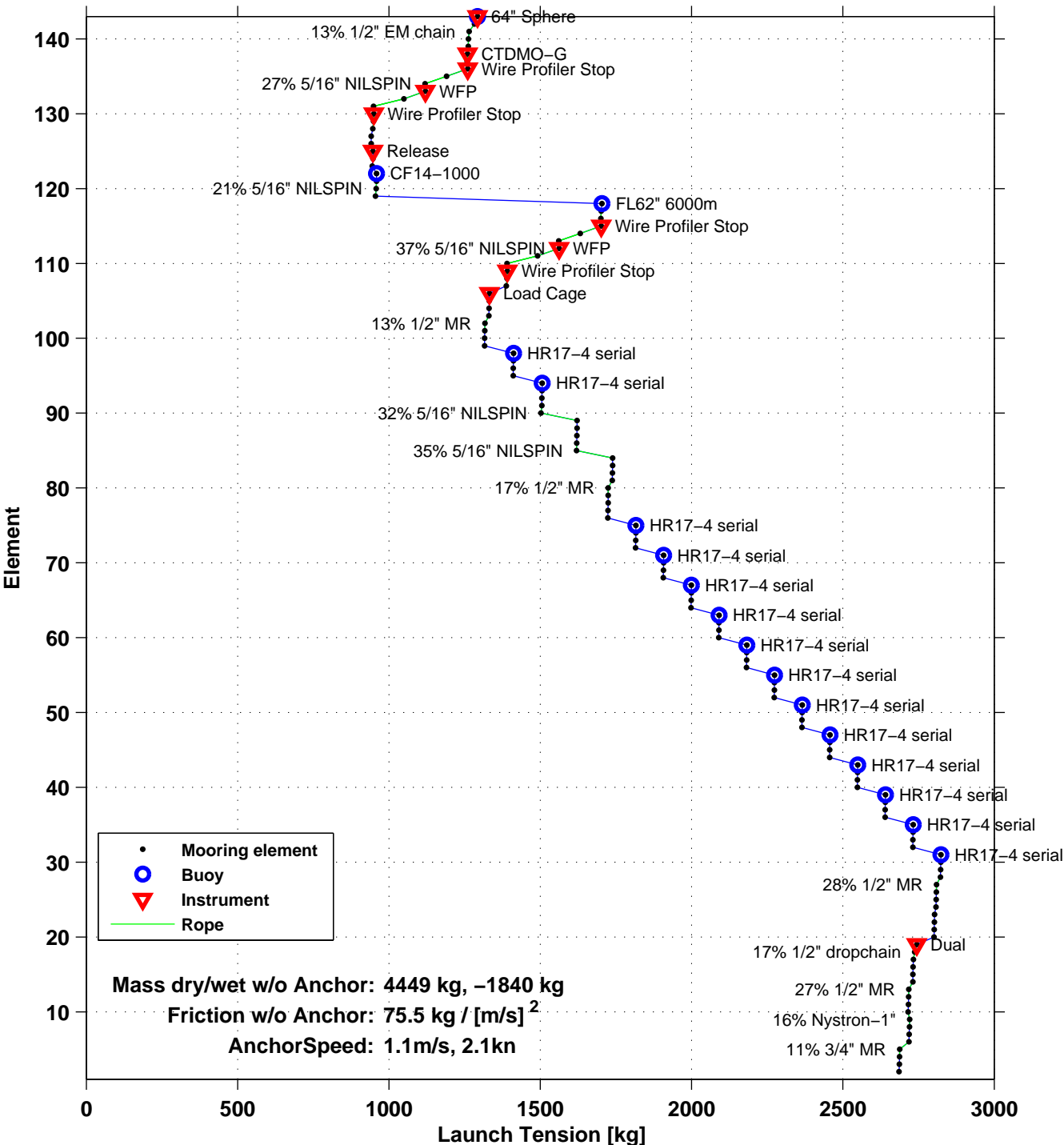
NO Current Vertical anchor load : 1840 kg
Wet safe anchor weight : 2300 kg (125%, max: 500 kg)
Wet / Dry MACE anchor weight : 2742 kg / 3170 kg



Global Southern Ocean HYPM Mooring Model Analysis designed for 4786m Depth

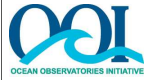


By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
Source: 21-Jan-2015 09:12:07, ...imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg				
Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)				
Steady State Launch Tension				



Mass dry/wet w/o Anchor: 4449 kg, -1840 kg
 Friction w/o Anchor: 75.5 kg / [m/s]²
 AnchorSpeed: 1.1m/s, 2.1kn

NO Current Vertical anchor load: 1840 kg
 Wet safe anchor weight: 2300 kg (125%, max: 500 kg)
 Wet / Dry MACE anchor weight: 2742 kg / 3170 kg



Global Southern Ocean HYPM Mooring Model Analysis
 designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...\imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

No Current Static Solution – Parameter

#	ID	Mooring Element	Length [m]	Buoy [kg]	Backup B. [kg]	Height [m]	Design Dpt [m]	Tension [kg]	[%]	Stretch [m]	[%]
143	306	64" Sphere 1000m	2.3	1230.0	1908.7	4634.9	151.1	0.0	0.0	0.00	0.00
142	17	U-Joint	0.3	-16.3	678.7	4632.7	153.5	1230.0	7.7	0.00	0.00
141	141	1/2" EM chain	5.0	-35.0	695.0	4632.4	156.1	1213.7	12.1	0.00	0.00
140	13	ind. term	0.1	-2.4	730.0	4627.4	158.7	1178.7	7.4	0.00	0.00
139	103	5/16" NILSPIN	5.0	-1.1	732.4	4627.3	161.2	1176.3	25.3	0.01	0.26
138	374	CTDMO-G P1000m	0.0	-2.8	733.5	4622.3	163.7	1175.2	11.8	0.00	0.00
137	103	5/16" NILSPIN	5.0	-1.1	736.3	4622.3	166.2	1172.4	25.2	0.01	0.26
136	339	Wire Profiler St	0.0	-0.5	737.4	4617.2	168.8	1171.4	19.5	0.00	0.00
135	103	5/16" NILSPIN	491.2	-104.4	737.9	4617.2	414.4	1170.9	25.2	1.22	0.25
134	103	5/16" NILSPIN	501.1	-106.5	842.2	4126.0	910.5	1066.5	22.9	1.12	0.22
133	340	WFP	0.0	0.0	948.7	3624.9	1161.1	960.0	9.6	0.00	0.00
132	103	5/16" NILSPIN	501.0	-106.5	948.7	3624.9	1411.6	960.0	20.6	1.00	0.20
131	103	5/16" NILSPIN	711.2	-151.2	1055.2	3123.9	2017.7	853.5	18.3	1.22	0.17
130	338	Wire Profiler St	0.0	-0.5	1206.5	2412.7	2373.3	702.3	11.7	0.00	0.00
129	103	5/16" NILSPIN	10.0	-2.1	1207.0	2412.7	2378.3	701.8	15.1	0.02	0.16
128	13	ind. term	0.1	-2.4	1209.1	2402.7	2383.4	699.6	4.4	0.00	0.00
127	15	coupler ec	0.2	-6.0	1211.5	2402.6	2383.5	697.2	4.4	0.00	0.00
125	479	Release Float	1.0	0.0	1217.5	2402.4	2384.1	691.2	6.9	0.00	0.00
123	13	ind. term	0.1	-2.4	1217.5	2401.4	2384.7	691.2	4.3	0.00	0.00
122	256	CF14-1000	0.0	13.0	1219.9	2401.3	2384.7	688.8	11.5	0.00	0.00
120	103	5/16" NILSPIN	20.0	-4.3	1206.9	2401.3	2394.8	701.8	15.1	0.03	0.16
119	13	ind. term	0.1	-2.4	1211.1	2381.2	2404.8	697.6	4.4	0.00	0.00
118	225	FL62" 6000m	2.6	692.0	1213.5	2381.1	2406.2	695.2	7.0	0.00	0.00
117	13	ind. term	0.1	-2.4	521.5	2378.5	2407.6	1387.2	8.7	0.00	0.00
116	103	5/16" NILSPIN	10.0	-2.1	523.9	2378.4	2412.6	1384.8	29.8	0.03	0.31
115	339	Wire Profiler St	0.0	-0.5	526.1	2368.4	2417.6	1382.7	23.0	0.00	0.00
114	103	5/16" NILSPIN	491.4	-104.4	526.6	2368.4	2663.4	1382.2	29.7	1.44	0.29



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...\imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

No Current Static Solution – Parameter, cont.

#	ID	Mooring Element	Length [m]	Buoy [kg]	Backup B. [kg]	Height [m]	Design Dpt [m]	Tension [kg]	[%]	Stretch [m]	[%]
113	103	5/16" NILSPIN	501.4	-106.5	630.9	1876.9	3159.8	1277.8	27.5	1.36	0.27
112	340	WFP	0.0	0.0	737.4	1375.6	3410.4	1171.3	11.7	0.00	0.00
111	103	5/16" NILSPIN	501.2	-106.5	737.4	1375.6	3661.1	1171.3	25.2	1.24	0.25
110	103	5/16" NILSPIN	711.6	-151.2	843.9	874.3	4267.5	1064.8	22.9	1.56	0.22
109	338	Wire Profiler St	0.0	-0.5	995.2	162.8	4623.2	913.6	15.2	0.00	0.00
108	103	5/16" NILSPIN	10.0	-2.1	995.7	162.8	4628.2	913.1	19.6	0.02	0.20
107	13	ind. term	0.1	-2.4	997.8	152.8	4633.3	910.9	5.7	0.00	0.00
106	300	Load Cage	1.5	-60.0	1000.2	152.7	4634.1	908.5	9.1	0.00	0.00
105	32	AS 3t 5/8"	0.1	-0.7	1060.2	151.2	4634.9	848.5	7.1	0.00	0.00
104	53	PL 3t 3/4"	0.1	-0.7	1060.9	151.1	4635.0	847.9	7.1	0.00	0.00
103	32	AS 3t 5/8"	0.1	-0.7	1061.6	151.0	4635.1	847.1	7.1	0.00	0.00
102	181	1/2" MR	5.0	-15.2	1062.3	150.9	4637.6	846.5	8.5	0.00	0.00
101	32	AS 3t 5/8"	0.1	-0.7	1077.5	145.9	4640.1	831.3	6.9	0.00	0.00
100	53	PL 3t 3/4"	0.1	-0.7	1078.1	145.8	4640.2	830.6	6.9	0.00	0.00
99	32	AS 3t 5/8"	0.1	-0.7	1078.9	145.7	4640.3	829.9	6.9	0.00	0.00
98	274	HR17-4 serial	4.0	88.0	1079.5	145.7	4642.3	829.2	8.3	0.00	0.00
97	32	AS 3t 5/8"	0.1	-0.7	991.5	141.7	4644.4	917.2	7.6	0.00	0.00
96	53	PL 3t 3/4"	0.1	-0.7	992.2	141.6	4644.5	916.5	7.6	0.00	0.00
95	32	AS 3t 5/8"	0.1	-0.7	992.9	141.5	4644.5	915.8	7.6	0.00	0.00
94	274	HR17-4 serial	4.0	88.0	993.6	141.4	4646.6	915.1	9.2	0.00	0.00
93	32	AS 3t 5/8"	0.1	-0.7	905.6	137.4	4648.6	1003.1	8.4	0.00	0.00
92	53	PL 3t 3/4"	0.1	-0.7	906.3	137.4	4648.7	1002.5	8.4	0.00	0.00
91	32	AS 3t 5/8"	0.1	-0.7	907.0	137.2	4648.8	1001.7	8.3	0.00	0.00
90	103	5/16" NILSPIN	30.1	-6.4	907.7	137.2	4663.9	1001.1	21.5	0.07	0.22
89	491	Parachute	0.0	0.0	914.0	107.1	4678.9	994.7	9.9	0.00	0.00
88	32	AS 3t 5/8"	0.1	-0.7	914.0	107.1	4678.9	994.7	8.3	0.00	0.00
87	53	PL 3t 3/4"	0.1	-0.7	914.7	107.0	4679.0	994.0	8.3	0.00	0.00



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



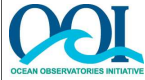
By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

No Current Static Solution – Parameter, cont.

#	ID	Mooring Element	Length [m]	Buoy [kg]	Backup B. [kg]	Height [m]	Design Dpt [m]	Tension [kg]	[%]	Stretch [m]	[%]
86	32	AS 3t 5/8"	0.1	-0.7	915.4	106.9	4679.1	993.3	8.3	0.00	0.00
85	103	5/16" NILSPIN	10.0	-2.1	916.1	106.9	4684.1	992.6	21.3	0.02	0.22
84	491	Parachute	0.0	0.0	918.2	96.8	4689.2	990.5	9.9	0.00	0.00
83	32	AS 3t 5/8"	0.1	-0.7	918.2	96.8	4689.2	990.5	8.3	0.00	0.00
82	53	PL 3t 3/4"	0.1	-0.7	918.9	96.8	4689.3	989.8	8.2	0.00	0.00
81	32	AS 3t 5/8"	0.1	-0.7	919.6	96.7	4689.4	989.1	8.2	0.00	0.00
80	181	1/2" MR	5.0	-15.2	920.3	96.6	4691.9	988.4	9.9	0.00	0.00
78	32	AS 3t 5/8"	0.1	-0.7	935.5	91.6	4694.4	973.2	8.1	0.00	0.00
77	53	PL 3t 3/4"	0.1	-0.7	936.2	91.5	4694.5	972.6	8.1	0.00	0.00
76	32	AS 3t 5/8"	0.1	-0.7	936.9	91.4	4694.6	971.8	8.1	0.00	0.00
75	274	HR17-4 serial	4.0	88.0	937.6	91.4	4696.6	971.2	9.7	0.00	0.00
74	32	AS 3t 5/8"	0.1	-0.7	849.6	87.4	4698.7	1059.2	8.8	0.00	0.00
73	53	PL 3t 3/4"	0.1	-0.7	850.2	87.3	4698.8	1058.5	8.8	0.00	0.00
72	32	AS 3t 5/8"	0.1	-0.7	851.0	87.2	4698.9	1057.8	8.8	0.00	0.00
71	274	HR17-4 serial	4.0	88.0	851.6	87.1	4700.9	1057.1	10.6	0.00	0.00
70	32	AS 3t 5/8"	0.1	-0.7	763.6	83.1	4702.9	1145.1	9.5	0.00	0.00
69	53	PL 3t 3/4"	0.1	-0.7	764.3	83.0	4703.0	1144.4	9.5	0.00	0.00
68	32	AS 3t 5/8"	0.1	-0.7	765.0	82.9	4703.1	1143.7	9.5	0.00	0.00
67	274	HR17-4 serial	4.0	88.0	765.7	82.9	4705.1	1143.0	11.4	0.00	0.00
66	32	AS 3t 5/8"	0.1	-0.7	677.7	78.9	4707.2	1231.0	10.3	0.00	0.00
65	53	PL 3t 3/4"	0.1	-0.7	678.3	78.8	4707.3	1230.4	10.3	0.00	0.00
64	32	AS 3t 5/8"	0.1	-0.7	679.1	78.7	4707.3	1229.6	10.2	0.00	0.00
63	274	HR17-4 serial	4.0	88.0	679.7	78.6	4709.4	1229.0	12.3	0.00	0.00
62	32	AS 3t 5/8"	0.1	-0.7	591.7	74.6	4711.4	1317.0	11.0	0.00	0.00
61	53	PL 3t 3/4"	0.1	-0.7	592.4	74.6	4711.5	1316.3	11.0	0.00	0.00
60	32	AS 3t 5/8"	0.1	-0.7	593.1	74.4	4711.6	1315.6	11.0	0.00	0.00
59	274	HR17-4 serial	4.0	88.0	593.8	74.4	4713.6	1314.9	13.1	0.00	0.00



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hymp.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

No Current Static Solution – Parameter, cont.

#	ID	Mooring Element	Length [m]	Buoy [kg]	Backup B. [kg]	Height [m]	Design Dpt [m]	Tension [kg]	[%]	Stretch [m]	[%]
58	32	AS 3t 5/8"	0.1	-0.7	505.8	70.4	4715.7	1402.9	11.7	0.00	0.00
57	53	PL 3t 3/4"	0.1	-0.7	506.5	70.3	4715.7	1402.3	11.7	0.00	0.00
56	32	AS 3t 5/8"	0.1	-0.7	507.2	70.2	4715.8	1401.5	11.7	0.00	0.00
55	274	HR17-4 serial	4.0	88.0	507.9	70.1	4717.9	1400.9	14.0	0.00	0.00
54	32	AS 3t 5/8"	0.1	-0.7	419.9	66.1	4719.9	1488.9	12.4	0.00	0.00
53	53	PL 3t 3/4"	0.1	-0.7	420.5	66.1	4720.0	1488.2	12.4	0.00	0.00
52	32	AS 3t 5/8"	0.1	-0.7	421.3	66.0	4720.1	1487.5	12.4	0.00	0.00
51	274	HR17-4 serial	4.0	88.0	421.9	65.9	4722.1	1486.8	14.9	0.00	0.00
50	32	AS 3t 5/8"	0.1	-0.7	333.9	61.9	4724.1	1574.8	13.1	0.00	0.00
49	53	PL 3t 3/4"	0.1	-0.7	334.6	61.8	4724.2	1574.1	13.1	0.00	0.00
48	32	AS 3t 5/8"	0.1	-0.7	335.3	61.7	4724.3	1573.4	13.1	0.00	0.00
47	274	HR17-4 serial	4.0	88.0	336.0	61.6	4726.4	1572.7	15.7	0.00	0.00
46	32	AS 3t 5/8"	0.1	-0.7	248.0	57.6	4728.4	1660.7	13.8	0.00	0.00
45	53	PL 3t 3/4"	0.1	-0.7	248.7	57.6	4728.5	1660.1	13.8	0.00	0.00
44	32	AS 3t 5/8"	0.1	-0.7	249.4	57.5	4728.6	1659.3	13.8	0.00	0.00
43	274	HR17-4 serial	4.0	88.0	250.1	57.4	4730.6	1658.7	16.6	0.00	0.00
42	32	AS 3t 5/8"	0.1	-0.7	162.1	53.4	4732.6	1746.7	14.6	0.00	0.00
41	53	PL 3t 3/4"	0.1	-0.7	162.7	53.3	4732.7	1746.0	14.6	0.00	0.00
40	32	AS 3t 5/8"	0.1	-0.7	163.5	53.2	4732.8	1745.3	14.5	0.00	0.00
39	274	HR17-4 serial	4.0	88.0	164.1	53.2	4734.8	1744.6	17.4	0.00	0.00
38	32	AS 3t 5/8"	0.1	-0.7	76.1	49.2	4736.9	1832.6	15.3	0.00	0.00
37	53	PL 3t 3/4"	0.1	-0.7	76.8	49.1	4737.0	1831.9	15.3	0.00	0.00
36	32	AS 3t 5/8"	0.1	-0.7	77.5	49.0	4737.1	1831.2	15.3	0.00	0.00
35	274	HR17-4 serial	4.0	88.0	78.2	48.9	4739.1	1830.5	18.3	0.00	0.00
34	32	AS 3t 5/8"	0.1	-0.7	-9.8	44.9	4741.1	1918.5	16.0	0.00	0.00
33	53	PL 3t 3/4"	0.1	-0.7	-9.2	44.8	4741.2	1917.9	16.0	0.00	0.00
32	32	AS 3t 5/8"	0.1	-0.7	-8.4	44.7	4741.3	1917.1	16.0	0.00	0.00



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hymp.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

No Current Static Solution – Parameter, cont.

#	ID	Mooring Element	Length [m]	Buoy [kg]	Backup B. [kg]	Height [m]	Design Dpt [m]	Tension [kg]	[%]	Stretch [m]	[%]
31	274	HR17-4 serial	4.0	88.0	-7.8	44.7	4743.3	1916.5	19.2	0.00	0.00
30	32	AS 3t 5/8"	0.1	-0.7	-95.8	40.7	4745.4	2004.5	16.7	0.00	0.00
29	53	PL 3t 3/4"	0.1	-0.7	-95.1	40.6	4745.5	2003.8	16.7	0.00	0.00
28	32	AS 3t 5/8"	0.1	-0.7	-94.4	40.5	4745.5	2003.1	16.7	0.00	0.00
27	181	1/2" MR	5.0	-15.2	-93.7	40.4	4748.1	2002.4	20.0	0.00	0.00
26	32	AS 3t 5/8"	0.1	-0.7	-78.5	35.4	4750.6	1987.2	16.6	0.00	0.00
25	53	PL 3t 3/4"	0.1	-0.7	-77.8	35.4	4750.7	1986.6	16.6	0.00	0.00
24	33	AS 5t 3/4"	0.1	-1.1	-77.1	35.2	4750.8	1985.8	11.0	0.00	0.00
23	94	Swivel 5t	0.2	-5.3	-76.0	35.2	4750.9	1984.8	19.8	0.00	0.00
22	33	AS 5t 3/4"	0.1	-1.1	-70.7	34.9	4751.1	1979.4	11.0	0.00	0.00
21	53	PL 3t 3/4"	0.1	-0.7	-69.6	34.9	4751.2	1978.3	16.5	0.00	0.00
20	33	AS 5t 3/4"	0.1	-1.1	-68.9	34.8	4751.3	1977.6	11.0	0.00	0.00
19	478	Dual Release	1.0	-61.0	-67.8	34.7	4751.8	1976.5	19.8	0.00	0.00
18	480	1/2" dropchain	0.6	-6.8	-6.8	33.6	4752.7	1915.5	12.0	0.00	0.00
17	76	ML 17t 1-1/4"	0.2	-4.8	NaN	33.0	4753.1	1908.7	4.3	0.00	0.00
16	34	AS 6t 7/8"	0.1	-1.6	NaN	32.8	4753.3	1903.9	7.9	0.00	0.00
15	53	PL 3t 3/4"	0.1	-0.7	NaN	32.7	4753.4	1902.3	15.9	0.00	0.00
14	32	AS 3t 5/8"	0.1	-0.7	NaN	32.6	4753.4	1901.6	15.8	0.00	0.00
13	181	1/2" MR	5.0	-15.2	NaN	32.5	4756.0	1900.9	19.0	0.00	0.00
12	32	AS 3t 5/8"	0.1	-0.7	NaN	27.5	4758.5	1885.7	15.7	0.00	0.00
11	64	EL 6t 7/8"	0.1	-1.0	NaN	27.5	4758.6	1885.1	7.9	0.00	0.00
10	34	AS 6t 7/8"	0.1	-1.6	NaN	27.3	4758.7	1884.0	7.9	0.00	0.00
9	113	Nystron-1"	20.7	-2.0	NaN	27.2	4769.1	1882.5	11.2	0.67	3.36
8	34	AS 6t 7/8"	0.1	-1.6	NaN	6.6	4779.5	1880.5	7.8	0.00	0.00
7	64	EL 6t 7/8"	0.1	-1.0	NaN	6.5	4779.6	1879.0	7.8	0.00	0.00
6	34	AS 6t 7/8"	0.1	-1.6	NaN	6.4	4779.7	1877.9	7.8	0.00	0.00
5	183	3/4" MR	5.0	-33.1	NaN	6.3	4782.2	1876.4	7.8	0.00	0.00



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...\imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

No Current Static Solution – Parameter, cont.

#	ID	Mooring Element	Length [m]	Buoy [kg]	Backup B. [kg]	Height [m]	Design Dpt [m]	Tension [kg]	[%]	Stretch [m]	[%]
4	33	AS 5t 3/4"	0.1	-1.1	NaN	1.3	4784.8	1843.3	10.2	0.00	0.00
3	53	PL 3t 3/4"	0.1	-0.7	NaN	1.2	4784.9	1842.2	15.4	0.00	0.00
2	34	AS 6t 7/8"	0.1	-1.6	NaN	1.1	4785.0	1841.5	7.7	0.00	0.00
1	522	double MACE Anch	1.0	-2742.1	NaN	1.0	4786.0	1840.0	30.7	0.00	0.00

Max. 30.7% Static Tension at:											
1	522	double MACE Anch	1.0	-2742.1	NaN	1.0	4786.0	1840.0	30.7	0.00	0.00

Vertical anchor load : 1840 kg
 Wet MACE Anchor weight : 2742 kg
 Safe MACE Anchor weight : 2300 kg



Global Southern Ocean HYPM Mooring Model Analysis designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Steady State Launch Tension – Parameter: descent at 1.07 m/s, 2.1 kn

#	ID	Mooring Element	Length [m]	Buoy [kg]	Diameter [m]	Area [m^2]	Ct	Drag [kg]	LaunchTension [kg]	[%]
143	306	64" Sphere 1000m	2.3	1230.0	1.630	2.087	0.50	62.44	1292.4	12.9
142	17	U-Joint	0.3	-16.3	0.300	0.071	1.50	6.35	1282.5	8.0
141	141	1/2" EM chain	5.0	-35.0	0.200	3.142	0.09	17.52	1265.0	12.7
140	13	ind. term	0.1	-2.4	0.050	0.002	1.50	0.18	1262.8	7.9
139	103	5/16" NILSPIN	5.0	-1.1	0.010	0.150	0.04	0.36	1262.1	27.1
138	374	CTDMO-G P1000m	0.0	-2.8	0.075	0.004	1.00	0.26	1259.5	12.6
137	103	5/16" NILSPIN	5.0	-1.1	0.010	0.150	0.04	0.36	1258.8	27.1
136	339	Wire Profiler St	0.0	-0.5	0.280	0.062	0.50	1.84	1260.2	21.0
135	103	5/16" NILSPIN	491.2	-104.4	0.010	14.688	0.04	34.79	1190.6	25.6
134	103	5/16" NILSPIN	501.1	-106.5	0.010	14.986	0.04	35.50	1119.6	24.1
133	340	WFP	0.0	0.0	0.350	0.096	0.20	1.15	1120.7	11.2
132	103	5/16" NILSPIN	501.0	-106.5	0.010	14.985	0.04	35.49	1049.7	22.6
131	103	5/16" NILSPIN	711.2	-151.2	0.010	21.275	0.04	50.39	948.9	20.4
130	338	Wire Profiler St	0.0	-0.5	0.280	0.062	0.50	1.84	950.2	15.8
129	103	5/16" NILSPIN	10.0	-2.1	0.010	0.300	0.04	0.71	948.8	20.4
128	13	ind. term	0.1	-2.4	0.050	0.002	1.50	0.18	946.6	5.9
127	15	coupler ec	0.2	-6.0	0.100	0.008	1.50	0.71	941.3	5.9
125	479	Release Float	1.0	0.0	0.370	0.108	0.90	5.79	947.1	9.5
123	13	ind. term	0.1	-2.4	0.050	0.002	1.50	0.18	944.9	5.9
122	256	CF14-1000	0.0	13.0	0.300	0.071	0.30	1.27	959.1	16.0
120	103	5/16" NILSPIN	20.0	-4.3	0.010	0.599	0.07	2.68	957.5	20.6
119	13	ind. term	0.1	-2.4	0.050	0.002	1.50	0.18	955.3	6.0
118	225	FL62" 6000m	2.6	692.0	1.550	1.887	0.50	56.46	1703.8	17.0
117	13	ind. term	0.1	-2.4	0.050	0.002	1.50	0.18	1701.6	10.6
116	103	5/16" NILSPIN	10.0	-2.1	0.010	0.300	0.04	0.71	1700.1	36.5
115	339	Wire Profiler St	0.0	-0.5	0.280	0.062	0.50	1.84	1701.5	28.4
114	103	5/16" NILSPIN	491.4	-104.4	0.010	14.692	0.04	34.80	1631.9	35.1
113	103	5/16" NILSPIN	501.4	-106.5	0.010	14.990	0.04	35.51	1560.9	33.5
112	340	WFP	0.0	0.0	0.350	0.096	0.20	1.15	1562.1	15.6
111	103	5/16" NILSPIN	501.2	-106.5	0.010	14.988	0.04	35.50	1491.1	32.0
110	103	5/16" NILSPIN	711.6	-151.2	0.010	21.280	0.04	50.40	1390.2	29.9
109	338	Wire Profiler St	0.0	-0.5	0.280	0.062	0.50	1.84	1391.6	23.2
108	103	5/16" NILSPIN	10.0	-2.1	0.010	0.300	0.04	0.71	1390.2	29.9
107	13	ind. term	0.1	-2.4	0.050	0.002	1.50	0.18	1387.9	8.7
106	300	Load Cage	1.5	-60.0	0.300	0.071	0.90	3.81	1331.8	13.3
105	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1331.4	11.1
104	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	1330.9	11.1
103	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1330.5	11.1
102	181	1/2" MR	5.0	-15.2	0.020	0.314	0.09	1.75	1317.1	13.2
101	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1316.7	11.0
100	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	1316.2	11.0
99	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1315.8	11.0
98	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.67	7.81	1411.7	14.1
97	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1411.3	11.8
96	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	1410.8	11.8
95	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1410.4	11.8
94	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.67	7.81	1506.2	15.1
93	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1505.9	12.5
92	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	1505.4	12.5
91	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1505.0	12.5
90	103	5/16" NILSPIN	30.1	-6.4	0.010	0.899	0.07	3.78	1502.4	32.3
89	491	Parachute	0.0	0.0	1.382	1.500	1.33	119.39	1621.8	16.2
88	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1621.4	13.5



Global Southern Ocean HYPM Mooring Model Analysis
 designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Steady State Launch Tension – Parameter: descent at 1.07 m/s, 2.1 kn, cont.

#	ID	Mooring Element	Length [m]	Buoy [kg]	Diameter [m]	Area [m^2]	Ct	Drag [kg]	LaunchTension [kg]	[%]
87	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	1620.9	13.5
86	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1620.6	13.5
85	103	5/16" NILSPIN	10.0	-2.1	0.010	0.300	0.08	1.49	1619.9	34.8
84	491	Parachute	0.0	0.0	1.382	1.500	1.33	119.39	1739.3	17.4
83	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1738.9	14.5
82	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	1738.5	14.5
81	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1738.1	14.5
80	181	1/2" MR	5.0	-15.2	0.020	0.314	0.09	1.75	1724.6	17.2
78	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1724.3	14.4
77	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	1723.8	14.4
76	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1723.4	14.4
75	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	1816.2	18.2
74	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1815.9	15.1
73	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	1815.4	15.1
72	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1815.0	15.1
71	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	1907.8	19.1
70	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1907.5	15.9
69	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	1907.0	15.9
68	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1906.6	15.9
67	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	1999.4	20.0
66	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1999.1	16.7
65	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	1998.6	16.7
64	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	1998.2	16.7
63	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	2091.0	20.9
62	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2090.7	17.4
61	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2090.2	17.4
60	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2089.8	17.4
59	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	2182.6	21.8
58	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2182.3	18.2
57	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2181.8	18.2
56	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2181.4	18.2
55	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	2274.2	22.7
54	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2273.9	18.9
53	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2273.4	18.9
52	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2273.0	18.9
51	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	2365.8	23.7
50	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2365.4	19.7
49	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2365.0	19.7
48	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2364.6	19.7
47	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	2457.4	24.6
46	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2457.0	20.5
45	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2456.6	20.5
44	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2456.2	20.5
43	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	2549.0	25.5
42	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2548.6	21.2
41	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2548.2	21.2
40	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2547.8	21.2
39	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	2640.6	26.4
38	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2640.2	22.0
37	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2639.8	22.0
36	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2639.4	22.0
35	274	HR17-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	2732.2	27.3
34	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2731.8	22.8



Global Southern Ocean HYPM Mooring Model Analysis
 designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Steady State Launch Tension – Parameter: descent at 1.07 m/s, 2.1 kn, cont.

#	ID	Mooring Element	Length [m]	Buoy [kg]	Diameter [m]	Area [m^2]	Ct	Drag [kg]	LaunchTension [kg]	[%]
33	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2731.4	22.8
32	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2731.0	22.8
31	274	HRL7-4 serial	4.0	88.0	0.500	0.196	0.41	4.83	2823.8	28.2
30	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2823.4	23.5
29	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2822.9	23.5
28	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2822.6	23.5
27	181	1/2" MR	5.0	-15.2	0.020	0.314	0.09	1.75	2809.1	28.1
26	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2808.8	23.4
25	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2808.3	23.4
24	33	AS 5t 3/4"	0.1	-1.1	0.080	0.005	1.50	0.45	2807.7	15.6
23	94	Swivel 5t	0.2	-5.3	0.100	0.008	1.20	0.56	2802.9	28.0
22	33	AS 5t 3/4"	0.1	-1.1	0.080	0.005	1.50	0.45	2802.2	15.6
21	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2801.8	23.3
20	33	AS 5t 3/4"	0.1	-1.1	0.080	0.005	1.50	0.45	2801.1	15.6
19	478	Dual Release	1.0	-61.0	0.300	0.071	0.90	3.81	2744.0	27.4
18	480	1/2" dropchain	0.6	-6.8	0.040	0.001	1.00	0.08	2737.2	17.1
17	76	ML 17t 1-1/4"	0.2	-4.8	0.085	0.006	1.50	0.51	2732.9	6.2
16	34	AS 6t 7/8"	0.1	-1.6	0.088	0.006	1.50	0.55	2731.9	11.4
15	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2731.4	22.8
14	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2731.0	22.8
13	181	1/2" MR	5.0	-15.2	0.020	0.314	0.09	1.75	2717.6	27.2
12	32	AS 3t 5/8"	0.1	-0.7	0.064	0.003	1.50	0.29	2717.2	22.6
11	64	EL 6t 7/8"	0.1	-1.0	0.066	0.003	1.50	0.31	2716.5	11.3
10	34	AS 6t 7/8"	0.1	-1.6	0.088	0.006	1.50	0.55	2715.5	11.3
9	113	Nystron-1"	20.7	-2.0	0.026	1.661	0.07	7.42	2720.9	16.2
8	34	AS 6t 7/8"	0.1	-1.6	0.088	0.006	1.50	0.55	2719.9	11.3
7	64	EL 6t 7/8"	0.1	-1.0	0.066	0.003	1.50	0.31	2719.2	11.3
6	34	AS 6t 7/8"	0.1	-1.6	0.088	0.006	1.50	0.55	2718.2	11.3
5	183	3/4" MR	5.0	-33.1	0.030	0.471	0.09	2.63	2687.8	11.2
4	33	AS 5t 3/4"	0.1	-1.1	0.080	0.005	1.50	0.45	2687.1	14.9
3	53	PL 3t 3/4"	0.1	-0.7	0.060	0.003	1.50	0.25	2686.7	22.4
2	34	AS 6t 7/8"	0.1	-1.6	0.088	0.006	1.50	0.55	2685.6	11.2
1	522	double MACE Anch	1.0	-2742.1	1.000	0.785	1.20	56.40	-0.0	-0.0

Max. 36.5% Launch Tension at:
 116 103 5/16" NILSPIN 10.0 -2.1 0.010 0.300 0.04 0.71 1700.1 36.5

Mass dry / wet w/o Anchor: 4449 kg, -1840 kg
 Drag / Friction w/o Anchor: 845.7 kg, 740.4 kg/[m/s]^2
 Dry/Wet MACE Anchor weight: 3170 kg, 2742 kg
 Steady State AnchorSpeed : 1.07 m/s, 2.1 kn



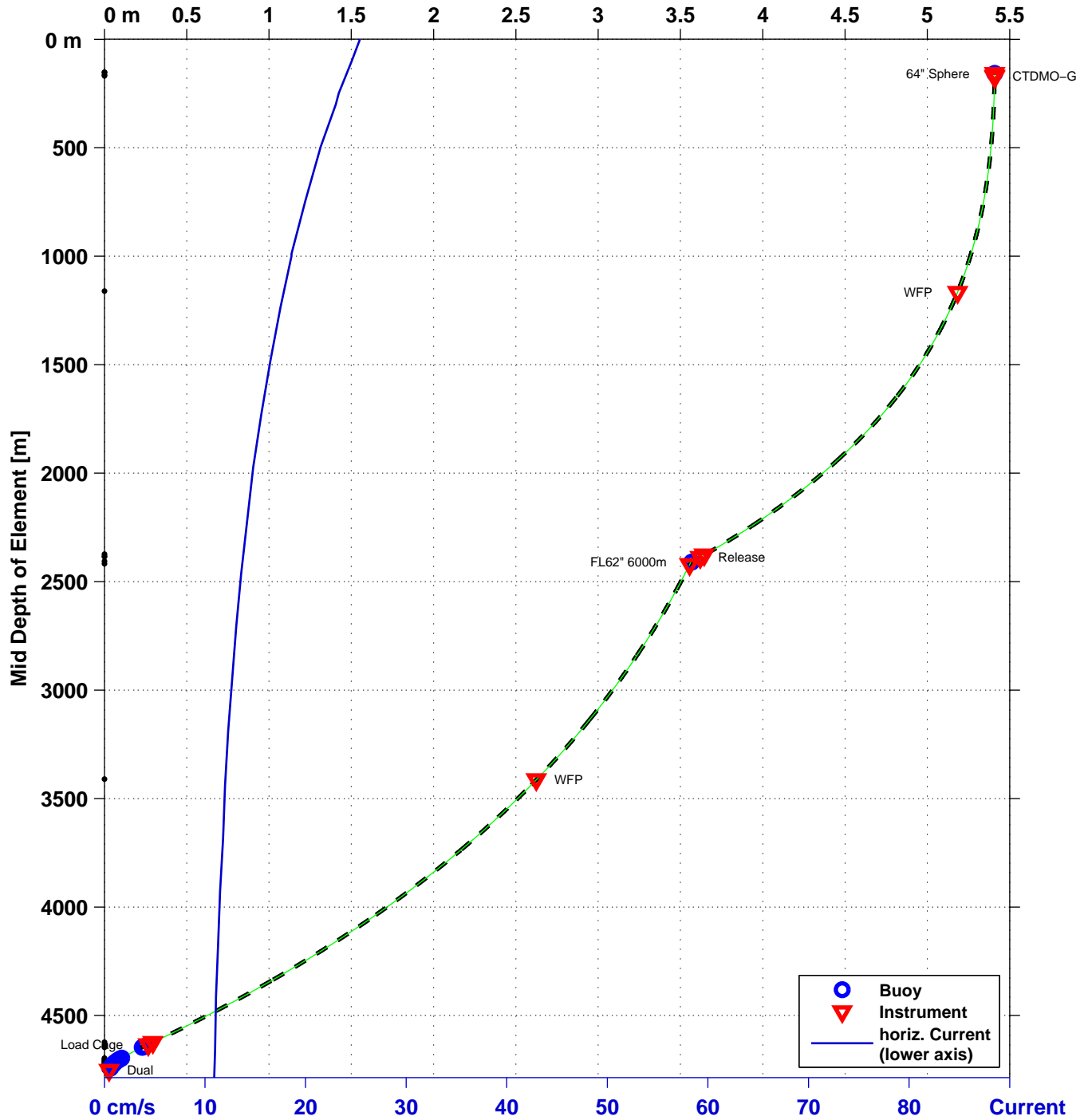
Global Southern Ocean HYPM Mooring Model Analysis
 designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
-------------	-------------	-----------------	--------	-------------------

Source: 21-Jan-2015 09:12:07, ...imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg
 Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Event #001 – Subduction [m]: max. 5m, Top at 158m
 Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf



Event #001: Vert / Horiz anchor load: 1837 kg / 77 kg
 Vert / Horiz anchor safety : 125 % / 120 %,
 Safe Wet MACE anchor weight: 2300 kg, (max. 500 kg or Horiz. safety)
 Wet / Dry MACE anchor weight : 2742 kg / 3170 kg



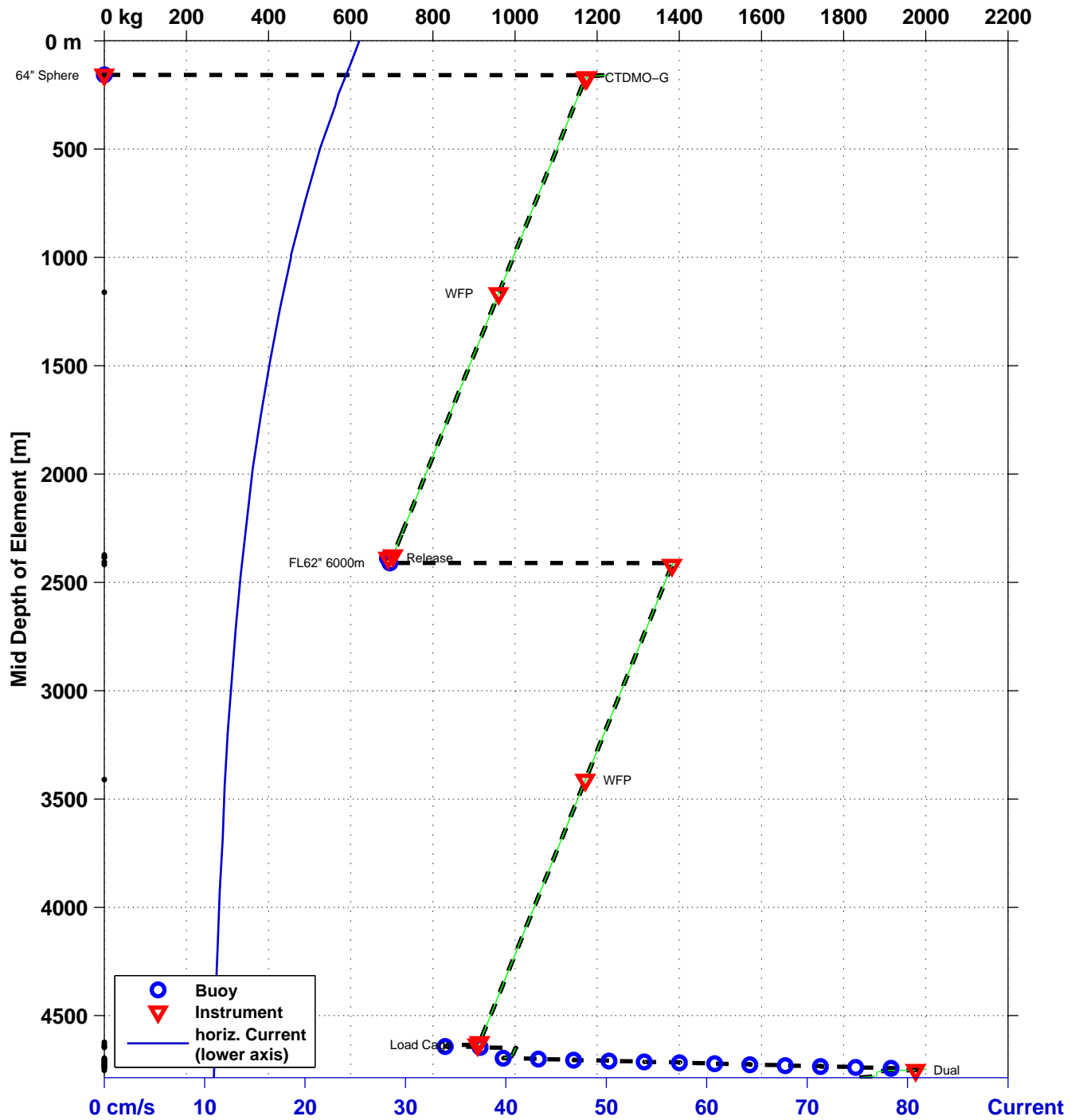
Global Southern Ocean HYPM Mooring Model Analysis designed for 4786m Depth



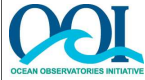
By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
-------------	-------------	-----------------	--------	-------------------

Source: 21-Jan-2015 09:12:07, ...imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg
 Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Event #001 – Tension [kg] Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf



Event #001: Vert / Horiz anchor load : 1837 kg / 77 kg
 Vert / Horiz anchor safety : 125 % / 120 %,
 Safe Wet MACE anchor weight : 2300 kg, (max. 500 kg or Horiz. safety)
 Wet / Dry MACE anchor weight : 2742 kg / 3170 kg



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #001 – Simulation Result

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
143	306	64" Sphere	2.3	1230.0	2.087	0.50	0.24	3.2	0.0	0.0	0.00	0.00	156.5	5.4	209.4	0.1
142	17	U-Joint	0.3	-16.3	0.090	1.50	0.24	0.4	1230.0	7.7	0.00	0.00	158.9	5.4	209.4	0.1
141	141	1/2" EM chain	5.0	-35.0	1.000	1.30	0.24	3.9	1213.7	12.1	0.00	0.00	159.5	5.4	209.4	0.3
140	13	ind. term	0.1	-2.4	0.005	1.50	0.24	0.0	1178.7	7.4	0.00	0.00	164.1	5.4	209.4	0.4
139	103	5/16" NILSPIN	5.0	-1.1	0.048	1.10	0.24	0.2	1176.3	25.3	0.01	0.26	164.6	5.4	209.4	0.4
138	374	CTDMO-G P1000m	0.0	-2.8	0.042	1.40	0.24	0.2	1175.2	11.8	0.00	0.00	169.2	5.4	209.4	0.4
137	103	5/16" NILSPIN	5.0	-1.1	0.048	1.10	0.24	0.2	1172.4	25.2	0.01	0.26	169.7	5.4	209.4	0.4
136	339	Wire Profiler St	0.0	-0.5	0.070	0.50	0.24	0.1	1171.4	19.5	0.00	0.00	174.2	5.4	209.3	0.4
135	103	5/16" NILSPIN	491.2	-104.4	4.670	1.10	0.22	13.2	1170.9	25.2	1.22	0.25	174.7	5.4	209.3	1.1
134	103	5/16" NILSPIN	501.1	-106.5	4.765	1.10	0.19	10.0	1066.5	22.9	1.12	0.22	665.8	5.4	202.7	1.9
133	340	WFP	0.0	0.0	0.457	0.20	0.18	0.2	960.1	9.6	0.00	0.00	1166.3	5.2	189.5	1.9
132	103	5/16" NILSPIN	501.0	-106.5	4.765	1.10	0.17	7.8	960.1	20.6	1.01	0.20	1166.8	5.2	189.5	2.6
131	103	5/16" NILSPIN	711.2	-151.2	6.766	1.10	0.15	8.5	853.6	18.3	1.22	0.17	1667.4	4.8	169.8	3.9
130	338	Wire Profiler St	0.0	-0.5	0.070	0.50	0.14	0.0	702.7	11.7	0.00	0.00	2377.0	3.6	129.6	3.9
129	103	5/16" NILSPIN	10.0	-2.1	0.095	1.10	0.14	0.1	702.2	15.1	0.02	0.16	2377.5	3.6	129.6	3.9
128	13	ind. term	0.1	-2.4	0.005	1.50	0.14	0.0	700.0	4.4	0.00	0.00	2387.0	3.6	129.0	3.9
127	15	coupler ec	0.2	-6.0	0.020	1.50	0.14	0.0	697.6	4.4	0.00	0.00	2387.2	3.6	128.9	3.9
125	479	Release Float	1.0	0.0	0.592	1.20	0.14	0.7	691.6	6.9	0.00	0.00	2387.8	3.6	128.9	4.0
123	13	ind. term	0.1	-2.4	0.005	1.50	0.14	0.0	691.7	4.3	0.00	0.00	2388.3	3.6	128.9	4.0
122	256	CF14-1000	0.0	13.0	0.225	0.50	0.14	0.1	689.3	11.5	0.00	0.00	2388.4	3.6	128.9	4.0
120	103	5/16" NILSPIN	20.0	-4.3	0.191	1.10	0.14	0.2	702.2	15.1	0.03	0.16	2388.9	3.6	128.9	4.0
119	13	ind. term	0.1	-2.4	0.005	1.50	0.14	0.0	698.0	4.4	0.00	0.00	2408.4	3.6	127.5	4.0
118	225	FL62" 6000m	2.6	692.0	1.887	0.50	0.14	0.9	695.6	7.0	0.00	0.00	2409.8	3.6	127.4	4.0
117	13	ind. term	0.1	-2.4	0.005	1.50	0.14	0.0	1386.8	8.7	0.00	0.00	2411.1	3.6	127.3	2.1
116	103	5/16" NILSPIN	10.0	-2.1	0.095	1.10	0.14	0.1	1384.4	29.8	0.03	0.31	2411.7	3.6	127.3	2.1
115	339	Wire Profiler St	0.0	-0.5	0.070	0.50	0.14	0.0	1382.2	23.0	0.00	0.00	2421.2	3.6	126.9	2.1
114	103	5/16" NILSPIN	491.4	-104.4	4.670	1.10	0.13	4.7	1381.7	29.7	1.44	0.29	2421.7	3.6	126.9	2.5
113	103	5/16" NILSPIN	501.4	-106.5	4.765	1.10	0.12	4.2	1277.4	27.5	1.36	0.27	2912.7	3.2	107.5	2.9
112	340	WFP	0.0	0.0	0.457	0.20	0.12	0.1	1171.1	11.7	0.00	0.00	3413.1	2.6	84.1	2.9
111	103	5/16" NILSPIN	501.2	-106.5	4.765	1.10	0.12	3.9	1171.1	25.2	1.24	0.25	3413.6	2.6	84.1	3.4



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

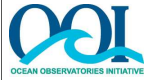
Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #001 – Simulation Result, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
110	103	5/16" NILSPIN	711.6	-151.2	6.766	1.10	0.11	5.0	1064.7	22.9	1.56	0.22	3914.0	1.9	56.7	4.3
109	338	Wire Profiler St	0.0	-0.5	0.070	0.50	0.11	0.0	913.8	15.2	0.00	0.00	4623.5	0.3	9.4	4.3
108	103	5/16" NILSPIN	10.0	-2.1	0.095	1.10	0.11	0.1	913.3	19.6	0.02	0.20	4624.0	0.3	9.4	4.3
107	13	ind. term	0.1	-2.4	0.005	1.50	0.11	0.0	911.2	5.7	0.00	0.00	4633.6	0.3	8.7	4.3
106	300	Load Cage	1.5	-60.0	0.300	1.30	0.11	0.3	908.8	9.1	0.00	0.00	4634.4	0.3	8.7	4.3
105	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	849.0	7.1	0.00	0.00	4635.1	0.3	8.6	4.6
104	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	848.3	7.1	0.00	0.00	4635.2	0.3	8.6	4.6
103	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	847.6	7.1	0.00	0.00	4635.3	0.3	8.6	4.6
102	181	1/2" MR	5.0	-15.2	0.100	1.60	0.11	0.1	846.9	8.5	0.00	0.00	4635.9	0.3	8.6	4.7
101	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	831.8	6.9	0.00	0.00	4640.4	0.2	8.2	4.7
100	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	831.1	6.9	0.00	0.00	4640.5	0.2	8.1	4.7
99	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	830.4	6.9	0.00	0.00	4640.5	0.2	8.1	4.7
98	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	829.7	8.3	0.00	0.00	4642.6	0.2	8.1	4.7
97	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	917.5	7.6	0.00	0.00	4644.6	0.2	7.8	4.3
96	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	916.8	7.6	0.00	0.00	4644.7	0.2	7.8	4.3
95	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	916.1	7.6	0.00	0.00	4644.8	0.2	7.8	4.3
94	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	915.4	9.2	0.00	0.00	4646.8	0.2	7.8	4.3
93	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1003.2	8.4	0.00	0.00	4648.8	0.2	7.5	4.0
92	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1002.5	8.4	0.00	0.00	4648.9	0.2	7.5	4.0
91	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1001.8	8.3	0.00	0.00	4649.0	0.2	7.5	4.0
90	103	5/16" NILSPIN	30.1	-6.4	0.286	1.10	0.11	0.2	1001.1	21.5	0.07	0.22	4649.5	0.2	7.5	4.0
89	491	Parachute	0.0	0.0	1.500	0.50	0.11	0.5	994.7	9.9	0.00	0.00	4679.0	0.1	5.4	4.0
88	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	994.8	8.3	0.00	0.00	4679.1	0.1	5.4	4.0
87	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	994.1	8.3	0.00	0.00	4679.2	0.1	5.4	4.0
86	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	993.4	8.3	0.00	0.00	4679.2	0.1	5.4	4.0
85	103	5/16" NILSPIN	10.0	-2.1	0.095	1.10	0.11	0.1	992.7	21.3	0.02	0.22	4679.8	0.1	5.4	4.1
84	491	Parachute	0.0	0.0	1.500	0.50	0.11	0.5	990.6	9.9	0.00	0.00	4689.3	0.1	4.7	4.1
83	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	990.6	8.3	0.00	0.00	4689.3	0.1	4.7	4.1
82	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	990.0	8.2	0.00	0.00	4689.4	0.1	4.6	4.1
81	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	989.2	8.2	0.00	0.00	4689.5	0.1	4.6	4.1



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

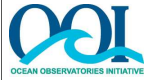
Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #001 – Simulation Result, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
80	181	1/2" MR	5.0	-15.2	0.100	1.60	0.11	0.1	988.6	9.9	0.00	0.00	4690.0	0.1	4.6	4.1
78	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	973.4	8.1	0.00	0.00	4694.5	0.1	4.3	4.2
77	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	972.8	8.1	0.00	0.00	4694.6	0.1	4.3	4.2
76	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	972.0	8.1	0.00	0.00	4694.7	0.1	4.3	4.2
75	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	971.4	9.7	0.00	0.00	4696.8	0.1	4.3	4.2
74	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1059.1	8.8	0.00	0.00	4698.8	0.1	4.0	3.8
73	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1058.5	8.8	0.00	0.00	4698.9	0.1	4.0	3.9
72	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1057.7	8.8	0.00	0.00	4699.0	0.1	4.0	3.9
71	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1057.1	10.6	0.00	0.00	4701.0	0.1	3.9	3.9
70	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1144.9	9.5	0.00	0.00	4703.0	0.1	3.7	3.6
69	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1144.2	9.5	0.00	0.00	4703.1	0.1	3.7	3.6
68	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1143.5	9.5	0.00	0.00	4703.2	0.1	3.7	3.6
67	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1142.8	11.4	0.00	0.00	4705.2	0.1	3.7	3.6
66	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1230.7	10.3	0.00	0.00	4707.2	0.1	3.4	3.3
65	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1230.0	10.3	0.00	0.00	4707.3	0.1	3.4	3.4
64	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1229.3	10.2	0.00	0.00	4707.4	0.1	3.4	3.4
63	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1228.6	12.3	0.00	0.00	4709.5	0.1	3.4	3.4
62	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1316.5	11.0	0.00	0.00	4711.5	0.1	3.2	3.1
61	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1315.8	11.0	0.00	0.00	4711.6	0.1	3.2	3.2
60	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1315.1	11.0	0.00	0.00	4711.7	0.1	3.2	3.2
59	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1314.4	13.1	0.00	0.00	4713.7	0.1	3.2	3.2
58	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1402.3	11.7	0.00	0.00	4715.7	0.1	2.9	3.0
57	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1401.6	11.7	0.00	0.00	4715.8	0.1	2.9	3.0
56	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1400.9	11.7	0.00	0.00	4715.9	0.1	2.9	3.0
55	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1400.2	14.0	0.00	0.00	4717.9	0.1	2.9	3.0
54	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1488.1	12.4	0.00	0.00	4720.0	0.1	2.7	2.8
53	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1487.5	12.4	0.00	0.00	4720.0	0.1	2.7	2.8
52	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1486.7	12.4	0.00	0.00	4720.1	0.1	2.7	2.8
51	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1486.1	14.9	0.00	0.00	4722.2	0.1	2.7	2.8
50	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1574.0	13.1	0.00	0.00	4724.2	0.1	2.5	2.7



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

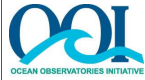
Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #001 – Simulation Result, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
49	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1573.3	13.1	0.00	0.00	4724.3	0.1	2.5	2.7
48	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1572.6	13.1	0.00	0.00	4724.4	0.1	2.5	2.7
47	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1571.9	15.7	0.00	0.00	4726.4	0.1	2.5	2.7
46	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1659.8	13.8	0.00	0.00	4728.4	0.0	2.3	2.6
45	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1659.1	13.8	0.00	0.00	4728.5	0.0	2.3	2.6
44	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1658.4	13.8	0.00	0.00	4728.6	0.0	2.3	2.6
43	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1657.7	16.6	0.00	0.00	4730.6	0.0	2.3	2.6
42	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1745.7	14.5	0.00	0.00	4732.7	0.0	2.1	2.4
41	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1745.0	14.5	0.00	0.00	4732.8	0.0	2.1	2.4
40	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1744.3	14.5	0.00	0.00	4732.9	0.0	2.1	2.4
39	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1743.6	17.4	0.00	0.00	4734.9	0.0	2.1	2.4
38	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1831.5	15.3	0.00	0.00	4736.9	0.0	1.9	2.3
37	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1830.9	15.3	0.00	0.00	4737.0	0.0	1.9	2.3
36	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1830.1	15.3	0.00	0.00	4737.1	0.0	1.9	2.3
35	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1829.5	18.3	0.00	0.00	4739.1	0.0	1.9	2.3
34	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1917.4	16.0	0.00	0.00	4741.2	0.0	1.8	2.2
33	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1916.7	16.0	0.00	0.00	4741.2	0.0	1.8	2.2
32	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1916.0	16.0	0.00	0.00	4741.3	0.0	1.8	2.2
31	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.11	0.4	1915.3	19.2	0.00	0.00	4743.4	0.0	1.8	2.3
30	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	2003.3	16.7	0.00	0.00	4745.4	0.0	1.6	2.2
29	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	2002.6	16.7	0.00	0.00	4745.5	0.0	1.6	2.2
28	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	2001.9	16.7	0.00	0.00	4745.6	0.0	1.6	2.2
27	181	1/2" MR	5.0	-15.2	0.100	1.60	0.11	0.1	2001.2	20.0	0.00	0.00	4746.1	0.0	1.6	2.2
26	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1986.0	16.6	0.00	0.00	4750.6	0.0	1.4	2.2
25	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1985.4	16.5	0.00	0.00	4750.7	0.0	1.4	2.2
24	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.11	0.0	1984.6	11.0	0.00	0.00	4750.8	0.0	1.4	2.2
23	94	Swivel 5t	0.2	-5.3	0.025	1.20	0.11	0.0	1983.6	19.8	0.00	0.00	4751.0	0.0	1.4	2.2
22	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.11	0.0	1978.2	11.0	0.00	0.00	4751.1	0.0	1.4	2.2
21	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1977.1	16.5	0.00	0.00	4751.2	0.0	1.4	2.2
20	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.11	0.0	1976.4	11.0	0.00	0.00	4751.3	0.0	1.4	2.2



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #001 – Simulation Result, cont.

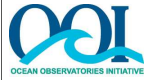
Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
19	478	Dual Release	1.0	-61.0	0.288	1.20	0.11	0.2	1975.3	19.8	0.00	0.00	4751.9	0.0	1.4	2.2
18	480	1/2" dropchain	0.6	-6.8	0.024	1.60	0.11	0.0	1914.4	12.0	0.00	0.00	4752.7	0.0	1.3	2.3
17	76	ML 17t 1-1/4"	0.2	-4.8	0.026	1.50	0.11	0.0	1907.6	4.3	0.00	0.00	4753.1	0.0	1.3	2.3
16	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.11	0.0	1902.7	7.9	0.00	0.00	4753.3	0.0	1.3	2.3
15	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1901.2	15.8	0.00	0.00	4753.4	0.0	1.3	2.3
14	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1900.4	15.8	0.00	0.00	4753.5	0.0	1.3	2.3
13	181	1/2" MR	5.0	-15.2	0.100	1.60	0.11	0.1	1899.8	19.0	0.00	0.00	4754.0	0.0	1.3	2.3
12	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.11	0.0	1884.6	15.7	0.00	0.00	4758.5	0.0	1.1	2.3
11	64	EL 6t 7/8"	0.1	-1.0	0.012	1.50	0.11	0.0	1883.9	7.8	0.00	0.00	4758.6	0.0	1.1	2.3
10	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.11	0.0	1882.9	7.8	0.00	0.00	4758.7	0.0	1.1	2.3
9	113	Nystron-1"	20.7	-2.0	0.520	1.30	0.11	0.4	1881.4	11.2	0.67	3.36	4759.3	0.0	1.1	2.3
8	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.11	0.0	1879.4	7.8	0.00	0.00	4779.5	0.0	0.2	2.3
7	64	EL 6t 7/8"	0.1	-1.0	0.012	1.50	0.11	0.0	1877.8	7.8	0.00	0.00	4779.6	0.0	0.2	2.3
6	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.11	0.0	1876.8	7.8	0.00	0.00	4779.7	0.0	0.2	2.3
5	183	3/4" MR	5.0	-33.1	0.150	1.60	0.11	0.2	1875.3	7.8	0.00	0.00	4780.2	0.0	0.2	2.4
4	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.11	0.0	1842.2	10.2	0.00	0.00	4784.8	0.0	0.0	2.4
3	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.11	0.0	1841.2	15.3	0.00	0.00	4784.9	0.0	0.0	2.4
2	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.11	0.0	1840.4	7.7	0.00	0.00	4785.0	0.0	0.0	2.4
1	522	double MACE Anch	1.0	-2742.1	1.200	1.20	0.11	0.9	1838.9	30.6	0.00	0.00	4786.0	0.0	0.0	0.0

Max. 30.6% Static Tension at:

1	522	double MACE Anch	1.0	-2742.1	1.200	1.20	0.11	0.9	1838.9	30.6	0.00	0.00	4786.0	0.0	0.0	0.0
---	-----	------------------	-----	---------	-------	------	------	-----	--------	------	------	------	--------	-----	-----	-----

Vert/Horiz Anchor Load : 1837 kg / 77 kg
 Wet MACE Anchor Weight : 2742 kg
 Safe MACE Anchor Weight : 2300 kg



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #001 – Simulation Parameter

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
143	306	64" Sphere 1	2.087	2.087	2.087	0.50	0.50	0.50	0.24	3.2	0.0	0.0	0.0	1230.0	0.0	0.0	0.0	0.1
142	17	U-Joint	0.090	0.090	0.000	1.50	1.50	1.50	0.24	0.4	0.0	0.0	-0.0	-16.3	3.2	0.0	1230.0	0.1
141	141	1/2" EM chai	1.000	1.000	0.004	1.30	1.30	1.00	0.24	3.9	0.0	0.0	-0.0	-35.0	5.2	0.0	1199.7	0.3
140	13	ind. term	0.005	0.005	0.000	1.50	1.50	1.50	0.24	0.0	0.0	0.0	-0.0	-2.4	7.5	0.0	1178.7	0.4
139	103	5/16" NILSPI	0.048	0.048	0.000	1.10	1.10	0.00	0.24	0.2	0.0	0.0	-0.0	-1.1	7.6	0.0	1175.9	0.4
138	374	CTDMO-G P100	0.042	0.042	0.000	1.40	1.40	1.00	0.24	0.2	0.0	0.0	-0.0	-2.8	7.7	0.0	1175.2	0.4
137	103	5/16" NILSPI	0.048	0.048	0.000	1.10	1.10	0.00	0.24	0.2	0.0	0.0	-0.0	-1.1	7.9	0.0	1172.0	0.4
136	339	Wire Profile	0.070	0.070	0.000	0.50	0.50	0.50	0.24	0.1	0.0	0.0	-0.0	-0.5	8.0	0.0	1171.3	0.4
135	103	5/16" NILSPI	4.669	4.670	0.063	1.10	1.10	0.00	0.22	13.2	0.0	0.0	-0.2	-104.4	15.1	0.0	1118.7	1.1
134	103	5/16" NILSPI	4.763	4.765	0.125	1.10	1.10	0.00	0.19	10.0	0.0	0.0	-0.3	-106.5	26.5	0.0	1013.0	1.9
133	340	WFP	0.457	0.457	0.015	0.20	0.20	0.20	0.18	0.2	0.0	0.0	-0.0	0.0	31.3	0.0	959.5	1.9
132	103	5/16" NILSPI	4.761	4.765	0.187	1.10	1.10	0.00	0.17	7.8	0.0	0.0	-0.3	-106.5	35.5	0.0	906.2	2.6
131	103	5/16" NILSPI	6.755	6.766	0.382	1.10	1.10	0.00	0.15	8.5	0.0	0.0	-0.5	-151.2	43.7	0.0	777.0	3.9
130	338	Wire Profile	0.070	0.070	0.005	0.50	0.50	0.50	0.14	0.0	0.0	0.0	-0.0	-0.5	47.7	0.0	701.0	3.9
129	103	5/16" NILSPI	0.095	0.095	0.007	1.09	1.10	0.00	0.14	0.1	0.0	0.0	-0.0	-2.1	47.8	0.0	699.6	3.9
128	13	ind. term	0.005	0.005	0.000	1.50	1.50	1.50	0.14	0.0	0.0	0.0	-0.0	-2.4	47.9	0.0	698.4	3.9
127	15	coupler ec	0.020	0.020	0.001	1.50	1.50	1.50	0.14	0.0	0.0	0.0	-0.0	-6.0	47.9	0.0	696.0	3.9
125	479	Release Floa	0.591	0.592	0.041	1.20	1.20	0.90	0.14	0.7	0.0	0.0	-0.0	0.0	47.9	0.0	690.0	4.0
123	13	ind. term	0.005	0.005	0.000	1.50	1.50	1.50	0.14	0.0	0.0	0.0	-0.0	-2.4	48.6	0.0	689.9	4.0
122	256	CF14-1000	0.224	0.225	0.016	0.50	0.50	0.40	0.14	0.1	0.0	0.0	-0.0	13.0	48.7	0.0	687.5	4.0
120	103	5/16" NILSPI	0.190	0.191	0.013	1.09	1.10	0.00	0.14	0.2	0.0	0.0	-0.0	-4.3	48.9	0.0	698.5	4.0
119	13	ind. term	0.005	0.005	0.000	1.50	1.50	1.50	0.14	0.0	0.0	0.0	-0.0	-2.4	49.0	0.0	696.3	4.0
118	225	FL62" 6000m	1.887	1.887	1.887	0.50	0.50	0.50	0.14	0.9	0.0	0.0	0.0	692.0	49.0	0.0	693.9	4.0
117	13	ind. term	0.005	0.005	0.000	1.50	1.50	1.50	0.14	0.0	0.0	0.0	-0.0	-2.4	49.9	0.0	1385.9	2.1
116	103	5/16" NILSPI	0.095	0.095	0.003	1.10	1.10	0.00	0.14	0.1	0.0	0.0	-0.0	-2.1	50.0	0.0	1382.5	2.1
115	339	Wire Profile	0.070	0.070	0.003	0.50	0.50	0.50	0.14	0.0	0.0	0.0	-0.0	-0.5	50.0	0.0	1381.3	2.1
114	103	5/16" NILSPI	4.666	4.670	0.185	1.10	1.10	0.00	0.13	4.7	0.0	0.0	-0.2	-104.4	52.5	0.0	1328.6	2.5
113	103	5/16" NILSPI	4.760	4.765	0.222	1.10	1.10	0.00	0.12	4.2	0.0	0.0	-0.2	-106.5	57.0	0.0	1223.0	2.9
112	340	WFP	0.456	0.457	0.023	0.20	0.20	0.20	0.12	0.1	0.0	0.0	-0.0	0.0	59.1	0.0	1169.6	2.9



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #001 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
111	103	5/16" NILSPI	4.758	4.765	0.261	1.10	1.10	0.00	0.12	3.9	0.0	0.0	-0.2	-106.5	61.1	0.0	1116.3	3.4
110	103	5/16" NILSPI	6.751	6.766	0.449	1.09	1.10	0.00	0.11	5.0	0.0	0.0	-0.3	-151.2	65.5	0.0	987.2	4.3
109	338	Wire Profile	0.070	0.070	0.005	0.50	0.50	0.50	0.11	0.0	0.0	0.0	-0.0	-0.5	68.0	0.0	911.3	4.3
108	103	5/16" NILSPI	0.095	0.095	0.007	1.09	1.10	0.00	0.11	0.1	0.0	0.0	-0.0	-2.1	68.0	0.0	909.8	4.3
107	13	ind. term	0.005	0.005	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-2.4	68.1	0.0	908.7	4.3
106	300	Load Cage	0.299	0.300	0.022	1.30	1.30	0.90	0.11	0.3	0.0	0.0	-0.0	-60.0	68.1	0.0	906.3	4.3
105	32	AS 3t 5/8"	0.006	0.006	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	68.3	0.0	846.2	4.6
104	53	PL 3t 3/4"	0.010	0.010	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	68.3	0.0	845.6	4.6
103	32	AS 3t 5/8"	0.006	0.006	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	68.3	0.0	844.8	4.6
102	181	1/2" MR	0.100	0.100	0.008	1.59	1.60	1.00	0.11	0.1	0.0	0.0	-0.0	-15.2	68.4	0.0	838.1	4.7
101	32	AS 3t 5/8"	0.006	0.006	0.001	1.49	1.50	1.49	0.11	0.0	0.0	0.0	-0.0	-0.7	68.4	0.0	829.0	4.7
100	53	PL 3t 3/4"	0.010	0.010	0.001	1.49	1.50	1.49	0.11	0.0	0.0	0.0	-0.0	-0.7	68.5	0.0	828.3	4.7
99	32	AS 3t 5/8"	0.006	0.006	0.001	1.49	1.50	1.49	0.11	0.0	0.0	0.0	-0.0	-0.7	68.5	0.0	827.6	4.7
98	274	HR17-4 seria	0.997	1.000	0.083	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	68.5	0.0	826.9	4.7
97	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	68.9	0.0	914.9	4.3
96	53	PL 3t 3/4"	0.010	0.010	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	68.9	0.0	914.2	4.3
95	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	68.9	0.0	913.5	4.3
94	274	HR17-4 seria	0.997	1.000	0.075	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	68.9	0.0	912.8	4.3
93	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	69.3	0.0	1000.8	4.0
92	53	PL 3t 3/4"	0.010	0.010	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	69.3	0.0	1000.1	4.0
91	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	69.3	0.0	999.4	4.0
90	103	5/16" NILSPI	0.285	0.286	0.020	1.09	1.10	0.00	0.11	0.2	0.0	0.0	-0.0	-6.4	69.4	0.0	995.6	4.0
89	491	Parachute	1.500	1.500	1.500	0.50	0.50	1.33	0.11	0.5	0.0	0.0	0.0	0.0	69.5	0.0	992.3	4.0
88	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	70.0	0.0	992.3	4.0
87	53	PL 3t 3/4"	0.010	0.010	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	70.0	0.0	991.6	4.0
86	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	70.0	0.0	990.9	4.0
85	103	5/16" NILSPI	0.095	0.095	0.007	1.09	1.10	0.00	0.11	0.1	0.0	0.0	-0.0	-2.1	70.0	0.0	989.3	4.1
84	491	Parachute	1.500	1.500	1.500	0.50	0.50	1.33	0.11	0.5	0.0	0.0	0.0	0.0	70.1	0.0	988.1	4.1
83	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	70.6	0.0	988.1	4.1



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

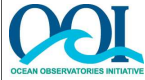
Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #001 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
82	53	PL 3t 3/4"	0.010	0.010	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	70.6	0.0	987.4	4.1
81	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	70.6	0.0	986.7	4.1
80	181	1/2" MR	0.100	0.100	0.007	1.60	1.60	1.00	0.11	0.1	0.0	0.0	-0.0	-15.2	70.6	0.0	980.0	4.1
78	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	70.7	0.0	970.8	4.2
77	53	PL 3t 3/4"	0.010	0.010	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	70.7	0.0	970.2	4.2
76	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	70.7	0.0	969.4	4.2
75	274	HR17-4 seria	0.997	1.000	0.073	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	70.7	0.0	968.8	4.2
74	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	71.1	0.0	1056.7	3.8
73	53	PL 3t 3/4"	0.010	0.010	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	71.1	0.0	1056.1	3.9
72	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	71.1	0.0	1055.3	3.9
71	274	HR17-4 seria	0.998	1.000	0.067	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	71.1	0.0	1054.7	3.9
70	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	71.5	0.0	1142.7	3.6
69	53	PL 3t 3/4"	0.010	0.010	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	71.5	0.0	1142.0	3.6
68	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	71.5	0.0	1141.3	3.6
67	274	HR17-4 seria	0.998	1.000	0.063	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	71.5	0.0	1140.6	3.6
66	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	71.9	0.0	1228.6	3.3
65	53	PL 3t 3/4"	0.010	0.010	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	71.9	0.0	1227.9	3.4
64	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	71.9	0.0	1227.2	3.4
63	274	HR17-4 seria	0.998	1.000	0.059	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	71.9	0.0	1226.5	3.4
62	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	72.3	0.0	1314.5	3.1
61	53	PL 3t 3/4"	0.010	0.010	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	72.3	0.0	1313.8	3.2
60	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	72.3	0.0	1313.1	3.2
59	274	HR17-4 seria	0.998	1.000	0.055	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	72.3	0.0	1312.4	3.2
58	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	72.7	0.0	1400.4	3.0
57	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	72.7	0.0	1399.7	3.0
56	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	72.8	0.0	1399.0	3.0
55	274	HR17-4 seria	0.999	1.000	0.052	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	72.8	0.0	1398.3	3.0
54	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	73.1	0.0	1486.3	2.8
53	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	73.2	0.0	1485.7	2.8



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #001 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
52	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	73.2	0.0	1484.9	2.8
51	274	HR17-4 seria	0.999	1.000	0.049	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	73.2	0.0	1484.3	2.8
50	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	73.6	0.0	1572.2	2.7
49	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	73.6	0.0	1571.6	2.7
48	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	73.6	0.0	1570.8	2.7
47	274	HR17-4 seria	0.999	1.000	0.047	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	73.6	0.0	1570.2	2.7
46	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	74.0	0.0	1658.2	2.6
45	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	74.0	0.0	1657.5	2.6
44	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	74.0	0.0	1656.8	2.6
43	274	HR17-4 seria	0.999	1.000	0.045	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	74.0	0.0	1656.1	2.6
42	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	74.4	0.0	1744.1	2.4
41	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	74.4	0.0	1743.4	2.4
40	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	74.4	0.0	1742.7	2.4
39	274	HR17-4 seria	0.999	1.000	0.043	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	74.4	0.0	1742.0	2.4
38	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	74.8	0.0	1830.0	2.3
37	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	74.8	0.0	1829.3	2.3
36	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	74.8	0.0	1828.6	2.3
35	274	HR17-4 seria	0.999	1.000	0.041	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	74.8	0.0	1827.9	2.3
34	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	75.2	0.0	1915.9	2.2
33	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	75.2	0.0	1915.3	2.2
32	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	75.2	0.0	1914.5	2.2
31	274	HR17-4 seria	0.999	1.000	0.039	0.60	0.60	1.06	0.11	0.4	0.0	0.0	-0.0	88.0	75.2	0.0	1913.9	2.3
30	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	75.6	0.0	2001.8	2.2
29	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	75.6	0.0	2001.2	2.2
28	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	75.6	0.0	2000.4	2.2
27	181	1/2" MR	0.100	0.100	0.004	1.60	1.60	1.00	0.11	0.1	0.0	0.0	-0.0	-15.2	75.7	0.0	1993.7	2.2
26	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	75.7	0.0	1984.6	2.2
25	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	75.7	0.0	1983.9	2.2
24	33	AS 5t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.1	75.7	0.0	1983.2	2.2



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...\limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #001 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
23	94	Swivel 5t	0.025	0.025	0.001	1.20	1.20	1.20	0.11	0.0	0.0	0.0	-0.0	-5.3	75.7	0.0	1982.1	2.2
22	33	AS 5t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.1	75.8	0.0	1976.8	2.2
21	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	75.8	0.0	1975.7	2.2
20	33	AS 5t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.1	75.8	0.0	1974.9	2.2
19	478	Dual Release	0.288	0.288	0.011	1.20	1.20	0.90	0.11	0.2	0.0	0.0	-0.0	-61.0	75.8	0.0	1973.9	2.2
18	480	1/2" dropcha	0.024	0.024	0.001	1.60	1.60	1.00	0.11	0.0	0.0	0.0	-0.0	-6.8	76.0	0.0	1912.9	2.3
17	76	ML 17t 1-1/4	0.025	0.026	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-4.8	76.0	0.0	1906.1	2.3
16	34	AS 6t 7/8"	0.012	0.012	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.6	76.1	0.0	1901.2	2.3
15	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	76.1	0.0	1899.7	2.3
14	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	76.1	0.0	1898.9	2.3
13	181	1/2" MR	0.100	0.100	0.004	1.60	1.60	1.00	0.11	0.1	0.0	0.0	-0.0	-15.2	76.1	0.0	1892.2	2.3
12	32	AS 3t 5/8"	0.006	0.006	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	76.2	0.0	1883.1	2.3
11	64	EL 6t 7/8"	0.012	0.012	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.0	76.2	0.0	1882.4	2.3
10	34	AS 6t 7/8"	0.012	0.012	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.6	76.2	0.0	1881.4	2.3
9	113	Nystron-1"	0.520	0.520	0.021	1.30	1.30	0.02	0.11	0.4	0.0	0.0	-0.0	-2.0	76.4	0.0	1878.9	2.3
8	34	AS 6t 7/8"	0.012	0.012	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.6	76.7	0.0	1877.8	2.3
7	64	EL 6t 7/8"	0.012	0.012	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.0	76.7	0.0	1876.3	2.3
6	34	AS 6t 7/8"	0.012	0.012	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.6	76.7	0.0	1875.2	2.3
5	183	3/4" MR	0.150	0.150	0.006	1.60	1.60	1.00	0.11	0.2	0.0	0.0	-0.0	-33.0	76.8	0.0	1860.5	2.4
4	33	AS 5t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.1	76.8	0.0	1840.6	2.4
3	53	PL 3t 3/4"	0.010	0.010	0.000	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-0.7	76.9	0.0	1839.6	2.4
2	34	AS 6t 7/8"	0.012	0.012	0.001	1.50	1.50	1.50	0.11	0.0	0.0	0.0	-0.0	-1.6	76.9	0.0	1838.8	2.4
1	522	double MACE	1.200	1.200	0.000	1.20	1.20	1.20	0.11	0.9	0.0	0.0	0.0	-2742.1	76.9	0.0	1837.3	0.0



Global Southern Ocean HYPM Mooring Model Analysis designed for 4786m Depth

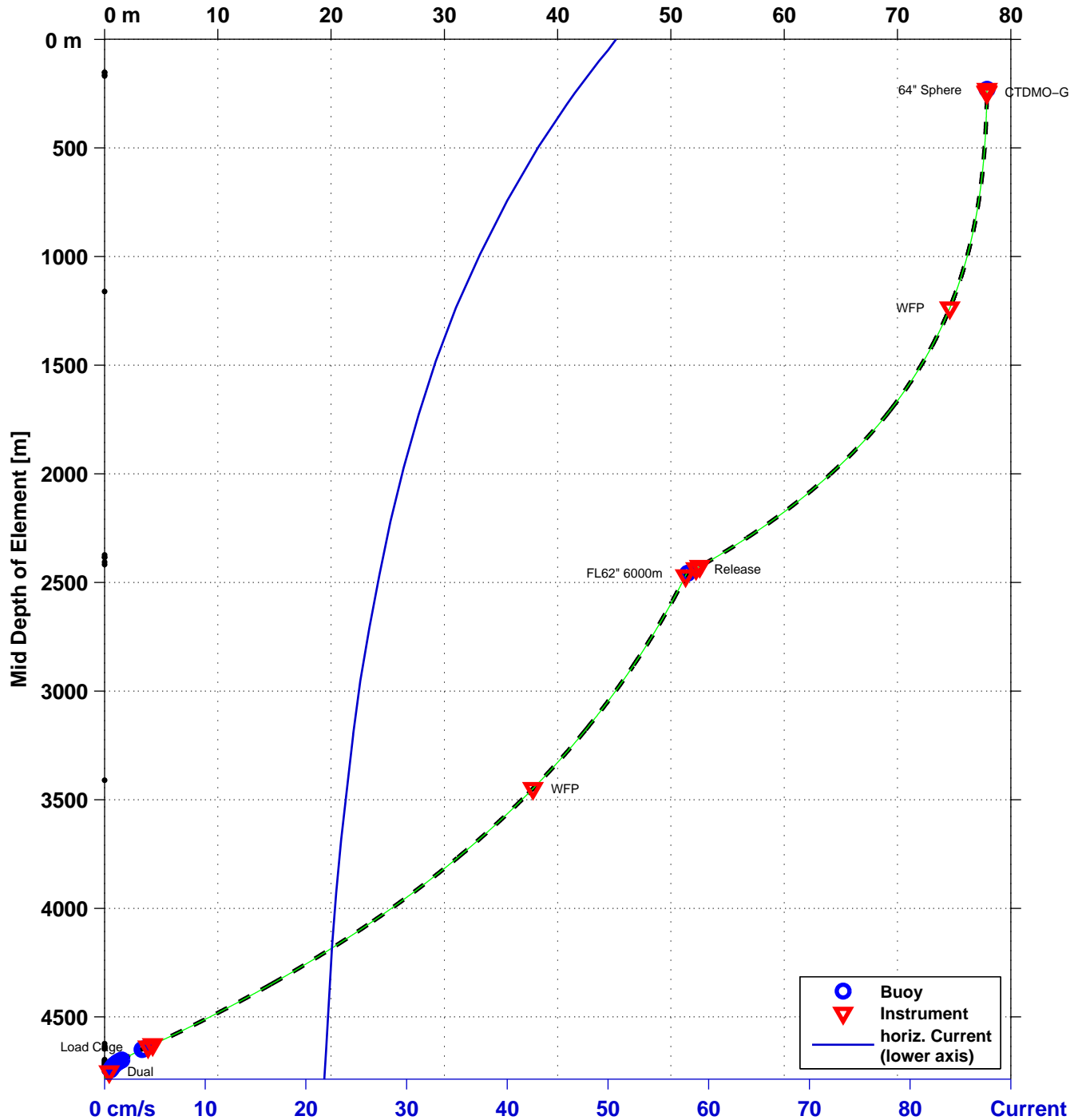


By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
-------------	-------------	-----------------	--------	-------------------

Source: 21-Jan-2015 09:12:07, ...\imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Event #002 – Subduction [m]: max. 78m, Top at 230m
 Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf



Event #002: Vert / Horiz anchor load: 1802 kg / 291 kg
Vert / Horiz anchor safety: 125 % / 120 %,
Safe Wet MACE anchor weight: 2300 kg, (max. 500 kg or Horiz. safety)
Wet / Dry MACE anchor weight: 2742 kg / 3170 kg



Global Southern Ocean HYPM Mooring Model Analysis
 designed for 4786m Depth



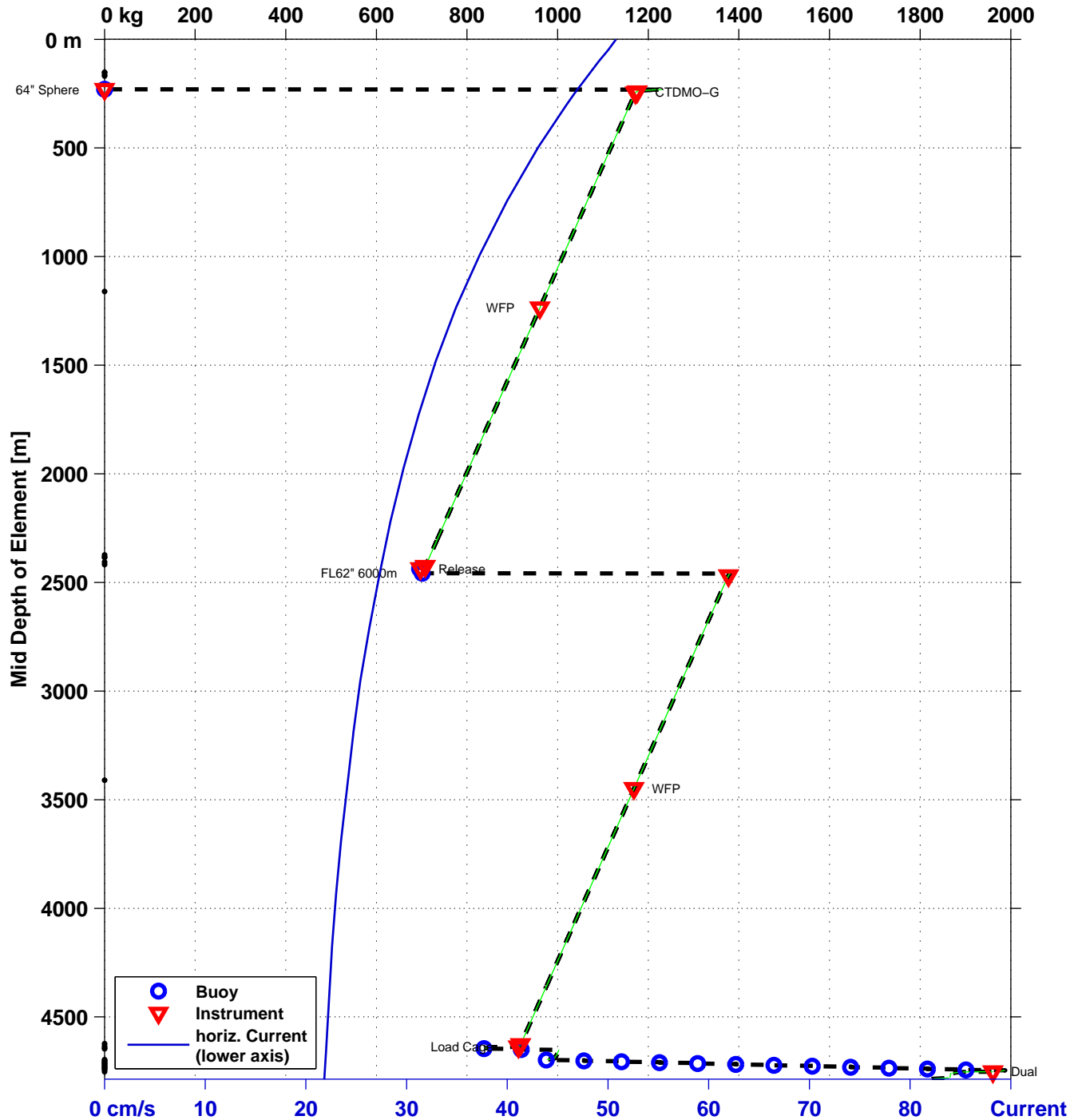
By: P. Chua 21-Jan-2015 DCN: 3201-00010 REV: B REF.DES. GS02HYPM

Source: 21-Jan-2015 09:12:07, ...imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

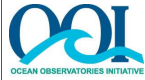
Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Event #002 – Tension [kg]

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf



Event #002: Vert / Horiz anchor load : 1802 kg / 291 kg
 Vert / Horiz anchor safety : 125 % / 120 %,
 Safe Wet MACE anchor weight : 2300 kg, (max. 500 kg or Horiz. safety)
 Wet / Dry MACE anchor weight : 2742 kg / 3170 kg



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

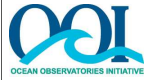
Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #002 – Simulation Result

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	Stretch [%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
143	306	64" Sphere	2.3	1230.0	2.087	0.50	0.47	12.1	0.0	0.0	229.0	77.9	791.3	0.6
142	17	U-Joint	0.3	-16.3	0.090	1.50	0.47	1.6	1230.1	7.7	231.4	77.9	791.3	0.6
141	141	1/2" EM chain	5.0	-35.0	1.000	1.30	0.47	15.0	1213.8	12.1	232.0	77.9	791.3	1.2
140	13	ind. term	0.1	-2.4	0.005	1.50	0.47	0.1	1178.8	7.4	236.6	77.9	791.2	1.4
139	103	5/16" NILSPIN	5.0	-1.1	0.048	1.10	0.47	0.6	1176.4	25.3	237.1	77.9	791.2	1.4
138	374	CTDMO-G P1000m	0.0	-2.8	0.042	1.40	0.47	0.7	1175.3	11.8	241.6	77.9	791.1	1.4
137	103	5/16" NILSPIN	5.0	-1.1	0.048	1.10	0.47	0.6	1172.5	25.2	242.1	77.9	791.1	1.5
136	339	Wire Profiler St	0.0	-0.5	0.070	0.50	0.47	0.4	1171.5	19.5	246.7	77.9	791.0	1.5
135	103	5/16" NILSPIN	491.2	-104.4	4.670	1.10	0.43	50.2	1171.0	25.2	247.2	77.9	791.0	4.4
134	103	5/16" NILSPIN	501.1	-106.5	4.765	1.10	0.37	38.0	1066.7	22.9	737.7	77.2	765.6	7.1
133	340	WFP	0.0	0.0	0.457	0.20	0.35	0.6	960.8	9.6	1235.7	74.6	715.4	7.1
132	103	5/16" NILSPIN	501.0	-106.5	4.765	1.10	0.33	29.0	960.8	20.6	1236.2	74.6	715.4	10.0
131	103	5/16" NILSPIN	711.2	-151.2	6.766	1.10	0.29	31.2	855.6	18.4	1731.6	69.0	640.8	14.7
130	338	Wire Profiler St	0.0	-0.5	0.070	0.50	0.27	0.2	708.0	11.8	2425.9	52.6	489.7	14.7
129	103	5/16" NILSPIN	10.0	-2.1	0.095	1.10	0.27	0.4	707.5	15.2	2426.4	52.6	489.7	14.8
128	13	ind. term	0.1	-2.4	0.005	1.50	0.27	0.0	705.5	4.4	2435.6	52.2	487.2	14.8
127	15	coupler ec	0.2	-6.0	0.020	1.50	0.27	0.1	703.1	4.4	2435.8	52.2	487.1	14.9
125	479	Release Float	1.0	0.0	0.592	1.20	0.27	2.8	697.4	7.0	2436.4	52.2	487.1	15.0
123	13	ind. term	0.1	-2.4	0.005	1.50	0.27	0.0	697.4	4.4	2436.9	52.2	486.8	15.2
122	256	CF14-1000	0.0	13.0	0.225	0.50	0.27	0.5	695.1	11.6	2436.9	52.2	486.8	15.3
120	103	5/16" NILSPIN	20.0	-4.3	0.191	1.10	0.27	0.7	707.7	15.2	2437.4	52.2	486.8	15.2
119	13	ind. term	0.1	-2.4	0.005	1.50	0.27	0.0	703.6	4.4	2456.3	51.5	481.6	15.2
118	225	FL62" 6000m	2.6	692.0	1.887	0.50	0.27	3.7	701.3	7.0	2457.7	51.5	481.5	15.3
117	13	ind. term	0.1	-2.4	0.005	1.50	0.27	0.0	1381.4	8.6	2458.9	51.4	480.9	7.8
116	103	5/16" NILSPIN	10.0	-2.1	0.095	1.10	0.27	0.4	1379.1	29.6	2459.5	51.4	480.8	7.9
115	339	Wire Profiler St	0.0	-0.5	0.070	0.50	0.27	0.2	1377.0	22.9	2468.9	51.3	479.5	7.9
114	103	5/16" NILSPIN	491.4	-104.4	4.670	1.10	0.26	18.2	1376.5	29.6	2469.4	51.3	479.5	9.4
113	103	5/16" NILSPIN	501.4	-106.5	4.765	1.10	0.25	16.2	1273.3	27.4	2955.3	45.7	405.9	11.0
112	340	WFP	0.0	0.0	0.457	0.20	0.24	0.3	1168.5	11.7	3448.3	37.8	317.3	11.0
111	103	5/16" NILSPIN	501.2	-106.5	4.765	1.10	0.24	14.4	1168.5	25.1	3448.8	37.8	317.3	12.9



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #002 – Simulation Result, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
110	103	5/16" NILSPIN	711.6	-151.2	6.766	1.10	0.22	18.1	1064.4	22.9	1.56	0.22	3939.1	26.9	213.6	16.2
109	338	Wire Profiler St	0.0	-0.5	0.070	0.50	0.22	0.1	918.2	15.3	0.00	0.00	4627.5	4.2	35.7	16.2
108	103	5/16" NILSPIN	10.0	-2.1	0.095	1.10	0.22	0.2	917.7	19.7	0.02	0.20	4628.0	4.2	35.7	16.3
107	13	ind. term	0.1	-2.4	0.005	1.50	0.22	0.0	915.6	5.7	0.00	0.00	4637.1	3.8	32.9	16.3
106	300	Load Cage	1.5	-60.0	0.300	1.30	0.22	1.0	913.3	9.1	0.00	0.00	4637.9	3.8	32.8	16.3
105	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	856.0	7.1	0.00	0.00	4638.7	3.8	32.4	17.5
104	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	855.4	7.1	0.00	0.00	4638.7	3.8	32.4	17.5
103	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	854.6	7.1	0.00	0.00	4638.8	3.8	32.3	17.5
102	181	1/2" MR	5.0	-15.2	0.100	1.60	0.22	0.4	854.0	8.5	0.00	0.00	4639.4	3.8	32.3	17.8
101	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	839.5	7.0	0.00	0.00	4643.7	3.5	30.8	17.9
100	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	838.9	7.0	0.00	0.00	4643.7	3.5	30.8	17.9
99	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	838.2	7.0	0.00	0.00	4643.8	3.5	30.8	17.9
98	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	837.6	8.4	0.00	0.00	4645.9	3.5	30.7	17.9
97	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	921.8	7.7	0.00	0.00	4647.7	3.3	29.5	16.3
96	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	921.1	7.7	0.00	0.00	4647.8	3.3	29.5	16.4
95	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	920.4	7.7	0.00	0.00	4647.9	3.3	29.5	16.4
94	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	919.8	9.2	0.00	0.00	4649.9	3.3	29.4	16.4
93	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1004.6	8.4	0.00	0.00	4651.8	3.2	28.3	15.1
92	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1003.9	8.4	0.00	0.00	4651.9	3.2	28.3	15.1
91	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1003.2	8.4	0.00	0.00	4651.9	3.1	28.3	15.1
90	103	5/16" NILSPIN	30.1	-6.4	0.286	1.10	0.22	0.7	1002.6	21.5	0.07	0.22	4652.5	3.1	28.2	15.2
89	491	Parachute	0.0	0.0	1.500	0.50	0.22	1.9	996.4	10.0	0.00	0.00	4681.0	2.1	20.4	15.2
88	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	996.9	8.3	0.00	0.00	4681.0	2.1	20.4	15.3
87	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	996.3	8.3	0.00	0.00	4681.1	2.1	20.4	15.4
86	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	995.6	8.3	0.00	0.00	4681.2	2.1	20.3	15.4
85	103	5/16" NILSPIN	10.0	-2.1	0.095	1.10	0.22	0.2	994.9	21.4	0.02	0.22	4681.7	2.1	20.3	15.4
84	491	Parachute	0.0	0.0	1.500	0.50	0.22	1.9	992.9	9.9	0.00	0.00	4690.9	1.7	17.7	15.4
83	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	993.4	8.3	0.00	0.00	4690.9	1.7	17.7	15.5
82	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	992.8	8.3	0.00	0.00	4691.0	1.7	17.6	15.5
81	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	992.1	8.3	0.00	0.00	4691.1	1.7	17.6	15.6



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #002 – Simulation Result, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
80	181	1/2" MR	5.0	-15.2	0.100	1.60	0.22	0.4	991.4	9.9	0.00	0.00	4691.6	1.7	17.6	15.8
78	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	976.8	8.1	0.00	0.00	4696.0	1.5	16.2	15.8
77	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	976.2	8.1	0.00	0.00	4696.1	1.5	16.2	15.8
76	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	975.5	8.1	0.00	0.00	4696.1	1.5	16.2	15.9
75	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	974.8	9.7	0.00	0.00	4698.2	1.5	16.2	15.9
74	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1059.8	8.8	0.00	0.00	4700.1	1.4	15.1	14.7
73	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1059.1	8.8	0.00	0.00	4700.1	1.4	15.1	14.7
72	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1058.4	8.8	0.00	0.00	4700.2	1.4	15.0	14.7
71	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1057.8	10.6	0.00	0.00	4702.3	1.4	15.0	14.7
70	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1143.2	9.5	0.00	0.00	4704.2	1.2	14.0	13.6
69	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1142.5	9.5	0.00	0.00	4704.2	1.2	14.0	13.7
68	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1141.8	9.5	0.00	0.00	4704.3	1.2	14.0	13.7
67	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1141.2	11.4	0.00	0.00	4706.4	1.2	13.9	13.7
66	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1226.9	10.2	0.00	0.00	4708.3	1.1	13.0	12.8
65	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1226.2	10.2	0.00	0.00	4708.4	1.1	13.0	12.8
64	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1225.5	10.2	0.00	0.00	4708.5	1.1	13.0	12.8
63	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1224.9	12.2	0.00	0.00	4710.5	1.1	12.9	12.8
62	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1310.9	10.9	0.00	0.00	4712.4	1.0	12.1	12.0
61	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1310.2	10.9	0.00	0.00	4712.5	1.0	12.0	12.0
60	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1309.5	10.9	0.00	0.00	4712.6	1.0	12.0	12.0
59	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1308.8	13.1	0.00	0.00	4714.6	1.0	12.0	12.0
58	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1395.0	11.6	0.00	0.00	4716.6	0.9	11.2	11.4
57	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1394.4	11.6	0.00	0.00	4716.7	0.9	11.2	11.4
56	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1393.7	11.6	0.00	0.00	4716.7	0.9	11.1	11.4
55	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1393.0	13.9	0.00	0.00	4718.8	0.9	11.1	11.4
54	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1479.4	12.3	0.00	0.00	4720.7	0.8	10.3	10.8
53	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1478.8	12.3	0.00	0.00	4720.8	0.8	10.3	10.8
52	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1478.0	12.3	0.00	0.00	4720.9	0.8	10.3	10.8
51	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1477.4	14.8	0.00	0.00	4722.9	0.8	10.3	10.8
50	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1564.0	13.0	0.00	0.00	4724.9	0.8	9.5	10.2



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



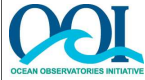
By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg
Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #002 – Simulation Result, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	Tension [%]	Stretch [m]	Stretch [%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
49	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1563.3	13.0	0.00	0.00	4725.0	0.8	9.5	10.2
48	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1562.6	13.0	0.00	0.00	4725.1	0.8	9.5	10.2
47	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1561.9	15.6	0.00	0.00	4727.1	0.8	9.5	10.3
46	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1648.6	13.7	0.00	0.00	4729.1	0.7	8.8	9.8
45	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1648.0	13.7	0.00	0.00	4729.2	0.7	8.8	9.8
44	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1647.2	13.7	0.00	0.00	4729.3	0.7	8.8	9.8
43	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1646.6	16.5	0.00	0.00	4731.3	0.7	8.7	9.8
42	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1733.4	14.4	0.00	0.00	4733.3	0.6	8.1	9.3
41	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1732.7	14.4	0.00	0.00	4733.3	0.6	8.1	9.3
40	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1732.0	14.4	0.00	0.00	4733.4	0.6	8.0	9.3
39	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1731.3	17.3	0.00	0.00	4735.5	0.6	8.0	9.3
38	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1818.2	15.2	0.00	0.00	4737.4	0.6	7.4	8.9
37	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1817.6	15.1	0.00	0.00	4737.5	0.6	7.4	9.0
36	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1816.9	15.1	0.00	0.00	4737.6	0.6	7.3	9.0
35	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1816.2	18.2	0.00	0.00	4739.7	0.6	7.3	9.0
34	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1903.2	15.9	0.00	0.00	4741.6	0.5	6.7	8.6
33	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1902.5	15.9	0.00	0.00	4741.7	0.5	6.7	8.6
32	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1901.8	15.8	0.00	0.00	4741.8	0.5	6.7	8.6
31	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.22	1.5	1901.2	19.0	0.00	0.00	4743.8	0.5	6.7	8.6
30	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1988.2	16.6	0.00	0.00	4745.8	0.5	6.1	8.3
29	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1987.6	16.6	0.00	0.00	4745.9	0.5	6.1	8.3
28	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1986.8	16.6	0.00	0.00	4746.0	0.5	6.1	8.3
27	181	1/2" MR	5.0	-15.2	0.100	1.60	0.22	0.4	1986.2	19.9	0.00	0.00	4746.5	0.5	6.0	8.3
26	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1971.2	16.4	0.00	0.00	4751.0	0.4	5.3	8.4
25	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1970.5	16.4	0.00	0.00	4751.1	0.4	5.3	8.4
24	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.22	0.0	1969.8	10.9	0.00	0.00	4751.2	0.4	5.3	8.4
23	94	Swivel 5t	0.2	-5.3	0.025	1.20	0.22	0.1	1968.7	19.7	0.00	0.00	4751.4	0.4	5.3	8.4
22	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.22	0.0	1963.4	10.9	0.00	0.00	4751.5	0.4	5.2	8.4
21	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1962.4	16.4	0.00	0.00	4751.6	0.4	5.2	8.4
20	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.22	0.0	1961.6	10.9	0.00	0.00	4751.7	0.4	5.2	8.4



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #002 – Simulation Result, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
19	478	Dual Release	1.0	-61.0	0.288	1.20	0.22	0.9	1960.6	19.6	0.00	0.00	4752.3	0.4	5.2	8.4
18	480	1/2" dropchain	0.6	-6.8	0.024	1.60	0.22	0.1	1900.3	11.9	0.00	0.00	4753.1	0.4	5.1	8.7
17	76	ML 17t 1-1/4"	0.2	-4.8	0.026	1.50	0.22	0.1	1893.5	4.3	0.00	0.00	4753.5	0.4	5.0	8.7
16	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.22	0.0	1888.7	7.9	0.00	0.00	4753.6	0.4	4.9	8.8
15	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1887.2	15.7	0.00	0.00	4753.7	0.4	4.9	8.8
14	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1886.5	15.7	0.00	0.00	4753.8	0.4	4.9	8.8
13	181	1/2" MR	5.0	-15.2	0.100	1.60	0.22	0.4	1885.8	18.9	0.00	0.00	4754.4	0.4	4.9	8.9
12	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.22	0.0	1870.8	15.6	0.00	0.00	4758.8	0.3	4.1	8.9
11	64	EL 6t 7/8"	0.1	-1.0	0.012	1.50	0.22	0.0	1870.2	7.8	0.00	0.00	4758.9	0.3	4.1	8.9
10	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.22	0.0	1869.1	7.8	0.00	0.00	4759.0	0.3	4.1	8.9
9	113	Nystron-1"	20.7	-2.0	0.520	1.30	0.22	1.7	1867.6	11.1	0.67	3.33	4759.6	0.3	4.1	8.9
8	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.22	0.0	1865.7	7.8	0.00	0.00	4779.5	0.1	0.9	8.9
7	64	EL 6t 7/8"	0.1	-1.0	0.012	1.50	0.22	0.0	1864.1	7.8	0.00	0.00	4779.6	0.1	0.9	9.0
6	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.22	0.0	1863.1	7.8	0.00	0.00	4779.8	0.1	0.8	9.0
5	183	3/4" MR	5.0	-33.1	0.150	1.60	0.22	0.6	1861.6	7.8	0.00	0.00	4780.3	0.1	0.8	9.1
4	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.22	0.0	1828.9	10.2	0.00	0.00	4784.8	0.0	0.0	9.2
3	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.22	0.0	1827.9	15.2	0.00	0.00	4784.9	0.0	0.0	9.2
2	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.22	0.0	1827.2	7.6	0.00	0.00	4785.0	0.0	0.0	9.2
1	522	double MACE Anch	1.0	-2742.1	1.200	1.20	0.22	3.7	1825.6	30.4	0.00	0.00	4786.0	0.0	0.0	0.0

Max. 30.4% Static Tension at:

1	522	double MACE Anch	1.0	-2742.1	1.200	1.20	0.22	3.7	1825.6	30.4	0.00	0.00	4786.0	0.0	0.0	0.0
---	-----	------------------	-----	---------	-------	------	------	-----	--------	------	------	------	--------	-----	-----	-----

Vert/Horiz Anchor Load : 1802 kg / 291 kg
 Wet MACE Anchor Weight : 2742 kg
 Safe MACE Anchor Weight : 2300 kg



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

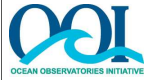
Source: 21-Jan-2015 09:12:07, ...\limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #002 – Simulation Parameter

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
143	306	64" Sphere 1	2.087	2.087	2.087	0.50	0.50	0.50	0.47	12.1	0.0	0.0	0.0	1230.0	0.0	0.0	0.0	0.6
142	17	U-Joint	0.090	0.090	0.001	1.50	1.50	1.50	0.47	1.6	0.0	0.0	-0.0	-16.3	12.1	0.0	1230.0	0.6
141	141	1/2" EM chai	1.000	1.000	0.016	1.30	1.30	1.00	0.47	15.0	0.0	0.0	-0.2	-35.0	19.6	0.0	1199.6	1.2
140	13	ind. term	0.005	0.005	0.000	1.50	1.50	1.50	0.47	0.1	0.0	0.0	-0.0	-2.4	28.6	0.0	1178.4	1.4
139	103	5/16" NILSPI	0.048	0.048	0.001	1.10	1.10	0.00	0.47	0.6	0.0	0.0	-0.0	-1.1	28.9	0.0	1175.6	1.4
138	374	CTDMO-G P100	0.042	0.042	0.001	1.40	1.40	1.00	0.47	0.7	0.0	0.0	-0.0	-2.8	29.3	0.0	1175.0	1.4
137	103	5/16" NILSPI	0.048	0.048	0.001	1.10	1.10	0.00	0.47	0.6	0.0	0.0	-0.0	-1.1	30.2	0.0	1171.7	1.5
136	339	Wire Profile	0.070	0.070	0.002	0.50	0.50	0.50	0.47	0.4	0.0	0.0	-0.0	-0.5	30.6	0.0	1171.1	1.5
135	103	5/16" NILSPI	4.663	4.670	0.241	1.10	1.10	0.00	0.43	50.2	0.0	0.0	-2.5	-104.4	57.3	0.0	1117.4	4.4
134	103	5/16" NILSPI	4.741	4.765	0.477	1.09	1.10	0.00	0.37	38.0	0.0	0.0	-3.8	-106.5	101.1	0.0	1008.7	7.1
133	340	WFP	0.453	0.457	0.057	0.20	0.20	0.20	0.35	0.6	0.0	0.0	-0.1	0.0	119.2	0.0	953.4	7.1
132	103	5/16" NILSPI	4.711	4.765	0.710	1.07	1.10	0.00	0.33	29.0	0.0	0.0	-4.3	-106.5	134.8	0.0	898.1	10.0
131	103	5/16" NILSPI	6.610	6.766	1.438	1.04	1.10	0.00	0.29	31.2	0.0	0.0	-6.6	-151.2	165.1	0.0	763.8	14.7
130	338	Wire Profile	0.068	0.070	0.018	0.48	0.50	0.48	0.27	0.2	0.0	0.0	-0.0	-0.5	179.9	0.0	684.8	14.7
129	103	5/16" NILSPI	0.092	0.095	0.024	1.02	1.10	0.00	0.27	0.4	0.0	0.0	-0.1	-2.1	180.2	0.0	683.2	14.8
128	13	ind. term	0.005	0.005	0.001	1.45	1.50	1.45	0.27	0.0	0.0	0.0	-0.0	-2.4	180.4	0.0	682.0	14.8
127	15	coupler ec	0.019	0.020	0.005	1.45	1.50	1.45	0.27	0.1	0.0	0.0	-0.0	-6.0	180.5	0.0	679.6	14.9
125	479	Release Floa	0.572	0.592	0.153	1.16	1.20	0.87	0.27	2.8	0.0	0.0	-0.7	0.0	180.6	0.0	673.6	15.0
123	13	ind. term	0.005	0.005	0.001	1.45	1.50	1.45	0.27	0.0	0.0	0.0	-0.0	-2.4	183.4	0.0	672.9	15.2
122	256	CF14-1000	0.217	0.225	0.059	0.48	0.50	0.39	0.27	0.5	0.0	0.0	-0.1	13.0	183.4	0.0	670.5	15.3
120	103	5/16" NILSPI	0.184	0.191	0.050	1.02	1.10	0.00	0.27	0.7	0.0	0.0	-0.2	-4.3	184.2	0.0	681.3	15.2
119	13	ind. term	0.005	0.005	0.001	1.45	1.50	1.45	0.27	0.0	0.0	0.0	-0.0	-2.4	184.6	0.0	678.9	15.2
118	225	FL62" 6000m	1.887	1.887	1.887	0.50	0.50	0.50	0.27	3.7	0.0	0.0	0.0	692.0	184.6	0.0	676.5	15.3
117	13	ind. term	0.005	0.005	0.001	1.49	1.50	1.49	0.27	0.0	0.0	0.0	-0.0	-2.4	188.3	0.0	1368.5	7.8
116	103	5/16" NILSPI	0.094	0.095	0.013	1.08	1.10	0.00	0.27	0.4	0.0	0.0	-0.1	-2.1	188.6	0.0	1365.2	7.9
115	339	Wire Profile	0.069	0.070	0.010	0.50	0.50	0.50	0.27	0.2	0.0	0.0	-0.0	-0.5	188.8	0.0	1364.0	7.9
114	103	5/16" NILSPI	4.617	4.670	0.699	1.07	1.10	0.00	0.26	18.2	0.0	0.0	-2.7	-104.4	198.2	0.0	1310.0	9.4
113	103	5/16" NILSPI	4.690	4.765	0.841	1.06	1.10	0.00	0.25	16.2	0.0	0.0	-2.9	-106.5	215.3	0.0	1201.8	11.0
112	340	WFP	0.448	0.457	0.087	0.20	0.20	0.20	0.24	0.3	0.0	0.0	-0.0	0.0	223.3	0.0	1147.0	11.0



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

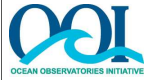
Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #002 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
111	103	5/16" NILSPI	4.662	4.765	0.986	1.05	1.10	0.00	0.24	14.4	0.0	0.0	-3.0	-106.5	230.9	0.0	1092.3	12.9
110	103	5/16" NILSPI	6.550	6.766	1.692	1.02	1.10	0.00	0.22	18.1	0.0	0.0	-4.5	-151.2	247.2	0.0	959.7	16.2
109	338	Wire Profile	0.067	0.070	0.020	0.48	0.50	0.48	0.22	0.1	0.0	0.0	-0.0	-0.5	256.0	0.0	881.7	16.2
108	103	5/16" NILSPI	0.092	0.095	0.027	1.01	1.10	0.00	0.22	0.2	0.0	0.0	-0.1	-2.1	256.2	0.0	880.2	16.3
107	13	ind. term	0.005	0.005	0.001	1.44	1.50	1.44	0.22	0.0	0.0	0.0	-0.0	-2.4	256.4	0.0	879.0	16.3
106	300	Load Cage	0.288	0.300	0.084	1.25	1.30	0.86	0.22	1.0	0.0	0.0	-0.2	-60.0	256.4	0.0	876.6	16.3
105	32	AS 3t 5/8"	0.006	0.006	0.002	1.43	1.50	1.43	0.22	0.0	0.0	0.0	-0.0	-0.7	257.4	0.0	816.4	17.5
104	53	PL 3t 3/4"	0.009	0.010	0.003	1.43	1.50	1.43	0.22	0.0	0.0	0.0	-0.0	-0.7	257.4	0.0	815.7	17.5
103	32	AS 3t 5/8"	0.006	0.006	0.002	1.43	1.50	1.43	0.22	0.0	0.0	0.0	-0.0	-0.7	257.5	0.0	814.9	17.5
102	181	1/2" MR	0.095	0.100	0.030	1.52	1.60	0.95	0.22	0.4	0.0	0.0	-0.1	-15.2	257.6	0.0	808.2	17.8
101	32	AS 3t 5/8"	0.006	0.006	0.002	1.43	1.50	1.43	0.22	0.0	0.0	0.0	-0.0	-0.7	257.9	0.0	799.0	17.9
100	53	PL 3t 3/4"	0.009	0.010	0.003	1.43	1.50	1.43	0.22	0.0	0.0	0.0	-0.0	-0.7	257.9	0.0	798.3	17.9
99	32	AS 3t 5/8"	0.006	0.006	0.002	1.43	1.50	1.43	0.22	0.0	0.0	0.0	-0.0	-0.7	257.9	0.0	797.6	17.9
98	274	HR17-4 seria	0.951	1.000	0.308	0.57	0.60	1.01	0.22	1.5	0.0	0.0	-0.4	88.0	258.0	0.0	796.9	17.9
97	32	AS 3t 5/8"	0.006	0.006	0.002	1.44	1.50	1.44	0.22	0.0	0.0	0.0	-0.0	-0.7	259.4	0.0	884.5	16.3
96	53	PL 3t 3/4"	0.009	0.010	0.003	1.44	1.50	1.44	0.22	0.0	0.0	0.0	-0.0	-0.7	259.5	0.0	883.8	16.4
95	32	AS 3t 5/8"	0.006	0.006	0.002	1.44	1.50	1.44	0.22	0.0	0.0	0.0	-0.0	-0.7	259.5	0.0	883.1	16.4
94	274	HR17-4 seria	0.959	1.000	0.282	0.58	0.60	1.02	0.22	1.5	0.0	0.0	-0.4	88.0	259.5	0.0	882.4	16.4
93	32	AS 3t 5/8"	0.006	0.006	0.002	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	261.1	0.0	970.1	15.1
92	53	PL 3t 3/4"	0.009	0.010	0.002	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	261.1	0.0	969.4	15.1
91	32	AS 3t 5/8"	0.006	0.006	0.002	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	261.1	0.0	968.6	15.1
90	103	5/16" NILSPI	0.276	0.286	0.075	1.02	1.10	0.00	0.22	0.7	0.0	0.0	-0.2	-6.4	261.5	0.0	964.8	15.2
89	491	Parachute	1.500	1.500	1.500	0.50	0.50	1.33	0.22	1.9	0.0	0.0	0.0	0.0	261.9	0.0	961.4	15.2
88	32	AS 3t 5/8"	0.006	0.006	0.002	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	263.8	0.0	961.4	15.3
87	53	PL 3t 3/4"	0.009	0.010	0.003	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	263.8	0.0	960.7	15.4
86	32	AS 3t 5/8"	0.006	0.006	0.002	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	263.9	0.0	960.0	15.4
85	103	5/16" NILSPI	0.092	0.095	0.025	1.01	1.10	0.00	0.22	0.2	0.0	0.0	-0.1	-2.1	264.0	0.0	958.3	15.4
84	491	Parachute	1.500	1.500	1.500	0.50	0.50	1.33	0.22	1.9	0.0	0.0	0.0	0.0	264.1	0.0	957.1	15.4
83	32	AS 3t 5/8"	0.006	0.006	0.002	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	266.1	0.0	957.1	15.5



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



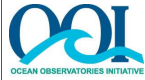
By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...\limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg
Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #002 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
82	53	PL 3t 3/4"	0.009	0.010	0.003	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	266.1	0.0	956.5	15.5
81	32	AS 3t 5/8"	0.006	0.006	0.002	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	266.1	0.0	955.7	15.6
80	181	1/2" MR	0.096	0.100	0.027	1.54	1.60	0.96	0.22	0.4	0.0	0.0	-0.1	-15.2	266.3	0.0	948.9	15.8
78	32	AS 3t 5/8"	0.006	0.006	0.002	1.44	1.50	1.44	0.22	0.0	0.0	0.0	-0.0	-0.7	266.5	0.0	939.7	15.8
77	53	PL 3t 3/4"	0.009	0.010	0.003	1.44	1.50	1.44	0.22	0.0	0.0	0.0	-0.0	-0.7	266.6	0.0	939.1	15.8
76	32	AS 3t 5/8"	0.006	0.006	0.002	1.44	1.50	1.44	0.22	0.0	0.0	0.0	-0.0	-0.7	266.6	0.0	938.3	15.9
75	274	HR17-4 seria	0.962	1.000	0.274	0.58	0.60	1.02	0.22	1.5	0.0	0.0	-0.4	88.0	266.6	0.0	937.7	15.9
74	32	AS 3t 5/8"	0.006	0.006	0.002	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	268.1	0.0	1025.3	14.7
73	53	PL 3t 3/4"	0.009	0.010	0.002	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	268.2	0.0	1024.6	14.7
72	32	AS 3t 5/8"	0.006	0.006	0.002	1.45	1.50	1.45	0.22	0.0	0.0	0.0	-0.0	-0.7	268.2	0.0	1023.9	14.7
71	274	HR17-4 seria	0.967	1.000	0.254	0.58	0.60	1.03	0.22	1.5	0.0	0.0	-0.3	88.0	268.2	0.0	1023.2	14.7
70	32	AS 3t 5/8"	0.006	0.006	0.002	1.46	1.50	1.46	0.22	0.0	0.0	0.0	-0.0	-0.7	269.7	0.0	1110.9	13.6
69	53	PL 3t 3/4"	0.009	0.010	0.002	1.46	1.50	1.46	0.22	0.0	0.0	0.0	-0.0	-0.7	269.8	0.0	1110.2	13.7
68	32	AS 3t 5/8"	0.006	0.006	0.002	1.46	1.50	1.46	0.22	0.0	0.0	0.0	-0.0	-0.7	269.8	0.0	1109.5	13.7
67	274	HR17-4 seria	0.972	1.000	0.236	0.58	0.60	1.03	0.22	1.5	0.0	0.0	-0.3	88.0	269.8	0.0	1108.8	13.7
66	32	AS 3t 5/8"	0.006	0.006	0.001	1.46	1.50	1.46	0.22	0.0	0.0	0.0	-0.0	-0.7	271.4	0.0	1196.5	12.8
65	53	PL 3t 3/4"	0.009	0.010	0.002	1.46	1.50	1.46	0.22	0.0	0.0	0.0	-0.0	-0.7	271.4	0.0	1195.8	12.8
64	32	AS 3t 5/8"	0.006	0.006	0.001	1.46	1.50	1.46	0.22	0.0	0.0	0.0	-0.0	-0.7	271.4	0.0	1195.1	12.8
63	274	HR17-4 seria	0.975	1.000	0.222	0.59	0.60	1.03	0.22	1.5	0.0	0.0	-0.3	88.0	271.5	0.0	1194.4	12.8
62	32	AS 3t 5/8"	0.006	0.006	0.001	1.47	1.50	1.47	0.22	0.0	0.0	0.0	-0.0	-0.7	273.0	0.0	1282.1	12.0
61	53	PL 3t 3/4"	0.009	0.010	0.002	1.47	1.50	1.47	0.22	0.0	0.0	0.0	-0.0	-0.7	273.0	0.0	1281.4	12.0
60	32	AS 3t 5/8"	0.006	0.006	0.001	1.47	1.50	1.47	0.22	0.0	0.0	0.0	-0.0	-0.7	273.0	0.0	1280.7	12.0
59	274	HR17-4 seria	0.978	1.000	0.209	0.59	0.60	1.04	0.22	1.5	0.0	0.0	-0.3	88.0	273.1	0.0	1280.0	12.0
58	32	AS 3t 5/8"	0.006	0.006	0.001	1.47	1.50	1.47	0.22	0.0	0.0	0.0	-0.0	-0.7	274.6	0.0	1367.8	11.4
57	53	PL 3t 3/4"	0.009	0.010	0.002	1.47	1.50	1.47	0.22	0.0	0.0	0.0	-0.0	-0.7	274.6	0.0	1367.1	11.4
56	32	AS 3t 5/8"	0.006	0.006	0.001	1.47	1.50	1.47	0.22	0.0	0.0	0.0	-0.0	-0.7	274.7	0.0	1366.3	11.4
55	274	HR17-4 seria	0.980	1.000	0.197	0.59	0.60	1.04	0.22	1.5	0.0	0.0	-0.3	88.0	274.7	0.0	1365.7	11.4
54	32	AS 3t 5/8"	0.006	0.006	0.001	1.47	1.50	1.47	0.22	0.0	0.0	0.0	-0.0	-0.7	276.2	0.0	1453.4	10.8
53	53	PL 3t 3/4"	0.009	0.010	0.002	1.47	1.50	1.47	0.22	0.0	0.0	0.0	-0.0	-0.7	276.3	0.0	1452.7	10.8



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

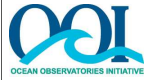
Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #002 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
52	32	AS 3t 5/8"	0.006	0.006	0.001	1.47	1.50	1.47	0.22	0.0	0.0	0.0	-0.0	-0.7	276.3	0.0	1452.0	10.8
51	274	HR17-4 seria	0.982	1.000	0.187	0.59	0.60	1.04	0.22	1.5	0.0	0.0	-0.3	88.0	276.3	0.0	1451.3	10.8
50	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	277.9	0.0	1539.1	10.2
49	53	PL 3t 3/4"	0.009	0.010	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	277.9	0.0	1538.4	10.2
48	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	277.9	0.0	1537.7	10.2
47	274	HR17-4 seria	0.984	1.000	0.178	0.59	0.60	1.04	0.22	1.5	0.0	0.0	-0.2	88.0	278.0	0.0	1537.0	10.3
46	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	279.5	0.0	1624.7	9.8
45	53	PL 3t 3/4"	0.009	0.010	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	279.5	0.0	1624.1	9.8
44	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	279.6	0.0	1623.3	9.8
43	274	HR17-4 seria	0.985	1.000	0.170	0.59	0.60	1.04	0.22	1.5	0.0	0.0	-0.2	88.0	279.6	0.0	1622.7	9.8
42	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	281.1	0.0	1710.4	9.3
41	53	PL 3t 3/4"	0.009	0.010	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	281.2	0.0	1709.8	9.3
40	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	281.2	0.0	1709.0	9.3
39	274	HR17-4 seria	0.987	1.000	0.162	0.59	0.60	1.05	0.22	1.5	0.0	0.0	-0.2	88.0	281.2	0.0	1708.4	9.3
38	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	282.8	0.0	1796.1	8.9
37	53	PL 3t 3/4"	0.009	0.010	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	282.8	0.0	1795.5	9.0
36	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	282.8	0.0	1794.7	9.0
35	274	HR17-4 seria	0.988	1.000	0.156	0.59	0.60	1.05	0.22	1.5	0.0	0.0	-0.2	88.0	282.9	0.0	1794.1	9.0
34	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	284.4	0.0	1881.8	8.6
33	53	PL 3t 3/4"	0.009	0.010	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	284.4	0.0	1881.2	8.6
32	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	284.5	0.0	1880.4	8.6
31	274	HR17-4 seria	0.989	1.000	0.150	0.59	0.60	1.05	0.22	1.5	0.0	0.0	-0.2	88.0	284.5	0.0	1879.8	8.6
30	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	286.0	0.0	1967.5	8.3
29	53	PL 3t 3/4"	0.010	0.010	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	286.1	0.0	1966.9	8.3
28	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	286.1	0.0	1966.1	8.3
27	181	1/2" MR	0.099	0.100	0.014	1.58	1.60	0.99	0.22	0.4	0.0	0.0	-0.1	-15.2	286.3	0.0	1959.4	8.3
26	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	286.5	0.0	1950.2	8.4
25	53	PL 3t 3/4"	0.009	0.010	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	286.6	0.0	1949.5	8.4
24	33	AS 5t 3/4"	0.009	0.010	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.1	286.6	0.0	1948.8	8.4



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #002 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
23	94	Swivel 5t	0.025	0.025	0.004	1.19	1.20	1.19	0.22	0.1	0.0	0.0	-0.0	-5.3	286.6	0.0	1947.7	8.4
22	33	AS 5t 3/4"	0.009	0.010	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.1	286.7	0.0	1942.4	8.4
21	53	PL 3t 3/4"	0.009	0.010	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	286.8	0.0	1941.3	8.4
20	33	AS 5t 3/4"	0.009	0.010	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.1	286.8	0.0	1940.6	8.4
19	478	Dual Release	0.285	0.288	0.042	1.19	1.20	0.89	0.22	0.9	0.0	0.0	-0.1	-61.0	286.8	0.0	1939.5	8.4
18	480	1/2" dropcha	0.024	0.024	0.004	1.58	1.60	0.99	0.22	0.1	0.0	0.0	-0.0	-6.8	287.7	0.0	1878.4	8.7
17	76	ML 17t 1-1/4	0.025	0.026	0.004	1.48	1.50	1.48	0.22	0.1	0.0	0.0	-0.0	-4.8	287.8	0.0	1871.5	8.7
16	34	AS 6t 7/8"	0.012	0.012	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.6	287.9	0.0	1866.7	8.8
15	53	PL 3t 3/4"	0.009	0.010	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	288.0	0.0	1865.1	8.8
14	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	288.0	0.0	1864.4	8.8
13	181	1/2" MR	0.099	0.100	0.015	1.58	1.60	0.99	0.22	0.4	0.0	0.0	-0.1	-15.2	288.2	0.0	1857.6	8.9
12	32	AS 3t 5/8"	0.006	0.006	0.001	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	288.4	0.0	1848.4	8.9
11	64	EL 6t 7/8"	0.012	0.012	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.0	288.5	0.0	1847.8	8.9
10	34	AS 6t 7/8"	0.012	0.012	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.6	288.5	0.0	1846.7	8.9
9	113	Nystron-1"	0.514	0.520	0.081	1.28	1.30	0.02	0.22	1.7	0.0	0.0	-0.3	-2.0	289.4	0.0	1844.1	8.9
8	34	AS 6t 7/8"	0.012	0.012	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.6	290.2	0.0	1843.0	8.9
7	64	EL 6t 7/8"	0.012	0.012	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.0	290.3	0.0	1841.4	9.0
6	34	AS 6t 7/8"	0.012	0.012	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.6	290.3	0.0	1840.4	9.0
5	183	3/4" MR	0.148	0.150	0.024	1.58	1.60	0.99	0.22	0.6	0.0	0.0	-0.1	-33.0	290.6	0.0	1825.5	9.1
4	33	AS 5t 3/4"	0.009	0.010	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.1	291.0	0.0	1805.7	9.2
3	53	PL 3t 3/4"	0.009	0.010	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-0.7	291.0	0.0	1804.6	9.2
2	34	AS 6t 7/8"	0.012	0.012	0.002	1.48	1.50	1.48	0.22	0.0	0.0	0.0	-0.0	-1.6	291.1	0.0	1803.8	9.2
1	522	double MACE	1.200	1.200	0.000	1.20	1.20	1.20	0.22	3.7	0.0	0.0	0.0	-2742.1	291.1	0.0	1802.3	0.0



Global Southern Ocean HYPM Mooring Model Analysis
 designed for 4786m Depth

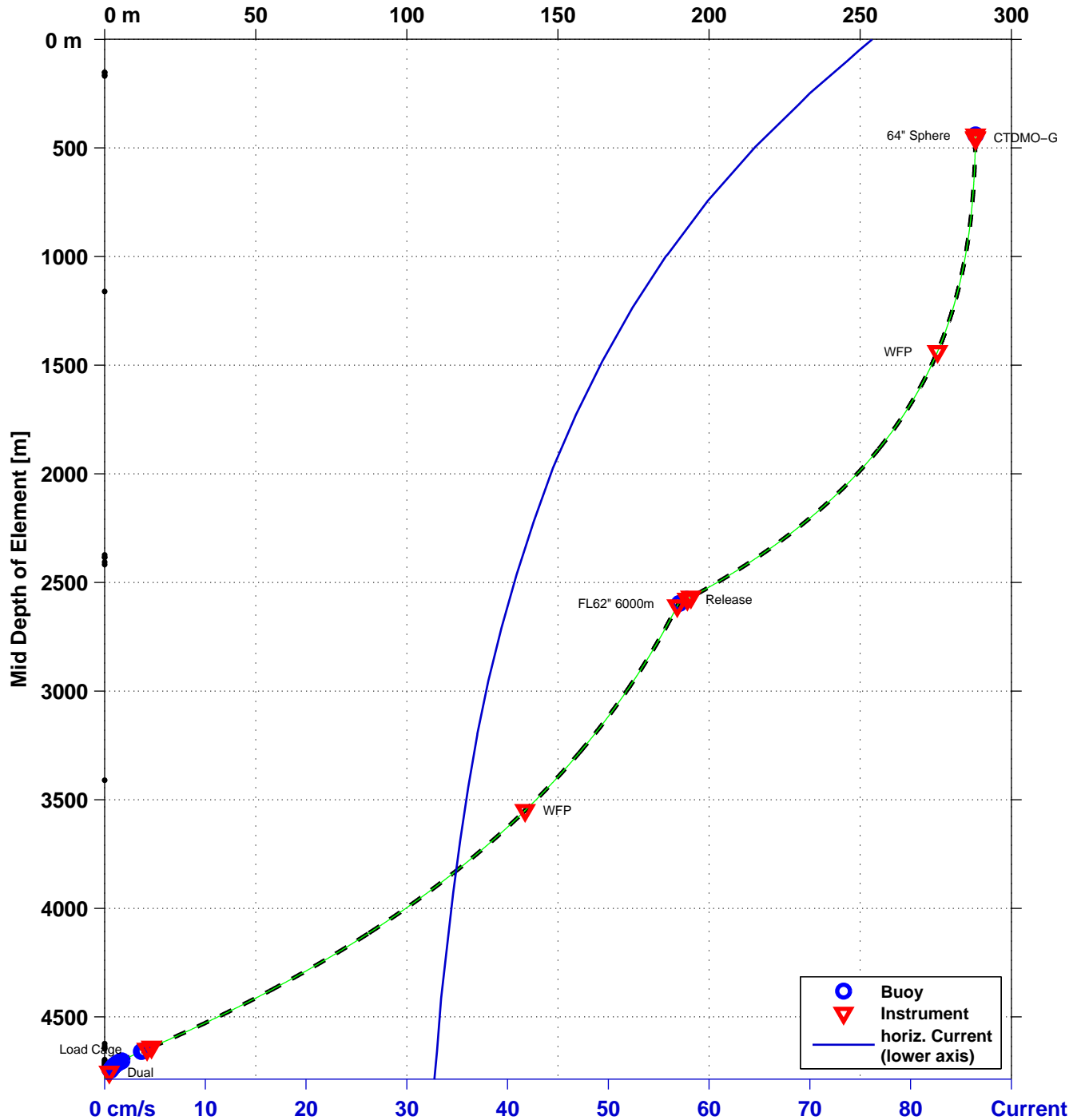


By: P. Chua 21-Jan-2015 DCN: 3201-00010 REV: B REF.DES. GS02HYPM

Source: 21-Jan-2015 09:12:07, ...imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Event #003 - Subduction [m]: max. 288m, Top at 440m
 Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf



Event #003: Vert / Horiz anchor load : 1709 kg / 555 kg
 Vert / Horiz anchor safety : 125 % / 120 %,
 Safe Wet MACE anchor weight : 2375 kg, (max. 500 kg or Horiz. safety)
 Wet / Dry MACE anchor weight : 2742 kg / 3170 kg



Global Southern Ocean HYPM Mooring Model Analysis designed for 4786m Depth

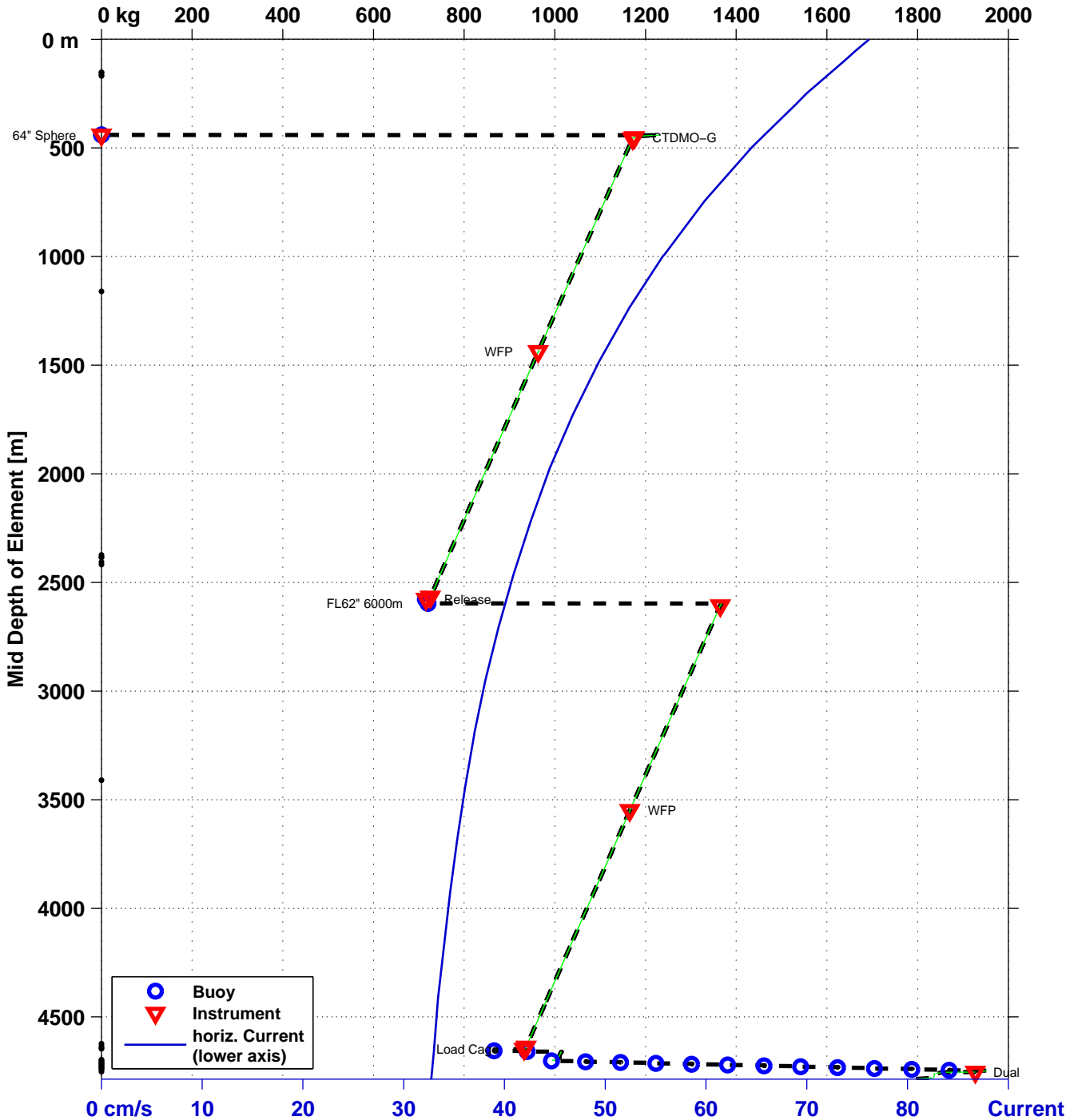


By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
-------------	-------------	-----------------	--------	-------------------

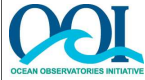
Source: 21-Jan-2015 09:12:07, ...imp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg
 Author: 21-Jan-2015 09:32:09, megaalien@(PCWIN64)

Event #003 – Tension [kg]

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf



Event #003: Vert / Horiz anchor load : 1709 kg / 555 kg
 Vert / Horiz anchor safety : 125 % / 120 %,
 Safe Wet MACE anchor weight : 2375 kg, (max. 500 kg or Horiz. safety)
 Wet / Dry MACE anchor weight : 2742 kg / 3170 kg



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #003 – Simulation Result

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	Stretch [%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]			
143	306	64" Sphere	1000m	2.3	1230.0	2.087	0.50	0.66	23.7	0.0	0.0	0.00	0.00	439.2	288.2	1504.0	1.1
142	17	U-Joint		0.3	-16.3	0.090	1.50	0.66	3.1	1230.2	7.7	0.00	0.00	441.6	288.2	1503.9	1.1
141	141	1/2" EM chain		5.0	-35.0	1.000	1.30	0.66	29.4	1213.9	12.1	0.00	0.00	442.3	288.2	1503.9	2.4
140	13	ind. term		0.1	-2.4	0.005	1.50	0.66	0.2	1179.0	7.4	0.00	0.00	446.8	288.2	1503.8	2.7
139	103	5/16" NILSPIN		5.0	-1.1	0.048	1.10	0.66	1.2	1176.6	25.3	0.01	0.26	447.4	288.2	1503.7	2.8
138	374	CTDMO-G P1000m		0.0	-2.8	0.042	1.40	0.66	1.3	1175.6	11.8	0.00	0.00	451.9	288.1	1503.5	2.8
137	103	5/16" NILSPIN		5.0	-1.1	0.048	1.10	0.66	1.2	1172.8	25.2	0.01	0.26	452.4	288.1	1503.5	2.9
136	339	Wire Profiler St		0.0	-0.5	0.070	0.50	0.65	0.8	1171.7	19.5	0.00	0.00	456.9	288.1	1503.3	2.9
135	103	5/16" NILSPIN		491.2	-104.4	4.670	1.10	0.61	98.1	1171.2	25.2	1.22	0.25	457.4	288.1	1503.3	8.6
134	103	5/16" NILSPIN		501.1	-106.5	4.765	1.10	0.53	73.1	1067.5	22.9	1.13	0.23	945.9	285.4	1453.6	13.9
133	340	WFP		0.0	0.0	0.457	0.20	0.50	1.2	963.4	9.6	0.00	0.00	1436.7	275.6	1355.8	13.9
132	103	5/16" NILSPIN		501.0	-106.5	4.765	1.10	0.47	54.1	963.4	20.7	1.01	0.20	1437.2	275.6	1355.8	19.5
131	103	5/16" NILSPIN		711.2	-151.2	6.766	1.10	0.42	53.8	862.1	18.5	1.25	0.18	1916.9	254.3	1211.8	28.0
130	338	Wire Profiler St		0.0	-0.5	0.070	0.50	0.40	0.3	725.5	12.1	0.00	0.00	2567.4	194.0	926.9	28.0
129	103	5/16" NILSPIN		10.0	-2.1	0.095	1.10	0.40	0.6	725.2	15.6	0.02	0.16	2567.9	194.0	926.9	28.2
128	13	ind. term		0.1	-2.4	0.005	1.50	0.40	0.1	723.3	4.5	0.00	0.00	2576.2	192.8	922.2	28.2
127	15	coupler ec		0.2	-6.0	0.020	1.50	0.40	0.2	721.2	4.5	0.00	0.00	2576.4	192.8	922.1	28.3
125	479	Release Float		1.0	0.0	0.592	1.20	0.40	5.2	716.0	7.2	0.00	0.00	2576.9	192.8	922.0	28.6
123	13	ind. term		0.1	-2.4	0.005	1.50	0.40	0.1	716.7	4.5	0.00	0.00	2577.4	192.7	921.6	29.0
122	256	CF14-1000		0.0	13.0	0.225	0.50	0.40	0.9	714.6	11.9	0.00	0.00	2577.4	192.7	921.5	29.1
120	103	5/16" NILSPIN		20.0	-4.3	0.191	1.10	0.40	1.2	726.1	15.6	0.03	0.16	2577.9	192.7	921.5	28.9
119	13	ind. term		0.1	-2.4	0.005	1.50	0.40	0.1	722.4	4.5	0.00	0.00	2595.0	190.2	911.9	28.9
118	225	FL62" 6000m		2.6	692.0	1.887	0.50	0.40	8.0	720.4	7.2	0.00	0.00	2596.4	190.2	911.8	29.0
117	13	ind. term		0.1	-2.4	0.005	1.50	0.40	0.1	1369.3	8.6	0.00	0.00	2597.4	189.9	910.5	15.1
116	103	5/16" NILSPIN		10.0	-2.1	0.095	1.10	0.40	0.8	1367.0	29.4	0.03	0.30	2598.0	189.8	910.5	15.2
115	339	Wire Profiler St		0.0	-0.5	0.070	0.50	0.40	0.3	1365.0	22.7	0.00	0.00	2607.1	189.5	907.9	15.2
114	103	5/16" NILSPIN		491.4	-104.4	4.670	1.10	0.39	35.6	1364.5	29.3	1.43	0.29	2607.6	189.5	907.9	18.2
113	103	5/16" NILSPIN		501.3	-106.5	4.765	1.10	0.37	30.7	1265.0	27.2	1.35	0.27	3078.3	168.7	766.7	21.4
112	340	WFP		0.0	0.0	0.457	0.20	0.36	0.6	1165.4	11.7	0.00	0.00	3549.6	139.1	597.3	21.4
111	103	5/16" NILSPIN		501.2	-106.5	4.765	1.10	0.35	26.2	1165.4	25.0	1.24	0.25	3550.1	139.1	597.3	25.0



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

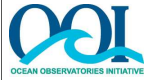
Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #003 – Simulation Result, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
110	103	5/16" NILSPIN	711.6	-151.2	6.766	1.10	0.34	30.3	1068.4	23.0	1.58	0.22	4010.7	98.6	399.9	31.0
109	338	Wire Profiler St	0.0	-0.5	0.070	0.50	0.33	0.2	936.5	15.6	0.00	0.00	4638.8	15.5	67.0	31.0
108	103	5/16" NILSPIN	10.0	-2.1	0.095	1.10	0.33	0.4	936.1	20.1	0.02	0.21	4639.3	15.5	67.0	31.1
107	13	ind. term	0.1	-2.4	0.005	1.50	0.33	0.0	934.3	5.8	0.00	0.00	4647.4	14.1	61.8	31.1
106	300	Load Cage	1.5	-60.0	0.300	1.30	0.33	1.9	932.3	9.3	0.00	0.00	4648.2	14.1	61.8	31.2
105	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	881.9	7.3	0.00	0.00	4648.7	13.9	61.0	33.3
104	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	881.4	7.3	0.00	0.00	4648.8	13.8	61.0	33.4
103	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	880.8	7.3	0.00	0.00	4648.9	13.8	60.9	33.4
102	181	1/2" MR	5.0	-15.2	0.100	1.60	0.33	0.6	880.2	8.8	0.00	0.00	4649.4	13.8	60.9	33.9
101	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	867.7	7.2	0.00	0.00	4653.1	13.0	58.1	34.0
100	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	867.1	7.2	0.00	0.00	4653.2	13.0	58.1	34.1
99	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	866.5	7.2	0.00	0.00	4653.2	12.9	58.0	34.1
98	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	2.7	866.0	8.7	0.00	0.00	4655.3	12.9	58.0	34.1
97	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	940.7	7.8	0.00	0.00	4656.6	12.2	55.7	31.3
96	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	940.1	7.8	0.00	0.00	4656.7	12.2	55.7	31.3
95	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	939.5	7.8	0.00	0.00	4656.8	12.2	55.6	31.3
94	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	2.9	939.0	9.4	0.00	0.00	4658.8	12.2	55.6	31.4
93	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1015.6	8.5	0.00	0.00	4660.2	11.6	53.5	28.9
92	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1015.0	8.5	0.00	0.00	4660.3	11.6	53.5	29.0
91	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1014.4	8.5	0.00	0.00	4660.4	11.6	53.4	29.0
90	103	5/16" NILSPIN	30.1	-6.4	0.286	1.10	0.33	1.2	1013.8	21.8	0.07	0.22	4660.9	11.6	53.4	29.3
89	491	Parachute	0.0	0.0	1.500	0.50	0.33	4.4	1008.3	10.1	0.00	0.00	4686.7	7.8	38.7	29.3
88	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1010.5	8.4	0.00	0.00	4686.7	7.8	38.7	29.5
87	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1009.9	8.4	0.00	0.00	4686.8	7.8	38.7	29.5
86	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1009.3	8.4	0.00	0.00	4686.9	7.8	38.7	29.5
85	103	5/16" NILSPIN	10.0	-2.1	0.095	1.10	0.33	0.4	1008.7	21.7	0.02	0.22	4687.4	7.8	38.6	29.6
84	491	Parachute	0.0	0.0	1.500	0.50	0.33	4.3	1006.9	10.1	0.00	0.00	4695.6	6.5	33.7	29.6
83	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1009.0	8.4	0.00	0.00	4695.6	6.5	33.7	29.8
82	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1008.5	8.4	0.00	0.00	4695.7	6.4	33.6	29.9
81	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1007.9	8.4	0.00	0.00	4695.8	6.4	33.6	29.9



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



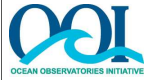
By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg
Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #003 – Simulation Result, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	Stretch [%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
80	181	1/2" MR	5.0	-15.2	0.100	1.60	0.33	0.7	1007.3	10.1	4696.3	6.4	33.6	30.3
78	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	994.2	8.3	4700.2	5.7	31.0	30.4
77	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	993.6	8.3	4700.3	5.7	31.0	30.4
76	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	993.0	8.3	4700.3	5.7	31.0	30.4
75	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	2.9	992.5	9.9	4702.4	5.7	30.9	30.5
74	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1069.7	8.9	4703.8	5.2	28.9	28.2
73	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1069.1	8.9	4703.9	5.2	28.9	28.3
72	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1068.5	8.9	4704.0	5.1	28.8	28.3
71	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.0	1067.9	10.7	4706.0	5.1	28.8	28.3
70	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1146.5	9.6	4707.6	4.7	26.9	26.4
69	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1146.0	9.5	4707.7	4.6	26.9	26.4
68	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1145.3	9.5	4707.7	4.6	26.8	26.4
67	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.1	1144.7	11.4	4709.8	4.6	26.8	26.4
66	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1224.5	10.2	4711.4	4.2	25.0	24.7
65	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1223.9	10.2	4711.5	4.2	25.0	24.8
64	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1223.2	10.2	4711.5	4.2	24.9	24.8
63	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.1	1222.7	12.2	4713.6	4.2	24.9	24.8
62	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1303.4	10.9	4715.2	3.8	23.2	23.3
61	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1302.8	10.9	4715.3	3.8	23.2	23.3
60	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1302.1	10.9	4715.4	3.8	23.1	23.3
59	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.2	1301.5	13.0	4717.4	3.8	23.1	23.4
58	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1383.0	11.5	4719.1	3.5	21.5	22.1
57	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1382.4	11.5	4719.2	3.5	21.5	22.1
56	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1381.7	11.5	4719.3	3.5	21.5	22.1
55	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.2	1381.1	13.8	4721.3	3.5	21.4	22.1
54	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1463.3	12.2	4723.1	3.2	19.9	20.9
53	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1462.7	12.2	4723.1	3.2	19.9	20.9
52	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1462.0	12.2	4723.2	3.1	19.9	21.0
51	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.2	1461.4	14.6	4725.3	3.1	19.8	21.0
50	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1544.1	12.9	4727.0	2.9	18.4	19.9



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

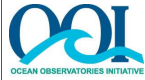
Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #003 – Simulation Result, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
49	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1543.5	12.9	0.00	0.00	4727.1	2.9	18.4	19.9
48	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1542.8	12.9	0.00	0.00	4727.2	2.9	18.4	19.9
47	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.3	1542.2	15.4	0.00	0.00	4729.2	2.9	18.3	20.0
46	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1625.4	13.5	0.00	0.00	4731.0	2.6	17.0	19.0
45	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1624.8	13.5	0.00	0.00	4731.1	2.6	16.9	19.0
44	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1624.1	13.5	0.00	0.00	4731.2	2.6	16.9	19.0
43	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.3	1623.4	16.2	0.00	0.00	4733.2	2.6	16.9	19.0
42	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1707.0	14.2	0.00	0.00	4735.0	2.4	15.6	18.2
41	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1706.4	14.2	0.00	0.00	4735.1	2.4	15.6	18.2
40	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1705.7	14.2	0.00	0.00	4735.2	2.4	15.5	18.2
39	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.3	1705.1	17.1	0.00	0.00	4737.2	2.4	15.5	18.2
38	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1789.1	14.9	0.00	0.00	4739.1	2.2	14.3	17.5
37	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1788.4	14.9	0.00	0.00	4739.1	2.2	14.2	17.5
36	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1787.7	14.9	0.00	0.00	4739.2	2.2	14.2	17.5
35	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.3	1787.1	17.9	0.00	0.00	4741.3	2.2	14.2	17.5
34	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1871.4	15.6	0.00	0.00	4743.1	2.0	13.0	16.8
33	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1870.8	15.6	0.00	0.00	4743.2	2.0	13.0	16.8
32	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1870.1	15.6	0.00	0.00	4743.3	2.0	12.9	16.8
31	274	HR17-4 serial	4.0	88.0	1.000	0.60	0.33	3.4	1869.4	18.7	0.00	0.00	4745.3	2.0	12.9	16.8
30	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1954.0	16.3	0.00	0.00	4747.2	1.8	11.8	16.2
29	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1953.4	16.3	0.00	0.00	4747.2	1.8	11.7	16.2
28	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1952.7	16.3	0.00	0.00	4747.3	1.8	11.7	16.2
27	181	1/2" MR	5.0	-15.2	0.100	1.60	0.33	0.8	1952.0	19.5	0.00	0.00	4747.9	1.8	11.7	16.3
26	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1937.4	16.1	0.00	0.00	4752.2	1.6	10.3	16.3
25	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1936.8	16.1	0.00	0.00	4752.3	1.6	10.3	16.3
24	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.33	0.1	1936.1	10.8	0.00	0.00	4752.4	1.6	10.2	16.3
23	94	Swivel 5t	0.2	-5.3	0.025	1.20	0.33	0.2	1935.1	19.4	0.00	0.00	4752.5	1.6	10.2	16.4
22	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.33	0.1	1930.0	10.7	0.00	0.00	4752.7	1.6	10.2	16.4
21	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1928.9	16.1	0.00	0.00	4752.8	1.6	10.1	16.4
20	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.33	0.1	1928.2	10.7	0.00	0.00	4752.8	1.6	10.1	16.4



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #003 – Simulation Result, cont.

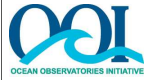
Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Mooring Element	Length [m]	Buoy [kg]	Area [m^2]	Cd	Current [m/s]	Drag [kg]	Tension [kg]	[%]	Stretch [m]	[%]	Depth [m]	dZ [m]	dXY [m]	Tilt [deg]
19	478	Dual Release	1.0	-61.0	0.288	1.20	0.33	2.0	1927.2	19.3	0.00	0.00	4753.4	1.6	10.1	16.4
18	480	1/2" dropchain	0.6	-6.8	0.024	1.60	0.33	0.2	1868.9	11.7	0.00	0.00	4754.2	1.5	9.8	17.0
17	76	ML 17t 1-1/4"	0.2	-4.8	0.026	1.50	0.33	0.2	1862.4	4.2	0.00	0.00	4754.6	1.5	9.6	17.1
16	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.33	0.1	1857.8	7.7	0.00	0.00	4754.7	1.5	9.5	17.1
15	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1856.3	15.5	0.00	0.00	4754.8	1.5	9.5	17.2
14	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1855.6	15.5	0.00	0.00	4754.9	1.5	9.5	17.2
13	181	1/2" MR	5.0	-15.2	0.100	1.60	0.33	0.8	1855.0	18.5	0.00	0.00	4755.4	1.5	9.5	17.3
12	32	AS 3t 5/8"	0.1	-0.7	0.006	1.50	0.33	0.1	1840.5	15.3	0.00	0.00	4759.8	1.2	8.0	17.4
11	64	EL 6t 7/8"	0.1	-1.0	0.012	1.50	0.33	0.1	1839.8	7.7	0.00	0.00	4759.8	1.2	8.0	17.4
10	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.33	0.1	1838.9	7.7	0.00	0.00	4759.9	1.2	7.9	17.4
9	113	Nystron-1"	20.7	-2.0	0.520	1.30	0.33	3.5	1837.4	10.9	0.66	3.28	4760.5	1.2	7.9	17.5
8	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.33	0.1	1835.6	7.6	0.00	0.00	4779.7	0.3	1.7	17.5
7	64	EL 6t 7/8"	0.1	-1.0	0.012	1.50	0.33	0.1	1834.1	7.6	0.00	0.00	4779.8	0.3	1.7	17.5
6	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.33	0.1	1833.1	7.6	0.00	0.00	4779.9	0.3	1.6	17.6
5	183	3/4" MR	5.0	-33.1	0.150	1.60	0.33	1.2	1831.7	7.6	0.00	0.00	4780.5	0.3	1.6	17.9
4	33	AS 5t 3/4"	0.1	-1.1	0.010	1.50	0.33	0.1	1800.2	10.0	0.00	0.00	4784.8	0.0	0.1	17.9
3	53	PL 3t 3/4"	0.1	-0.7	0.010	1.50	0.33	0.1	1799.2	15.0	0.00	0.00	4784.9	0.0	0.1	17.9
2	34	AS 6t 7/8"	0.1	-1.6	0.012	1.50	0.33	0.1	1798.5	7.5	0.00	0.00	4785.0	0.0	0.0	18.0
1	522	double MACE Anch	1.0	-2742.1	1.200	1.20	0.33	8.3	1797.0	30.0	0.00	0.00	4786.0	0.0	0.0	0.0

Max. 30.0% Static Tension at:

1	522	double MACE Anch	1.0	-2742.1	1.200	1.20	0.33	8.3	1797.0	30.0	0.00	0.00	4786.0	0.0	0.0	0.0
---	-----	------------------	-----	---------	-------	------	------	-----	--------	------	------	------	--------	-----	-----	-----

Vert/Horiz Anchor Load : 1709 kg / 555 kg
 Wet MACE Anchor Weight : 2742 kg
 Safe MACE Anchor Weight : 2375 kg



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...\limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #003 – Simulation Parameter

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
143	306	64" Sphere 1	2.087	2.087	2.087	0.50	0.50	0.50	0.66	23.7	0.0	0.0	0.0	1230.0	0.0	0.0	0.0	1.1
142	17	U-Joint	0.090	0.090	0.002	1.50	1.50	1.50	0.66	3.1	0.0	0.0	-0.1	-16.3	23.7	0.0	1230.0	1.1
141	141	1/2" EM chai	0.999	1.000	0.032	1.30	1.30	1.00	0.66	29.4	0.0	0.0	-0.9	-35.0	38.5	0.0	1199.3	2.4
140	13	ind. term	0.005	0.005	0.000	1.50	1.50	1.50	0.66	0.2	0.0	0.0	-0.0	-2.4	56.2	0.0	1177.7	2.7
139	103	5/16" NILSPI	0.048	0.048	0.002	1.10	1.10	0.00	0.66	1.2	0.0	0.0	-0.1	-1.1	56.8	0.0	1174.8	2.8
138	374	CTDMO-G P100	0.042	0.042	0.002	1.40	1.40	1.00	0.66	1.3	0.0	0.0	-0.1	-2.8	57.5	0.0	1174.2	2.8
137	103	5/16" NILSPI	0.048	0.048	0.002	1.10	1.10	0.00	0.66	1.2	0.0	0.0	-0.1	-1.1	59.3	0.0	1170.9	2.9
136	339	Wire Profile	0.070	0.070	0.004	0.50	0.50	0.50	0.65	0.8	0.0	0.0	-0.0	-0.5	60.0	0.0	1170.2	2.9
135	103	5/16" NILSPI	4.644	4.670	0.472	1.09	1.10	0.00	0.61	98.1	0.0	0.0	-9.7	-104.4	112.4	0.0	1113.3	8.6
134	103	5/16" NILSPI	4.672	4.765	0.930	1.05	1.10	0.00	0.53	73.1	0.0	0.0	-14.1	-106.5	197.3	0.0	995.6	13.9
133	340	WFP	0.443	0.457	0.110	0.19	0.20	0.19	0.50	1.2	0.0	0.0	-0.3	0.0	232.0	0.0	935.0	13.9
132	103	5/16" NILSPI	4.562	4.765	1.370	1.00	1.10	0.00	0.47	54.1	0.0	0.0	-15.4	-106.5	261.6	0.0	873.9	19.5
131	103	5/16" NILSPI	6.193	6.766	2.710	0.91	1.10	0.00	0.42	53.8	0.0	0.0	-21.3	-151.2	316.1	0.0	726.5	28.0
130	338	Wire Profile	0.062	0.070	0.033	0.44	0.50	0.44	0.40	0.3	0.0	0.0	-0.1	-0.5	341.1	0.0	640.3	28.0
129	103	5/16" NILSPI	0.084	0.095	0.045	0.83	1.10	0.00	0.40	0.6	0.0	0.0	-0.3	-2.1	341.8	0.0	638.7	28.2
128	13	ind. term	0.004	0.005	0.002	1.32	1.50	1.32	0.40	0.1	0.0	0.0	-0.0	-2.4	342.1	0.0	637.3	28.2
127	15	coupler ec	0.018	0.020	0.009	1.32	1.50	1.32	0.40	0.2	0.0	0.0	-0.1	-6.0	342.1	0.0	634.9	28.3
125	479	Release Floa	0.520	0.592	0.283	1.05	1.20	0.79	0.40	5.2	0.0	0.0	-2.1	0.0	342.4	0.0	628.8	28.6
123	13	ind. term	0.004	0.005	0.002	1.31	1.50	1.31	0.40	0.1	0.0	0.0	-0.0	-2.4	347.5	0.0	626.8	29.0
122	256	CF14-1000	0.197	0.225	0.109	0.44	0.50	0.35	0.40	0.9	0.0	0.0	-0.3	13.0	347.6	0.0	624.3	29.1
120	103	5/16" NILSPI	0.167	0.191	0.092	0.82	1.10	0.00	0.40	1.2	0.0	0.0	-0.6	-4.3	349.0	0.0	634.7	28.9
119	13	ind. term	0.004	0.005	0.002	1.31	1.50	1.31	0.40	0.1	0.0	0.0	-0.0	-2.4	349.6	0.0	632.2	28.9
118	225	FL62" 6000m	1.887	1.887	1.887	0.50	0.50	0.50	0.40	8.0	0.0	0.0	0.0	692.0	349.7	0.0	629.8	29.0
117	13	ind. term	0.005	0.005	0.001	1.45	1.50	1.45	0.40	0.1	0.0	0.0	-0.0	-2.4	357.7	0.0	1321.8	15.1
116	103	5/16" NILSPI	0.092	0.095	0.025	1.02	1.10	0.00	0.40	0.8	0.0	0.0	-0.2	-2.1	358.2	0.0	1318.3	15.2
115	339	Wire Profile	0.068	0.070	0.018	0.48	0.50	0.48	0.40	0.3	0.0	0.0	-0.1	-0.5	358.6	0.0	1317.0	15.2
114	103	5/16" NILSPI	4.472	4.670	1.341	1.00	1.10	0.00	0.39	35.6	0.0	0.0	-10.2	-104.4	377.2	0.0	1259.3	18.2
113	103	5/16" NILSPI	4.484	4.765	1.610	0.96	1.10	0.00	0.37	30.7	0.0	0.0	-10.4	-106.5	410.2	0.0	1143.6	21.4
112	340	WFP	0.425	0.457	0.167	0.19	0.20	0.19	0.36	0.6	0.0	0.0	-0.2	0.0	425.2	0.0	1085.1	21.4



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...\limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #003 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
111	103	5/16" NILSPI	4.379	4.765	1.876	0.91	1.10	0.00	0.35	26.2	0.0	0.0	-10.3	-106.5	439.2	0.0	1026.6	25.0
110	103	5/16" NILSPI	5.976	6.766	3.166	0.84	1.10	0.00	0.34	30.3	0.0	0.0	-14.1	-151.2	467.8	0.0	885.5	31.0
109	338	Wire Profile	0.060	0.070	0.036	0.43	0.50	0.43	0.33	0.2	0.0	0.0	-0.0	-0.5	482.3	0.0	802.7	31.0
108	103	5/16" NILSPI	0.082	0.095	0.049	0.78	1.10	0.00	0.33	0.4	0.0	0.0	-0.2	-2.1	482.7	0.0	801.2	31.1
107	13	ind. term	0.004	0.005	0.003	1.28	1.50	1.28	0.33	0.0	0.0	0.0	-0.0	-2.4	482.9	0.0	799.9	31.1
106	300	Load Cage	0.257	0.300	0.155	1.11	1.30	0.77	0.33	1.9	0.0	0.0	-0.8	-60.0	482.9	0.0	797.5	31.2
105	32	AS 3t 5/8"	0.005	0.006	0.004	1.25	1.50	1.25	0.33	0.1	0.0	0.0	-0.0	-0.7	484.8	0.0	736.7	33.3
104	53	PL 3t 3/4"	0.008	0.010	0.005	1.25	1.50	1.25	0.33	0.1	0.0	0.0	-0.0	-0.7	484.9	0.0	736.0	33.4
103	32	AS 3t 5/8"	0.005	0.006	0.004	1.25	1.50	1.25	0.33	0.1	0.0	0.0	-0.0	-0.7	485.0	0.0	735.2	33.4
102	181	1/2" MR	0.083	0.100	0.055	1.33	1.60	0.83	0.33	0.6	0.0	0.0	-0.4	-15.2	485.3	0.0	728.4	33.9
101	32	AS 3t 5/8"	0.005	0.006	0.004	1.24	1.50	1.24	0.33	0.1	0.0	0.0	-0.0	-0.7	485.7	0.0	719.0	34.0
100	53	PL 3t 3/4"	0.008	0.010	0.005	1.24	1.50	1.24	0.33	0.1	0.0	0.0	-0.0	-0.7	485.7	0.0	718.3	34.1
99	32	AS 3t 5/8"	0.005	0.006	0.004	1.24	1.50	1.24	0.33	0.1	0.0	0.0	-0.0	-0.7	485.8	0.0	717.6	34.1
98	274	HR17-4 seria	0.828	1.000	0.561	0.50	0.60	0.88	0.33	2.7	0.0	0.0	-1.0	88.0	485.8	0.0	716.9	34.1
97	32	AS 3t 5/8"	0.005	0.006	0.003	1.28	1.50	1.28	0.33	0.1	0.0	0.0	-0.0	-0.7	488.5	0.0	803.9	31.3
96	53	PL 3t 3/4"	0.008	0.010	0.005	1.28	1.50	1.28	0.33	0.1	0.0	0.0	-0.0	-0.7	488.6	0.0	803.2	31.3
95	32	AS 3t 5/8"	0.005	0.006	0.003	1.28	1.50	1.28	0.33	0.1	0.0	0.0	-0.0	-0.7	488.7	0.0	802.4	31.3
94	274	HR17-4 seria	0.854	1.000	0.520	0.51	0.60	0.91	0.33	2.9	0.0	0.0	-1.0	88.0	488.7	0.0	801.8	31.4
93	32	AS 3t 5/8"	0.006	0.006	0.003	1.31	1.50	1.31	0.33	0.1	0.0	0.0	-0.0	-0.7	491.6	0.0	888.7	28.9
92	53	PL 3t 3/4"	0.008	0.010	0.005	1.31	1.50	1.31	0.33	0.1	0.0	0.0	-0.0	-0.7	491.6	0.0	888.0	29.0
91	32	AS 3t 5/8"	0.006	0.006	0.003	1.31	1.50	1.31	0.33	0.1	0.0	0.0	-0.0	-0.7	491.7	0.0	887.3	29.0
90	103	5/16" NILSPI	0.250	0.286	0.139	0.82	1.10	0.00	0.33	1.2	0.0	0.0	-0.6	-6.4	492.3	0.0	883.2	29.3
89	491	Parachute	1.500	1.500	1.500	0.50	0.50	1.33	0.33	4.4	0.0	0.0	0.0	0.0	492.9	0.0	879.6	29.3
88	32	AS 3t 5/8"	0.006	0.006	0.003	1.31	1.50	1.31	0.33	0.1	0.0	0.0	-0.0	-0.7	497.3	0.0	879.6	29.5
87	53	PL 3t 3/4"	0.008	0.010	0.005	1.31	1.50	1.31	0.33	0.1	0.0	0.0	-0.0	-0.7	497.3	0.0	878.9	29.5
86	32	AS 3t 5/8"	0.006	0.006	0.003	1.31	1.50	1.31	0.33	0.1	0.0	0.0	-0.0	-0.7	497.4	0.0	878.2	29.5
85	103	5/16" NILSPI	0.083	0.095	0.047	0.81	1.10	0.00	0.33	0.4	0.0	0.0	-0.2	-2.1	497.6	0.0	876.5	29.6
84	491	Parachute	1.500	1.500	1.500	0.50	0.50	1.33	0.33	4.3	0.0	0.0	0.0	0.0	497.9	0.0	875.2	29.6
83	32	AS 3t 5/8"	0.006	0.006	0.003	1.30	1.50	1.30	0.33	0.1	0.0	0.0	-0.0	-0.7	502.2	0.0	875.2	29.8



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

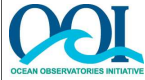
Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #003 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
82	53	PL 3t 3/4"	0.008	0.010	0.005	1.30	1.50	1.30	0.33	0.1	0.0	0.0	-0.0	-0.7	502.3	0.0	874.5	29.9
81	32	AS 3t 5/8"	0.006	0.006	0.003	1.30	1.50	1.30	0.33	0.1	0.0	0.0	-0.0	-0.7	502.3	0.0	873.7	29.9
80	181	1/2" MR	0.087	0.100	0.050	1.38	1.60	0.87	0.33	0.7	0.0	0.0	-0.3	-15.2	502.7	0.0	866.8	30.3
78	32	AS 3t 5/8"	0.006	0.006	0.003	1.29	1.50	1.29	0.33	0.1	0.0	0.0	-0.0	-0.7	503.1	0.0	857.5	30.4
77	53	PL 3t 3/4"	0.008	0.010	0.005	1.29	1.50	1.29	0.33	0.1	0.0	0.0	-0.0	-0.7	503.1	0.0	856.8	30.4
76	32	AS 3t 5/8"	0.006	0.006	0.003	1.29	1.50	1.29	0.33	0.1	0.0	0.0	-0.0	-0.7	503.2	0.0	856.1	30.4
75	274	HR17-4 seria	0.862	1.000	0.507	0.52	0.60	0.91	0.33	2.9	0.0	0.0	-1.0	88.0	503.3	0.0	855.4	30.5
74	32	AS 3t 5/8"	0.006	0.006	0.003	1.32	1.50	1.32	0.33	0.1	0.0	0.0	-0.0	-0.7	506.1	0.0	942.4	28.2
73	53	PL 3t 3/4"	0.008	0.010	0.005	1.32	1.50	1.32	0.33	0.1	0.0	0.0	-0.0	-0.7	506.2	0.0	941.7	28.3
72	32	AS 3t 5/8"	0.006	0.006	0.003	1.32	1.50	1.32	0.33	0.1	0.0	0.0	-0.0	-0.7	506.3	0.0	940.9	28.3
71	274	HR17-4 seria	0.880	1.000	0.474	0.53	0.60	0.93	0.33	3.0	0.0	0.0	-1.0	88.0	506.3	0.0	940.2	28.3
70	32	AS 3t 5/8"	0.006	0.006	0.003	1.34	1.50	1.34	0.33	0.1	0.0	0.0	-0.0	-0.7	509.3	0.0	1027.2	26.4
69	53	PL 3t 3/4"	0.009	0.010	0.004	1.34	1.50	1.34	0.33	0.1	0.0	0.0	-0.0	-0.7	509.4	0.0	1026.5	26.4
68	32	AS 3t 5/8"	0.006	0.006	0.003	1.34	1.50	1.34	0.33	0.1	0.0	0.0	-0.0	-0.7	509.4	0.0	1025.8	26.4
67	274	HR17-4 seria	0.895	1.000	0.445	0.54	0.60	0.95	0.33	3.1	0.0	0.0	-1.0	88.0	509.5	0.0	1025.1	26.4
66	32	AS 3t 5/8"	0.006	0.006	0.003	1.36	1.50	1.36	0.33	0.1	0.0	0.0	-0.0	-0.7	512.5	0.0	1112.1	24.7
65	53	PL 3t 3/4"	0.009	0.010	0.004	1.36	1.50	1.36	0.33	0.1	0.0	0.0	-0.0	-0.7	512.6	0.0	1111.4	24.8
64	32	AS 3t 5/8"	0.006	0.006	0.003	1.36	1.50	1.36	0.33	0.1	0.0	0.0	-0.0	-0.7	512.7	0.0	1110.6	24.8
63	274	HR17-4 seria	0.908	1.000	0.419	0.54	0.60	0.96	0.33	3.1	0.0	0.0	-1.0	88.0	512.7	0.0	1109.9	24.8
62	32	AS 3t 5/8"	0.006	0.006	0.003	1.38	1.50	1.38	0.33	0.1	0.0	0.0	-0.0	-0.7	515.9	0.0	1196.9	23.3
61	53	PL 3t 3/4"	0.009	0.010	0.004	1.38	1.50	1.38	0.33	0.1	0.0	0.0	-0.0	-0.7	515.9	0.0	1196.3	23.3
60	32	AS 3t 5/8"	0.006	0.006	0.003	1.38	1.50	1.38	0.33	0.1	0.0	0.0	-0.0	-0.7	516.0	0.0	1195.5	23.3
59	274	HR17-4 seria	0.918	1.000	0.397	0.55	0.60	0.97	0.33	3.2	0.0	0.0	-1.0	88.0	516.0	0.0	1194.8	23.4
58	32	AS 3t 5/8"	0.006	0.006	0.002	1.39	1.50	1.39	0.33	0.1	0.0	0.0	-0.0	-0.7	519.2	0.0	1281.8	22.1
57	53	PL 3t 3/4"	0.009	0.010	0.004	1.39	1.50	1.39	0.33	0.1	0.0	0.0	-0.0	-0.7	519.3	0.0	1281.2	22.1
56	32	AS 3t 5/8"	0.006	0.006	0.002	1.39	1.50	1.39	0.33	0.1	0.0	0.0	-0.0	-0.7	519.4	0.0	1280.4	22.1
55	274	HR17-4 seria	0.927	1.000	0.376	0.56	0.60	0.98	0.33	3.2	0.0	0.0	-1.0	88.0	519.4	0.0	1279.7	22.1
54	32	AS 3t 5/8"	0.006	0.006	0.002	1.40	1.50	1.40	0.33	0.1	0.0	0.0	-0.0	-0.7	522.6	0.0	1366.8	20.9
53	53	PL 3t 3/4"	0.009	0.010	0.003	1.40	1.50	1.40	0.33	0.1	0.0	0.0	-0.0	-0.7	522.7	0.0	1366.1	20.9



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #003 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
52	32	AS 3t 5/8"	0.006	0.006	0.002	1.40	1.50	1.40	0.33	0.1	0.0	0.0	-0.0	-0.7	522.8	0.0	1365.3	21.0
51	274	HR17-4 seria	0.934	1.000	0.358	0.56	0.60	0.99	0.33	3.2	0.0	0.0	-0.9	88.0	522.8	0.0	1364.6	21.0
50	32	AS 3t 5/8"	0.006	0.006	0.002	1.41	1.50	1.41	0.33	0.1	0.0	0.0	-0.0	-0.7	526.1	0.0	1451.7	19.9
49	53	PL 3t 3/4"	0.009	0.010	0.003	1.41	1.50	1.41	0.33	0.1	0.0	0.0	-0.0	-0.7	526.1	0.0	1451.0	19.9
48	32	AS 3t 5/8"	0.006	0.006	0.002	1.41	1.50	1.41	0.33	0.1	0.0	0.0	-0.0	-0.7	526.2	0.0	1450.3	19.9
47	274	HR17-4 seria	0.940	1.000	0.341	0.56	0.60	1.00	0.33	3.3	0.0	0.0	-0.9	88.0	526.3	0.0	1449.6	20.0
46	32	AS 3t 5/8"	0.006	0.006	0.002	1.42	1.50	1.42	0.33	0.1	0.0	0.0	-0.0	-0.7	529.5	0.0	1536.7	19.0
45	53	PL 3t 3/4"	0.009	0.010	0.003	1.42	1.50	1.42	0.33	0.1	0.0	0.0	-0.0	-0.7	529.6	0.0	1536.0	19.0
44	32	AS 3t 5/8"	0.006	0.006	0.002	1.42	1.50	1.42	0.33	0.1	0.0	0.0	-0.0	-0.7	529.7	0.0	1535.3	19.0
43	274	HR17-4 seria	0.945	1.000	0.326	0.57	0.60	1.00	0.33	3.3	0.0	0.0	-0.9	88.0	529.7	0.0	1534.6	19.0
42	32	AS 3t 5/8"	0.006	0.006	0.002	1.42	1.50	1.42	0.33	0.1	0.0	0.0	-0.0	-0.7	533.0	0.0	1621.7	18.2
41	53	PL 3t 3/4"	0.009	0.010	0.003	1.42	1.50	1.42	0.33	0.1	0.0	0.0	-0.0	-0.7	533.1	0.0	1621.0	18.2
40	32	AS 3t 5/8"	0.006	0.006	0.002	1.42	1.50	1.42	0.33	0.1	0.0	0.0	-0.0	-0.7	533.2	0.0	1620.3	18.2
39	274	HR17-4 seria	0.950	1.000	0.313	0.57	0.60	1.01	0.33	3.3	0.0	0.0	-0.9	88.0	533.2	0.0	1619.6	18.2
38	32	AS 3t 5/8"	0.006	0.006	0.002	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-0.7	536.6	0.0	1706.7	17.5
37	53	PL 3t 3/4"	0.009	0.010	0.003	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-0.7	536.6	0.0	1706.0	17.5
36	32	AS 3t 5/8"	0.006	0.006	0.002	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-0.7	536.7	0.0	1705.3	17.5
35	274	HR17-4 seria	0.954	1.000	0.300	0.57	0.60	1.01	0.33	3.3	0.0	0.0	-0.8	88.0	536.8	0.0	1704.6	17.5
34	32	AS 3t 5/8"	0.006	0.006	0.002	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-0.7	540.1	0.0	1791.8	16.8
33	53	PL 3t 3/4"	0.009	0.010	0.003	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-0.7	540.2	0.0	1791.1	16.8
32	32	AS 3t 5/8"	0.006	0.006	0.002	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-0.7	540.3	0.0	1790.3	16.8
31	274	HR17-4 seria	0.957	1.000	0.289	0.57	0.60	1.01	0.33	3.4	0.0	0.0	-0.8	88.0	540.3	0.0	1789.7	16.8
30	32	AS 3t 5/8"	0.006	0.006	0.002	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-0.7	543.7	0.0	1876.8	16.2
29	53	PL 3t 3/4"	0.009	0.010	0.003	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-0.7	543.7	0.0	1876.2	16.2
28	32	AS 3t 5/8"	0.006	0.006	0.002	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-0.7	543.8	0.0	1875.4	16.2
27	181	1/2" MR	0.096	0.100	0.028	1.54	1.60	0.96	0.33	0.8	0.0	0.0	-0.2	-15.2	544.2	0.0	1868.6	16.3
26	32	AS 3t 5/8"	0.006	0.006	0.002	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-0.7	544.7	0.0	1859.3	16.3
25	53	PL 3t 3/4"	0.009	0.010	0.003	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-0.7	544.8	0.0	1858.6	16.3
24	33	AS 5t 3/4"	0.009	0.010	0.003	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-1.1	544.9	0.0	1857.9	16.3



Global Southern Ocean HYPM Mooring Model Analysis
designed for 4786m Depth



By: P. Chua	21-Jan-2015	DCN: 3201-00010	REV: B	REF.DES. GS02HYPM
--------------------	--------------------	------------------------	---------------	--------------------------

Source: 21-Jan-2015 09:12:07, ...limp\Paul's m-files\OOI\Global_South\gs2014hypm.cfg

Author: 21-Jan-2015 09:32:10, megaalien@(PCWIN64)

Event #003 – Simulation Parameter, cont.

Current Profile Reference: 3201-00007_CGSN_Site_Characterization_Southern_Ocean.pdf

#	ID	Element	Ax [	Ay m^2	Az]	Cx	Cy	Cz	Current [m/s]	Fx [	Fy	Fz kg	Fc	Fb]	Tx [	Ty kg	Tz]	Tilt [deg]
23	94	Swivel 5t	0.024	0.025	0.007	1.15	1.20	1.15	0.33	0.2	0.0	0.0	-0.0	-5.3	544.9	0.0	1856.8	16.4
22	33	AS 5t 3/4"	0.009	0.010	0.003	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-1.1	545.1	0.0	1851.4	16.4
21	53	PL 3t 3/4"	0.009	0.010	0.003	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-0.7	545.2	0.0	1850.3	16.4
20	33	AS 5t 3/4"	0.009	0.010	0.003	1.44	1.50	1.44	0.33	0.1	0.0	0.0	-0.0	-1.1	545.3	0.0	1849.5	16.4
19	478	Dual Release	0.276	0.288	0.081	1.15	1.20	0.86	0.33	2.0	0.0	0.0	-0.5	-61.0	545.4	0.0	1848.5	16.4
18	480	1/2" dropcha	0.023	0.024	0.007	1.53	1.60	0.96	0.33	0.2	0.0	0.0	-0.1	-6.8	547.3	0.0	1787.0	17.0
17	76	ML 17t 1-1/4	0.024	0.026	0.007	1.43	1.50	1.43	0.33	0.2	0.0	0.0	-0.1	-4.8	547.5	0.0	1780.1	17.1
16	34	AS 6t 7/8"	0.012	0.012	0.004	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-1.6	547.8	0.0	1775.2	17.1
15	53	PL 3t 3/4"	0.009	0.010	0.003	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-0.7	547.9	0.0	1773.6	17.2
14	32	AS 3t 5/8"	0.006	0.006	0.002	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-0.7	547.9	0.0	1772.9	17.2
13	181	1/2" MR	0.096	0.100	0.030	1.53	1.60	0.96	0.33	0.8	0.0	0.0	-0.2	-15.2	548.3	0.0	1766.0	17.3
12	32	AS 3t 5/8"	0.006	0.006	0.002	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-0.7	548.8	0.0	1756.7	17.4
11	64	EL 6t 7/8"	0.011	0.012	0.004	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-1.0	548.9	0.0	1756.1	17.4
10	34	AS 6t 7/8"	0.012	0.012	0.004	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-1.6	549.0	0.0	1755.0	17.4
9	113	Nystron-1"	0.496	0.520	0.156	1.24	1.30	0.02	0.33	3.5	0.0	0.0	-1.1	-2.0	550.8	0.0	1752.0	17.5
8	34	AS 6t 7/8"	0.012	0.012	0.004	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-1.6	552.6	0.0	1750.4	17.5
7	64	EL 6t 7/8"	0.011	0.012	0.004	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-1.0	552.8	0.0	1748.8	17.5
6	34	AS 6t 7/8"	0.012	0.012	0.004	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-1.6	552.9	0.0	1747.8	17.6
5	183	3/4" MR	0.143	0.150	0.046	1.52	1.60	0.95	0.33	1.2	0.0	0.0	-0.4	-33.0	553.5	0.0	1732.8	17.9
4	33	AS 5t 3/4"	0.009	0.010	0.003	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-1.1	554.2	0.0	1712.8	17.9
3	53	PL 3t 3/4"	0.009	0.010	0.003	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-0.7	554.3	0.0	1711.7	17.9
2	34	AS 6t 7/8"	0.012	0.012	0.004	1.43	1.50	1.43	0.33	0.1	0.0	0.0	-0.0	-1.6	554.4	0.0	1710.9	18.0
1	522	double MACE	1.200	1.200	0.000	1.20	1.20	1.20	0.33	8.3	0.0	0.0	0.0	-2742.1	554.5	0.0	1709.3	0.0