

SpaceCalc		STS-116/ISS-12A.1 Ascent Events Timeline									
Time (RND)	Time EST	Mach	Altitude Feet	Altitude SM	Velocity FPS	Velocity MPH	Vinertial MPH	Acc Gs	Range SM	Event	
0	08:47:34 PM	0.00	-26.00	0.0	0.00	0	914.40	0.25	0	Launch	
1	08:47:35 PM	0.01	-24.00	0.0	11.00	8	914.40	1.53	0		
2	08:47:36 PM	0.02	-6.00	0.0	27.00	18	914.40	1.54	0		
2	08:47:36 PM	0.04	28.00	0.0	44.00	30	914.40	1.55	0		
3	08:47:37 PM	0.06	78.00	0.0	61.00	42	915.08	1.56	0		
4	08:47:38 PM	0.07	145.00	0.0	79.00	54	915.76	1.60	0		
5	08:47:39 PM	0.09	230.00	0.0	98.00	67	916.45	1.63	0		
6	08:47:40 PM	0.11	333.00	0.1	118.00	80	917.81	1.65	0		
7	08:47:41 PM	0.12	455.00	0.1	138.00	94	918.49	1.67	0		
8	08:47:42 PM	0.14	597.00	0.1	159.00	108	919.85	1.68	0		
9	08:47:43 PM	0.16	759.00	0.1	180.00	123	922.58	1.70	0		
10	08:47:44 PM	0.18	941.00	0.2	202.00	138	925.99	1.71	0	Start roll	
11	08:47:45 PM	0.22	1,368.00	0.3	245.00	167	940.99	1.74	0		
12	08:47:46 PM	0.24	1,613.00	0.3	268.00	183	951.22	1.75	0		
13	08:47:47 PM	0.26	1,878.00	0.4	291.00	198	962.81	1.77	0		
14	08:47:48 PM	0.28	2,164.00	0.4	315.00	215	975.09	1.78	0		
15	08:47:49 PM	0.30	2,470.00	0.5	339.00	231	988.72	1.80	0		
16	08:47:50 PM	0.33	2,796.00	0.5	364.00	248	1,001.68	1.82	0		
17	08:47:51 PM	0.35	3,142.00	0.6	390.00	266	1,014.64	1.84	0		
18	08:47:52 PM	0.37	3,510.00	0.7	416.00	284	1,027.59	1.85	0		End roll
19	08:47:53 PM	0.40	3,898.00	0.7	444.00	303	1,041.23	1.87	0		
20	08:47:54 PM	0.42	4,308.00	0.8	472.00	322	1,055.55	1.88	0		
21	08:47:55 PM	0.45	4,741.00	0.9	500.00	341	1,069.87	1.89	0		
22	08:47:56 PM	0.47	5,195.00	1.0	528.00	360	1,084.19	1.88	0		
23	08:47:57 PM	0.50	5,672.00	1.1	556.00	379	1,098.51	1.86	0		
24	08:47:58 PM	0.52	6,170.00	1.2	583.00	398	1,112.14	1.85	0		
25	08:47:59 PM	0.55	6,689.00	1.3	610.00	416	1,126.46	1.84	0		

26	08:48:00 PM	0.57	7,229.00	1.4	636.00	434	1,140.10	1.84	0	
27	08:48:01 PM	0.59	7,789.00	1.5	663.00	452	1,154.42	1.83	0	
28	08:48:02 PM	0.62	8,370.00	1.6	689.00	470	1,168.74	1.83	1	
29	08:48:03 PM	0.64	8,970.00	1.7	715.00	488	1,182.38	1.83	1	
30	08:48:04 PM	0.67	9,591.00	1.8	741.00	505	1,196.70	1.82	1	
31	08:48:05 PM	0.69	10,231.00	1.9	766.00	522	1,211.02	1.82	1	
32	08:48:06 PM	0.71	10,890.00	2.1	792.00	540	1,225.34	1.82	1	
33	08:48:07 PM	0.74	11,569.00	2.2	817.00	557	1,239.66	1.82	1	
34	08:48:08 PM	0.76	12,266.00	2.3	843.00	575	1,253.98	1.81	1	
35	08:48:09 PM	0.81	13,716.00	2.6	893.00	609	1,282.61	1.81	1	
36	08:48:10 PM	0.83	14,469.00	2.7	918.00	626	1,296.93	1.77	1	Throttle down
37	08:48:11 PM	0.86	15,239.00	2.9	941.00	642	1,310.57	1.73	1	
38	08:48:12 PM	0.88	16,025.00	3.0	963.00	657	1,324.21	1.69	1	
39	08:48:13 PM	0.90	16,825.00	3.2	984.00	671	1,337.85	1.67	1	
40	08:48:14 PM	0.92	17,639.00	3.3	1,005.00	685	1,350.80	1.67	1	
41	08:48:15 PM	0.94	18,466.00	3.5	1,026.00	700	1,363.76	1.67	2	
42	08:48:16 PM	0.96	19,307.00	3.7	1,047.00	714	1,376.71	1.67	2	
43	08:48:17 PM	0.98	20,161.00	3.8	1,067.00	728	1,389.67	1.67	2	
44	08:48:18 PM	1.01	21,028.00	4.0	1,088.00	742	1,402.63	1.67	2	
45	08:48:19 PM	1.03	21,907.00	4.1	1,108.00	755	1,415.58	1.68	2	
46	08:48:20 PM	1.05	22,800.00	4.3	1,128.00	769	1,428.54	1.68	2	
47	08:48:21 PM	1.07	23,704.00	4.5	1,148.00	783	1,440.81	1.68	2	
48	08:48:22 PM	1.09	24,622.00	4.7	1,168.00	796	1,453.77	1.67	2	
49	08:48:23 PM	1.11	25,551.00	4.8	1,188.00	810	1,466.04	1.68	3	Throttle up
50	08:48:24 PM	1.14	26,492.00	5.0	1,208.00	824	1,479.00	1.74	3	
51	08:48:25 PM	1.16	27,447.00	5.2	1,230.00	839	1,492.63	1.79	3	
52	08:48:26 PM	1.19	28,416.00	5.4	1,254.00	855	1,507.63	1.85	3	
53	08:48:27 PM	1.22	29,402.00	5.6	1,279.00	872	1,522.64	1.87	3	
54	08:48:28 PM	1.25	30,405.00	5.8	1,304.00	889	1,538.32	1.90	3	
55	08:48:29 PM	1.28	31,425.00	6.0	1,330.00	907	1,554.00	1.92	3	
56	08:48:30 PM	1.31	32,464.00	6.1	1,357.00	925	1,570.37	1.95	3	
57	08:48:31 PM	1.34	33,520.00	6.3	1,385.00	944	1,587.41	1.97	4	
58	08:48:32 PM	1.38	34,596.00	6.6	1,414.00	964	1,605.14	1.99	4	

59	08:48:33 PM	1.45	36,807.00	7.0	1,473.00	1,004	1,641.28	2.04	4	Max Q (712 psf)
60	08:48:34 PM	1.49	37,944.00	7.2	1,504.00	1,025	1,660.38	2.07	4	
61	08:48:35 PM	1.53	39,102.00	7.4	1,536.00	1,047	1,679.47	2.09	4	
62	08:48:36 PM	1.57	40,282.00	7.6	1,569.00	1,070	1,699.92	2.11	5	
63	08:48:37 PM	1.61	41,484.00	7.9	1,602.00	1,092	1,721.06	2.14	5	
64	08:48:38 PM	1.65	42,708.00	8.1	1,637.00	1,116	1,742.88	2.16	5	
65	08:48:39 PM	1.69	43,955.00	8.3	1,672.00	1,140	1,765.38	2.19	5	
66	08:48:40 PM	1.74	45,225.00	8.6	1,709.00	1,165	1,788.57	2.21	5	
67	08:48:41 PM	1.78	46,519.00	8.8	1,747.00	1,191	1,813.12	2.24	6	
68	08:48:42 PM	1.83	47,836.00	9.1	1,786.00	1,218	1,837.66	2.27	6	
69	08:48:43 PM	1.88	49,176.00	9.3	1,825.00	1,244	1,863.58	2.29	6	
70	08:48:44 PM	1.93	50,541.00	9.6	1,866.00	1,272	1,890.85	2.32	6	
71	08:48:45 PM	1.99	51,930.00	9.8	1,909.00	1,302	1,918.81	2.34	6	
72	08:48:46 PM	2.04	53,344.00	10.1	1,952.00	1,331	1,947.45	2.37	7	
73	08:48:47 PM	2.09	54,781.00	10.4	1,996.00	1,361	1,977.45	2.39	7	
74	08:48:48 PM	2.15	56,241.00	10.7	2,042.00	1,392	2,008.13	2.41	7	
75	08:48:49 PM	2.20	57,725.00	10.9	2,089.00	1,424	2,040.18	2.44	7	
76	08:48:50 PM	2.25	59,233.00	11.2	2,136.00	1,456	2,072.91	2.46	7	
77	08:48:51 PM	2.30	60,764.00	11.5	2,185.00	1,490	2,106.32	2.48	8	
78	08:48:52 PM	2.35	62,318.00	11.8	2,235.00	1,524	2,140.42	2.49	8	
79	08:48:53 PM	2.40	63,895.00	12.1	2,285.00	1,558	2,175.19	2.49	8	
80	08:48:54 PM	2.45	65,494.00	12.4	2,336.00	1,593	2,209.97	2.50	9	
81	08:48:55 PM	2.49	67,115.00	12.7	2,387.00	1,628	2,246.11	2.50	9	
82	08:48:56 PM	2.54	68,757.00	13.0	2,438.00	1,662	2,281.57	2.50	9	
83	08:48:57 PM	2.63	72,103.00	13.7	2,542.00	1,733	2,354.53	2.50	10	
84	08:48:58 PM	2.68	73,806.00	14.0	2,595.00	1,769	2,391.35	2.50	10	
85	08:48:59 PM	2.72	75,528.00	14.3	2,648.00	1,805	2,428.17	2.50	11	
86	08:49:00 PM	2.77	77,270.00	14.6	2,701.00	1,842	2,465.67	2.48	11	
87	08:49:01 PM	2.81	79,031.00	15.0	2,754.00	1,878	2,502.50	2.47	11	
88	08:49:02 PM	2.86	80,810.00	15.3	2,806.00	1,913	2,539.32	2.46	12	
89	08:49:03 PM	2.90	82,607.00	15.6	2,860.00	1,950	2,576.82	2.47	12	
90	08:49:04 PM	2.95	84,422.00	16.0	2,913.00	1,986	2,614.32	2.48	12	
91	08:49:05 PM	3.00	86,254.00	16.3	2,968.00	2,024	2,651.83	2.49	13	

92	08:49:06 PM	3.04	88,105.00	16.7	3,022.00	2,060	2,690.01	2.49	13
93	08:49:07 PM	3.09	89,972.00	17.0	3,077.00	2,098	2,728.88	2.49	14
94	08:49:08 PM	3.14	91,857.00	17.4	3,133.00	2,136	2,767.06	2.48	14
95	08:49:09 PM	3.19	93,758.00	17.8	3,188.00	2,174	2,805.93	2.48	15
96	08:49:10 PM	3.23	95,676.00	18.1	3,243.00	2,211	2,844.80	2.47	15
97	08:49:11 PM	3.28	97,610.00	18.5	3,299.00	2,249	2,883.67	2.47	16
98	08:49:12 PM	3.32	99,559.00	18.9	3,355.00	2,288	2,922.53	2.47	16
99	08:49:13 PM	3.36	101,524.00	19.2	3,411.00	2,326	2,961.40	2.47	16
100	08:49:14 PM	3.40	103,503.00	19.6	3,467.00	2,364	3,000.95	2.46	17
101	08:49:15 PM	3.44	105,497.00	20.0	3,523.00	2,402	3,039.82	2.45	17
102	08:49:16 PM	3.48	107,506.00	20.4	3,579.00	2,440	3,078.68	2.43	18
103	08:49:17 PM	3.53	109,529.00	20.7	3,635.00	2,478	3,117.55	2.42	19
104	08:49:18 PM	3.57	111,564.00	21.1	3,690.00	2,516	3,156.42	2.40	19
105	08:49:19 PM	3.61	113,613.00	21.5	3,745.00	2,553	3,194.60	2.38	20
106	08:49:20 PM	3.65	115,674.00	21.9	3,800.00	2,591	3,232.79	2.37	20
107	08:49:21 PM	3.73	119,830.00	22.7	3,911.00	2,667	3,309.84	2.38	21
108	08:49:22 PM	3.77	121,925.00	23.1	3,966.00	2,704	3,348.71	2.35	22
109	08:49:23 PM	3.81	124,030.00	23.5	4,020.00	2,741	3,386.21	2.29	23
110	08:49:24 PM	3.84	126,144.00	23.9	4,072.00	2,776	3,422.35	2.18	23
111	08:49:25 PM	3.87	128,265.00	24.3	4,119.00	2,808	3,455.76	2.01	24
112	08:49:26 PM	3.89	130,391.00	24.7	4,161.00	2,837	3,485.08	1.78	24
113	08:49:27 PM	3.91	132,519.00	25.1	4,196.00	2,861	3,509.63	1.59	25
114	08:49:28 PM	3.93	134,645.00	25.5	4,226.00	2,881	3,531.45	1.47	26
115	08:49:29 PM	3.94	136,768.00	25.9	4,253.00	2,900	3,550.54	1.36	26
116	08:49:30 PM	3.94	138,887.00	26.3	4,277.00	2,916	3,568.27	1.26	27
117	08:49:31 PM	3.95	140,998.00	26.7	4,298.00	2,930	3,583.96	1.17	28
118	08:49:32 PM	3.95	143,102.00	27.1	4,316.00	2,943	3,597.59	1.08	28
119	08:49:33 PM	3.95	145,196.00	27.5	4,332.00	2,954	3,609.87	1.00	29
120	08:49:34 PM	3.95	147,280.00	27.9	4,346.00	2,963	3,620.78	0.94	30
121	08:49:35 PM	3.96	149,353.00	28.3	4,359.00	2,972	3,630.32	0.89	30
122	08:49:36 PM	3.97	151,414.00	28.7	4,370.00	2,980	3,639.19	0.86	31
123	08:49:37 PM	3.98	153,464.00	29.1	4,381.00	2,987	3,647.37	0.84	32
124	08:49:38 PM	4.00	156,854.00	29.7	4,401.00	3,001	3,663.05	0.97	33

125	08:49:39 PM	4.01	158,872.00	30.1	4,415.00	3,010	3,673.96	0.97	34	SRB staging	
126	08:49:40 PM	4.02	160,881.00	30.5	4,430.00	3,020	3,685.56	0.97	34		
127	08:49:41 PM	4.04	162,878.00	30.8	4,445.00	3,031	3,697.15	0.97	35		
128	08:49:42 PM	4.05	164,866.00	31.2	4,461.00	3,042	3,708.06	0.97	36		
129	08:49:43 PM	4.07	166,843.00	31.6	4,476.00	3,052	3,719.65	0.98	36		
130	08:49:44 PM	4.09	168,811.00	32.0	4,492.00	3,063	3,731.24	0.98	37		
131	08:49:45 PM	4.11	170,768.00	32.3	4,507.00	3,073	3,743.52	0.98	38		
132	08:49:46 PM	4.13	172,714.00	32.7	4,523.00	3,084	3,755.79	0.98	39		
133	08:49:47 PM	4.15	174,650.00	33.1	4,540.00	3,095	3,768.06	0.98	39		
134	08:49:48 PM	4.18	176,574.00	33.4	4,556.00	3,106	3,780.34	0.99	40		
135	08:49:49 PM	4.20	178,487.00	33.8	4,573.00	3,118	3,793.29	1.00	41		
136	08:49:50 PM	4.22	180,389.00	34.2	4,590.00	3,130	3,806.25	1.00	42		
137	08:49:51 PM	4.24	182,279.00	34.5	4,608.00	3,142	3,819.20	1.00	42		
138	08:49:52 PM	4.25	184,159.00	34.9	4,625.00	3,153	3,832.16	1.00	43		
139	08:49:53 PM	4.28	186,027.00	35.2	4,643.00	3,166	3,845.80	1.01	44		
140	08:49:54 PM	4.30	187,884.00	35.6	4,661.00	3,178	3,858.75	1.01	45		
141	08:49:55 PM	4.33	189,729.00	35.9	4,679.00	3,190	3,872.39	1.01	45		
142	08:49:56 PM	4.36	191,563.00	36.3	4,697.00	3,203	3,886.03	1.01	46	2-eng TAL Moron	
143	08:49:57 PM	4.39	193,386.00	36.6	4,716.00	3,215	3,899.67	1.01	47		
144	08:49:58 PM	4.42	195,198.00	37.0	4,735.00	3,228	3,913.30	1.02	48		
145	08:49:59 PM	4.45	196,998.00	37.3	4,753.00	3,241	3,927.62	1.02	48		
146	08:50:00 PM	4.48	198,788.00	37.6	4,772.00	3,254	3,941.26	1.02	49		
147	08:50:01 PM	4.54	202,332.00	38.3	4,811.00	3,280	3,969.90	1.03	51		
148	08:50:02 PM	4.58	204,087.00	38.7	4,831.00	3,294	3,984.22	1.03	52		2-eng TAL Zara
149	08:50:03 PM	4.62	205,831.00	39.0	4,851.00	3,308	3,998.54	1.03	52		
150	08:50:04 PM	4.66	207,563.00	39.3	4,871.00	3,321	4,012.86	1.03	53		
151	08:50:05 PM	4.70	209,285.00	39.6	4,891.00	3,335	4,027.86	1.03	54		
152	08:50:06 PM	4.74	210,995.00	40.0	4,911.00	3,348	4,042.18	1.04	55		
153	08:50:07 PM	4.77	212,693.00	40.3	4,931.00	3,362	4,057.18	1.04	56		
154	08:50:08 PM	4.81	214,381.00	40.6	4,952.00	3,376	4,072.18	1.04	57		
155	08:50:09 PM	4.85	216,057.00	40.9	4,973.00	3,391	4,087.18	1.04	57		
156	08:50:10 PM	4.91	217,722.00	41.2	4,994.00	3,405	4,102.18	1.05	58		
157	08:50:11 PM	4.96	219,376.00	41.5	5,015.00	3,419	4,117.87	1.05	59		

158	08:50:12 PM	5.02	221,019.00	41.9	5,037.00	3,434	4,132.87	1.05	60	2-eng TAL Istres
159	08:50:13 PM	5.08	222,650.00	42.2	5,058.00	3,449	4,148.55	1.05	61	
160	08:50:14 PM	5.13	224,271.00	42.5	5,080.00	3,464	4,164.24	1.05	62	
161	08:50:15 PM	5.18	225,880.00	42.8	5,102.00	3,479	4,179.92	1.06	62	
162	08:50:16 PM	5.22	227,478.00	43.1	5,124.00	3,494	4,195.60	1.06	63	
163	08:50:17 PM	5.26	229,065.00	43.4	5,146.00	3,509	4,211.28	1.06	64	
164	08:50:18 PM	5.30	230,641.00	43.7	5,168.00	3,524	4,226.97	1.06	65	
165	08:50:19 PM	5.34	232,206.00	44.0	5,191.00	3,539	4,243.33	1.07	66	
166	08:50:20 PM	5.38	233,760.00	44.3	5,214.00	3,555	4,259.70	1.07	67	
167	08:50:21 PM	5.42	235,302.00	44.6	5,237.00	3,571	4,276.06	1.07	68	
168	08:50:22 PM	5.46	236,834.00	44.9	5,260.00	3,586	4,291.75	1.07	69	
169	08:50:23 PM	5.50	238,355.00	45.1	5,283.00	3,602	4,308.79	1.08	70	
170	08:50:24 PM	5.54	239,864.00	45.4	5,306.00	3,618	4,325.16	1.08	71	
171	08:50:25 PM	5.58	241,363.00	45.7	5,330.00	3,634	4,341.52	1.08	71	
172	08:50:26 PM	5.62	242,851.00	46.0	5,354.00	3,650	4,358.57	1.08	72	
172	08:50:26 PM	5.66	244,327.00	46.3	5,377.00	3,666	4,375.62	1.09	73	
173	08:50:27 PM	5.70	245,793.00	46.6	5,401.00	3,683	4,391.98	1.09	74	
174	08:50:28 PM	5.74	247,248.00	46.8	5,426.00	3,700	4,409.03	1.09	75	
175	08:50:29 PM	5.77	248,692.00	47.1	5,450.00	3,716	4,426.08	1.09	76	
176	08:50:30 PM	5.81	250,126.00	47.4	5,475.00	3,733	4,443.81	1.10	77	
177	08:50:31 PM	5.85	251,548.00	47.6	5,499.00	3,749	4,460.85	1.10	78	
178	08:50:32 PM	5.89	252,960.00	47.9	5,524.00	3,766	4,478.58	1.10	79	
179	08:50:33 PM	5.92	254,360.00	48.2	5,549.00	3,783	4,495.63	1.10	80	
180	08:50:34 PM	5.96	255,750.00	48.4	5,574.00	3,800	4,513.36	1.11	81	
181	08:50:35 PM	6.00	257,129.00	48.7	5,600.00	3,818	4,531.09	1.11	82	
182	08:50:36 PM	6.04	258,498.00	49.0	5,625.00	3,835	4,548.81	1.11	83	
183	08:50:37 PM	6.08	259,856.00	49.2	5,651.00	3,853	4,566.54	1.12	84	
184	08:50:38 PM	6.12	261,203.00	49.5	5,677.00	3,871	4,584.95	1.12	85	
185	08:50:39 PM	6.16	262,539.00	49.7	5,702.00	3,888	4,602.68	1.12	86	
186	08:50:40 PM	6.20	263,865.00	50.0	5,729.00	3,906	4,621.09	1.12	87	
187	08:50:41 PM	6.24	265,180.00	50.2	5,755.00	3,924	4,639.50	1.13	88	
188	08:50:42 PM	6.28	266,485.00	50.5	5,781.00	3,942	4,657.92	1.13	89	
189	08:50:43 PM	6.32	267,778.00	50.7	5,808.00	3,960	4,676.33	1.13	90	

190	08:50:44 PM	6.36	269,062.00	51.0	5,835.00	3,978	4,694.74	1.13	91
191	08:50:45 PM	6.40	270,335.00	51.2	5,861.00	3,996	4,713.15	1.14	92
192	08:50:46 PM	6.44	271,597.00	51.4	5,889.00	4,015	4,732.24	1.14	93
193	08:50:47 PM	6.48	272,849.00	51.7	5,916.00	4,034	4,751.33	1.14	94
194	08:50:48 PM	6.52	274,090.00	51.9	5,943.00	4,052	4,769.74	1.14	95
195	08:50:49 PM	6.56	275,321.00	52.1	5,971.00	4,071	4,788.84	1.15	96
196	08:50:50 PM	6.61	276,541.00	52.4	5,998.00	4,090	4,807.93	1.15	97
196	08:50:50 PM	6.65	277,751.00	52.6	6,026.00	4,109	4,827.02	1.15	98
197	08:50:51 PM	6.69	278,950.00	52.8	6,054.00	4,128	4,846.80	1.16	99
198	08:50:52 PM	6.73	280,139.00	53.1	6,082.00	4,147	4,865.89	1.16	100
199	08:50:53 PM	6.78	281,318.00	53.3	6,110.00	4,166	4,885.66	1.16	101
200	08:50:54 PM	6.82	282,487.00	53.5	6,139.00	4,186	4,905.44	1.16	102
201	08:50:55 PM	6.86	283,645.00	53.7	6,167.00	4,205	4,925.21	1.17	103
202	08:50:56 PM	6.91	284,793.00	53.9	6,196.00	4,225	4,944.99	1.17	104
203	08:50:57 PM	6.95	285,930.00	54.2	6,225.00	4,244	4,964.76	1.17	106
204	08:50:58 PM	6.99	287,057.00	54.4	6,254.00	4,264	4,984.54	1.18	107
205	08:50:59 PM	7.04	288,174.00	54.6	6,283.00	4,284	5,004.99	1.18	108
206	08:51:00 PM	7.08	289,281.00	54.8	6,313.00	4,304	5,024.77	1.18	109
207	08:51:01 PM	7.13	290,378.00	55.0	6,342.00	4,324	5,045.22	1.19	110
208	08:51:02 PM	7.17	291,465.00	55.2	6,372.00	4,345	5,065.68	1.19	111
209	08:51:03 PM	7.21	292,541.00	55.4	6,401.00	4,364	5,086.14	1.19	112
210	08:51:04 PM	7.26	293,607.00	55.6	6,431.00	4,385	5,106.59	1.19	113
211	08:51:05 PM	7.31	294,664.00	55.8	6,462.00	4,406	5,127.05	1.20	115
212	08:51:06 PM	7.34	295,710.00	56.0	6,492.00	4,426	5,147.50	1.20	116
213	08:51:07 PM	7.36	296,746.00	56.2	6,522.00	4,447	5,168.64	1.20	117
214	08:51:08 PM	7.38	297,772.00	56.4	6,553.00	4,468	5,189.78	1.21	118
215	08:51:09 PM	7.39	298,788.00	56.6	6,583.00	4,488	5,210.92	1.21	119
216	08:51:10 PM	7.40	299,794.00	56.8	6,614.00	4,510	5,232.06	1.21	120
217	08:51:11 PM	7.41	300,790.00	57.0	6,645.00	4,531	5,253.20	1.22	122
218	08:51:12 PM	7.43	301,776.00	57.2	6,676.00	4,552	5,274.33	1.22	123
219	08:51:13 PM	7.44	302,753.00	57.3	6,708.00	4,574	5,295.47	1.22	124
220	08:51:14 PM	7.46	303,719.00	57.5	6,739.00	4,595	5,317.29	1.23	125
220	08:51:14 PM	7.48	304,676.00	57.7	6,771.00	4,617	5,338.43	1.23	126

221	08:51:15 PM	7.49	305,623.00	57.9	6,802.00	4,638	5,360.25	1.23	127	Neg Return
222	08:51:16 PM	7.51	306,560.00	58.1	6,834.00	4,660	5,382.07	1.24	129	
223	08:51:17 PM	7.53	307,487.00	58.2	6,866.00	4,681	5,403.89	1.24	130	
224	08:51:18 PM	7.55	308,404.00	58.4	6,898.00	4,703	5,426.39	1.24	131	
225	08:51:19 PM	7.57	309,312.00	58.6	6,931.00	4,726	5,448.21	1.25	132	
226	08:51:20 PM	7.59	310,210.00	58.8	6,963.00	4,748	5,470.03	1.25	133	
227	08:51:21 PM	7.61	311,098.00	58.9	6,996.00	4,770	5,492.54	1.25	135	
228	08:51:22 PM	7.63	311,977.00	59.1	7,029.00	4,793	5,515.04	1.26	136	
229	08:51:23 PM	7.65	312,846.00	59.3	7,062.00	4,815	5,537.54	1.26	137	
230	08:51:24 PM	7.67	313,706.00	59.4	7,095.00	4,838	5,560.04	1.26	139	
231	08:51:25 PM	7.69	314,555.00	59.6	7,128.00	4,860	5,582.54	1.27	140	
232	08:51:26 PM	7.71	315,396.00	59.7	7,161.00	4,883	5,605.05	1.27	141	
233	08:51:27 PM	7.73	316,226.00	59.9	7,195.00	4,906	5,628.23	1.27	142	
234	08:51:28 PM	7.76	317,048.00	60.0	7,228.00	4,928	5,651.41	1.28	144	
235	08:51:29 PM	7.78	317,859.00	60.2	7,262.00	4,951	5,673.92	1.28	145	
236	08:51:30 PM	7.80	318,662.00	60.4	7,296.00	4,975	5,697.10	1.28	146	
237	08:51:31 PM	7.82	319,455.00	60.5	7,330.00	4,998	5,720.28	1.29	148	
238	08:51:32 PM	7.84	320,238.00	60.7	7,365.00	5,022	5,744.15	1.29	149	
239	08:51:33 PM	7.87	321,012.00	60.8	7,399.00	5,045	5,767.33	1.29	150	
240	08:51:34 PM	7.89	321,777.00	60.9	7,434.00	5,069	5,790.52	1.30	151	
241	08:51:35 PM	7.92	322,533.00	61.1	7,468.00	5,092	5,814.38	1.30	153	
242	08:51:36 PM	7.94	323,279.00	61.2	7,503.00	5,116	5,838.25	1.30	154	
243	08:51:37 PM	7.99	324,743.00	61.5	7,573.00	5,163	5,885.98	1.31	157	
244	08:51:38 PM	8.02	325,462.00	61.6	7,609.00	5,188	5,909.85	1.31	158	
245	08:51:39 PM	8.04	326,171.00	61.8	7,644.00	5,212	5,934.39	1.32	159	
246	08:51:40 PM	8.07	326,871.00	61.9	7,680.00	5,236	5,958.26	1.31	161	
247	08:51:41 PM	8.09	327,562.00	62.0	7,715.00	5,260	5,982.12	1.31	162	
248	08:51:42 PM	8.11	328,243.00	62.2	7,751.00	5,285	6,006.67	1.32	164	
249	08:51:43 PM	8.13	328,915.00	62.3	7,787.00	5,309	6,031.22	1.32	165	
250	08:51:44 PM	8.15	329,578.00	62.4	7,823.00	5,334	6,055.09	1.33	166	
251	08:51:45 PM	8.17	330,232.00	62.5	7,859.00	5,358	6,079.63	1.33	168	
252	08:51:46 PM	8.19	330,877.00	62.7	7,895.00	5,383	6,104.18	1.33	169	
253	08:51:47 PM	8.21	331,514.00	62.8	7,931.00	5,408	6,128.73	1.34	171	

254	08:51:48 PM	8.23	332,141.00	62.9	7,968.00	5,433	6,153.96	1.34	172
255	08:51:49 PM	8.24	332,760.00	63.0	8,004.00	5,457	6,178.51	1.34	173
256	08:51:50 PM	8.26	333,370.00	63.1	8,041.00	5,483	6,203.74	1.35	175
257	08:51:51 PM	8.28	333,971.00	63.3	8,078.00	5,508	6,228.28	1.35	176
258	08:51:52 PM	8.30	334,563.00	63.4	8,115.00	5,533	6,253.51	1.36	178
259	08:51:53 PM	8.32	335,146.00	63.5	8,152.00	5,558	6,278.74	1.36	179
260	08:51:54 PM	8.34	335,721.00	63.6	8,190.00	5,584	6,303.97	1.36	181
261	08:51:55 PM	8.37	336,288.00	63.7	8,227.00	5,609	6,329.88	1.37	182
262	08:51:56 PM	8.39	336,845.00	63.8	8,265.00	5,635	6,355.11	1.37	184
263	08:51:57 PM	8.41	337,394.00	63.9	8,303.00	5,661	6,381.02	1.38	185
264	08:51:58 PM	8.43	337,935.00	64.0	8,341.00	5,687	6,406.25	1.38	187
265	08:51:59 PM	8.46	338,467.00	64.1	8,379.00	5,713	6,432.16	1.38	188
266	08:52:00 PM	8.48	338,991.00	64.2	8,417.00	5,739	6,458.08	1.39	190
267	08:52:01 PM	8.53	340,013.00	64.4	8,494.00	5,791	6,510.58	1.40	193
268	08:52:02 PM	8.56	340,511.00	64.5	8,533.00	5,818	6,537.17	1.40	194
269	08:52:03 PM	8.58	341,001.00	64.6	8,572.00	5,845	6,563.09	1.40	196
270	08:52:04 PM	8.61	341,483.00	64.7	8,611.00	5,871	6,589.68	1.41	197
271	08:52:05 PM	8.63	341,956.00	64.8	8,650.00	5,898	6,616.27	1.41	199
272	08:52:06 PM	8.66	342,421.00	64.9	8,690.00	5,925	6,642.87	1.42	200
273	08:52:07 PM	8.69	342,878.00	64.9	8,729.00	5,952	6,670.14	1.42	202
274	08:52:08 PM	8.71	343,327.00	65.0	8,769.00	5,979	6,696.73	1.43	203
275	08:52:09 PM	8.74	343,768.00	65.1	8,809.00	6,006	6,724.01	1.43	205
276	08:52:10 PM	8.77	344,200.00	65.2	8,849.00	6,033	6,751.28	1.43	207
277	08:52:11 PM	8.80	344,625.00	65.3	8,889.00	6,061	6,778.56	1.44	208
278	08:52:12 PM	8.82	345,041.00	65.3	8,930.00	6,089	6,805.83	1.44	210
279	08:52:13 PM	8.85	345,449.00	65.4	8,970.00	6,116	6,833.11	1.45	211
280	08:52:14 PM	8.88	345,849.00	65.5	9,011.00	6,144	6,860.38	1.45	213
281	08:52:15 PM	8.91	346,241.00	65.6	9,052.00	6,172	6,888.34	1.46	215
282	08:52:16 PM	8.94	346,626.00	65.6	9,093.00	6,200	6,916.30	1.46	216
283	08:52:17 PM	8.97	347,002.00	65.7	9,134.00	6,228	6,944.26	1.47	218
284	08:52:18 PM	9.00	347,371.00	65.8	9,176.00	6,256	6,972.21	1.47	219
285	08:52:19 PM	9.03	347,731.00	65.9	9,217.00	6,284	7,000.17	1.48	221
286	08:52:20 PM	9.06	348,084.00	65.9	9,259.00	6,313	7,028.13	1.48	223

287	08:52:21 PM	9.09	348,429.00	66.0	9,301.00	6,342	7,056.77	1.48	224
288	08:52:22 PM	9.12	348,766.00	66.1	9,343.00	6,370	7,085.40	1.49	226
289	08:52:23 PM	9.15	349,096.00	66.1	9,385.00	6,399	7,114.04	1.49	228
290	08:52:24 PM	9.18	349,418.00	66.2	9,427.00	6,428	7,142.68	1.50	229
291	08:52:25 PM	9.25	350,039.00	66.3	9,513.00	6,486	7,199.96	1.51	233
292	08:52:26 PM	9.28	350,338.00	66.4	9,556.00	6,515	7,229.28	1.51	235
293	08:52:27 PM	9.31	350,629.00	66.4	9,599.00	6,545	7,258.60	1.52	236
294	08:52:28 PM	9.35	350,913.00	66.5	9,642.00	6,574	7,287.92	1.52	238
295	08:52:29 PM	9.38	351,190.00	66.5	9,686.00	6,604	7,317.24	1.53	240
296	08:52:30 PM	9.42	351,459.00	66.6	9,729.00	6,633	7,346.56	1.53	241
297	08:52:31 PM	9.45	351,721.00	66.6	9,773.00	6,663	7,376.57	1.54	243
298	08:52:32 PM	9.49	351,976.00	66.7	9,817.00	6,693	7,405.89	1.54	245
299	08:52:33 PM	9.52	352,223.00	66.7	9,861.00	6,723	7,435.89	1.55	247
300	08:52:34 PM	9.56	352,463.00	66.8	9,905.00	6,753	7,465.89	1.55	248
301	08:52:35 PM	9.59	352,696.00	66.8	9,950.00	6,784	7,495.90	1.56	250
302	08:52:36 PM	9.63	352,922.00	66.8	9,995.00	6,815	7,526.58	1.56	252
303	08:52:37 PM	9.67	353,141.00	66.9	10,039.00	6,845	7,556.58	1.57	254
304	08:52:38 PM	9.71	353,352.00	66.9	10,085.00	6,876	7,587.27	1.57	256
305	08:52:39 PM	9.74	353,557.00	67.0	10,130.00	6,907	7,617.95	1.58	257
306	08:52:40 PM	9.78	353,754.00	67.0	10,175.00	6,938	7,648.64	1.58	259
307	08:52:41 PM	9.82	353,945.00	67.0	10,221.00	6,969	7,679.32	1.59	261
308	08:52:42 PM	9.86	354,129.00	67.1	10,267.00	7,000	7,710.01	1.60	263
309	08:52:43 PM	9.90	354,306.00	67.1	10,313.00	7,032	7,741.37	1.60	265
310	08:52:44 PM	9.94	354,476.00	67.1	10,359.00	7,063	7,772.74	1.61	267
311	08:52:45 PM	9.98	354,639.00	67.2	10,405.00	7,094	7,804.11	1.61	268
312	08:52:46 PM	10.02	354,796.00	67.2	10,452.00	7,126	7,835.47	1.62	270
313	08:52:47 PM	10.06	354,946.00	67.2	10,498.00	7,158	7,866.84	1.62	272
314	08:52:48 PM	10.10	355,089.00	67.3	10,545.00	7,190	7,898.89	1.63	274
315	08:52:49 PM	10.19	355,356.00	67.3	10,640.00	7,255	7,962.98	1.64	278
316	08:52:50 PM	10.23	355,479.00	67.3	10,687.00	7,287	7,995.03	1.65	280
317	08:52:51 PM	10.27	355,596.00	67.3	10,735.00	7,319	8,027.08	1.65	282
318	08:52:52 PM	10.31	355,707.00	67.4	10,783.00	7,352	8,059.81	1.66	284
319	08:52:53 PM	10.36	355,811.00	67.4	10,831.00	7,385	8,091.86	1.66	285

Press to ATO

320	08:52:54 PM	10.40	355,909.00	67.4	10,879.00	7,418	8,124.59	1.67	287
321	08:52:55 PM	10.45	356,000.00	67.4	10,928.00	7,451	8,157.32	1.67	289
322	08:52:56 PM	10.49	356,085.00	67.4	10,977.00	7,484	8,190.73	1.68	291
323	08:52:57 PM	10.53	356,164.00	67.5	11,026.00	7,518	8,223.46	1.69	293
324	08:52:58 PM	10.58	356,237.00	67.5	11,075.00	7,551	8,256.87	1.69	295
325	08:52:59 PM	10.62	356,303.00	67.5	11,124.00	7,585	8,290.28	1.70	297
326	08:53:00 PM	10.67	356,363.00	67.5	11,174.00	7,619	8,323.70	1.70	299
327	08:53:01 PM	10.72	356,418.00	67.5	11,223.00	7,652	8,357.11	1.71	301
328	08:53:02 PM	10.76	356,466.00	67.5	11,273.00	7,686	8,391.20	1.72	303
329	08:53:03 PM	10.81	356,508.00	67.5	11,323.00	7,720	8,425.30	1.72	305
330	08:53:04 PM	10.86	356,545.00	67.5	11,374.00	7,755	8,459.39	1.73	307
331	08:53:05 PM	10.90	356,575.00	67.5	11,424.00	7,789	8,493.48	1.74	309
332	08:53:06 PM	10.95	356,600.00	67.5	11,475.00	7,824	8,527.58	1.74	311
333	08:53:07 PM	11.00	356,619.00	67.5	11,526.00	7,859	8,562.35	1.75	313
334	08:53:08 PM	11.05	356,632.00	67.5	11,577.00	7,893	8,597.13	1.76	315
335	08:53:09 PM	11.10	356,639.00	67.5	11,629.00	7,929	8,631.91	1.76	317
336	08:53:10 PM	11.15	356,641.00	67.5	11,681.00	7,964	8,666.68	1.77	320
337	08:53:11 PM	11.20	356,638.00	67.5	11,733.00	8,000	8,701.46	1.78	322
338	08:53:12 PM	11.25	356,628.00	67.5	11,785.00	8,035	8,736.92	1.78	324
339	08:53:13 PM	11.35	356,594.00	67.5	11,890.00	8,107	8,807.83	1.80	328
340	08:53:14 PM	11.40	356,568.00	67.5	11,942.00	8,142	8,843.97	1.80	330
341	08:53:15 PM	11.45	356,537.00	67.5	11,995.00	8,178	8,879.43	1.81	332
342	08:53:16 PM	11.50	356,501.00	67.5	12,049.00	8,215	8,915.57	1.82	334
343	08:53:17 PM	11.55	356,460.00	67.5	12,102.00	8,251	8,951.71	1.82	337
344	08:53:18 PM	11.61	356,413.00	67.5	12,156.00	8,288	8,987.85	1.83	339
345	08:53:19 PM	11.66	356,362.00	67.5	12,210.00	8,325	9,024.67	1.84	341
346	08:53:20 PM	11.71	356,305.00	67.5	12,264.00	8,362	9,061.49	1.84	343
347	08:53:21 PM	11.77	356,243.00	67.5	12,318.00	8,399	9,098.31	1.85	345
348	08:53:22 PM	11.82	356,177.00	67.5	12,373.00	8,436	9,135.13	1.86	348
349	08:53:23 PM	11.88	356,105.00	67.4	12,428.00	8,474	9,171.95	1.87	350
350	08:53:24 PM	11.93	356,029.00	67.4	12,483.00	8,511	9,209.46	1.87	352
351	08:53:25 PM	11.99	355,948.00	67.4	12,539.00	8,549	9,246.96	1.88	354
352	08:53:26 PM	12.04	355,862.00	67.4	12,594.00	8,587	9,284.46	1.89	357

Roll heads up

353	08:53:27 PM	12.10	355,772.00	67.4	12,650.00	8,625	9,322.65	1.90	359
354	08:53:28 PM	12.15	355,678.00	67.4	12,706.00	8,663	9,360.15	1.90	361
355	08:53:29 PM	12.21	355,579.00	67.3	12,762.00	8,701	9,398.34	1.91	363
356	08:53:30 PM	12.27	355,477.00	67.3	12,819.00	8,740	9,436.52	1.92	366
357	08:53:31 PM	12.33	355,370.00	67.3	12,875.00	8,778	9,475.39	1.93	368
358	08:53:32 PM	12.38	355,260.00	67.3	12,932.00	8,817	9,513.58	1.94	370
359	08:53:33 PM	12.44	355,147.00	67.3	12,990.00	8,857	9,552.44	1.94	373
360	08:53:34 PM	12.50	355,030.00	67.2	13,047.00	8,896	9,591.31	1.95	375
361	08:53:35 PM	12.56	354,910.00	67.2	13,105.00	8,935	9,630.18	1.96	377
362	08:53:36 PM	12.62	354,787.00	67.2	13,163.00	8,975	9,669.04	1.97	380
363	08:53:37 PM	12.74	354,533.00	67.1	13,279.00	9,054	9,748.14	1.98	384
364	08:53:38 PM	12.80	354,402.00	67.1	13,338.00	9,094	9,787.69	1.99	387
365	08:53:39 PM	12.86	354,268.00	67.1	13,396.00	9,134	9,827.92	2.00	389
366	08:53:40 PM	12.92	354,131.00	67.1	13,456.00	9,175	9,867.47	2.01	391
367	08:53:41 PM	12.98	353,993.00	67.0	13,515.00	9,215	9,907.70	2.02	394
368	08:53:42 PM	13.05	353,852.00	67.0	13,574.00	9,255	9,947.93	2.03	396
369	08:53:43 PM	13.11	353,710.00	67.0	13,634.00	9,296	9,988.85	2.04	399
370	08:53:44 PM	13.17	353,565.00	67.0	13,695.00	9,338	10,029.76	2.04	401
371	08:53:45 PM	13.24	353,419.00	66.9	13,755.00	9,378	10,069.99	2.05	404
372	08:53:46 PM	13.30	353,270.00	66.9	13,816.00	9,420	10,111.58	2.06	406
373	08:53:47 PM	13.36	353,120.00	66.9	13,877.00	9,462	10,152.50	2.07	409
374	08:53:48 PM	13.43	352,969.00	66.9	13,938.00	9,503	10,194.09	2.08	411
375	08:53:49 PM	13.49	352,815.00	66.8	14,000.00	9,545	10,235.69	2.09	413
376	08:53:50 PM	13.56	352,660.00	66.8	14,062.00	9,588	10,277.96	2.10	416
377	08:53:51 PM	13.63	352,503.00	66.8	14,124.00	9,630	10,320.24	2.11	419
378	08:53:52 PM	13.69	352,344.00	66.7	14,187.00	9,673	10,362.52	2.12	421
379	08:53:53 PM	13.76	352,184.00	66.7	14,249.00	9,715	10,404.79	2.13	424
380	08:53:54 PM	13.83	352,022.00	66.7	14,313.00	9,759	10,447.75	2.14	426
381	08:53:55 PM	13.90	351,857.00	66.6	14,376.00	9,802	10,490.71	2.15	429
382	08:53:56 PM	13.97	351,691.00	66.6	14,441.00	9,846	10,534.35	2.16	431
383	08:53:57 PM	14.04	351,523.00	66.6	14,505.00	9,890	10,577.99	2.17	434
384	08:53:58 PM	14.11	351,352.00	66.5	14,570.00	9,934	10,621.63	2.18	436
385	08:53:59 PM	14.18	351,178.00	66.5	14,635.00	9,978	10,665.95	2.19	439

Press to MECo

386	08:54:00 PM	14.25	351,001.00	66.5	14,701.00	10,023	10,710.27	2.20	442
387	08:54:01 PM	14.39	350,638.00	66.4	14,833.00	10,113	10,800.28	2.22	447
388	08:54:02 PM	14.47	350,452.00	66.4	14,900.00	10,159	10,845.29	2.23	450
389	08:54:03 PM	14.54	350,263.00	66.3	14,967.00	10,205	10,890.29	2.24	452
390	08:54:04 PM	14.61	350,072.00	66.3	15,034.00	10,250	10,935.98	2.25	455
391	08:54:05 PM	14.69	349,878.00	66.3	15,102.00	10,297	10,981.66	2.26	458
392	08:54:06 PM	14.76	349,681.00	66.2	15,170.00	10,343	11,028.03	2.27	460
393	08:54:07 PM	14.84	349,483.00	66.2	15,238.00	10,390	11,074.40	2.28	463
394	08:54:08 PM	14.92	349,282.00	66.2	15,307.00	10,437	11,120.76	2.29	466
395	08:54:09 PM	14.99	349,080.00	66.1	15,376.00	10,484	11,167.13	2.30	469
396	08:54:10 PM	15.07	348,875.00	66.1	15,445.00	10,531	11,214.18	2.32	471
397	08:54:11 PM	15.15	348,669.00	66.0	15,515.00	10,578	11,261.23	2.33	474
398	08:54:12 PM	15.23	348,460.00	66.0	15,585.00	10,626	11,308.96	2.34	477
399	08:54:13 PM	15.31	348,250.00	66.0	15,655.00	10,674	11,356.69	2.35	480
400	08:54:14 PM	15.39	348,039.00	65.9	15,726.00	10,722	11,404.43	2.36	482
401	08:54:15 PM	15.47	347,826.00	65.9	15,797.00	10,771	11,452.84	2.37	485
402	08:54:16 PM	15.55	347,611.00	65.8	15,869.00	10,820	11,501.25	2.39	488
403	08:54:17 PM	15.63	347,395.00	65.8	15,941.00	10,869	11,549.67	2.40	491
404	08:54:18 PM	15.71	347,178.00	65.8	16,013.00	10,918	11,598.76	2.41	494
405	08:54:19 PM	15.80	346,959.00	65.7	16,086.00	10,968	11,647.86	2.42	497
406	08:54:20 PM	15.88	346,740.00	65.7	16,159.00	11,018	11,697.63	2.44	500
407	08:54:21 PM	15.96	346,519.00	65.6	16,232.00	11,067	11,747.41	2.45	502
408	08:54:22 PM	16.05	346,298.00	65.6	16,306.00	11,118	11,797.19	2.46	505
409	08:54:23 PM	16.13	346,076.00	65.5	16,380.00	11,168	11,847.65	2.47	508
410	08:54:24 PM	16.22	345,854.00	65.5	16,455.00	11,219	11,898.11	2.49	511
411	08:54:25 PM	16.39	345,408.00	65.4	16,606.00	11,322	12,000.39	2.51	517
412	08:54:26 PM	16.48	345,185.00	65.4	16,682.00	11,374	12,051.53	2.53	520
413	08:54:27 PM	16.56	344,961.00	65.3	16,758.00	11,426	12,103.35	2.54	523
414	08:54:28 PM	16.65	344,738.00	65.3	16,835.00	11,478	12,155.18	2.55	526
415	08:54:29 PM	16.74	344,515.00	65.2	16,912.00	11,531	12,207.68	2.57	529
416	08:54:30 PM	16.83	344,292.00	65.2	16,989.00	11,583	12,260.18	2.58	532
417	08:54:31 PM	16.92	344,070.00	65.2	17,068.00	11,637	12,313.37	2.60	535
418	08:54:32 PM	17.01	343,848.00	65.1	17,146.00	11,690	12,366.56	2.61	538

1-eng Press to
MECO

419	08:54:33 PM	17.10	343,627.00	65.1	17,225.00	11,744	12,419.74	2.62	541
420	08:54:34 PM	17.19	343,407.00	65.0	17,304.00	11,798	12,473.61	2.64	544
421	08:54:35 PM	17.28	343,188.00	65.0	17,384.00	11,853	12,527.48	2.65	547
422	08:54:36 PM	17.37	342,971.00	65.0	17,464.00	11,907	12,582.03	2.67	551
423	08:54:37 PM	17.47	342,754.00	64.9	17,545.00	11,963	12,636.58	2.68	554
424	08:54:38 PM	17.56	342,539.00	64.9	17,626.00	12,018	12,691.81	2.70	557
425	08:54:39 PM	17.65	342,326.00	64.8	17,708.00	12,074	12,747.05	2.72	560
426	08:54:40 PM	17.75	342,114.00	64.8	17,790.00	12,130	12,802.96	2.73	563
427	08:54:41 PM	17.84	341,904.00	64.8	17,873.00	12,186	12,858.87	2.75	566
428	08:54:42 PM	17.94	341,695.00	64.7	17,956.00	12,243	12,915.47	2.76	570
429	08:54:43 PM	18.03	341,489.00	64.7	18,040.00	12,300	12,972.07	2.78	573
430	08:54:44 PM	18.13	341,285.00	64.6	18,124.00	12,357	13,029.34	2.80	576
431	08:54:45 PM	18.22	341,083.00	64.6	18,209.00	12,415	13,086.62	2.81	579
432	08:54:46 PM	18.32	340,883.00	64.6	18,294.00	12,473	13,144.58	2.83	583
433	08:54:47 PM	18.42	340,686.00	64.5	18,380.00	12,532	13,202.54	2.85	586
434	08:54:48 PM	18.52	340,491.00	64.5	18,466.00	12,590	13,261.18	2.86	589
435	08:54:49 PM	18.62	340,300.00	64.5	18,553.00	12,650	13,319.82	2.88	592
436	08:54:50 PM	18.72	340,111.00	64.4	18,641.00	12,710	13,379.15	2.90	596
436	08:54:50 PM	18.81	339,926.00	64.4	18,729.00	12,770	13,438.47	2.92	599
437	08:54:51 PM	18.91	339,744.00	64.3	18,817.00	12,830	13,498.48	2.94	602
438	08:54:52 PM	19.02	339,566.00	64.3	18,906.00	12,890	13,559.16	2.95	606
439	08:54:53 PM	19.12	339,392.00	64.3	18,996.00	12,952	13,619.85	2.97	609
440	08:54:54 PM	19.22	339,222.00	64.2	19,086.00	13,013	13,681.22	2.99	613
441	08:54:55 PM	19.32	339,056.00	64.2	19,176.00	13,075	13,741.91	2.94	616
442	08:54:56 PM	19.42	338,894.00	64.2	19,265.00	13,135	13,802.59	2.96	619
443	08:54:57 PM	19.52	338,736.00	64.2	19,354.00	13,196	13,862.60	2.94	623
444	08:54:58 PM	19.62	338,583.00	64.1	19,443.00	13,257	13,923.29	2.96	626
445	08:54:59 PM	19.72	338,433.00	64.1	19,533.00	13,318	13,983.97	2.95	630
446	08:55:00 PM	19.82	338,289.00	64.1	19,623.00	13,379	14,044.66	2.97	633
447	08:55:01 PM	19.92	338,148.00	64.0	19,712.00	13,440	14,106.03	2.96	637
448	08:55:02 PM	20.02	338,013.00	64.0	19,802.00	13,501	14,166.72	2.98	640
449	08:55:03 PM	20.12	337,882.00	64.0	19,892.00	13,563	14,227.41	2.97	644
450	08:55:04 PM	20.22	337,756.00	64.0	19,982.00	13,624	14,288.77	2.99	648

Negative Moron
3G limiting

451	08:55:05 PM	20.32	337,636.00	63.9	20,072.00	13,685	14,350.14	2.97	651	
452	08:55:06 PM	20.42	337,520.00	63.9	20,163.00	13,748	14,411.51	2.99	655	
453	08:55:07 PM	20.52	337,410.00	63.9	20,253.00	13,809	14,472.20	2.95	658	
454	08:55:08 PM	20.61	337,306.00	63.9	20,342.00	13,870	14,532.89	2.97	662	
455	08:55:09 PM	20.71	337,206.00	63.9	20,432.00	13,931	14,593.57	2.95	666	
456	08:55:10 PM	20.81	337,113.00	63.8	20,522.00	13,992	14,654.94	2.97	669	
457	08:55:11 PM	20.91	337,025.00	63.8	20,612.00	14,054	14,715.63	2.96	673	
458	08:55:12 PM	21.00	336,942.00	63.8	20,701.00	14,114	14,776.32	2.98	677	
459	08:55:13 PM	21.20	336,795.00	63.8	20,882.00	14,238	14,898.37	2.98	684	
460	08:55:14 PM	21.29	336,730.00	63.8	20,971.00	14,298	14,959.74	2.94	688	
461	08:55:15 PM	21.39	336,671.00	63.8	21,061.00	14,360	15,020.43	2.95	692	Negative Istres
462	08:55:16 PM	21.48	336,618.00	63.8	21,150.00	14,420	15,081.12	2.94	695	
463	08:55:17 PM	21.58	336,570.00	63.7	21,239.00	14,481	15,141.12	2.96	699	
464	08:55:18 PM	21.67	336,529.00	63.7	21,329.00	14,543	15,202.49	2.98	703	
465	08:55:19 PM	21.77	336,494.00	63.7	21,420.00	14,605	15,263.86	3.00	707	
466	08:55:20 PM	21.86	336,465.00	63.7	21,510.00	14,666	15,325.23	2.95	711	
467	08:55:21 PM	21.95	336,443.00	63.7	21,600.00	14,727	15,385.92	2.97	714	
468	08:55:22 PM	22.04	336,428.00	63.7	21,689.00	14,788	15,446.60	2.95	718	
469	08:55:23 PM	22.14	336,419.00	63.7	21,779.00	14,849	15,507.29	2.97	722	
470	08:55:24 PM	22.23	336,417.00	63.7	21,869.00	14,911	15,568.66	2.95	726	
471	08:55:25 PM	22.32	336,422.00	63.7	21,958.00	14,971	15,629.35	2.97	730	
472	08:55:26 PM	22.41	336,435.00	63.7	22,048.00	15,033	15,690.04	2.95	734	Negatie Zara
473	08:55:27 PM	22.50	336,455.00	63.7	22,138.00	15,094	15,750.72	2.97	738	23K
474	08:55:28 PM	22.59	336,483.00	63.7	22,228.00	15,155	15,812.09	2.96	742	
475	08:55:29 PM	22.68	336,519.00	63.7	22,318.00	15,217	15,872.78	2.97	746	
476	08:55:30 PM	22.76	336,562.00	63.7	22,408.00	15,278	15,934.15	2.96	750	
477	08:55:31 PM	22.85	336,614.00	63.8	22,497.00	15,339	15,994.84	2.98	754	
478	08:55:32 PM	22.94	336,675.00	63.8	22,587.00	15,400	16,056.20	2.96	758	
479	08:55:33 PM	23.02	336,744.00	63.8	22,677.00	15,462	16,116.89	2.98	762	
480	08:55:34 PM	23.11	336,822.00	63.8	22,767.00	15,523	16,177.58	2.96	766	
481	08:55:35 PM	23.19	336,908.00	63.8	22,857.00	15,584	16,238.95	2.98	770	
482	08:55:36 PM	23.28	337,003.00	63.8	22,947.00	15,646	16,299.64	2.96	774	
483	08:55:37 PM	23.44	337,220.00	63.9	23,127.00	15,768	16,421.69	2.96	782	

484	08:55:38 PM	23.52	337,341.00	63.9	23,217.00	15,830	16,483.06	2.98	786	
485	08:55:39 PM	23.60	337,471.00	63.9	23,307.00	15,891	16,544.43	2.96	791	
486	08:55:40 PM	23.68	337,610.00	63.9	23,397.00	15,953	16,605.12	2.97	795	
487	08:55:41 PM	23.76	337,758.00	64.0	23,486.00	16,013	16,666.49	2.95	799	
488	08:55:42 PM	23.84	337,915.00	64.0	23,576.00	16,075	16,727.17	2.97	803	
489	08:55:43 PM	23.92	338,081.00	64.0	23,666.00	16,136	16,787.86	2.95	807	
490	08:55:44 PM	24.00	338,257.00	64.1	23,756.00	16,197	16,849.23	2.97	812	
491	08:55:45 PM	24.07	338,442.00	64.1	23,846.00	16,259	16,910.60	2.99	816	
492	08:55:46 PM	24.15	338,637.00	64.1	23,937.00	16,321	16,971.97	3.01	820	
493	08:55:47 PM	24.19	338,738.00	64.2	23,983.00	16,352	17,003.33	3.02	822	
494	08:55:48 PM	24.32	339,131.00	64.2	24,147.00	16,464	17,114.48	2.93	830	
495	08:55:49 PM	24.39	339,361.00	64.3	24,237.00	16,525	17,175.17	2.91	835	
496	08:55:50 PM	24.46	339,600.00	64.3	24,321.00	16,583	17,233.13	2.76	839	
497	08:55:51 PM	24.52	339,850.00	64.4	24,405.00	16,640	17,289.72	2.78	843	
498	08:55:52 PM	24.59	340,110.00	64.4	24,489.00	16,697	17,347.00	2.79	848	
499	08:55:53 PM	24.65	340,380.00	64.5	24,574.00	16,755	17,404.28	2.81	852	
500	08:55:54 PM	24.71	340,660.00	64.5	24,660.00	16,814	17,462.24	2.83	856	
501	08:55:55 PM	24.78	340,950.00	64.6	24,745.00	16,872	17,520.88	2.84	861	
502	08:55:56 PM	24.81	341,099.00	64.6	24,788.00	16,901	17,550.20	2.85	863	
503	08:55:57 PM	24.83	341,660.00	64.7	24,859.00	16,949	17,597.93	0.28	871	MECO Cmd
504	08:55:58 PM	24.82	341,969.00	64.8	24,865.00	16,953	17,602.02	0.15	876	
505	08:55:59 PM	24.79	342,279.00	64.8	24,867.00	16,955	17,603.39	0.07	880	
506	08:56:00 PM	24.77	342,589.00	64.9	24,869.00	16,956	17,604.75	0.03	884	
507	08:56:01 PM	24.75	342,900.00	64.9	24,869.00	16,956	17,604.75	0.03	889	
508	08:56:02 PM	24.72	343,211.00	65.0	24,870.00	16,957	17,605.43	0.03	893	
509	08:56:03 PM	24.70	343,522.00	65.1	24,870.00	16,957	17,606.12	0.03	898	Zero thrust
510	08:56:04 PM	24.67	343,833.00	65.1	24,871.00	16,958	17,606.12	0.02	902	
511	08:56:05 PM	24.65	344,145.00	65.2	24,871.00	16,958	17,606.12	0.01	907	
512	08:56:06 PM	24.62	344,456.00	65.2	24,871.00	16,958	17,606.12	0.01	911	
513	08:56:07 PM	24.62	344,439.00	65.2	24,869.00	16,956	17,604.75	0.01	910	
514	08:56:08 PM	24.60	344,672.00	65.3	24,869.00	16,956	17,604.75	0.01	914	