



# University of Hawaii at Manoa

Hawaii Institute of Geophysics  
2525 Correa Road • Honolulu, Hawaii 96822  
Cable Address: UNIHAW

April 17, 1979

Dr. Paul Stoffa  
Lamont-Doherty Geological  
Observatory  
Palisades, N. Y. 10964

Dear Paul:

Here is the shot log from the Caribbean cruise,  
as promised. The budget for the Hawaii experiment  
should be finished today, I'll send that directly to  
Tony Watts.

Yours sincerely,

*Gerard*

Gerard J. Fryer

Encl.

*John  
Ask Peter how to  
send a Final  
Certificate.*

DATE 14 Nov 77

ESP # 2

43318

## SHOOTING LOG

19 m

TIME

SHOT #

SHOT SIZE

FUSE LENGTH

BURN TIME

COMMENTS

1714

1

MAXI/ULSE

1714:03.15

1715

2

M

1715:02.73

1716

3

M

1716:02.68

1717

4

M

1717:02.45

1718

5

M

1718:03.46

1719

6

M

1719:02.47

1720

7

M

1720:02.42

1721

8

M

1721:02.68

1722

9

M

1722:02.77

1723

10

M

1723:02.65

1724

11

M

1724:02.72

1725

12

M

1725:02.11

1726

13

M

1726:02.51

1727

14

M

1727:02.38

1728

15

M

1728:02.88

1729

16

M

1729:02.51

1730

17

M

1730:02.45

1731

18

M

1731:04.30

1732

19

M

1732:02.98

DATE 14 NOV 97

ESP # 2

J.D 318

19 M

## SHOOTING LOG

 MAX/MISC 30 ft  
 PORT CCL 24 ft  
 STBD CCL 25 ft

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
1733	20	—	—		1733:03.09
1734	21	—	—		1734:03.63
1735	22	—	—		1735:03.21
1736	23	—	—		1736:03.30
1737	24	—	—		1737:03.06
1738	25	—	—		1738:02.83
1739	26	—	—		1739:03.03
1740	27	—	—		1740:03.26
1741	28	—	—		1741:03.52
1742	29	—	—		1742:03.06
1743	30	—	—		1743:03.52
1744	31	—	—		1744:03.76
1745	32	—	—		1745:03.20
1746	33	—	—		1746:03.23
1747	34	—	—		1747:03.10
1748	35	—	—		1748:03.05
1749	36	—	—		1749:02.53
1750	37	—	—		1750:02.96
1751	38	—	—		1751:02.45

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J.D. 318

ESP # 2

## SHOOTING LOG

16 M  
9 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
1752	39	M	—	—	1752:02.37
1753	40	M	—	—	1753:03.08
1755	41	M	—	—	1755:04.94
1756	42	M	—	—	1756:02.28
1757	43	M	—	—	1757:02.39
1758	44	M	—	—	1758:01.84
1759	45	M	—	—	1759:03.30
1800	46	M	—	—	1800:04.76
1801	47	M	—	—	1801:04.56
1802	48	M	—	—	1802:04.39
1803	49	M	—	—	1803:04.69
1804	50	M	—	—	1804:04.25
1805	51	M	—	—	1805:04.05
1806	52	M	—	—	1806:04.15
1807	53	M	—	—	1807:06.77
1808	54	M	—	—	1808:03.92
1810	55	3	48	94	1810:12.43
1812	56	3	48	93	1812:03.34
1814	57	3	48	95	1814:04.53

CRUISE MW 77-10-20 Leg 3

MCS LINE # 102/

DATE 14 NOV 77

103

ESP # 2

JD 318

## SHOOTING LOG

GMT TIME	SHOT #	points SHOT SIZE	inches FUSE LENGTH	seconds BURN TIME	159 lbs COMMENTS
1816	58	3	48	96	1816:04 96
1818	59	3	48	98	1818:05 89
1820	60	3	48	96	1820:02 45
1822	61	3	48	98	1822:04 82
1824	62	3	48	95	1824:01 88
1826	63	3	48	95	1826:01 77
1828	64	3	48	97	1828:03 81
1832	65	9	48	92	1831:59 41
1836	66	9	48	93	1836:01 81
1840	67	9	48	91	1839:58.32
1844	68	9	48	90	1843:59 39
1848	69	9	48	90	1848:02 41
1853	70	9	48	90	1853:00 64
1856	71	9	48	92	1856:04 39
1900	72	30	48	93	1900:09 80
1904	73	30	48	94	END of ESP2 1904:06 15
0007	74	3	48	96	BEGIN. CO 5 0007:03.08
0009	75	3	48	95	0009:04.26
0011	76	3	48	95	0011:04.80



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ESP # 2 103

## SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	57 lbs. Datum shot break time COMMENTS
00 53	96	3	48	97	0053:02.12
00 59	97	3	48	98	0055:05.08 BT Approximate
00 57	98	3	48	97	0057:02.5
00 59	99	3	48	98	0059:04.88
01 01	100	3	48	97	0101:02.51
01 03	101	3	48	98	0103:04.12
01 05	102	3	48	98	0105:05.71
01 07	103	3	48	96	0107:03.38
01 09	104	3	48	94	0109:02.50
01.11	105	3	48	93	0111:02.02
01 13	106	3	48	98	0113:03.08
01 15	107	3	48	94	0115:03.18
01 17	108	3	48	98	0117:03.36
01 19	109	3	48	97	0119:02.39
01 21	110	3	48	97	0121:03.89
01 23	111	3	48	97	0123:03.15
01 25	112	3	48	97	0125:02.91
01 27	113	3	48	95	0127:05.27
01 29	114	3	48	96	0129:02.99

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ESP # 103

SHOOTING LOG

57 lbs.

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
01.31	115	3	48	98	0131:05.56
01 33	116	3	48	97	0133:02.17
01 35	117	3	48	96	0135:00.35
01 37	118	3	48	95	0137:01.34
01 39	119	3	48	97	0139:02.75
01 41	120	3	48	98	0141:01.10
01 43	121	3	48	100	0143:03.88
01 45	122	3	48	92	0145:04.65
01 47	123	3	48	96	0147:03.02
01 49	124	3	48	97	0149:04.49
01 51	125	3	48	97	0151:01.95
01 53	126	3	48	98	0153:02.61
01 55	127	3	48	missed	0155:01.62
01 57	128	3	48	98	0157:01.86
01 59	129	3	48	95	0158:59.90
02 01	130	3	48	97.5	0201:03.40
02 03	131	3	48	95	0203:01.74
02 05	132	3	48	97.5	0205:03.66
02 07	133	3	48	97.5	0207:03.24



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ESP # 103

## SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
02 08	134	3	48	87.5	0209:01.36
02 11	135	3	48	86	0211:00.16
02 13	136	3	48	89	0213:03.33
02 15	137	3	48	88	0215:03.40
02 17	138	3	48	87	0217:00.16
02 19	139	3	48	89	0219:04.85
02 21	140	3	48	101	0221:04.79
02 23	141	3	48	97	0223:02.32
02 25	142	3	48	97	0224:59.66
02 27	143	3	48	97	0227:00.46
02 29	144	3	48	98	0229:02.41
02 31	145	3	48	95	0231:01.53
02 33	146	3	48	95	0233:02.23
02 35	147	3	48	87.5	0235:03.54
02 37	148	3	48	97	0237:04.60
02 39	149	3	48	97	0239:03.65
02 41	150	3	48	86	camera off 0241:02.06
02 43	151	3	48	96	0243:02.31
02 45	152	3	48	97	0245:06.70

DATE 15 NOV 97

ESP # 103

## SHOOTING LOG

57 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0247	153	3	48	37	Camera ON 0247:03.84
0249	154	3	48	38.5	0249:04.46
0251	155	3	48	39	0251:06.07
0253	156	3	48	39	0253:04.96
0255	157	3	48	39	New Roll 0255:01.95
0257	158	3	48	36	0257:02.34
2.58	159	3	48	39	0259:05.57
0301	160	3	48	36	0301:01.52
0303	161	3	48	36.5	0303:03.94
0305	162	3	48	37	0305:02.63
0307	163	3	48	39	0306:59.02
0309	164	3	48	35	0309:00.17
0311	165	3	48	37	0310:59.88
0313	166	3	48	36	0313:01.29
0315	167	3	48	36	0314:59.71
0317	168	3	48	36	0317:02.56
0319	169	3	48	36	0319:04.47
0321	170	3	48	36	0321:03.44
0323	171	3	48	37	0323:02.83

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ESP # 103

## SHOOTING LOG

57 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0325	172	3	48	95	0324:50.97
0327	173	3	48	95	0327:04.38
0329	174	3	48	95	0329:02.26
0331	175	3	48	93	0331:00.01
0333	176	3	48	95	0333:00.07
0335	177	3	48	95	0335:01.94
0337	178	3	48	95	0337:00.76
0339.24	179	3	48	94	late 24 sec <sup>0339:26.70</sup>
0341	180	3	48	95	0341:03.31
0343	181	3	48	95	0343:01.17
0345	182	3	48	95	0345:01.72
0347	183	3	48	95	0347:03.15
0349	184	3	48	95	0349:03.28
0351	185	3	48	96	0351:04.84
0353	186	3	48	96	0353:05.65
0355	187	3	48	93	0355:00.00
0357	188	3	48	96	0357:02.09
0359	189	3	48	97	0359:01.60
0401	190	3	48	93	0400:58.40

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ESP #

103

## SHOOTING LOG

54 lbs

TIME (Z)	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0403	191	3	48	95	0403:00.02
0405	192	3	48	98	0405:04.2
0407	193	3	48	95	0407:02.73
0409	195	3	48	95	0409:00.22
0411	196	3	48	98	0411:02.60
0413	197	3	48	97	0413:02.09
0415	198	3	48	98	0415:03.46
0417	199	3	48	97	0417:03.17
0419	200	3	48	96	0418:59.75
0421	201	3	48	100	0421:06.81
0423	202	3	48	96	0423:01.61
0425	203	3	48	97	0425:02.68
0427	204	3	48	96	
0429	205	3	48	98	0427:01.75
0431	206	3	48	98	0429:04.49
0433	207	3	48	95	0431:04.39
0435	208	3	48	98	0433:01.37
0437	209	3	48	96	0435:04.65
					0437:01.65

DATE 15 NW 77

ESP # 103

## SHOOTING LOG

54 lbs.

TIME (Z)	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0439	210	3 lb	48"	97 sec	Shot record no good
0441	211	3	48	95	0441:01.63
0443	212	3	48	97	0443:02.57
0445	213	3	48	96	0445:01.28
0447	214	3	48	96	0447:01.81
0449	215	3	48	97	0449:02.73
0451	216	3	48	98	0451:04.14
0453	217	3	48	97	0453:03.59
0455	218	3	48	96	0455:02.14
0457	219	3	48	97	0457:03.45
0459	220	3	48	96	0459:01.34
0501	221	3	48	99	0501:03.70
0503	222	3	48	97	0503:01.83
0505	223	3	48	96	0505:01.51
0507	224	3	48	97	0507:03.93
0509	225	3	48	97	0509:03.05
0511	226	3	48	96	0511:02.59
0513	227	3	48	100	0513:05.53

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ESP # 103

## SHOOTING LOG

54 lbs

TIME (Z)	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0515 Z	228	3 lb	48 "	101 sec	0515:06.35
0517	229	3 lb	48 "	97	0517:03.02
0519	230	3 lb	48	97	0519:02.73
0521	231	3	48	97	0521:03.20 Missed shot break
0523	232	3	48	97	0523:02.92
0525	233	3	48	97	0525:02.62
0527	234	3	48	99	0527:04.77
0529	235	3	48	98	0529:03.87
0531	236	3	48	101	0531:07.56
0533	237	3	48	100 sec	0533:06.13
0535	238	3	48	100	0535:05.34
0537	239	3	48	102	0537:05.86
0539	240	3	48	103	0539:06.36
0541	241	3	48	99	0541:01.29
0543	242	3	48	96	0542:58.36
0545	243	3	48	98	0545:00.54
0547	244	3	48	99	0547:02.55
0549	245	3	48	99	0549:01.12

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ESP # 103

SHOOTING LOG

54 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0551	246	3	48	100	0551:03.08 New Roll
0553	247	3	48	99	0553:02.75
0555	248	3	48	98	0555:01.67
0557	249	3	48	100	0557:03.51
0559	250	3	48	99	0559:02.36
0601	251	3	48	99	0601:02.76
0603	252	3	48	98	0603:01.98
0605	253	3	48	99	0605:02.71
0607	254	3	48	98	0607:00.23
0609	255	3	48	96	0608:59.48
0611	256	3	48	97	0610:59.86
0613	257	3	48	99	0613:01.85
0615	258	3	48	98	0615:01.71
0617	259	3	48	98	0617:02.00
0619	260	3	48	97	0619:01.49
0621	261	3	48	100	0621:03.50
0623	262	3	48	97	0623:01.23
0625	263	3	48	100	0625:04.48

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ESP # 103

## SHOOTING LOG

54 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0627Z	264	3 lb	48 "	98 sec	0627:02.75
0629	265	3	48	101	0629:05.73
0631	266	3	48	97	0631:02.44
0633	267	3	48	99	0633:03.30
0635	268	3	48	96	0635:03.90
0637	269	3	48	97	0637:00.72
0639	270	3	48	99	0639:03.47
0641	271	3	48	97	0641:00.47
0643	272	3	48	96	0642:59.89
0645	273	3	48	98	0645:01.81
0647	274	3	48	100	0647:04.09
0649	275	3	48	99	0649:02.55
0651	276	3	48	100	0651:03.84
0653	277	3	48	97	0653:00.06
0655	278	3	48	102	0655:05.48
0657	279	3	48	97	0657:00.77
0659	280	3	48	104	0659:07.64
0701	281	3	48	100	0701:03.77



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ESP # 102

## SHOOTING LOG

54 lbs.

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
07032	282	3 1/2	48 "	97 sec	0702:59.20
0705	283	3	48	97	0704:58.89
0707	284	3	48	97	0707:01.66
0709	285	3	48	98	0709:02.71
0711	286	3	48	94	0711:01.33
0713	287	3	48	102	0713:07.48
0715	288	3	48	98	0715:02.97
0717	289	3	48	98	0717:01.61
0719	290	3	48	99	0719:02.50
0721	291	3	48	98	0721:02.28
0723	292	3	48	99	0723:04.31
0725	293	3	48	99	0725:03.61
0727	294	3	48	100	0727:04.11
0729	295	3	48	96	0729:00.46
0731	296	3	48	97	0731:01.79
0733	297	3	48	100	0733:04.37
0735	298	3	48	98	0735:02.31
0737	299	3	48	96	0737:00.05

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ESP # 103

SHOOTING LOG

54 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
07392	300	3 lb	48"	97 sec	0739:02.52
0741	301	3	48	98	0741:01.59
0743	302	3	48	101	0743:05.0
0745	303	3	48	~97	0745:02.8
0747	304	3	48	97	0747:01.87
0749	305	3	48	96	0749:00.60
0751	306	3	48	96	0751:00.9
0753	307	3	48	97	0753:01.42
0755	308	3	48	100	0755:04.58
0757	309	3	48	98	0757:02.54
0759	310	3	48	98	0759:01.98
0801	311	3	48	100	0801:04.49
0803	312	3	48	97	0803:02.11
0805	313	3	48	97	0805:02.42
0807	314	3	48	99	0807:04.08
0809	315	3	48	96	0809:00.68
0811	316	3	48	96	0811:01.92
0813	317	3	48	97	0813:03.41

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ESP # 103

SHOOTING LOG

54 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
08152	318	3 lb	48"	100 sec	0815:04.01
0817	319	3	48	99	0817:03.72
0819	320	3	48	99	0819:03.50
0821	321	3	48	96	0821:00.91
0823	322	3	48	96	0823:01.30
0825	323	3	48	96	0825:00.45
0827	324	3	48	96	0827:00.96
0829	325	3	48	97	0829:00.57
0831	326	3	48	97	0831:00.45
0833	327	3	48	96	0833:00.42
0835	328	3	48	97	0835:00.68
0837	329	3	48	96	0836:59.71
0839	330	3	48	98	0839:02.67
0841	331	3	48	97	0841:01.93
0843	332	3	48	98	0843:02.89
0845	333	3	48	97	0845:01.99
0847	334	3	48	98	0847:02.77
0849	335	3	48	96	0848:59.91

RUISE MW 77-10-20

MCS LINE # 605

DATE 15 Nov 77

ESP # 103

SHOOTING LOGDATUM 54 lbs  
SHOT BREAK TIME  
COMMENTS

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
08512	336	3 lb	48"	95	0850:59.42
0853	337	3	48	98	0853:02.02 NEW ROLL
0855	338	3	48	96	0854:52.94
0857	339	3	48	99	0857:03.04
0859	340	3	48	97	0859:01.29
0901	341	3	48	99	0901:03.86
0903	342	3	48	99	0903:03.14
0905	343	3	48	99	0905:03.27
0907	344	3	48	97	0907:01.60
0909	345	3	48	97	0909:00.93
0911	346	3	48	96	0910:54.93
0913	347	3	48	97	0913:00.75
0915	348	3	48	99	0915:04.42
0917	349	3	48	98	0917:02.23
0919	350	3	48	99	0919:04.52
0921	351	3	48	97	0921:02.14
0923	352	3	48	97	0923:00.94
0925	352	3	48	100	0925:03.42

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ESP # 103

SHOOTING LOG54 lbs  
DATUM shot break time

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0927	353	3	48	99	0927:03.28
0929	354	3	48	98	0929:02.47
0931	355	3	48	96	0931:00.49
0933	356	3	48	97	0933:01.10
0935	357	3	48	97	0935:01.24
0937	358	3	48	97	0937:01.17
0939	359	3	48	99	0939:03.01
0941	360	3	48	97	0941:01.56
0943	361	3	48	97	0943:01.48
0945	362	3	48	97	0945:02.01
0947	363	3	48	97	0947:01.81
0949	364	3	48	96	0949:00.87
0951	365	3	48	96	0950:59.64
0953	366	3	48	97	0953:01.09
0955	367	3	48	100	0955:04.11
0957	368	3	48	96	0956:58.81
0959	369	3	48	97	0959:00.62
1001	370	3	48	97	1001:00.91

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ESP # 183

## SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	54 lbs DATUM shot break time COMMENTS
1003Z	371	3 lb	48"	94 sec	1002:58.60
1005	372	3	48	95	1004:59.87
1007	373	3	48	98	1007:01.50
1009	374	3	48	99	1009:02.95
1011	375	3	48	96	1011:00.09
1013	376	3	48	96	1013:00.03
1015	377	3	48	98	1015:02.07
1017	378	3	48	96	1017:01.11
1019	379	3	48	98	1019:01.48
1021	380	3	48	98	1021:01.89
1023	381	3	48	97	1023:01.23
1025	382	3	48	96	1025:00.72
1027	383	3	48	97	1027:00.65
1029	384	3	48	98	1029:01.98
1031	385	3	48	94	1030:57.28
1033	386	3	48	95	1032:58.99
1035	387	3	48	95	1034:58.55
1039	388	3	48	97	1039:00.07 (Missed Shot at 1037Z)

DATE 15 Nov 77

ESP # 103

## SHOOTING LOG

DATH  
Shot break time

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
10412	389	3 lb	48 "	98 sec	1041:00.79
1043	390	3	48	97	1042:59.66
1045	391	3	48	99	1045:01.57
1047	392	3	48	97	1047:00.83
1049	393	3	48	97	1049:01.09
1051	394	3	48	98	1051:01.22
1053	395	3	48	96	1053:00.11
1056	396	3	48	97	1056:00.92
1057	397	3	48	96	1056:59.20
1059	398	3	48	99	1059:03.72
1101	399	3	48	95	1100:59.92
1103	400	3	48	98	1103:01.63
1105	401	3	48	99	1105:01.73
1107	402	3	48	98	1107:01.82
1109	403	3	48	98	1109:01.40
1111	404	3	48	95	1110:56.35
1113	405	3	48	94	1112:57.40
1115	404	3	48	97	1115:00.42

DATE

15 Nov 77

ESP # 103

SHOOTING LOG
 DATUM 54 lbs  
 Shot break time  
 COMMENTS

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
1117Z	405	3 lb	48"	97sec	1117:00.88
1119Z	406	3 lb	48"	95	1118:57.86
1121	407	3	48	97	1120:59.89
1123	408	3	48	100	1123:02.80
1125	409	3	48	97	1125:00.61
1127	410	3	48	96	1126:59.62
1129	411	3	48	97	1129:01.15
1131	412	3	48	97	1131:01.30
1133	413	3	48	100	1133:03.50
1135	414	3	48	96	1134:59.98
1137	415	3	48	97	1137:01.26
1139	416	3	48	97	1139:00.70
1141	417	3	48	96	1141:00.20
1143	418	3	48	96	1143:01.15
1145	419	3	48	96	1145:01.69
1147	420	3	48	99	1147:02.41
1149	421	3	48	97	1149:01.46
1151	422	3	48	98	1151:01.62



DATE 15 Nov 77

ESP # 103

SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	Shot Break Time & COMMENTS
1153	423	3	48	97	1152:59.91
1155	424	3	48	96	1155:00.33
1157	425	3	48	95	1156:58.96
1159	426	3	48	95	1158:57.85
1201	427	3	48	~97	1201:06.65
1203	428	3	48	96	1203:02.89
1205	429	3	48	97	1205:03.97
1207	430	3	48	94	New paper Roll (5) 1207:01.87
1209	431	3	48	96	1209:05.56
1211	432	3	48	95	1211:04.24
1213	433	3	48	94	1213:02.24
1215	434	3	48	94	1215:00.89
1217	435	3	48	94	1216:59.39
1219	436	3	48	<del>95</del>	mist fire
1221	437	3	48	95	part source phone preconnected thru way 1221:06.31
1223	438	3	48	95	1223:02.74
1225	439	3	48	94	1225:02.13
1227	440	3	48	95	1227:02.76

DATE

15 Nov 77

Vancouver  
Basin

MCS LINE # C05

ESP # 103

## SHOOTING LOG

57 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
1229	441	3	48	96	1229:03.21
1231	442	3	48	1231:32.85	Red fuse liter - ~30 secs. late
1233	443	3	48		NO PAPER 1233:04.73
1235	444	3	48	95	1235:03.33
1237	445	3	48	95	1237:04.85
1239	446	3	48	96	1239:03.82
1241	447	3	48	95.5	1241:02.94
1243	448	3	48	96.5	1243:06.61
1245	449	3	48	98	1245:07.45
1247	450	3	48	96	1247:03.57
1249	451	3	48	94.0	1249:00.92
1251	452	3	48	96.0	1251:03.61
1253	453	3	48	94.0	1253:01.8:
1255	454	3	48	94	1255:01.52
1257	455	3	48	94.5	1257:01.20
1259	456	3	48	96.5	1259:03.22
1301	457	3	48	95	1301:01.6k
1303	458	3	48	96	1303:03.23
1305	459	3	48	95	1305:01.96

DATE

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ESP # 103

SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	57 lbs
					COMMENTS
1307	460	3	48	96	1307:03.3
1309	461	3	48	96	1309:03.1
1311	462	3	48	95	1311:02.85
1313	463	3	48	94.6	1313:02.25
1315	464	3	48	94.5	1315:02.35
1317	465	3	48	93	1317:02.21
1319	466	3	48	93.2	1319:03.19
1321	467	3	48	95	1321:05.07
1323	468	3	48	95.2	1323:03.05
1325	469	3	48	94	1325:03.44
1327	470	3	48	96	1327:03.35
1329	471	3	48	94	1329:04.61
1331	472	3	48	93	1331:00.72
1333	473	3	48	97.5	1333:06.94
1335	474	3	48	96.2	1335:05.20
1337	475	3	48	94	1337:03.13
1339	476	3	48	94.6	1339:03.74
1341	477	3	48	94.5	1341:01.82
1343	478	3	48	95.5	1343:02.69

DATE 15 Nov 77

ESP # 103

## SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	57 lb SBT COMMENTS
1345	479	3	48	95	1345:04.06
1349	480	3	48	94	1347:03.07
1349	481	3	48	94	1349:03.22
1354	482	3	48	94.5	1351:02.66
1358	483	3	48	94	1353:02.54
1355	484	3	48	94?	1355:01.63 Lost Actual BT.
1357	485	3	48	97	1357:05.9.
1359:10	486	3	48	95	1359:14.11
1401	487	3	48	95	1401:03.42
1403	488	3	48	94	1403:01.43
1405	489	3	48	95.5	14.05:03.04
1407	490	3	48	95	14.07:02.26
1409	491	3	48	95.3	14.09:01.64
1411	492	3	48	94	1411:01.30 / 31.9
1413	493	3	48	97.	END OF ROLL 1413:04.46
1415	494	3	48	94	1415:04.38
1417	495	3	48	93	1417:05.20
1419	496	3	48	96	1419:04.65
1421	497	3	48	93	1421:01.01

DATE 15 NOV 77

ESP # 103

## SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	57 lbs DATUM dist back time COMMENTS
1423	498	3	48	93.5	1423:01.11
1425	499			96.0	1425:03.39
1427	500			95	1427:01.51
1429	501			93.5	1429:02.09
1431	502			97.0	1431:03.34
1433	503			95.0	1433:03.36
1435	504			96	1435:11.47
1437	505			102	NEW RAL 1437:07.69
1439	506			96	1439:02.32
1441	507			97	1441:04.30
1443	508			96	1443:02.21
1445	509			95	1445:05.82
1447	510			97	1447:02.07
1449	511			96.5	1449:05.87
1451	512			95	1451:04.08
1453	513			99	1453:05.61
1455	514			97	1455:02.90
1457	515			97	1457:05.71
1459	516	3	48		1459:02.46

DATE

ESP # 102

## SHOOTING LOG

57 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
1501	517	3 <sup>#</sup>	48"	102.5	1501:07.67
1503	518			96.5	1503:03.90
1505	519			98.5	1505:03.51
1507	520			98.5	1507:03.88
1509	521			96	1509:02.62
1511	522			94.5	1511:01.05
1513	523			97	1513:04.08
1515	524			95	1515:06.75
1517	525			94.5	1516:59.61
1519	526			97	1519:02.39
1521	527			98.5	1521:04.67
1523	528			98.5	1523:06.07
1525	529			97.5	1525:03.22
1527	530			95	1526:59.66
1529	531			96	1529:01.95
1531	532			96	1530:59.78
1533	533			97	1533:03.06
1535	534			96	1535:01.93
1537	535	3	48	99	1537:05.14

DATE

ESP # 103

## SHOOTING LOG

57 lbs.

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
1539	536	3 <sup>rd</sup>	48"	95	1539:00.56
1541	537			95	1541:01.15
1543	538			96	1543:03.42
1545	539			95.5	1545:01.27
1547	540			95.5	1547:01.12
1549	541			98.5	1549:06.22
1551	542			98	1551:05.06
1553	543			95	1553:02.39
1555	544			96.5	1555:02.22
1557	545			96.2	1557:02.59
1559	546			95.	1559:03.56
1601	547			98	1601:04:04
1603	548			95	1603:01.04
1605	549			94	1604:59.36
1607	550			96	1606:58.22
1609	551			94	1609:01.93
1611	552			1611:00.36	Note that above has B.T. for next shot
1613	553			94	1613:02.32
1615	554			95	1615:01.92

RUISE MB-77-10-20 Lg III MCS LINE # 205  
 DATE 15 Nov. 77 GMT ESP # T03

SHOOTING LOG

57 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
1617	555	3 <sup>15</sup>	48"	94	1617:00.83
1619	556	3	48	94	1619:00.76
1621	557	3	48	94	1621:02.96
1623	558	3	48	96.5	1623:02.30
1625	559	3	48	95	1625:01.49
1627	560	3	48	96	1627:01.18
1629	561	3	48	95	1629:00.97
16.31	562	3	48	97.	1631:04.49
16.33	563	3	48	93	1633:02.68
16.35	564	3	48	95.5	1635:02.99
16.37	565	3	48	95	1637:03.45
16.39	566	3	48	96	1639:03.42
16 41	567	3	48	95	1641:03.47
16 43	568	3	48	95	1643:03.28
16 45	569	3	48	95	1645:03.09
16 47	970	3	48	96.5	1647:03.42
16 49	571	3	48	96	1649:10.53
1651	572	3	48	96	1651:05.69
16 53	573	3	48	97.5	1653:04.52



DATE

19 Nov 77

ESP # 103

SHOOTING LOG

57 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
16.55	574	3	48		1655:02.59
16 57	575	3	48	97.	1657:02.62
16 59	576			95.0	1659:01.03
17.01	577			NO SHOT	NO RECORDED
17 03	578			587: 1703:01.75	MISSED PAPER CHANGE JHA
17 05	579			94	1705:00.48 New Roll (6)
17 07	580			97.0	1707:02.64
17 09	581			96.0	1709:01.92
17 11	582			97	1711:03.62
17 13	583			94.5	1713:01.45
17 15	584			94	1714:59.60
17 17	585			94	1716:58.89
17 19	586			95	1719:01.77
17 21	587			96	1721:01.64
17 23	588			95	1723:01.33
17 25	589			95	1725:02.66
17 27	590			98	1727:08.61
17 29	591			96.5	1729:05.19
17 31	592	∨	∨	97.5	1731:03.50

DATE

ESP # 103

## SHOOTING LOG

57 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
1733	593	3	48	98.0	1733:02.30
1735	594			96.5	1735:01.59
1737	595			97.0	1737:03.69
1739	596			99.0	1739:07.98
1741	597			97.5	1741:02.76
1743	598			97.0	1743:02.68
1745	599			96.0	1745:03.26
1747	600			<del>MCS FIRE</del> <del>2045</del> <del>OUT</del>	NO RECORD 1747:03.52
1749	601			100	1749:05.78
1751	602			100	1751:05.86
1753	603			104	1753:12.26
1755	604			95.0	1755:02.21
1757	605			97.0	1757:03.57
1759	606			96.5	1759:02.75
1801	607			95.0	1801:01.23
1803	608			96.5	1803:02.37
1805	609			98	1805:05.54
1807	610			97.5	1807:04.79
1809	611			97	1809:02.79

DATE 15 NOV 77

ESP # 103

## SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	54 lbs COMMENTS
1811 <del>1810</del>	612	3	48	97	1811:02.97
1813	613	3	48	94.5	1813:01.41
1815	614	3	48	97.5	1815:02.69
1817	615	3	48	97	1816:59.60
1819	616	3	48	98	1819:01.06
1821	617	3	48	96	1820:59.06
1823	618	3	48	97	1822:53.25
1825	619	3	48	96	1824:57.68
1827	620	3	48	96	1826:59.78
1829	621	3	48	98	1829:01.36
1831	622	3	48	98	1831:01.52
1833	623	3	48	96	1833:00.02
1835	624	3	48	97	1834:59.95
1837	625	3	48	99	1837:02.08
1839	626	3	48	96.5	1838:59.36
1841	627	3	48	100	1841:06.17
1843	628	3	48	99	1843:05.38
1845	629	3	48	98	1845:04.42

DATE 15 Nov 77

ESP # 103

## SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	57 lbs COMMENTS
1847	630	3	42"	96	1847:01.53
<del>1849</del>	631	3	48	98	1849:03.81
1851	632	3	48	97	1851:02.82
1853	633	3	48	97	1853:03.07
1855	634	3	48	95.5	1855:01.09
1857	635	3	48	103	1857:08.71
1859	636	3	48	97	1859:01.74
1901	637	3	48	95.0	1901:01.84
1903	638	3	48	97	1903:03.53
1905	639	3	48	96	1905:02.53
1907	640	3	48	97	1907:02.88
1909	641			97.0	1909:02.79
1911	642			97.0	1911:03.44
1913	643			97	1913:02.13
1915	644			98	1915:04.30
1917	645			98.0	1917:04.50
1919	646			96.	1919:02.32
1921	647			96	1921:02.02
1923	648			98	1923:03.48

DATE

MW 77-10-20

15 nor77

ESP # 103

SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
1925	649	3	48	96.0	1925:01.06
1927	650	3	48	9.8	1927:02.67
1929	651	3	48	97	1929:03.17 New Row
1931	652	3	48	98	1931:06.45
1933	653	3	48	99.0	1933:07.08
1935	654			102 -	NO RECORD 1935:03.670
1937	655			98.0	NO RECORD 1937:02.23
1939	656			96.5	NO RECORD 1939:04.57
1941	657			97.0	1941:03.36
1943	658			96.0	1943:02.66
1945	659			96.0	1945:00.74
1947	660			94.5	1947:00.44
1949	661			96.0	1949:00.29
1951	662			97	1951:02.70
1953	663			96	1953:01.14
1955	664			98	1955:03.42
1957	665			97	1957:01.13
1959	666	3	48	97	1958:59.95
<del>1961</del>	<del>667</del>				

CRUISE MW 77-10-20

MCS LINE # COS

DATE 15 NOV 77

ESP # 103/104

SHOOTING LOG

126 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
					2000:58.90
2001	667	3	48	96	
					2003:0032
2003	668	3	48	97	
					2004:58.61
2005	669	3	48	95	
					2006:57.59
2007	670	3	48	95	
					2008:58.94
2009	671	3	48	96	
					2011:02.09 END LINE COS
2011	672	3	48	94	
					RESTART COS
2230	673	9	48	91	23 30:1222
					NE RO
2236	674	9	48	92	22 36:0260
					22 40:0518
2240	675	9	48	94	
					22 44:0135
2244	676	9	48	92	
					22 48:0276
2248	677	9	48	90	
					22 52:0387
2252	678	9	48	91	
					22 56:0445
2256	679	9	48	92	
					23 00:0058
2300	680	9	48	90	
					23 04:0538
2304	681	9	48	94	
					23 08:0101
2308	682	9	48	99	
					23 12:1309
2312	683	9	48	96	
					23 16:0434
2316	684	9	48	92.5	

RUISE MW-77-10-20

MCS LINE #C05

DATE 15 NOV 77

ESP # 104

SHOOTING LOG

162 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
23202	685	9lb	48"	91 sec	23 20:0154
2324	686	9#	48	91	23 24:0378
2326	687	9	48	90	23 28:0145
2332	688	9	48	94	23 32:0542
2336	689	9	48	91	23 36:0400
2340	690	9	48	90.5	23 40:0450
2344	691	9	48	89	23 44:0073
2348	692	9	48	90	23 48:0176
2352	693	9	48	89.5	23 52:0058
2356	694	9	48	90	319/2356:0279
0000	695	9	48	90	320/0000:0272 16 NOV 1977
0004	696	9	48	90.5	0004:0247
0008	697	9	48	89.5	0008:0059
0012	698	9	48	91	0012:0318
0016	699	9	48	90.5	0016:0305
0020	700	9	48	91	0020:0310
0024	701	9	48	90	0024:0237
0028	702	9	48	89.5	0028:0179

CRUISE MW 77-10-20

MCS LINE # C05

DATE 16 Nov 77 [GMT]

ESP # 104

SHOOTING LOG

162 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0032.2	703	9 lb	48"	93.5 <sup>32</sup>	0032:05.98
0036	704	9 lb	48"	88	0036:00.34
0040	705	9 lb	48	92	0040:04.08
0044	706	9	48	91	0044:03.06 START DIGITIZING
0048	707	9	48	90.5	0048:02.11
0052	708	9	48	92.5	0052:03.99
0056	709	9	48	88	0056:00.42
0100	710	9	48	91.5	0100:04.10
0104	711	9	48	91.5	0104:03.05
0108	712	9	48	92.5	0108:04.57
0112	713	9	48	91	0112:02.12
0116	714	9	48	92	0116:03.55
0120	715	9	48	93.5	0120:04.33
0124	716	9	48	91.5	0124:03.50
0128	717	9	48	93	0128:05.91
0132	718	9	48	92	0132:04.34
0136	719	9	48	91.5	0136:03.51
0140	720	9	48	92.5	0140:05.57 NEW ROLL





CRUISE *Mona Wave 77-10-20 Leg III*MCS LINE # *105*DATE *16 Nov. 77*START of ESP # *1*SHOOTING LOGDATUM *19165*  
Shot Break Time

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
<i>0605</i>	<i>733</i>	<i>1 #</i>	<i>48"</i>	<i>96</i>	<i>0604:55.97</i>
<i>0606</i>	<i>734</i>	<i>1 #</i>	<i>48"</i>	<i>92</i>	<i>0605:58.10</i>
<i>0607</i>	<i>735</i>	<i>1 #</i>	<i>48"</i>	<i>99</i>	<i>0607:05.95</i>
<i>0608</i>	<i>736</i>	<i>1 #</i>	<i>48"</i>		<i>0608:01.13</i> <i>No burn time</i>
<i>0609</i>	<i>737</i>	<i>1 #</i>	<i>48"</i>	<i>96</i>	<i>0609:05.41</i>
<i>0610</i>	<i>738</i>	<i>1 #</i>	<i>48"</i>	<i>92</i>	<i>0610:12.15</i>
<i>0611</i>	<i>739</i>	<i>1 #</i>	<i>48"</i>	<i>93</i>	<i>0611:04.58</i>
<i>12</i>	<i>740</i>	<i>1 #</i>	<i>48"</i>	<i>96</i>	<i>0612:01.74</i>
<i>13</i>	<i>741</i>	<i>1 #</i>	<i>48"</i>	<i>96</i>	<i>0613:03.25</i>
<i>14</i>	<i>742</i>	<i>1 #</i>	<i>48"</i>	<i>91</i>	<i>0614:05.62</i>
<i>0615</i>	<i>743</i>	<i>1 #</i>	<i>48"</i>	<i>102</i>	<i>0615:09.85</i>
<i>16</i>	<i>744</i>	<i>1 #</i>	<i>48"</i>	<i>95</i>	<i>0616:04.20</i>
<i>17</i>	<i>745</i>	<i>1 #</i>	<i>48"</i>	<i>101</i>	<i>0617:07.82</i>
<i>18</i>	<i>746</i>	<i>1 #</i>	<i>48"</i>	<i>99</i>	<i>0618:06.73</i>
<i>19</i>	<i>747</i>	<i>1 #</i>	<i>48"</i>	<i>101</i>	<i>0619:01.36</i>
<i>20</i>	<i>748</i>	<i>1 #</i>	<i>48"</i>	<i>98</i>	<i>0620:06.81</i>
<i>21</i>	<i>749</i>	<i>1 #</i>	<i>48"</i>	<i>100</i>	<i>0621:08.46</i>
<i>22</i>	<i>750</i>	<i>1 #</i>	<i>48</i>	<i>99</i>	<i>0622:07.00</i>
<i>0623Z</i>	<i>751</i>	<i>1 #</i>	<i>48</i>	<i>98</i>	<i>0623:03.63</i>

DATE

ESP # 1

SHOOTING LOG

99 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0624	752	1#	48"	104	0624:07.86
0625	753	1#	48"	96	0624:59.63
0626	754	1#	48"	100	0626:04.74
0627	755	1#	48"	102	0627:06.43
0628	756	1#	48"	101	0628:05.93
0629	757	1#	48"	101	0629:04.95
0630	758	1#	48"	102	0630:07.052
0631	759	1#	48"	101	0631:03.91
0632	760	1#	48"	102	0632:05.47
0633	761	1#	48"	102	0633:04.73
0634	762	1#	48"	100	0634:04.30
0635	763	1#	48"	101	0635:02.61
0636	764	1#	48"	102	0636:04.16
0637	765	1#	48"	94	0636:57.05
0638	767	1#	48"	99	0638:01.21
0639	768	1#	48"	97	0638:58.79
0640	769	1#	48"	100	0640:02.39
0641	770	1#	48"	96	0640:57.81
0642	771	1#	48"	99	0642:00.68

DATE 16 Nov 77

ESP #	1
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## SHOOTING LOG

19 16.

SHOOTING LOG					Datum Shot Disc Time
TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0643	772	1 <sup>#</sup>	48"	102	0643:04.64
0644	773	1 <sup>#</sup>	48"		0644:03.44 NO B. TIME
0645	774	1 <sup>#</sup>	48"		0645:04.08 " " " " HUSSONG, TMT.
0646	775	1 <sup>#</sup>	48"	101	0646:03.71
0647	776	1 <sup>#</sup>	48"	96	0646:58.44
0648	777	1 <sup>#</sup>	48"	101	0648:02.46
0649	778	1 <sup>#</sup>	48"	99	0649:01.71
0650	779	1 <sup>#</sup>	48"	100	0650:02.30
0651	780	1 <sup>#</sup>	48"	101	0651:02.82
0652	781	1 <sup>#</sup>	48"	102	0652:03.23
0653	782	1 <sup>#</sup>	48"	98	0653:00.24
0654	783	1 <sup>#</sup>	48"	102	0654:04.20
0655	784	1 <sup>#</sup>	48"	97	0654:57.70
0656	785	1 <sup>#</sup>	48"	102	0656:03.01
0657	786	1 <sup>#</sup>	48"	95	0656:57.02
0658	787	1 <sup>#</sup>	48"	100	0658:01.62
0659	788	1 <sup>#</sup>	48"	93	0659:05.27
0700	789	1 <sup>#</sup>	48"	98	0700:00.20
0701	790A	1 <sup>#</sup>	48	99	0701:00.99

Datum Shot Break Time

DATE 16 Nov 77

ESP # 1

NOTE  
THESE  
NUMBERS  
ARE  
REPEATS

## SHOOTING LOG

37 lbs

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	Datum Shot Break Time COMMENTS
0702	791A	1#	48"	102	0702:03.15
0703	792A	1#	48"	99	NEW ROLL - No Recoil 0703:00.125
0704	793A	1#	48"	98	0703:59.86
0705	794A	1#	48"	96	0704:57.83
0706	795A	1#	48"	103	0706:05.05
0707	796A	1#	48"	100	0707:01.69
0708	797A	1#	48"	103	0708:02.68
0709	798A	1#	48"	101	0709:02.95
0710	790B	1#	48"	100	0710:01.51
0711	791B	1#	48"	99	0711:00.33
0712	792B	1#	48"	104	0712:03.70
0713	793B	1#	48"	104	END ONE POUND 0713:05.39
0714	794B	1#	48"	102	END 1 POUND START 3 POUND 0714:04.29
0716	795B	3#	48"	SURFACE! LATE!	START THREE POUND
0718	796B	3#	48"	95	0717:58.86
0720	797B	3#	48"	96	0720:03.18
0722	798B	3#	48"	98	0722:03.05
0724	799	3#	48"	109	0724:05.46
0726	800	3#	48"	107	0726:11.85

DATE

END OF ESP # 1

16 NOV 77 Z

## SHOOTING LOG

609 lbs

TIME (Z)	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
0728	801	3 <sup>rd</sup>	48"	101	0728:06.17
0730	802	3 <sup>rd</sup>	48"	98	0730:02.79
0732	803			100	0732:05.52
0734	804			90	0734:01.07
0736	805			97	0736:02.76
0740	806	9 <sup>th</sup>	48"	91	change to 9 <sup>th</sup> 0740:01.99 AT 4 MIN RATE
0744	807	9 <sup>th</sup>		97	0744:08.60
0748	808	9 <sup>th</sup>		100	0748:10.92
0752	809	30 <sup>th</sup>		98	change to 30 <sup>th</sup> 0752:08.55 AT 4 min Rate
0756	810	30 <sup>th</sup>		97	0756:07.78
0800	811	30 <sup>th</sup>		98	0800:03.02
0804	812	30 <sup>th</sup>		97	0804:02.04
0808	813	30 <sup>th</sup>		96	0808:01.44 0815:10.19
0815	814	60 <sup>th</sup>		100	change to 60 <sup>th</sup> at 7 min Rate
0822	815	60 <sup>th</sup>		103	0822:09.44
0829	816	60 <sup>th</sup>		94	0828:57.54
0836	817	60 <sup>th</sup>		100	0836:02.18
0843	818	60 <sup>th</sup>		94	0842:57.26
0850	819	120		92	change to 120 <sup>th</sup> 0849:59.92 at 7 min Rate

~~MGS LINE~~ - # 105

10 Kts

5 Kms  
Recorded by OBS's only

~~ESP#~~

16 Nov 77

3608 lbs

## SHOOTING LOG

[illegible]

DATE 16 NOV 77

ESP # 106

SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
1904Z	825	9 lb	48"	92 sec	1904:02.89 NEW RAC
1908	826	9 lb	48"	89	1907:59.45
1912	827	9	48	97	1912:08.41
1916	828	9	48	94	1916:05.01
1920	829	9	48	94	1920:05.18
1924	830	9	48	91	1924:03.02
1928	831	9	48	90	1928:01.10
1932	832	9	48	90	1932:01.10
1936	833	9	48	90	1936:00.55
1940	834	9	48	90	1940:02.08
1944	835	9	48	90	1944:01.26
1948	836	9	48	92	1948:03.42
1952	837	9	48	92	1952:03.84
1956	838	9	48	91	1956:02.45
2000	839	9	48	91	2000:05.03
2004	840	9	48	91	2004:01.63
2008	841	9	48	93	2008:03.30
2012	842	9	48	94	2012:04.35
2016	843	9	48	94	2016:05.18



CRUISE

MCS LINE # C05

DATE

MW 77-10-20

ESP # 106

16 NOV 77 Z

SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
2020	844	9 #	48 "	95	2020:05.80
2024	845	9	48	92	2024:02.25
2028	846	9	48	96	missed 2028:07.31 (?)
2032	847	9	48	91	2032:02.61
2036	848	9	48	96	2036:07.85
2040	849	9	48	96	END ROLL 2040:06.13
2044	850	9	48	94	START NEW 2044:04.90 ROLL
2048	851	9	48	97	2048:07.94
2052	852	9	48	97	2052:06.67
2056	853	9	48	98	2056:08.38
2100	854	9	48	99	2100:09.09
2104	855	9	48	91	2103:59.37
2108	856	9	48	92	2108:03.62
2112	857	9	48	92.5	2112:03.64
2116	858	9	48	92	2116:03.86
2120	859	9	48	92	2120:02.17
2124	860	9	48	92	2124:05.07
2128	861	9	48	92	2128:01.70
2132	862	9	48	91	NO RECORD 2132:00.35

CRUISE

MCS LINE # 005

DATE

ESP # 106

## SHOOTING LOG

TIME	SHOT #	SHOT SIZE	FUSE LENGTH	BURN TIME	COMMENTS
2136	863	9	48	93	2136:02.13
2140	864			92	2140:01.16
2144	865			92	2144:02.55
2148	866			92	2148:01.90
2152	867			91	2152:00.80
2156	868			91	2156:01.42
2200	869			93	2200:04.06
2204	870			91	2204:01.52
2208	871			91	2208:01.31
2212	872			91	2212:01.79
2216	873			91	2216:01.60
2220	874			91	2220:02.25
2224	875			94	2224:05.15
2228	876			90	2228:01.93
2232	877			89	2232:01.72
2236	878			93	2236:03.01
2240	879			94	2240:04.98
2244	880	↓	↓	93	2244:05.04
2248	881	↓	↓	94	2248:04.80

CONTINUED ON

CRUISE: MW 77.10.20 ZULU DATE: 16 Nov 77 J.D. 320/321 Page

SHOT LINE NO. C05

→ 17 NOV 77 Z

NO BATHYMETRY!!! 106

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
882	2252	9	48	93	2252:03.40		
883	2256	9	48	93	2256:02.36		
884	2300	9	48	94	2300:04.16		
885	2304	9	48	94	2304:04.24		
886	2308	9	48	92	2308:01.43		
887	2312	9	48	91	2312:01.03		
888	2316	9	48	93	2316:02.78		
889	2320			93	2320:02.76		
890	2324			91	2324:02.56		
891	2328			95	2328:04.39		
892	2332			96	2332:06.07		
893	2336			90	2335:59.93		
894	2340			96	2340:07.11		
895	2344			~96	2344:02.23		BT NOTED.
896	2348			92	2348:02.18		
897	2352			92	2352:01.76		
898	2356			91	2356:01.01		
899	0000			90	0000:03.10		
900	0004			93	0004:03.35		
901	0008			93	0008:03.48		
902	0012			92	0012:01.82		
903	0016			91	0016:01.60		
904	0020			94	0020:04.69		
905	0024			94	0024:04.88		
906	0028			90	0028:00.94		
907	0032			92	0032:01.99		

↑  
16  
NOV  
Z  
17  
NOV  
77  
↓  
2

SHOT LINE NO.

C05

Port Array

106

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
908	0036	9	48	92	0036:02.64		
909	0040			91	0040:02.69		
910	0044			92	0044:04.79		
911	0048			93	0048:04.15		
912	0052			91	0052:03.02		
913	0056			90	0055:59.05		
914	0100			91	0000:00.83		
915	0104			92	0104:01.22		
916	0108			91	0108:00.86		
917	0112			90	0112:01.32		
918	0116			92	0116:01.58		
919	0120			89	0119:59.40		
920	0124			93	0124:02.56		
921	0128			93	0128:02.92		
922	0132			91	0132:01.35		
923	0136			91	0136:01.58		
924	0140			91	0140:01.37		
925	0144			92	0144:01.93		
926	0148			92	0148:12.74		
927	0152			93	0152:02.46		
928	0156			91	0156:01.27		
929	0200			94	0200:04.31		END of the Roll
930	0204			94	0204:04.25		New Roll
931	0208			93	0208:05.70		
932	0212			92	0212:02.54		
933	0216			92	0216:01.54		

CRUISE: \_\_\_\_\_

ZULU DATE: \_\_\_\_\_

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SHOT LINE NO. C05

106

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
834	02-20	916	48	94	0220:03.07		
835	02-24			96	0224:05.76		
836	02-28			97	0228:06.77		
837	02-32			96	0232:05.34		
838	02-36			96	0236:03.51		
839	02-40			96	0240:05.09		
840	02-44			102	0244:08.81		
841	02-48			96	0248:03.07		
842	02-52			99	0252:03.79		
843	02-56			100	0256:04.59		
844	03-00			98	0300:03.57		
845	03-04			97	0304:02.70		
846	03-08			96	0308:03.45		
847	03-12			93	0311:59.31		
848	03-16			97	0316:04.42		
849	03-20			98	0320:04.70		
850	03-24			93	0323:59.81		
851	03-28			93	0328:00.26		
852	03-32			92	0331:58.87		
853	03-36			96	0336:03.07		
854	03-40			95	0340:02.54		
855	03-44			95	0344:02.90		
856	03-48			97	0348:04.77		
857	03-52			94	0352:00.66		
858	03-56			96	0356:03.40		
859	04-00			94	0400:00.36		

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SHOT LINE NO. C05

156

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
960	0404	916.5	48	95	0404:01.48		
961	0408			89	0403:56.63		
962	0412			92	0411:52.41		
963	0416			97	0416:08.31		
964	0420			92	0420:02.91		
965	0424			100	0424:06.51		
966	0428			92	0428:03.61		
967	0432			95	0432:06.95		
968	0436			91.5	0436:03.64		
969	0440			92.5	0440:04.08		
970	0444			91.0	0444:01.48		
971	0448			90	0448:01.38		
972	0452			91.5	0452:03.84		
973	0456			89	0456:00.11		
974	0500			91.5	0500:02.50		
975	0504			96.5	0504:08.96		
976	0508			96.0	0508:08.42		

SHOT LINE NO. ESP2

107

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
977	0822	116	48"	100	0822:09.50		
978	0823	116	48"	104	0823:11.55		
979	0824	1	48	102	0824:11.34		
980	0825	1	48	100	0825:15.67		
981	0826	1	48	100	0826:08.29		
982	0827	1	48	100	0827:08.31		
983	0828	1	48	101	0828:10.81		
984	0829	1	48	99	0829:05.09		
985	0830	1	48	108	0830:13.04		
986	0831	1	48	104	0831:08.74		
987	0832	1	48	102	0832:13.46		
988	0833	1	48	100	0833:03.00		
989	0834	1	48	102.5	0834:06.40		
990	0835	1	48	101.5	0835:03.80		
991	0836	1	48	106.5	0836:10.12		
992	0837	1	48	100	0837:02.61		
993	0838	1	48	106	0838:09.54		
994	0839	1	48	104.5	0839:06.69		
995	0840	1	48	102.5	0840:06.64		check for 12.5 sec
996	0841	1	48	105	0841:07.25		
997	0842	1	48	107	0842:09.60		
998	0843	1	48	103	0843:05.11		
999	0844	1	48	102	0844:05.22		
1000	0845	1	48	99	0844:59.86		
1001	0846	1	48	110	0846:12.74		

SHOT LINE NO. ESP2

107

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1002	0847	1	48	>115	0847:19.69		
1003	0848	1	48	103	0848:05.82		
1004	0849	1	48	unknown	0849:07.33		
1005	0850	1	48	106	0850:08.91		
1006	0851	1	48	101	0851:00.28		
1007	0852	1	48	~110	0852:10.18		
1008	0853	1	48	106	0853:06.66		
1009	0854	1	48	100	0854:01.06		Rem ↑
1010	0855	1	48	105	0855:04.64		
1011	0856	1	48	102	0856:03.39		
1012	0857	1	48	109	0857:08.24		
1013	0858	1	48	99	0858:00.65		
1014	0859	1	48	95	0859:05.02		
1015	0900	1	48	100	0900:01.50		
1016	0901	1	48	106	0901:06.24		
1017	0902	1	48	104	0902:06.02		
1018	0903	1	48	105	0903:05.23		
1019	0904	1	48	103	0904:05.44		
1020	0905	1	48	106	0905:05.45		
1021	0906	1	48	101	0906:03.24		
1022	0907	1	48	103	0907:02.49		
1023	0908	1	48	101	0908:03.04		
1024	0909	1	48	110	0908:59.66		
1025	0910	1	48	99	0910:00.41		
1026	0911	1	48	106	0911:06.81		



SHOT LINE NO. ESP2

107

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1027	0912	1	48	103	0912:04.61		
1028	0913	1	48	106	0913:06.82		
1029	0914	1	48	103	0914:04.17		
1030	0915	1	48	105	0915:05.67		
1031	0916	1	48	104	0916:05.38		
1032	0917	1	48	107	0917:07.03		
1033	0918	1	48	101	0918:03.25		
1034	0919	1	48	102	0919:01.58		
1035	0920	1	48	105	0920:06.59		
1036	0921	1	48	106	0921:05.37		
1037	0922	1	48	102	0922:04.20		
1038	0923	1	48	103	0923:02.37		
1039	0924	1	48	unknown	0924:03.91		
1040	0925	1	48	unknown	0925:05.28		
1041	0926	1	48	104	0926:05.32		
1042	0927	1	48	109	0927:08.61		
1043	0928	1	48	99	0928:01.37		
1044	0929	3	48	103	0929:05.06		first 3 lbs
1045	0931	3	48	102	0931:03.96		
1046	0933	3	48	99	0933:02.51		
1047	0935	3	48	99	0935:02.06		
1048	0937	3	48	98.5	0937:01.65		
1049	0939	3	48	98	0939:01.31		
1050	0941	3	48	100	0941:02.07		
1051	0943	9	48	92.5	0943:03.67		
1052	0947	9	48	95	0947:05.76		

SHOT LINE NO. ESP 2

107

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1053	0951	9	48	91	0951:03.81		
1054	0955	30	48	96	0955:03.02		
1055	0959	30	48	94	0959:06.88		
1056	1003	30	48	97	1003:09.73		
1057	1007	30	48	98	1007:10.94		
1058	1011	60	48	94	1011:09.04		
1059	1020	60	48	97	1020:04.75		NEW ROLL - SHOT 2 MIN LATE
1060	1027	60	48	97.5	1027:05.57		
1061	1034	120	48	91.5	1033:53.62		
1062	1041	120	48	96	1041:05.11		
1063	1048	120	48	96.5	1048:11.47		
1064	1055	120	48	94.5	1055:06.02		
1065	1102	120	48	94	1102:05.68		
1066	1109	120	48	93	1109:03.32		
1067	1116	120	48	99	1116:09.45		
1068	1123	120	48	99	1123:07.69		
1069	1130	120	48	99	1130:07.12		
1070	1137	120	48	96	1137:03.50		
1071	1144	120	48	95	1144:01.35		
1072	1151	120	48	92	1151:01.00		
1073	1158	120	48	96	1158:05.35		
1074	1205	120	48	92	1205:02.27		
1075	1212	120	48	92	1212:07.09		
1076	1219	120	48	91	1219:00.39		
1077	1226	120	48	93	1226:03.23		End of the line

SHOT LINE NO. ESP 3

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1078	04 55	1	48	88	—		NO SBT
1079	04 56	1	1	84	—		NO SBT
1080	04 57	1		92	—		NO SBT
1081	04 58	1		92	0458:04.37		
1082	04 59	1		101	0459:04.07		
1083	05 00			100	0500:03.76		BT approx
1084	05 01			100	0501:04.17		
1085	05 02			103	0502:07.39		
1086	05 03			100	0503:00.78		
1087	05 04			105	0504:12.00		
1088	05 05			104	0505:06.93		
1089	05 06			108	0506:09.32		
1090	05 07			103	0507:05.97		
1091	05 08			100	0508:03.43		
1092	05 09			95	0509:00.38		
1093	05 10			98	0510:00.08		
1094	05 11			100	0511:01.12		
1095	05 12			100	0512:02.63		
1096	05 13			102	0513:04.44		
1097	05 14			103	0514:05.30		
1098	05 15			103	0515:05.20		
1099	05 16			97	0516:01.38		BT approx
1100	05 17			103	0517:05.09		
1101	05 18			107	0518:04.12		
1102	05 19			95	0518:50.34		
1103	05 20			100	0520:02.09		

SHOT LINE NO. 5593

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1104	05 21	1	48		0521:03.13		
1105	05 22	1		105	0522:06.81		
1106	05 23	1		102	0523:04.00		
1107	05 24	1		96	0523:57.73		
1108	05 25	1		101	0525:02.98		
1109	05 26	1		104	0526:07.04		
1110	05 27	1		105	0527:07.42		
1111	05 28	1		107	0528:58.46		
1112	05 29	1		100	0528:56.59		BT approx
1113	05 30	1		97	0529:58.98		
1114	05 31	1		98	0531:59.77		
1115	05 32	1		98	0532:01.09		
1116	05 33	1		96	0532:58.19		
1117	05 34	1		103	0534:05.86		
1118	05 35	1		99	0535:00.46		
1119	05 36	1		104	0536:06.22		
1120	05 37	3		96	0537:07.83		first 3 lbs shot
1121	05 39	3		95	0538:59.01		
1122	05 41	3		95	0540:59.91		
1123	05 43	3		95	0543:03.37		
1124	05 45	3		97	0545:05.69		
1125	05 47	3		96	0547:04.37		
1126	05 49	3		98	0549:09.16		
1127	05 51	3		95	0551:04.43		BT approx
1128	05 53	3		99	0553:07.57		
1129	05 55	3		94	0555:02.28		

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SHOT LINE NO. ESP3

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COMMENTS

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1130	05 57	3	48"	96	0557:04.71		
1131	05 59	3		97	0559:05.47		
1132	06 01	3		99	0601:07.11		
1133	06 03	3		97	0602:57.29		First 8 lbs shot
1134	06 07	3		97	0606:57.81		
1135	06 11	3		93	0610:57.32		BT app.
1136	06 15	3		82	0614:57.79		
1137	06 19	3		92	0618:57.07		
1138	06 23	3		92	0622:58.63		BT approx
1139	06 27	3		93	0627:02.69		
1140	06 31	3		91	0630:59.55		
1141	06 35	3		90	0634:58.42		
1142	06 39	3		92	0636:59.88		
1143	06 43	3		91	0642:57.82		
1144	06 47	3		94	0647:02.98		CONRAD to gyro Shots rounded End of the Roll
1145	10 32	3	48	93	1032:01.88		Returned the Line Win Roll
1146	10 36			89	1035:56.22		
1147	10 40			92	1040:01.13		
1148	10 44			93	1044:02.18		
1149	10 48			90	1047:57.89		
1150	10 52			94	1052:02.26		
1151	10 56			92	1056:00.17		
1152	11 00			91	1059:59.96		
1153	11 04	3		92	1104:02.63		
1154	11 08	30		97	1108:05.16		30 lbs shot

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SHOT LINE NO.

ESP3

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1155	11 12	30	48	96	1112:03.37		
1156	11 16			9	1116:00.96		
1157	11 20			96	1120:06.18		
1158	11 24			96			
1159	11 28			95	1128:03.88		
1160	11 32			92	1132:17.45		
1161	11 36			91	1135:59.98		
1162	11 40			97	1140:06.57		
1163	11 44	30		96	1144:03.80		
1164	11 51	60		90	1150:58.94		
1165	11 58			92	1158:01.74		
1166	12 05			95	1205:03.39		
1167	12 12			93	1212:02.88		
1168	12 19			88	1218:57.62		
1169	12 26			91.5	1226:01.41		
1170	12 33			90	1232:58.58		
1171	12 40			89	1239:59.15		
1172	12 47			84.5	1246:55.46		
1173	12 54	60		94	1254:06.11		
1174	13 01	120		87.5	1300:58.25		
1175	13 08			87.5	1308:00.35		
1176	13 15			89	1315:03.65		
1177	13 22			86	1322:00.15		END ESP-3

SHOT LINE NO. 006

111

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1178	1814	3	48	92	1813:57.52		ALL 315 CHARACTERS
1179	1816	3	48	95	1816:02.15		START COG
1180	1818	3	48	92	1818:05.97		
1181	1820	3	48	97	1820:03.65		
1182	1822			97	1822:04.12		
1183	1824			96	1824:03.39		
1184	1826			97	1826:03.60		
1185	1828			96	1828:02.77		
1186	1830			97	1830:03.21		
1187	1832			96	1832:05.61		
1188	1834			95	1834:02.16		
1189	1836			99	1836:04.96		
1190	1838			95	1838:02.05		
1191	1840			98	1840:04.30		
1192	1842			96	1842:04.40		
1193	1844			97	1844:03.35		
1194	1846			95	1846:02.43		
1195	1848			97	1848:04.46		
1196	1850			97	1850:03.06		
1197	1852			96	1852:03.27		
1198	1854			96	1854:03.01		
1199	1856			97	1856:03.31		
1200	1858			96	1858:02.97		
1201	1900			96	1900:03.20		
1202	1902			99	1902:05.52		

SHOT LINE NO. 006

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1203	1904	3	48	96	1904:02.38		
1204	1906	3	48	96	1906:03.45		
1205	1908	3	48	96	1908:03.04		
1206	1910	3	48	94	1910:00.15		
1207	1912	3	48	98	1912:04.49		
1208	1914	3	48	94	1914:00.55		
1209	1916	3	48	96	1916:03.46		
1210	1918	3	48	95	1918:01.08		
1211	1920	3	48	94	1920:00.39		
1212	1922	3	48	97	1922:03.90		
1213	1924	3	48	96	1924:04.32		
1214	1926	3	48	95	1926:02.24		
1215	1928	3	48	94	1928:00.97		
1216	1930	3	48	94	1930:01.02		
1217	1932	3	48	94	1932:02.01		
1218	1934	3	48	94	1934:02.42		
1219	1936	3	48	99	1936:06.33		NEW ROLL
1220	1938	3	48	96	1938:02.89		
1221	1940	3	48	94	1940:01.39		
1222	1942	3	48	96	1942:03.04		
1223	1944	3	48	94	1944:01.67		
1224	1946	3	48	99	1946:06.16		
1225	1948	3	48	94	1948:01.33		
1226	1950	3	48	94	1950:01.09		
1227	1952	3	48	94	1952:01.14		



SHOT LINE NO. C06

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1228	1954	3	48	95	1954:02.13		
1229	1956	3	48	95	1956:01.94		
1230	1958	3	48	94	1958:01.28		
1231	2000			95	2000:02.36		
1232	2002			92	2001:59.33		
1233	2004			93	2003:59.51		
1234	2006			94	2006:00.74		
1235	2008			95	2008:01.71		
1236	2010			96	2010:03.19		
1237	2012			98	2012:04.50		
1238	2014			93	2014:01.16		
1239	2016			95	2016:02.00		
1240	2018			100	2018:05.81		
1241	2020			95	2020:01.57		
1242	2022			96	2022:02.03		
1243	2024			95	2024:00.91		
1244	2026			96	2026:02.92		
1245	2028			97	2028:04.04		
1246	2030			95	2030:02.55		
1247	2032			96	2032:01.01		
1248	2034			97	2034:02.54		
1249	2036			97	2036:03.50		
1250	2038			95	2038:01.57		
1251	2040			98	2040:04.40		
1252	2042			94	2042:00.84		
1253	2044	V	V	101	2044:07.92		

SHOT LINE NO. C06

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1254	2046	3 LB	48"	96	2046:02.41		
1255	2048			101?	2048:13.16		
1256	2050			95	2050:02.10		
1257	2052			95	2052:00.88		
1258	2054			97	2054:02.97		
1259	2056			97	2056:03.66		
1260	2058			99	2058:05.01		
1261	2100			97	2100:02.76		
1262	2102			95	2102:01.85		
1263	2104			95	2104:00.46		
1264	2106			96	2106:02.80		
1265	2108			99	2108:04.80		
1266	2110			—	2110:00.42		NO BT & NO Reco
1267	2112			96	2112:03.23		
1268	2114			95	2114:02.29		
1269	2116			97	2116:02.52		
1270	2118			96	2118:02.06		
1271	2120			95	2120:02.14		
1272	2122			96	2122:03.52		
1273	2124			96	2124:03.07		
1274	2126			94	2126:01.71		
1275	2128			94	2128:00.07		
1276	2130			94	2130:01.01		
1277	2132			95	2132:00.94		
1278	2134			94	2134:00.26		
1279	2136	✓	✓	96	2136:02.42		

SHOT LINE NO. 006

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1280	2138	3LB	48"	95	2138:01.63		
1281	2140			95	2140:01.10		
1282	2142			94	2142:01.20		
1283	2144			94	2144:01.44		
1284	2146			93	2145:59.10		
1285	2148			94	2148:00.75		
1286	2150			94	2150:00.44		
1287	2152			93.5	2152:00.06		
1288	2154			?	2154:02.38		
1289	2156			93.5	2156:01.56		
1290	2158			97	2158:03.93		
1291	2200			95	2200:01.54		
1292	2202				2202:02.21		
1293	2204			94	2204:00.78		
1294	2206			94	2206:03.31		
1295	2208			95	2202:03.20		NEW ROLL
1296	2210			97	2210:04.17		↓
1297	2212			96	2212:03.48		NO RECORD
1298	2214			95	2214:02.03		
1299	2216			97	2216:02.84		
1300	2218			96	2218:02.98		
1301	2220			94	2220:01.45		
1302	2222			97	2222:03.29		
1303	2224			95	2224:02.98		
1304	2226			95	2226:04.71		
1305	2228	✓	✓	98	2228:03.35		

SHOT LINE NO. C06

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1306	2230	3LB	48"	96	2230:02.94		
1307	2232			MISS	FIRE		
1308	2234			93	2234:00.20		
1309	2236			95	2236:02.95		
1310	2238			96	2238:04.38		
1311	2240			96	2240:03.33		
1312	2242			95	2242:02.51		
1313	2244			100	2244:06.65		
1314	2246			95	2246:03.31		
1315	2248			95	2248:01.38		NORECORD
1316	2250			96.5	2250:02.59		
1317	2252			—	2252:12.20		NO BT
1318	2254			96	2254:10.86		late
1319	2256			95	2256:01.39		
1320	2258			96	2258:03.62		
1321	2300			96	2300:03.26		
1322	2302			96	2302:02.61		
1323	2304			98	2304:04.64		
1324	2306			97	2306:08.46		
1325	2308			99	2308:06.48		
1326	2310			96	2310:02.80		
1327	2312			95	2312:01.54		
1328	2314			97	2314:03.79		
1329	2316			96	2316:01.93		
1330	2318			96	2318:03.01		
1331	2320	✓	✓	97	2320:04.02		

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1332	2322	3 LB	48"	96	2322:02.27		
1333	2324			96	2324:04.73		
1334	2326			98	2326:04.28		
1335	2328			100	2328:06.28		
1							
1336	2330			100	2330:06.42		
1337	2332			96	2332:02.94		
1338	2334			95	2334:00.48		
1339	2336			95	2336:01.67		
1340	2338			97	2338:03.06		
1341	2340			93	2340:04.19		
1342	2342			96	2342:02.08		
1343	2344			97	2344:02.02		
1344	2346			97	2346:03.99		NO RECORD
1345	2348			97	2348:04.12		
1346	2350			95	2350:01.53		
1347	2352			95	2352:00.63		
1348	2354			97	2354:05.22		
1349	2356			96	2356:02.35		
1350	2358			97	2358:01.79		↑ 18 NOV 77
1351	0000			97	0000:03.15		19 NOV 77
1352	0002			95	0002:03.37		↓
1353	0004			97	0004:03.07		
1354	0006			96	0006:02.52		
1355	0008			99	0008:05.07		
1356	0010			98	0010:05.13		
1357	0012	V	V	97	0012:04.31		

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1358	0014	3 LB	48"	96	0014:02.15		
1359	0016			98	0016:06.73		
1360	0018			97	0018:03.86		
1361	0020			95	0020:01.58		
1362	0022			93	0022:10.62		
1363	0024			96	0024:03.46		
1364	0026			94	0026:00.77		
1365	0028			94	0028:00.73		
1366	0030			94	0030:03.38		
1367	0032			95	0032:04.69		
1368	0034			97	0034:03.86		
1369	0036			97	0036:06.67		
1370	0038			93	0038:00.62		
1371	0040			96.5	0040:03.44		
1372	0042			97	0042:04.45		
1373	0044			97	0044:04.08		
1374	0046			94	0046:01.60		
1375	0048			94	0048:01.10		
1376	0050			96	0050:03.56		
1377	0052			97.5	0052:03.94		
1378	0054			96	0054:02.71		
1379	0056			96.5	0056:03.82		
1380	0058			94	0058:03.51		
1381	0100			94	0100:00.62		END of the Roll
1382	0102			95	0102:03.30		New Roll
1383	0104	✓	✓	93	0104:00.93		

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1384	0106	3 <sup>16s</sup>	48"	86	0106:03.59		
1385	0108			86	0108:03.89		
1386	0110			85	0110:02.19		
1387	0112			84	0112:02.09		
1388	0114			85	0114:00.162		NO RECORD
1389	0116			86	0116:03.75		
1390	0118			83	0118:06.84		
1391	0120			100	0120:06.78		
1392	0122			85	0122:02.74		
1393	0124			85	0124:02.82		
1394	0126			85	0126:03.26		
1395	0128			86	0128:04.59		
1396	0130			85	0130:02.31		
1397	0132			86	0132:03.48		
1398	0134			89	0134:02.16		
1399	0136			85	0136:03.08		
1400	0138			85	0138:03.27		
1401	0140			85	0140:04.90		
1402	0142			86	0142:04.77		
1403	0144			85	0144:03.05		
1404	0146			86	0146:04.31		
1405	0148			83	0148:06.04		
1406	0150			84	0150:01.34		
1407	0152			87	0152:04.87		
1408	0154			85	0154:03.84		
1409	0156			80	0156:04.62		

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1410	0158	3	48	95	0158:02.91		
1411	0200	3	48	95	0200:03.20		
1412	0202	3	48	96	0202:03.60		
1413	0204			97	0204:13.73		
1414	0206			96	0206:09.79		
1415	0208			100	0208:06.65		
1416	0210			96	0210:05.86		
1417	12			98	0212:05.99		
1418	14			97	0214:05.35		
1419	16			95	0216:01.26		
1420	18			97	0218:04.08		
1421	20			97	0220:06.21		
1422	0222			100	0222:06.78		
1423	0224			98	0224:04.58		
1424	0226			96	0226:02.63		
1425	0228			96	0228:04.22		
1426	0230			97	0230:03.78		
1427	0232			97	0232:03.21		
1428	0234			91	0234:03.90		
1429	0236			96	0236:02.01		
1430	0238			95	0238:01.38		
1431	0240			97	0240:03.70		
1432	0242			95	0242:02.01		
1433	0244			95	0244:01.66		
1434	0246			95	0246:01.62		
1435	0248	✓	✓	99	0248:05.01		



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78 III

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1436	0250	3	48	98	0250:04.35		
1437	0252			97	0252:02.57		
1438	0254			98	0254:04.81		
1439	0256			98	0256:04.79		
1440	0258			97	0258:02.77		
1441	0300			99	0300:13.98		
1442	0302			100	0302:06.34		
1443	0304			99	0304:04.95		
1444	0306			96	0306:02.05		
1445	0308			97	0308:03.71		
1445	0310			96	0310:02.25		
1446	0312			98	0312:04.92		
1447	0314			97	0314:02.91		
1448	0316			98	0316:04.65		
1449	0318			96	0318:05.39		
1450	0320			97	0320:03.09		
1451	0322			98	0322:03.49		
1452	0324			99	0324:05.37		
1453	0326			99	0326:05.17		
1454	0328			97	0328:03.00		
1455	0330			99	0330:05.14		
1456	0332				0332:02.51		
1457	0334			97	0334:03.54		After Paper
1458	0336			97	0336:03.15		
1459	0338			99	0338:05.43		
1460	0340			100	0340:07.23		

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SHOT LINE NO.

C06

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1461	0342	3	48	97	0342:07.46		
1462	0344			103	0344:09.84		
1463	0346			99	0346:06.71		
1464	0348			99	0348:06.02		
1465	0350			98	0350:05.56		
1466	0352			98	0352:04.69		
1467	0354			98	0354:05.04		
1468	0356			102	0356:08.40		
1469	0358			98	0358:05.26		
1470	0400			96	0400:01.54		
1471	0402			100	0402:05.66		
1472	0404			95	0404:00.69		
1473	0406			99	0406:06.34		
1474	0408			95	0408:01.18		
1475	0410			94	0410:01.07		
1476	0412			93	0412:00.39		
1477	0414			95	0414:01.88		
1478	0416			96	0416:02.96		
1479	0418			97	0418:03.53		
1480	0420			93	0420:00.36		
1481	0422			97	0422:03.71		
1482	0424			96	0424:05.10		
1483	0426			95	0426:02.93		
1484	0428			95	0428:02.38		
1485	0430			96	0430:03.87		
1486	0432			95	0432:02.88		

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1487	0434	31b	18"	97	0434:04.46		
1488	0436			95	0436:02.45		
1489	0438			97	0438:03.92		
1490	0440			93	0440:00.14		
1491	0442			96	0442:02.66		
1492	0444			94	0444:01.99		
1493	0446			97	0446:03.86		
1494	0448			94	0448:01.38		
1495	0450			97	0450:04.39		
1496	0452			98	0452:05.90		
1497	0454			96	0454:03.15		
1498	0456			96	0456:03.59		
1499	0458			97	0458:03.64		
1500	0500			96	0500:05.58		NO BURN TIME - VOLTAGE DROP
1501	0502			95	0502:02.28		
1502	0504			98	0504:05.39		
1503	0506			94	0506:01.63		
1504	0508			97	0508:04.30		
1505	0510			95	0510:02.77		
1506	0512			96	0512:03.54		
1507	0514			95	0514:03.06		
1508	0516			unknown	0515:52.50		
1509	0518			95	0518:01.70		
1510	0520			93	0520:00.46		
1511	0522			94	0522:01.67		



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SHOT LINE NO. 006

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1536	0612	3 lbs	48"	94	0611:58.19		
1538	0614			95.5	0614:01.01		
1539	0616			96	0616:01.02		No Record
1540	0618			95	0618:02.95		New Roll
1541	0620			96.5	0620:00.45		
1542	0622			~95	0622:01.06		BT Approx.
1543	0624			97	0624:02.05		
1544	0626			~93	0625:58.13		BT Approx.
1545	0628			95	0627:57.63		
1546	0630			94	0629:59.15		
1547	0632			~95	0632:02.99		No BT
1548	0634			96	0634:02.07		
1549	0636			97	0636:02.32		
1550	0638			97	0638:02.35		
1551	0640			99	0640:03.94		
1552	0642			98	0642:02.87		
1553	0644			95	0644:00.17		
1554	0646			94	0646:00.34		
1555	0648			95	0648:01.78		
1556	0650			100	0650:06.20		
1558	0652			95	0652:00.11		
1559	0654			97	0654:02.50		
1560	0656			97	0656:02.31		
1561	0658			96	0658:00.92		
1562	0700	✓	✓	93	0659:58.00		

SHOT LINE NO. C06

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1563	0702	3H	48"		0702:03.53		
1564	0704	3	48	97	0704:00.66		
1565	0706	3	48	98	0706:03.54		
1566	0708	3	48	98	0708:04.97		
1567	0710	3	48	97	0710:02.02		
1568	0712	3	48	99	0712:07.37		
1569	0714	3	48	99.5	0714:06.95		
1570	0716	3	48	98	0716:02.05		
1571	0718	3	48	98	0718:02.767		Start Sho
1572	0720	3	48	100	0720:03.85		Camera P
1573	0722	3	48	104	0722:07.67		
1574	0724	3	48	96	0724:00.41		
1575	0726	3	48	98		SBTs for Corrad Data	
1576	0728				0728:01.06		
1577	0730			101	0730:05.16		
1578	0732			97	0732:03.71		No Record
1579	0734			99.5	0734:04.15		
1580	0736			101	0736:05.56		
1581	0738			101	0738:03.75		
1582	0740			99	0740:02.13		
1583	0742			99	0742:04.00		
1584	0744			98	0744:01.32		
1585	0746			97.5	0746:00.60		
1586	0748			96	0748:59.75		
1587	0750			97	0750:01.25		

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1588	0752	3162	48°	98	0752:02.33		
1589	0754			97	0754:02.26		END ROLL
1590	0756			97	0756:00.63		NO Record
1591	0758			100	0758:05.18		SBTs for Conrad data Cleaning Camera Roll
1592	0800			99.5	0800:02.26		
1593	0802			99	0802:03.27		
1594	0804			94	0803:57.246		
1595	0806			97	0806:01.87		Rollers clean still have Problems
1596	0808			98	0808:02.63		
1597	0810			95	0809:59.48		
1598	0812			97.5	0812:01.53		CLEANING SITE
1599	0814			96	0814:01.36		CAMERA - NO RECORDS
1600	0816			96	0816:03.52		NO Record
1601	0818			96	0818:01.61		NO Record
1602	0820			100	0820:04.74		NO Record
1603	0822			96	0821:59.94		NO Record
1604	0824			97	0824:02.88		Good Record
1605	0826			97	0825:59.35		NO ROLL
1606	0828			95	0828:00.39		
1607	0830			96	0830:01.20		
1608	0832			96	0832:01.25		
1609	0834			95	0834:00.95		
1610	0836			97	0836:03.02		
1611	0838			95	0837:59.62		

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1612	0840	3165	48	102	0840:08.22		
1613	0842			98	0842:03.08		
1614	0844			101	0844:05.89		
1615	0846			97	0846:00.53		
1616	0848			95	0847:59.75		
1617	0850			95	0850:02.47		
1618	0852			97.5	0852:02.36		
1619	0854			97	0854:01.22		
1620	0856			99	0856:04.73		
1621	0858			98	0858:02.45		
1622	0900			94	0900:01.76		
1623	0902			96.5	0902:03.75		
1624	0904			97	0904:04.15		
1625	0906			94.5	0906:01.57		
1626	0908			98	0908:05.18		
1627	0910			96	0910:03.37		
1628	0912			98	0912:06.48		
1629	0914			104	0914:13.25		
1630	0916			102	0916:09.86		
1631	0918			~98	0918:11.42		
1632	0920			106	0920:14.20		
1633	0922			100	0922:07.85		
1634	0924			98	0924:06.44		
1635	0926			95	0926:02.48		
1636	0928			97	0928:09.02		
1637	0930			97	0930:04.70		



SHOT LINE NO. C06

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1638	0932	3	48	97	0932:03.59		
1639	0934			96	0934:03.09		
1640	0936			100	0936:06.75		
1641	0938			98	0938:05.43	SBT to 1000 Downed Data V	NO RECORD
1642	0940			99	0940:05.12		NO RECORD
1643	0942				0942:05.49		
1644	0944			98	0944:07.05		
1645	0946			107	0946:13.87		
1646	0948			101	0948:09.01		
1647	0950			99	0950:06.34		
1648	0952			98	0952:05.01		
1649	0954			97	0954:04.70		
1650	0956			99	0956:06.24		
1651	0958			99	0958:06.30		
1652	1000			96	1000:04.14		
1653	1002			98	1002:05.89		
1654	1004			98.5	1004:02.67		
1655	1006			97	1006:00.59		
1656	1008			95	1008:00.34		
1657	1010			96	1009:59.88		
1658	1012			96	1012:02.29		
1659	1014			100	1014:03.06		
1660	1016			97.5	1016:01.38		
1661	1018			98	1018:02.25		
1662	1020			96	1019:59.29		
1663	1022			99.5	1022:03.91		

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1664	1024	3	48	97	1024:01.10		
1665	1026			97	1026:01.47		
1666	1028			99	1028:03.89		
1667	1030			99	1030:03.28		
1668	1032			98.5	1032:01.55		
1669	1034			96	1033:59.52		
1670	1036			98	1036:02.70		
1671	1038			96	1038:00.72		
1672	1040			96.5	1040:02.16		
1673	1042			95.5	1041:59.08		
1674	1044			95.5	1044:00.58		
1675	1046			98.5	1046:03.83		
1676	1048			95.5	1048:00.31		
1677	1050			98	1050:02.48		
1678	1052			96	1052:00.15		
1679	1054			97	1054:01.49		
1680	1056			96.5	1056:13.37		
1681	1058			95	1057:58.79		
1682	1100			95	1059:58.94		
1683	1102			96	1102:01.31		
1684	1104			96	1104:01.00		
1685	1106			96	1106:00.09		
1686	1108			96	1108:00.42		
1687	1110			97	1110:02.96		
1688	1112			97	1112:01.73		
1689	1114			99	1114:02.75		

SHOT LINE NO. 006

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1690	1116	3169	48	96	1115:59.43		
1691	1118			95	1117:59.68		
1692	1120			95	1120:00.17		
1693	1122			98	1122:03.92		
1694	1124			95	1124:00.39		
1695	1126			94	1125:59.04		
1696	1128			95.5	1128:01.45		
1697	1130			96	1130:03.43		
1698	1132			94	1131:59.91		
1699	1134			95	1134:00.72		
1700	1136			96	1136:01.07		
1701	1138			97	1138:01.42		
1702	1140			97.5	1140:03.46		
1703	1142			97	1142:01.92		
1704	1144			97	1144:01.85		
1705	1146			98.5	1146:03.43		
1706	1148			96.5	1148:02.29		
1707	1150			96.5	1150:01.94		
1708	1152			96	1152:00.07		
1709	1154			97	1154:01.22		
1710	1156			97	1156:01.59		
1711	1158			99	1158:01.94		
1712	1200			98	1200:02.69		
1713	1202			94	1201:59.97		
1714	1204			99	1204:04.43		
1715	1206			101	1206:07.56		

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1716	1208	3	48	95	1208:05.16		
1717	1210			99	1210:07.58		
1718	1212			100	1212:08.03		
1719	1214			103	1214:10.91		
1720	1216			98	1216:06.42		
1721	1218			96	1218:04.94		
1722	1220			96	1220:04.34		
1723	1222			98	1222:05.51		
1724	1224			100	1224:08.55		
1725	1226			98	1226:06.13		
1726	1228			97	1228:05.00		
1727	1230			99	1230:07.26		
1728	1232			99	1232:07.05		
1729	1234			98	1234:05.91		
1730	1236			98	1236:06.11		
1731	1238			97	1238:05.24		
1732	1240			96	1240:03.01		
1733	1242			96	1242:04.31		
1734	1244			96	1244:04.53		
1735	1246			97	1246:04.19		
1736	1248			100	1248:06.94		
1737	1250			97	1250:05.87		
1738	1252			97	1252:05.89		
1739	1254			98	1254:04.17		New page
1740	1256			98	1256:07.02		
1741	1258			99	1258:07.17		

SHOT LINE NO.

C06

111

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1742	1300	3	48	99	1300:05.60		
1743	1302			99	1302:07.26		
1744	1304			97	1304:06.41		
1745	1306			98	1306:06.84		
1746	1308			99	1308:05.34		
1747	1310			98	1310:05.39		
1748	1312			97	1312:06.55		
1749	1314			97	1314:06.18		BT approx
1750	1316			97	1316:05.27		
1751	1318			101	1318:07.50		
1752	1320			97	1320:05.01		
1753	1322			98	1322:02.91		BT approx
1754	1324			98	1324:05.96		
1755	1326			98	1326:05.74		
1756	1328			97	1328:04.08		
1757	1330			100	1330:07.71		
1758	1332			97	1332:05.91		
1759	1334			98	1334:06.70		
1760	1336			97	1336:04.87		
1761	1338			99	1338:06.57		
1762	1340			100	1340:09.92		
1763	1342			97	1342:04.54		
1764	1344			98	1344:06.30		
1765	1346			99	1346:07.66		
1766	1348			98	1348:04.78		
1767	1350			96	1350:03.97		

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SHOT LINE NO.

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1768	1352	3	48	97	1352:05.54		
1769	1354			98	1354:05.65		
1770	1356				1356:05.23		NO BT
1771	1358			98	1358:05.05		
1772	1400			98	1400:05.25		
1773	1402			97	1402:04.10		
1774	1404			99	1404:05.91		
1775	1406			97	1406:04.50		
1776	1408			98	1408:05.35		
1777	1410			99	1410:05.20		
1778	1412			98	1412:06.31		
1779	1414			101	1414:07.73		
1780	1416			100	1416:05.44		
1781	1418			98	1418:04.37		
1782	1420			100	1420:08.83		
1783	1422			98	1422:03.30		
1784	1424			98	1424:09.60		
1785	1426			102	1426:07.97		
1786	1428			96	1427:59.41		
1787	1430			99	1430:01.97		
1788	1432			99	1432:02.27		
1789	1434			98	1434:02.24		
1790	1436			97	1436:01.70		
1791	1438			99	1438:02.51		
1792	1440			98	1440:02.11		
1793	1442			99	1442:05.38		

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SHOT LINE NO. 006

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1794	1444	5	48	92	1444:01.79		
1795	1446			96	1445:59.36		
1796	1448			96	1448:00.26		
1797	1450			98	1450:01.57		
1798	1452			97	1451:57.90		
1799	1454			100	1454:03.51		
1800	1456			98	1456:02.16		
1801	1458			98	1458:02.84		
1802	1500			101	1500:04.66		
1803	1502			98	1502:01.14		
1804	1504			98	1504:01.72		
1805	1506			99	1506:03.27		
1806	1508			99	1508:02.01		
1807	1510			97	1510:00.90		
1808	1512			100	1512:02.71		
1809	1514			96	1514:03.04		
1810	1516			101	1516:04.82		
1811	1518			97	1518:01.61		
1812	1520			98	1520:01.76		New roll p
1813	1522			98	1522:01.49		
1814	1524			97	1524:00.00		
1815	1526			98	1526:01.57		
1816	1528			100	1528:03.21		
1817	1530			98	1530:02.27		
1818	1532			99	1532:02.32		
1819	1534			100	1534:03.61		

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SHOT LINE NO. C06

111

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1820	1536	3	48	97	1536:00.04		
1821	1538			98	1538:00.92		
1822	1540			95	1540:02.91		
1823	1542			99	1542:01.42		
1824	1544			100	1544:03.03		
1825	1546			100	1546:04.61		
1826	1548			101	1548:03.73		
1827	1550			99	1550:03.59		
1828	1552			99	1552:15.60		
1829	1554			100	1554:10.59		
1830	1556			98	1556:05.31		
1831	1558			101	1558:06.86		
1832	1600			100	1600:05.22		
1833	1602			98	1602:07.99		
1834	1604			96	1604:01.46		
1835	1606			96	1606:01.35		
1836	1608			98	1608:03.09		
1837	1610			97	1610:01.27		
1838	1612			98	1612:02.05		
1839	1614			98	1614:02.77		
1840	1616			98	1616:08.62		
1841	1618			9	1618:02.85		
1842	1620			97	1620:02.57		
1843	1622			98	1622:02.87		
1844	1624			97	1624:02.96		
1845	1626			98	1626:02.76		



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SHOT LINE NO.

C06

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COMMENTS

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1846	1628	3	48	100	1628:05.68		
1847	1630			97	1630:02.50		
1848	1632			97	1632:03.21		
1849	1634			99	1634:04.60		
1850	1636			99	1636:06.52		
1851	1638			98	1638:03.18		
1852	1640			98	1640:04.07		
1853	1642			100	1642:05.23		
1854	1644			99	1644:05.06		
1855	1646			98	1646:04.91		check for +0.1 sec. error
1856	1648			97	1648:01.94		in SBTs check shot 192
1857	1650			99	1650:03.78		185 May 10, 78
1858	1652			99	1652:04.87		
1859	1654			97	1654:02.72		
1860	1656			?	1656:06.04		
1861	1657			?	1657:08.96		
1862	1658			99	1658:03.72		
1863	1700	3	48	102	1700:05.76		
1864	1702	3	48	102	1702:07.04		
1865	1704			105	1704:00.06		
1866	1706			96	1706:01.32		
1867	1708			99	1708:03.94		
1868	1710			100	1710:05.11		
1869	1712			103	1712:08.89		
1870	1714	3	48	99	1714:09.13		
1871	1716	3		99	1716:02.69		

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1872	17 18	3	48	94	1718:0364		
1873	17 20			103	1720:0701		
1874	17 22			101	1722:0550		
1875	17 24			100	1724:0373		
1876	17 26			100	1726:0805		
1877	17 28			100	1728:0425		
1878	17 30			100	1730:0162		
1879	17 32			98	1732:0200		
1880	17 34			98	1734:0310		
1881	17 36			102	1736:0514		End Roll
1882	17 38			101	1738:0533		New Roll
1883	17 40			100	1740:0474		
1884	17 42			97	1742:0208		
1885	17 44			99	1744:0336		
1886	17 46			99	1746:0328		
1887	17 48			103	1748:0755		
1888	17 50			96	1750:0076		
1889	17 52	3		101	1752:0630		
1890	17 54	3		103	1754:0738		
1891	17 56	3	48	96	1758:0252		
1892	18 00	3	48	98	1800:0342		
1893	18 04	3		93	1802:5825		
1894	18 08			98	1808:0413		
1895	18 12			95	1812:0107		
1896	18 16			95	1816:0060		
1897	18 20			95	1820:0101		

SHOT LINE NO.

C06

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1898	18 24	9	48	95	1824:0051		
1899	18 28			98	1828:0550		
1900	18 32			97	1832:0368		
1901	18 36			96	1836:0266		
1902	18 40			96	1840:0212		
1903	18 44			99	1844:0389		
1904	18 48			98	1848:0557		
1905	18 52			100	1852:0566	5.026	
1906	18 56			100	1856:0578	5.031	
1907	19 00			97	1900:0379	5.025	
1908	19 04			96	1904:0038	5.04	
1909	19 08			95	1907:5952	5.052	
1910	19 12			92	1909:5848	5.015	
1911	19 16			96	1916:0235	5.011	
1912	19 20			99	1920:0614	4.97	
1913	19 24			94	1923:5897	4.95	
1914	19 28			99	1928:0368	4.94	
1915	19 32			95	1932:0035	4.94	
1916	19 36			99	1936:0457	4.94	
1917	19 40			103	1939:5875	4.89	
1918	19 44			95	1944:0125	4.845	
1919	19 48			95	1948:0044	4.801	
1920	19 52			94	1951:5920	4.78	
1921	19 56			100	1956:0639	4.772	
1922	20 00			95	2000:0068	4.775	
1923	20 04	✓	✓	95	2004:0067	4.800	

SHOT LINE NO. 606

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH (sec)	COMMENTS
1924	2008	91b	48"	97.5	2008:03.89	4.82	
1925	2012			93	2011:56.93	4.795	
1926	2016			92.5	2015:59.03	4.755	
1927	2020			92.5	2019:58.71	4.674	
1928	2024			93	2023:58.76	4.695	
1929	2028			97	2028:05.12	4.53	
1930	2032			94	2032:01.29	4.45	
1931	2036			94	2036:01.92	4.35	
1932	2040			97.5	2040:04.24	4.22	
1933	2044			96	2044:02.92	4.45	
1934	2048			95	2048:02.04	4.07	
1935	2052			94	2052:00.37	~4.0	
1936	2056			92.5	2056:01.39	3.92	
1937	2100			92	2059:59.26	3.80	
1938	2106			94.5	2106:01.16	3.64	
1939	2108			97	2108:05.22	3.56	
1940	2112			96	2112:06.03	3.40	
1941	2116			95	2116:03.50	3.265	
1942	2120			94.5	2120:01.64	3.2	
1943	2124			96	2124:02.96	3.15	
1944	2128			96	2128:04.18	3.135	
1945	2132			94	2132:02.11	3.130	
1946	2136			98.5	2136:05.43	3.140	
1947	2140			92	2139:58.93	3.120	
1948	2144			93	2143:58.46	3.150	
1949	2148	✓	✓	93	2147:58.84	3.117	

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SHOT LINE NO.

C06

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
1950	2152	9 1/2	48"	94	2151:58.95	3.135	NO RECORD
1951	2156			93.5	2155:59.17	3.138	
1952	2200			93	2159:58.51	3.161	
1953	2204			93	2203:59.01	3.191	
1954	2208			91.5	2207:58.38	3.220	
1955	2212			91.5	2211:59.00	3.268	
1956	2216			93	2216:00.42	3.334	
1957	2220			93	2219:59.87	3.403	
1958	2224			93	2224:01.21	3.467	
1959	2228			93	2228:01.33	3.560	NEW ROLL
1960	2232			92.5	2231:59.76	3.635	
1961	2236			92	2236:00.46	3.705	
1962	2240			93	2240:02.10	3.770	
1963	2244			88	2243:55.93	3.855	NO SBT from P
1964	2248			92	2247:57.78	3.955	
1965	2252			92	2251:58.13	4.05	
1966	2256			91.5	2255:59.61	5.125	
1967	2300			91.5	2259:59.39	4.210	
1968	2304			92	2304:00.49	4.275	
1969	2308			92	2308:00.65	4.335	
1970	2312			91	2311:59.16	4.410	
1971	2316			91	2316:01.47	4.650	
1972	2320			92	2320:00.90	4.530	
1973	2324			92	2323:59.91	4.590	
1974	2328			91	2327:59.00	4.650	LAST SHOT OF THE DIRECTION

SHOT LINE NO. 206

BEGIN HARRIS DATA FILE  
SHIMW2193

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH (ft)	COMMENTS
1975	0016	916	48"	92.5	0016:01.15	3.955	FIRST SHOT IN
1976	0020			91	0020:00.38	3.87	REVERSE DIRECTION - ON SAME ROLL
1977	0024			99.5	0024:07.63	3.80	
1978	0028			92	0028:00.58	3.715	
1979	0032			93	0032:01.28	3.58	
1980	0036			92	0036:59.24	3.48	
1981	0040			94.5	0040:02.48	3.39	
1982	0044			94	0044:03.27	3.345	
1983	0048			92	0048:01.39	3.315	
1984	0052			92	0052:00.35	3.320	
1985	0056			92.5	0056:00.72	3.285	
1986	0100			93	0100:01.51	3.270	
1987	0104			92	0104:00.10	3.20	
1988	0108			91	0107:59.14	3.125	
1989	0112			96	0112:04.67	3.075	
1990	0116			90.5	0115:58.85	3.065	
1991	0120			92	0120:00.05	3.11	
1992	0124			93.5	0124:01.58	3.20	
1993	0128			93	0128:01.85	3.45	
1994	0132			90.	0131:59.78	3.53	
1995	0136			92	0136:00.26	3.73	
1996	0140			92	0139:59.89	3.93	
1997	0144			92	0144:00.90	~ 4.1	
1998	0148			91	0147:59.37	4.215	
1999	0152			92	0152:00.28	4.35	

SHOT LINE NO. 006

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH <sup>(sec)</sup>	COMMENTS
2000	0156	916	48"	94sec	0156:02.49	4.455	
2001	0200			93	0200:00.82	4.64	
2002	0204			93	0204:01.20	4.735	
2003	0208			90	0207:58.10	4.770	
2004	0212			92	0212:00.48	4.825	
2005	0216			89	0215:57.74	4.82	
2006	0220			93	0220:01.13	4.79	
2007	0224			92	0224:00.24	4.795	
2008	0228			93	0228:02.35	4.85	
2009	0232			92	0232:02.44	4.94	
2010	0236			91	0235:59.60	4.97	
2011	0240			92	0239:59.87	4.95	
2012	0244			89	0243:57.62	4.955	
2013	0248			94	0248:02.07	5.005	
2014	0252			93	0252:01.37	5.043	
2015	0256			92	0256:01.17	5.043	
2016	0300			92	0300:00.05	5.034	
2017	0304			92	0304:01.02	5.041	
2018	0308			95	0308:03.53	5.089	
2019	0312			92	0312:00.88	5.100	
2020	0316			92	0316:00.18	5.129	
2021	0320			91	0319:59.79	5.050	
2022	0324			91	0323:58.52	5.10	
2023	0328			91	0327:59.50	5.038	
2024	0332			92	0332:01.84	5.041	

SHOT LINE NO. C06

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2025	0336	9	48	93	0336:01.74	5.180	
2026	0340			93.5	0340:02.34	5.272	
2027	0344			93	0344:02.08	5.351	
2028	0348			92	0348:00.77	5.342	
2029	0352			92	0352:00.32	5.290	
2030	0356			93	0356:01.69	5.345	
2031	0400			93	0400:00.69	5.428	
2032	0404			93	0404:02.28	5.389	
2033	0408			94	0408:00.98	5.380	
2034	0412			93	0412:00.46	5.421	
2035	0416			91	0415:58.97	5.506	
2036	0420			96	0420:03.28	5.509	
2037	0424			94	0424:01.79	5.640	
2038	0428			99	0428:06.09	5.563	No paper rec'd
2039	0432			94	0432:05.75	5.665	
2040	0436			96	0436:03.92	5.736	
2041	0440			94	0440:01.74	5.813	
2042	0444			97	0444:05.08	5.830	
2043	0448			95	0448:04.19	5.848	
2044	0452			97	0452:05.95	5.853	
2045	0456			98	0456:06.40	5.890	
2046	0500			94	0500:02.74	5.940	
2047	0504			95	0504:03.06	6.022	
2048	0508			93	0508:04.13	6.090	
2049	0512			92	0511:58.34	6.136	
2050	0516			92	0515:58.72	6.212	



SHOT LINE NO. 206

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2051	0520	9	48	93	0520:01.08	6.210	CO 13.02.8N 67.55
2052	0524			92	0523:59.84	6.250	
2053	0528			94	0528:01.21	6.349	
2054	0532			93	0532:00.85	6.433	New Paper vol
2055	0536			91	0536:00.37	6.600	
2056	0540			89	0539:59.44	6.685	
2057	0544			91	0543:59.63	6.694	
2058	0548			92	0547:59.61	6.695	
2059	0552			92	0552:00.68	6.696	
2060	0556			94	0555:59.22	6.696	
2061	0600			94	0600:02.58	6.696	
2062	0604			92	0604:06.38	6.696	
2063	0608			101	0608:09.67	6.696	
2064	0612			95	0612:03.91	6.695	
2065	0616			96	0616:03.19	6.694	
2066	0620			92	0620:01.09	6.693	
2067	0624			91	0623:59.11	6.693	
2068	0628			93	0627:59.20	6.690	
2069	0632			93	0632:00.71	6.689	
2070	0636			92	0635:59.76	6.689	
2071	0640			92	0640:00.11	6.687	
2072	0644			91	0643:58.73	6.687	
2073	0648			95	0648:02.96	6.685	
2074	0652			93	0652:00.56	6.683	
2075	0656			93	0656:13.77	6.682	
2076	0700			95	0700:02.07	6.680	

SHOT LINE NO. 006

112  
COMMENTS

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2077	0704	9	48	93	0704:00.59	6.675	
2078	0708			93	0708:00.66	6.673	
2079	0712			93	0712:01.01	6.671	
2080	0716			93	0715:59.76	6.671	
2081	0720			93	0720:00.79	6.670	
2082	0724			95	0724:02.67	6.670	
2083	0728			92	0728:00.58	6.665	
2084	0732			94	0732:00.70	6.665	
2085	0736			92	0736:00.92	6.663	
2086	0740			92	0740:01.21	6.662	
2087	0744			94	0744:03.22	6.663	
2088	0748			93	0747:59.96	6.667	
2089	0752			93	0752:01.75	6.664	
2090	0756			94	0756:03.01	6.664	
2091	0800			94	0800:02.33	6.664	
2092	0804			94	0804:06.08	6.665	
2093	0808			94	0808:08.14	6.665	Actually ~10 lbs.
2094	0812			96	0812:04.43	6.665	
2095	0816			96	0816:03.77	6.665	
2096	0820			97	0820:04.77	6.666	
2097	0824			93	0824:00.70	6.666	
2098	0828			92	0827:58.65	6.666	
2099	0832			93	0832:00.61	6.667	
2100	0836			93	0836:01.37	6.668	
2101	0840			95	0840:03.08	6.668	
2102	0844			93	0844:00.60	6.668	

SHOT LINE NO.

C06

1/2  
COMMENTS

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2103	0848	9	48	93	0848:01.81	6.669	
2104	0852			93	0852:00.56	6.679	
2105	0856			93	0856:00.38	6.674	
2106	0900			93	0859:59.63	6.674	
2107	0904			93	0904:00.56	6.674	
2108	0908			94	0908:01.42	6.674	
2109	0912			95	0912:01.71	6.674	
2110	0916	9	48	97	0916:04.93	6.674	
2111	0920			95	0920:01.66	6.675	
2112	0924			99	0924:06.16	6.676	
2113	0928			98	0928:04.77	6.676	
2114	0932			98	0932:05.23	6.676	
2115	0936			96	0936:04.88	6.676	
2116	0940			99	0940:06.31	6.676	
2117	0944			98	0944:05.23	6.676	
2118	0948			97	0948:04.56	6.676	
2119	0952			99	0952:06.77	6.676	
2120	0956			94	0956:01.21	6.676	
2121	1000			103	1000:00.18	6.676	
2122	1004			96	1004:02.01	6.677	
2123	1008			98	1008:05.09	6.677	
2124	1012			94	1012:01.01	6.678	
2125	1016			93	1016:00.47	6.678	
2126	1020			92	1019:59.75	6.678	
2127	1024			95	1024:02.27	6.679	
2128	1028	9	48	93	1028:00.12	6.679	

SHOT LINE NO. C06

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2129	1032	9	48	94	1032:01.53	6.679	
2130	1036			94	1036:01.54	6.679	
2131	1040			94	1040:00.73	6.679	
2132	1044			94	1044:01.12	6.679	
2133	1048			94	1048:01.01	6.679	
2134	1052			92	1051:58.70	6.679	
2135	1056			94	1055:59.71	6.679	
2136	1100			91	1059:57.92	6.679	End of the Roll
2137	1104			91	1104:01.04	6.679	New Roll
2138	1108			91	1107:59.37	6.679	
2139	1112			92	1112:01.29	6.679	
2140	1116			93	1116:01.26	6.680	
2141	1120			94	1120:02.80	6.683	
2142	1124			95	1124:02.51	6.687	
2143	1128			96	1128:02.27	6.685	
2144	1132			92	1131:59.12	6.685	
2145	1136			92	1135:59.78	6.685	
2146	1140			93	1140:00.26	6.685	
2147	1144			96	1144:03.24	6.685	
2148	1148			95	1148:03.00	6.685	
2149	1152			93	1152:00.05	6.685	
2150	1156			92	1158:58.70	6.685	
2151	1200			92.5	1200:00.80	6.687	
2152	1204			93	1204:00.01	6.687	
2153	1208			92	1208:00.92	6.687	
2154	1212			91.5	1211:59.22	6.687	

SHOT LINE NO. 006

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2155	1216	9	48	92	1215:58.90	6.687	
2156	1220			92	1220:01.02	6.687	
2157	1224			94	1224:11.10	6.687	
2158	1228			95	1228:09.79	6.687	
2159	1232			93	1232:01.15	6.687	
2160	1236			92	1235:59.66	6.687	
2161	1240			94	1240:02.64	6.687	
2162	1244			93	1244:01.67	6.687	
2163	1248			93	1248:01.06	6.687	
2164	1252			97	1252:05.41	6.688	
2165	1256			92	1255:59.79	6.688	
2166	1300			92	1300:00.17	6.688	
2167	1308			95	1308:02.49	6.688	Change to 8 min schedule
2168	1316			92	1316:00.19	6.688	
2169	1324			91.5	1323:59.45	6.688	
2170	1332			93	1332:01.16	6.689	
2171	1340			93	1340:01.89	6.690	
2172	1348			91	1348:05.11	6.690	
2173	1356			91.5	1355:58.35	6.691	
2174	1404			91	1403:58.67	6.690	
2175	1412			91	1412:01.13	6.689	
2176	1420			94	1420:01.77	6.688	
2177	1428			91	1427:58.39	6.688	
2178	1436			92	1436:01.06	6.687	
2179	1444			90.5	1443:58.72	6.687	
2180	1452			92	1452:00.44	6.687	



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ESP-4 (START)

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BATHYMETRY  
ABSENT  
DEPTH

SHOT #	TIME	SIZE	FUSE	BT	SBT	BATHYMETRY ABSENT DEPTH	COMMENTS
2194	23 10	1	68	100	2310:07.69		START Line ESP 4 New Roll
2195	23 11			88	2311:06.91		
2196	23 12			99	2312:04.52		
2197	23 13			?	2313:04.22		No BT
2198	23 14			100	2314:05.28		
2199	23 15			95	2315:06.56		
2200	23 17			100	2317:06.40		Missed 23.163m
2201	23 18			99	2318:06.25		
2202	23 19			102	2319:07.42		
2203	23 20			100	2320:05.46		
2204	23 21			100	2321:07.25		
2205	23 22			97	2322:12.85		
2206	23 23			103	2323:11.44		
2207	23 24			101	2324:07.02		
2208	23 25			100	2325:05.32		
2209	23 26			94	2325:54.86		BT approx
2210	23 27			97	2327:03.01		
2211	23 28			100	2328:07.67		
2212	23 29			104	2329:07.52		
2213	23 30			98	2330:02.79		
2214	23 31			102	2331:07.26		
2215	23 32			101	2332:04.01		Bad shot (Partial)
2216	23 33			98	2333:00.82		
2217	23 34			97	2334:02.02		
2218	23 35			101	2335:06.11		
2219	23 36	V	V	98	2336:01.38		

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ESP4

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2220	23 37	1	48	97	2337:01.52		
2221	23 38			97	2338:00.26		
2222	23 38			93	2338:56.69		
2223	23 40			!	2340:02.43		No P.T.
2224	23 41			99	2341:03.83		
2225	23 42			99	2342:01.50		
2226	23 43			101	2343:04.74		
2227	23 44			100	2344:11.35		
2228	23 45			101	2345:05.10		
2229	23 46			96	2346:01.44		
2230	23 47			99	2347:01.76		
2231	23 48			!	2348:01.50		
2232	23 49			100	2349:00.76		
2233	23 50			100	2350:00.90		
2234	23 51			100	2351:00.59		
2235	23 52			104	2352:07.02		
2236	23 53			102	2353:04.81		
2237	23 54			100	2354:02.55		
2238	23 55			99	2354:59.61		
2239	23 56			98	2355:58.08		
2240	23 57			101	2357:01.24		
2241	23 58			96	2357:59.56		
2242	23 59			101	2359:01.65		
2243	00 00			104	0000:05.95		21 Nov 77
2244	00 01			106	0001:07.00		
2245	00 02			98	0002:07.12		



SHOT LINE NO.

ESP-4

113

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2246	0003	1	48	99	0003:02.48		
2247	0004			100	0004:02.83		
2248	0005			103	0005:04.85		
2249	0006			99	0006:00.47		
2250	0007			104	0007:04.97		
2251	0008			110	0008:11.77		
2252	0009			100	0008:59.38		
2253	0010			102	0010:05.21		
2254	0011			110	0011:09.99		
2255	0012			104	0012:04.43		
2256	0013			101	0013:01.53		
2257	0014			99	0013:59.26		
2258	0015			103	0015:02.59		
2259	0016			96	0015:55.84		
2260	0017			99	0017:01.06		
2261	0018			97	0017:56.70		
2262	0019			101	0018:00.06		
2263	0020			96	0019:56.94		
2264	0021			97	0020:56.86		
2265	0022			95	0021:54.95		
2266	0023			97	0022:57.33		
2267	0024			99	0024:04.03		
2268	0025			104	0025:04.96		
2269	0026			101	0026:00.98		
2270	0027			97	0026:56.72		
2271	0028			101	0028:00.87		

SHOT LINE NO. ESP4

113

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2272	00 29	1	48	100	0028:59.80		
2273	00 30			107	0030:06.25		
2274	00 31			94	0031:03.55		
2275	00 32			106	0032:02.52		End of Roll
2276	00 33			97	0032:58.73		New Roll
2277	00 34			98	0033:58.13		
2278	00 35			105	0035:05.22		
2279	00 36			101	0036:01.84		
2280	00 37			103	0037:03.08		
2281	00 38			103	0038:02.95		
2282	00 39			98	0038:59.57		
2283	00 40	1 lb		102	0040:04.84		
2284	00 42	3 lbs		103	0042:05.63		Begin. 3 lbs 2 min
2285	00 44			97	0044:00.06		
2286	00 46			102	0046:05.45		
2287	00 48			98	0048:01.44		
2288	00 50	3		98	0050:00.17		
2289	00 52	9		93	0051:56.81		1st 9 lbs / 7 min
2290	00 56			95	0056:02.18		
2291	01 00			94	0059:59.21		
2292	01 04			97	0103:57.62		
2293	01 08			98	0107:58.53		
2294	01 12			94	0111:59.75		
2295	01 16	7		93	0115:57.57		
2296	01 23	30		98	0123:00.48		1st 30 lb / 7 min
2297	01 30	7	57	98	0130:00.08		



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SHOT LINE NO.

ESP-5116

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2309	18 54	1LB	48"	97	1854:01.83	4.536	NEW LINE & NEW ROLL
2310	18 55			97	1854:59.89	4.525	
2311	18 56			98	1856:02.53	4.515	
2312	18 57			99	1857:04.22	4.515	
2313	18 58			99	1858:03.42	4.520	
2314	18 59			98	1859:00.84	4.525	
2315	19 00			98	1900:02.82	4.530	
2316	19 01			100	1901:03.47	4.545	
2317	19 02			98	1902:01.15	4.55	
2318	19 03			97	1903:00.30	4.55	
2319	19 04			97	1904:01.72	4.565	
2320	19 05			99	1905:03.19	4.59	
2321	19 06			96	1905:59.41	4.615	
2322	19 07			97	1907:01.02	4.620	
2323	19 08			101	1908:14.72	4.590	
2324	19 09			98	1909:02.55	4.572	
2325	19 10			100	1910:05.53	4.580	
2326	19 11			97	1911:01.77	4.575	
2327	19 12			100	1912:04.48	4.575	
2328	19 13			98	1913:02.86	4.575	
2329	19 14			104	1914:08.51	4.575	
2330	19 15			100	1915:06.65	4.580	
2331	19 16			98	1916:02.23	4.585	
2332	19 17			98	1917:02.65	4.580	
2333	19 18			99	1918:04.46	4.587	
2334	19 19			98	1919:01.63	4.595	

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2335	19 20	1 LB	48	95	1920:00.72	4.585	
2336	19 21			97	1921:00.53	4.581	
2337	19 22			93	1921:50.21	4.582	
2338	19 23			96	1923:14.07	4.580	
2339	19 24			95	1923:56.87	4.585	
2340	19 25			100	1925:03.16	4.590	
2341	19 26			98	1925:59.48	4.575	
2342	19 27			95	1926:57.10	4.565	
2343	19 28			97	1927:59.45	4.560	
2344	19 29			98	1929:00.64	4.550	
2345	19 30			100	1930:02.53	4.550	
2346	19 31			97	1930:59.05	4.556	
2347	19 32			97	1931:50.55	4.57	
2348	19 33			97	1932:58.46	4.57	
2349	19 34			98	1934:01.55	4.585	
2350	19 35			103	1935:05.41	4.590	
2351	19 36			97	1935:59.18	4.590	
2352	19 37			103	1937:03.71	4.595	
2353	19 38			104	1938:07.01	4.590	
2354	19 39			100	1939:01.92	4.590	
2355	19 40			100	1940:02.53	4.590	
2356	19 41			94	1940:53.65	4.595	
2357	19 42			95	1941:57.66	4.598	
2358	19 43			100	1943:01.66	4.602	
2359	19 44			99	1944:02.48	4.610	
2360	19 45			98	1945:00.92	4.61	

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SHOT LINE NO.

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2361	19 46	1 LB	48"	97	1945:58.50	4.615	
2362	19 47	1		97	1946:59.95	4.62	
2363	19 48	1		101	1948:01.84	4.63	
2364	19 49	1		98	1949:00.32	4.63	
2365	19 50	1		99	1950:01.32	4.625	
2366	19 51	3	48	100	1951:04.53	4.628	1st 3 lb
2367	19 54	3		99	1954:01.42	4.629	
2368	19 56	3		99	1956:01.79	4.63	
2369	19 58	3		97	1957:59.65	4.645	
2370	20 00	3		103	2000:05.87	4.672	
2371	20 02	3		96	2001:59.28	4.685	
2372	20 04	3		99	2004:01.71	4.690	
2373	20 06	3		99	2006:01.50	4.70	
2374	20 08	3		101	2008:04.47	4.71	
2375	20 10	3		99	2010:01.26	4.71	
2376	20 12	3		105	2012:07.38	4.72	
2377	20 14	3		97	2013:59.62	4.718	
2378	20 16	3		94	2015:56.41	4.715	
2379	20 18	3		94	2017:54.70	4.734	14.7 MILES TO CONRAD
2380	20 22	9	48	93	2021:55.29	4.696	FIRST 9 lb
2381	20 26	9	48	94	2025:59.14	4.702	
2382	20 30	9	48	97	2030:02.18	4.728	
2383	20 34	9	48	95	2034:00.53	4.740	
2384	20 38	30	48	95	2038:01.06	4.745	FIRST 30 lb
2385	20 44	30	48	96	2044:03.15	4.740	
2386	20 50	30	48	96	2050:03.42	4.735	

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[illegible]

## SHOT LINE NO. ESP-6

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2402	1230	1	48	99	1230:01.69	5.462	SYNRY NEW ROLL
2403	1231			97	1230:59.68	5.473	
2404	1232			103	1232:04.05	5.484	
2405	1233			96	1232:58.00	5.486	
2406	1234			99	1234:02.05	5.490	
2407	1235			99	1235:01.24	5.511	
2408	1236			99	1236:01.46	5.518	
2409	1237			101	1237:04.15	5.530	
2410	1238			100.5	1238:03.76	5.541	
2411	1239			99	1239:02.45	5.540	
2412	1240			95	1239:58.66	5.548	
2413	1241			100	1241:02.68	5.555	
2414	1242			96	1241:58.20	5.552	
2415	1243			102	1243:02.56	5.552	
2416	1244			96	1243:59.12	5.552	
2417	1245			100	1245:03.04	5.554	
2418	1246			99	1246:01.37	5.560	
2419	1247			97	1247:00.25	5.560	
2420	1248			101	1248:04.30	5.555	
2421	1249			101.5	1249:03.65	5.550	
2422	1250			102	1250:05.39	5.542	
2423	1251			100	1251:04.06	5.537	
2424	1252			97	1251:59.19	5.531	
2425	1253			100.5	1253:02.85	5.533	
2426	1254			100	1254:01.87	5.530	
2427	1255			99.5	1255:03.24	5.532	



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SHOT LINE NO. ESP-6

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2428	1256	1	48	99.5	1256:02.29	5.529	
2429	1257			97	1256:58.99	5.528	
2430	1258			97	1257:58.69	5.528	
2431	1259			94	1258:56.19	5.531	
2432	1300			102	1300:04.99	5.536	
2433	1301			94	1300:58.04	5.541	
2434	1302			101	1302:03.97	5.547	
2435	1303			—	—	5.559	MISFIRE
2436	1304			101.5	1304:04.86	5.566	
2437	1305			95	1304:58.56	5.571	
2438	1306			93	1305:55.16	5.579	
2439	1307			97.5	1306:59.67	5.592	
2440	1308			97	1308:00.26	5.608	
2441	1309			102	1309:04.01	5.614	
2442	1310			97	1309:59.68	5.622	
2443	1311			97	1310:59.49	5.639	
2444	1312			97	1311:59.72	5.651	
2445	1313			98	1313:00.88	5.661	
2446	1314			97	1314:00.75	5.658	
2447	1315			98	1315:01.07	5.669	
2448	1316			95	1315:58.74	5.671	
2449	1317			99	1317:00.97	5.680	
2450	1318			97	1317:59.72	5.686	
2451	1319			97.5	1318:59.86	5.687	
2452	1320			93	1319:55.27	5.688	
2453	1321			98.5	1321:00.79	5.686	

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SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2454	1322	1	48	96	1321:59.22	5.686	
2455	1323			96	1322:58.40	5.689	
2456	1324			95	1323:57.77	5.685	
2457	1325			99	1325:02.52	5.680	
2458	1326			96	1325:58.89	5.686	
2459	1327			96	1326:57.76	5.680	
2460	1328			96.5	1327:59.49	5.672	
2461	1329			97	1328:58.96	5.673	
2462	1330	3	48	94	1329:56.66	5.676	FIRST 3 lb
2463	1331			97.5	1331:01.23	5.682	
2464	1332			94	1331:57.05	5.688	
2465	1333			95	1332:58.12	5.698	
2466	1334			94	1333:58.55	5.708	
2467	1335			93	1334:57.96	5.723	
2468	1336			93	1335:58.57	5.719	
2469	1337			94.5	1337:00.49	5.732	
2470	1338			94	1338:02.92	5.731	MISSED SHOT BDCN
2471	1339			92	1338:52.62	5.751	NEW ROLL
2472	1340			93	1339:52.58	5.762	
2473	1341			93	1340:52.62	5.769	
2474	1342			96	1342:02.84	5.771	
2475	1343			93	1342:59.63	5.773	
2476	1344			95	1344:02.45	5.774	
2477	1345			96	1345:01.98	5.779	
2478	1346			95.5	1346:02.45	5.782	
2479	1347			92.5	1346:58.45	5.786	

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SHOT LINE NO. ESP-6

19

SHOT #	TIME	SIZE	FUSE	BT	SBT	DEPTH	COMMENTS
2480	1348	3	48	95	1348:00.27	5.791	
2481	1349	3	48	94	1349:59.73	5.794	
2482	1350	3	48	96	1350:01.38	5.798	
2483	1351	3	48	97	1351:02.76	5.797	
2484	1352	9	48	94	1351:59.12	5.798	FIRST 9lb CHARG.
2485	1356	9	48	91	1355:55.73	5.799	
2486	1400	9	48	90	1359:53.49	5.798	
2487	1404	9	48	89	1403:57.53	5.810	
2488	1408	30	48	96	1408:07.23	5.826	FIRST 30 lb
2489	1414	30	48	92	1413:58.94	5.870	
2490	1420	30	48	88	1419:56.21	5.896	
2491	1426	60	48	89.5	1425:57.81	5.892	FIRST 60 lb
2492	1432	120	48	85	1432:00.26	5.847	
2493	1438	120	48	87	1437:56.08	5.809	
2494	1444	120	48	87.5	1443:59.73	5.776	
2495	1450	120	48	87	1449:59.88	5.756	
2496	1456	120	48	88	1456:19.77	5.764	Shot Late
2497	1502	120	48	87	1501:58.38	5.760	
2498	1508	120	48	88	1508:00.14	5.773	
2499	1514	150	48	89.5	1514:02.34	5.771	
2500	1520	150	48	85	1519:55.70	5.751	END LINE ESP-6