

RECORDING LOG

~~RECORD~~ CONRAD

Cruise: 2300 B

HONOLULU - MANOULU

DFS IV

Format: SEGS

Line: 304

BPI: 1600

Date	Shot Point #	Time Count	Tape #	Depth Fm	Pop Rate Sec	Samp. Rate Ans	Rec. L Sec	Trip Del.	O/D	P/E	Comments
227		090830	1		30	4	20				CONRAD AND BO SEE
15 AUG 52		093228		LAST							1st ON MINUTE
	67	094230	2		30	4	20				9:32:28 1ST AC SHOT
		10.12.30		LAST							
	129	10.21.28	3		30	4	20				
		10.50.30		LAST							
	191	10.56.15	4		30	4	20				
		11.27.30		LAST							
	255	11.33.30	5		30	4	20				
		12.08.30		LAST							
	316	12.08.00	6		30	4	20				
		12.36.38		LAST							
	378	12.45.03	7		30	4	20				
		13.15.40		LAST							
	441	13.30.41	8		30	4	20				
		14.01.30		LAST							
	507	14.05.12	9		30	4	20				
	567	14.35	10		30						
	628	150541	11	22100	30						

①

RECORDING LOG

R/V ~~WETA~~ Concord

August 1982

Hono-Hono.

Conrad LK

DFS IV

Cruise: 023508

Line: 301

Format: SEB-B

BPI: 1600

File # reading at beginning of tape but this does not represent true shot count due to lost shots

Date	Shot Point #	Time Count	Tape #	Depth Fm	Pop Rate Sec	Samp. Rate min	Rec. L Sec	Trip Del. Sec	O/D	P/E	Comments
Jul 16 Aug 28	6891	1538	12		30	4	20	0			lost shots due to X-2
		1605									Factor 10
	750	1609	13	2300							
	File										
	811	1641	14	2275							used same shots due to X-2
	872	1712	15	2500							missed one shot in change
	934	1743	16	2490							lost shots due to X-2
	995	1817	17	2465							missed #9 in off
											1900Z
	57	1848	18	2445							
	120	1922	19	2429							
	129	1931		2430							switched to TRX-1
		1935		2430							RF 10. down
	136	1941	20	2429							
		1951		2428							c/c 238°
		2005		2430							sonoboy #10
	201	2014	21	2430							missed same shot
	263	2049	22	2396							

RECORDING LOG

R/V VERM ~~CONRAD~~

A weight 1982

HONO - HONO

covered + KK

DFS IV

Cruise: C2302

Format: SEC. B

Line: 301.

BPI: 1600

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. L	Trip Del.	O/D	P/E	Comments
Julian day 227		2106	22								Power failure, Tape off
			23								
227	295	2150	23		30	4	20	0			Measure time 301
227	358	2222									TPX 2 EOT fail.
227	361		24	2368	30	4	20	0			
		2255									Snobury on Channel 1 #11
		2259	25		30	4	20	0			TPX 1
		2302	25	2369	30	4	20	0			MISSED SOME SHOTS TPX 1
		2321	25		30	4	20	0			TPX 1 FAILURE
	465	2323	26	2351	30	4	20	0			End 2354
		2354	27		30	4	20	0			Some delay at start
228		0000	28	2351	30	4	20	0			End 0058
	656	0000	29		30	4	20	0			moved start - lost a few shots
		0132	30	2330	30	4	20	0			
		0204	31	2305	30	4	20	0			
228		0235	32	2337	30	4	20	0			
228		0300									ALICE 1
228		0306	33	2337	30	40	20	0			S/S #12
228		0338	34	2335	30	40	20	0			ON R. (KK)
228		0410	35	2335	30	40	20	0			
228		441	36	2335	30	40	20	0			

RECORDING LOG

R/V VEMA
 Cruise: RC 2308
 Line: 301
 Date: Aug 1982
 Location: Howe-Howe
 Comments: CORRECTOR K.K.
 Range: 3600 M
 DFS IV
 Format:
 BPI:

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. L.	Trip Del.	O/D	P/E	Comments
228		0514 GMT	37	2337	30	4	20	0			
228		0544	END 37								
228	AB007FD	0555	38	2335	30	4	20	0			MISSED SHOTS BAD TARGET
228		0624	38	2335	30	4	20	0			
228		0655	39	2335	30	4	20	0			
228		0727	40	2335	30	4	20	0			#13
228		0730	38								5/8 FEELER R K AND NUTS
228		0759	41		30	4	20	0			
228		0829	41	FF	30	4	20	0			
228		0838	42		30	4	20	0			TPX R208 MISSED SHOTS
228		0911	42	FF							
228		0931	43								TPX P200 MISSED SHOTS
228		1003	43	FF	30	4	20				S/A FROM R/K (a.d.g.) #14
228		1006	44								
228		1119		FF							
228	690	1123	45		30	4	20				TPX 1.82 SEEM TO
228		1242		LAST							BE RUNNING VERY SLOW
228	744	1244	46		30	4	20				
228		1406		LAST							
228	810	1407	47		30	4	20				

9

DFS IV

Human Human

Format: SE6-B

BPI: 160

[illegible]

RECORDING LOG

CONRAD

R/V VEMA

Cruise: MC 2308

Area 82

MONO-HORD

CONRAD + KK

DFS IV

Format:

Line: 303

FIRING CONRAD AIRGUNS ON TAG MINUTE EXCEPT ON 10 MIN WHEN

BPI:

KK FIRES 60 LB EXPLOSIVE

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Sampl. Rate	Rec. L.	Trip Del.	O/D	P/E	Comments
229		0406	69		1	4	39	0			RANGE 70 KK 70 KM
229		0416	69								10 SEC DELAY ON KK SHOT
229		0438	70		1	4	39	0*			* 10 SEC ON KK SHOT.
229		0450	70								RANGE 411.54
229		0500									KK DELAY -> 0 SEC
229		0510									RANGE 338.66
229		0511	71	2400	1	4	39	0			
229		0544	72	2400	1	4	39	0			
229		0605	73	2400	1	4	20	0			0600 LAST KK SHOT
229		0649	74	2400	1	4	20	0			CHANGE RECORDING
229		0720	75		1	4	20	0			
229		0751	76		1	4	20	0			
229		0822	77		1	4	20	0			
229		0853	78		1	4	20	0			
229		0925	78 OFF		1	4	20	0			ABORTED. TFX2 NOT
229		0925	79								RECORDING PROPER
229		0956	80								THE TAG WAS NOT
229		1027	88	LAST							COMPLETELY USED.

(7)

⑧

DEF IV

Format:

BP:

[illegible]

2

DFS IV

Format: SEE B

BPI: 7600

May 229 1982 Gent
Hemolula Hemolula
C.O.P. 16 Km separation

Date GMT	Shot Point #	Time GMT	Tape #	Depth Fm	Pop Rate sec	Samp. Rate sec	Rec. L sec	Trip Del. sec	O / D	P / E	Comments
Aug. 229	001	1854	84	2460	30	4	20	0			TRX 1
	104	1926									lost several shots due TRX
	65	1928	85	2460							TRX-1
	127	1959	86	2450							
		2000	87								Sonobuoy #18
	197	2030	87								
	250	2100	88								
	211	2131	89								det 2202 + 2206
		2202									lost several shots
	273	2206	90	2340							
	436	2238	91	2347							
	498	2313	92	2366							lost 2309 - 2313
	560	2344	93	2369							TRX 5
230	623	0016	94								
	666	0044	95	2380							may have no data on it
	728	0115	96	2335							probably has 213 on it
	790	0146	97	2339							
	852	0212	98								S.B. #19 on 05 0200Z
230	913	0248	99	2330							
		0300									
	977	0329	100	2300	30	4	20	0			S/S FROM 4K KK #20
	39	0351	101								
	100	0422	102		30	4	20	0			

RECORDING LOG

R/V ~~WETA~~ CINERAD

Cruise: RC 2308

Line: 304 - 305

Hand - HAND AACS 82
CONRAD TRK 16 KM SEPARATION

DFS IV

Format:

BPI: 1/100

(10)

Date	FLS Shot Point #	Time	Tape #	Depth FM	Pop Rate	Samp. Rate	Rec. L	Trip Del.	O D	P E	Comments
230		0453	103		30	4	20	0			END OF LINE.
		0515	103								
230		0713	104		60	4	39	0			START LINE 305
230		0744	105		60	4	39	0			first shot 0716 (from 1 K.K.)
230		0816	105		60	4	39	0			some shots were missed between 0816 and 0823.
230		0823	106								TPX2 problems.
230		0854	107		60	4	39	0			
230		0927	108		60	4	39	0			
230		0959	109		60	4	39	0			
230		1029	110		60	4	39	0			
	1058	1103	111	LAST	60	4	39	0			tape stopped (TPX2)
		1114									
	444	1243	112		60	4	39	0			
	473	1315		LAST							
	477	1321	113		60	4	39	0			INTERNAL TIME BREAK
	488	1331		LAST							
	489	1342	114	2200	60	4	39	0			INTERNAL TIME BREAK
		1414	"								TPX2 failed on switch
	521	1417	115				39	1			TPX1
	551	1447	116	2350							

R/V VEFMA

Cruise: 025-08

Format: SLM

BPI:

[illegible]

RECORDING LOG

R/V ~~WMA~~ COLLARD

DFS IV

Cruise: PC 2308

Format:

Line: 306 ÷ 307

CSE 038

BPI:

Herodulus - *[Signature]*
Commander K.R. C.O.P. 16 Km - 56047111

Date GMT	Shot Point #	Time GMT	Tape #	Depth FM	Pop Rate	Samp. Rate	Rec. L	Trip Del.	O D	P E	Comments
231		0235									
		0305	125	2322	30	4	20	0			
		0306									
231		0235	126	2322	30	4	20	0			0308
		0250									0309 FROM KRON
		0306	127	2320	30	4	20	0			AUC CH. 1.
	298	0337	128	2320	30	4	20	0			0310 FROM KRON
		0400									0311 FROM KRON
		0408	129	2320	30	4	20	0			AUC CH. 4.
		0439	130	2320	30	4	20	0			
		0510	131	2350	30	4	20	0			
		0541	132								
		0559	132	End line	306	4					End line 306
		we will continue to record until									
		End of tape for test purposes									
231		0730	133	2305	60	4	39	0			Next Line 307 E3P3
231		0802	134	2360	60	4	39	0			
231		0835	135	2357	60	4	39	0			
231		0907	136	2340	60	4	39	0			
231		0939	137	2320	60	4	39	0			
231		1011	138		60	4	39	0			

R/V ~~VENA~~ CONRAD

Handels - Handels

Format: SEE G B

BPI: 1600

Date GMT	Shot Point #	Time GMT	Tape #	Depth Fm	Pop Rate	Samp. Rate	Rec. L	Trip Del.	O/D	P/E	Comments
7-31	777	1012	138		60	4	39	0			
	805	1040		LAST							
	805	1041	139		60	4	39	0			
	836	1110		LAST							
	836	1111	140		60	4	39	0			
	866	1140		LAST							
	866	1141	141		60	4	39	0			
	889	1206		LAST							tapes shut down 12:06
	891	1333	142		60	4	39	0			
	921	1403		LAST							3:36 local time
	925	1411	143		60	4	39	0			arrivals on
	925	1411		LAST							
	925	1411	144		60	4	39	0			
	957	1443	145								
	989	1515	146	2250							
	022	1547	147	2300							
	033	1620	148	2300							
	087	1652	149	2300							
	120	1725	150	2350							
		1759	151	2380							
	167	1812	11	2359							change to 20 sec
	204	1832	152	2365							
	264	1902	153	2365							

RECORDING LOG

R/V ~~WEMA~~ Conrad:

DFS IV

Cruise: 2308

Honolulu - Honolulu

Format:

Line: 307 - 368

M/S ~~W~~

BPL: 1600

Date	Shot Point #	Time	Tape #	Depth Fm	Pop Rate	Samp. Rate	Rec. L. g/del.	Tip Del.	O D	P E	Comments
231/1982	324	19 32	154	2363							
	352	20 08	155	2365							
	449	20 51	156	2362							
	509	21 22	157	2360							
	571	21 53	158	2363							
	634	22 27	159	2365							
	697	2304 2335	160	2363							mixed some shot at begin. mixed 5 min - malfunction.
		2335	shot down for								c/c
232/1982		0830	161		4	20					Line 308
232/1982		0840	161	2365	4	20					Line 308
232		0911	162	2369	4	20					tape 161 probably
232		0942	163	2377	4	20					spread only until 0900
232	944	1013	164	LAST	4	20					
	944	1013	164		30	4	20	0			
	1008	1044		LAST							
	1008	1045	165		30	4	20	0			
	1071	1116		LAST							
	1071	1116	166		30	4	20	0			
	1134	1147		LAST							
	1134	1147	167		30	4	20	6			
	1197	1219		LAST							

⑦

DFS IV

Format: SEG-B

BPI: 1600

[illegible]

RECORDING LOG

R/V ~~VEBA~~ *Conrad*

Cruise: *223-08*

ESP

Line: *309 + 310*

DFS IV

Format: *SEG B*

BPI: *1600*

Date <i>GMT</i>	Shot Point #	Time <i>GMT</i>	Tape #	Depth <i>Fath</i>	Pop Rate	Samp. Rate	Rec. L	Trip Del.	O D	P E	Comments
<i>Aug 232</i>	001	1525	171	2510	—	4	39	0			<i>Conrad receives only - no Air guns used</i>
	032	1536	172	2490							
	063	1627	173	2480							
	094	1658	174	2470							
	125	1729	175	2470							
	1	1801	176	2452	1	4	39	0			<i>KK ONLY SHOTS.</i>
	188	1832	177	2451							
	219	1903	178	2440							
	250	1934	179	2375							
	273	1957		2325							
<i>310 →</i>	275	2132	180	2280							<i>off. and of GSD</i>
<i>COP.</i>	312	2209	181	2290			<i>39 30</i>				<i>Begin line - 1000 ft</i>
<i>3.6 km SEP.</i>	346	2245	183	2443							<i>LOST ~ 4 min at begin.</i>
		2328	183	2455							<i>lost ~ 10 min at begin.</i>
	405	2355	184	2465							<i>lost 5 min.</i>
<i>Day 233</i>		0023	185	2473							<i>lost 2 min</i>
	463	0054	186	2480							
	492	0122	187	2487	2487						
	555	0157	188	2500							
	617	0228	189	2517							
		0230									<i>KK Bouy #29 in water</i>
<i>233</i>	680	0259	190								<i>KK Bouy #30 in water</i>
		0302									

(16)

RECORDING LOG

R/V ~~WETA~~ *Conrad*

Cruise: *CONRAD 23-08*

Line: *311*

Hono - Hono

Conrad + K.K.

Line 311

DFS IV

Format: *SEG-13*

BPI: *1600*

Date Gmt	Shot Point #	Time Gmt	Tape #	Depth Fm	Pop Rate	Samp. Rate	Rec. Rate	Trip Del	O D	P E	Comments
1608	001	1608	200	~2500	60	4	20	0			
Day 233	062	1639	201	~2500							
	123	1709	202	~2450							
	184	1740	203	2480							
	244	1810	204	~1900							
	304	1840	205	1400							
	364	1910	206	920							
	424	1940	207	280							
	484	2010	208	220							
	544	2041	209	290							
	604	2122	210	270							
	664	2152	211	260							
	725	2226	212	249							
	735	2235	213	251							
	—	2250	—	—							
	798	2306	214	251							
	856	2334	215	251							
Day 234	917	0006	216	276							
	978?	0039	217	301							
		0056									
		0106									
	41	0109	218	329							
	153	0141	219	352							

stopped at 21:05:59 20:50
due to failure in computer
started at 21:05:50 21:00
stopped for 30 sec. at
21:00:30 at 21:01:00
lost 3 min
Sonde buoy launched ch 14

missed after 5 lots of change
over
took SPANACE POWER TO 607
returned to 40 ft

1

DFS IV

Format: *SE6 B*

BPI: 1600

Hemiteles - Hemiteles Aug 82.
CONDENS + KK CAP 3.6 km Separation

[illegible]

2

Howell to Howell

Format: 56510

Cond + KK.

5 P. 5

BPI: 160

Cruise: KC 2308

[illegible]

RECORDING LOG

(21)

R/V ~~ALBA~~

DFS IV

Cruise: C28-08

Command 2-KK BSS P 5

Format: SECB

Line: 313

BPL: 1600

Date Gmt	Shot Point #	Time Gmt	Tape #	Depth Fath	Pop Rate Sec	Samp. Rate mins	Rec. Sec	Trip Del. mins	O/D	P/E	Comments
Day 234	001	0008	230	220	60	4	39	0			KK shots exposures every 10 minutes
1982	021	1018	231	220							
	049	1046	232	220							
	080	1117	233	220							
	110	1147	234	220							
	140	1217	235	220							
	170	1247	236	220							
	190	1308	237	220							
	219	1337	238	220							Thx! quit writing-lead to switch to TTX-20
	246	1404	239		60	4	$\frac{39}{20}$	0			last. explosion shot at 1400
	306	1441	240		60	4	20	0			
	369	1512	241		60	4	20	0			5:07 K ² Stacked exposures
	432	1543	242		11	11	11	11			
	497	1616	243		60	4	20	0			
	557	1646	244		60	4	20	0			
	618	1719	245		60	4	20	0			
	681	1752	246		60	4	20	0			
	741	1822	247		60	4	20	0			
	802	1853	248		60	4	20	0			
	865	1925	249		60	4	20	0			
	927	1955	250		60	4	20	0			
	989	2027	251		60	4	20	0			
	52	2054	252		60	4	20	0			

22

DFS IV

C25-08

Carling

Handwritten - Handwritten

Format:

Line: 373

KK LEAD 3.6 Km

BPI: 1600

[illegible]

RECORDING LOG

R/V ~~VERA~~ *Conrad*

DFS IV

Cruise: RC 2308

Format: SEt b

Line: 314

Honolulu to Honolulu
K. K. Seeding
3.6 fms.

BPL: 1600

Date	Shot Point #	Time	Tape #	Depth F/M	Pop Rate	Samp. Rate	Rec. L Sec.	Trip Del.	O/D	P/E	Comments
235	2	0715	271	2570	30	4	20	0			Start Line 314
11	64	0746	272	2587	30	4	20	0			
11	126	0817	273	2617							
11	188	0848	274	2618							
11	250	0919	275	2614							
11	312	0950	276	2600							
11	381	1024	277		30	4	20	0			
11	439	1055	278		30	4	20	0			
11	461	1125	279								
11	563	1158	280								
11	626	1232	281								
11	688	1303	282								
11	730	1334	283								
11	810	1404	284								
11	813	1408	284	2500							TPX-2 would not away to high
11	876	1439	285	2470							lost ahead stage
11	937	1510	286	2460							SB# 35 over at 1515
11	987	1535	287	2450							TPX1 would not stop running
11	050	1606	288								switch to TPX-2
11	052	1612	288	2440							TPX-1 would not stop - increased
11	114	1643	289	2430							seeds
11	176	1714	290	2410							
11	237	1744	291	2400							

RECORDING LOG

(24)

R/V AENA

Cruise: C-23-08

DFS IV

Format: SECB

Line: 314

KK leading 3.6 km. 58153 FIDR 22762047 ELY

BPI: 1600

Date GMT	Shot Point #	Time GMT	Tape #	Depth Fm	Pop Rate 101	Samp. Rate 105	Rec. Lc 105	Trip Del. 105	O/D	P/E	Comments
235	292	1814	292	2390	30	4	20	0			
	357	1844	293	2380							
	417	1914	294	2380							
	477	1944	295	2370							
	537	2045	296	2360							
	597	2045	297	2360							
	657	2115	298	2355							
	717	2145	299	2355							
	779	2216	300	2349							at 2220 Snob. ch 4 574
	840	2246	301	2347							50 37
	902	2317	302	2346							
	963	2348	303	2347							
May 236	25	0018	304	2348							
	82	0049	305	2340							
	149	0120	306	2346							Snob. at 0115 ch 2 574
		0151	307	2340							SB 38
	250	0217	308		30	4	20	0			ABORTED 307. TAP 5-1
	312	0248	309	23104							would 574P
	372	0319	310	2310							SB 39 FROM KE AT 0310
	434	0350	311	2310							ABORTED 311. TAP 6-1
	498	0421	312	2310							SB 40 FROM KE AT 0405
	559	0453	313	2270							ABORTED 1
	621	0524	314	2250	30	4	20	0			

RECORDING LOG

(25)

R/V VEMA CONRAD

DFS IV

Cruise: MC2308

Format: SEG B

Line: 314 + 315

Line 314 COP KK LEADING AT 3.6 Km

Live 315: ESP

BPL: 1600

Hand - Hand CONRAD P KK

Date	File Shot Point #	Time	Tape #	Depth	Pop Rate	Sampl. Rate	Rec. L.	Trip Del.	O/D	P/E	Comments
236 82	621	0524	314	2250	30	4	20	0			
236	683	0555	315	2305	30	4	20	0			
236	745	0626	316	2315							
	807	0657	317	2316							
	869	0728	318	2328							
	931	0759	319	2334							20815 NEST APPROX
	995	0831	320	2325							
236		0849	320	2312							End of line 314
	Take 320	2220	Went								completely used.
		starting time									
236	001	0131	321		60	4	39	0			
	034	01203	322		60	4	39	0			
	066	1235	323								
	099	1308	324								
	131	1341	325	2360							
	164	1413	326	2340							
	196	1445	327	2362							used one slot at clamber
	211	0500	"								end line 315

TX2
data
accept
type

26

DFS IV

Format: ~~SE~~ G-3

BPI: 1600

C23-08 Comed and F.I.C.
ESP#6 Comed shooting 400gr
1K shoots explosives every 10 minutes

[illegible]

RECORDING LOG

R/V ~~VENAR~~ *CanRAD*

Cruise: *RC 2308*

Honolulu - Honolulu
CanRAD 16 km separate

DFS IV

Format: *Seq B*

Line: *317*

BPI: *1800*

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. Del.	Trip Del.	O/D	P/E	Comments
<i>237</i>	<i>001</i>	<i>0603</i>	<i>346</i>	<i>2240</i>	<i>30</i>	<i>4</i>	<i>20</i>	<i>0</i>			
<i>237</i>	<i>008</i>	<i>0614</i>	<i>347</i>	<i>2250</i>	<i>30</i>	<i>4</i>	<i>20</i>	<i>0</i>			<i>Aggated 346 T.D.I. NOT SHIPPED</i>
<i>237</i>		<i>0620</i>									<i>S/B 43 ON MARCH 1</i>
<i>237</i>	<i>070</i>	<i>0645</i>	<i>348</i>	<i>2330</i>							
<i>237</i>	<i>132</i>	<i>0716</i>	<i>349</i>	<i>2322</i>							
<i>237</i>	<i>194</i>	<i>0747</i>	<i>350</i>	<i>2310</i>							
<i>237</i>	<i>256</i>	<i>0818</i>	<i>351</i>	<i>2299</i>							
<i>237</i>	<i>318</i>	<i>0849</i>	<i>352</i>	<i>2291</i>							<i>S/B 0916 dcz</i>
<i>237</i>	<i>380</i>	<i>0920</i>	<i>353</i>	<i>2280</i>							
<i>237</i>	<i>442</i>	<i>0951</i>	<i>354</i>	<i>2296</i>							
	<i>503</i>	<i>1024</i>	<i>355</i>		<i>30</i>	<i>4</i>	<i>20</i>	<i>0</i>			
	<i>566</i>	<i>1055</i>	<i>356</i>		<i>30</i>	<i>4</i>	<i>20</i>	<i>0</i>			
	<i>628</i>	<i>1136</i>	<i>357</i>		<i>30</i>	<i>4</i>	<i>20</i>	<i>0</i>			
	<i>691</i>	<i>1210</i>	<i>358</i>		<i>30</i>	<i>4</i>	<i>20</i>	<i>0</i>			
	<i>753</i>	<i>1241</i>	<i>359</i>		<i>30</i>	<i>4</i>	<i>20</i>	<i>0</i>			
	<i>815</i>	<i>1312</i>	<i>360</i>		<i>30</i>	<i>4</i>	<i>20</i>	<i>0</i>			
	<i>877</i>	<i>1343</i>	<i>361</i>	<i>2350</i>	<i>30</i>	<i>4</i>	<i>20</i>	<i>0</i>			
	<i>938</i>	<i>1413</i>	<i>362</i>	<i>2350</i>							
	<i>081</i>	<i>1444</i>	<i>363</i>								<i>missed serial slots -</i>
	<i>081</i>	<i>1447</i>	<i>363</i>	<i>2350</i>							<i>FX-2 failed</i>
<i>237</i>	<i>083</i>	<i>1517</i>	<i>364</i>	<i>2350</i>							
	<i>124</i>	<i>1548</i>	<i>365</i>	<i>2350</i>							
	<i>185</i>	<i>1618</i>	<i>366</i>	<i>2350</i>							

28

DFS IV

Format: 5E6B

BPI: 1600

BPI: 1600

[illegible]

29

DFS IV

Conrad

Hendel - Hendel

W. J. O.

$\frac{dx}{dt}$

Format: SEG B

$$\omega_{\infty}$$

ms. 1

BPI: 1600

[illegible]

RECORDING LOG

(30)

R/V ~~VENTA~~ *Conrad*

DFS IV

Cruise: RC2308

Format: SECB

Line: 319-320

*Conrad shooting. All gun + necessary
KIC exposures ESP 7 Cont'd*

BPI: 1600

Date	Shot Point #	Time	Tape #	Depth ^{ft}	Pop Rate	Samp. Rate	Rec. L	Trip Del.	O/D	P/E	Comments
238	001	0700	377	2386	60	4	20	0			first couple of shots at 20?
	35	0732	378	2390							
	68	0205	379	2390'	60	4	39				
	100	0238	380	2390'							
	127	0304	380		60	4	20				CHANGE RECORD LENGTH.
	140	0312	381	2390	60	4	20				
	201	0342	382	2390	60	4	20				
	263	0413	383	2390							
		0430									KR GUNS FILLING.
	326	0445	384	2390	60	4	20				
		0505									S/B # 000001
	388	0516	385	2370	60	4	20				
	450	0547	386	2370	60	4	20				
	513	0618	387	2370	60	4	20				
238	575	0650	388	2374	60	4	20				
238	636	0720	389	2323	60	4	20				
	699	0752	390	2320	60	4	20				
	761	0823	391	2370	60	4	20				
238		0833	391	2370	60	4	20				End of Line 319
	784	1340	392	2390	60	4	20	0			Begin Line 320-Cont
	846	1811	393	2390							
	908	1442	394	2390							
	952	1509	395	2390							Switch to TX-2-TX-1

1689 in gun 1 - missed

DFS IV

Format: SEG-B

BPI: 1600

[illegible]

22

Enad + KK

Format: SEE 6-8

BPI: 1600

7

[illegible]

RECORDING LOG

(33)

R/V ~~LENA~~

Conrad

ISP #8

DFS IV

Cruise:

RC 2308

Conrad + K.K. Conrad

Format:

SEB-13

Line:

322

Shooting air guns and K.K. explanation

BPL:

1600

Date	File Shot Point #	Time	Tape #	Depth fath.	Pop Rate	Samp. Rate	Rec. Sec.	Trip Del.	O/D	P/E	Comments
239	001	0928	417		60	4	20				
	003				60	4	39				CHANNEL 39 SEC -
	034	1001	418					0			
	067	1034	419					0			
	098	1105	420					0			
	131	1138	421		60	4	39	0			GUN #2 OFF-TEMP
	164	1211	422		60	4	39	0			
		1229					20				next shot - record
	211	1245	423		60	4	20	0			temp changed to 20
	234	1320	424		60	4	20	0			
	334	1351	425		60	4	20	0			
	395	1422	426								missed one shot at change
	456	1452	427								
	518	1523	428								
	579	1554	429								
	639	1624	430								Snubbery #49 on at 1640Z
	700	1654	431								
	760	1724	432								
	820	1754	433								
	881	1825	434								
	943	1856	435								
	005	1926	436								
	067	1957	437								

074 2003 437 2530

off 2.0.8

potentially

RECORDING LOG

(34)

CONRAD
R/V AEMA

DFS IV

Cruise: R2-23-08

C.O.P. # I 16 Km separation
Conrad + K.K. left leaving w/

Format: SEG B

Line: 323-324

*VI airguns

BPI: 1600

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. Loc.	Trip Del.	O/D	P/E	Comments
240	001	0200	438	2500	30	4	20	0			
1982	062	0230	439	2500							
	0124	0301	440	2535							0255 S/R SD on track 1
	185	0330	441	2550							
	247	0403	442	2560							
	307	0434	443	2580	30	4	20	0			0430 S/R SD on track 1
	371	0505	444	2590							
	434	0536	445	2600							
	496	0607	446								
	559	0639	447								
	620	0709	448								
	682	0740	449								
	744	0811	450								
	806	0842	451								
		0913	451								Conrad airguns off at 0911. End of line
											323.
240	868	1234	452		60	4	39	0			Begin Line 324
	900	1309	453		60	4	39	0			KH (only) firing. Conrad
	931	1340	454	2590	60	4	39	0			not firing. Air guns
	962	1411	455	2590							
	994	1443	456	2600							
	036	1514	457	2600							
	057	1545	458	2600							

59

DFS IV

Format: SEG-M

BPI: 600

[illegible]

36

DFS IV

U
G
Z
R
D

K
K

100

Format: SEE B

ESP # 9 explosives + Airgun

BP1: 1600

[illegible]

RECORDING LOG

R/V AEMA Conrad

Cruise: RC2308

Line: 326

00P within ESP9

single beam

DFS IV

Format:

BPI: 1600

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. L	Trip Del.	O/D	P/E	Comments
Day 240	1	2305	470	2580	30	4	20	0			Not up to range yet
	63	2336	471	2549							2320-KK in range
Day 241	134	0007	472	2533							2339 all lined up w/ KK
	186	0038	473	2552							
	249	0109	474	2564							
	312	0141	475	2592							
	375	0212	476	2582							
	436	0243	477	2595	30	4	20	0			
	499	0314	478	2600							
	562	0346	479	2535							
	625	0417	480	2550							
	688	0449	481	2518							
	749	0519	482	2538							
	792	0540	483	2518	30	4	20	0			Approx 482 TPL/NO. STDS.
	854	0617	484	2345							
	916	0648	485	2000							
	978	0719	486	2063							
	041	0750	487	1647							
	103	0821	488	1871							
	165	0852	489	2034							
	227	0923	490	1962							
	289	0954	491	1732							
	356	1027	492		30	4	20	0			

RECORDING LOG

R/V-VEENA CONRAD

Cruise: R12308

Line: 326

DFS IV

Format: SEG-13

BPI: 1600

Honolulu - Honolulu

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. L.	Trip Del.	O/D	P/E	Comments
Jan 24	414	1057	493		30	4	20	0			
1982	476	1128	494		30	4	20	0			
	538	1159	495		30	4	20	0			
	600	1236	496		30	4	20	0			
	663	1301	497		30	4	20	0			Change to 30 sec
	726	1337	498	1700	30	4	39	0			Record length
	752	1403	499	1800							
	784	1435	500	1840							
	816	1507	501	1900							
	848	1539	502	1830							
	879	1610	503	1660							
	911	1642	504	1720							
	942	1713	505	1720							
	972	1743	506	1690							Ac 227°
	973	1744	506	1690							Had to change to 7px
	981	1757	507	1640							TPK-1 RAN running
											Missed several stops
	997	1812									END OF LINE, DFS OFF

34

DFS IV

Format: S E 9

Handwritten signature: *John F. Kennedy*

BPI: 1600

[illegible]

RECORDING LOG

COP bet. Esp 10+11

36km bet RCT-KK

DFS IV

Format:

BPI: 1600

Cruise: RC2308

Line: B000 328

R/V ~~CONRAD~~ Conrad

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. L.	Trip Del.	O/D	P/E	Comments
Day 348	001	224	518		30	4	20	0			SHOTS FIVE KITS START
		0234									ABOVE LINE START
	001	0303	516	1800	30	4	20	0			START LINE
	63	0334	517	1800	30	4	20	0			SWITCH ENGINES RACE 4000T
	125	0406	518	2020							MISSED 2 SHOTS BEFORE #186
	186	0438	519	2090	30	4	20	0			ENGINE TROWBLE RACE
	249	0509	520	2075							WAZING 3.6-4.5 Km.
242	309	0540	521	2240	30	4	20	0			MISSED A COUPLE BEFORE 309
	371	0611	522		30	4	20	0			
	434	0643	523								
	497	0714	524								
	560	0746	525								
	623	0817	526								
	685	0848	527								
	747	0919	528								
	809	0950	529								
	812	0956	529	11	30	4	39	0			Record length has been
	844	1028	530		30	4	39	0			changed to 39 sec. Con-
	877	1101	531		30	4	39	0			and stopped shooting at
	910	1136	532								~0953 when both delays
	943	1209	533								set together at the
	975	1241	534								middle point.
	009	1314	535		30	4	39	0			

240

⑤

DFS IV

Format: SECB

BPI: 160

ESP #

[illegible]

RECORDING LOG

R/V ~~WETA~~ *Conrad*

Cruise: *C-23-08*

Line: *329*

*Hondius Hondius
Conrad only*

DFS IV

Format: *SEG-B*

BPI: *1600*

(42)

* Tape was recorded over - i.e. Tapes renumbered
as up recorded over tape didn't exist - lost about 10 min
with a tape for trouble on tapes 550-552 on Tape recorded over

Date Gun T	Shot Point #	Time Gun T	Tape #	Depth Fm	Pop Rate	Samp. Rate	Rec. Sec	Trip Del. ms	O/D	P/E	Comments
<i>Day 242</i> <i>1982</i>	001	1510	539	2240	20	4	12	4K			
	106	1545	540	2300							
	210	1619	541	2300							
	315	1654	542	2300							
	377	1719	543	2300							
<i>30 AUG</i>	481	1753	544	2350							<i>TPX-1 kept rearing - switch to TPX-2</i>
	587	1828	545	2443							
	692	1903	546	22350							
	797	1939	547	2305							
		1954	"	2444							
	902	2016	548	2395							<i>missed several shots - power supply turned off</i>
	010	2058	549	2315							
	117	2129	550	*Tape	105T						<i>missed several shots TPX-1 refused to shoot TPX-1 recording problem</i>
	130	2139	550	2228							
	236	2214	551	2194							
		2237	552	2160							
	393	2311	553	2111							
	420	2321	554	2150							
	525	2356	555	2150							
<i>Day 243</i>	630	0031	556	2200							
	734	0106	557	2232							
	-	0136	-								
	839	0141	558	2220							<i>Gun 2 off, Gun 1 on</i>

RECORDING LOG

R/V ~~CONRAD~~ CONRAD

Cruise: KRC 2368

Line: 329

Honolulu - Honolulu
Aug 82

DFS IV

Format: SE-93

BPI: 1800'

Date cont	Shot Point #	Time GMT	Tape #	Depth Fm	Pop Rate	Samp. Rate	Rec. L	Trip Del	O/D	P/E	Comments
243	839	0141	558	2200	20	4	12	4			
1982	945	216	559	2300							
	052	0252	560	2270	20	4	12	4			
	157	0327	561	2300							
31 AUG	262	0402	562	2300							
	368	0437	563	2230	20	4	12	4			
	474	0512	564	2350							
	579	0547	565	2350	20	4	12	4			
		0622	565	2352							problems to shoot this
	678	0628	566	2352	20	4	12	4			1566 in trx2
	783	0711	567	2352							
	894	0746	568	2349							
	001	0821	569	2357	20	4	12	4			being shot mixed
	025	0847	570	2358							TRX9 did not stop to
	130	0922	571	2359							wait for other shot
	236	0958	572		20	4	12	4			
	340	1032	573		"	"	"	"			
	446	1108	574		"	"	"	"			
	551	1143	575								
	656	1218	576								
	761	1253	577								TPX1 BEHAVING STRANGELY
	821	1329	578								Tape 574 MAY HAVE PROBLEMS
	925	1404	579	2370							

R/V ~~VEMA~~ *Coral*

44

Handwritten: Handwritten

Format: DEB

BPI: 1600

[illegible]

RECORDING LOG

R/V ~~WEMA~~ *Conrad*

Cruise: C 23-08

Honolulu - Honolulu

Line: 330

DFS IV

Format: SECS

BPI: 1600

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. L	Trip Del	O/D	P/E	Comments
Day 244	001	0440	594	2500'	20	4	12	4.0			
1982-91	101	0514	595	2500'	20	4	12	4.0			
	212	0550	596	2450	1	1	1	1			
	312	0624	597	2455	20	4	12	4.0			
	423	0701	598	2431	1	1	1	1			
	523	0734	599	2420	20	4	12	4.0			
	634	0811	600	2480	1	1	1	1			
	736	0845	601	2368	1	1	1	1			
	848	0922	602	2388	20	4	12	4.0			
	949	0956	603								
	62	1040	604		20	4	12	4			TRX1 FAILED TO START
	172	1116	605		20	4	12	4			For tape. bot - SHIFTER to
	279	1153	606		20	4	12	4			1131 ALCAN #3 on
	391	1231	607		20	4	12	4			
	483	1302	608								
	595	1340	609	2278	20	4	12	4			Shower depth's. head = 34,
	606	1413	"								50, 40, 42, 32, 52 (tail)
	696	1413	610	2270							
	807	1450	611	2260							
	907	1523	612	2245							
	018	1600	613	2250							
	117	1633	614	2280							
	228	1710	615	2300							

45

RECORDING LOG

R/V ~~WANA~~ *Cervus*

Cruise: *C 23-08*

Line: *330*

C 23-08 Honolulu - Honolulu

DFS IV

Format: *SE6-B*

BPI: *1800*

Date (GMT)	Shot Point #	Time (GMT)	Tape #	Depth Fm	Pop Rate sec	Samp. Rate min	Rec. Sec	Trip Del sec	O D	P E	Comments
<i>Aug 24</i>	<i>327</i>	<i>1743</i>	<i>615</i>		<i>20</i>	<i>4</i>	<i>12</i>	<i>4.0</i>			<i>Shut down to replace card.</i>
<i>1982</i>	<i>328</i>	<i>1745</i>	<i>616</i>	<i>2300</i>							<i>missed ~ 6027 shots</i>
	<i>431</i>	<i>1820</i>	<i>617</i>	<i>2315</i>							
	<i>536</i>	<i>1855</i>	<i>618</i>	<i>2325</i>							
	<i>641</i>	<i>1930</i>	<i>619</i>	<i>2330</i>							
	<i>745</i>	<i>2004</i>	<i>620</i>	<i>2330</i>							
	<i>851</i>	<i>2040</i>	<i>621</i>	<i>2330</i>							
	<i>956</i>	<i>2115</i>	<i>622</i>	<i>2330</i>							
	<i>062</i>	<i>2150</i>	<i>623</i>	<i>2210</i>							
	<i>* 167</i>	<i>2225</i>	<i>624</i>								<i>missed 1 shot * up to 19</i>
	<i>183</i>	<i>2232</i>	<i>624</i>	<i>2370</i>							
	<i>288</i>	<i>2307</i>	<i>625</i>	<i>2375</i>							
	<i>393</i>	<i>2342</i>	<i>626</i>	<i>2405</i>							
<i>Day 245 -</i>	<i>560</i>	<i>0018</i>	<i>627</i>	<i>2436</i>							<i>1 minute lost D017-0018</i>
	<i>604</i>	<i>0053</i>	<i>628</i>	<i>2453</i>							
	<i>710</i>	<i>0128</i>	<i>629</i>	<i>2491</i>							
	<i>814</i>	<i>0203</i>	<i>630</i>	<i>2460</i>							
	<i>922</i>	<i>0239</i>	<i>631</i>	<i>2475</i>							
	<i>030</i>	<i>0315</i>	<i>632</i>	<i>2478</i>							
	<i>0136</i>	<i>0350</i>	<i>633</i>	<i>2483</i>							
	<i>224</i>	<i>0419</i>	<i>633</i>		<i>20</i>	<i>4</i>	<i>12</i>	<i>0.0</i>			<i>DELAY TO 0.0 SEC.</i>
	<i>243</i>	<i>0428</i>	<i>634</i>	<i>2482</i>							<i>BAD TAPE ABORTED EARLY</i>
	<i>336</i>	<i>0457</i>	<i>635</i>	<i>2430</i>							

(46)

RECORDING LOG

R/V ~~YEA~~ *ETUEN*
Cruise: *PC2308*

PC 2308
November 70 Honolulu

#1, #4 GUNS = 1000
#2, #3 GUNS = 46⁵ DFS IV

Format: SEC B

Line: 330

BPI: 1400

Date <i>GMT</i>	Shot Point #	Time <i>GMT</i>	Tape #	Depth <i>fath</i>	Pop Rate <i>sec</i>	Samp. Rate <i>min</i>	Rec. L <i>sec</i>	Trip Del <i>sec</i>	O D	P E	Comments
<i>Box 295 82</i>	336	0457	635	2430	20	4	12	0			2-466 1-1000
	0442	0532	636	2342							2-1000
	548	0607	637	2263							
	654	0643	638	2284							
	760	0718	639	1736							
	865	0753	640	1243							
	971	0828	641	360							
	078	0904	642	292							
	184	0939	643		20	4	12	0			#2 #3 #4 GUNS ON
	291	1014	644		20	4	12	0			#1 GUN OFF
	396	1050	645		20	4	12	0			
	502	1125	646		20	4	12	0			
	608	1200	647		20	4	12	0			
	714	1236	648		20	4	12	0			
	922	1311	649		20	4	12	0			
	926	1350	650	295	20	4	12	0			
	013		"								A/c 054°
	032	1425	651	300							
	103	1449	652	300							Bad tape - 3 in. tol to TPK-2
	206	1524	653	350							missed (-2 slats
	311	1559	654	330							0600 A/c 066°
	409	1631	655	320							1706: A/c 076°
	515	1707	656	320							

(42)

RECORDING LOG

R/V ~~VENT~~ Conard

Cruise: C23-08

Honolulu - Honolulu

DFS IV

Format: SEGB

Line: 330

BPI: 1600

Date GMT	Shot Point #	Time GMT	Tape #	Depth fath	Pop Rate	Samp. Rate	Rec. L	Trip Del	O/D	P/E	Comments
Dec 245	620	1742	657	2204	20	4	12	0			Stream depth = 1100 = 30, 40, 40, 45, 33 49 (400)
1982	725	1813	658	143							Air gun #4 - shut off for service
		1828		137							System shut for repair during time
	830	1852	659	190							Still on Gun #4 - on
	877	1908									TPX-1 gun
		1908									TPX-2 gun problem starting
		1909		266							TPX-1 gun
	290	1910	660	320							TPX-2 gun problem starting
	995	1955	661	422							TPX-2 gun problem starting
	104	2038	662	525							TPX-2 gun problem starting
	210	2013	663	1294							TPX-2 gun problem starting
	215	2148	664	1653							TPX-2 gun problem starting
	419	2223	665	21600							TPX-2 gun problem starting
	525	2258	666	1650							TPX-2 gun problem starting
	631	2334	667	1560							TPX-2 gun problem starting
Nov 246	737	0009	668	1773							TPX-2 gun problem starting
	843	0044	669	2606							TPX-2 gun problem starting
	949	0120	670	2007							TPX-2 gun problem starting
	054	0154	671								TPX-2 gun problem starting
	159	0230	672	2300							TPX-2 gun problem starting
	241	0305	673	2450							TPX-2 gun problem starting
	347	0340	674	2400							TPX-2 gun problem starting
	452	0415	675								END Tapes 74 & 2100

48

RECORDING LOG

R/V ~~WETA~~ *Conrad*

Cruise: C23-08

Line: 33 *P*

Honolulu Honolulu

DFS IV

Format: SECS

BPL: 1600

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. Sec	Trip Del	O/D	P/E	Comments
246	452	0415	675	2505	20	4	12	0			
	477	0424	675		20	4	12	4			CHANGE TO 4 SEC DELAY
	557	0450	676	2515	20	4	12	4			
	662	0525	677	2485	20	4	12	4			
	771	0604	678	2520	20	4	12	4			
	876	0639	679	2515	20	4	12	4			
	981	0714	680	2511							making a turn between
	088	0749	681	2525							0730 and ~0800
	193	0824	682	2529							
	298	0859	683	2520							
	403	0934	684	2495	20	4	12	4			
	509	1010	685	2480	20	4	12	4			
	616	1046	686	2450	20	4	12	4			
	721	1122	687	2430							
	739 *	1147	688	2420							* FILE COUNT seems low (should be 8323)
	846	1224	689	2415							
	954	1301	690	2400							
	999	1320	691	2400							Tape 690 APPARED TO
	84	1355	692	2395							BE RUNNING BACKWARDS
	189	1430	693	2390							
	263	1455	694	2300							Had to switch to TX-2; TX-1 kept
	368	1530	695	2350							running -
	473	1605	696	2340							

(49)

RECORDING LOG

R/V ~~VEEA~~ *Carnegie*

Cruise: *C 23-08*

Line: *331*

Honolulu - Honolulu

1610 2' Steamer depth 1: Head = 25'

DFS IV

Format: *SECB*

BPL: *1600*

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. Sec	Trip Del	O/D	P/E	Comments
<i>Day 246</i>	<i>579</i>	<i>1640</i>	<i>697</i>	<i>2325</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>4.0</i>			
<i>615</i>	<i>1653</i>	<i>698</i>	<i>2325</i>								<i>TPX-1 10gt running - SW</i>
<i>720</i>	<i>1728</i>	<i>"</i>									<i>system for each depth, TPX-2</i>
<i>721</i>	<i>1729</i>	<i>699</i>	<i>2320</i>								<i>missed a few shots</i>
<i>826</i>	<i>1804</i>	<i>700</i>	<i>2310</i>								
	<i>1831</i>										
	<i>931</i>	<i>1839</i>	<i>701</i>	<i>2310</i>							<i>TPX-1 was running w/out recording</i>
	<i>931</i>	<i>1902</i>	<i>702</i>	<i>2300</i>							
	<i>937</i>	<i>1937</i>	<i>703</i>	<i>2200</i>							
	<i>192</i>	<i>2012</i>	<i>704</i>	<i>2300</i>							<i>Out all pressure - out from gun - #3, #5</i>
	<i>214</i>	<i>2019</i>									
	<i>296</i>	<i>2047</i>	<i>705</i>	<i>2300</i>							
	<i>404</i>	<i>2123</i>	<i>706</i>	<i>2300</i>							
	<i>508</i>	<i>2158</i>	<i>707</i>	<i>2300</i>							
	<i>613</i>	<i>2233</i>	<i>708</i>	<i>2308</i>							
	<i>718</i>	<i>2308</i>	<i>709</i>	<i>2309</i>							
	<i>823</i>	<i>2343</i>	<i>710</i>	<i>2310</i>							
<i>Day 247</i>	<i>927</i>	<i>0018</i>	<i>711</i>	<i>2309</i>							
	<i>33</i>	<i>0053</i>	<i>712</i>	<i>2305</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>4.0</i>			
	<i>137</i>	<i>0127</i>	<i>713</i>	<i>2070</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3.0</i>			<i>D152 delay to 38C</i>
	<i>242</i>	<i>0203</i>	<i>714</i>	<i>1650</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3.0</i>			<i>1081 one shot</i>
	<i>348</i>	<i>0238</i>	<i>715</i>	<i>2182</i>							
	<i>454</i>	<i>0314</i>	<i>716</i>	<i>2290</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3.0</i>			<i>0232 - Average 2335-ON</i>

(50)

RECORDING LOG

R/V ~~VERA~~ CORNAD

Cruise: ~~PC~~ 2308

Line: 331

DFS IV

Format: SEC B

BPL: 1872

Handwritten: Honolulu to Honolulu
Aug-Sept 82

Date CMT	Shot Point #	Time GWT	Tape #	Depth Fm	Pop Rate Pct	Samp. Rate Pct	Rec. Sec	Trip Del	O / D	P / E	Comments
247	454	0314	716	2290	20	4	12	3.0			
1982	560	0349	717	2300							
	656	0421	718	2300							145500 M1560 100% shots
	695	0434	"								turned system of to change card system in again.
	696	0435	"								
	763	0458	719	2300	20	4	1.2	30			
	869	0533	720	2350							
	949	0600									Down to 1 gun (#4)
	976	0609	721	2163							
	035	0643	722	2289							on line #2#3 are #4
	163	0719	723	2400							off #1 (GUNS). Some
	269	0754	724	2388							also start when holding
	376	0830	725	2394							before 722 are missed.
	430	0854	725	2330	TPX-1	not working					TPX-1 now working
					TPX-1	not working					start melting & turn
											in 10 min mts. (0906)
	438	1043	726	2378	20	4	12	3			SYSTEM ON (line 332)
	544	1118	727	2394	20	4	12	3			GUNS #2, #3, #4 ON
	650	1153	728	2401	20	4	12	3			
	741	1230	729	2270	20	4	12	3			
	865	1330	730	2285	20	4	12	3			tape 729 took long time
	972	1405	731	2390							to finish
	079	1440	732	2390							

(57)

RECORDING LOG

R/V NEEMA Conrad

Cruise: C23-08

Honolulu - Honolulu

DFS IV

Format: SEGB

Line: 338

BPI: 1600

Date	Shot Point #	Time GMT	Tape #	Depth Fm	Pop Rate	Samp. Rate	Rec. L	Trip Del	O/D	P/E	Comments
Day 247	186	1516	733	2350	20	4	12	3			
1982	276	1550	734								TPX-1 Man overboard
		1556	"								HC
	384	1626	735	2300							
	491	1701	736	2240							
	599	1738	737	2350							
	705	1813	738	2350							
	812	1848	739	2320							
	919	1925	740	2360							TPX-1 didn't start with
	031	2003	741	2370							again for TPX-2
	140	2039	742	2365							
	245	2114	743	2370							
	352	2150	744	2370							
	458	2225	745	2377							
	564	2301	746								
	669	2336	747	2387							
Day 248	776	0011	748	2390							
	882	0647	749	2393							
	988	0122	750	2406							
	094	0157	751	2416							
	201	0233	752	2438	20	7	12	3			
	306	0308	753	2450							
	413	0343	754	2460							

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RECORDING LOG

R/V ~~SEA~~ *LEMON*

Cruise: *RC2308*

Howell to Howland

DFS IV

Format: *SECS*

Line: *332*

BPI: *1600*

(53)

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. L	Trip Del.	O/D	P/E	Comments
<i>248/82</i>	<i>413</i>	<i>0343</i>	<i>754</i>	<i>2460</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3</i>			
	<i>518</i>	<i>0419</i>	<i>755</i>	<i>2480</i>							
	<i>625</i>	<i>0454</i>	<i>756</i>	<i>2500</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3</i>			
	<i>731</i>	<i>0530</i>	<i>757</i>	<i>2525</i>							
	<i>838</i>	<i>0605</i>	<i>758</i>	<i>2525</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3</i>			
	<i>943</i>	<i>0640</i>	<i>759</i>	<i>2532</i>							
	<i>051</i>	<i>0716</i>	<i>760</i>	<i>2531</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3</i>			
	<i>156</i>	<i>0751</i>	<i>761</i>	<i>2547</i>							
	<i>263</i>	<i>0827</i>	<i>762</i>	<i>2568</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3</i>			
	<i>369</i>	<i>0902</i>	<i>763</i>	<i>2566</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>			
	<i>476</i>	<i>0938</i>	<i>764</i>	<i>2575</i>							
	<i>582</i>	<i>1013</i>	<i>765</i>	<i>2584</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3</i>			
	<i>689</i>	<i>1049</i>	<i>766</i>	<i>2575</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>			
	<i>794</i>	<i>1124</i>	<i>767</i>	<i>2587</i>							
	<i>901</i>	<i>1200</i>	<i>768</i>	<i>2585</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3</i>			
	<i>009</i>	<i>1236</i>	<i>769</i>	<i>2590</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3</i>			
	<i>116</i>	<i>1313</i>	<i>770</i>	<i>2585</i>							
	<i>223</i>	<i>1348</i>	<i>771</i>	<i>2400</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>3</i>			
	<i>333</i>	<i>1428</i>	<i>772</i>	<i>2350</i>							
			<i>11</i>								
			<i>11</i>								
	<i>365</i>	<i>1439</i>	<i>773</i>	<i>2300</i>							
	<i>472</i>	<i>1515</i>	<i>774</i>	<i>2100</i>							

Stream depth: 142-41

3940 42-33 50 (41)

1484: 4/2 2720

TRX-1 near on - lost 22

slits

RECORDING LOG

R/V ~~VERA~~ *Conrad*

Cruise: C23-08

Honolulu Honolulu

DFS IV

Format: SE6-B

Line: 332

BPI: 1600

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. L	Trip Del	O/D	P/E	Comments
Dec 24/8	578	1550	775	2100	20	4	12	3			Spectrum depth: Hand: 35
1982	684	1626	776	1900				3			45, 40, 42, 35, 50 (trial)
	731	1642	"					3/0			change delay sea temp = 82°F (28°C)
	789	1701	777	1400				0			
	896	1736	778	1075							
	003	1812	779	1590							
	109	1847	780	1980							
	214	1922	781	1770							1885-1900 - only. Gun #4
	320	1957	782	1600							1900 - Back to Gun 2,3,4
	425	2032	783	1700							
	531	2108	784	1670							
	636	2143	785	1560							
	7463	2218	786	1600							
	847	2253	787	1600							
	953	2328	788	1740							
Dec 24/9	59	0003	789	1860							
1982	165	0039	790	1827							
	270	0114	791	1900							lots of synchronizers first 10 files
	375	0149	792	2005							run accuracy - best 4 min.
	401	0201	793	1990							
	509	0238	794	2215							
	720	0348	795	2440							MISSCA 4 shots at SWITON

(54)

RECORDING LOG

R/V *VENA Conrad*

Cruise: *C 23-08*

Hansen - Hansen

DFS IV

Format: *806B*

Line: *332*

BPL: *1600*

Date <i>GMT</i>	Shot Point #	Time <i>GMT</i>	Tape #	Depth <i>Fm</i>	Pop Rate	Samp. Rate	Rec. <i>Sec</i>	Trip <i>Del</i>	O / D	P / E	Comments
<i>249</i>	<i>617</i>	<i>0213</i>	<i>795</i>	<i>2305</i>							
<i>6 SEPT</i>	<i>720</i>	<i>0348</i>	<i>796</i>	<i>2440</i>	<i>30</i>	<i>4</i>	<i>12</i>	<i>0</i>			
	<i>825</i>	<i>0423</i>	<i>797</i>	<i>2500</i>							
	<i>859</i>	<i>0435</i>	<i>797</i>		<i>30</i>	<i>4</i>	<i>12</i>	<i>4</i>			<i>DELAY TO 4 SEC.</i>
	<i>931</i>	<i>0459</i>	<i>798</i>	<i>2500</i>							
	<i>37</i>	<i>0534</i>	<i>799</i>	<i>2530</i>	<i>30</i>	<i>4</i>	<i>12</i>	<i>4</i>			
	<i>143</i>	<i>0609</i>	<i>800</i>	<i>2530</i>							<i>TPX-1 run away about</i>
	<i>226</i>	<i>0642</i>	<i>801</i>	<i>2523</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>4</i>			<i>0600. Starts ~200-225</i>
	<i>332</i>	<i>0717</i>	<i>802</i>	<i>2527</i>							<i>probably are not recorded.</i>
	<i>437</i>	<i>0752</i>	<i>803</i>	<i>2342</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>4</i>			
	<i>543</i>	<i>0827</i>	<i>804</i>	<i>2518</i>							
	<i>648</i>	<i>0903</i>	<i>805</i>	<i>2500</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>4</i>			
	<i>755</i>	<i>0928</i>	<i>805</i>								
	<i>755</i>	<i>0938</i>	<i>807</i>								
	<i>755</i>	<i>0938</i>	<i>805</i>	<i>2427</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>4</i>			<i>TPX-1 run away from</i>
	<i>758</i>	<i>0952</i>	<i>806</i>	<i>2370</i>							<i>0938 till 0952</i>
	<i>864</i>	<i>1028</i>	<i>807</i>	<i>2285</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>4</i>			
	<i>973</i>	<i>1105</i>	<i>808</i>	<i>2245</i>							
	<i>83</i>	<i>1145</i>	<i>809</i>	<i>2240</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>4</i>			<i>TPX-1 not starting properly</i>
	<i>192</i>	<i>1225</i>	<i>810</i>	<i>2245</i>							<i>tape loaded on TPX-2</i>
	<i>299</i>	<i>1302</i>	<i>811</i>	<i>2250</i>							
	<i>407</i>	<i>1338</i>	<i>812</i>	<i>2240</i>	<i>20</i>	<i>4</i>	<i>12</i>	<i>4</i>			
	<i>573</i>	<i>1413</i>	<i>813</i>	<i>2360</i>							

(55)

52

DFS IV

Format: 5E6-B

BPI: 1603

[illegible]

CONRAD
R/V ~~CONRAD~~

Cruise: RC 2308

DFS IV

Format:

RECORDING LOG

Line: ~~CONRAD~~ ON/OFF ~~CONRAD~~ LOG FOR SENSOR ONLY BPI:

Date	Start ON/OFF	Time— ON/OFF	Tape #	Depth	Exp Rate	Samp. Rate	Rec. L	Trip Del.	O /D	P /E	Comments
16 AUG 81	ON	22:12	23-214								
1982	ON	03:34:28	23-215								
18 AUG 1982	ON	04:55	23-216								Start off 2nd Tape drive pull 12
	OFF	05:48									
18 AUG 1982	ON	05:59	23-217								15:30 back at 15:30 15:50 change to SP 1 17:55 change for 1 hour, SB 20:59 to zero sample 03:43 2nd drive pull 12 SP 15:15 day 232
(232) 20 AUG 1982	ON	00:17	23-218								
23 21 AUG	OFF	01:30									
(233) 21 AUG	ON	04:32	23-219								
21 AUG	OFF	20:48	23-219								Rec. Hung
(233) 21 AUG	ON	21:00	23-220								
23 AUG 82	OFF	18:02	23-220								
23 AUG 82	ON	18:12	23-221								
(234) 23 AUG 82	OFF	05:42	23-221								
23 AUG 82	ON	06:45	23-222								
	OFF	08:46	23-223								
	ON	09:19	23-224								
23 AUG 82	OFF	10:00	23-224								
23 AUG 82	ON	02:03	23-224								
		15:30									
29 AUG 82	OFF	03:40	23-224								
29 AUG 82	ON	03:47	23-225								

RECORDING LOG

R/V ~~WMA~~ CANADA

Cruise: RC 2308

PADA LOGGERS

LOG FOR SENSORY

DFS IV

Format:

Line: ON/OFF

BPI:

(2)

Date	Shot Point #	Time	Tape #	Depth	Pop Rate	Samp. Rate	Rec. L	Trip Del.	O/D	P/E	Comments
(244) SEPT 1	OFF	03:05	23-225								
SEPT 1	ON	03:08	23-226								
(246) 3 SEPT	OFF	11:22	23-226								
(246) 3 SEPT	ON	11:25	23-227								247:0730 SPD/DISC IN MATH
(248) 5 SEPT	OFF	20:44	23-226								
(248) 5 SEPT	ON	20:46	23-227								C DB
250 7 SEPT	OFF	00:13	23-227								EST 4000 FT 4000 FT 4000 FT
250 7 SEPT	ON	00:15	23-228								0054 TO=400
											1800 PSI, 20 ft depth
											01:00 +10 LB
											01:10 TMS OFF
											01:25 2000 PSI - 2000 PSI
											01:40 NS = 20000
											01:46 NS = 20000
											01:50 A DB
											01:53 2000 PSI - 2000 PSI
											02:00 55 PSI to 25 PSI
											02:01 33 PSI to 25 PSI
											02:05 12 PSI to 100 PSI
											Pressure slowly decreasing

de 1940

INTA 66-0-ETB

DFS IV

Format:

BP1:

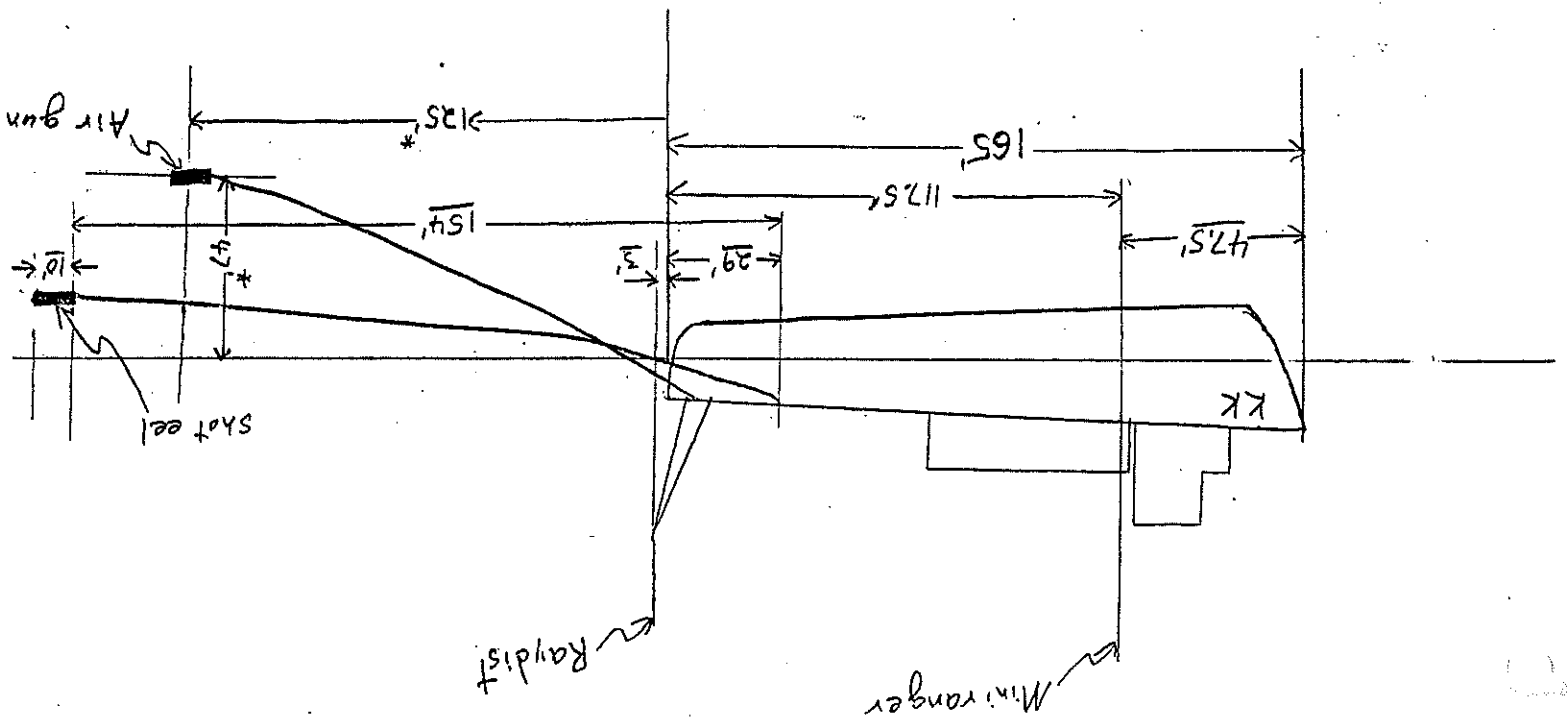
[illegible]



.3048 m/ft

* from Mike Rawlins, TAG tech.
Underlined numbers were measured with a steel tape, $\pm 1'$

A/G to mini-ranger	242.5'	73.9m
A/G to Raydist	122'	37.2m
Shot eel midpoint to mini-ranger	247.5'	75.4m
Shot eel midpoint to Raydist	127'	38.7m



KANA KOKI

Shot No.	Launch Time						Shot Size (lbs.)	Burn Time (Sec x 10)	Shot Break Time						Burn Time (Seconds)		Fuse Length (in.)
	Yr	Mo	Dy	Hr	Mn	Sc			Yr	Jdy	Hr	Mn	Sc	Ms	Seed Primer (Rel)	Bubble Pulse (Ms)	
3100	1101	08	17	03	58	42	60	12.9	82	229	04	00	09	5.63	896		19°26.5' 159°20.5'
	1102	08	17	04	08	38	60	12.8	82	224	04	16	06	2.40	891		19°26.13' 159°14.88'
40	1103	08	17	04	18	36	60	12.7	82	224	04	20	03	5.99	877		19°25.55' 159°18.87'
	1104	08	17	04	28	37	60	12.9	82	224	04	30	06	9.90	891		19°25.00' 159°17.91'
60	1105	08	17	04	38	34	60	12.8	82	229	04	40	02	7.23	881		19°24.43' 159°16.92'
	1106	08	17	04	48	34	60	12.8	82	229	04	50	02	5.75	881		19°23.88' 159°15.91'
80	1107	08	17	04	58	36	60	12.9	82	224	05	00	05	3.74	891		19°23.34' 159°14.88'
	1108	08	17	05	08	36	60	12.6	82	224	05	10	02	1.69	861		19°22.80' 159°13.87'
3200	1109	08	17	05	18	36	60	12.4	82	224	05	20	02	6.77	841		19°22.28' 159°12.86'
	1110	08	17	05	28	36	60	12.6	82	224	05	30	02	7.79	861		19°21.44' 159°14.32'
20	1111	08	17	05	38	39	60	12.9	82	224	05	40	08	8.93	891		19°20.93' 159°13.41'
	1112	08	17	05	48	39	60	12.7	82	224	05	50	06	5.65	871		19°20.43' 159°12.47'
3210	1113	08	17	05	58	38	60	12.6	82	224	06	00	04	0.72	861		19°19.94' 159°11.51'

water Depth

Shot No.	Launch Time										Shot Size (lbs.)	Burst (seconds)										Shot Break Time										Sed. Thick (ms)	Bubble Pulse (ms)	SAC name	Long	Fuse Length (in.)
	Yr	Mo	Dy	Hr	Mn	Sc	Ms	Yr	Mo	Dy		Yr	Mo	Dy	Hr	Mn	Sc	Ms	Yr	Mo	Dy	Hr	Mn	Sc	Ms	Yr	Mo	Dy	Hr	Mn	Sc	Ms				
2001	82	08	18	12	48	39					60	82	08	23	12	50	06	958																19° 55.3'N	158° 14.5'W	36
2002	82	08	18	12	58	42					60	82	08	23	13	00	07	439																19° 56.0'N	158° 15.4'W	36
2003	82	08	18	13	08	44					60	82	08	23	13	10	05	251																19° 56.5'N	158° 15.8'W	36
2004	82	08	18	13	18	42					60	82	08	23	13	20	12	014																19° 56.9'N	158° 16.5'W	36
2005	82	08	18	13	28	37					60	82	08	23	13	30	08	749																19° 57.4'N	158° 17.2'W	36
2006	82	08	18	13	38	34					60	82	08	23	13	40	00	936																19° 57.9'N	158° 17.8'W	36
2007	82	08	18	13	48	37					60	82	08	23	13	49	57	125																19° 58.3'N	158° 18.5'W	36
2008	82	08	18	13	58	39					60	82	08	23	14	00	08	935																19° 58.7'N	158° 19.2'W	36
2009	82	08	18	14	08	41					60	82	08	23	14	10	07	542																19° 59.2'N	158° 19.8'W	36
2010	82	08	18	14	18	39					60	82	08	23	14	20	07	106																19° 59.6'N	158° 20.5'W	36
2011	82	08	18	14	28	41					60	82	08	23	14	30	10	555																19° 59.9'N	158° 21.2'W	36
2012	82	08	18	14	38	40					60	82	08	23	14	40	03	815																20° 00.2'N	158° 22.3'W	36
2013	82	08	18	14	48	45					60	82	08	23	14	50	14	232																20° 00.6'N	158° 23.0'W	36
2014	82	08	18	14	58	41					60	82	08	23	15	00	07	588																20° 01.0'N	158° 23.7'W	36
2015	82	08	18	15	08	42					60	82	08	23	15	10	08	327																20° 01.4'N	158° 24.4'W	36
2016	82	08	18	15	18	44					60	82	08	23	15	20	10	306																20° 01.8'N	158° 25.1'W	36
2017	82	08	18	15	28	39					60	82	08	23	15	30	09	326																20° 02.2'N	158° 25.8'W	36

SPRINT DEPT

Shot No.	Yr	Mo	Dy	Launch Time (hr:min:sec)	Shot Size (lbs)	Burn Time (sec)	Yr	Jdy	Shot Break Time (hr:min:sec)	Sed. Thick (ms)	Bubble Pulse (ms)	SAT NAV LAT (N)	LONG (W)	Fuse Length (in)
301	82	08	19	13 38 35	60	89.4	82	231	13 40 08			20° 05' 13.24	158° 02' 52.0	36
302	82	08	19	13 48 41	60	88.2	82	231	13 50 06			20° 05' 30.4	158° 04' 22	36
303	82	08	19	13 58 59	60	90.1	82	231	14 00 08			20° 06' 02	158° 04' 91	36
304	82	08	19	14 08 41	60	82.0	82	231	14 10 03			20° 06' 04	158° 05' 60	36
305	82	08	19	14 18 39	60	90.0	82	231	14 20 09			20° 07' 40	158° 06' 28	36
306	82	08	19	14 29 19	60	79.9	82	231	14 30 38			20° 08' 02	158° 07' 03	36
307	82	08	19	14 39 39	60	90.0	82	231	14 40 10			20° 08' 52	158° 07' 60	36
308	82	08	19	14 48 44	60	86.0	82	231	14 50 10			20° 09' 11	158° 08' 35	36
309	82	08	19	14 58 38	60	88.5	82	231	15 00 06			20° 09' 62	158° 09' 07	36
310	82	08	19	15 08 38	60	89.4	82	231	15 10 07			20° 09' 75	158° 09' 23	36
311	82	08	19	15 18 38	60	89.0	82	231	15 20 07			20° 10' 19	158° 09' 96	36
312	82	08	19	15 28 37	60	89.7	82	231	15 30 07			20° 10' 63	158° 10' 69	36
313	82	08	19	15 38 36	60	88.8	82	231	15 40 05			20° 11' 07	158° 11' 43	36
314	82	08	19	15 48 38	60	83.9	82	231	15 50 02			20° 11' 51	158° 12' 08	36
315	82	08	19	15 58 46	60	83.5	82	231	16 00 10			20° 11' 54		36
316	82	08	19	16 08 35	60	87.1	82	231	16 10 02			20° 12' 36	158° 13' 66	36
317	82	08	19	16 18 37	60	89.7	82	231	16 20 07			20° 12' 78	158° 14' 41	36
318	82	08	19	16 28 37	60	90.3	82	231	16 30 08			20° 13' 21	158° 15' 17	36
319	82	08	19	16 38 42	60	84.0	82	231	16 40 06			20° 13' 65	158° 16' 92	36
320	82	09	16	16 48 39	60	88.7	82	231	16 50 08			20° 14' 08	158° 17' 67	36
321	82	09	16	16 58 45	60	83.8	82	231	17 00 08			20° 15' 67	158° 17' 57	36
322	82	09	17	17 08 44	60	82.6	82	231	17 10 07			20° 15' 16	158° 18' 26	36

Shot Line No. ESP 4										Cruise KR20813-00										Project HAUAIRAW) FLEXURE										Page 04	
Shot No.	Launch Time						Shot Size (lbs)	Burn Time (Sec x 10)	Shot Break Time						Sed. Thick (Ms)	Bubble Pulse (Ms)	SAT LAT	LONG	Fuse Length (in)												
	Yr	Mo	Dy	Hr	Mn	Sc			Ms	Yr	Mo	Dy	Hr	Mn						Sc	Ms										
401	82	08	20	21	18	38	60	86.0	82	08	23	21	30	04	944		20° 30.90' N	157° 44.31' W	36	483											
402	82	08	20	21	28	39	60	86.6	82	08	23	21	30	07	503		20° 31.60' N	157° 41.04' W	36	483											
403	82	08	20	21	38	39	60	83.1	82	08	23	21	40	02	432		20° 31.90' N	157° 41.44' W	36	483											
404	82	08	20	21	48	44	60	84.4	82	08	23	21	50	07	410		20° 28.12' N	157° 42.53' W	36	483											
405	82	08	20	21	58	46	60	83.3	82	08	23	22	00	09	467		20° 28.40' N	157° 43.70' W	36	483											
406	82	08	20	22	08	39	60	86.8	82	08	23	22	10	06	228		20° 28.65' N	157° 44.55' W	36	483											
407	82	08	20	22	18	40	60	87.1	82	08	23	22	20	06	545		20° 28.91' N	157° 45.41' W	36	482											
408	82	08	20	22	28	37	60	85.6	82	08	23	22	30	04	101		20° 29.20' N	157° 46.20' W	36	482											
409	82	08	20	22	38	35	60	85.2	82	08	23	22	40	03	594		20° 29.54' N	157° 47.12' W	36	481											
410	82	08	20	22	48	—	60	—	82	08	23	22	50	—	—		20° 30.10' N	157° 48.55' W	36	481											
411	82	08	20	22	58	40	60	81.1	82	08	23	23	00	08	026		20° 30.36' N	157° 49.10' W	36	477											
412	82	08	20	23	08	39	60	85.7	82	08	23	23	10	04	502		20° 30.66' N	157° 50.51' W	36	477											
413	82	08	20	23	18	44	60	86.2	82	08	23	23	20	10	477		20° 30.94' N	157° 51.44' W	36	480											
414	82	08	20	23	28	43	60	87.6	82	08	23	23	30	06	704		20° 31.21' N	157° 52.32' W	36	480											
415	82	08	20	23	38	47	60	84.6	82	08	23	23	40	12	509		20° 31.48' N	157° 53.18' W	36	480											
416	82	08	20	23	48	40	60	86.5	82	08	23	23	50	08	753		20° 31.76' N	157° 54.06' W	36	480											
417	82	08	20	23	58	36	60	87.2	82	08	23	23	00	03	044		20° 32.05' N	157° 54.93' W	36	479											
418	82	08	20	24	08	37	60	87.7	82	08	23	23	10	04	041		20° 32.31' N	157° 55.80' W	36	477											
419	82	08	20	24	18	36	60	87.3	82	08	23	23	20	03	356		20° 32.56' N	157° 56.67' W	36	477											
420	82	08	20	24	28	33	60	86.3	82	08	23	23	30	04	254		20° 32.81' N	157° 57.35' W	36	476											
421	82	08	20	24	38	36	60	86.7	82	08	23	23	40	02	478		20° 33.07' N	157° 58.40' W	36	474											
422	82	08	20	24	48	35	60	84.9	82	08	23	23	50	00	092		20° 33.34' N	157° 59.40' W	36	474											

80-02KM

4760

Shot No.	Launch Time						Shot Size (lbs)	Burn Time (Sc x 10)	Shot Break Time						Secd Thick (ms)	Bubble Pulse (ms)	Lat.	Long.	Fuse Length (in)
	Yr	Mo	Dy	Hr	Mn	Sc			Yr	Jdy	Hr	Mn	Sc	Ms					
500	82	08	22	04	20	57	1180	944	82	234	09	22	25	543			Test Shot		418
501	82	08	22	04	58	31	1460	980	82	234	09	00	04	430			21° 22.53' N 157° 14.32' W		48
502	82	08	22	10	05	31	1460	987	82	234	10	10	09	791			21° 22.53' N 157° 15.12' W		48
503	82	08	22	10	18	32	1800	980	82	234	10	20	10	067			21° 22.15' N 157° 15.91' W		48
504	82	08	22	10	26	28	1800	960	82	234	10	30	04	889			21° 21.53' N 157° 16.70' W		48
505	82	08	22	10	36	30	1800	977	82	234	10	40	06	084			21° 21.48' N 157° 17.50' W		49
506	82	08	22	10	48	31	1460	940	82	234	10	50	09	851			21° 21.14' N 157° 18.27' W		49
507	82	08	22	10	58	42	1460	951	82	234	11	00	17	375			21° 20.70' N 157° 19.07' W		48
508	82	08	22	11	08	30	1460	984	82	234	11	10	08	883			21° 20.46' N 157° 19.84' W		48
509	82	08	22	11	18	32	1460	982	82	234	11	20	10	375			21° 20.11' N 157° 20.64' W		48
510	82	08	22	11	28	30	1460	994	82	234	11	30	09	145			21° 19.75' N 157° 21.41' W		48
511	82	08	22	11	38	28	1460	1003	82	234	11	40	08	182			21° 19.41' N 157° 22.23' W		48
512	82	08	22	11	48	27	1460	960	82	234	11	50	04	630			21° 19.05' N 157° 23.02' W		48
513	82	08	22	11	58	40	1600	761	82	234	12	00	04	463			21° 18.70' N 157° 23.85' W		36
514	82	08	22	12	08	43	1600	853	82	234	12	10	07	420			21° 18.35' N 157° 24.64' W		36
515	82	08	22	12	18	51	1600	859	82	234	12	20	12	802			21° 17.99' N 157° 25.41' W		36
516	82	08	22	12	28	44	1600	880	82	234	12	30	08	674			21° 17.62' N 157° 26.19' W		36
517	82	08	22	12	38	39	1600	830	82	234	12	40	02	507			21° 17.25' N 157° 26.99' W		36
518	82	08	22	12	48	39	1600	848	82	234	12	50	03	562			21° 16.89' N 157° 27.79' W		36
519	82	08	22	12	58	38	1600	868	82	234	13	00	04	919			21° 16.52' N 157° 28.59' W		36
520	82	08	22	13	08	37	1600	886	82	234	13	10	06	544			21° 16.15' N 157° 29.39' W		36
521	82	08	22	13	18	37	1600	873	82	234	13	20	04	027			21° 15.78' N 157° 30.19' W		36
522	82	08	22	13	28	40	1600	861	82	234	13	30	06	460			21° 15.42' N 157° 30.99' W		36
523	82	08	22	13	38	38	1600	889	82	234	13	40	07	283			21° 15.05' N 157° 31.79' W		36

Shot No.	Launch Time							Shot Size (lbs.)	Burn Time (Sec x 10)	Shot Break Time							Sed. Thick (Ms)	Bubble Pulse (Ms)	LAT	LON	Fuse Length (in)
	Yr	Mo	Dy	Hr	Mn	Sc	Ms			Yr	Jdy	Hr	Mn	Sc	Ms						
600	82	08	24	16	12	29		30	6110	82	236	16	13	29	034	115		24° 05.61' N	157° 07.03' W	24	
601	82	08	24	16	29	23		30	598	82	236	16	36	32	401			24° 04.85' N	157° 07.08' W	24	
602	82	08	24	16	39	07		30	575	82	236	16	40	04	375			24° 04.47' N	157° 08.04' W	24	
603	82	08	24	16	49	07		30	598	82	236	16	50	07	223			24° 04.98' N	157° 09.04' W	24	
604	82	08	24	16	59	07		30	588	82	236	17	00	06	266			24° 04.97' N	157° 10.05' W	24	
605	82	08	24	17	09	07		30	584	82	236	17	10	05	726			24° 05.00' N	157° 11.05' W	24	
606	82	08	24	17	19	07		30	595	82	236	17	20	06	923			24° 05.05' N	157° 12.06' W	24	
607	82	08	24	17	29	10		30	597	82	236	17	30	10	763			24° 05.05' N	157° 13.05' W	24	
608	82	08	24	17	39	06		30	582	82	236	17	40	04	225			24° 05.03' N	157° 14.05' W	24	
609	82	08	24	17	49	08		30	589	82	236	17	50	06	837			24° 05.09' N	157° 15.06' W	24	
610	82	08	24	17	59	08		30	575	82	236	18	00	05	666			24° 05.12' N	157° 16.07' W	24	
611	82	08	24	18	09	09		30	583	82	236	18	10	07	563			24° 04.92' N	157° 15.23' W	24	
612	82	08	24	18	19	06		30	603	82	236	18	20	06	883			24° 04.97' N	157° 17.23' W	24	
613	82	08	24	18	29	08		30	564	82	236	18	30	05	253			24° 04.99' N	157° 18.18' W	24	

DEPT (m)
4380
4380
4371
4400
4391
4400
4415
4410
4410
4410
4410
4335

Shot No.	Launch Time						Shot Size (lbs.)	Burn Time (Sec.)	Shot Break Time						Sed. Thick (ms)	Bubble Pulse (ms)	Fuse Length (in.)	Depth (N)	Longitude (N)	Latitude (N)
	Yr	Mo	Dy	Hr	Mn	Sc			Yr	Udy	Hr	Mn	Sc	Ms						
701	82	08	26	01	59	05	30	57.3	82	238	01	01	02	2.74			24	22° 57' 39"	157° 20' 57"	44° 35'
702	82	08	26	01	00	05	30	57.7	82	238	01	10	03	3.69			24	22° 57' 42"	157° 20' 59"	44° 35'
703	82	08	26	01	19	06	30	58.2	82	238	01	20	04	4.23			24	22° 58' 26"	157° 21' 44"	44° 35'
704	82	08	26	01	29	06	30	58.5	82	238	01	30	04	9.60			27	22° 59' 63"	157° 21' 05"	44° 35'
705	82	08	26	01	39	04	30	58.6	82	238	01	40	03	3.79			24	23° 00' 09"	157° 21' 80"	44° 35'
706	82	08	26	01	49	11	30	58.5	82	238	01	50	09	9.58			24	23° 00' 50"	157° 22' 57"	44° 35'
707	82	08	26	01	59	05	30	58.2	82	238	02	00	03	6.87			24	23° 01' 17"	157° 23' 37"	44° 35'
708	82	08	26	02	09	07	30	58.0	82	238	02	10	05	5.98			24	23° 01' 49"	157° 24' 17"	44° 35'
709	82	08	26	02	19	07	30	59.4	82	238	02	20	06	6.90			24	23° 02' 51"	157° 25' 00"	44° 40'
710	82	08	26	02	29	04	30	55.6	82	238	02	30	00	4.64			24	23° 02' 33"	157° 25' 80"	44° 35'
711	82	08	26	02	39	06	30	56.0	82	238	02	40	02	0.70			24	23° 02' 66"	157° 26' 61"	44° 35'
712	82	08	26	02	49	05	30	55.6	82	238	02	50	01	5.30			24	23° 03' 27"	157° 27' 42"	44° 35'
713	82	08	26	02	59	05	30	58.8	82	238	03	00	04	0.01			24	23° 03' 50"	157° 28' 04"	44° 35'

Shot No.	Launch Time			Shot Break Time			Sed. Thick (ms)	Bubble Pulse (ms)	Lat (N)	Long (W)	Fuse Length (in)
	Yr	Mo	Dy	Hr	Mn	Sc					
8011	82	04	27	09	18	37			20° 23.02' N	157° 17.06' W	36
8012	82	04	27	09	25	40			20° 24.23' N	157° 11.91' W	36
8013	82	04	27	09	38	38			20° 24.54' N	157° 15.91' W	36
8014	82	04	27	09	45	39			20° 24.45' N	157° 19.54' W	36
8015	82	04	27	09	58	40			20° 25.32' N	157° 20.71' W	36
8016	82	04	27	10	06	40			20° 25.18' W	157° 21.71' W	36
8017	82	04	27	10	18	34			20° 26.05' N	157° 22.65' W	36
8018	82	04	27	10	28	37			20° 26.41' N	157° 23.54' W	36
8019	82	04	27	10	36	39			20° 26.11' N	157° 44.54' W	36
8020	82	04	27	10	49	06			20° 27.16' N	157° 35.55' W	24
8021	82	04	27	10	59	06			22° 27.51' N	157° 26.48' W	24
8022	82	04	27	11	04	06			22° 27.85' N	157° 27.43' W	24
8023	82	04	27	11	14	07			22° 28.28' N	157° 28.53' W	24
8024	82	04	27	11	19	07			22° 28.62' N	157° 29.21' W	24
8025	82	04	27	11	29	07			22° 29.64' N	157° 30.51' W	24
8026	82	04	27	11	34	07			22° 30.08' N	157° 31.41' W	24
8027	82	04	27	11	44	06			22° 30.50' N	157° 32.31' W	24
8028	82	04	27	11	54	06			22° 31.35' N	157° 33.21' W	24
8029	82	04	27	12	04	07			22° 31.35' N	157° 34.25' W	24
8030	82	04	27	12	14	07					

Shot Line No.

ESP 9

Cruise

KE82-68-13-00

Project LABRADORIAN FLEXURES

Page 10

Shot No.	Launch Time						Shot Size (lbs.)	Burn Time (Sc x 10)	Shot Break Time						Sed. Thick (Ms)	Bubble Pulse (Ms)	Length (in)
	Yr	Mo	Dy	Hr	Mn	Sc			Yr	Jdy	Hr	Mn	Sc	Ms			
9001	82	08	20	18	58	37	60	874	82	246	19	00	04	613			447(N) 10N6(W)
9002	82	08	26	19	08	37	60	845	82	246	19	00	01	508			22° 13.56' 158° 23.96'
9003	82	08	28	19	18	38	60	854	82	246	19	00	04	163			22° 13.50' 158° 23.24'
9004	82	08	28	19	28	38	60	892	82	246	19	30	07	616			22° 13.44' 158° 22.50'
9005	82	08	28	19	38	39	60	891	82	246	19	40	08	285			22° 13.38' 158° 21.76'
9006	82	08	28	19	48	36	60	893	82	246	19	50	06	013			22° 13.31' 158° 20.85'
9007	82	08	28	19	58	34	60	849	82	246	20	00	03	842			22° 13.20' 158° 19.17'
9008	82	08	28	20	08	38	60	865	82	246	20	10	05	1611			22° 12.69' 158° 17.35'
9009	82	08	28	20	18	37	60	879	82	246	20	20	05	437			22° 12.62' 158° 16.45'
9010	82	08	28	20	28	39	60	881	82	246	20	30	07	435			22° 12.75' 158° 15.49'
9011	82	08	28	20	38	38	60	880	82	246	20	40	06	704			20° 12.75' 158° 14.60'
9012	82	08	28	20	48	38	60	883	82	246	20	50	07	160			20° 12.74' 158° 13.64'
9013	82	08	28	20	58	38	60	885	82	246	21	00	06	630			20° 12.69' 158° 12.80'
9014	82	08	28	21	08	37	60	865	82	246	21	10	04	971			20° 12.64' 158° 11.94'
9015	82	08	28	21	18	36	60	860	82	246	21	20	04	064			20° 12.60' 158° 11.12'
9016	82	08	28	21	28	37	60	909	82	246	21	30	08	457			20° 12.55' 158° 10.31'
9017	82	08	28	21	38	41	60	885	82	246	21	40	09	527			20° 12.50' 158° 09.44'
9018	82	08	28	21	48	39	60	899	82	246	22	00	07	607			20° 12.45' 158° 08.64'
9019	82	08	28	22	08	37	60	942	82	246	22	10	07	249			20° 12.41' 158° 07.71'
9020	82	08	28	22	18	36	60	942	82	246	22	20	07	342			20° 12.35' 158° 06.87'
9021	82	08	28	22	28	37	60	907	82	246	22	30	07	865			20° 12.25' 158° 05.08'
9022	82	08	28	22	28	36	60	905	82	246	22	40	06	897			20° 12.19' 158° 04.09'

80-02KM

DEPT (m) 4836 4852 4853 4861 487 487 487 4855 4856 484 484 483 484 481 481C 480 479 479 478 477

Shot No.	Yr	Mo	Dy	Launch Time				Shot Size (lbs)	Burn Time (Sc x IO)	Yr	Jdy	Shot Break Time				Seed Thick (Ms)	Bubble Pulse (Ms)	LAT (N)	LONG (W)	Fuse Length (in)	DEPT
				Hr	Mn	Sc	Ms					Hr	Mn	Sc	Ms						
1001	82	08	29	20	38	38		150	1011.6	82	241	19	56	15	0644			21°54.15'	159°58.13'	48	31.5
1002	82	08	29	20	40	37		150	1011.2	82	241	19	50	08	2200			21°58.50'	159°58.83'	48	31.5
1003	82	08	29	20	49	27		150	973.3	82	241	20	00	05	2332			21°57.84'	159°54.53'	48	31.3
1004	82	08	29	20	08	28		180	983.3	82	241	20	10	06	4712			21°57.17'	159°00.20'	48	30.8
1005	82	08	29	20	18	36		60	866.9	82	241	20	20	02	7611			21°56.50'	159°00.88'	36	30.5
1006	82	08	29	20	28	38		60	885.5	82	241	20	30	06	7100			21°55.82'	159°01.55'	36	29.0
1007	82	08	29	20	38	37		60	889.7	82	241	20	40	06	6335			21°55.15'	159°02.28'	36	27.9
1008	82	08	29	20	48	35		60	911.4	82	241	20	50	06	6335			21°54.46'	159°02.86'	36	27.9
1009	82	08	29	20	58	36		60	882.2	82	241	21	00	06	3327			21°53.82'	159°03.51'	36	27.9
1010	82	08	29	21	08	36		60	866.2	82	241	21	10	01	9511			21°52.15'	159°05.48'	36	29.4
1011	82	08	29	21	18	35		60	911.1	82	241	21	20	06	7602			21°51.43'	159°06.13'	36	29.0
1012	82	08	29	21	28	36		60	906.6	82	241	21	30	06	7588			21°50.71'	159°06.83'	36	29.2
1013	82	08	29	21	38	35		60	844.2	82	241	21	40	06	7588			21°50.00'	159°07.52'	36	29.8
1014	82	08	29	21	48	38		60	905.3	82	241	21	50	08	557			21°49.84'	159°08.22'	36	29.2
1015	82	08	29	21	58	37		60	905.5	82	241	22	00	07	8966			21°48.57'	159°08.91'	36	29.8
1016	82	08	29	22	08	36		60	844.6	82	241	22	10	01	057			21°47.84'	159°09.59'	36	29.50
1017	82	08	29	22	18	37		60	883.3	82	241	22	20	05	676			21°47.11'	159°10.28'	36	30.88
1018	82	08	29	22	28	34		60	875.5	82	241	22	30	03	557			21°46.37'	159°10.97'	36	30.88
1019	82	08	29	22	38	34		60	887.7	82	241	22	40	04	828			21°45.64'	159°11.66'	36	32.15
1020	82	08	29	22	48	36		60	886.6	82	241	22	50	05	131			21°44.91'	159°12.35'	36	33.0
1021	82	08	29	22	58	35		60	872.2	82	241	23	00	02	703			21°44.307'	159°13.78'	36	33.86
1022	82	08	29	23	08	36		60	812.2	82	241	23	09	07	673			21°43.07'	159°14.52'	36	33.05
1023	82	08	29	23	18			30		82	241	23	20	07	540					24	

KKO

2258
 2257
 2256
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~~2237~~ 2237
 6 MI

1860
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 Bar

ABETH
 O. 60 N.M.

ESP 1

XIN 6

1644482

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BAR
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GMT
 2259
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 2301
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 2318

21/10/14

Local Time

21:15

16
17
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to Port dist
0.09 Miles
Abcam

EST 2

Bar:

11.6
11.7
11.6
11.7
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11.7
11.6
11.6
11.5
11.5
11.5
11.3
11.1
10.8
0.96
→ 0.36
32.4
311
308
307
305

stays

18 Aug 82 GMT

XIN 7

3

15
16
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Local time

Bev

ESP 2

GMT

4

07 39	305
07 40	305
07 41	304
07 42	303
07 43	303
07 44	303
07 45	303
07 46	303
07 47	301

504487

21	39
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21	59
21	60

27

5

TIME:

END COPY

ESP 1:

20

ESP 3

Local TML

2126
27
2123
21
30
31
32
33
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35
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39
40

Bar
190°
197°
219°
238°
252°
263°
267°
272°
275°
278°
282°
285°
287°
289°
2851

abcam

2133
24
0758

2128

6

ESP 4

Wavelength

GM T (410) Bar.

Time

Magnetite

7

05:20:00
05:20:40
05:22:00
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05:43

ABEAM

NO RANGES
NOTED
IN BRIDGE
LOG

130°
132
140
143
152
166
185
207
224
239
250
257
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279

05:44
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55

280°
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ESP 5

LOCAL

1734

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1755

1756

NO RANGE
NOTED IN
BRIDGE

1747:49

GMT

0334

0335

0336

0337

0338

0339

0340

0341

0342

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0344

0345

0346

0347

0347:49

0348

0350

0351

0352

0353

0354

0355

0356

BAR

0610

0610

0600

0590

0590

0570

0560

0550

0530

0520

0460

0440

0350

0160

3230

2800

2640

2570

2520

2510

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245°
245°
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245°
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GMT
0357
0358
0359
0400
0400:46

LOCN
1757
1758
1759
1800
"ABDURY" 1800:46
1801
1802
1803
1804

Baring

10

ESP

Local Time

How are we going to explain this to mom?

LOST SAVSAGES

END EXPERIMENT

200 -
300 -
400 -
500 -

13.6

000

DROP TIME

[AV EVEN TIME ~ 86

DROP TEST ESP 6

60 lb change

11

2850

2840

2840

2850

288

290

291

297

—

—

3170

3370

04

BAR.

12

550

530

650

700

710

730

790

810

830

830

940 GMT

0119

LOVE TIME

ESP #6

24 AUG 82 13

BME

91

86

86

83

83

81

79

78

76

70

65

53

35

ARMY

04

337

317

0005

0005

097

091

090

085

GMT

1119

1120

1121

1122

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1124

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1126

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ESP6

LOCAL

0119

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0121

0122

0123

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0125

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0140



24 AUG 82

14

BAR

285

284

284

285

GNT

1141

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1143

1144

WTH

0141

0142

0143

0144

$\Delta = 0.25 \text{ mile}$
(Bill Riquay, Ruden)

Skype $\Delta = 0.44$ m. n. u. l. e

ESP 7
LOU 12
0954
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2015

abstem * 44 m. n.

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3160
3150
8130

6/1/83

1380

1480

1760

1800

1970

2445

2330

2490

Dec

200

15

ESP 8

LOCAL TIME

05/17/05

1701

1702

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0321

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115°

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111°

108°

108°

106°

105°

100°

97°

91°

83°

68°

42°

8 AIR

17

1721:07

Abcam

BAK

13°

352°

336°

327°

320°

317°

316°

313°

311°

309°

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307°

305°

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304°

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GMT

0322

0323

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0340

LOCAL TIME

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QUT

ESP

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82

abram 140

0.55 N.M.

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1080

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ESP 10

Loce

05336

(Time)
Shot #

GMT

29 Aug 82

Bar.

19
CD
CON

1336	77	1337	470
1338	78	1338	440
1339	79	1339	410
1340	80	1340	420
1341	81	1341	400
1342	20982	1342	360
1343	83	1343	290
1344	84	1344	150
1345	85	1345	3570
1346	86	1346	3260
1347	87	1347	2970
1348	88	1348	277
1349	89	1349	2650
1350	90	1350	2570
1351	91	1351	254
1352	92	1352	251
1353	93	1353	249
1354	94	1354	248
1355	95	1355	246
1356	96	1356	244
1357	97	1357	2420
1358	98	1358	2450
20998	20998	1358	2440

BAR-

1N45

173°

171°

170°

167°

165°

164°

165°

GMT

Aug
29
1982

[ESP 11]

LOW

1201

1202

1203

1204

1205

1206

1207

Chd. f
ESP 10B?

23537 ✓ correct

73237 CONRAD ABHAM @ 0.33 N.M.
for end of ESP 10B

253 28
250 29
248 30

for
and f
ESP 10B

27 258
26 265
25 276
24 299
23 ABHAM
22 352
21 009
20 019
19 029
18 027
17 031
16 033
15 034
14 036

ESP

SUMMARY

After

ESP 2 of 2305 ~ 2300

Start

according to log phone

Before

according to log phone

but time unknown

ESP SUMMER:

ESP

ESP 1: BEGIN COR A 0800Z 15 AUG 82
 2121Z
 560ms

① END COP A 2122Z 16 AUG 82 553ms

② MPRM 2252Z 16 AUG 82 0.60 N.M 552ms

MAPT 19018.71' N 154006.54' W 547 NMV

③ END A/G COP 1 0300Z 17 AUG 82 552ms

④ BEGIN TURT ESP 1

SHOT 101 0400:04.563Z 17 AUG 82

19026.5' N, 154020.5' W

⑤ END TURT ESP 1

SHOT 113 0600:05.072Z 17 AUG 82

19019.44' N, 154011.52' W

⑥ BEGIN A/G COP ESP 1 0700Z 17 AUG 82 550ms

⑦ END A/G COP ESP 1 1214Z 17 AUG 82 548ms

⑧ BEGIN COP B 1826Z 17 AUG 82 549ms

1A * 555 mms (2M (-60) window down

ESP ②:

① END CORP 0306Z 18 AUG 82 534ms
② ABERR 0733Z 18 AUG 82 534ms
MIDPT 20°03.17' N, 158°38.12' W N.M.
to Port dist = 009

SAT NAV
534ms

③ END 4/6 EXP 2 1110Z 18 AUG 82 534ms
④ BEGIN REVER EXP 2

SHOT 201 1250:06.958Z 18 AUG 82
14°55.37' N, 158°14.35' W
⑤ END REVER EXP 2

SHOT 217 1530:04.326Z 18 AUG 82
20°01.49' N, 158°26.42' W

⑥ BEGIN 4/6 CORP EXP 2 1707Z 18 AUG 82
1447:59.485

⑦ END 4/6 CORP EXP 2 1955Z 18 AUG 82
59.496

⑧ BEGIN CORP 0130Z 19 AUG 82
0214:59.488Z

to 0541:59.48Z 19 AUG
0543:00.917Z 19 AUG

① END WPC 0552:13Z 19 AUG 82
0603Z
917ms

② ABEMM 0724Z 19 AUG 82 0.5NM
WIPRT (STATION)
920ms

③ END A4 ESP 3 1200Z 19 AUG 82
20°17.83'N, 158°26.04'W
920ms

④ REIN REVER 033
5HT 31 1340:08.49Z 19 AUG 82
20°05.13'N, 158°03.52'W

⑤ END REVER ESP 3
5HT 32Z 1710:07.345 19 AUG 82

⑥ SURVEY MIDPT 000Z 20 AUG 82
20°15.46'N, 158°18.26'W
→

⑦ BEGIN COP L 0800Z 20 AUG 82
0800Z 20 AUG 82 915ms

0857Z 915ms

ESP 3:

ESP 4

- ① END COPD 1354:00Z 20 AUG 82
915ms
- ② ABEM 1526:23Z
HIDPT (SHAT NIN)
919ms

- ③ END H/G ESP 4 2000Z 20 AUG 82
918ms
- ④ BEGIN TAVX ESP 4

SHOT 401 2120:04-994Z 20 AUG 82

- ⑤ END TAVX ESP 4

SHOT 422 0050:00-092Z 21 AUG 82

- ⑥ BEGIN H/G ESP 4 0216:50Z 21 AUG 82
0219Z 017ms
- ⑦ END H/G ESP 4 0836:00Z 21 AUG 82
0835Z 017ms
- ⑧ BEGIN COP E 1536:25 21 AUG 82
1537Z 016ms

No range muted

No range noted

- ESP5:
- ① END CORE 0220Z 22 AUG 82 016ms
 - ② APTM 0317Z 22 AUG 82 017ms
 - MDPT ?
 - ③ END A/G EXP 5 0830Z 018ms
 - ④ BEGIN TOVEX EXP 5 0858:31Z 22 AUG 82
 - SHOT 501 1000:09.430Z 22 AUG 82
 - ⑤ END TOVEX EXP 5 ~~1400:07.675~~ 22 AUG 82
21° 22.53' N, 157° 15.12' W
 - ⑥ END TOVEX EXP 5 1400:07.675 22 AUG 82
 - ⑦ BEGIN A/G EXP 5 1518Z 22 AUG 82 017ms
 - ⑧ END A/G EXP 5 1934Z 22 AUG 82 014ms
 - ⑨ CONTINUE CORE TO COR F, BEGIN 014ms
 - COR F 0543:21 23 AUG 82 015ms

BRG:

- ① END COPT 0845.45Z 24 AUG 82
014ms
- ② ABORM 1132.14Z 24 AUG 82
015ms Port to Port 0.25 Miles
MIDPT. (SAT-NAN)
- ③ END A/G ESP 1500Z 24 AUG 82
014ms
24° 05.79' N, 157° 28.97' W
- ④ BEGIN TDEX BRG 1619:23
SHOT 601 1613:29.03Z 24 AUG 82
24° 05.61' N, 157° 07.03' W
- ⑤ END TDEX BRG
SHOT 613 1830:05.25Z 24 AUG 82
24° 04.99' N, 157° 01.18' W
- ⑥ BEGIN A/G COPT ESP 2000Z 24 AUG 82
013ms
- ⑦ END A/G COPT BRG 0112:27 25 AUG 82
014ms
- ⑧ BEGIN COPT 0613Z 25 AUG 82
014ms

ESPT

① END COP 6 1800 25 AU 682

012 ms

② ABARM 1488 25 AU 682

0.44 NM

MIDPT (SHT-NM)

012 ms

23° 66.59' N, 157° 35.56' W

③ END #/6 ESP 7 2330 25 AU 682

011 ms

④ BEGIN TAVEK ESP 7 0059:05 25 AU 682

SHT 701 0100:02.77 2

22° 57.39' N, 157° 14.71' W

⑤ END TAVEK ESP 7

SHT 713 0300:04.00 2

23° 03.52' N, 157° 28.24' W

⑥ BEGIN #/6 COP ESP 7 0427:52 26 AU 682

010 ms

⑦ END #/6 COP ESP 7 0833:01 26 AU 682

012 ms

⑧ BEGIN COP 4 1331:21 26 AU 682

1345 2

009 ms

ESP8

18432
18442
009ms
019ms

① END CORH 2130 Z 26M482

019ms

② ABETH 0321:07 Z 27M482

0.25 N.M.

MIDOT 22034.60, N, 157° 41.08' W

0.22ms

③ END H/G ESP8 0702 Z 27M482

0.21ms

④ BEGIN RUCX ESP8 0918:37Z

SHOT 801 0920:08.115Z

22° 23.02' N, 157° 17.06' W

⑤ END RUCX ESP 8

SHOT 819

1220:05.187 Z 27M482

22° 31.35' N, 157° 34.25' W

⑥ BEGIN H/G COR ESP8 1440 Z 27M482

018ms

⑦ END H/G COR ESP 8 2000 Z 27M482

019ms

⑧ BEGIN LBP I 0215 Z 28M482

018ms

- ESP 9: ① END COP I 09:20 Z 28M482 020 MS
- ② ABERN 12:54:40 Z 28M482 0.55 N.M
- (SHT NRV) MIDPT 22° 12.41' N, 157° 53.53' W 016 MS
- ③ END #16 ESP 7 18:05 Z 28M482 016 MS
- ④ BEGIN DIVER ESP 9 18:58.37 Z
- SHT 901 1800:04.613 Z 28M482
- 22° 13.52' N, 158° 23.96' W
- ⑤ END DIVER ESP 9
- SHT 922 22:30:06.847 Z 28M482
- 22° 12.19' N, 158° 04.09' W
- ⑥ BEGIN #16 ESP 9 23:17:12 Z 28M482 017 MS
- ⑦ END #16 ESP 9 05:30 Z 28M482 018 MS
- ⑧ BEGIN #16 ESP 10 05:55:52 Z 28M482 018 MS

COM WAVE IN
 1000
 1000
 1000

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- BLD: ① BEGIN #/h EXP 0555:52 20M482
 END #/h EXP 1300Z 20M482 018ms
 ② BEGIN 1344:30Z 20M482 018ms
 ③ BEGIN 1344:30Z 20M482 018ms
 ④ END #/h EXP 1810:22Z 20M482 017ms
 ⑤ BEGIN TREV EXP 10 1938:38Z 20M482 21339
 ⑥ END TREV EXP 10 1940:10.064Z 20M482
 ⑦ BEGIN 1515:15 N, 158°58.13' W
 ⑧ END TREV EXP 10 21550
 ⑨ BEGIN 1022 2309:57.073Z 20M482
 ⑩ BEGIN 00P 0234:30Z 3.7M482
 IN TRANSIT TO ESP 11. 016ms

0.33 nm
 x 1.8 u/m
 254
 5.40
 5.94

6312.5
 252.5/400

0.33 N.M.

B011

- ① END COPT 0736:25 Z 38M482
 015ms
- ② CLOSEST APPROACH 0953Z 38M482
 015ms
- ③ A/G ESP 11
- ④ END A/G ESP 11 1457 38M482
 015ms
- ⑤ HOME USE 6011

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