

## **The 2005 Chicxulub Impact Crater Seismic Experiment**

Cruise: R/V Maurice Ewing, EW0501 funded by NSF and NERC

Port of Origin: Colon, Panama - January 5<sup>th</sup>, 2005

Port of Terminus: Progreso, Mexico - February 19<sup>th</sup>, 2005

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Appendices to the Cruise Report

## APPENDIX 1: MARINE MAMMAL AND SEA TURTLE MONITORING

### Introduction

Six trained marine mammal observers (MMOs) were aboard the *Ewing* throughout the period of operations for visual and acoustic monitoring. The primary purposes of the monitoring and mitigation effort were to (1) document the occurrence and numbers of marine mammals and sea turtles near the seismic source, and (2) to implement a power down or shut down of the airguns when marine mammals or turtles were sighted near or within the designated safety radii.

### Methods

#### *Mitigation Procedures*

Mitigation procedures included the following: (1) Ramp ups whenever the airguns were started after periods without airgun operations or after prolonged operations with one airgun, and (2) Immediate power downs or shut downs of the airguns whenever marine mammals or sea turtles were detected within or about to enter the safety radius. A power down was a reduction to one operating airgun, whereas a shut down involved complete cessation of airgun operations.

The safety radii for cetaceans and sea turtles during the survey were based on the distances within which the received level of airgun sounds diminish to 180 dB re 1  $\mu$ Pa (rms) in shallow water (<100 m). This safety criterion was based on an assumption that seismic pulses received at lower received levels are unlikely to injure these animals or impair their hearing abilities, but that higher received levels *might* have some such effects. For the 20-airgun array used during the study, the safety radius for cetaceans and turtles was 3500 m. For the single airgun used during a power down, the safety radius was 108 m.

#### *Visual monitoring*

At least one MMO watched for marine mammals and sea turtles at all times while airguns operated during daylight periods, and when the vessel was underway but the airguns were not firing (e.g., during periods of poor weather). MMOs watched from 06:15 EST (30 min before ramp up) to 18:00 EST (the end of seismic operations). Seismic operations were not conducted at night.

The visual MMOs scanned the surface of the water around the vessel for marine mammals and sea turtles. The MMOs used 7×50 reticle binoculars, 25×150 Big-eye binoculars, and the naked eye. When marine mammals or turtles were sighted, the distance from the observation point (flying bridge) to the nearest member of the marine mammal or turtle group was estimated using reticles on one ocular lens of the binoculars. When a marine mammal or turtle was detected in or approaching the safety radius, the visual MMO contacted the airgun operators to power down or shut down the airguns.

#### *Passive acoustic monitoring*

MMOs also conducted passive acoustic monitoring (PAM) during seismic operations. The acoustical array was monitored from 05:45 EST (1 h before ramp up) until total darkness (18:30 EST) while at the seismic survey area during airgun operations and during most periods when airguns were off. The primary purpose of the acoustic monitoring was to aid visual observers in the detection of vocalizing marine mammals, particularly during periods with poor observation conditions, including high sea states. The acoustic MMO listened with headphones or speakers to sounds received from the hydrophone array and simultaneously monitored a real-time spectrogram display. When the acoustic MMO detected a cetacean call, the visual MMO was notified to determine if mitigation measures were required.



## **Data Analysis**

For the data analysis, visual and acoustic effort, as well as marine mammal sightings and acoustic detections, were divided into several analysis categories related to vessel and seismic activity. In general, data were categorized as “seismic” or “non-seismic”. “Seismic” included all data collected while the airguns were operating, including ramp ups, and periods up to 90 s after the airguns were shut off. Non-seismic included all data obtained before airguns were turned on (pre-seismic) or >6 h after the airguns were turned off. Data collected during post-seismic periods from 1.5 min to 2 h after cessation of seismic were considered “recently exposed” (90 s–2 h) or “potentially exposed” (2–6 h) to seismic, and were excluded from analyses.

This categorization system was designed primarily to distinguish situations with ongoing seismic surveys from those where any seismic surveys were sufficiently far in the past that it can be assumed that they had no effect on current behavior and distribution of animals. The rate of recovery toward “normal” during the post-seismic period is uncertain. Therefore, the post-seismic period was defined so as to be sufficiently long (6 h) to ensure that any carry-over effects of exposure to the large 20-airgun array sounds surely would have waned to zero or near-zero.

Survey effort as well as cetacean and sea turtle sightings were generally presented for “useable” survey conditions representing 83% of the total visual effort (Table 1). “Useable” effort excluded periods 90 s to 6 h after airguns were turned off (post-seismic), poor visibility (<3.5 km) conditions, and periods with Beaufort Wind Force >5. Also excluded were periods when the *Ewing*’s speed was <3.7 km/h (2 kt) or with >60° of severe glare between 90° left and right of the bow.

## **Results**

### ***Survey effort***

The *Ewing* traveled a total of 9476 km within the study area (Table 1). The airguns operated only during daylight along 20% of the total ship track. About 79% of seismic operations were conducted with the 20-airgun array. Ramp ups of the airguns occurred on 56 occasions, including 16 ramp ups from 1 airgun to the full 20 airgun array, and 40 start up ramp ups from no airguns.

In total, 4281 km of visual observations and 2935 km of PAM were conducted (Table 1). MMOs were on visual watch during all airgun operations, and PAM occurred during >99% of all seismic periods. During <1 h of seismic operations, PAM could not be conducted because of technical difficulties with the acoustic array. Nearly all visual (>99%) and PAM (94%) effort occurred during daylight; the remaining PAM effort occurred near dawn and dusk. During 9476 km of *Ewing* operations during the cruise, 3562 km of useable visual observations were made (Table 1). About 78% of all PAM effort was concurrent with useable daylight visual effort.

Beaufort Wind Force (Bf) during observations ranged from 1 to 6, with 95% of the observations in conditions of Bf ≤5 (i.e., useable). About one-third (35%) of the useable observation effort (Bf 1 to 5) occurred during Bf ≤3 (wind speed 0.0–5.1 m/s); the remaining 65% occurred during Bf 4 or 5.

### ***Cetaceans***

Only the bottlenose and Atlantic spotted dolphin are known to occur regularly in the shallow (<100 m) waters of the study area; in fact, these were the only species identified in the seismic survey area proper. One group of pantropical spotted dolphins was seen during transit in deep water. Within the study area, including transits, ~119 individual cetaceans (all delphinids) were sighted in 24 groups: eight bottlenose, seven Atlantic spotted, one pantropical spotted and eight unidentified dolphin groups (Table 2). In terms of individuals, Atlantic spotted dolphins were the most abundant ( $n = 36$ ), followed by bottlenose dolphins ( $n = 32$ ; Table 2). Two calves and one juvenile Atlantic spotted dolphin were seen

TABLE 1. Total *Ewing* operations, observer and PAM effort, and marine mammal and sea turtle sightings during the Chicxulub seismic survey, southern Gulf of Mexico.

	Non-Seismic			Seismic		Total Useable	Total
	Useable	Other	Post Seismic	Useable	Other		
Operations in h							
Ewing Nighttime	-	428	111	-	-	-	539
Ewing Daylight	147	47	54	201	4	348	453
Ewing Total	147	475	165	201	4	348	992
Observer Nighttime	-	-	-	-	-	-	-
Observer Daylight	139	43	48	201	4	340	434
Observer Total	139	43	48	201	4	340	434
PAM Nighttime	-	14	4	-	-	-	19
PAM Daylight	51	1	48	200	4	251	303
PAM Total	51	15	52	200	4	251	322
Operations in km							
Ewing Nighttime	-	3987	1011	-	-	-	4998
Ewing Daylight	1824	283	479	1855	37	3679	4478
Ewing Total	1824	4270	1490	1855	37	3679	9476
Observer Nighttime	-	-	-	-	-	-	-
Observer Daylight	1707	275	406	1855	37	3562	4281
Observer Total	1707	275	406	1855	37	3562	4281
PAM Nighttime	-	127	42	-	-	-	168
PAM Daylight	435	7	441	1847	37	2282	2767
PAM Total	435	134	482	1847	37	2282	2935
No. Cetacean Sightings (Indiv.)	13 (80)	1 (10)	3 (16)	6 (12)	1 (1)	19 (92)	24 (119)
No. Cetacean Acoustic Detections	4	3	1	5	-	9	13
No. Sea Turtle Sightings (Indiv.)	14 (14)	2 (2)	6 (6)	7 (7)	-	21 (21)	29 (29)
No. Power/ Shut Downs (PD/SZ) for Cetaceans	-	-	-	5	-	5	5
No. PD or SZ for Sea Turtles	-	-	-	7	-	7	7
PD or SZ Total	-	-	-	12	-	12	12

among the 119 individual delphinids observed. No injured cetaceans potentially associated with the operations were sighted at any time during the cruise.

Of the total 24 sightings, 7 were made while the airguns were on, 14 sightings were made during non-seismic periods, and the remaining 3 groups were seen during “post-seismic” periods (i.e., “non-useable”; Table 1, 2). Four of the seven groups sighted during seismic were seen while 20 airguns were operating, two groups were seen while one airgun was firing, and the remaining group was seen during ramp up.

The airguns were fully shut down on one occasion because a single bottlenose dolphin was seen in the safety zone, and on four occasions a power down was implemented for four different delphinid groups (six total individuals; Table 3). The four power downs were conducted for two groups of Atlantic spotted dolphins and two groups of unidentified dolphins. The one shut down and three power downs occurred while the full 20-airgun array was in use. The remaining one power down occurred during a ramp up when eight airguns were operating.

Sighting rates (# groups sighted per unit effort) during various types of MMO effort are presented in Table 4. The mean visual encounter rates during useable non-seismic periods were more than twice those during seismic periods (7.6 vs. 3.2 sightings/1000 km, respectively). These rates are based on similar amounts of visual effort (Table 1).

Delphinids were seen closer to the array when the airguns were off vs. on based on only useable sightings (178 vs. 472 m;  $n = 6$  vs. 13 groups). This difference was greater (~775 m) when additional unusable sightings were included. However, the mean closest point of approach (CPA) during seismic periods may be underestimated if animals avoided the airgun array farther than they could be detected by MMOs. The sighting rates during seismic and non-seismic periods suggest that some animals may have remained >2 km from the active array, beyond detection range of MMOs during seismic periods. Thus, the differences in CPAs is likely greater than noted. Furthermore, the relatively close (~180 m) mean CPA during non-seismic periods suggests that some delphinids may have been attracted to the *Ewing*. In fact, four bowriding episodes were observed during non-seismic periods.

### ***Passive Acoustic Monitoring***

PAM was conducted for a total of 2935 km (322 h) during the study period, and a total of 13 acoustic detections were made. Eleven detections were of unidentified dolphins and two were of bottlenose dolphins. In 3 of 13 cases, the acoustic detection could be matched with a visual sighting. Three detections were made during nighttime.

Five of the 13 acoustic detections were initially made while the airguns were operating. Three of those detections occurred during operations of the full 20-airgun array, and two others occurred while only one airgun was operating during a power down. All other detections were made when the airguns were not operating. However, on three occasions, the airguns were ramped up when dolphins could still be detected acoustically, when the distance of the dolphins to the airgun array was unknown. On one occasion, 28 Jan., the cessation of dolphin vocalizations coincided with the start of the ramp up.

PAM effort during “non-seismic” periods (66 h) was about one-third that during “seismic” conditions (204 h; Table 1). The mean acoustic encounter rates during useable non-seismic periods were more than three times higher than during seismic periods (9.2 vs. 2.7 acoustic encounters/1000 km, respectively; Table 4).

TABLE 2. Total number and number of useable sightings and individual cetaceans observed from the *Ewing* in the study area during the Chicxulub seismic cruise.

	Seismic		Post-Seismic		Non-seismic		Total	
	Groups	Indiv.	Groups	Indiv.	Groups	Indiv.	Groups	Indiv.
<b>All Sightings</b>								
<b>Odontocetes</b>								
<b>Delphinids</b>								
Bottlenose dolphin	2	6	2	15	4	26	6	32
Atlantic spotted dolphin	2	4	0	0	5	32	7	36
Pantropical spotted dolphin	0	0	0	0	1	10	1	10
Unidentified dolphin	3	3	1	0	4	22	7	25
<b>Total Cetaceans</b>	<b>7</b>	<b>13</b>	<b>3</b>	<b>15</b>	<b>14</b>	<b>90</b>	<b>24</b>	<b>119</b>
<b>Useable Sightings</b>								
<b>Odontocetes</b>								
<b>Delphinids</b>								
Bottlenose dolphin	2	6	N/A	N/A	4	26	6	32
Atlantic spotted dolphin	2	4	N/A	N/A	5	32	7	36
Pantropical spotted dolphin	0	0	N/A	N/A	0	0	0	0
Unidentified dolphin	2	2	N/A	N/A	4	22	6	24
<b>Total "Useable" Cetaceans</b>	<b>6</b>	<b>12</b>	<b>N/A</b>	<b>N/A</b>	<b>13</b>	<b>80</b>	<b>19</b>	<b>92</b>

Note: N/A means not applicable; useable sightings excluded sightings during post-seismic periods.

TABLE 3. List of power downs (PD) and shut downs (SZ) of the airguns implemented for cetaceans sighted within the safety radii during the Chicxulub cruise.

Species	Group size	Date (2005)	Water depth (m)	Dove? (Yes/No)	No. of airguns on prior to SZ or PD	Total airgun volume prior to SZ or PD (in <sup>3</sup> )	Estimated 180-dB radius (m)	CPA (m) to operating airguns before mitigation	Mitigation measure taken (PD or SZ)
Atlantic spotted dolphin	2 <sup>a</sup>	24 Jan	18	No	8 <sup>b</sup>	1400	2000	303	PD
Unidentified dolphin	1	1 Feb	15	No	20	6970	3500	1039	PD
Atlantic spotted dolphin	2	9 Feb	16	No	20	6970	3500	676	PD
Bottlenose dolphin	1	17 Feb	28	No	20	6970	3500	107	SZ
Unidentified dolphin	1	17 Feb	25	No	20	6970	3500	2033	PD

<sup>a</sup> One adult and one juvenile.

<sup>b</sup> Seen during ramp up.

TABLE 4. Encounter rates for acoustic detections and visual sightings from the *Ewing* during the Chicxulub seismic survey

Effort Type	Non-seismic			Seismic			Total <sup>a</sup>		
	No. of Detect.	Effort (km)	Detection Rate (No./1000 km)	No. of Detect.	Effort (km)	Detection Rate (No./1000 km)	No. of Detect.	Effort (km)	Detection Rate (No./1000 km)
All Visual	14	1983	7.1	7	1892	3.7	21	3875	5.4
Useable Visual	13	1707	7.6	6	1855	3.2	19	3562	5.3
Useable PAM	4	435	9.2	5	1847	2.7	9	2282	3.9
All PAM	7	569	12.3	5	1884	2.7	12	2453	4.6
PAM Daylight Only	4	442	9.1	5	1884	2.7	9	2326	3.9
PAM Nighttime Only	3	127	23.6	0	-	-	3	127	23.6

<sup>a</sup> The total detections and effort for **seismic+non-seismic** do not equal **total**, because of detections and effort in the **recently** and **potentially exposed** (i.e., “Post-seismic”) categories that are not included in this table. Some other totals may not add up exactly, due to rounding.

### Sea Turtles

During the study, 29 single sea turtles were seen, including 17 hawksbill, 2 loggerhead, and 10 unidentified turtles (Table 1). Hawksbills were the most frequently observed turtle during the Chicxulub seismic survey; they made up 89% of the turtles that were identified to species (Table 5). Given the year-round presence of feeding hawksbills in the shallow waters of the study area, it is not surprising that they were the most commonly seen turtle species. One additional sea turtle was found dead, entangled in fishing gear, and SEMARNAT was notified of the occurrence on that same day. Sea turtles were distributed throughout the seismic survey area.

Of the 29 turtles seen, 21 were sighted during “useable” survey conditions (Table 1). This excludes six turtle sightings during the “post seismic” period (90 s to 6 h after seismic operations had ceased), and two turtles sighted when the *Ewing* was traveling <3.7 km/h. Seven of the 21 useable turtle sightings were made while seismic operations were underway, and 14 of the sightings occurred during non-seismic periods (Table 5). The mean closest observed points of approach of turtles were similar during non-seismic vs. seismic conditions (290 vs. 284 m, respectively, n = 14 vs. 7 groups).

Ramp ups were postponed three times during the survey because of the presence of sea turtles. The airguns were powered down three times and shut down four times due to the presence of sea turtles within the 180 dB sound radius.

The single dead loggerhead sea turtle was seen 9 February during seismic activities. The dead loggerhead was observed floating at the surface, its hind, right flipper entangled in fishing gear (a rope several meters long). The turtle appeared to have been dead for ~5 days, and it smelled of decomposition. The observers concluded that the turtle’s death was due to fishing activities and did not implement a shut down. SEMARNAT was notified of this dead turtle on the day it was observed, and it was retrieved by the spotter vessel, as requested by SEMARNAT.

TABLE 5. Total number and number of useable sea turtle sightings during seismic and non-seismic periods during the Chicxulub seismic cruise.

Turtle Species/Grouping	Seismic		Non-seismic		Post-seismic		Total	
	Groups	Indiv.	Groups	Indiv.	Groups	Indiv.	Groups	Indiv.
<b>All Sightings</b>								
Hawksbill sea turtle	4	4	9	9	4	4	17	17
Loggerhead sea turtle	0	0	2	2	0	0	2	2
Unidentified sea turtle	3	3	5	5	2	2	10	10
<b>Total</b>	<b>7</b>	<b>7</b>	<b>16</b>	<b>16</b>	<b>6</b>	<b>6</b>	<b>29</b>	<b>29</b>
<b>Useable Sightings</b>								
Hawksbill sea turtle	4	4	7	7	N/A	N/A	11	11
Loggerhead sea turtle	0	0	2	2	N/A	N/A	2	2
Unidentified sea turtle	3	3	5	5	N/A	N/A	8	8
<b>Total</b>	<b>7</b>	<b>7</b>	<b>14</b>	<b>14</b>	<b>N/A</b>	<b>N/A</b>	<b>21</b>	<b>21</b>

Note: N/A means not available.

## Summary and Conclusions

Results of L-DEO's Chicxulub marine mammal and turtle monitoring program provide concentrated survey effort near the northern Yucatán Peninsula in the little-studied shallow waters of the southern Gulf of Mexico. Three different cetacean species were identified during the study; the remaining sightings were unidentified dolphins. As expected, given the shallow waters of the study area, the Atlantic spotted dolphin and bottlenose dolphin were the most commonly seen species. The only other species identified was the pantropical spotted dolphin; this group was seen in deep water during transit to the survey area. In addition, two different turtle species were identified within the study area, including loggerhead and hawksbill sea turtles. No injured marine mammals or turtles potentially associated with the operations were sighted.

In general, the relatively small number ( $n = 24$ ) of cetacean sightings, acoustic detections ( $n = 13$ ), and sea turtle sightings ( $n = 29$ ) did not allow meaningful interpretation of sighting rates during seismic vs. non-seismic periods. However, observed trends are as follows. (A) The sighting and acoustic detection rates during non-seismic periods were higher than during seismic periods. (B) Delphinids tended to be seen farther from the observation vessel during seismic than during non-seismic periods, suggesting that the seismic sound source used may have displaced or affected the behavior of some cetaceans within view of the *Ewing*. (C) Acoustic detection rates were higher than visual detection rates during non-seismic periods, which is typical for joint visual/acoustic surveys. (D) PAM results indicate that at least some cetaceans call in the presence of airgun pulses. (E) More sea turtles were observed during non-seismic than seismic periods, which may indicate that turtles were actively avoiding the vessel during seismic operations.

Few animals are expected to have been exposed to sound levels  $>180$  dB during the Chicxulub survey. There were four power downs and one shut down for cetaceans, so a total of seven delphinids are likely to have been exposed to sound levels  $\geq 180$  dB. In addition, there were three power downs and four shut downs for turtles; therefore seven turtles were likely exposed to sound levels  $> 180$  dB.

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1000  
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7640  
7630  
7620  
7610  
7600  
7590  
7580  
7570  
7560  
7550

CDP

0.000

0.000

1.000

1.000

2.000

2.000

3.000

3.000

4.000

4.000

5.000

5.000

6.000

6.000

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9.000

10.000

10.000

11.000

11.000

12.000

12.000

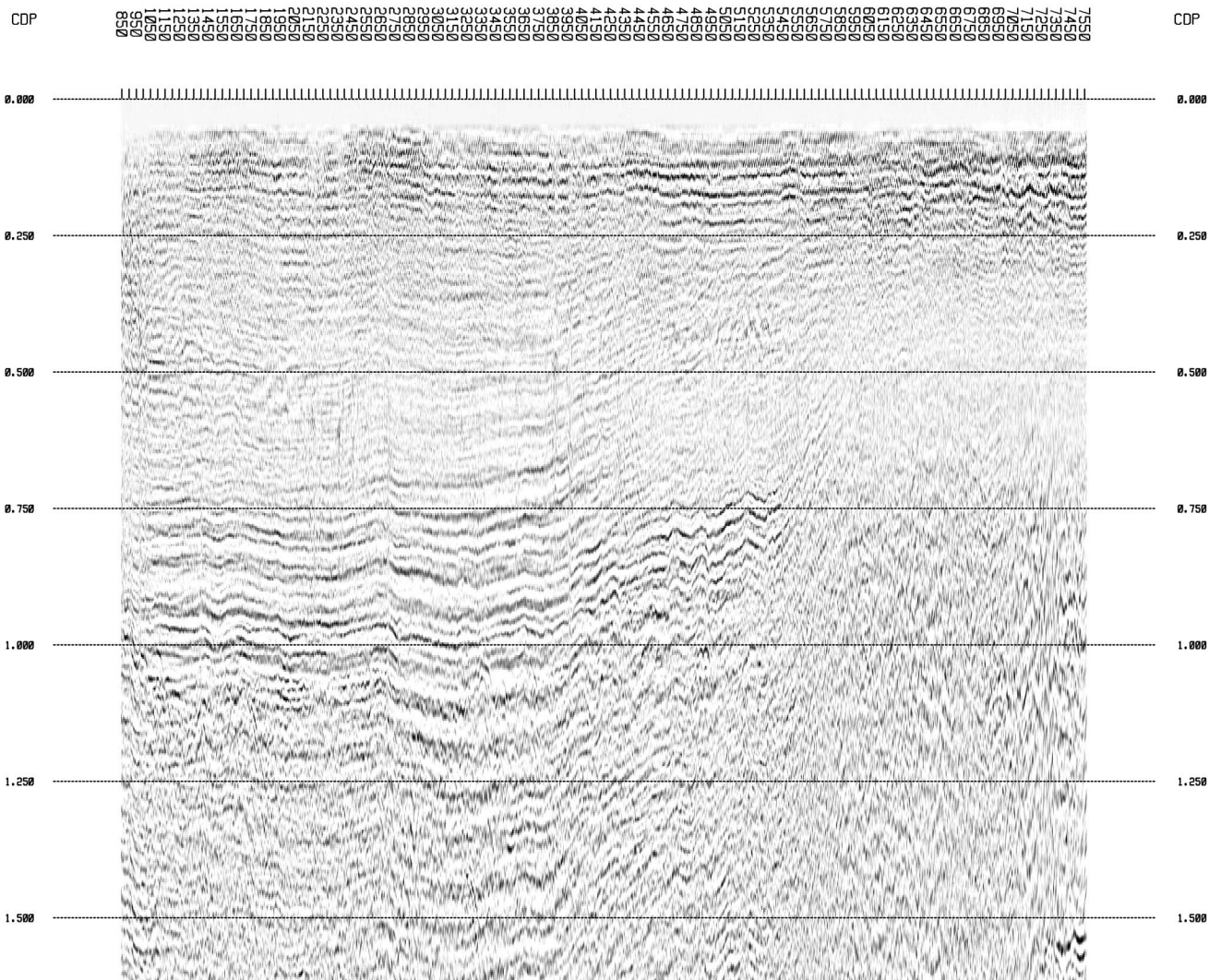
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13.000

14.000

14.000

CHIX1\_MIGTX\_AGC

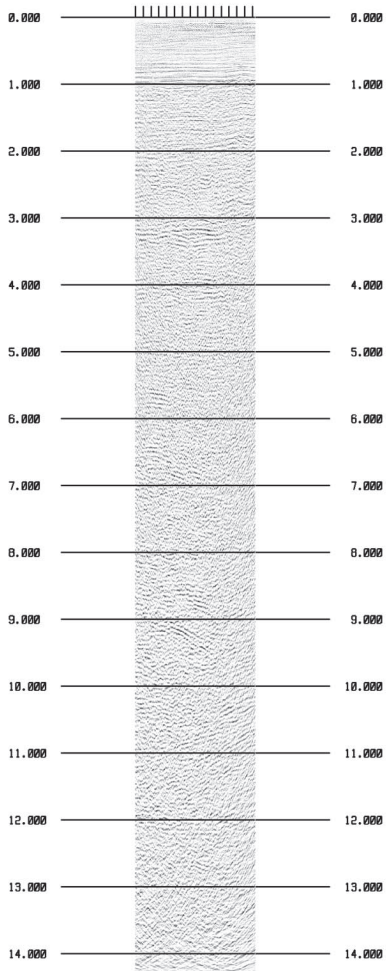




CHIX2\_MIGTX\_AGC

CDP

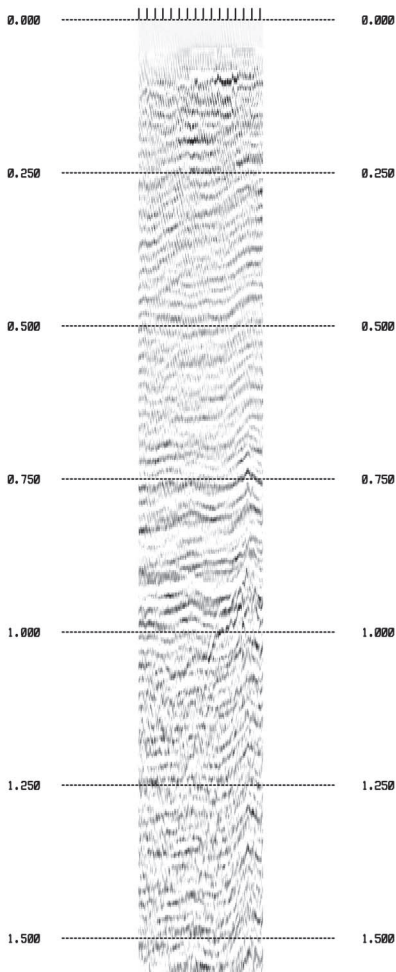
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7209  
7109  
7009  
6909  
6809  
6709



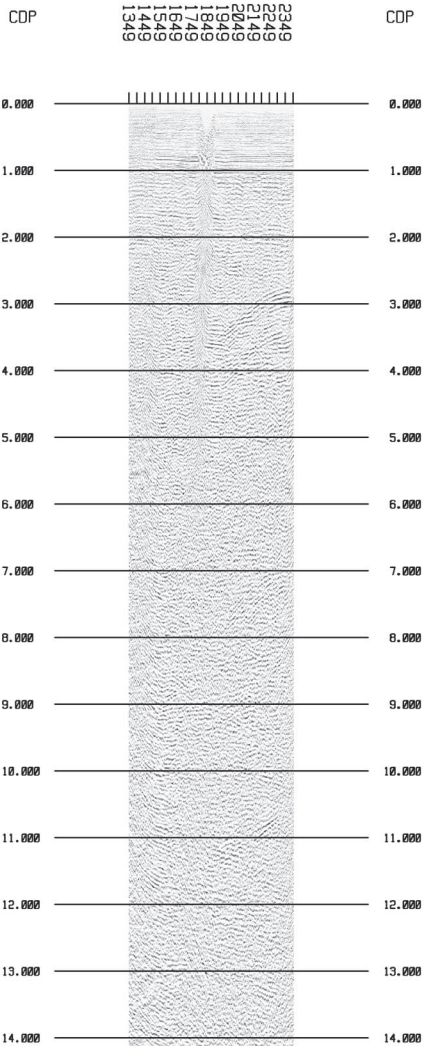
CHIX2\_MIGTX\_AGC

CDP

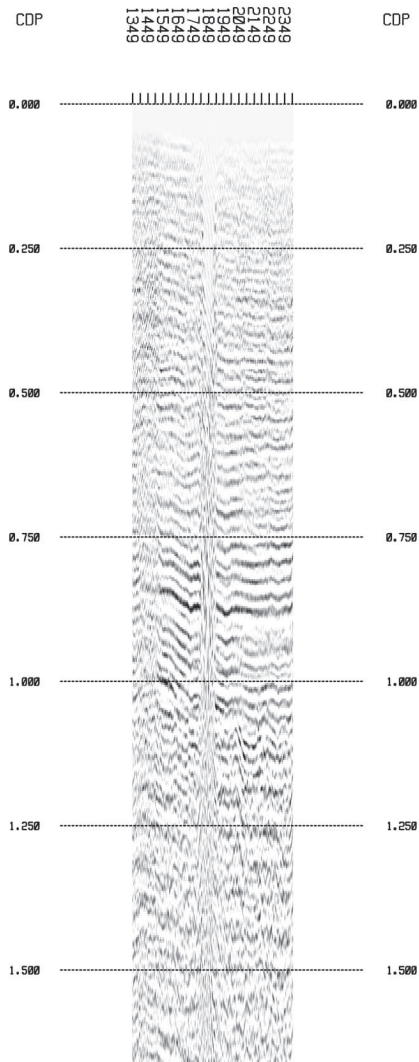
7409  
7309  
7209  
7109  
7009  
6909  
6809  
6709



# CHIX2A\_MIGTX\_A6C



# CHIX2A\_MIGTX\_A6C



# CHIX2B\_MIGTX\_A6C

CDP

CDP

7469  
7399  
7289  
7169  
7069  
6969  
6869  
6769  
6659  
6559  
6459  
6359  
6259  
6159  
6059  
5959  
5859  
5759  
5659  
5559  
5459  
5359  
5259  
5159  
5059  
4959  
4859  
4759  
4659  
4559  
4459  
4359  
4259  
4159  
4059  
3959  
3859  
3759  
3659  
3559  
3459  
3359  
3259  
3159  
3059  
2959  
2859  
2759

0.000

0.000

1.000

1.000

2.000

2.000

3.000

3.000

4.000

4.000

5.000

5.000

6.000

6.000

7.000

7.000

8.000

8.000

9.000

9.000

10.000

10.000

11.000

11.000

12.000

12.000

13.000

13.000

14.000

14.000



# CHIX2B\_MIGTX\_A6C

CDP

CDP

7469  
7369  
7269  
7169  
7069  
6969  
6869  
6769  
6669  
6569  
6469  
6369  
6269  
6169  
6069  
5969  
5869  
5769  
5669  
5569  
5469  
5369  
5269  
5169  
5069  
4969  
4869  
4769  
4669  
4569  
4469  
4369  
4269  
4169  
4069  
3969  
3869  
3769  
3669  
3569  
3469  
3369  
3269  
3169  
3069  
2969  
2869  
2769

0.000

0.000

0.250

0.250

0.500

0.500

0.750

0.750

1.000

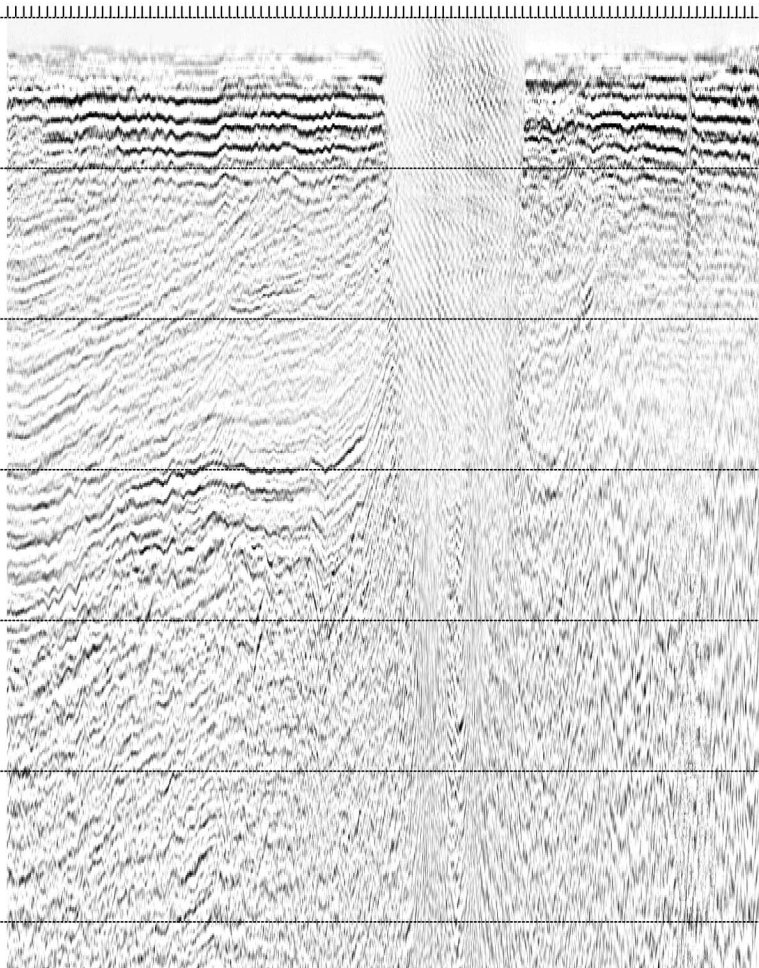
1.000

1.250

1.250

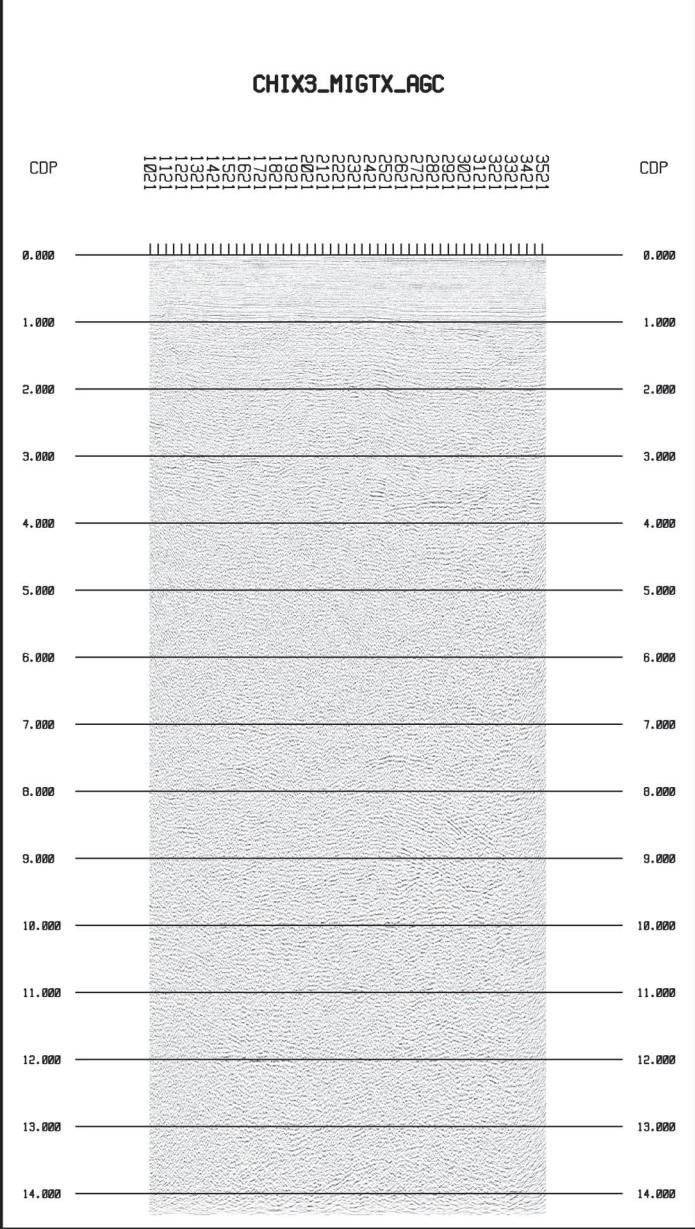
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1.500

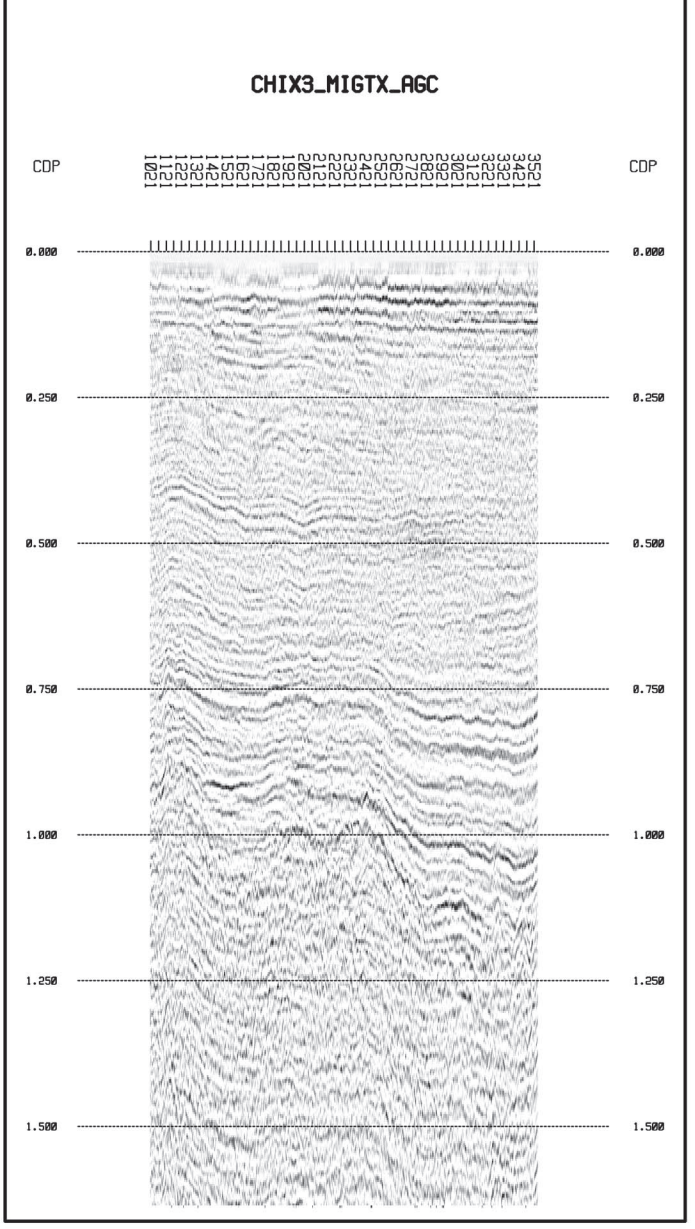




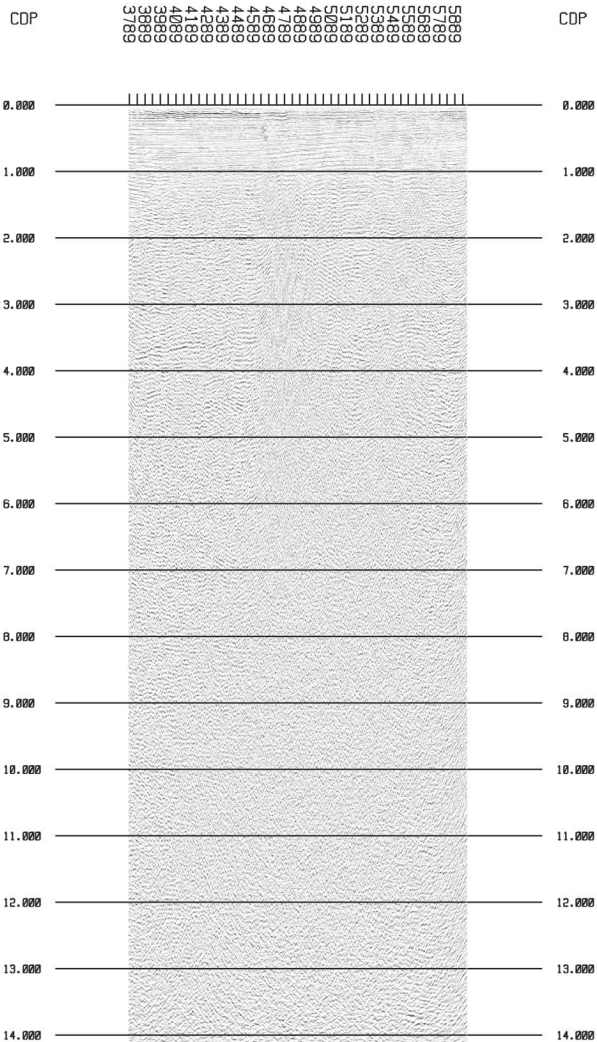
CHIX3\_MIGTX\_A6C



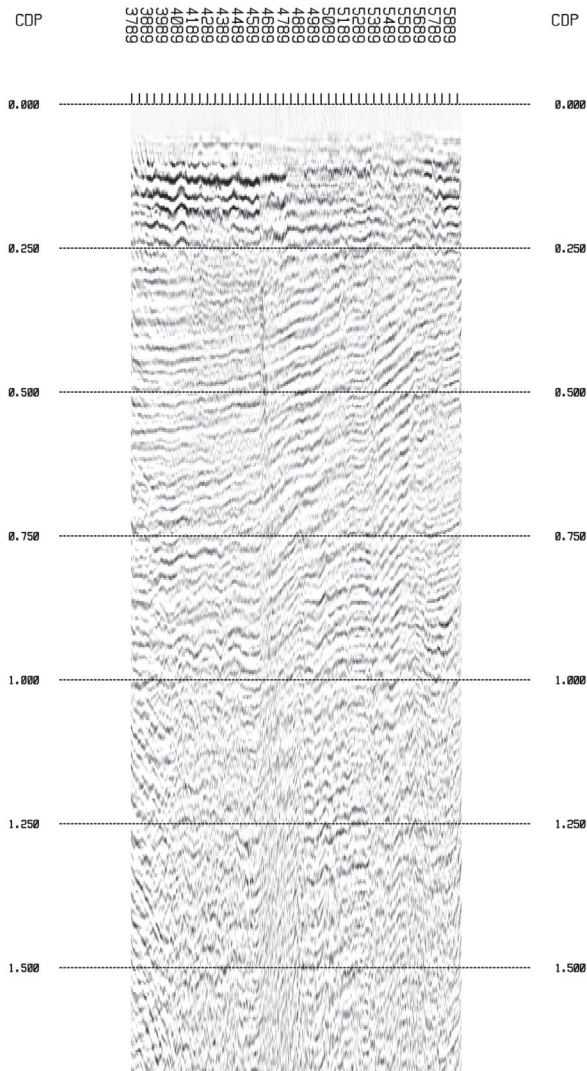
CHIX3\_MIGTX\_A6C



# CHIX3A\_MI6TX\_AGC



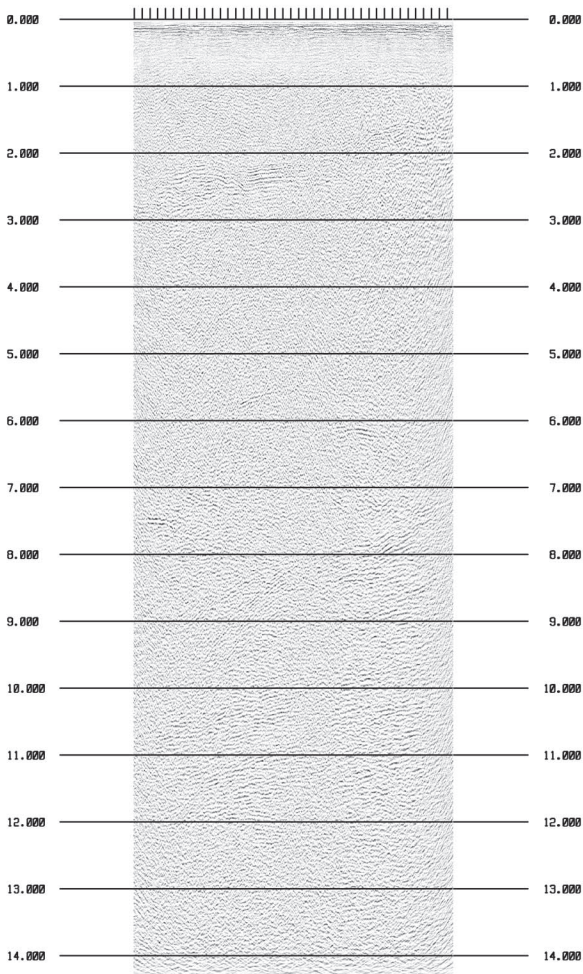
# CHIX3A\_MI6TX\_AGC





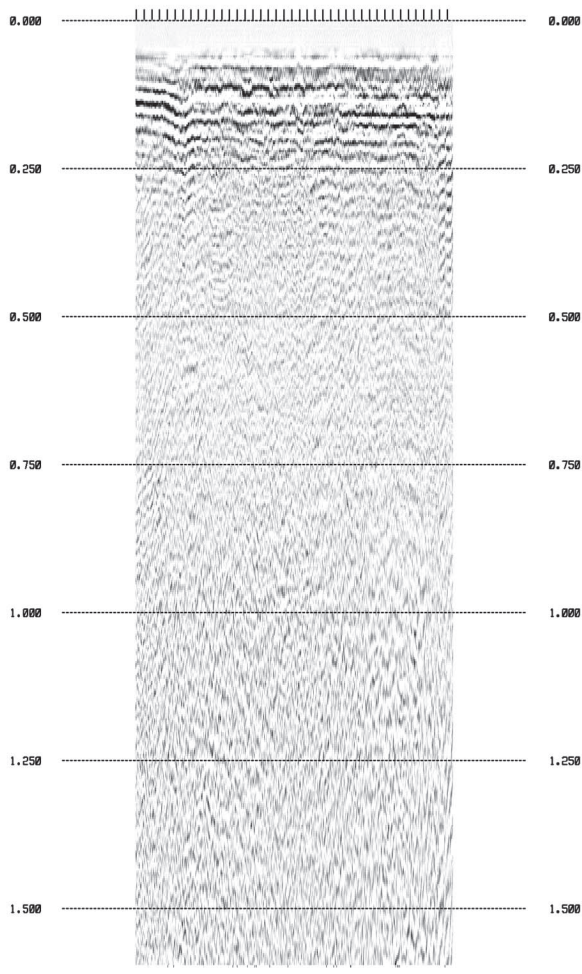
84005  
83005  
82005  
81005  
80005  
79005  
78005  
77005  
76005  
75005  
74005  
73005  
72005  
71005  
70005  
69005  
68005  
67005  
66005  
65005  
64005

CDP

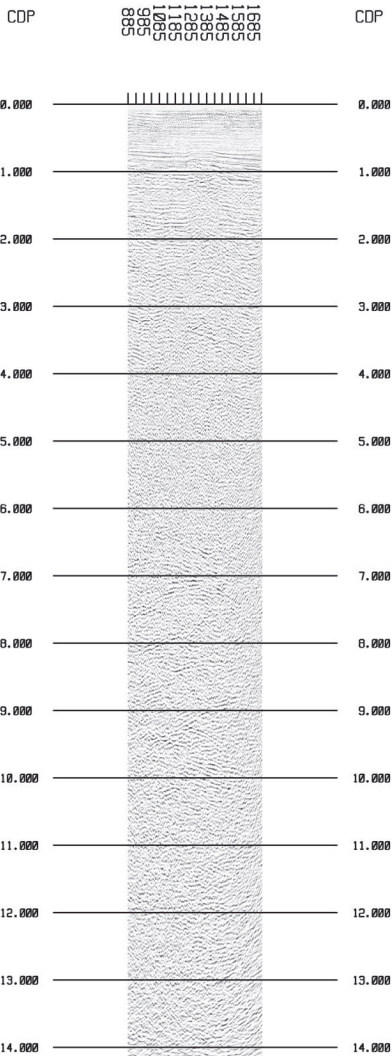


6400  
6300  
6200  
6100  
6000  
7900  
7800  
7700  
7600  
7500  
7400  
7300  
7200  
7100  
7000  
6900  
6800  
6700  
6600  
6500  
6400

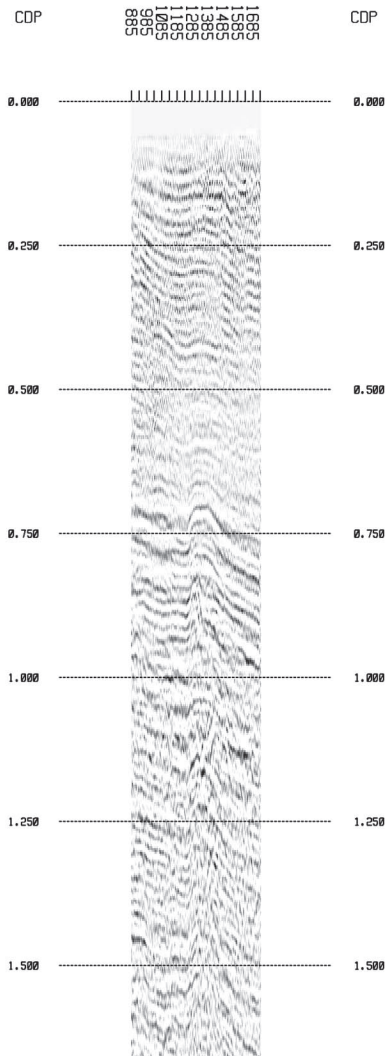
CDP



# CHIX4A\_MIGTX\_A6C



# CHIX4A\_MIGTX\_A6C





## CHIX4B\_MIGTX\_AGC

CDP

2917  
2817  
2717  
2617  
2517  
2417

CDP

1.000 ————— 1.000

2.000 ————— 2.000

3.000  3.000

4.000  4.000

5.000 ————— 5.000

6.000  6.000

7.000  7.000

8.000  8.000

9.000  9.000

10.000 ————— 10.000

11.000 ————— 11.000

12.000 ————— 12.000

13.000 ————— 13.000

14.000  14.000

## CHIX4B\_MIGTX\_AGC

CDP

2917  
2817  
2717  
2617  
2517  
2417

CDF

0.000      0.000

0.250 ----- 0.250

0.500 ----- 0.500

0.750 ----- 0.750

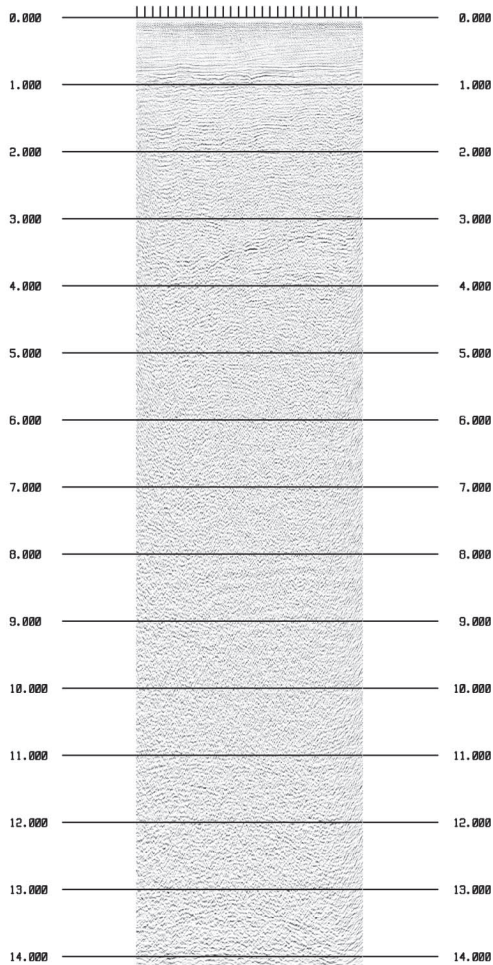
1.000 ----- 1.000

1.250 ----- 1.250

1.500 ----- 1.500

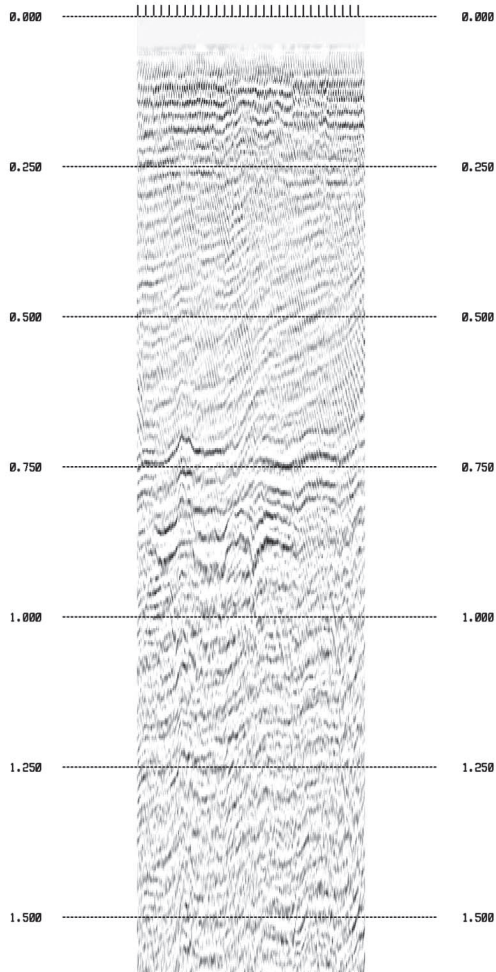
9865  
9865  
9865  
7655  
5655  
5655  
4655  
5365  
5265  
5165  
5065  
4965  
4865  
4765  
4665

CDP



5965  
5865  
5765  
5665  
5565  
5465  
5365  
5265  
5165  
5065  
4965  
4865  
4765  
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4565

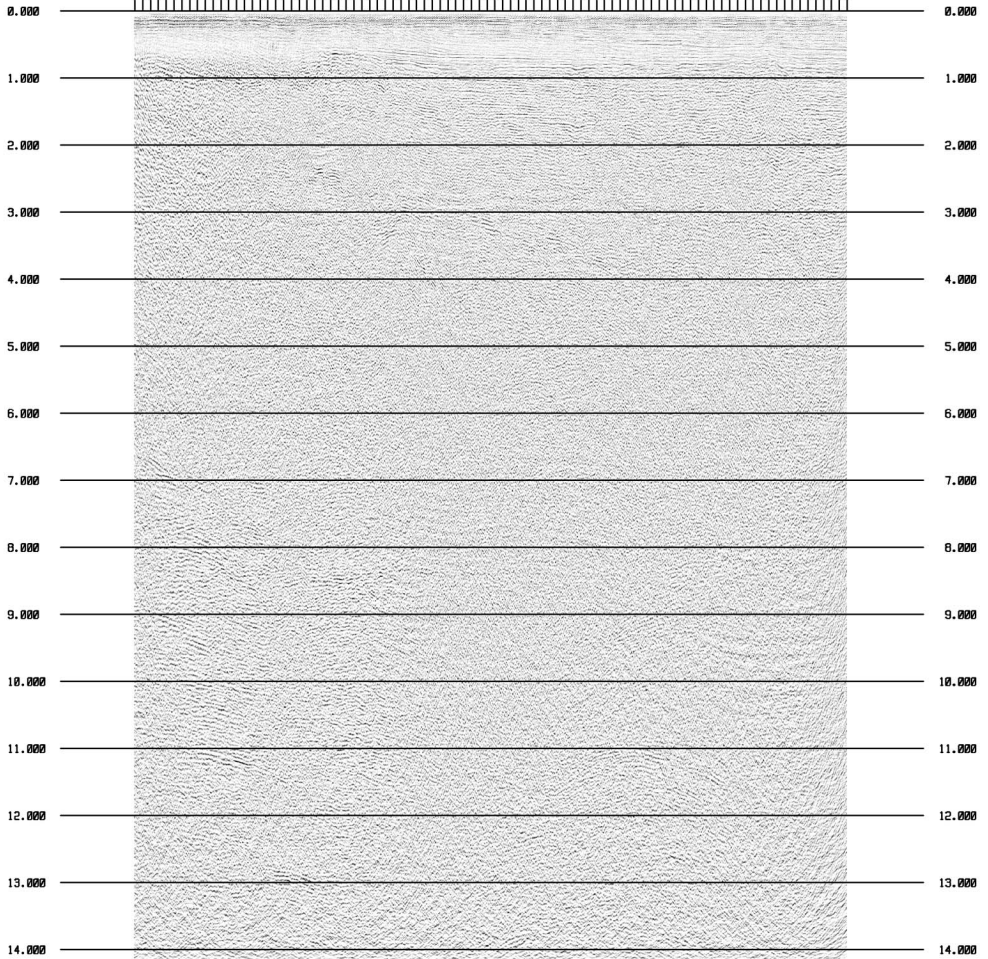
CDP



## CHIX5\_MIGTX\_AGC

CDP

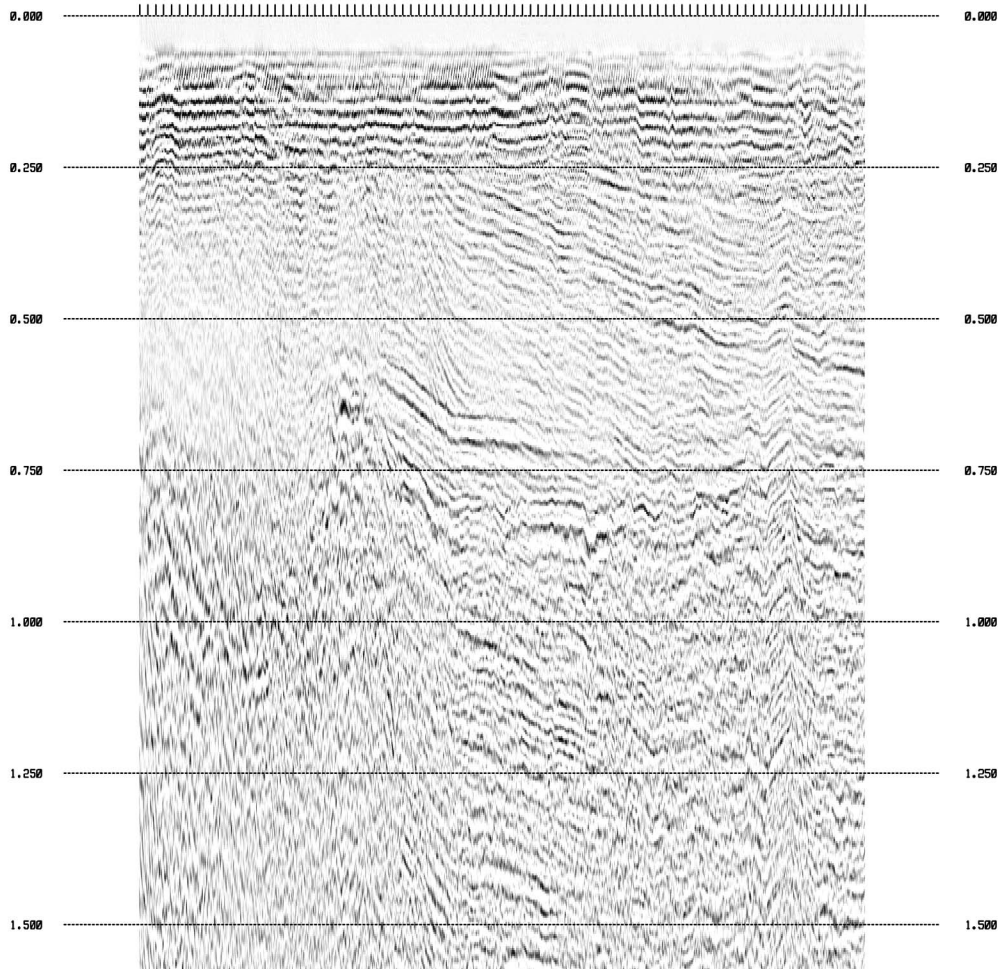
CDP



## CHIX5\_MIGTX\_AGC

CDP

CDP



CHIX6\_MIGTX\_AGC

CDP

7841  
7741  
7641  
7541  
7441  
7341  
7241  
7141  
7041  
6941  
6841  
6741  
6641  
6541  
6441  
6341  
6241  
6141  
6041  
5941  
5841  
5741  
5641  
5541  
5441  
5341  
5241  
5141  
5041  
4941  
4841  
4741  
4641  
4541  
4441

CDP

0.000

0.000

1.000

1.000

2.000

2.000

3.000

3.000

4.000

4.000

5.000

5.000

6.000

6.000

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9.000

9.000

10.000

10.000

11.000

11.000

12.000

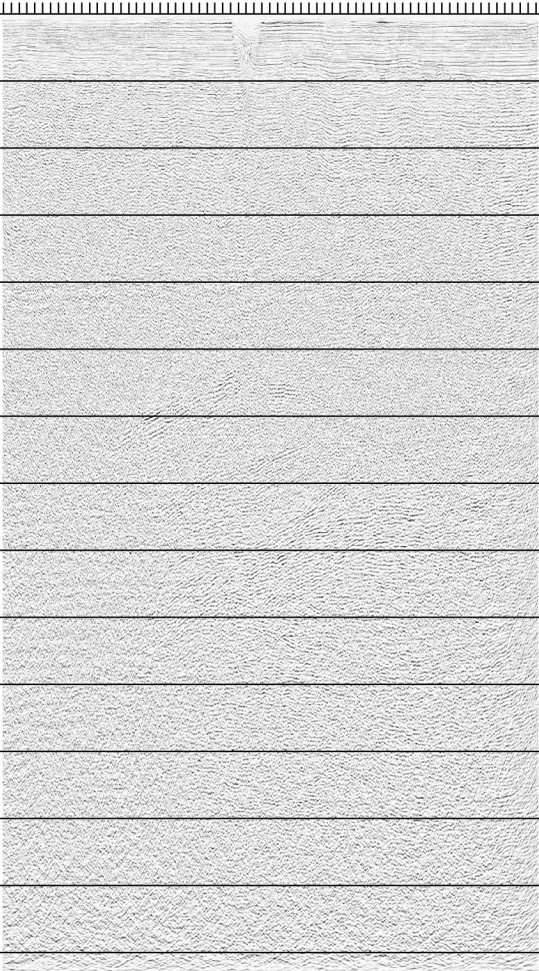
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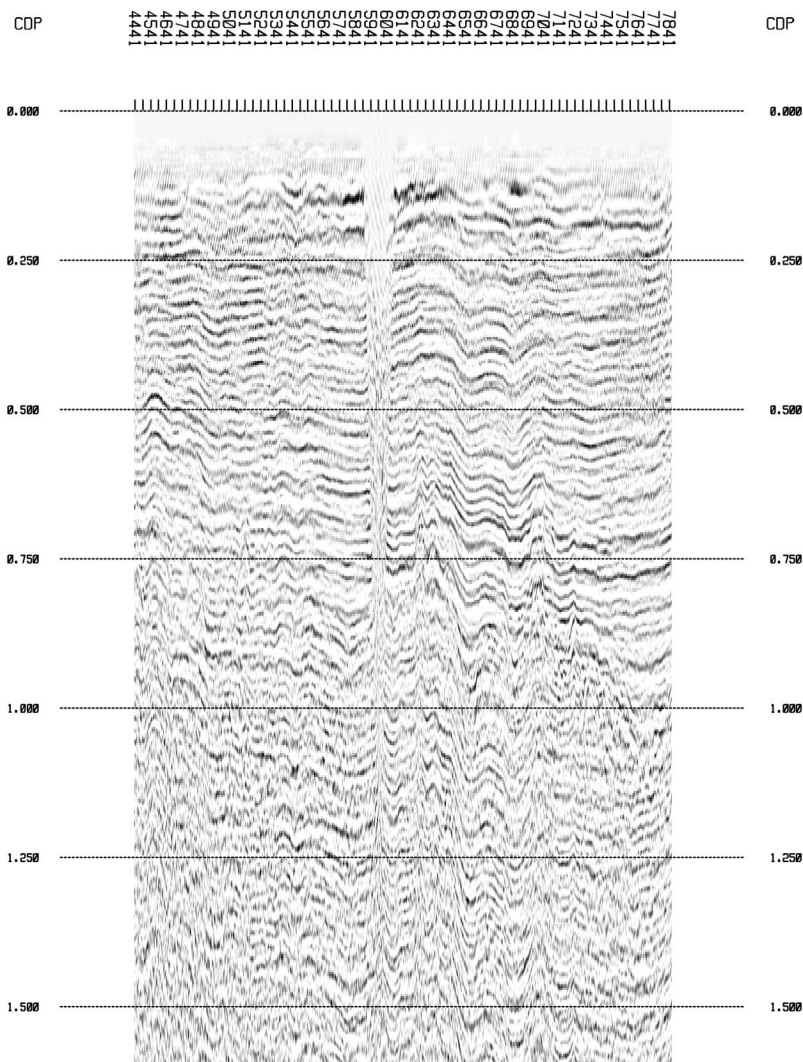
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14.000

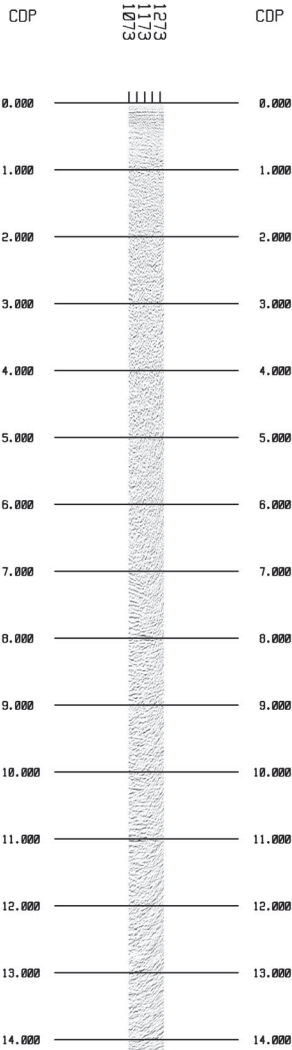
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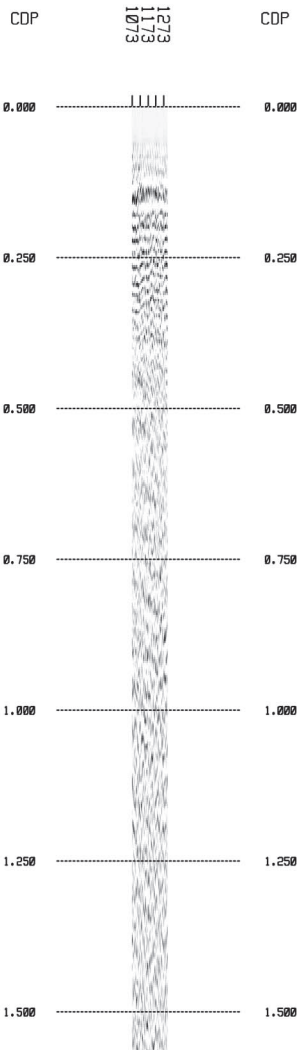
# CHIX6\_MIGTX\_AGC



CHIX6A\_MIGTX\_AGC

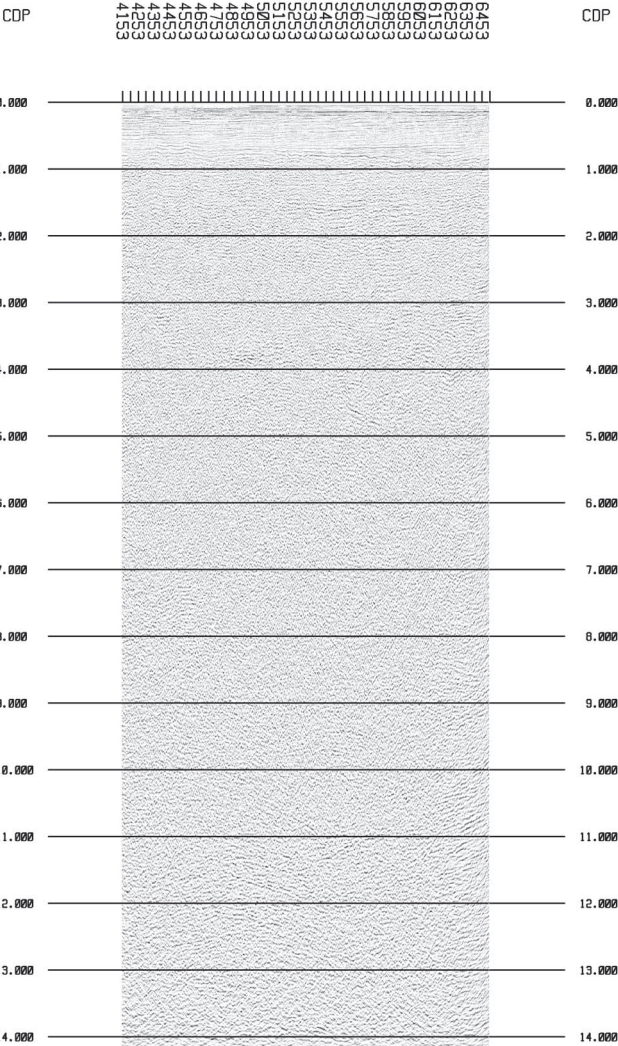


CHIX6A\_MIGTX\_AGC

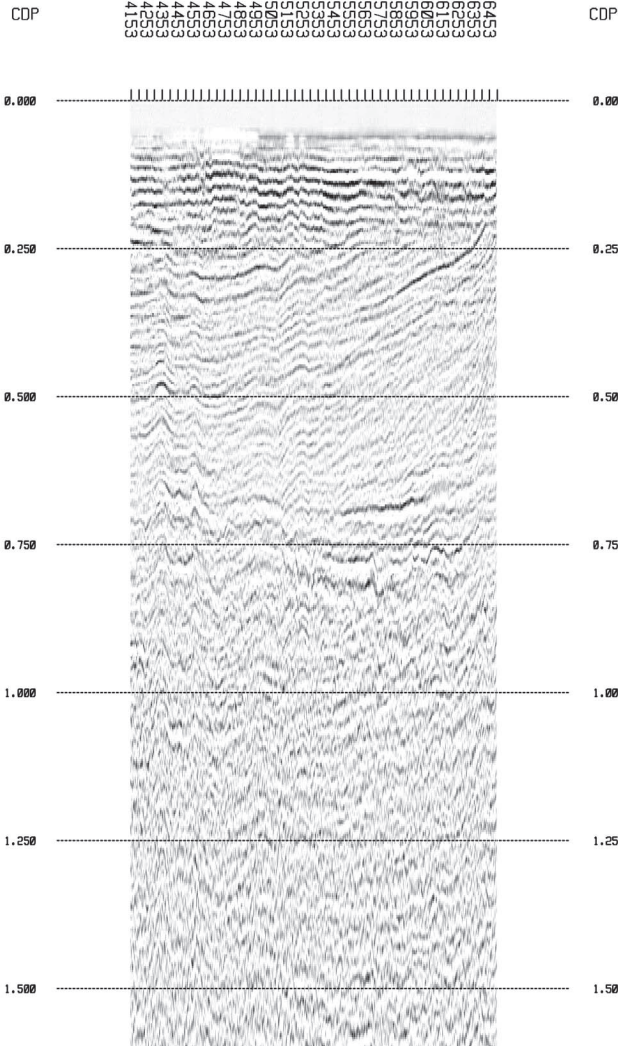




CHIX6B\_MIGTX\_AGC



CHIX6B\_MIGTX\_AGC

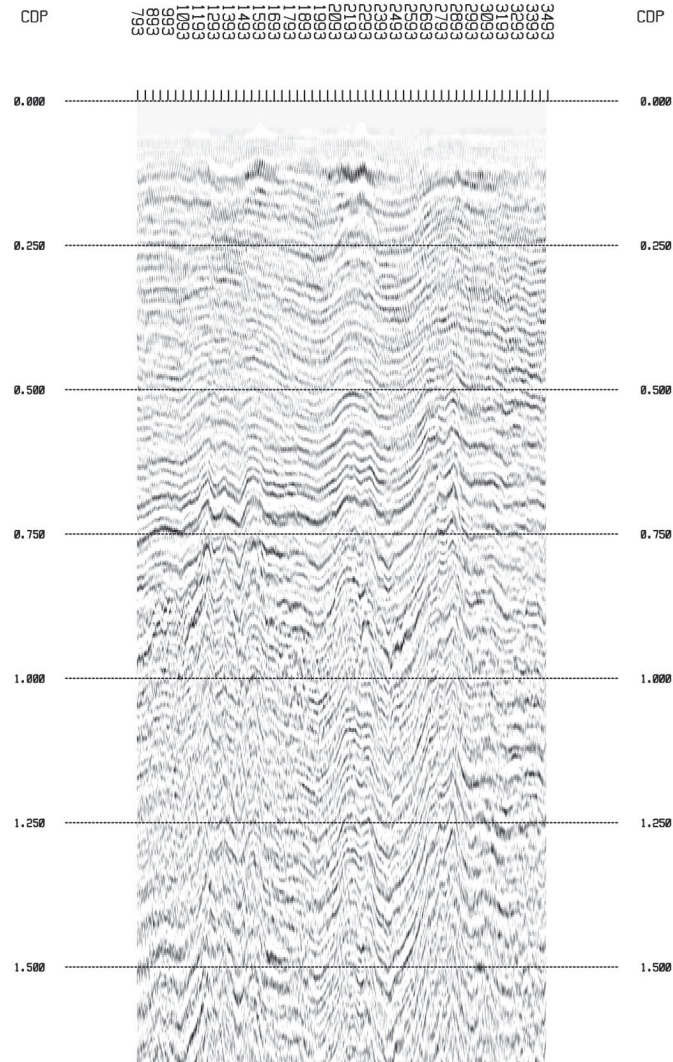




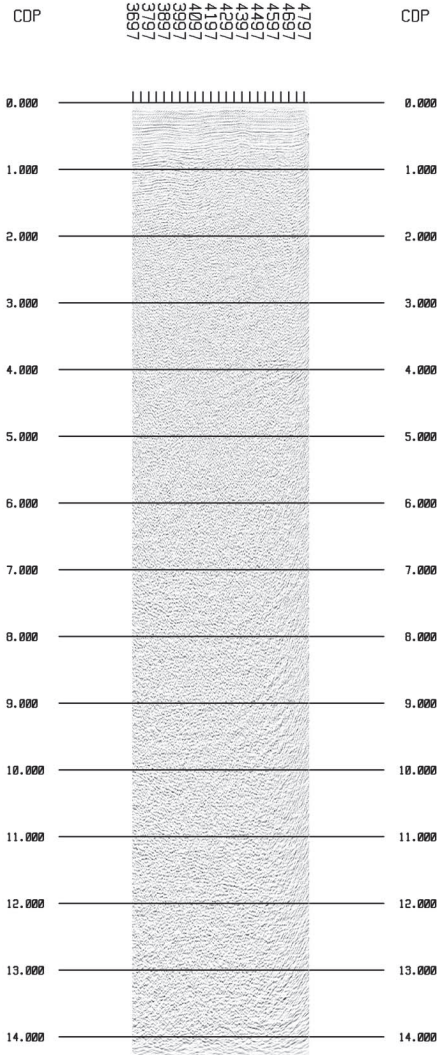
# CHIX8A\_MIGTX\_A6C



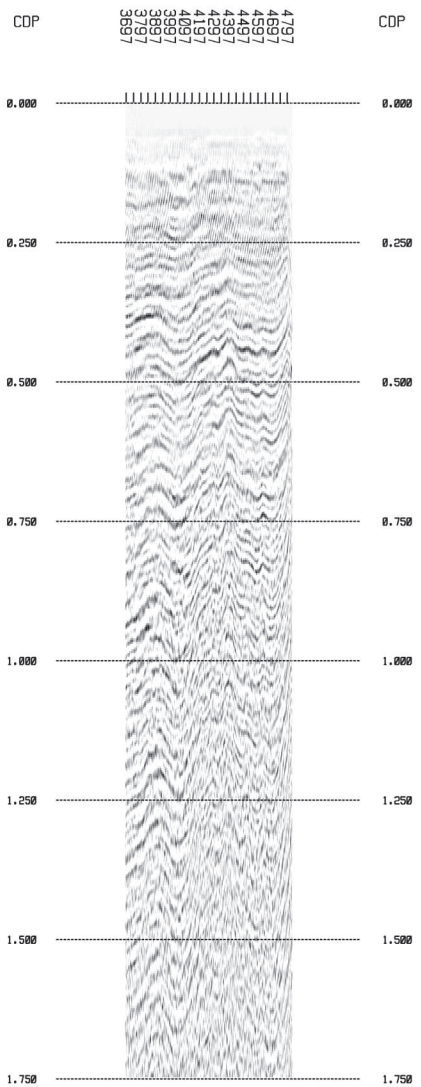
# CHIX8A\_MIGTX\_A6C



CHIX8B\_MIGTX\_A6C



CHIX8B\_MIGTX\_A6C

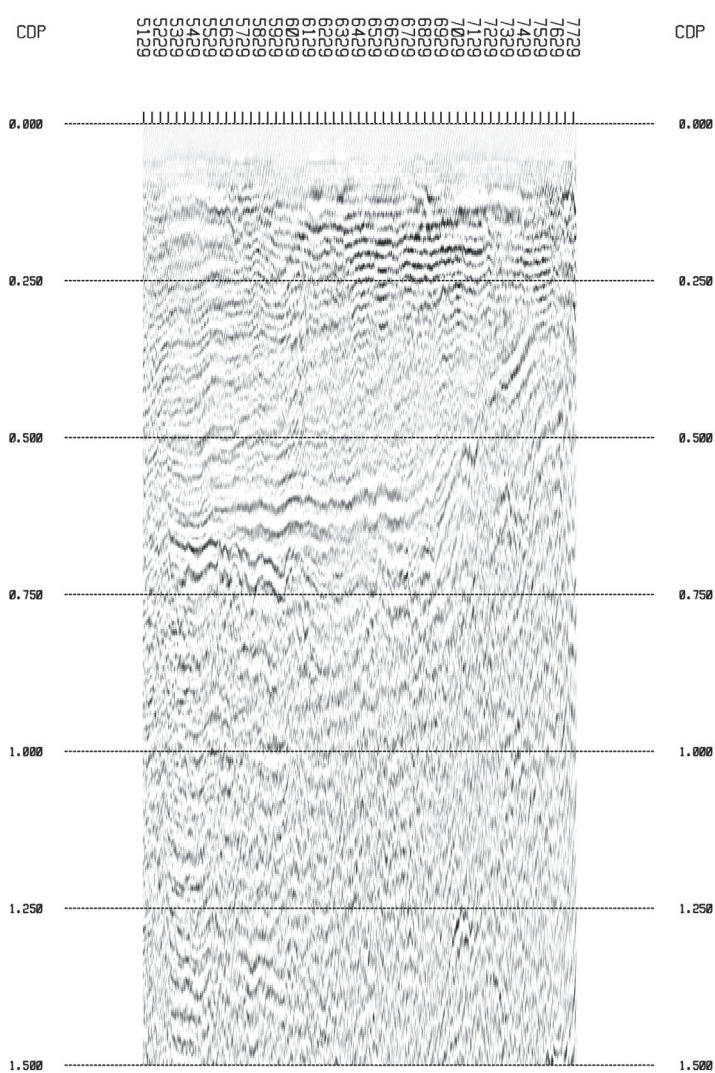




# CHIX8C\_M1GTX\_A6C



# CHIX8C\_M1GTX\_A6C



CHIX9\_M1GTX\_A6C

CDP

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8800  
8700  
8600  
8500  
8400  
8300  
8200  
8100  
8000  
7900  
7800  
7700  
7600  
7500  
7400  
7300  
7200  
7100  
7000  
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3400  
3300  
3200  
3100  
3000  
2900  
2800  
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2300  
2200  
2100  
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1700  
1600  
1500  
1400  
1300  
1200  
1100  
1000  
900  
800  
700  
600  
500  
400  
300  
200  
100  
0

CDP

0.000

0.000

1.000

1.000

2.000

2.000

3.000

3.000

4.000

4.000

5.000

5.000

6.000

6.000

7.000

7.000

8.000

8.000

9.000

9.000

10.000

10.000

11.000

11.000

12.000

12.000

13.000

13.000

14.000

14.000

## CHIX9\_MIGTX\_AGC

CDP

CDP

9000  
8900  
8800  
8700  
8600  
8500  
8400  
8300  
8200  
8100  
8000  
7900  
7800  
7700  
7600  
7500  
7400  
7300  
7200  
7100  
7000  
6900  
6800  
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6600  
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6400  
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6000  
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5600  
5500  
5400  
5300  
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5000  
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4700  
4600  
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4400  
4300  
4200  
4100  
4000  
3900  
3800  
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3600  
3500  
3400  
3300  
3200  
3100  
3000  
2900  
2800  
2700  
2600  
2500  
2400  
2300  
2200  
2100  
2000  
1900  
1800

0.000

0.000

0.250

0.250

0.500

0.500

0.750

0.750

1.000

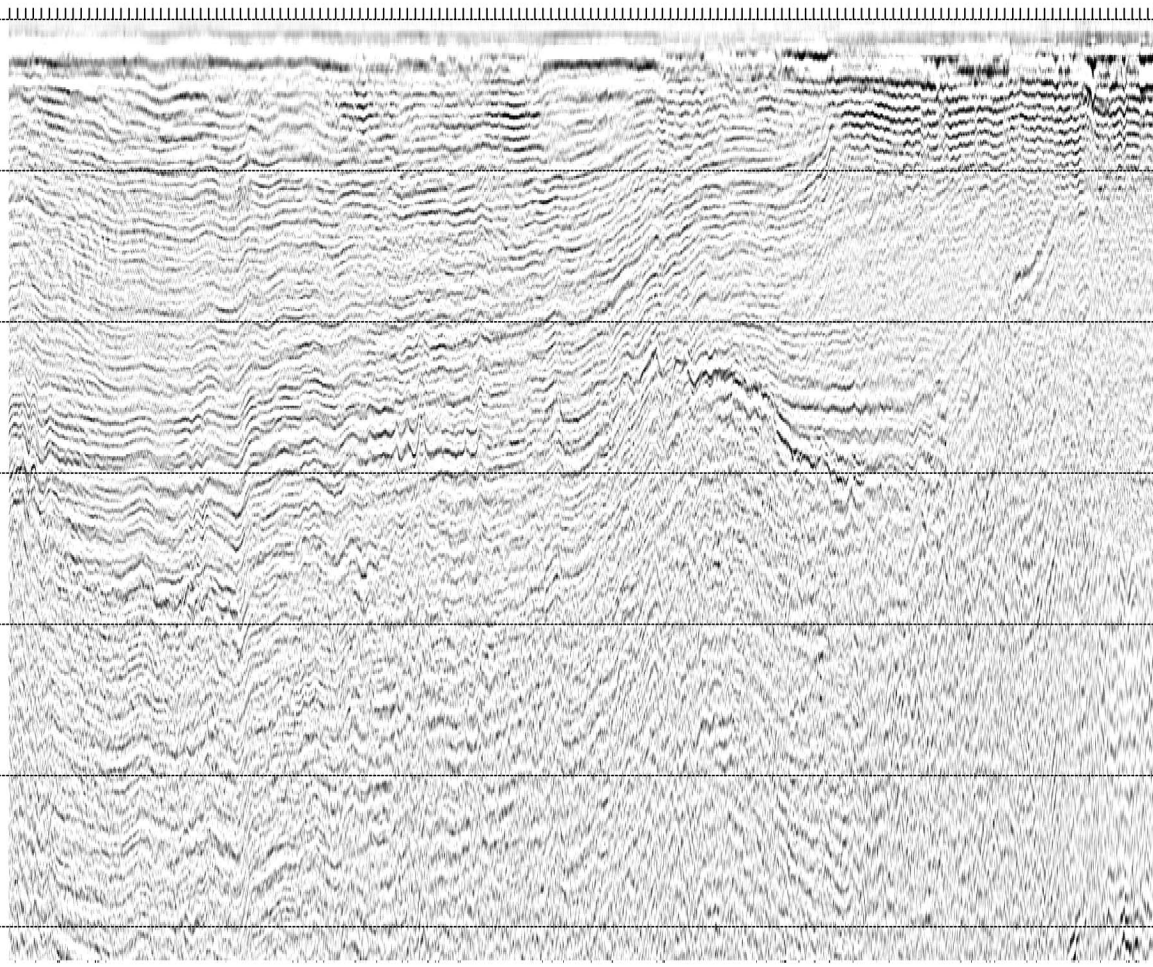
1.000

1.250

1.250

1.500

1.500





# CHIX10\_MI6TX\_A6C

CDP

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4850  
4750  
4650  
4550  
4450  
4350  
4250  
4150  
4050  
3950  
3850  
3750  
3650  
3550  
3450  
3350  
3250  
3150  
3050  
2950  
2850  
2750  
2650  
2550  
2450  
2350  
2250  
2150  
2050  
1950  
1850  
1750  
1650  
1550  
1450  
1350  
1250  
1150  
1050

CDP

0.000

0.000

1.000

1.000

2.000

2.000

3.000

3.000

4.000

4.000

5.000

5.000

6.000

6.000

7.000

7.000

8.000

8.000

9.000

9.000

10.000

10.000

11.000

11.000

12.000

12.000

13.000

13.000

14.000

14.000

# CHIX10\_MIGTX\_AGC

CDP

CDP

4850  
4850  
4750  
4650  
4550  
4450  
4350  
4250  
4150  
4050  
3950  
3850  
3750  
3650  
3550  
3450  
3350  
3250  
3150  
3050  
2950  
2850  
2750  
2650  
2550  
2450  
2350  
2250  
2150  
2050  
1950  
1850  
1750  
1650  
1550  
1450  
1350  
1250  
1150

0.000

0.000

0.250

0.250

0.500

0.500

0.750

0.750

1.000

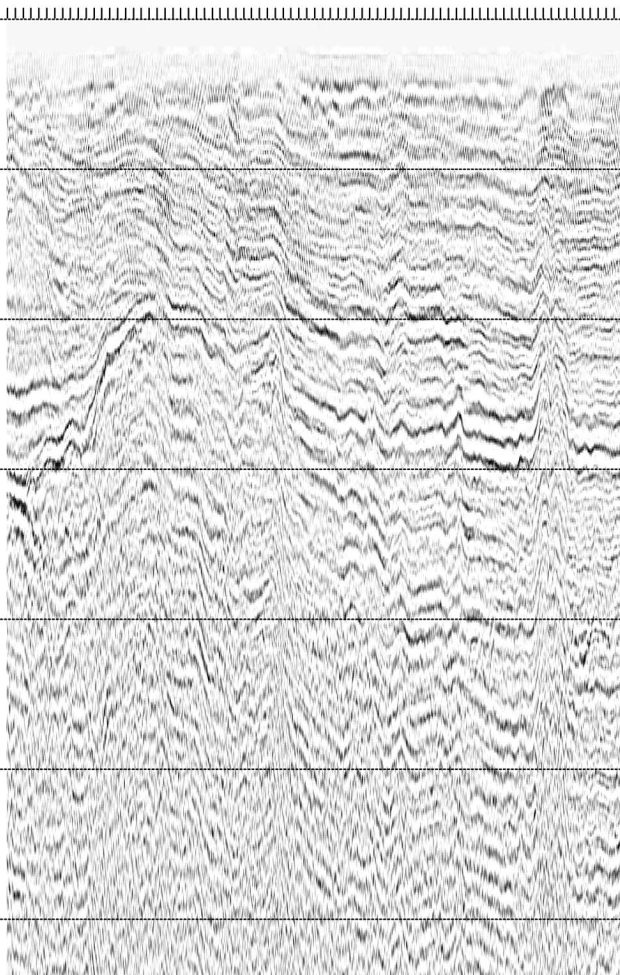
1.000

1.250

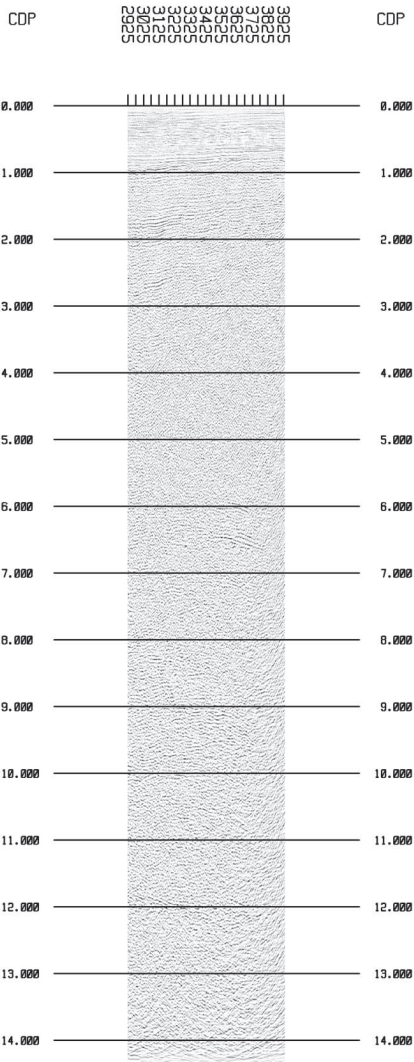
1.250

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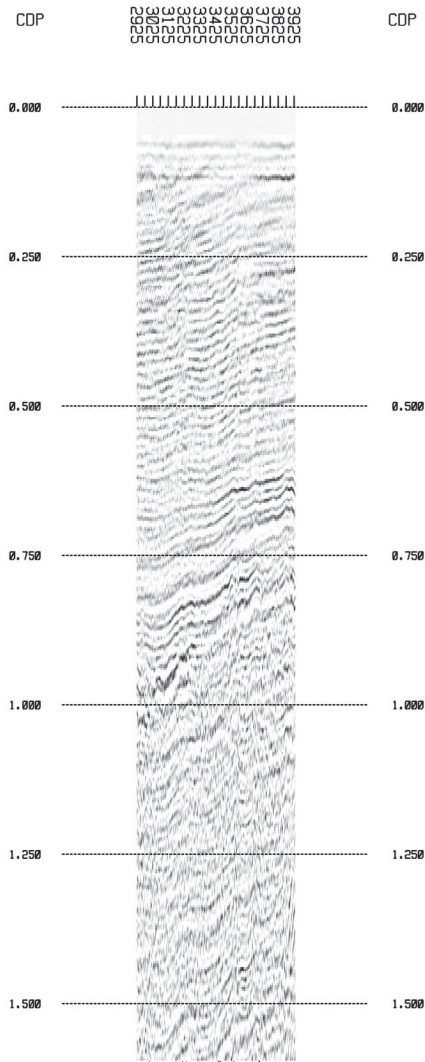
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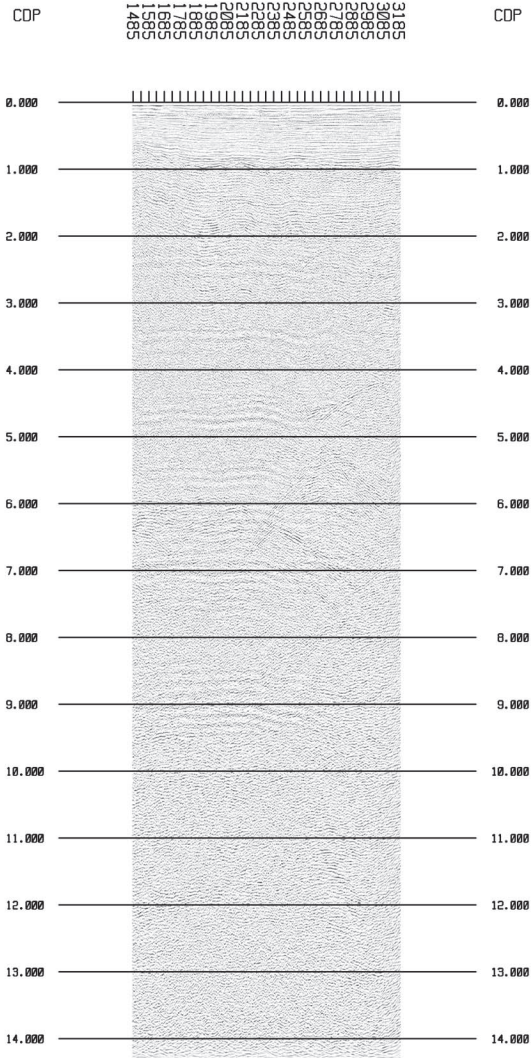


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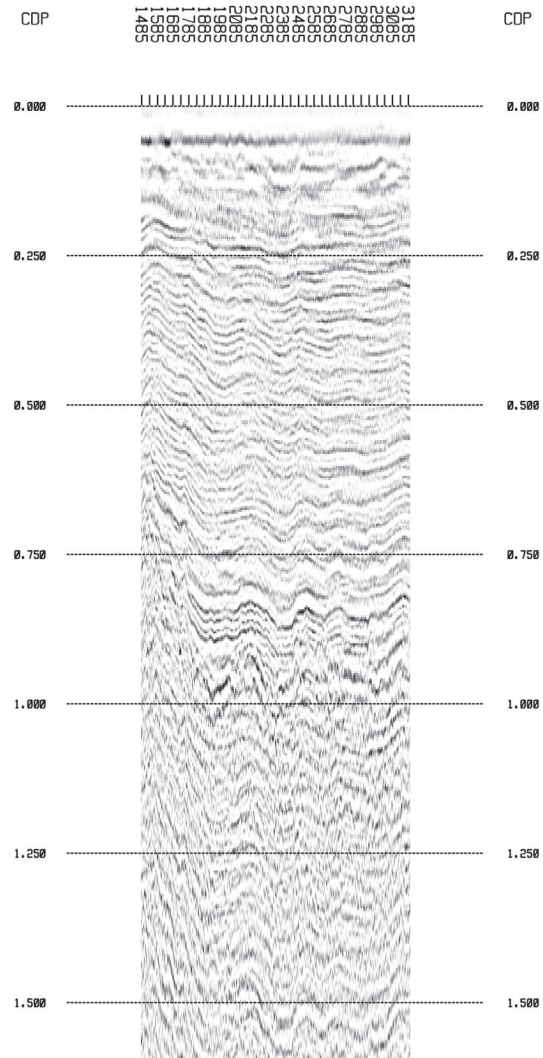




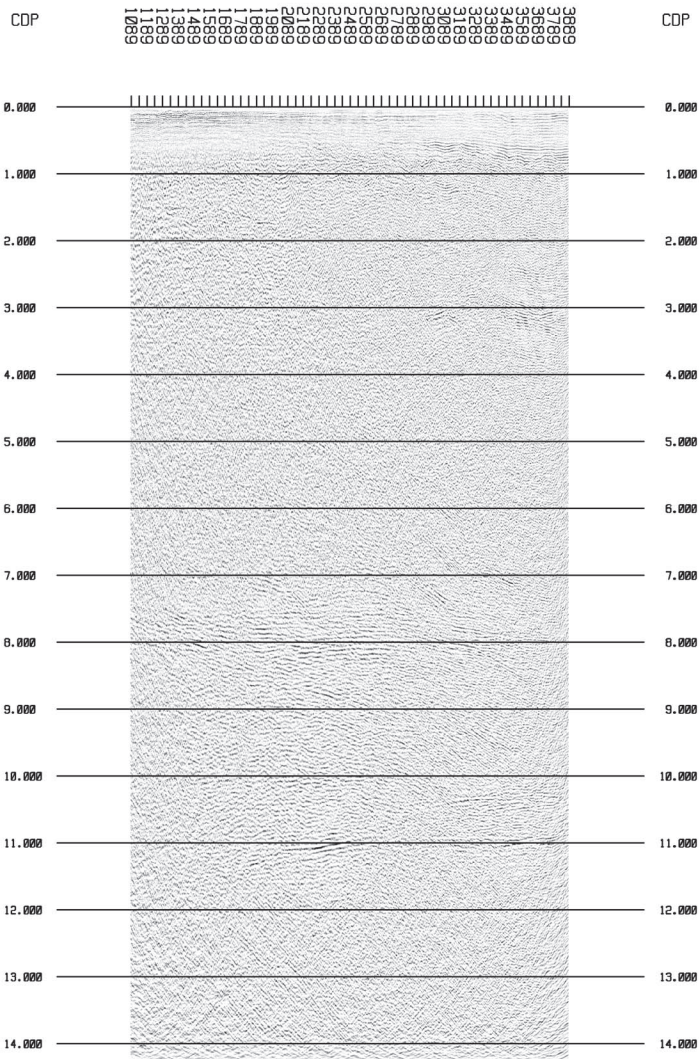
CHIX13B\_MIGTX\_A6C



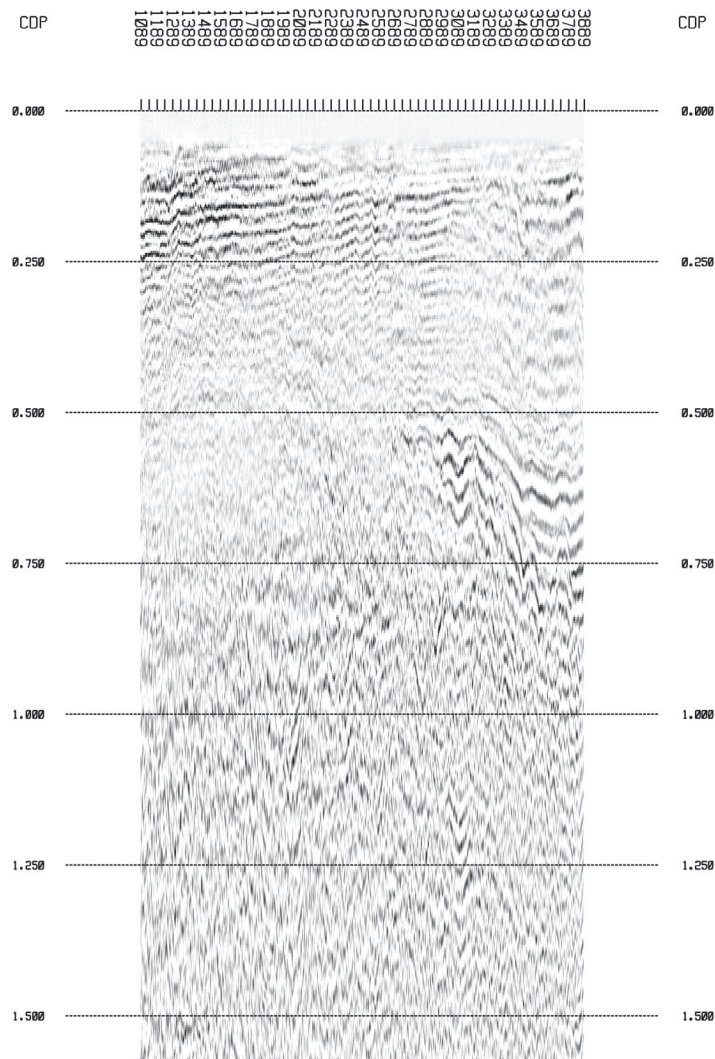
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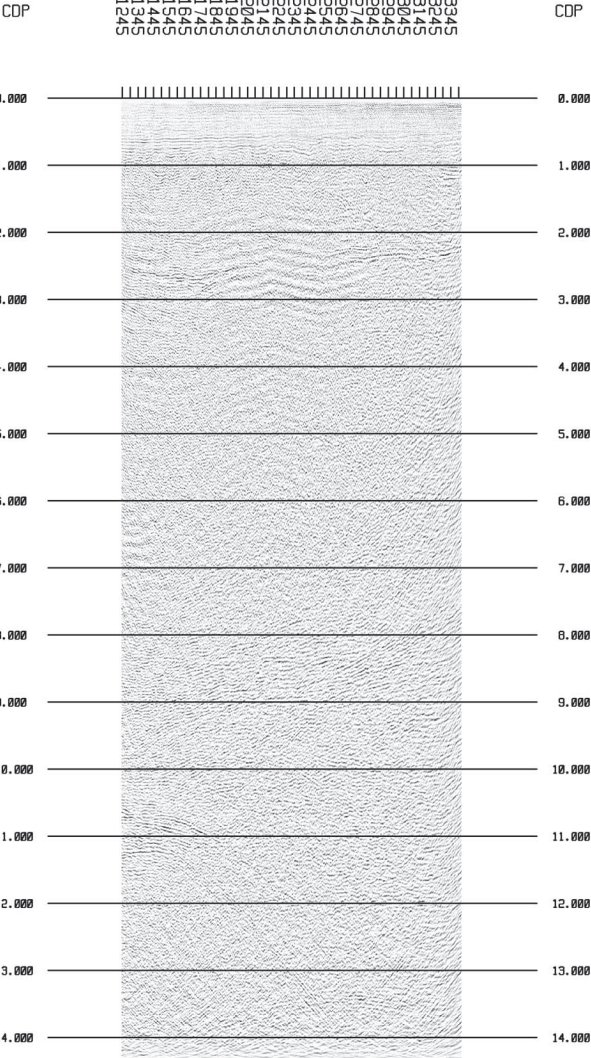


## CHIX15\_M16TX\_AGC

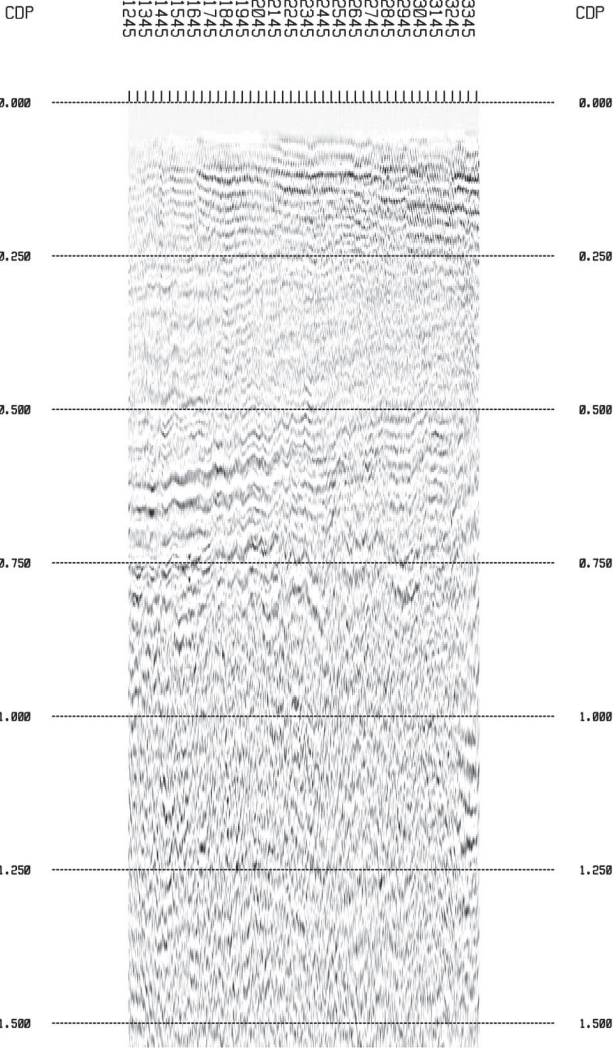




CHIX16\_MIGTX\_AGC



CHIX16\_MIGTX\_AGC



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2057  
1957  
1857

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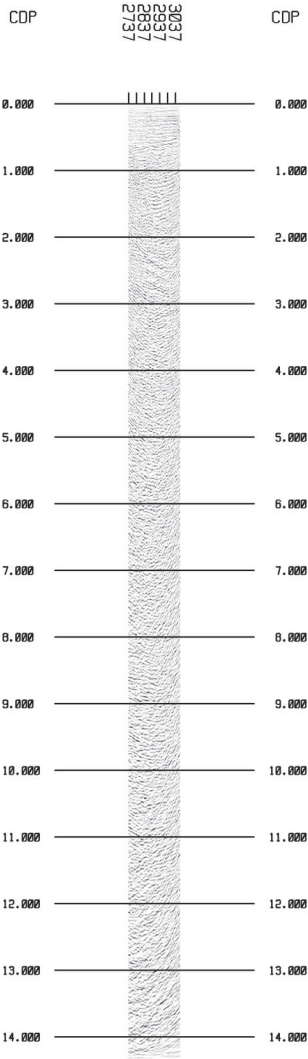
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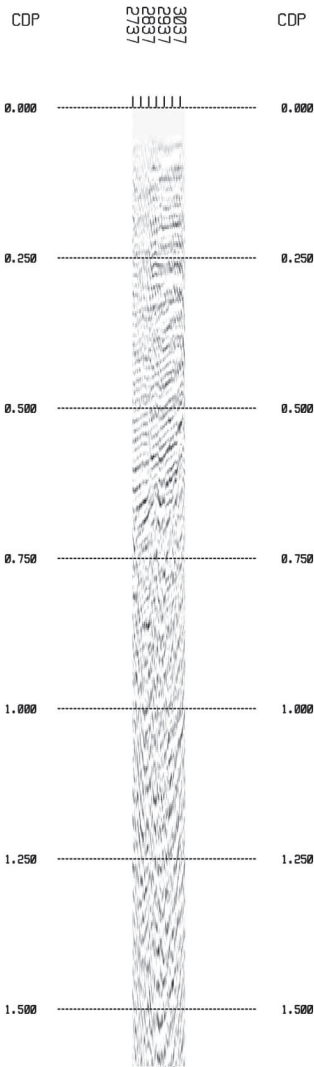
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2657  
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2157  
2057  
1957  
1857

CDP

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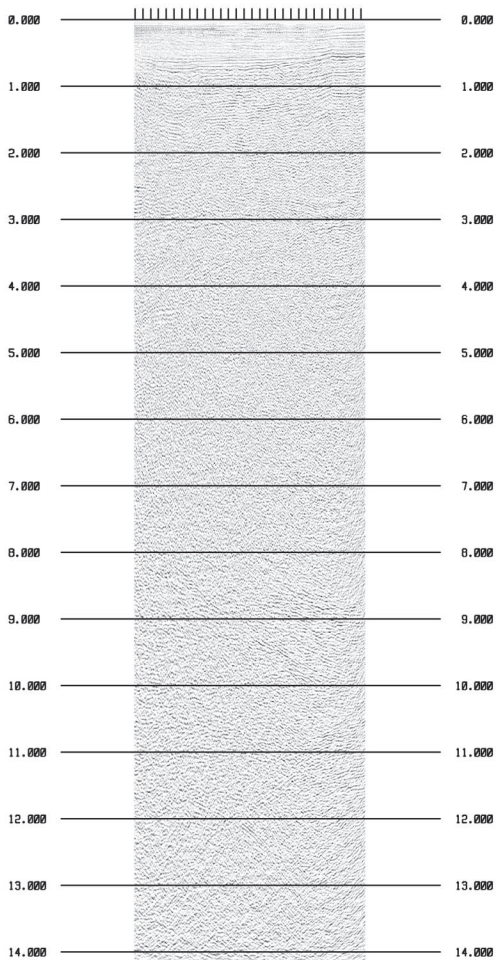
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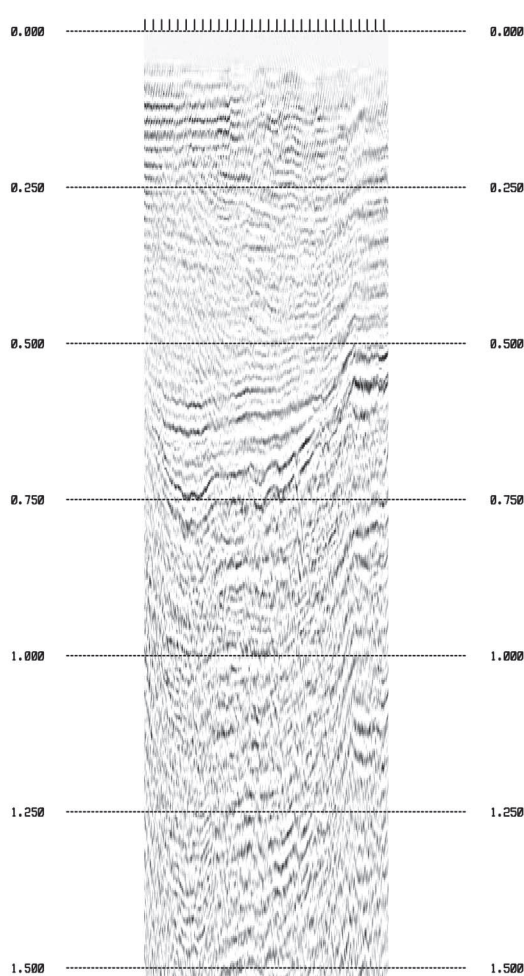
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3105  
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2505  
2405  
2305  
2205  
2105  
2005  
1905

CDP

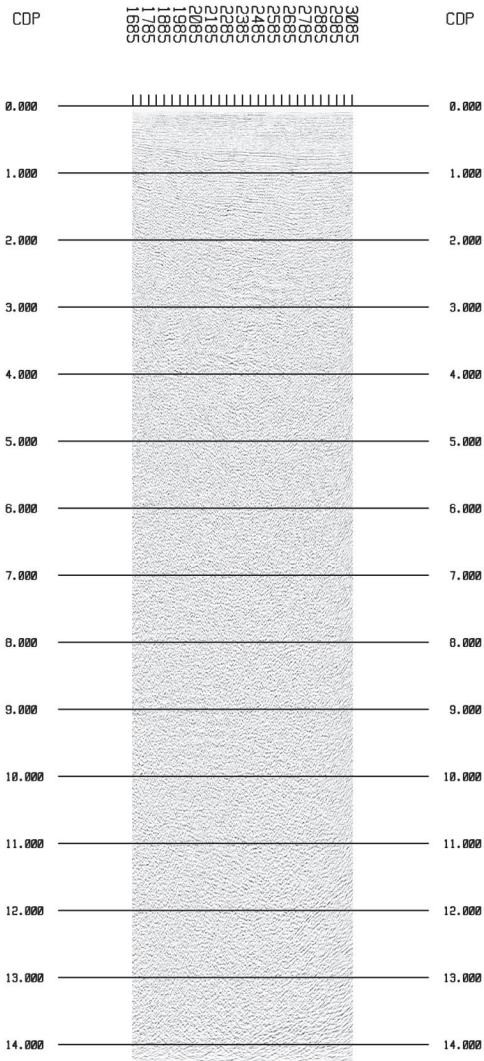


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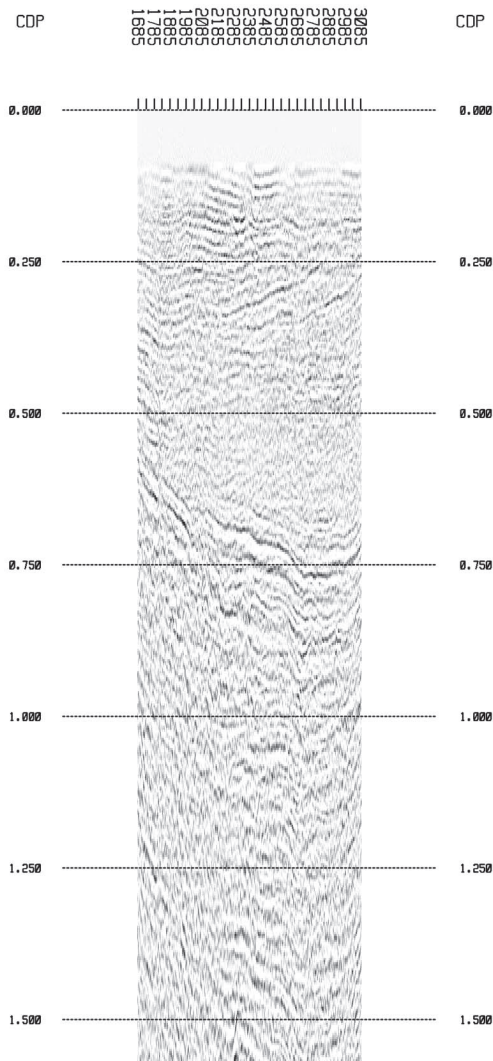
CDP



# CHIX18\_MIGTX\_A6C



# CHIX18\_MIGTX\_A6C

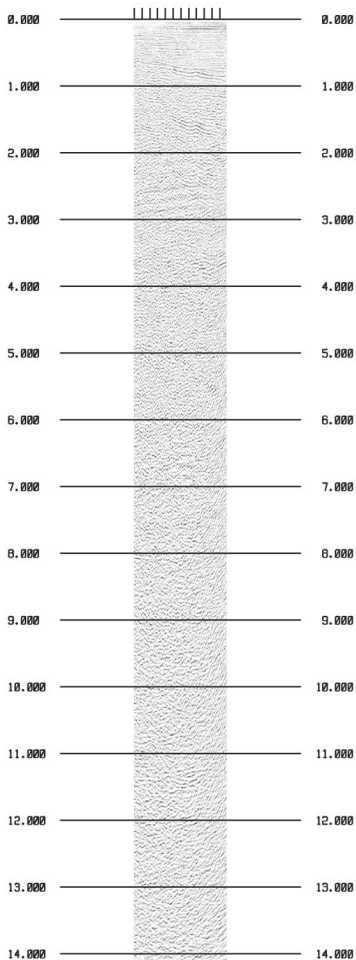


## CHIX19\_MIGTX\_AGC

CDP

2073  
1973  
1873  
1773  
1673  
1573

CDP

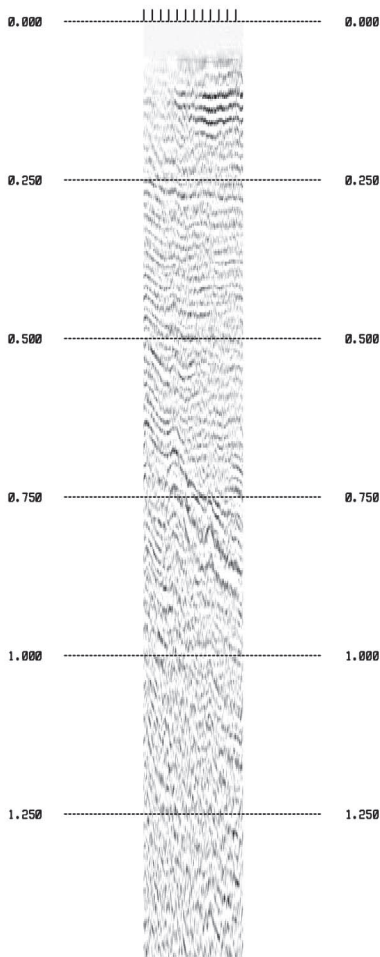


## CHIX19\_MIGTX\_AGC

CDP

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1673  
1573

CDP

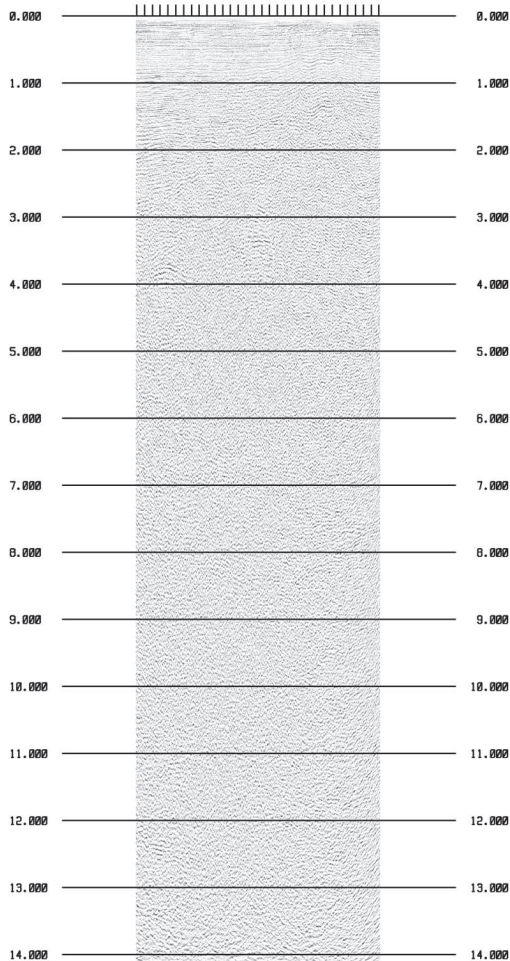


# CHIX20\_MIGTX\_A6C

CDP

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CDP

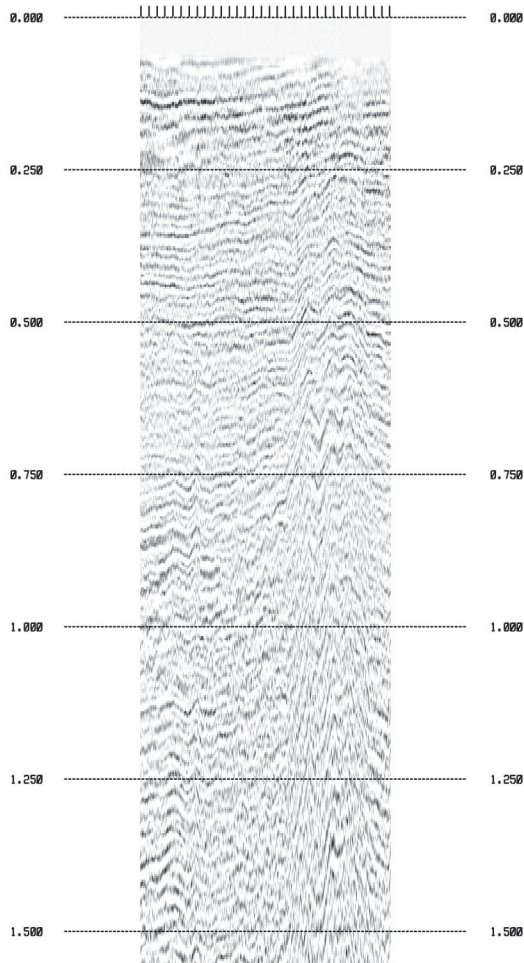


# CHIX20\_MIGTX\_A6C

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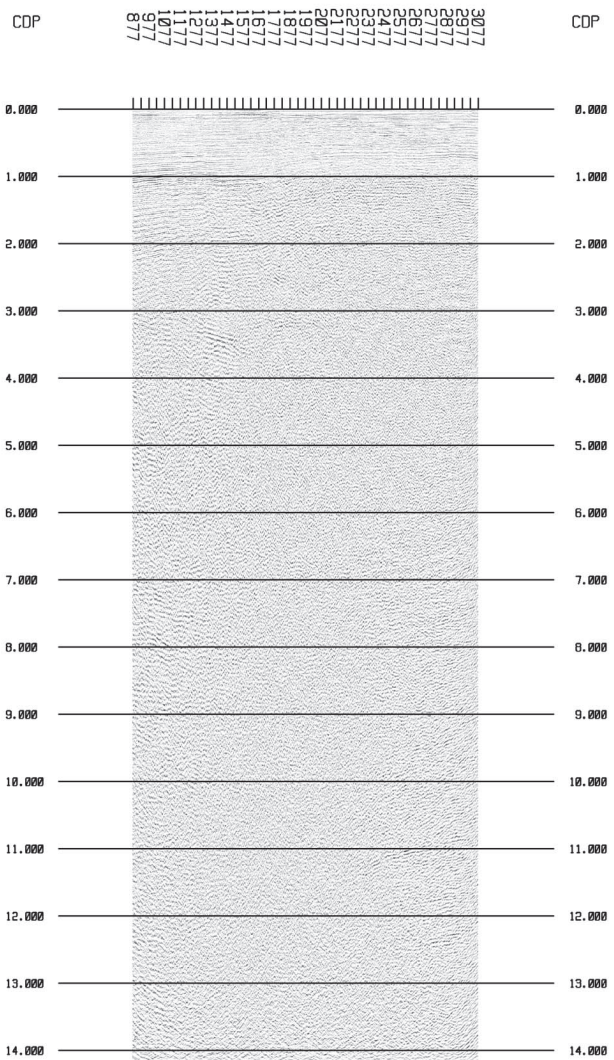
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CDP

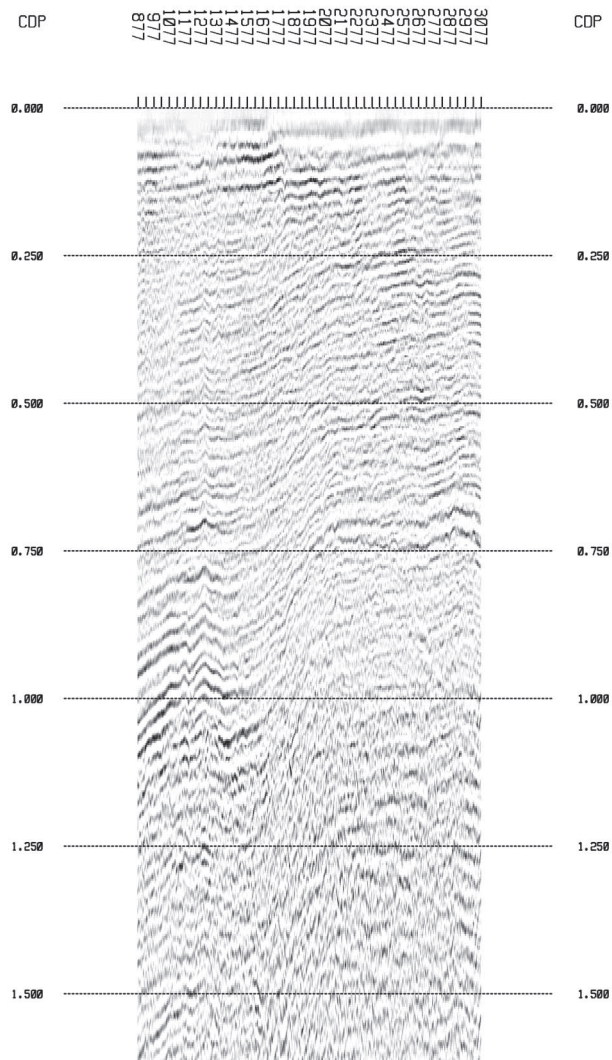




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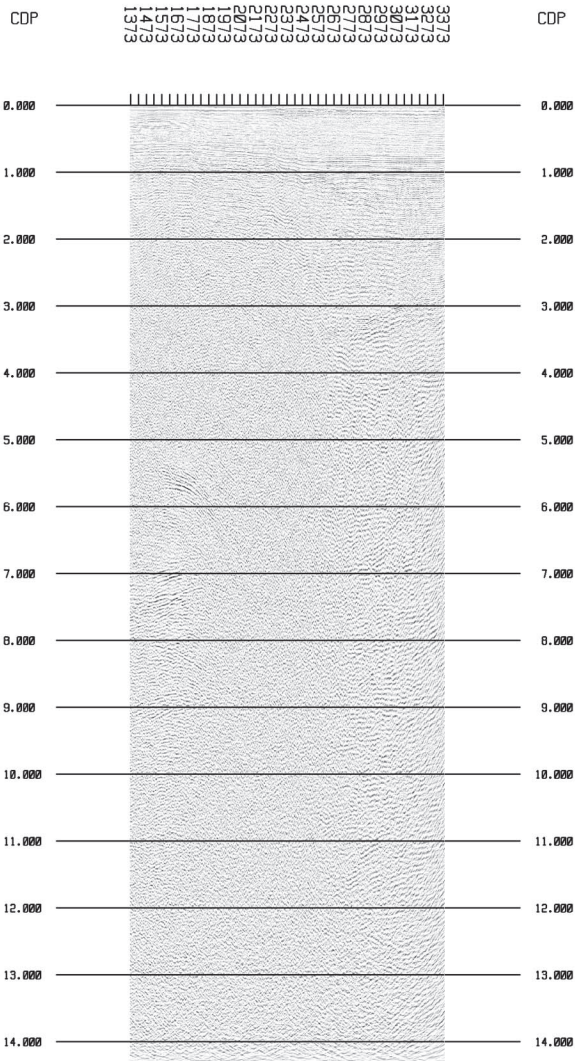


## CHIX21\_MI6TX\_AGC

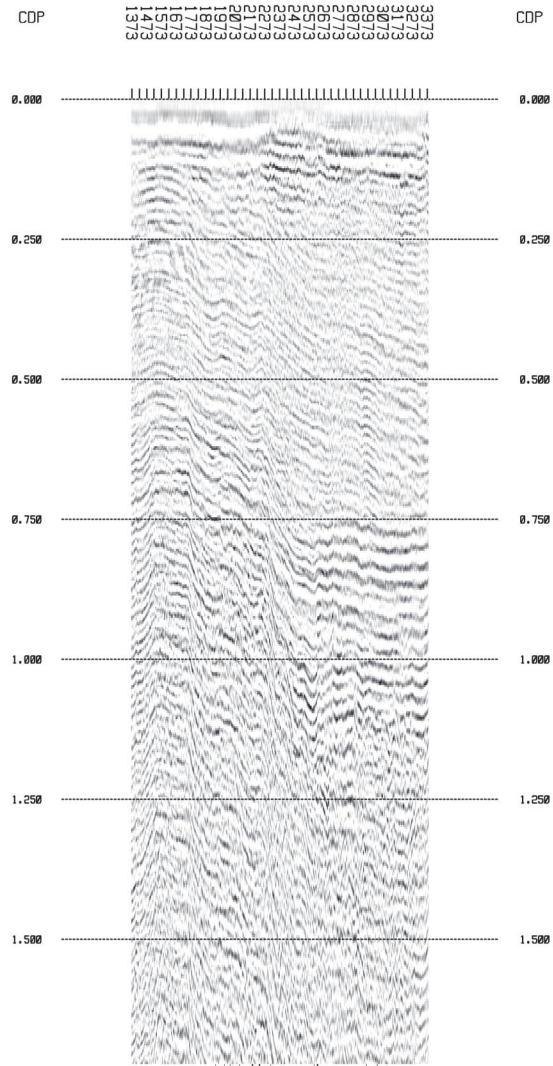




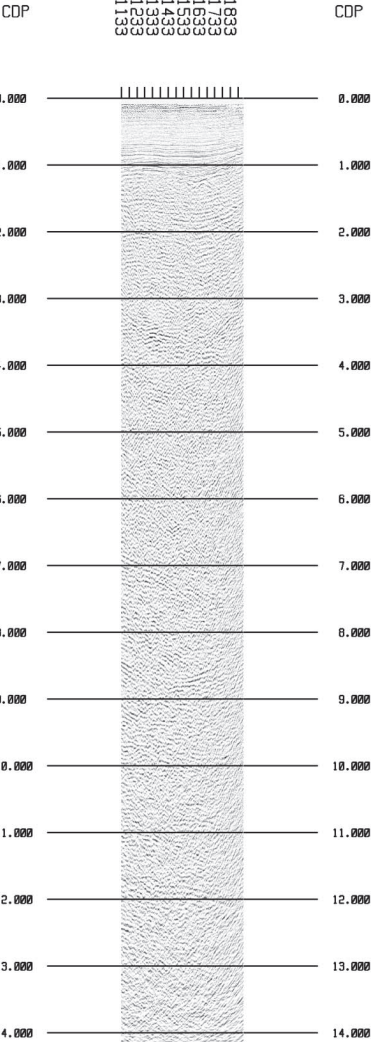
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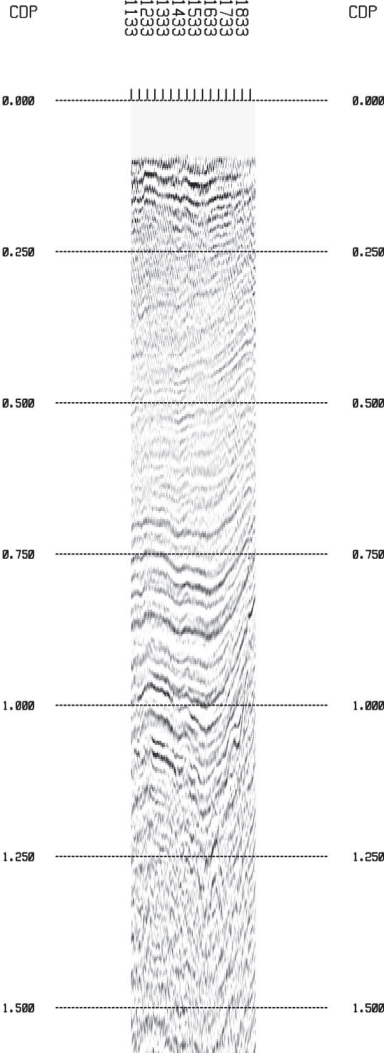
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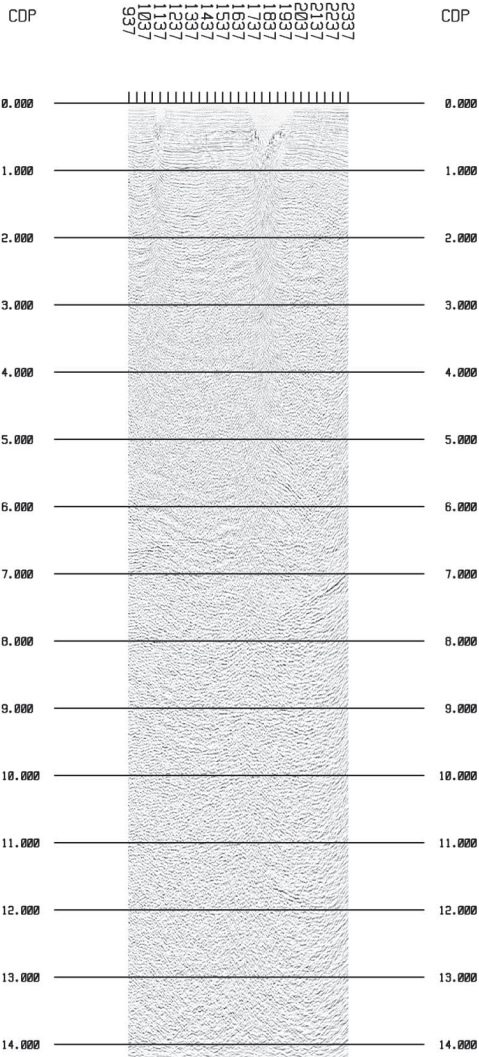
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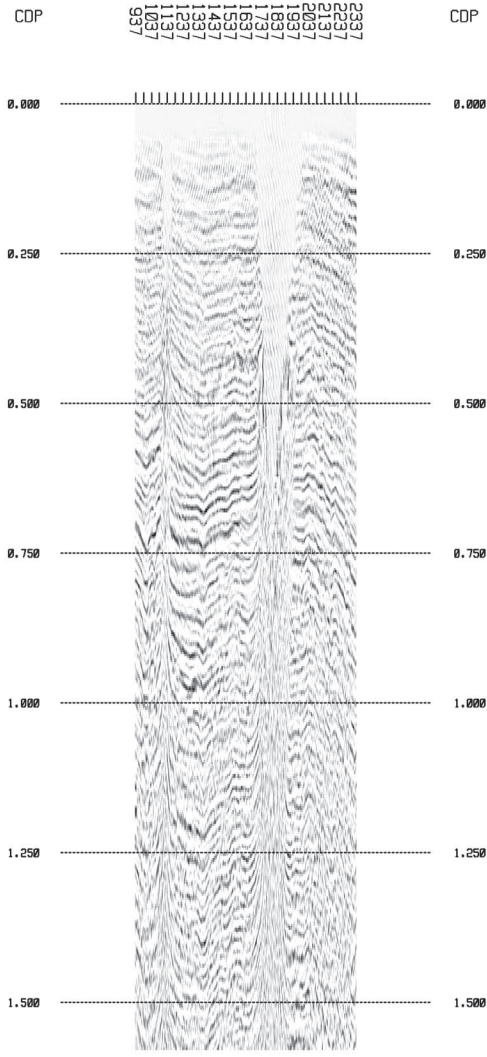
CHIX23\_MI6TX\_AGC



# CHIX23A\_MIGTX\_A6C



# CHIX23A\_MIGTX\_A6C

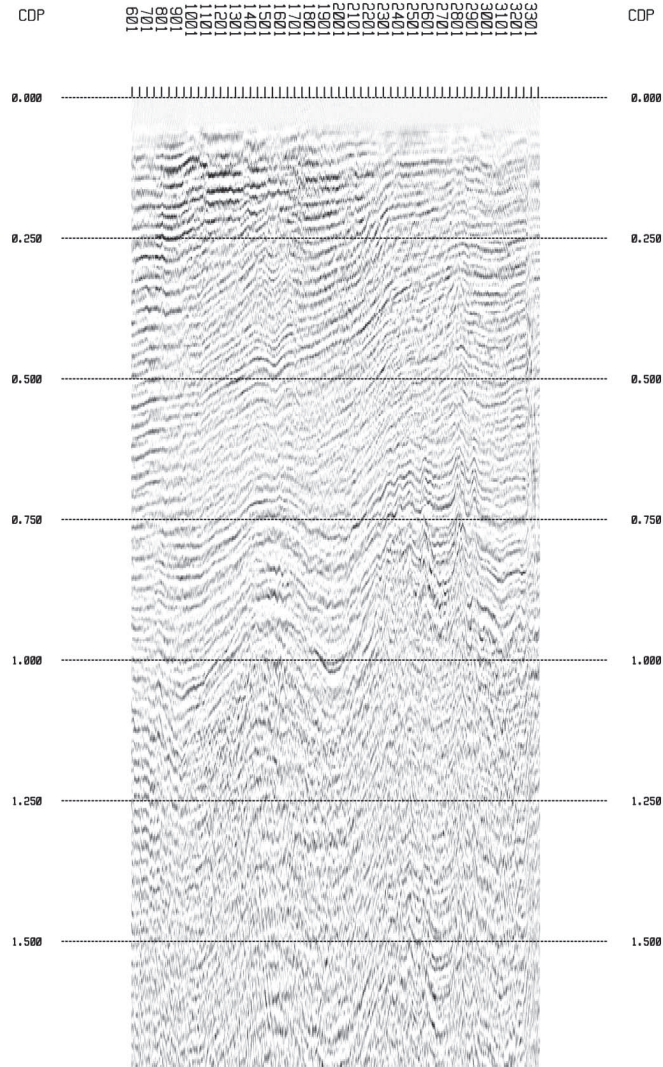




# CHIX24\_MIGTX\_A6C



# CHIX24\_MIGTX\_A6C



# CHICXR1\_MIGTX\_A6C

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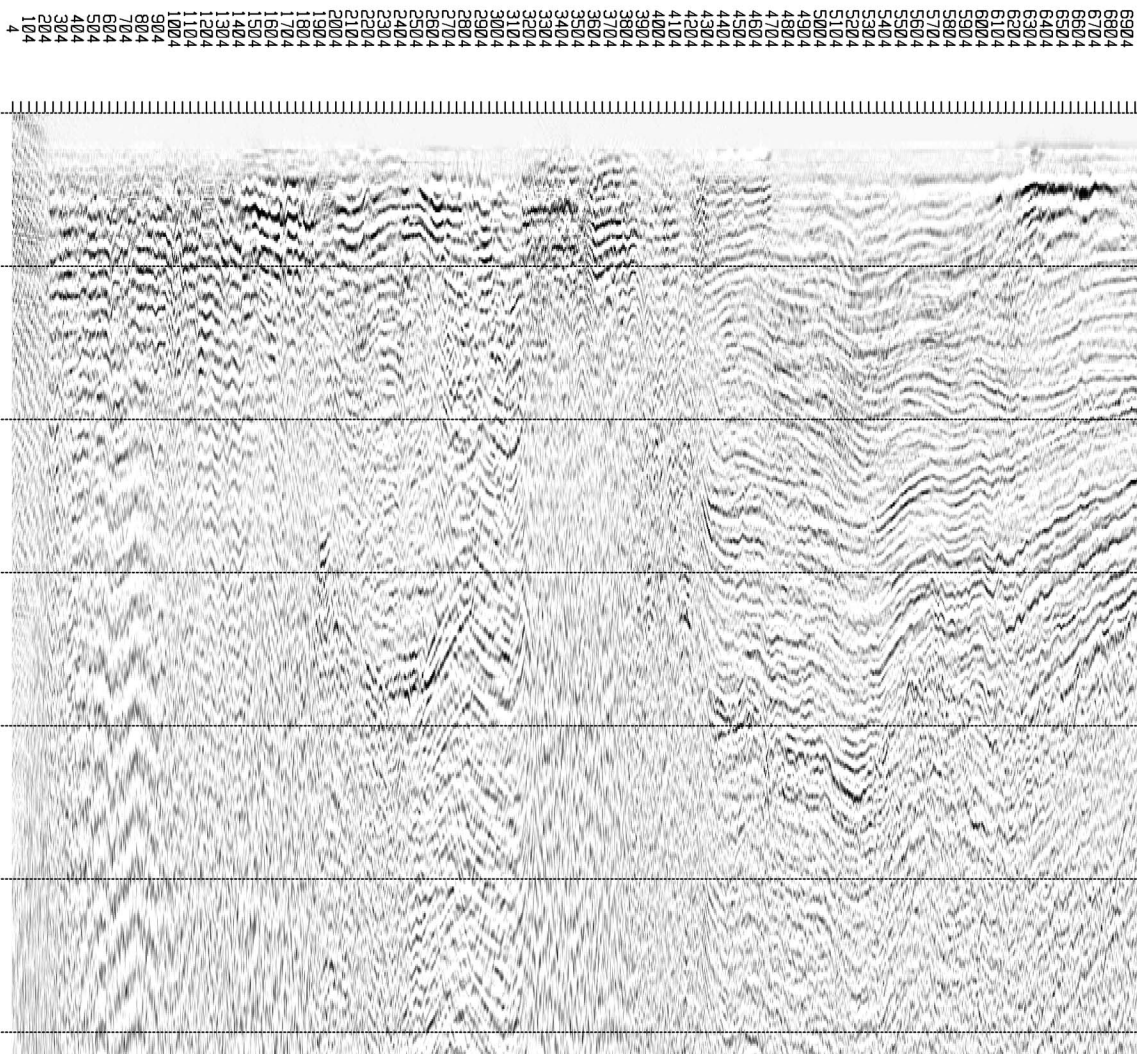
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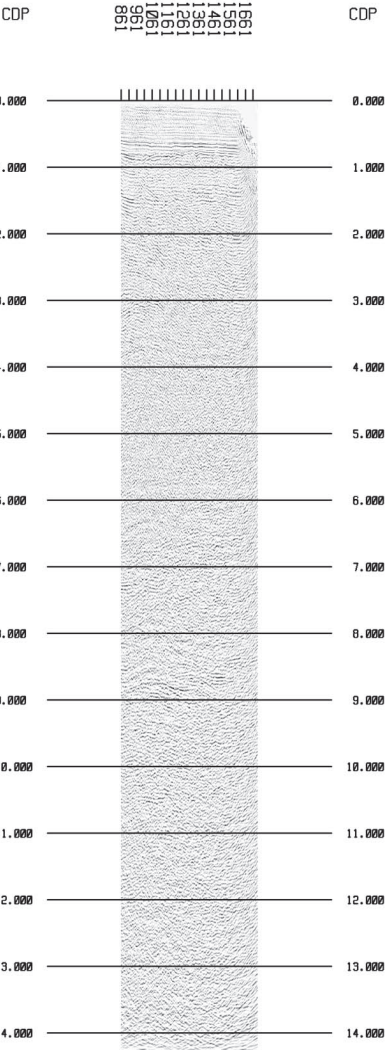
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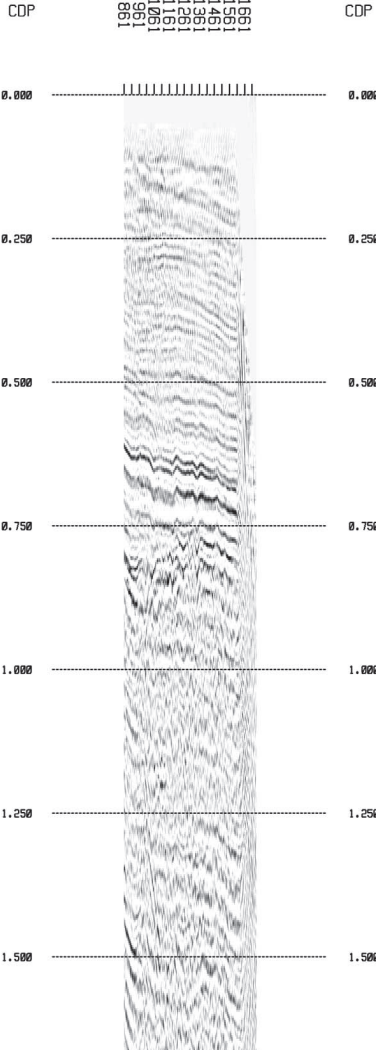
# CHICXR1\_MIGTX\_A6C



CHIXR2\_MIGTX\_A6C



CHIXR2\_MIGTX\_A6C



CHIXR3\_M16TX\_AGC

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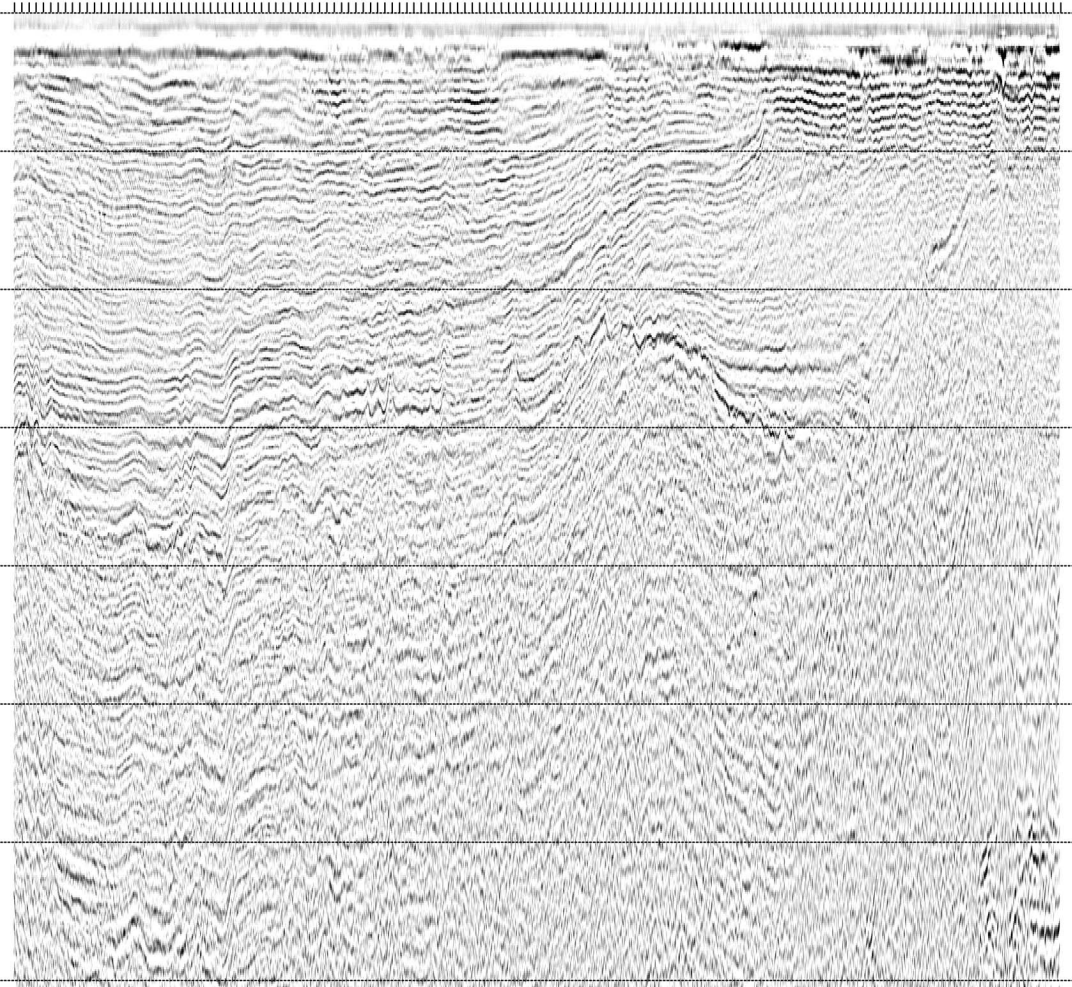


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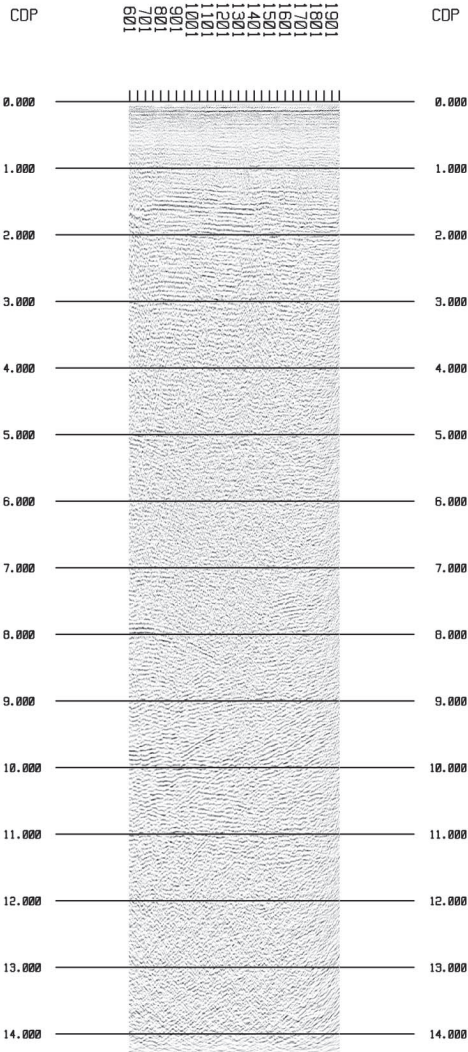
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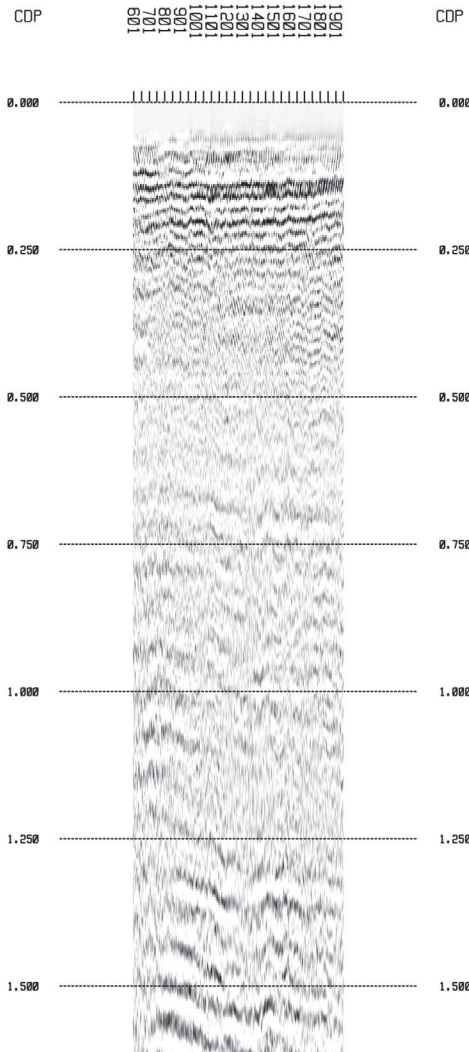




CHIXR4\_MIGTX\_A6C

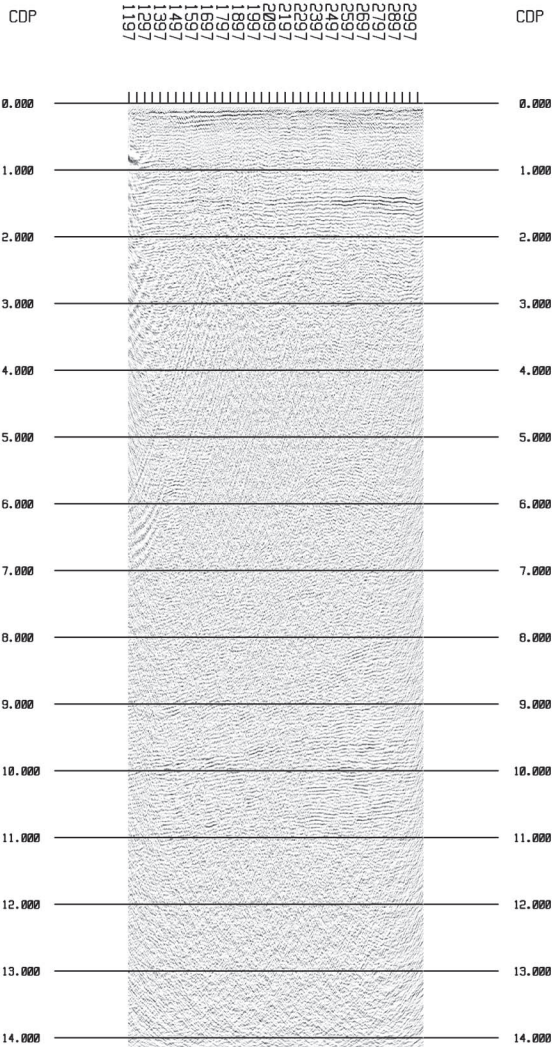


CHIXR4\_MIGTX\_A6C

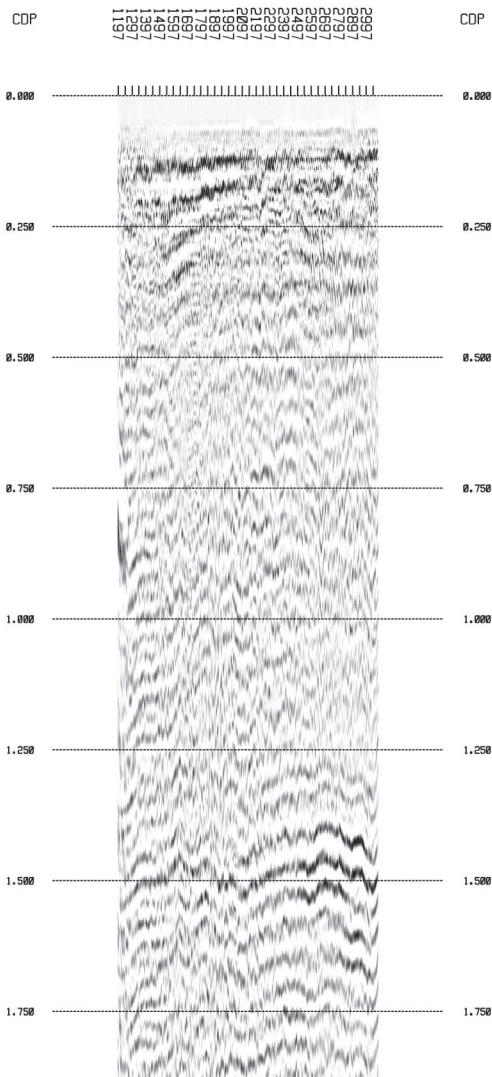




# CHIXR5\_MIGTX\_AGC



# CHIXR5\_MIGTX\_AGC

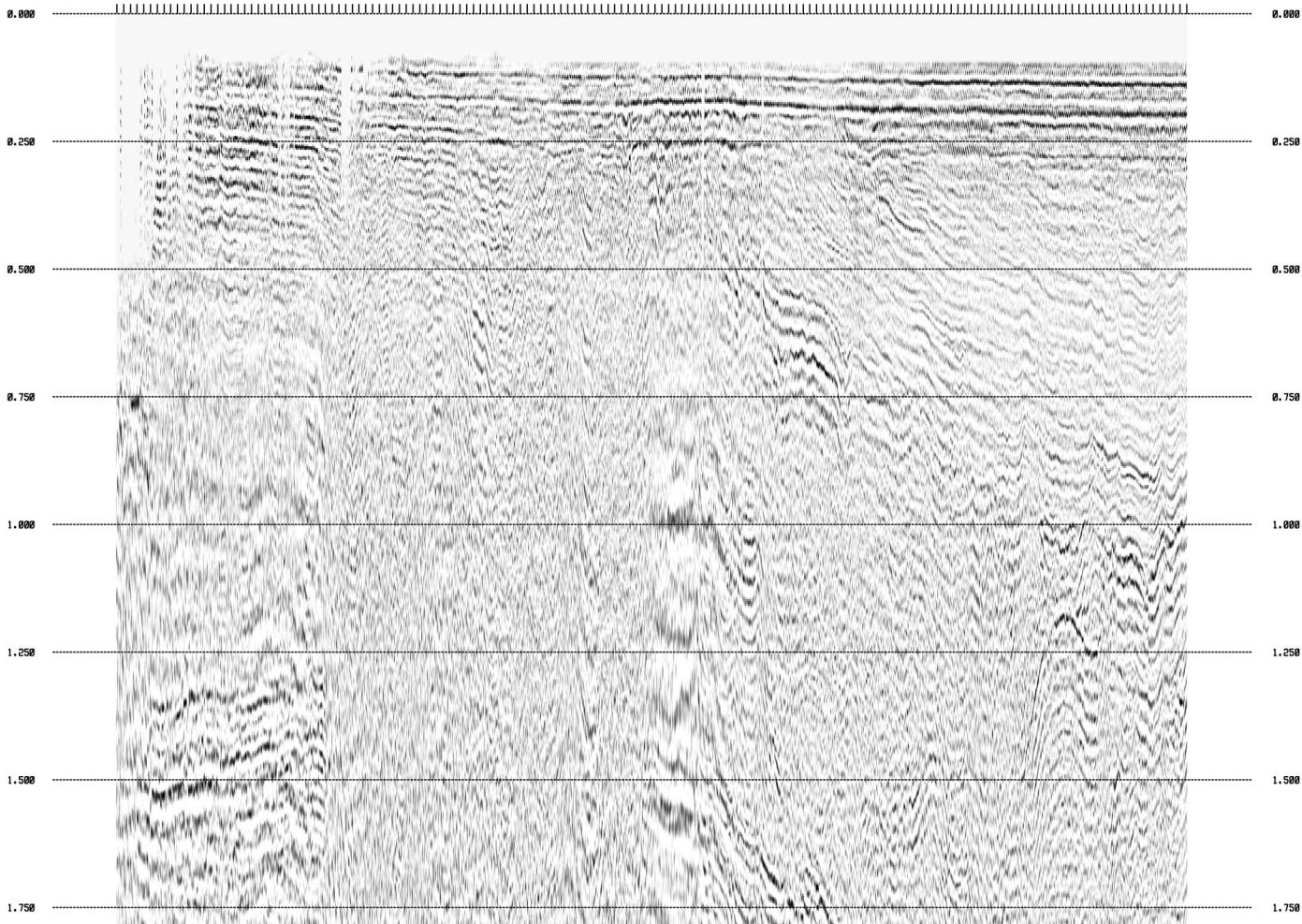


# CHIXR6A\_M1GTX\_A6C



## CHIXR6A\_MIGTX\_AGC

CDP





# CHIXR6B\_MIGTX\_AGC

CDP

CDP





# CHIXR6B\_M16TX\_A6C

CDP

CDP

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0.500

0.500

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0.750

1.000

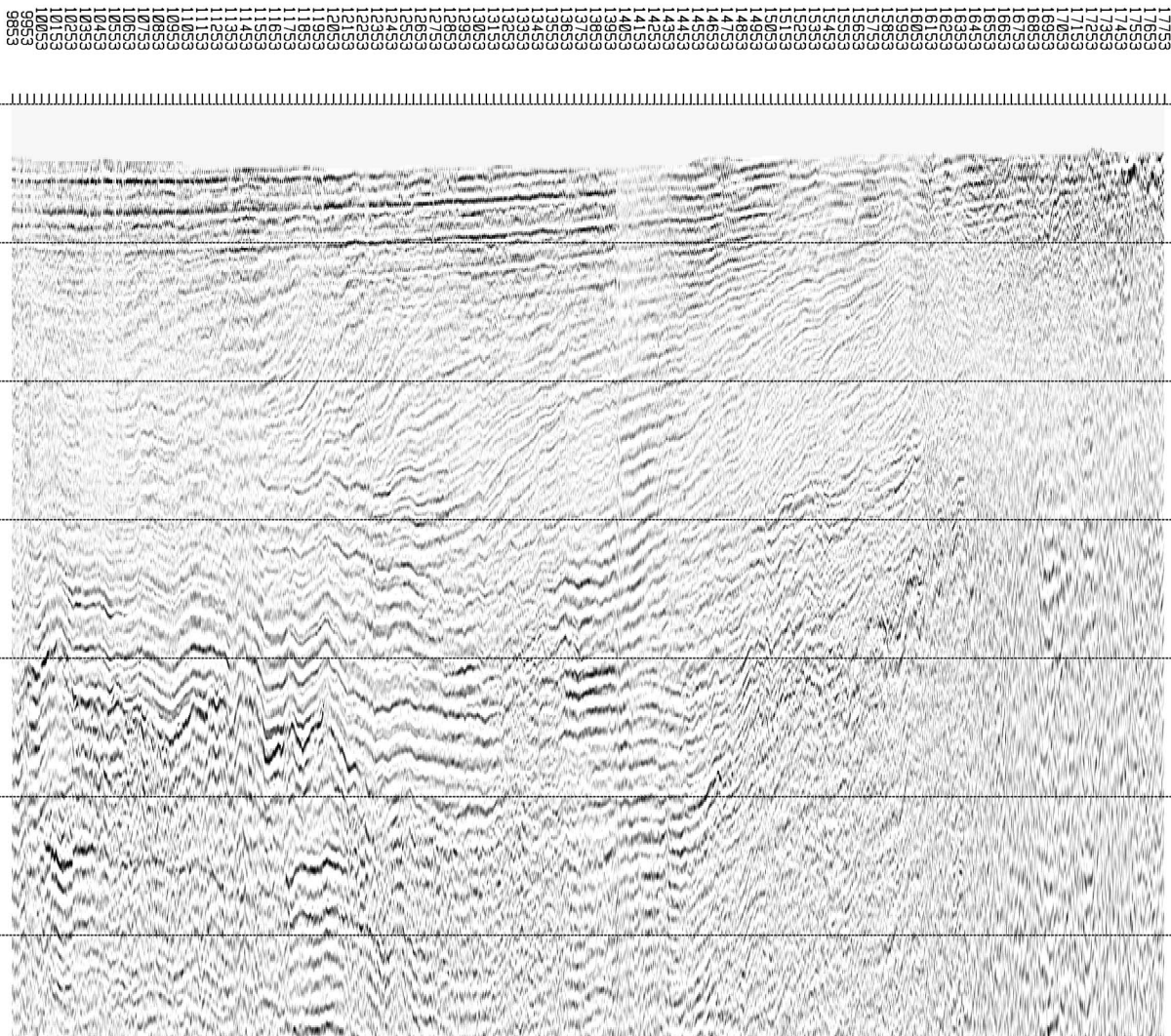
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CHIXR7\_MIGTX\_A6C

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## CHIXR7\_MIGTX\_AGC

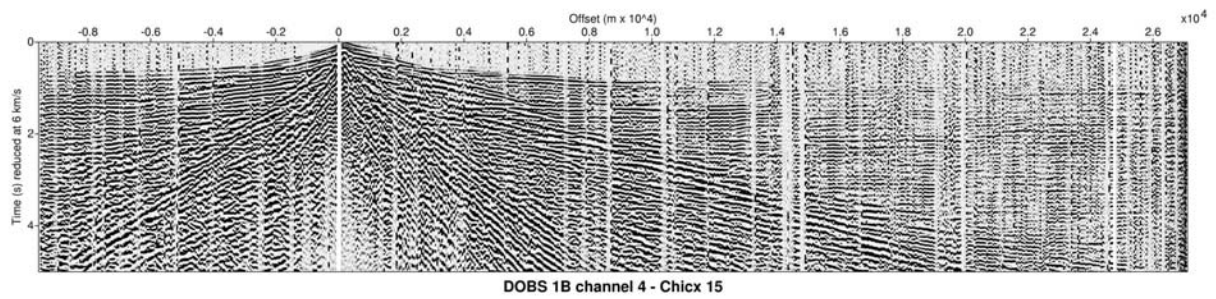
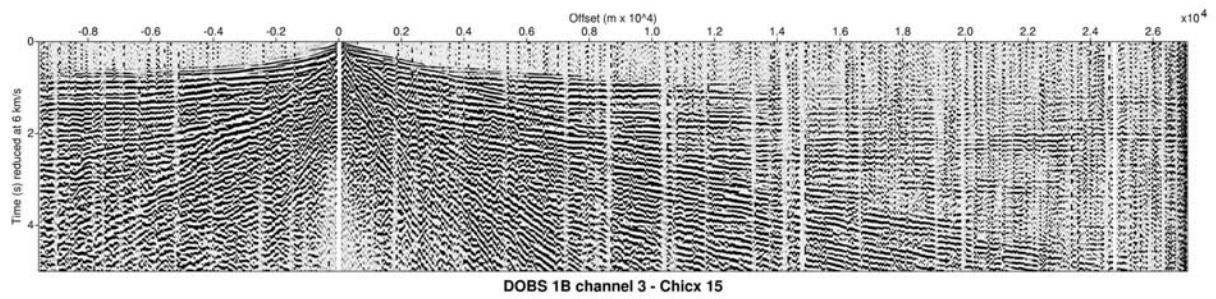
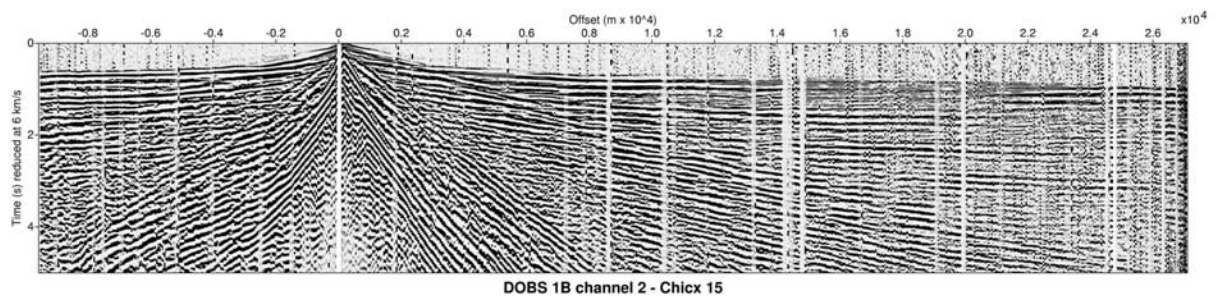
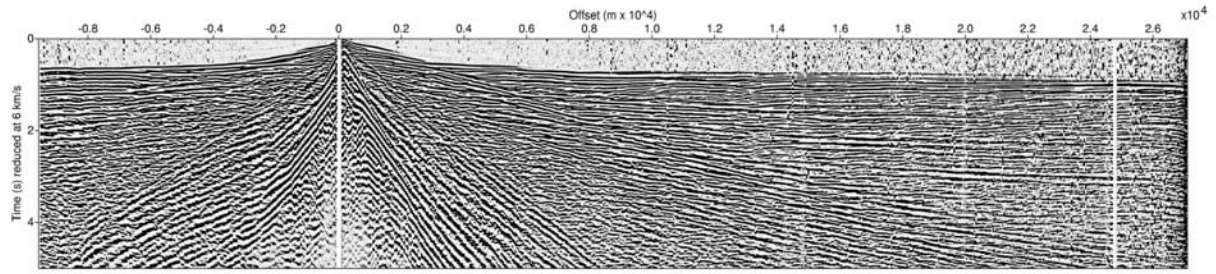


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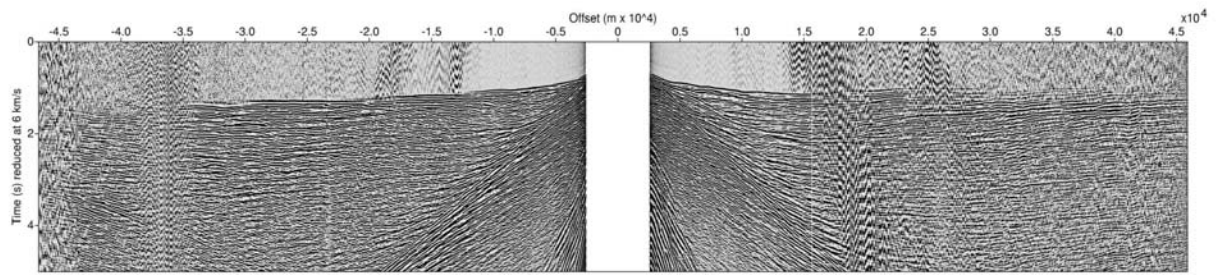
CDP



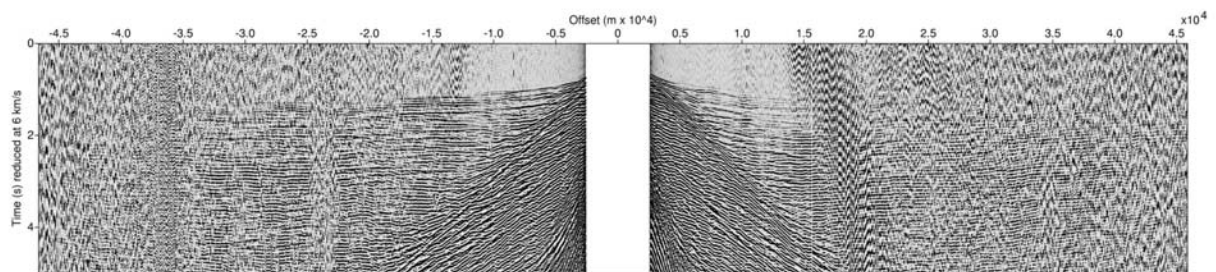
### APPENDIX 3: EXAMPLE OBS SHOT GATHERS



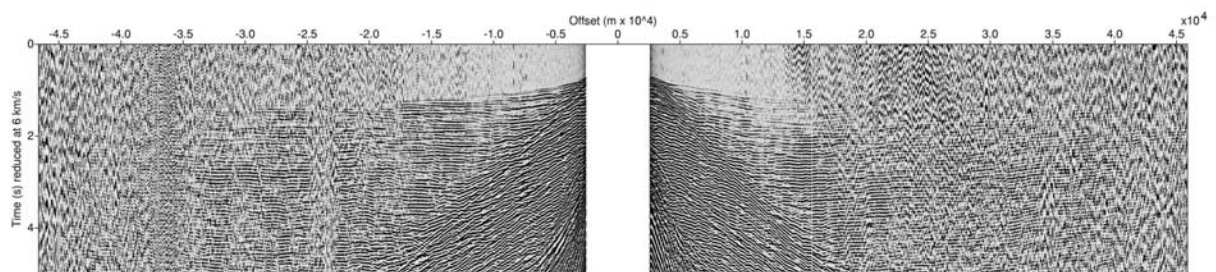




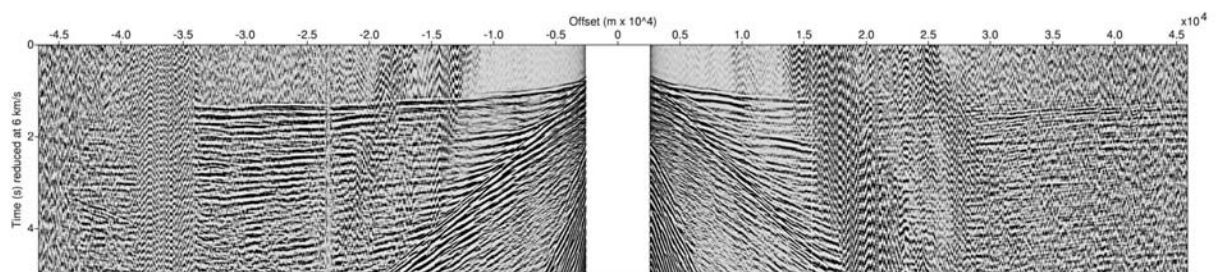
DOBS 5D channel 1 - Chicx 09



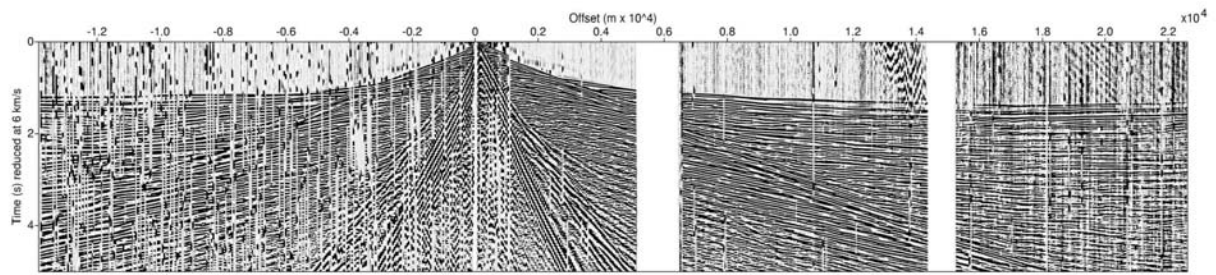
DOBS 5D channel 2 - Chicx 09



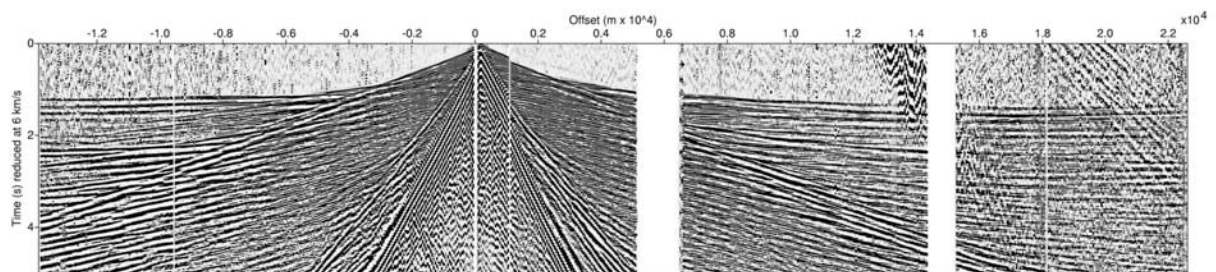
DOBS 5D channel 3 - Chicx 09



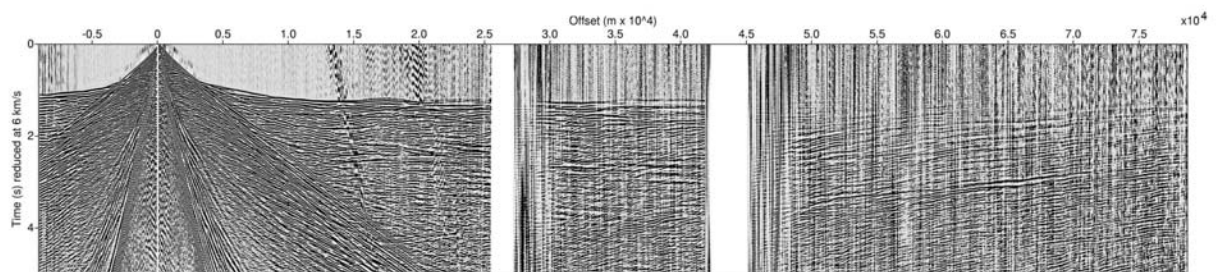
DOBS 5D channel 4 - Chicx 09



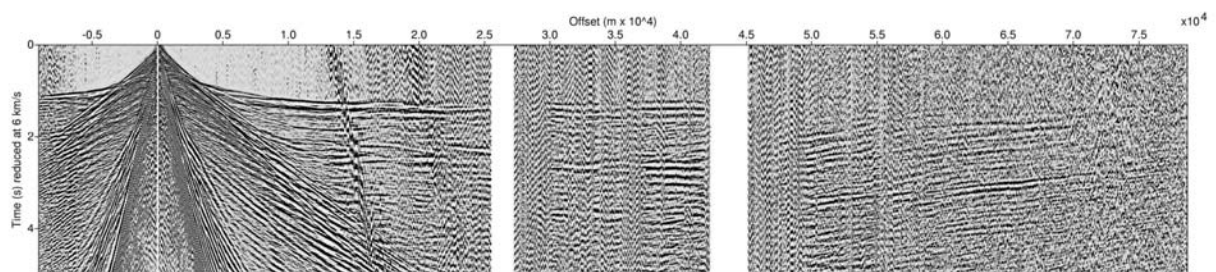
LC 9B channel 1 - Chicx 23



LC 9B channel 2 - Chicx 23



LC 10D channel 1 - Chicx 08



LC 10D channel 2 - Chicx 08

## **EW0501: Cruise Diary**

Monday 3 January

*In port Panama.* US and UK science party departed from Panama City for the ship at Colon at 0700 after arriving from various directions the night before. The two OBS containers arrived late afternoon, and one was loaded on board.

Tuesday 4 January

*In port Panama.* OBS containers unpacked. Meetings of Co-chiefs Sean Gulick and Penny Barton with Captain James O'Laughlin, Science Officer Ted Kocyznski and marine mammal observers (MMOs), and later a conference call with Lamont at the agent's office to discuss the interpretation of their mitigation document of 30 December. Also discussed fax from Mike Warner (Imperial University, co-chief Land Party) expressing concerns about Ben White. Main current concern is the Mexican MMOs, as we have had no information about them. Two UNAM students, Keren Mendoza and Oscar Martinez, expected Wednesday, so will wait for them. Total number of days for cruise is not clear. On return from agent's we pursued Mexican MMO question – Jo Morgan (Imperial University, co-chief Land Party) thinks that three have been found (Eduardo Cuevas, Maria Teresa Zapata and Diana Antochiw) but that they cannot be confirmed until SEMARNAT re-opens on 6 January, and they are all based in Merida. Considering possibility of attempting to get our existing MMOs approved as Mexican MMOs.

Wednesday 5 January

*In port Panama.* Getting labs sorted out ready to sail at 1600. Lamont instruct us not to sail until we have a definite arrangement for getting the Mexican MMOs to the ship. Keren Mendoza and Oscar Martinez arrive, expecting to be on board for 2-3 weeks only. Delayed sailing until 2000. Mike Purdy telephoned to say that Meike Holst, who is already on board, has been approved as a Mexican MMO and that SEMARNAT were meeting to decide whether Claudio Fossati (also on board) could also be approved. Delayed sailing until midnight. Paul Ljunggren called with news that we need to wait for Maria Teresa Zapata to arrive on Friday before sailing (to bring us to full complement of 'Mexican' MMOs). He also asked us for an estimate of the cost of the project so far for Jaime Urrutia (UNAM, project collaborator) to use in a court case with Mexico Greenpeace – we estimated \$1.5M science costs plus \$1.6M for ship time.

Thursday 6 January

*In port Panama.* It was a despondent day waiting for news. Mike Rawson in Merida confirmed that Maria Teresa Zapata would be arriving Friday morning.

Friday 7 January

*In port Panama – on passage.* Maria Teresa Zapata arrived at midday and the ship sailed at 1430. To start with there was a party mood up on the flying bridge as we left port, but it soon got unpleasantly rough and everyone gradually disappeared.

Saturday 8 January

*On passage.* Most people pretty under the weather. Got almost everyone to the boat drill then most collapsed again. At 1800 we had some short talks in the lounge – today talks by Sean Gulick and Penny Barton.

Sunday 9 January

*On passage.* We received news that the official Mexican MMOs must be Mexican nationals, so that it will be necessary to pick up two more people from Progreso by launch. Candidates should be approved on Monday. Most people beginning to feel better. Anusha Surendra and Peggy Vermeesch gave talks at 1800.

Monday 10 January

*On passage.* We received news from Mike Warner of a lot of bad publicity in Yucatan. There is a proposal to film seafloor whilst guns go over at request of fishermen. In afternoon got alarming message that the additional Mexican MMOs had declined to come on the cruise. Talks at 1800 from Meike Holst and Claudio Fossati on MMO (visual and acoustic).

Tuesday 11 January

*On passage – offshore work area.* Arrived near the work area at midday and stood well offshore to the northeast. Maria Teresa Zapata received a message that the new MMOs would arrive on Wednesday. Ship's drill to repel boarders practised. OBS deployment plans discussed. Message from agent to say we do not have authorization to approach the port.

Wednesday 12 January

*Offshore work area.* We waited all day. Rumour that Ben White was on his way to harass us. Plane flew over. In evening word from Jaime Urrutia that Diana Antochiw and Eduardo Cuevas had been approved by SEMARNAT. Still do not have navigation permit to approach port, so moved to east of Alacran reef to be closer to Progreso.

Thursday 13 January

*Offshore work area.* Word from Paul Ljunggren in the morning that we must not approach port until Navy permit issued. 1340 OBSs declared ready to go. Plane flew over. In the evening received messages indicating that more of the permits were in place. At 2200 Paul Ljunggren phoned to say we should go into Pilot station at 1100 tomorrow to pick up MMOs and Navy observer. Orders are to approach at high speed, and to use a Spanish speaker on the bridge radio referring only to Captain Jaime (Jim). We were embargoed from emailing out any details to anyone overnight. Hope to get Navy permit tomorrow. Fantastic lightning storm watched by all on deck. Critical article appeared in the London Guardian today.

Friday 14<sup>th</sup> January

*Offshore work area.* We are steaming steadily towards 1100 rendezvous at pilot station 1.5 miles from end of Progreso pier. At 0930 informed that port is closed because of bad weather – too rough for pilot boat. We are told to return at 0800 tomorrow. We telephoned Mike Warner at Chicxulub house. He says: 1) Ben White is not allowed to use any local fishing boats; 2) local media interest in the project is not very great; 3) we should get Navy permit on Saturday; 4) he thinks the Mexicans would be happy to offer a few days extension of the permits; and surprisingly 5) that he has had instructions not to talk to us – this may explain the lack of information on board.

Saturday 15<sup>th</sup> January



*Pilot station Progreso and OBS deployments.* We arrived at pilot station at 0800 as requested, and two Mexican MMOs (Diana Antochiw and Eduardo Cuevas) arrived in the pilot boat at 0845 with Customs team. Pilot boat returned at 1030 with Mexican Navy observer Lt. Rubin Romero. Apparently now all permits including Naval and navigation permits are in hand, and we are free to start work. Moved to NE corner of grid to begin period of OBS tests, including test deployment of DOBS with a few single-gun airgun shots. We began main OBS deployment at around 2130. Various pieces of information surfaced today. Firstly, there is a large exclusion zone around and in line with the pier, and we may not enter this zone at all. This affects all the airgun-only lines and MCS line 11, as it cuts around a fifth of each profile out of its centre, and will also mean relocating several of the OBS. Secondly, PROFEPA wish to inspect our operations on board next Monday. We are concerned that this will disrupt our schedule, and that we had not been aware of this as a requirement previously. Thirdly, we were given a Notice to Mariners showing the site of a scuttled ship near the port entrance, intended as an artificial reef. At 0200 (16/1/05) the port radioed the ship to say that the actual location of the wreck was different, and that we should keep 2nm away from it: Captain thinks this is over-cautious, and in any case we had deployed an OBS closer than this before receiving the position change. Fourthly, received a fax from Paul Ljunggren that is a copy of a permit document addressed to Sean Gulick and dated 8 December – the first any of us have seen of it. This document specifies observations to a 145dB safety radius (almost over the horizon) which we and the MMOs feel must simply be a mistake.

Sunday 16<sup>th</sup> January

*OBS deployment.* Deployment continues. One DOBS pinging weakly then disappeared, so popped it back up and substituted an LC. Symptom of pinging loudly in air and quietly in water is apparently typical of wiring being reversed. At the same time it was noticed that the batteries in the DOBS preamp had dropped to 8V since the instrument was closed up. Therefore it was decided to modify DOBS not yet deployed so that they had six batteries in their preamps, not just one – a chance for some truly appalling soldering by Penny Barton. DOBS deployments significantly slower than LCs, due to having to wire test the pingers, crawl around underneath them on deck etc. Another DOBS had a pinger problem – this and the other needed rewiring. News from Lamont that we cannot commence shooting until the 145dB issue is resolved. Short diversion to assure ourselves that the second wreck location was in fact the correct one, which it was as confirmed by the buoy on top of the wreck being sighted.

Monday 17<sup>th</sup> January

*Streamer deployment.* We finished OBS deployments at 0730. Were expecting visit from PROFEPA at 1100 but weather too poor. Jaime Urrutia says 145dB is wrong, but we await word from Lamont. MMOs concerned about sea-state – they have been told maximum is Beaufort 3. We began streamer deployment at 0900. We spent considerable effort balancing streamer and checking that birds were working properly. Two sections changed. We got news that we could commence work after the PROFEPA inspection.

Tuesday 18<sup>th</sup> January

*Streamer/gun deployment.* We finished streamer deployment at around 5am. Expecting PROFEPA at 0800 but still too windy. Deployed gun booms in morning – extremely slick operation – and then PAM streamer – less so. Weather continued too

poor to start work. In the evening got word from Lamont that we could not start work until the US Embassy receives an 'official enough' document about the 145dB issue. We receive news that NSF is looking at trying to fund 8-day extension if Mexico permits it.

Wednesday 19<sup>th</sup> January

*PROFEPA inspection.* We are still waiting for confirmation that we can shoot. PROFEPA was due to arrive 0800, but got on board by 0930. Arrived in a Navy interceptor that could not come alongside whilst we are moving, so ship's zodiac boat had to be launched in three trips to bring them aboard. There were seven people – 6 from PROFEPA and a Lieutenant from the Navy. Their main interest was in paperwork. They required us to produce the originals or certified copies of all the permit papers. This was awkward and embarrassing, as we have faxes or emails of most of them – no originals or certified copies: Jaime Urrutia at UNAM and/or the Lamont office have these and they inform us of the contents in emails. They gave us a few days to get these papers to the PROFEPA office in the Yucatan, before initiating legal proceedings against us. We received confirmation by fax from LDEO that the 145dB had been modified to 180dB radius. Concern about the issue of wind speed – in the letter we received on 15 January there was a clause of 'Not Force 3 or greater', which Diana Antochiw pointed out to us today. The head of LGL recommends we comply with that, whilst head of the PROFEPA team recommends we get it changed. PROFEPA team is expecting to come once or twice more, so we tried to negotiate a more convenient arrangement so they arrive before we start shooting and depart afterwards. The inspection resulted in a handwritten report produced by the three scribes, amounting to around 30 pages: each page of two copies had to be signed by about 5 people. PROFEPA departed at 1630 leaving us stunned. We sent emails to Jaime Urrutia to get the key original documents copied, certified and sent to the PROFEPA offices. Diana Antochiw concerned that the papers approving the MMOs should also be on board before the next inspection. We also asked Jaime Urrutia to contact SEMARNAT urgently about sea state restrictions. It was an extremely discouraging day.

Thursday 20<sup>th</sup> January

*Waiting – profiling grid.* It is a beautiful calm morning. Apparently wind speed is 10 knots and it has to be below 6.5 knots to shoot with current conditions. We took photos and videos to demonstrate perfect sea conditions. We are awaiting news from Ramirez of SEMARNAT, who signed the conditions letter. It has been clarified that the ship cannot go through the exclusion zone around the port approach at all. Day carried on with beautiful weather, with wind dropping tantalisingly close to force 2. Looking at ways to integrate wind speed in some meaningful way. At 1640 dropped below 6.5 knots and we could begin shooting, and carried on until 1800. Collected the far east end of line 2 – around 50 minutes of data. It was good to get the system going and iron out the bugs. Everyone was grinning – including the MMOs. News that our limit may be increased to Beaufort 3, but this will not be enough.

Friday 21<sup>st</sup> January

*Profiling grid.* Beautiful calm conditions so began profiling at 0715 (30 minutes of observing for animals begin at first light at 0615, followed by a 25 minute ramp up from 0645). At 0800 wind rose above 7 knots and we had to stop. Restarted a little later then had to shut down for a fishing boat which refused to move, after which time

the wind had increased again. Managed to shoot between 1200 and 1400, and then shut down for the rest of the day. We spent a lot of time trying to design a protocol for deciding wind speed threshold, as current display is a one minute spot value. Standard US navigation manual (The American Practical Navigator, by N. Bowditch, 1995, p527-529) from bridge states that it takes 90 minutes for a wind increase to force 3 to affect the wave height, so we are using this as a running average. Mid evening got the excellent news that the limit is being increased 'through' Beaufort 4, i.e. to a maximum of 17 knots.

Saturday 22<sup>nd</sup> January

*Profiling grid.* Hopes dashed again, as Lamont need a proper document about the Beaufort 4, and it is Saturday. Wind is hovering in the mid teen values, nowhere near 7 knots, so we cannot work. At 1130 we were called by Mike Purdy who has had legal consultation about the problem of Beaufort 4 and visibility for marine mammal observation. The lawyers require a statement from all 6 MMOs that they are satisfied that they can monitor effectively to 3.5 km radius in a Beaufort 4. We gathered all MMOs on the flying bridge and they agreed readily to this, so that we began shooting the east half of line 6 soon after noon. Wind increased slowly and steadily and hit 17 knots at 1705, when we closed down, just at the end of the line. Celebrated 200 years of the Beaufort scale.

Sunday 23<sup>rd</sup> January

*Profiling grid.* It was a fine calm morning. Wind veering, perhaps because of promised stormy front. Began line 8 E-W at 0715. We profiled through the day with two short interruptions for fishing boats and a turtle. Reached end of line at 1610 and turned north onto west end of line 6. Wind increasing but we made it to 1800. There was both a barbeque and an XBT.

Monday 24<sup>th</sup> January

*Profiling grid.* The weather was quite poor through night, but we were able to start work by 0830, and we began line 10. Halfway through the ramp up procedure, we had to shutdown for a dolphin and then a turtle. We were very anxious to get the part of the profile running through the proposed ODP site so decided to loop back and start line again. This looping around took longer than anticipated, but we collected the pass through the site and collected about 60% of the line. Later heading to north of R1 to shoot it N-S. We have been trying to go a little faster over the ground – about 5 knots - in order to be able cover the survey in the restricted shooting hours. However this puts a strain onto the propulsion with only two engines on – both because of the extra speed and to keep up the repetition rate on the compressors. Problem is eased if we go with the wind/current, which is generally from the northeast. Apparently if we use a third engine we may not have enough fuel in the event of an extension.

Tuesday 25<sup>th</sup> January

*Profiling regional.* It is a beautiful calm morning. Started line R1, a little late because the ship was not fully lined up and the PAM monitoring was delayed. Good day of profiling, working with the current, so no strain on engines. Finished R1 at 1615 and branched west onto line R2, which we had otherwise dropped from the programme due to time constraints. We followed R2 almost to the east end of line 10. We observed manta rays and large fish leaping behind the boat. In the evening brought in first half of streamer to change batteries in some birds and to attempt to improve noisy

section by cleaning contacts. Replaced two sections – one was found to be full of water on recovery.

Wednesday 26<sup>th</sup> January

*Profiling grid.* We are aiming to re-shoot line 2, east-west. However, there was a major problem with the tow leader to the streamer, which lost its electrical connectivity. The tow leader was changed for a shorter one (alarmingly corroded in appearance), bringing the near offset trace closer to the shots which was our preference anyway. This entailed profiling in several different configurations during the day, with and without the streamer held in a clamp, and three distinct geometries. We continued along line 2 with several interruptions for fishing boats, missing a few shots near the end as a run-out had not been entered into Spectra. Eduardo Cuevas has raised an issue about the work box specified in the permit. We have been given four points all offshore, to delineate the box, and we have been interpreting this to mean that we should close the box by projecting normally or NS/EW into the coast. Eduardo suggests the box should be formed by joining the four points directly, which cuts out part of our work area (line R1 and the end of the CRP survey), but includes a chunk of land, which does not seem logical. Eduardo Cuevas has asked PROFEPA for clarification, so we have spent a lot of effort on rationalising our position, and have asked Jaime Urrutia to contact SEMARNAT.

Thursday 27<sup>th</sup> January

*Profiling regional.* Shot regional line R3, S-N. Weather moderated just in time for start of line to get a good profile through the secondary drill site. It was an excellent day with no interruption from fishing or animals. There are reports in the local press of 10s to 100s of fish being killed. Mario has agreed to appear in a television debate tomorrow with a representative of PROFEPA and an environmentalist. Ted Kocyznski organised a meeting with all MMOs in the evening in order to air any concerns. Discussion of necessary weather conditions for the pre-ramp up observation period, not specified in the Mexican document, plus checks that the shutdown procedure is working. So far they have seen 3 dead fish (one sunfish, one catfish and one 'bait' fish) and there has been one mammal shutdown and two turtle shutdowns. Weather got quite choppy later.

Friday 28<sup>th</sup> January

*Profiling regional.* Weather continued to be rough through the night but moderated at the last minute and it was possible to start R4 after a large circle to ensure full fold over the second drill site. A dolphin was heard on the PAM so we did a slow one-gun start up and it disappeared. Collected R4 through the drill site then turned onto link profile R5. Weather deteriorated and we had to close down at 1530. A group of 5 dolphins is observed around the boat. We heard that Ben White is planning to visit the ship tomorrow. Mario Rebolledo (CICY, project collaborator) recorded his TV debate, but the environmentalist opposition did not show up, on the grounds that she would not argue with a specialist. Mario Rebolledo contacted us late in the evening to say that replacement Mexican MMOs could not be found for Eduardo Cuevas and Maria Teresa Zapata who are scheduled to leave the ship in the next few days and that he was trying to persuade Eduardo and Maria Teresa to stay. Discovered discrepancies between the some planned line locations and their actual positions, perhaps due to the manual reading of coordinates from an inaccurate map: all waypoints being reviewed for errors.



Saturday 29<sup>th</sup> January

*Profiling regional.* We began Constant Radius Profile (CRP) 3nm to the southwest of where it crosses R3. The weather is moderate in the morning, but gradually increasing in wind speed. We collected halfway around CRP without interruption, although we had to divert significantly off the circle to avoid a set of fishing nets and a boat. No sign of Ben White. Got line coordinates sorted out, plus a way-pointed plan for the OBS recovery and redeployment. In late afternoon it was noted that there were an unacceptable number of parity errors in the streamer, so that in the evening it was brought in for the problems to be addressed. Searching for replacement Mexican MMOs has become a major preoccupation – Eduardo Cuevas and Maria Teresa Zapata have agreed to stay a day or two more but no longer.

Sunday 30<sup>th</sup> January

*Profiling regional.* Streamer much improved after last night's maintenance, which went on until 0230. We completed the east half of the CRP profile, with only one power-down for a turtle. We extended the line in towards shore during run out. We are trying to organise paperwork for next PROFEPA inspection, and still pursuing Mexican MMOs.

Monday 31<sup>st</sup> January

*Profiling regional.* Regional line R7 from north to south. Started at closest allowed point to Alacran Reef then steamed south towards grid. Just north of grid got shut down for turtle then fishing boat then weather, and managed to do little more after that, although there are a few shots here and there in the grid. Finally shut down at around 1530 and the wind gradually increased to 30 knots by mid evening, so we called off PROFEPA inspection due 0500 tomorrow morning. They had asked to bring a journalist with them, but Lamont have turned this down. PROFEPA is apparently planning to come in their interceptor again. Rumours about Mexican MMOs continue. In the evening brought the streamer in over a 4 hour period. One section needed patching.

Tuesday 1<sup>st</sup> February

*Airgun profiles.* Weather was fine by the morning. Shot airgun-only lines 12b EW then 14b WE, stopping due to weather just before the end of 14b. There is still no news about replacement MMOs. We are expecting PROFEPA inspection tomorrow, via chase boat.

Wednesday 2<sup>nd</sup> February

*Airgun profiles - Profepa inspection – OBS redeployment.* We asked PROFEPA to arrive at 0500 and they were on board by 0715. We started shooting immediately. Line 12a went fairly well, but then we turned onto 14a and had numerous shutdowns – turtles, dolphins, divers, fishing boats and finally at 1630, weather – resulting in an extremely fragmented profile. Inspection went well (and we certainly demonstrated the mitigation procedures!), and the team left at 1815. One surprising outcome was that the inspectors told us that the 28 December diplomatic note that specifies an end date of 15 February is not the definitive date, just an indicative date for that document. The actual permit end date from SEMARNAT is 31 March. We sent information to shore for clarification. Brought in guns and immediately started long process of OBS recovery and redeployment. We unfortunately discovered that the data display

program for the OBS data did not work with this quantity of data, so having to redeploy 'blind'.

Thursday 3<sup>rd</sup> February

*OBS redeployment.* OBS recovery and redeployment continued around the clock. In evening dropped Maria Teresa Zapata and Eduardo Cuevas on pilot boat and brought on board two students from CINVESTAV, Gabriella de Portilla and Manuel Reyes. Mike Rawson had also arranged some fresh supplies and goodie-bags from the shore. Mike Rawson had alarming news that a 'green' instrument had turned up at the Port Captain's office. Diana Antochiw has news that Lt. Ruben Romero may be approved as an MMO, and that PROFEPA may be taking action against the biological director of SEMARNAT (Ramirez), on the grounds that he should not have got involved in modifying the regulations under which we work.

Friday 4<sup>th</sup> February

*OBS redeployment.* By morning there was news of two instruments handed in to Port Captain, and the DOBS at another site (7E) failed to respond to pinging. Phoned Tim Owen at the shore house who went straight to Port Captain to investigate – found a DOBS and an LC. DOBS had released its weight and had a smashed connector. LC still had screw link attached but no weight and the release had not fired. We arranged to have these brought out on the pilot boat when we have a personnel transfer later. OBS recovery and redeployment continued in sober mood, completed at around 2200. One LC caught an octopus, most were covered in smelly mud and a coating of algae. Returned to site 7E and conducted detailed pinging survey in case of acoustic shadows, but nothing found.

Saturday 5<sup>th</sup> February

*Profiling grid.* At 0120 pilot boat arrived with the two lost OBS and three new people: student Elizabeth Reyes from UNAM, and new Mexican MMOs Ernesto Vazquez and Gabriel Gonzalez. Gabriel Gonzalez has not yet been approved, but our rationalisation is that we have six MMOs (i.e. more than the 4 minimum), that three of them are Mexican (as required) and that four of them are approved (Meike Holst, Claudio Fossati, Diana Antochiw and Ernesto Vazquez). Deployed streamer and guns through the night, and were ready to begin profiling by 0800, some way off line. Profiled back (along spontaneously-designated line 25) to top of line 15 then shot southwards. Concern that streamer had sunk around turn and that this might happen again in shallow water at southern end, and that there was little extra power left in the engines to keep up speed. Tried floating to 4m for the turn but became unstable. Reduced power on both compressors to increase engine revs and briefly went to 60 second OBS shooting, but in fact had to shut down for weather. In the evening, we practised some racetrack manoeuvres with the streamer at 7m – by this time it had stabilised and behaved perfectly. Key seems to be keeping up speed, and have decided to take out a compressor or add an extra engine for the turns if necessary to maintain sufficient revs.

Sunday 6<sup>th</sup> February

*Profiling grid.* We began line 16 from the south at 0745, streamer behaving perfectly. Turned down onto line 17, but this line beset with shutdowns, for weather, turtle and weather again, stopping just north of the proposed ODP hole.

Monday 7<sup>th</sup> February

*Profiling grid.* We try another attempt at line 17 (NS), as it is crucial for the ODP survey. Unfortunately shut down for weather before reaching the site, then turned and collected some of line 18. Turned back onto 17 and just managed to get centre of streamer across the drill site before getting shut down for weather again.

Tuesday 8<sup>th</sup> February

*Profiling grid.* We began line 21 from the north in lovely weather. Towards south end of line shot close to and past a seabed camera set up by Tim Owen from a small fishing boat. Fishing boat steamed up and down near Ewing filming our operations. After recovering the camera they put a diver onto site 7E (where the DOBS had disappeared from) and recovered the concrete weight, base plate and nut. We continued onto line 22 and almost halfway down line 23 before being shut down for weather at 1715. People are getting very bored after this long at sea.

Wednesday 9<sup>th</sup> February

*Profiling grid.* We started NS down line 24. Unfortunately had to stop early due to fishing boats so turned back onto 23 in an attempt to join up with region shot yesterday, but had to stop again just short of overlap due to fishing boats. Turned west onto line 4, and shot until 1800 for the first time for several days.

Thursday 10<sup>th</sup> February

*Profiling grid.* Started out along line 5. In early afternoon a large fleet of tiny fishing boats was spotted ahead, and so instead of trying to negotiate them we did a 180 degree turn and went back along a new part of line 6. Ongoing uncertainty with proposed visit of Green Party Senator – was going to be on Friday, then Saturday and now Monday, with the next PROFEPA inspection. Also awaiting news of cruise extension – indications are encouraging and we hope to know more tomorrow. We have a looming crisis with MMOs in that Gabriel is not approved, and Ernesto has to leave on 15<sup>th</sup>, so will not be available for an extension. Therefore we have a problem for the PROFEPA inspection on Monday, and a further problem if we get the extension. We contacted Jaime Urrutia to try to address this problem. Received news that whether or not we get the extension we can continue shooting up until 1800 on 15<sup>th</sup> February – OBS recovery can take place after this.

Friday 11<sup>th</sup> February

*Profiling grid.* Strong winds overnight persisted into morning. Steamed down line 20 unable to shoot, but came into spec as we turned towards line 19. Collected part of line 19, before being shut down again, and then attempted line 20 for the second time. We received a faxed letter from SEMARNAT approving both Ernesto and Gabriel as observers. Whole ship is very tense awaiting news about the extension.

Saturday 12<sup>th</sup> February

*Profiling grid.* Shot line 1 E-W. Profiling went well all day until shut down for weather just after 1600: our most complete EW line so far. We prepared a folder of information for the visit of the Green Party Senator on Monday.

Sunday 13<sup>th</sup> February

*Profiling grid.* Shooting lines 11b and 13b east of the forbidden zone. These lines were originally planned to be airgun-only but it has been agreed to do them with the

streamer out, and indeed there was no problem. However, weather was poor so only managed to shoot in the middle of the day – east one third of line 11b, then turned onto east two thirds of line 13b. Finished preparations for visit tomorrow, including sanitising lab. Long discussions with Manuel Reyes and Gabriella de Portillo who are desperate to go ashore tomorrow although originally signed up to 15<sup>th</sup> evening: Captain is adamant that he will only transfer to the Hamlet and there will not be enough space for them.

Monday 14<sup>th</sup> February – Valentine's Day/Black Monday

*Profiling grid – Profepa inspection – Green Party Senator visit - grounding.*

Expecting PROFEPA inspectors with Green Party Senator Erika Larregui, Martha Torrez from the State Department and Mario Rebolledo at 0500 – in fact had only just left Telchac at that time. Captain had given direct orders that he would only allow boat transfers from the Hamlet, but in fact most of the party arrived on the Fever, which has a high superstructure and fixed canopy over the back. PROFEPA arrived with five inspectors instead of three. Extremely dangerous boat transfer, and they were all on board shortly before 0700. We immediately deployed PAM to begin line 9 E-W at 0800. Perfect conditions and continued shooting all day without interruption. PROFEPA inspection seemed relaxed. Visiting party spent a lot of time on the flying bridge, inspecting the labs and airguns, and in the afternoon, snoozing in the lounge. The Senator appeared to be quite interested in the project and appreciated the information we gave her. At lunch someone asked Sean Gulick of news of the extension, and Martha Torrez piped up that she had all the necessary papers on her desk, and that she would action them when she got to Mexico City, probably on Wednesday. She then agreed to telephone her office and get copies faxed to Lamont. Continued shooting to 1800 as it was going so well, although aware this would mean we turned past Madagascar Reef, not in front of it, and that the departure of the visitors might be delayed. Signed all the PROFEPA papers and took endless photos with the visitors. There was a problem getting the guns in for the transfer as two guns had got tangled in the centre and this took some while to sort out, but eventually we were able to turn to bring Hamlet alongside for transfer. However, it quickly became clear we were not able to offer enough shelter for a safe transfer, and we were also heading towards the charted position of the reef, so we brought the visitors back to the lounge while the ship turned away to steam further from the reef before turning up again.

At about 2005 everyone heard a splash, followed by another and a shuddering groan as the ship came to a stop on rocks. In the few minutes preceding this incident, the gunners had seen the guns snatching and the booms jerking, and had rung the bridge just as the hull struck. Rapid attempt to float cable, but it and the guns sank quickly. Water under ship only a few metres deep but the gear was mostly on the bottom in around 20m depth. Emergency bells rung and muster called in the lab – lab seemed very crowded with all the visitors, despite the large number of people on the fantail getting the gear in. Bridge, deck and engine room swung into a well organised emergency procedure, checking safety of people and integrity of ship, hand sounding water depths around the ship, re-ballasting in order to shift weight off the grounded part, and keeping everyone informed. We gingerly brought in the guns and streamer. After about an hour it was decided that as we were stationary anyway, it would be possible to take off the visitors using the Fever, and we transferred the eight visitors plus Manuel Reyes and Gabriella de Portillo (who had been pushing so hard to depart



today), with emotional goodbyes. It turned out that it took 4-5 hours for the Fever party to reach the shore, as choppy seas stopped them landing at Sisal. Freeing the final gun, which had stuck firmly in the seafloor, was achieved by firing it two or three times at low pressure. Once the guns were in it was possible to begin bringing in the cable, and the relative motion caused it to come up, apart from the area around bird 13 which remained stuck on the bottom, giving bursts of noise on the cable. The ship began to reverse slowly, which took the strain off the cable, and eventually after a number of shudders like aeroplane turbulence, the ship floated free. Ship turned westward and moved back along its track with cable coming in steadily. Ship heading straight for tailbuoy and there was momentary confusion about which side the streamer was leading. We sunk the cable in case we went over it and re-floated it, and this finally freed bird 13. Miraculously no oil leaks or significant damage observed on the streamer. Got tailbuoy onboard by 0100 and went to find somewhere to anchor. There are indications of possible water ingress into one of the tanks. The point we went aground was around 1 km north of the charted position of the Madagascar Reef – no indication of an obstruction on the chart. Echo sounder record came up vertically in two ship lengths. It was dark and rather calm at the time, so there was no visual indication of shallow water.

Tuesday 15<sup>th</sup> February

*At anchor – hull inspection.* We started day quietly at anchor, feeling tired and stunned. It is a beautiful day, perfect for shooting. Upped anchor and moved eastwards to meet diving team then anchored again. Diving team arrived mid-afternoon – Gabriella de Portillo and three cave-diving friends. Divers came aboard for a briefing then suited up and dived off the Fever with video and still cameras. Films showed some damage to transducers and housings, plus a lot of scraping, but no obvious hole (there was a brief panic – we called out ‘did you see the hole?’ and they heard ‘did you see the hull?’ and answered an emphatic yes). Breach of the hull is now thought to be a false alarm, and we are all much reassured. Gabriella de Portillo is expecting questions from media and from PROFEPA upon return to shore. Apparently some anxiety exists ashore that we may have hit the wreck, but we are well clear of that. Gabriella de Portillo suggests key points are that we ran into something not marked on the chart, that there were no spillages, and that there are no coral reefs in the area. PROFEPA is planning to inspect the reef with divers. Gabriella de Portillo has ‘before’ pictures as the rocky reef is her Master’s thesis study area. We receive friendly email from the Senator.

Wednesday 16<sup>th</sup> February

*At anchor – hull inspection* Another quiet morning; moved to the anchorage just outside Progreso. More perfect weather. Certified divers and ABS surveyor arrived in afternoon for the official survey of the hull. Discussed options with Mike Rawson and we believe that everything is in place to resume work once the hull has been given clearance, which happened at around 1700. Resumed watches at 1800 and deployed the streamer between 1930 and 2200, ready to resume profiling tomorrow.

Thursday 17<sup>th</sup> February

*Profiling grid.* We are shooting line 3, E-W. We were allowed by MMOs to begin 7 minutes earlier, due to lengthening days. Going well until about 1100, when there was a succession of shutdowns for dolphins (twice), a turtle and a diver. We continued until shut down for weather at 1630, at the end of the line. We again received a

friendly email from the Senator and almost simultaneously a copy of a statement from her website calling for our project to be stopped on the grounds of damaging a coral reef. At 1915 received an email from Jaime Urrutia to say that we may be getting a legal notice to stop work because we damaged the reef. Captain spoke to Paul Ljunggren and we found out that papers may have been served on Mike Rawson. After a brief council of war decided to bring in all the equipment – first streamer and guns, and then the OBS, before the ship is ordered into port. We began OBS recovery at 0200.

Friday 18<sup>th</sup> February

*OBS recovery – boarding by PROFEPA lawyer.* The OBS recovery is continuing well, although one instrument has vanished from its moorings in the same general vicinity as the errant instruments from the first deployment. Adverse articles in satellite news and New York Times. We received news that PROFEPA are on their way to serve some papers. Navy interceptor arrived at around 1500 with PROFEPA lawyer, 3 scribes and the Lieutenant from the Navy base. The lawyer said process would take 20 minutes. We had to nominate two interpreters/translators (Matt McDonald, UT student, and Diana Antochiw) but they were not allowed to see the documents. The lawyer explained in English that there were two documents and that one was a complaint that we had damaged the reef and ecosystem. (I think the other was a complaint from Rosario Sosa (local environmentalist) that we had killed two fish). We have 5 working days to prepare a defence, and must return immediately to port. Something about another 10 day process after this, until UNAM pay a fine. He said once we were in port we could put in a request to Sergio Chan, PROFEPA Director in Yucatan, to go back out to sea to collect the remaining OBS. We argued that we would prefer to request to pick up the remaining instruments now, as we were concerned that once in port it might be difficult to leave. Also we needed the time in port to prepare the case. Chan was telephoned and agreed verbally that we may stay out to collect OBS, and that we would send a written request to shore with the visitors. They wanted us to sign papers to say the complaint had been received, but Lamont advise against signing anything without legal advice. PROFEPA lawyer would not allow us to see the documents or to fax them to a lawyer. Captain agreed to sign if a note was added to state that he did not understand what he was signing and did so under protest, but they refused to add this, and ‘posted’ the documents on the wall. We all got very angry and upset. They stormed off at 1800 taking with them our formal request to Chan plus a letter from the Captain stating his protest. We spent time earlier talking to the navy Lieutenant about the reef - they have already inspected it and found damage approximately 1.5 x 3m, with some soft corals knocked over. He was extremely interested to see the charts and our track chart, and will return to the area in the next couple of days to check whether there is anything at the charted reef position. We carried on with OBS recovery through the evening.

Saturday 19<sup>th</sup> February

*OBS recovery.* All OBS recovered by around 0730, apart from one lost LC from this deployment and the DOBS still missing from the first deployment. We proceeded back to the site of the LC instrument and did a prolonged detailed survey in a square spiral. We later heard that Jo Morgan had managed to arrange a diver on the site, who had done a detailed search and found nothing. Jo Morgan went to see an OBS which has turned up in Celestun and has found that it is the missing LC, rather than the

DOBS from the first deployment. We continued to site 10F, where the DOBS went missing for a further detailed survey of the only remaining place that could conceivably contain an instrument. Apparently our lawyer is quietly confident and that we should go into port tomorrow and expect to be able to leave on Monday.

Sunday 20<sup>th</sup> February

*To Progreso.* It was a quiet morning steaming towards Progreso. Pilot taken on at 1300, then tied up at quay, to be met by Rafael Murillo, our lawyer, for a series of long briefings with Captain, Rafael Murillo, Sean Gulick, Penny Barton, Mike Rawson, Ted Koczynski, the Chief Mate, and Mario Rebodello, who had turned up as if by magic. Rafael Murillo is fairly optimistic, but expects the process to take until Tuesday or Wednesday even if nothing goes wrong. Papers will have to be filed with Port Captain and the District Attorney, and the demands of PROFEPA have to be met. We finally got into town for a large dinner jointly with the land party, Mexican observers and Mario at Flamingoes – and extremely friendly and high-spirited occasion.

Monday 21<sup>st</sup> February

*In port Progreso.* Tidying up lab. The errant LC (#8) was returned to the ship – its release was intact and the screw link had disappeared. Press prowling around. Diana returned to the ship – she had a dead chicken tied to her door last night. In the evening another wild ‘last night in port’ occurred.

Tuesday 22<sup>nd</sup> February

*In port Progreso* There is a lot of legal business to be done. Captain went to District Attorney’s office, then there was a panic because the third mate and Stanislav the AB on duty during the night of the collision were also needed as witnesses on the Bridge at the time, and they had to be found in Progreso. Sean Gulick, the Captain and Mike Rawson then continued on to the US Consulate in Merida to hand power of attorney to Rafael Murillo, in case needed after the ship’s departure. They then went to the PROFEPA offices and things seemed to be going well until Rafael Murillo was called out by the PROFEPA lawyer to be told that they were going to demand the maximum fine of \$200k plus an admission of guilt for damaging the reef, or the ship will have to stay in Progreso while the case is fought. Although sailing board had been set for 1600, we were still waiting for news at 1900. Board reset for 2000 tomorrow. Another enthusiastic ‘last night in port’ occurred.

Wednesday 23<sup>rd</sup> February

*In port Progreso.* Held a lab meeting of scientists at 1000, and decided to go ahead with backing up data, packing everything away and getting ready to decamp. Rafael Murillo is at PROFEPA, negotiating. In afternoon had a visit from Luis Capurro from CINVESTAV, with a couple of students. He was wonderfully enthusiastic and positive – had worked with Maurice Ewing, Maurice Hill etc etc, now in his nineties. He has been appearing on TV pushing the project, and being a great ambassador. At 1815 Mike Rawson brought a list on board of what PROFEPA wanted to spend the \$200k on – most of the items seemed extremely inflated by a factor of 5-15.

Thursday 24<sup>th</sup> February

*In port Progreso.* Have booked flights for Tim Sears (Cambridge Univ. student) and Tamara Goldin (Univ. of Arizona student) tomorrow and the rest of us on Saturday.

Murillo is still negotiating with PROFEPA – an admission of guilt being the sticking point. We spent day packing the lab and organising everything. The OBS equipment is now more or less packed and the on-board container filled. Another wild ‘last night in port’ occurred.

Friday 25<sup>th</sup> February

*In port Progreso*. Tim Sears and Tamara Goldin left the ship at 0500. We are officially finished packing. We heard from Mario Rebolledo that he may have to give evidence to District Attorney with Chan and the Senator. Tried to meet up for a meal in the evening but the arrangements did not work well and the food was indifferent – everyone looked downbeat and tired; a sedate true last night in port for the science party.

Saturday 26<sup>th</sup> February

*In port Progreso*. Rest of the science party left the ship at 0500 to catch the Merida-Houston flight.

Sunday 27<sup>th</sup> February - Tuesday 1<sup>st</sup> March

*In port Progreso*. Ship sailed from Progreso for Jacksonville at 0730 on 1/3/05.

## **Miscellaneous points**

### **Complaints about the engines being shaken apart**

In addition to the problem of operating at the limit of engine power capacity for two engines, and having insufficient fuel to use three, there were also frequent concerns expressed by the Chief Engineer about the wear and tear to parts of the ship's propulsion, steering etc by the airguns. We were operating in extremely shallow water (15-30m) with a generally hard seabed and a strong groundroll, which may have contributed to the perception that the ship was experiencing more reverberation than on a 'normal' seismic cruise.

### **Our policy to be starting a line at 0710 each morning, then steam along it hoping to shoot.**

Our permit allowed us to collect seismic data between 0630 and 1800 each day. To maximise the use of this time, the programme was redesigned with long sections of profile that could be collected continuously within these hours, and periods of ship repositioning without shooting, which took place at night. Shooting with the full seismic array entailed a period of 30 minutes of visual observation by the MMOs, which could not begin until first light at 0615, followed by a 25 minute ramp-up of the gun array, so that the first real full strength shot could not occur until 0710. In addition, the array did not reach full fold until the centre of it passed over the start of line, so that for lines where full fold was needed from the ends of the line, the start point at 0710 was moved 3 km before the official start-of-line point. It was frequently not possible to actually start shooting at 0710, due to weather, animal sightings or fishing activity, and our general policy in this case was to continue steaming along the line and to begin shooting as soon as possible – having learnt at an early stage that circling took up too many precious shooting hours and was only worthwhile in exceptional cases, such as when we were crossing the proposed ODP sites.

### **17 knot protocol**

Explained in the general text.

### **Currents and their variability**

The currents were very much stronger than marked on the chart, both at the surface and in particular on the seabed, predominantly from the northeast.

### **need list of dramatis personae**

Cruise members appear in Anthony's report. Should we list others involved?



Line Name	MCS profiling with streamer - number of shots		Shooting into seabed instruments only - number of shots		TOTAL number of shots	MCS profiling with streamer - line length in km		Shooting into seabed instruments only - line length in km		TOTAL line length in km
	partial gun array	full gun array	partial gun array	full gun array		partial gun array	full gun array	partial gun array	full gun array	
Chicx 2	412	1148	373	-	1933	20.55	57.35	18.60	-	96.50
Chicx 2 - overlap	70	-	124	-	194	3.45	-	6.15	-	9.60
Chicx 4	234	564	-	-	798	11.65	28.15	-	-	39.80
Chicx 6	66	903	-	83	1052	3.25	45.10	-	4.10	52.45
Chicx 8	263	1400	-	-	1663	13.10	69.95	-	-	83.05
Chicx 10	-	1232	17	165	1414	-	61.55	0.80	8.20	70.55
Chicx 10 - overlap	75	-	-	-	75	3.70	-	-	-	3.70
Chicx 12	-	-	291	1037	1328	-	-	14.50	51.80	66.30
Chicx 14	-	-	261	559	820	-	-	13.00	27.90	40.90
R1	107	1581	-	-	1688	5.30	79.00	-	-	84.30
R3	60	2009	-	-	2069	2.95	100.40	-	-	103.35
R4	56	300	116	-	472	2.75	14.95	5.75	-	23.45
R5	-	489	-	-	489	-	24.40	-	-	24.40
R6	221	3688	-	-	3909	11.00	184.35	-	-	195.35
R6 - overlap	82	10	-	-	92	4.05	0.45	-	-	4.50
R7	202	917	126	-	1245	10.05	45.80	6.25	-	62.10
OBS 101	-	-	124	-	124	-	-	6.15	-	6.15
OBS 102	-	-	230	-	230	-	-	11.45	-	11.45
OBS 103	-	-	119	-	119	-	-	5.90	-	5.90
OBS 104	-	-	36	69	105	-	-	1.75	3.40	5.15
OBS 105	-	-	26	-	26	-	-	1.25	-	1.25
OBS 106	-	-	105	-	105	-	-	5.20	-	5.20
Chicx 1	78	1645			1723	3.85	82.20			86.05
Chicx 3	594	1154			1748	29.65	57.65			87.30
Chicx 4b	-	409			409	-	20.40			20.40
Chicx 5	96	1086			1182	4.75	54.25			59.00
Chicx 6b		650	44	43	737		32.45	2.15	2.10	36.70
Chicx 9	84	1761			1845	4.15	88.00			92.15
Chicx 11	78	235			313	3.85	11.70			15.55
Chicx 13		447	49	25	521		22.30	2.40	1.20	25.90
Chicx 15	5	713	177		895	0.20	35.60	8.80		44.60
Chicx 16	62	498			560	3.05	24.85			27.90
Chicx 17	127	562	76		765	6.30	28.05	3.75		38.10
Chicx 17 - overlap	98				98	4.85				4.85
Chicx 18	96	277			373	4.75	13.80			18.55
Chicx 19		166	27	33	226		8.25	1.30	1.60	11.15
Chicx 20		407	44	48	499		20.30	2.15	2.35	24.80
Chicx 21	10	558	71		639	0.45	27.85	3.50		31.80

Chicx 22		520	81	36	637		25.95	4.00	1.75	31.70
Chicx 23		508	41	131	680		25.35	2.00	6.50	33.85
Chicx 24	111	597	49		757	5.50	29.80	2.40		37.70
Chicx 25	85	367	25		477	4.20	18.30	1.20		23.70
OBS 201			146		146			7.25		7.25
OBS 202			177		177			8.80		8.80
OBS 203			100		100			4.95		4.95
OBS 204			190		190			9.45		9.45
OBS 205			85		85			4.20		4.20
OBS 206			190		190			9.45		9.45
OBS 207			230		230			11.45		11.45
OBS 208			130		130			6.45		6.45
OBS 209	21	6	141		168	1.00	0.25	7.00		8.25
OBS 210			110		110			5.45		5.45
SUMMARY	MCS profiling with streamer - number of shots		Shooting into seabed instruments only - number of shots		TOTAL number of shots	MCS profiling with streamer - line length in km		Shooting into seabed instruments only - line length in km		TOTAL line length in km
	partial gun array	full gun array	partial gun array	full gun array		partial gun array	full gun array	partial gun array	full gun array	
TOTALS	3393	26807	4131	2229	36560	168.35	1338.75	204.85	110.90	1822.85

Julian day	Line Name	start time	LAT	LONG	shot number	FFID	Shot interval	Number of guns	Comments
20	Chicx 2	22:37:31	21.753	-89.420	1603	1	20 sec	1	ramp up started
		23:10:57	21.814	-889.377	1673	70		20	69 ramp up complete
		23:59:54	21.780	-89.295	1810	208		20	138 end of line chicx 2
21		12:46:19	21.726	-89.315	1	1	10 sec		1st 12 shots are cycle tests
	Chicx 4a	12:54:15	21.72434	-89.3255	147	13	20 sec	1	12 ramp up started
		13:11:12	21.719	-89.348	198	63		20	50 ramp up complete
		14:09:25 pm	21.702	-89.433	376	242		0	179 shutdown - weather
	Chicx 4b	14:58:11	21.687	-89.503	530	243		1	1 ramp up started
		15:24:26	21.679	-89.540	603	316		20	73 ramp up complete
		15:49:34	21.671	-89.577	680	394		0	78 shutdown - fishing vessel
	Chicx 4c	18:01:46	21.634	-89.756	1067	397		1	3 ramp up started
		18:27:28	21.626	-89.793	1138	472		20	75 ramp up complete
		20:04:46	21.596	-89.936	1444	778		0	306 shutdown - weather
22	Chicx 6	18:11:01	21.588	-89.750	1036	1		0	ramp up started
		18:34:58	21.594	-89.719	1103	68		20	67 ramp up complete
		23:01:59	21.673	-89.341	1908	873		0	805 shutdown - weather
23	Chicx 8	12:45:59	21.626	-89.364	124		20 sec	1	ramp up started
		13:10:40	21.618	-89.399	198	75		20	75 ramp up complete
		16:30:02	21.556	-89.688	814	691			616 shut down - fishermen
		16:41:44	21.553	-89.705	850	692		1	1 ramp up started
		17:06:57	21.545	-89.742	927	769		20	77 ramp up complete
		18:16:18	21.523	-89.843	1149	991			222 shut down - turtle
		18:40:13	21.516	-89.877	1215	999		1	8 ramp up started
		19:05:59	21.508	-89.914	1295	1079		20	80 ramp up complete
		22:07:57	21.451	-90.180	1857 - 1870	1641	1641-1655	17	562 3 guns pulled in in preparation for turn onto line chix6
		22:15:18	21.449	-90.190	1880	1664		17	23 end of line chicx8 (starting an OBS line for the turn to line chix 6)

	<b>OBS</b>	22:15:18	21.449	-90.190	-	-	50 m	17		starting OBS line with 3 guns off
		23:07:05	21.496	-90.186	-	-		20		all guns back on
		23:25:07	21.501	-90.161	-	-		20		end of OBS line - about to start chicx6
	<b>Chicx 6A</b>	23:27:14	21.502	-90.158	169	1	20 sec	20	1	start of line with all 20 guns firing
		0:00:02	21.511	-90.112	266	98		20	97	end of line 6A
<b>24</b>	<b>Chicx 10</b>	14:26:15	21.436	-90.024	416	1	20 sec	1		ramp up started (late due to bad weather)
		14:41:45	21.440	-90.006	453	38		4 to 1	37	power down to 1 gun (from 4 guns) - dolphin
		14:58:25	21.444	-89.987	490	75		1	37	shut down of 1 gun - turtle sighting
	<b>OBS</b>	15:26:31	21.469	-89.979	-	-	50 m	1		ramp up started
		17:34:04	21.428	-90.063	-	-		20		ramp up complete
	<b>Chicx 10</b>	17:56:08	21.434	-90.036	189	76	20 sec	20	76	start of line 10 with all 20 guns on
		23:59:51	21.529	-89.567	1185	1072		20	996	end of line 10
<b>25</b>	<b>Chicx R1</b>	13:07:18	22.133	-88.608	-20	1	20 sec	1		ramp up started
		13:32:27	22.109	-88.635	56	77		20	76	ramp up complete
		22:04:02	21.612	-89.183	1636	1654		20 to 18	1577	2 guns turned off in preparation for end of line turn
		22:13:43	21.602	-89.194	1666	1684		18	30	end of line R1
	<b>OBS</b>	22:13:43	21.602	-89.194			50 m	18	0	turning towards line R2
		22:19:49	21.598	-89.202				20	0	all guns back in the water
		22:43:18	21.592	-89.236				20	0	end of OBS line (turn completed)
									0	
	<b>Chicx R2</b>	22:43:18	21.592	-89.236	141	1	20 sec	20	1	start of line with all 20 guns
		0:00:04	21.570	-89.347	376	236		20	235	end of line R2
<b>26</b>	<b>OBS</b>	12:48:05	21.773	-89.327			50 m	1	0	ramp up started
		13:33:09	21.762	-89.381				16 to 1	0	shut down (from 16 guns) due to fishermen
		13:47:11	21.758	-89.397				1	0	ramp up started
		14:12:10	21.750	-89.425				16	0	reached 16 guns - then remained at 16 while streamer was being fixed
		14:57:48							0	~4 manual shots as Spectra stopped firing when switching to line Chicx2
									0	
	<b>Chicx 2a</b>	15:03:52	21.738	-89.483	263	1	20 sec	16		start of chicx 2 at 16 guns

		16:02:23	21.722	-89.551	391	129		16	128	streamer power off for repairs, still shooting as chix2 (not an OBS line)
		16:08:00	21.721	-89.557	421	130		16	1	streamer started recording again (towed off the clamp)
		16:56:48	21.709	-89.615	543	252		16	122	streamer powered down and line Chicx 2a ended
	<b>OBS</b>	16:56:48	21.709	-89.615			50 m	16	0	very short OBS line started (other 4 guns added during it)
		17:26:24	21.703	-89.651				20	0	end of OBS line once other 4 guns added
	<b>Chicx 2b</b>	17:26:24	21.703	-89.651	618	1	20 sec	20		start of Chicx 2b once all 20 guns were firing
		21:01:09	21.636	-89.960	1278	661		0	660	shutdown due to fishing boats
		21:13:52	21.629	-89.981	1317 (-2?)	662		1	1	ramp up started (2 shots were not recorded on the streamer)
		21:26:37	21.623	-89.996	1354	699	8 blank shots?	0	37	shutdown (from 4 guns) due to fishing boats
		21:38:41	21.615	-90.012	1390?	708		1	9	ramp up started
		22:04:58	21.605	-90.049	1471	789		20	81	ramp up complete
		~23:20??	21.590	-90.171	1708	1026		0	237	shooting stopped for a few minutes as there was no run out on the line
					1718	1027		20	1	shooting restarted
		0:00:05	21.583	-90.220	1827	1136		20	109	end of line chicx2b
<b>27</b>	<b>Chicx R3</b>	12:45:29	21.420	-89.864	-194	1				ramp up started
		13:08:01	21.425	-89.893	-135	60			59	ramp up complete
		0:00:02	21.848	-90.751	1874	2096			2036	end of line chicx R3
<b>28</b>	<b>OBS</b>	15:20:24	21.435	-90.727				1	0	ramp up started - 50 min long due to dolphin sighting
		15:49:18	21.396	-90.718				4	0	starting line R4
	<b>Chicx R4</b>	15:49:18	21.396	-90.718	76	4		4	4	starting line R4
		16:10:55	21.366	-90.711	143	68		20	64	ramp up complete by shot no 130
		17:43:32	21.239	-90.685	?	?		0		end of line chicxR4
		OBS line??							0	
	<b>Chicx R5</b>	18:00:04	21.226	-90.668	225	1		20	1	starting line R5
		20:48:01	21.309	-90.449	713	489		0	488	shut down - weather
<b>29</b>	<b>Chicx R6a (CRP LINE)</b>	12:45:53	21.540	-90.328	467	1		0	1	ramp up started
		13:11:32	21.574	-90.315	546	80		20	79	ramp up complete
		0:00:03	22.073	-89.611	2477	2000		0	1920	end of line chicxR6
<b>30</b>	<b>Chicx R6b (CRP LINE)</b>	12:46:24	22.069	-89.653	2389	4		0		ramp up started
		13:12:00	22.073	-89.616	2466	81		20	77	ramp up complete
		18:49:05	21.985	-89.160	3442	1057		1	976	power down - turtle sighting
		19:50:59	21.968	-89.126	3522	1137		2	80	starting ramp up again from 1 gun



		19:26:24	21.953	-89.101	3553	1197	20	60	ramp up complete
		23:59:56	21.693	-88.837	4385	2000	0	803	end of line chicx R6b
31	OBS	12:45:37	22.128	-89.559			0	0	ramp up started - doing an OBS line till we have turned onto the line
		13:26:48	22.086	-89.585			20	0	ramp up complete
		13:27:47	22.084	-89.585			20	0	end of OBS line / start of Chicx R7
	Chicx R7							0	
		13:27:47	22.084	-89.585	235	2	20	2	start of Chicx R7 - possible one blank shot on the tape
		17:35:18	21.740	-89.578	999	766	0	764	shutdown - fishing vessels. Last shot prob empty
		17:52:21	21.717	-89.577	1050	767	0	1	ramp up started
		18:17:33	21.681	-89.576	1129	846	20	79	ramp up complete
		18:30:54	21.663	-89.576	1169	886	0	40	shutdown - fishing vessels.
		one gun firing??						-886	
		18:48:11	21.640	-98.572	1220	903	1?	903	ramp up started - perhaps from 1 gun
		19:07:25	21.613	-89.575	1281	964	20	61	ramp up complete
		19:45:28	21.561	-89.574	1392	1075	1	111	power down to 1 gun - turtle sighting. After shot 1392 a few guns were on for a few shots then down to 1 gun
		19:58:50	21.542	-89.572	1436	1119	0	44	shutdown - weather
								###	
32	OBS (Chicx 12&14b)	12:50:27	21.500	-89.599			0	0	ramp up started but 1st 20 min not recorded as manual firing
		13:42:25	21.489	-89.569			20	0	ramp up complete
		15:21:23	21.519	-89.426			1	0	powerdown - dolphin
		15:25:36	21.521	-89.420			0	0	shutdown - fishing vessels
		15:43:09	21.528	-89.396			0	0	ramp up started
		16:30:09	21.540	-89.328			20	0	ramp up complete
		20:34:48	21.440	-89.548			0	0	shutdown - weather
33	OBS Chicx 12&14a)	13:36:30	21.436	-89.732			0	0	ramp up started
		13:44:25	21.446	-89.733			2	0	shut down (from 2 guns) - small boat
		13:58:34	21.451	-89.749			0	0	ramp up started
		14:17:47	21.447	-89.774			8	0	shutdown (from 8 guns) - fishing vessel
		14:22:05	21.446	-89.780			8	0	ramp up continued from 8 guns
		14:31:52	21.444	-89.793			20	0	ramp up complete
		14:35:49	21.443	-89.798			0	0	shutdown - fishing vessels
		14:39:23	21.443	-89.803			20	0	recommence shooting - no ramp up needed
		16:49:23	21.402	-89.987			19	0	gun 10 turned off for repairs
		16:54:16	21.400	-89.994			20	0	gun 10 back on
		18:22:33	21.349	-90.091			18	0	pulled out 2 guns to start the turn onto line 14a
		18:53:18	21.341	-90.056			0	0	shutdown - turtle sighting
		19:53:54	21.367	-89.968			0	0	ramp up started
		20:10:53	21.367	-89.945			8	0	shutdown from 8 guns
		20:41:01	21.377	-89.904			0	0	ramp up started

		21:07:59	21.381	-89.865			20	0	ramp up complete
		21:30:14	21.388	-89.833			0	0	shutdown - turtle sighting
								0	
36	Chicx 25	14:00:05	21.700	-89.919	43	6	0	6	ramp up started
		14:27:02	21.703	-89.958	117	80	20	74	ramp up complete
		16:29:08	21.717	-90.134	484	447	20	367	end of line - starting OBS line
								-447	
36	OBS	16:29:08	21.717	-90.134			20	0	
		16:56:21	21.688	-90.152			19	0	gun 11 turned off
		16:59:54	21.683	-90.151			20	0	gun 11 turned on
		17:17:18	21.659	-90.147			20	0	end of OBS line
								0	
36	Chicx 15	17:17:18	21.659	-90.147	177	4	20	4	
		21:10:19	21.342	-90.080	888	715	17	711	3 guns pulled in for turn at end of line
		21:12:21	21.340	-90.080	893	720	17	5	end of line
								-720	
36	OBS OBS60	21:12:21	21.340	-90.080			17	0	
		21:32:31	21.323	-90.059		60 sec	17	0	switched to shot rate of 60 sec - shotfile OBS60
		21:36:10	21.325	-90.054			17	0	shut down - weather
								0	
37	Chicx 16	13:28:25	21.412	-90.019	237		0	0	ramp up started - missed 1st 18 shot timings - 1st recorded=237
		13:48:49	21.439	-90.024	299		20	0	ramp up complete
		16:36:59	21.659	-90.070	796		20	0	end of line. Brought in 3 guns for a turn at end of line
								0	
37	OBS	16:36:59	21.659	-90.070	202		17	0	OBS line on the turn
		17:27:38	21.718	-90.036	347		17-20?	0	shutdown - weather
								0	
38	Chicx 17	19:16:25	21.596	-89.139	390	4	0	4	ramp up started
		19:41:57	21.561	-89.974	463	77	20	73	ramp up complete
		20:52:07	21.466	-89.954	680	294		217	shutdown - weather
								-294	
38	Chicx 17a	13:51:05	21.496	-89.961	611	2		2	ramp up started
		14:25:47	21.455	-89.952	708		17 to 0	-2	shutdown - weather
								0	
38	Chicx 18	16:16:14	21.491	-89.883	347	4	0	4	ramp up started
		16:41:58	21.520	-89.890	412	65	20	61	ramp up complete
		18:15:26	21.642	-89.914	689	342	17	277	guns 11,12&13 turned off for turn
		18:24:45	21.655	-89.917	715	368	17	26	end of line
								-368	
38	OBS	18:24:45	21.655	-89.917	202		17	0	
		13:30:04	21.629	-89.989			20	0	finished turning - assume all guns back in.
		19:53:21	21.598	-89.982			20	0	end of OBS line / start of Chicx 17b
								0	
38	Chicx 17b	19:53:21	21.598	-89.982	381	4	20	4	

		21:44:27	21.446	-89.950	722	345	20 to 17	341	3 guns in preperation for a turn
		21:58:48	21.427	-89.946	767	390		45	shut down - weather
								-390	
39	OBS	12:47:38	21.794	-89.718	201		0	0	ramp up started
		13:10:10	21.764	-89.711			16	0	end of OBS line
								0	
39	Chicx 21	13:10:10	21.764	-89.711	145	1	16	1	Start of Chicx 21
		13:12:57	21.760	-89.710	154	10	20	9	end of ramp up
		16:14:13	21.512	-89.658	712	568	20	558	end of Chicx 21
								-568	
39	OBS	16:16:47	21.509	-89.657	201		17	0	3 guns brought in for turn
		16:44:54	21.500	-89.621			0	0	shut down - fishing boats
		17:03:40	21.503	-89.594			0	0	ramp up started
		17:30:21	21.536	-89.587			20	0	ramp up complete
		17:43:52	21.555	-89.591			20	0	end of line - start of Chicx 22
								0	
39	Chicx 22	17:43:52	21.555	-89.591	269	1	20	1	
		20:35:05	21.785	-89.640	788	520	20	519	end of Chicx 22 and start OBS line
								-520	
39	OBS	20:35:05	21.785	-89.640			20	0	start of OBS line
		20:40:41	21.793	-89.640			17	0	3 guns turned off for turn
		21:53:02	21.786	-89.564			20	0	all guns back on
		22:08:02	21.766	-89.559				0	
								0	
	Chicx 23	22:08:02	21.766	-89.559	209	1	20	1	start of Chicx 23
		23:15:00	21.675	-89.540	413	205	0	204	shut down - weather
								-205	
40	Chicx 24	12:47:42	21.844	-89.463	84	9	0	9	ramp up started
		13:15:01	21.807	-89.455	165	90	20	81	ramp up complete
		16:30:58	21.544	-89.400	762		1	-90	power down - dolphin
		16:37:53	21.534	-89.398	783	708	1	708	end of line Chicx 24 / start of OBS line
								-708	
40	OBS	16:37:53	21.534	-89.398	201		1	0	start of OBS line - start ramping up soon
		18:40:52	21.521	-89.508			20	0	ramp up complete and ending line
								0	
	Chicx 23a	18:40:52	21.521	-89.508	160	1	20	1	
		18:59:04	21.545	-89.513	216	51	0	50	shut down - fishing vessel
		19:06:30	21.555	-89.515	239	58	20	7	all guns restarted
		19:57:23	21.623	-89.534	390	213	0	155	shut down - fishing vessel
		20:07:57	21.637	-89.538	420	214	20	1	all guns restarted
		20:36:57	21.676	-89.543	506	300	17	86	3 guns turned off for turn
		20:43:04	21.684	-89.543	527	321	17	21	end of Chicx 23
								-321	
40	OBS	20:44:44	21.684	-89.543			17	0	start of OBS line
		20:49:59	21.692	-89.548			0	0	shut down - fishing boats

		21:05:12	21.692	-89.570			1	0	ramp up started
		21:30:14	21.673	-89.600			20	0	ramp up complete
		21:47:57	21.662	-89.622			20	0	end of OBS line / start of Chicx 4d
								0	
40	Chicx 4d (2nd pass)	21:47:57	21.662	-89.622	776		20	0	start of Chicx 4d
		0:00:00	21.622	-89.814	1184	408	0	408	end of Chicx 4d
								-408	
41	Chicx 5	12:45:43	21.520	-90.195	107	1	0	1	ramp up started
		13:11:07	21.528	-90.158	184	512	20	511	ramp up complete
		19:17:43	21.635	-89.648	1270	1164	17	652	3 guns off to turn onto line Chicx 6
		19:25:08	21.637	-89.637	1288	1182	17	18	end of Chix 4
								###	
41	OBS	19:25:08	21.637	-89.637			17	0	
		20:16:32	21.603	-89.656	354		20	0	all guns back on - turn finished
		20:30:37	21.603	-89.676				0	end of OBS line
								0	
41	Chicx 6b	20:30:37	21.603	-89.676	920	535	20	535	start of Chicx 6b
		0:00:00	21.538	-89.983	1567	649	20	114	end of line Chicx 6b
								-649	
42	OBS	16:20:28	21.497	-89.770	205		0	0	ramp up started
		17:01:38	21.513	-89.813			20	0	ramp up complete
		17:12:44	21.533	-89.815	360		20	0	end of OBS line
								0	
42	Chicx 19	17:12:44	21.533	-89.815	319	1	20	1	
		18:13:57	21.606	-89.831	483	165	0	164	shutdown - weather
								-165	
42	OBS	20:13:27	21.751	-89.857	208		0	0	ramp up started
		21:29:04	21.737	-89.782	434		20	0	ramp up complete
								0	
42	Chicx 20	21:71567	21.716	-89.777	219	1	20	1	
		0:00:04	21.536	-89.740	625	407	20	406	end of line Chicx 19
								-407	
43	Chicx 1	12:46:24	21.797	-89.321	115	1	0	1	ramp up started
		13:11:44	21.789	-89.357	192	78	20	77	ramp up complete
		22:01:02	21.627	-90.130	1837	1723	20	1645	shutdown - weather
								###	
44	Chicx 11b	15:42:18	21.546	-89.409	620		0	0	ramp up started but streamer did not record the first few shots
		15:55:30	21.550	-89.391	656	2	4	2	streamer started recording
		16:07:58	21.553	-89.375	690	35	20	33	ramp up complete
		17:28:42	21.576	-89.264	925	270	20	235	end of line 11b
								-270	
44	OBS	17:28:42	21.576	-89.264	201		17	0	
		18:28:00					20	0	all guns back on after turn
		18:38:00					20	0	end of OBS line

							0		
44	Chicx 13b	18:38:00			297	1	20	1	start of Chicx 13b after turn is over
		21:02:12	21.485	-89.495	742	446	0	445	shutdown - weather
45	Chicx 9	14:02:41	21.600	-89.373	355	1	0	-445	ramp up started
		14:28:11	21.593	-89.410	432	84	20	83	ramp up complete
		23:59:43	21.418	-90.239	2194	1846	20	1762	end of line
								###	
48	Chicx 3	12:43:03	21.756	-89.296	181	1	0	1	ramp up started
		13:08:13	21.748	-89.332	259	79	20	78	ramp up complete
		16:12:00			837		0	-79	shutdown - dolphin
	Chicx 3a	16:27:15	21.697	-89.622	873	1	0	1	ramp up started
		16:52:21	21.680	-89.659	951	79	20	78	ramp up complete
		17:40:31	21.665	-89.729	1103		1	-79	powerdown - dolphin
		19:24:49	21.633	-89.881	1423	551	20	551	ramp up complete
		19:28:05	21.632	-89.886	1434	562	0	11	shutdown - human divers
	Chicx 3b	19:56:14	21.623	89.929	1525	563	0	1	ramp up started
		20:22:03	21.615	-89.965	1602	639	20	76	ramp up complete
		22:36:40	21.574	-90.160	2015	1052	17	413	guns in for turn
		22:47:21	21.571	-90.175	2053	1090	0	38	shutdown - weather



Lamont– Doherty Earth Observatory  
Office of Marine Affairs  
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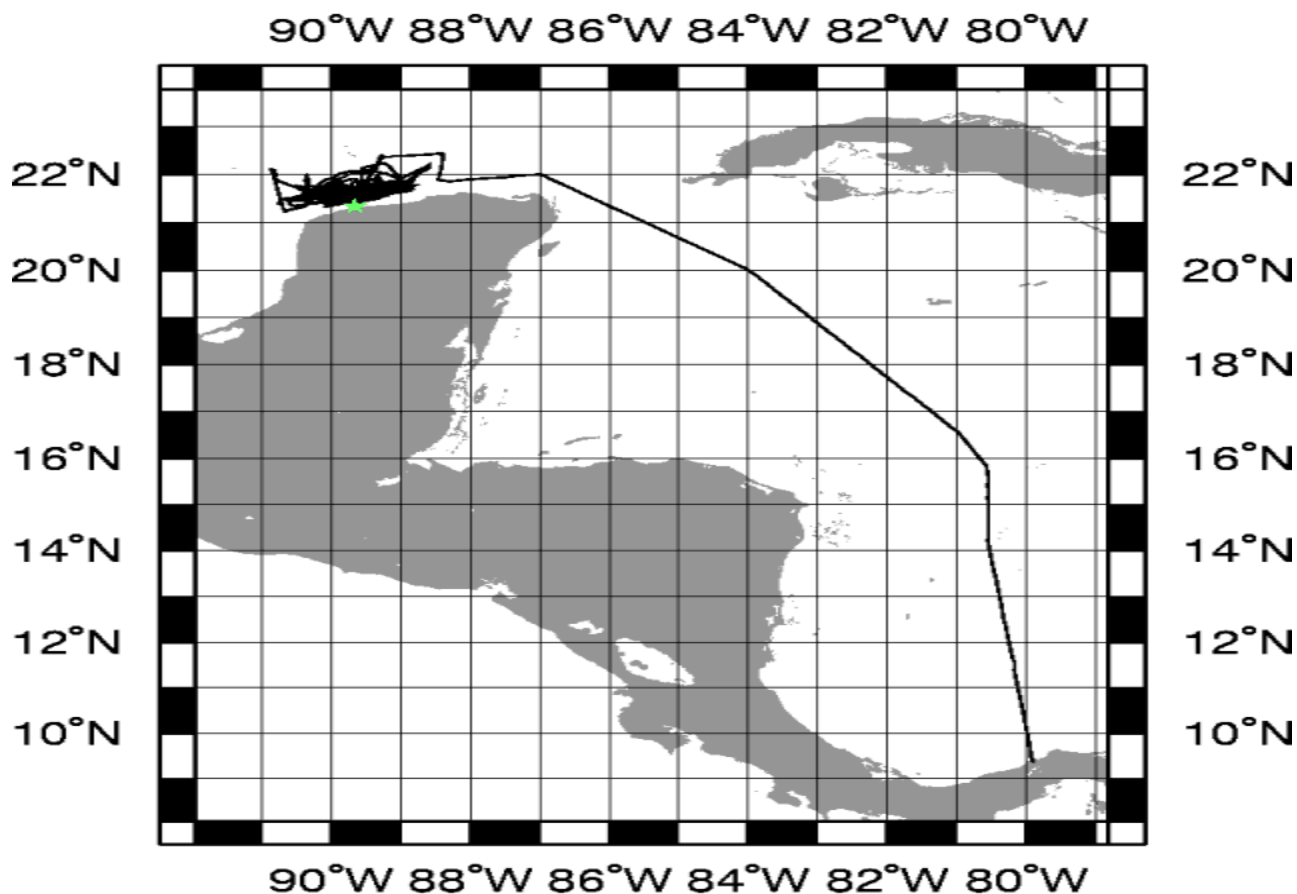
Prepared By: Anthony Johnson  
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## R/V Maurice Ewing Data Reduction Summary

EW0501 Colon, Panama -- Progreso, Mexico

Date	Julian Date	Time	Port
January 7, 2005	7	14:05:00	Colon, Panama
February	357	22:13:30	Progreso, Mexico



**GMT**

2005 Feb 23 00:54:31

TO DATE

# Project Summary

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## *DESCRIPTION*

### **Background and Scientific Objectives**

The cruise objective was to deploy OBSes and the MCS streamer to image the Chicxulub impact crater.

On JD 046, at 0206 UTC, the ship's main sonar pod impacted the ground at 21 24.670 N 90 20.477 W. Operations were halted for hull inspections. Operations were resumed on JD 048 at 0630 UTC, only to be halted again on 050 at 0730.

The only instruments affected by the impact were the hydrosweep and the Bathy2000. See the relevant section for details on data interruptions.

Note:

The cruise was summarily halted during an unexpected port stay in Progreso, Mexico. Consequently, this report is incomplete. Please contact OMO at Lamont–Doherty for an up-to date report.

# Cruise Members

## Science Party

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Diana Antochiw	Mexican Observer	
Ruben Romero Rojas	Mexican Observer	
Manuel Reyes	Mexican Observer	
Gabriella Portilla	Mexican Observer	
Ernesto Vasquez	Mexican Observer	
Gabriel Gonzalez	Mexican Observer	
Elizabeth Reyes	Mexican Observer	
Juan Carlos Salinas	Mexican Observer	

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## Ship's Science

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## Ship Crew

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# Cruise Notes

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All data in this report is logged using GMT time and Julian days in order to avoid confusion with local time changes.

## Hydrosweep

The hydrosweep is designed for deeper water, and consistently dropped 75% of the beams while operating near Chicxulub.

## Gravity

The gravimeter performed normally.

## Magnetics

No magnetometer data was collected during the cruise.

## Navigation

The POS/MV (gp4, gp04) exhibited a problem in which correct positions were reported. The reported track would veer off from actual, getting progressively worse, until the POS was restarted. The time and duration of these problems is noted below. POS/MV data is incorrect and should not be used for the times listed. This behavior did not affect the seismic data collection.

## Seismic

Seisnet was used throughout the cruise without problems.

Syntrak and the GCS90 operated normally.

The ts files do not reflect shottimes during OBS-only lines, and should not be used. Refer to the shotlog files for shottimes.

## Timing

The ts files do not reflect shottimes during OBS-only lines, and should not be used. Refer to the shotlog files for shottimes.



# Data Logging

The R/V Maurice Ewing data logging system is run on a Sparc Ultra Enterprise Server. Attached are 48 serial ports via 3 16-port Digi International SCSI Terminal Servers. Generally, all data logged by the Ewing Data Acquisition System (DAS) is time stamped with the CPU time of the server, and broadcast to the Ewing network using UDP packet broadcasts. The CPU time of the server is synchronized to a UTC gps time clock.

GPS times are also time-tagged with cpu time, although the time of the GPS position is from the GPS fix itself.

The following tables describe the data instruments which performed logging during this cruise. The tables associated with the instruments describe logging periods and data losses for that instrument.

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## Time Reference

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### Joetime

**logging interval:** 30 min  
**file id:** tr2

Used as the CPU synchronization clock. This clock is polled once every thirty minutes to synchronize the CPU clock of the data logger to UTC time. The logger (octopus) is responsible for updating the times of the other CPUs.

This clock was running and synchronizing the system the entire cruise.

*Interruptions greater than 30 minutes are displayed in the following table*

Log Date	LogDate	Comment
2005+007:19:35:00		Logging officially started
2005+053:23:59:59		Logging officially ends

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## GPS Receivers

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GPS data is usually logged at 1–2 second intervals. The NMEA strings GPGGA and GPVTG are logged for position, speed, and heading fixes. This data was logged constantly throughout the cruise.

The POS/MV with the CNAV GcGPS as an auxiliary input was the primary gps for this cruise.

### Trimble Tasmon P/Y Code Receiver

**logging interval:** 2 seconds  
**file id:** gp1

The Tasmon is the primary GPS receiver for the Ewing Logging system and the primary GPS for Spectra fixes. The accuracy is around 15 meters. There were no interruptions during this cruise.

*Interruptions greater than 10 minutes are displayed in the following table*

Log Date	LogDate	Comment
2005+007:19:35:00		Logging officially started
2005+053:23:59:59		Logging officially ends

#### Trimble NT200D

**logging interval:** 2 seconds  
**file id:** gp2

The Trimble is the secondary receiver for GPS data. Data is logged at 2 second intervals and is also used as an input to Spectra, although it is weighed at a lower value than the Tasmon receiver.

*Interruptions greater than 10 minutes are displayed in the following table*

Log Date	LogDate	Comment
2005+007:19:35:00		Logging officially started
2005+053:23:59:59		Logging Ends

#### C-Nav

**logging interval:** 2 seconds  
**file id:** gp3

The C-Nav is a global satellite-based differential receiver. This is the best individual receiver currently on the ship.

*Interruptions greater than 10 minutes are displayed in the following table*

Log Date	LogDate	Comment
2005+007:19:35:00		Logging officially started
2005+053:23:59:59		Logging Ends

#### POS/MV

**logging interval:** 1 second  
**file id:** gp4

The POS/MV is a receiver which uses C-Nav input, its own antennae, an inertial sensor, and optional RTG, WTC, or WAAS corrections (when available) and a kalman filter to produce a smooth nav output and very accurate heading. As of June 2003 it is used as the primary GPS for Hydrosweep, as an input to Spectra, and can be used as the gps for reduction processing. With the C-Nav auxiliary input, this is the most accurate receiver on the ship.

*Interruptions greater than 10 minutes are displayed in the following table*

Log Date	LogDate	Comment
2005+007:19:35:00		Logging officially started

Log Date	LogDate	Comment
2005+013:22:36:00	2005+014:00:10:00	Bad position
2005+020:22:36:32	2005+021:00:10:41	Bad position
2005+028:00:11:43	2005+028:01:03:50	Bad position
2005+035:01:04:48	2005+035:03:28:39.341	Bad position
2005+042:03:29:06	2005+042:04:20:21	Bad position
2005+049:04:20:48	2005+049:05:06:52	Bad position
2005+053:23:59:59		Logging Ends

## Speed and Heading

### Furuno CI-30 Dual Axis Speed Log Sperry MK-27 Gyro

**logging interval:** 3 seconds  
**file id:** fu

The Furuno and Gyro are combined to output speed, heading and course information to a raw Furuno file, as well as an NMEA VDVHW signal used as an input to various systems including steering and Spectra.

*Interruptions greater than 30 minutes are displayed in the following table*

Log Date	Log Date	Comment
2005+007:19:35:00		Official start date
2005+053:23:59:59		Official end date

## Gravity

### Bell Aerospace BGM-3 Marine Gravity Meter System

**logging interval:** 1 second  
**file id:** vc. (raw), vt. (processed)  
**drift per day:** 0.018

The BGM consists of a forced feedback accelerometer mounted on a gyro stabilized platform. The gravity meter outputs raw counts approximately once per second which are logged and processed to provide real-time gravity displays during the course of the cruise as well as adjusted gravity data at the end of the cruise.

*Interruptions greater than 10 minutes are displayed in the following table*

Log Date	Log Date	Comment
2005+007:19:35:00		Official start date
2005+048:01:48:50	2005+048:01:59:15	Data Interruption
2005+053:23:59:59		Official end time

---

## Bathymetry

---

### Krupp Atlas Hydrosweep-DS2

**logging interval:** variable based on water depth  
**file id:** hb (centerbeam), hs (swath)

The hydrosweep full swath data is continuously logged for every cruise, and centerbeam data is extracted and processed separately. The centerbeam operates at a logging frequency dependent on the water depth.

The full swath data is not routinely processed, but can be processed with the MB-System software which can be downloaded for free. For instructions, use the website:  
<http://www.ldeo.columbia.edu/MB-System>.

MBSysstem, version 5.0beta3 is necessary to process data after June 1, 2001.

*Interruptions greater than 10 minutes are displayed in the following table*

Log Date	LogDate	Comment
2005+007:19:35:00		Official start logging
2005+046:04:16:18	2005+046:07:12:55	Shutdown after grounding
2005+046:14:03:59	2005+048:06:07:04	Shutdown for divers
2005+053:23:59:59		Official end logging

---

## Weather Station

---

### RM Young Precision Meteorological Instruments, 26700 series

**logging interval:** 1 minute  
**file id:** wx

The weather station is used to log wind speed, direction, air temperature, and barometric pressure. We log this information at 1-minute intervals.

Log Date	LogDate	Comment
2005+007:19:35:00		Official start logging
2005+053:23:59:59		Official end logging

# Seismic Line

---

There are several files for each line reflecting the line status:

File	Description
ts.n	Shot time is merged with Ewing navigation to determine shot location
nb2.r	Navigation is from Spectra, and includes tailbuoy, tailbuoy range and bearing



# Gravity Ties

---

*Location 1*

# EW0412 Balboa, Panama

Pier/Ship	Latitude	Longitude
	18 27.84N	66 06.36W
Pier 2		
Reference	Latitude	Longitude
	18 27.8N	66 05.5W
Cruise Ship terminal		

	Id	Julian	Date	Mistie	Drift/Day	Prev Mistie
Pre Cruise	EW0410	326	04. Nov 04	-5.53	0.15	8.99
Post Cruise	EW0412	357	22. Dec 04	-2.59	0.061	-5.53
Total Days			48.00	2.94		

Time	Entry	Value	
1446	CDeck Level BELOW Pier	2.00	
1446	Pier 1 L&R Value	2332.11	L&R
1446	Reference L&R Value	2334.21	L&R
	Pier 2 L&R Value	2332.11	L&R
	Reference Gravity	978680.69	mGals
	Gravity Meter Value (BGM Reading)	978691.80	mGals
	Potsdam Corrected	1	if corrected

Gravity meter is 5.5 meters below CDeck

Difference in meters between Gravity Meter and Pier	7.50	meters
Height Cor = Pier Height* FAA Constant	7.50	0.31
		2.33 mGals/min

Difference in mGals between Pier and Gravity Meter

Pier (avg) -	Reference *	1.06 L&R/mGal	Delta L&R
2332.11	2334.21	1.06	-2.23 mGals

Gravity in mGals at Pierside

Reference + Delta mGals [+ Potsdam]	Pier Gravity
978680.69	-2.23
13.60	978692.06 mgals

Gravity in mGals at Meter

Pier Gravity+	Height Correction	Gravity@meter
978692.06	2.33	978694.39 mGals

Current Mistie

BGM Reading-	Calculated Gravity	Current Mistie
978691.80	978694.39	-2.59 mGals

---

*Location 2*

No tie taken in Progresso.

Contact LDEO to receive updated cruise report when available.

# File Formats

For all formats, a – in the time field means an invalid value for some reason.

## Streamer Compass/Bird Data

cb.r

This data is not processed, but can still be found in the "processed" data directory.

<u>Shot Time</u>	<u>Line</u>	<u>Shot</u>	<u>Latitude</u>	<u>Longitude</u>
2000+079:00:08:40.085	strike1	000296	N 15 49.6217	W 060 19.8019
<u>2nd GPS Position</u>		<u>Tailbuoy Position</u>		
<u>Latitude</u>	<u>Longitude</u>	<u>Latitude</u>	<u>Longitude</u>	
N 15 49.6189	W 060 19.8101	N 15 47.1234	W 060 20.1901	
<u>Furuno Streamer Gyro Compasses &amp; Heading</u>				
344.1	C01 2.3	C02 1.7	...	

## Gun Depths

dg

Gun depths in tenths of meters. There will always be 20 gundepths even if only one gun was configured and shooting.

<u>Shot Time</u>	<u>Gun Depths</u>																		
	1	2	3	4	5	6	7	8	9	...	20								
2001+089:06:47:05.909	189	068	005	005	096	005	060	054	005	...	6								

## Raw Furuno Log

fu.s

This data has been smoothed and output 1 fix per minute.

<u>CPU Time Stamp</u>	<u>Track</u>	<u>Speed</u>	<u>Hdg</u>	<u>Gyro</u>
2000+166:00:01:53.091	-	4.4	140.5	148.3

## Hydrosweep Centerbeam

hb.n

Hydrosweep data merged with navigation

<u>CPU Time Stamp</u>	<u>Centerbeam</u>		<u>Depth</u>
	<u>Latitude</u>	<u>Longitude</u>	
2000+074:09:55:00.000	N 13 6.6206	W 59 39.3908	134.9

## Merged Data

m

<u>CPU Time Stamp</u>	<u>Latitude</u>	<u>Longitude</u>	<u>GPS Used</u>	<u>Set</u>	<u>Drift</u>	<u>Depth</u>
2000+200:12:25:00.000	N 45 54.1583	W 42 47.1770	gp1	0.0	0.0	
<u>Magnetic</u>		<u>Gravity</u>				
<u>Total Intensity</u>	<u>Anomaly</u>	<u>FAA</u>	<u>GRV</u>	<u>EOTVOS</u>	<u>Drift</u>	<u>Shift</u>
49464.7	55.5	22.2	980735.0	-8.4	-0.1	2.8
<u>Temperature Salinity Conductivity</u>						
0.0	0.0	0.0				

The gravity drift and shift are values that have been added to the raw gravity to make up for drift in the meter that has been lost in accordance with a gravity check at each port stop.

Temperature, Salinity and Conductivity will only be valid while logging a Thermosalinograph, which is not usually the case.

## Magnetics Data

mg.n

- A minus sign in the time stamp is flagged as a spike point, probably noise...
- Anomaly is based on the International Geomagnetic Reference Field revision 2000

CPU Time Stamp	Latitude	Longitude	Raw Value	Anomaly
200+077:00:23:00.000	N 16 11.2918	W 59 47.8258	36752.2	-166.8

## Navigation File

n

CPU Time Stamp	Latitude	Longitude	Used	Set	Drift
2000+074:00:03:00.000	N 13 6.2214	W 59 37.9399	gpl	0.0	0.0

## Navigation Block

nb0

Navigation is a compendium of Ewing logged data at shot time. The shot position here is the shot position from the Spectra system.

Shot Time	Shot #	CPU Time	Shot Position
2001+088:00:00:00.606	016967	2001+088:00:00:03.031	N 30 11.8324 W 042 10.8162

Water	Sea	Wind	-----	Tailbuoy	-----	Line				
Depth	Temp	Spd	Dir	Latitude	Longitude	Range	Bearg	Name	Speed	Heading
2565.1	20.7	16.4	164	N 30 12.0427	W 042 14.7319	6296.3	93.5	MEG-10	4.2	101.1

## Tailbuoy Navigation

tbl.c

Raw tailbuoy fixes

CPU Time Stamp	Latitude	Longitude	GPS Precision
2001+088:00:00:02.000	N 30 12.0424	W 042 14.7309	SA

GPS Precision is either SA, DIFF or PCODE

## Ewing Processed Shot Times

ts.n

Shot times and positions based on the Ewing navigation data processing

CPU Time Stamp	Shot #	Latitude	Longitude	Line Name	Centerbeam	Depth
2000+079:00:08:01.507	000295	N 15 49.5703	W 060 19.7843	strikel		2345.6

## Shot Data Status

ts.n.status

The ts.nxxx.status file describes the line information for that day, giving some basic statistics about the line: start, end times; missing shots; start and end shots.

LINE strikel: 98+079:00:00:15.568 : 000283 .. 002286  
MISSING: 347, 410, 1727

LINE dip2: 98+079:23:05:22.899 : 000002 .. 000151

This example says that on Julian Day 079 of 1998, two lines (strikel and dip2) were run: the end of strike 1 (shots 000283 to 002286) and the start of dip2 (shots 000002 to 000151).

Line strikel had some missing shots in the data file (probably missing on the SEG-d header as well).

## Spectra Shot Times

nb2.r

The shot times and positions based on the Spectra positioning; with raw tailbuoy range and bearing.

CPU Time Stamp	Shot #	Latitude	Longitude	Line Name
----------------	--------	----------	-----------	-----------

2001+084:00:00:05.924	009245	N 23 31.2410	W 045 25.0894	
-----------------------	--------	--------------	---------------	--

Latitude	Longitude	Tailbuoy Range	Bearing	Line Name
N 23 30.4540	W 045 21.4338	6389.8	283.2	KANE-4

## Raw Gravity Counts

vc.r

sample BGM-3 gravity count record (without time tag):

pp:dddddd ss

			status: 00 = No DNV error; 01 = Platform DNV
			02 = Sensor DNV; 03 = Both DNV's
			count typically 025000 or 250000
			counting interval, 01 or 10
The input of data can be at 1 or 10 seconds.			

## Gravity Data

vt.n

- \* A minus sign in the time stamp is flagged as a spike point
- \* m\_grv3 calculates the Eotvos correction as:  
$$\text{eotvos\_corr} = 7.5038 * \text{vel\_east} * \cos(\text{lat}) + .004154 * \text{vel} * \text{vel}$$
- \* The theoretical gravity value is based upon different models for the earth's shape.
  - 1930 = 1930 International Gravity Formula
  - 1967 = 1967 Geodetic Reference System Formula
  - 1980 = 1980 Gravity Formula
- \* The FAA is computed as:  
$$\text{faa} = \text{corrected\_grv} - \text{theoretical\_grv}$$
- \* Velocity smoothing is performed w/ a 5 point window

CPU Time Stamp	Latitude	Longitude	Model	FAA	RAW
2000+148:00:10:00.000	N 09 34.7255	W 085 38.5826	1980	9.48	978264.16
Eotvos	Drift DC	Raw Velocity	Smooth Velocity		
Smooth	Total Shift	North	East	North	East
-74.78	0.06	4.16	1.875	-10.373	1.927 \10.166

## Datum Time

ts2.r

CPU Time	Datum Time	Time Reference
2001+069:00:15:29.727	069 00 15 29.378	datum

## Raw GPS

gp(12).d, tb1.d

Raw GPS is in NMEA Format.



## Meteorological Data

WX

```

                                True
CPU Time Stamp      Spd Dir
2001+045:00:00:00.967  7.8 22

Bird1:
Speed              Direction
Inst 60sA 60mA 60sM Inst 60sA 60mA
7.8  6.6  8.5  16.8 277 291 5

Bird 2
Speed              Direction
Inst 60sA 60mA 60sM Inst 60sA 60mA
0.0  0.0  0.0  0.0  0  0  0

Temperature
Inst 60mA 60mm 60mM
15.0 14.2 14.3 15.1
Humidity
Inst 60mm 60mM
92 90 93
Barometer
1027.5

Inst:      Current
60sA:      60 second average
60mA:      60 minute average
60sM:      60 second maximum
60mm:      60 minute minimum
60mM:      60 minute maximum
```

## Merged Meteorological Data

mmet

```

TSG, WX, CT merged with Nav at 1 minute fixes
date      time      lat      lon      gpu head spd
2001+244:00:00:00.000 12.14071 44.98469 gp1 10.2 83.0
```

```

tws twd temp hum press cti cte con sal ct
26.5 228.0 30.6 87.0 1000.8 28.8 28.8 5.9 36.3 28.8
```

```

gpu  = gps unit in use
head = ship's heading
spd  = ship's speed in knots
tws  = true wind speed
twd  = true wind direction
temp = air temp (celcius)
hum  = relative humidity (%)
press= pressure in mb
cti  = sea temp from the internal TSG sensor
cte  = sea temp from the external TSG sensor
con  = conductivity, Siemens/meter
sal  = salinity, practical salinity units
ct   = sea temp from the C-keel sensor (to tenths of a degree)
```

## Shot Times from Spectra P1 Files

shots.p1

```

These files were created with the script: extract_shots_from_p1 -a 1
Epoch Time  Shot#  Source Lat/Lon      TB Lat      TB Lon
985788741.000 015570 30.283881 -41.854536 30.320144 -41.886642
Vessel Ref Lat/Lon  Antenna GPS Lat/Lon  Water Depth
```

30.283478 -41.854117 30.283531 -41.854078 2894.2

- Source is the Center of the Guns
- TB is the Tailbuoy, according to Spectra
- Vessel Ref is the location of the center of the Mast
- Antenna GPS is the location of Antenna 1 (-a 1 flag); in this case is the Tasmon GPS
- Water Depth is the HS Centerbeam depth

## Shot Times from Spectra P2 Files

shots.p2

These files were created with the script: `extract_shots_from_p2 -o "V1 G1"`

Epoch Time	Shot#	Vessel Ref	Lat/Lon	Source	Lat/Lon
985716772.4	00015572	30.282803	-41.866136	30.283207	\41.866540

- Vessel Ref is the location of the center of the Mast
- Source is the Center of the Guns

# Tape Contents

---

Tar #1 – EW0501

Bathy2000 data

Tar #2 – EW0501

Cruise\_Report\_EW0412.pdf this document

ew0501.cdf NetCDF database file of this cruise

ew0501.cdf.nav NetCDF database file of this cruises navigation

configs/ Ewing Data System configuration files

docs/ File Formats, Spectra manuals

processed/ Processed datafiles merged with navigation

trackplots/ daily cruise track plots (*postscript*)

mbsystem/ Latest MBSsystem source code

raw/ Raw data directly from logger

reduction/ Reduced data files

clean/ daily processing directory, includes daily  
postscript plots of the data.

LNAME	FFID	LFID	FSHOT	LSHOT	DDS	SDLT	3490	MISSED SHOTS
CHIX2	1	208	1603	1810	1:1-5	1:1-5	1-5	
CHIX4a	13	242	147	376	1:6-10	1:6-10	6-11	261
CHIX4b	243	393	530	680	1:11-14	1:11-14	12-14	
CHIX4c	401	778	1067	1444	1:15-22	1:15-22	15-22	
CHIX6	1	873	1036	1908	1:23-40	1:23-40	23-40	484521
CHIX8a	1	691	124	814	1:41-54	1:41-54	41-54	
CHIX8b	692	991	850	1149	2:1-6	1:55-60	55-60	
CHIX8c	992	1664	1208	1880	2:7-20	1:61-74	61-74	1876
CHIX6a	1	97	169	265	2:21-22	1:75-76	75-76	
CHIX10	76	1071	189	1184	2:23-42	1:77-96	79-98	
CHIXR1	1	1684	-20	1666	2:43-54,3:1-22	1:97-130	99-132	
CHIXR2	1	236	141	376	3:23-27	1:131-135	133-137	195326
CHIX2a	1	252	263	543	3:28-33	1:136-141	138-143	391-421
CHIX2b	1	1136	618	1827	3:34-56	1:142-164	144-166	1278-1317,1362-1390,1708-1718
CHIXR3	1	2069	-194	1874	4:1-42	1:165-206	167-208	
CHIXR4	4	358	76	430	4:43-50	1:207-214	209-216	
CHIXR5	1	489	225	713	4:51-56,5:1-4	1:215-224	217-226	
CHIXR6a	1	2000	467	2477	5:5-44	1:225-264	227-266	1463-1464,1573,1575-1578,1685-1688
CHIXR6b	4	2000	2389	4385	5:45-53,6:1-31	1:265-304	267-306	
CHIXR7	2	1120	235	1437	6:32-52,7:1-2	1:305-327	307-330	1000-1049,1170-1204
CHIX25	6	447	43	484	7:3-11	1:328-336	392-400	
CHIX15	4	720	177	893	7:12-26	1:337-351	401-415	
CHIX16	18	577	237	796	7:27-38	1:352-363	416-427	
CHIX17	4	294	390	680	7:39-44	1:364-369	428-433	
CHIX17a	1	98	610	708	7:45-46	1:370-371	434-435	704
CHIX18	1	368	344	715	7:47-54	1:372-379	436-444	395-399
CHIX17b	4	390	381	767	8:1-8	1:380-387	445-452	
CHIX21	1	568	145	712	8:9-20	1:388-399	453-464	
CHIX22	1	520	269	788	8:21-31	1:400-410	465-475	
CHIX23	1	212	209	420	8:32-36	1:411-415	476-480	
CHIX24	1	708	76	783	8:37-51	1:416-430	481-494	
CHIX23a	1	321	160	527	8:52-54,9:1-4	1:431-437	495-502	217-234,391-419
CHIX4	1	408	777	1184	9:5-13	1:438-446	503-510	
CHIX5	1	1182	107	1288	9:14-37	1:447-470	511-534	
CHIX6b	46	649	964	1567	9:38-50	1:471-483	535-547	
CHIX19	1	165	319	483	9:51-54	1:484-487	548-551	

CHIX20	1	407	219	625	10:1-9	1:488-496	552-559
CHIX1	1	1723	115	1837	10:10-44	1:497-531	560-594 760
CHIX11b	2	270	657	925	10:45-50	1:532-537	595-600
CHIX13b	1	446	297	742	10:51-52,11:1-7	1:538-546	601-609
CHIX9	1	1846	349	2194	11:8-44	1:547-583	610-646
CHIX3	1	657	181	837	11:45-50,12:1-8	1:584-597	647-659
CHIX3a	1	562	873	1434	12:9-20	1:598-609	660-671
CHIX3b	564	1090	1527	2053	12:21-31	1:610-620	672-682

nav file	line name	nav points	data shots	needed?
chix2.0	chix2	0-1810	1603-1810	Yes
chix2.1	n/a	1-2	none	No
chix2.2	chix2a	147-546	263-391,421-543	Yes
chix2b.0	chix2b	618-1708	618-1708	Yes
chix2b.1	chix2b	1718-1827	1718-1827	Yes
chix3.0	n/a	none	none	No
chix3.1	chix3	181-837	181-837	Yes
chix3.2	chix3a	873-1434	873-1434	Yes
chix3.3	chix3b	1525-2053	1527-2052	Yes
chix4.0	n/a	1,1-23	none	No
chix4.1	chix4a	23-681	147-376	Yes
	chix4b		530-680	Yes
chix4.2	chix4c	1061-1444	1067-1444	Yes
chix4.3	n/a	none	none	No
chix6.0	chix6	1036-1908	1036-1908	Yes
chix6a.0	chix6a	169-266	169-265	Yes
chix8.0	chix8a	124-814	124-814	Yes
chix8.1	n/a	none	none	No
chix8.2	chix8b	850-1149	850-1149	Yes
chix8.3	chix8c	1208-1880	1208-1880	Yes
chix10.0	n/a	266-490	416-490	No
chix10.1	chix10	189-1185	189-1184	Yes
chix15.0	n/a	none	none	No
chix15.1	n/a	none	none	No
chix15.2	chix15	(-25)-893	177-893	Yes
chix16.0	chix16	219-796	237-796	Yes
chix17.0	chix17	201-680	390-680	Yes
chix17.1	chix17a	610-703	610-703	Yes
chix17.2	chix17a	705-708	705-708	Yes
chix17.3	n/a	none	none	No
chix17.4	n/a	201-203	none	No
chix17.5	chix17b	381-767	381-767	Yes
chix18.0	chix18	343-715	344-715	Yes
chix21.0	chix21	145-712	145-712	Yes
chix22.0	chix22	269-788	269-788	Yes
chix23.0	chix23	209-420	209-420	Yes
chix24.0	chix24	76-571	76-571	Yes
chix24.1	n/a	none	none	No
chix24.2	n/a	none	none	No
chix24.3	chix24	573	573 need to 783?	Yes
chix25.0	n/a	none	none	No
chix25.1	chix25	1-484	43-484	Yes
chixR1.0	chixR1	(-21)-1666	(-21)-1666	Yes
chixR1.1	n/a	none	none	No
chixR3.0	chixR3	(-194)-1874	(-194)-1874	Yes
chixR4.0	chixR4	271,74-431	76-430	Yes
chixR5.0	n/a	none	none	No
chixR5.1	n/a	none	none	No
chixR5.2	chixR5	225-714	225-713	Yes
chixR6.0	chixR6a	467-2477	467-2477	Yes
chixR6.1	chixR6b	2385-4385	2389-4385	Yes



chixR6.2	n/a	1438	none	No
chixR7.0	chixR7	235-999	235-999	Yes
chixR7.1	chixR7	1050-1169	1050-1169	Yes
chixR7.2	chixR7	1204-1438	1204-1437	Yes
chixR7.3	n/a	none	none	No

---

Area: Mexico Survey: Chicxulub Line: test  
Shot Rate: 50 m Sample Rate: 2 ms Channels: 480 Aux. Channels:  
Source: bolt Guns: 20 Pressure: 6900 in3 Volume: 2000 psi

---

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

---

2005+011:03:56:51	21.554814	-86.328504	299.7	10.	809.25	706.51
	Matt		978839.0	26.5	16.2	73
This is just a test to get the hang of things. We haven't started shooting yet.						

---

2005+015:16:49:36	21.444839	-89.670926	23.7	9.8	1257.17	24.11
	Anusha		978719.0	23.9	13.8	346
Transiting to OBS 9A to begin DOBS testing and OBS deployment #1						

---

2005+015:17:00:15	21.47242	-89.659085	23.7	10.	1258.43	14.71
	Anusha		978720.9	24.0	11.9	329
Still transiting to OBS 9A to start DOBS testing. ETA at OBS 9A is 18.30.						

---

2005+015:17:30:11	21.549154	-89.626094	24.0	9.3	1263.28	19.31
	Matt		978723.8	23.9	12.6	333
In transit to line obs 9A.						

---

2005+015:18:00:00	21.622637	-89.594566	23.1	8.1	1263.68	24.61
	Matt		978723.0	24.0	12.5	346
In transit to obs line #9.						

---

2005+015:18:11:53	21.652536	-89.581555	23.1	8.7	1269.69	20.61
	Peggy		978726.4	24.0	14.1	339
watch taken over by Keren and Peggy						

---

2005+015:18:34:16	21.708531	-89.560036	10.0	8.2		28.11
	keren		978741.0	24.1	14.8	342
one of the gps went off at 18.22.00. In transit to OBS line #9						

---

2005+015:19:00:10	21.725874	-89.549902	355.3	0.4	1273.68	26.91
	keren		978761.3	24.1	9.0	347
floating test of el cheapo succesful.						

---

2005+015:19:30:11	21.726382	-89.550059	6.3	0.4	1273.87	28.91
	keren		978761.7	24.2	11.0	327
we have already done the float test of El cheapo and DOBS(light and heavy one)						

---

2005+015:19:58:40	21.726507	-89.549605	63.0	1.7	1274.09	26.61
	keren		978760.0	24.2	10.2	319
DOBS #10 on sea bottom.						

---

2005+015:19:59:54	21.727091	-89.548498	55.8	3.4	1274.13	27.31
	keren		978757.8	24.2	12.2	314
on moving, leaving de ODBS #10 on site to test it.						

---

Area: Mexico Survey: Chicxulub Line: oBS#9  
 Shot Rate: #1 Sample Rate: obs Channels: #9 Aux. Channels: on  
 Source: loyment Guns: obs Pressure: deployme Volume: #9

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+015:20:09:33	21.735365	-89.538924	52.3	3.4	1274.75	25.81
	keren		978744.7	24.2	11.0	346
shooting on this position						

2005+015:20:14:10	21.736202	-89.532826	92.8	4.5	1275.04	24.21
	keren		978733.9	24.2	11.0	359
shooting each 30 secs						

2005+015:20:30:05	21.726063	-89.517605	32.0	3.7	1276.01	27.31
	keren		978740.4	24.1	13.5	31
continues the shootings each 30 secs aprox. Near OBDS #9 which still on bottom						

2005+015:20:46:39	21.7273	-89.537725	215.7	4.5	1277.13	26.31
	keren		978789.6	24.2	10.2	3
on the line						

2005+015:21:00:10	21.709258	-89.55088	213.8	4.0	1278.2	29.31
	keren		978783.4	24.1	11.8	348

2005+015:21:28:54	21.723309	-89.550428	0.3	0.8	1279.25	25.61
	keren		978761.4	24.1	15.3	318
getting signal back from the DOBS #10						

2005+015:21:32:39	21.724054	-89.55059	7.0	0.4	1279.3	25.31
	keren		978761.4	24.1	11.9	319
DOBS #10 on the surface on the storboerd side						

2005+015:21:38:17	21.724944	-89.5504	350.8	0.8	1279.35	24.31
	keren		978761.7	24.1	14.2	349
starting the recovery 2 minuts ago						

2005+015:21:41:42	21.725382	-89.550554	350.5	0.7	1279.38	25.31
	keren		978760.4	24.1	13.4	333
DOBS #10 on surface						

2005+015:21:50:08	21.723952	-89.550087	46.1	0.7	1279.48	24.61
	keren		978758.7	24.1	13.6	323
DOBS #10 on board						

2005+015:22:00:04	21.725767	-89.550097	0.3	0.9	1279.61	26.41
	Anusha		978763.3	24.1	17.0	321

2005+015:22:30:03	21.726389	-89.550472	345.1	0.2	1279.85	28.51
	Anusha		978759.0	24.1	16.1	338

release testing the LCHEAPOS. ping test in progress.

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---

Area: Mexico Survey: Chicxulub Line: LCHEAPO  
Shot Rate: test Sample Rate: Channels: Aux. Channels:  
Source: OBS Guns: lch Pressure: release Volume:

---

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+015:23:00:06	21.726478	-89.549873	343.8	0.5	1280.1	28.41
	Tamara		978764.1	24.1	16.2	331
Completed testing of first 12 LCHEAPOs. Switching in the final 6 LCHEAPOs to test after dinner. Sailing to the first OBS deployment location (site 7A).						

---

2005+015:23:30:06	21.711142	-89.622031	259.7	9.9	1283.6	29.51
	Tamara		978836.3	24.2	16.4	339
in transit to OBS deployment site 7A where we will conduct release tests on the remaining 6 LCHEAPOs						

---

2005+016:00:00:06	21.693686	-89.695094	342.0	0.8	1287.42	27.91
	Tamara			24.2	15.4	335
Preparing to test final 6 LCHEAPOs near site 7A.						

---

2005+016:00:30:07	21.694128	-89.695261	345.8	0.4	1287.62	28.11
	Tamara		978762.6	24.2	17.1	334
Beginning release test of final 6 LCHEAPOs.						

---

2005+016:01:00:08	21.695148	-89.695955	356.5	0.6	1287.82	28.21
	Tamara		978765.8	24.2	15.7	332
Completed final LCHEAPO tests. Preparing for first OBS deployment.						

---

2005+016:01:30:09	21.695516	-89.695827	348.1	0.3	1288.02	27.71
	Tamara		978765.0	24.2	17.5	329
Awaiting first OBS deployment.						

---

2005+016:01:43:00	21.695512	-89.696092	307.7	0.8	1288.16	27.91
	Tamara		978767.6	24.1	18.8	351
LCHEAPO OBS deployment #15, site 7A						

---

2005+016:02:00:08	21.690011	-89.679288	111.0	9.4	1289.21	27.11
	Tamara		978713.7	24.1	14.0	324
In transit to site 8B (ETA 25 minutes). Preparing next deployment.						

---

2005+016:02:30:07	21.663898	-89.614412	4.5	0.9	1292.88	22.71
	Tamara		978746.3	24.1	16.5	3
awaiting deployment of LC #10 at site 8B.						

---

2005+016:02:39:02	21.666621	-89.613646	4.7	1.2	1293.05	22.41
	Tamara		978752.6	24.1	16.8	327
LCHEAPO deployment #10 site 8B.						

---

2005+016:03:00:07	21.651501	-89.570264	111.7	9.8	1295	22.41
	Tamara		978682.6	24.0	15.8	345

en route to OBS deployment station 9c

---



Area: Mexico Survey: Chicxulub Line: LC site  
 Shot Rate: depl Sample Rate: Channels: Aux. Channels:  
 Source: LCHEAPO Guns: 9C Pressure: LCHEAPO Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+016:03:30:50	21.637499	-89.531325	2.7	1.3	1298.07	21.01
	Tamara		978746.5	23.9	13.8	349
LCHEAPO #1 deployment, site 9C. Proceeding to site 10D.						

2005+016:04:00:07	21.611325	-89.462966	125.0	7.1	1302.1	20.51
	Tamara		978676.6	23.9	15.4	324
In transit to OBS site 10D. LCHEAPO #9 ready to deploy.						

2005+016:04:18:28	21.608342	-89.448973	13.5	0.9	1303.31	20.61
	Tamara		978743.5	23.9	13.6	320
LCHEAPO #9 deployed, site 10D						

2005+016:04:30:16	21.600196	-89.457743	229.1	8.2	1304.06	22.01
	Tamara		978778.7	23.9	12.3	352
In transit to OBS site 9E.						

2005+016:05:02:52	21.54858	-89.512537	275.0	1.2	1308.31	18.11
	Tamara		978745.6	23.8	12.5	350
LCHEAPO #17 deployment, site 9E. NOTE: Loggers #15 and #17 may have been swapped.						

2005+016:05:30:24	21.547809	-89.582227	271.3	10.	1312.21	17.91
	Matt		978815.9	23.8	14.1	346
In transit to obs 6D.						

2005+016:06:00:25	21.547406	-89.677449	271.1	10.	1317.54	18.41
	Matt		978830.5	23.8	13.1	357
In transit to obs 6D. New watchstanders arrived.						

2005+016:06:29:32	21.546817	-89.740734	310.5	0.9		20.01
	Matt		978772.7	23.9	12.9	319
El cheapo # 2 on site 6D						

2005+016:06:33:21	21.546225	-89.740947	282.8	0.8	1321	19.61
	keren		978761.9	23.9	9.7	343
ready to go to site 5E						

2005+016:07:00:08	21.506487	-89.783457	226.5	10.	1324.37	17.91
	keren		978810.1	23.9	14.4	320
on the way to site 5E						

2005+016:07:15:40	21.487237	-89.804543	247.3	0.8	1325.98	17.11
	keren		978768.6	23.9	16.1	341
el cheapo #12 on site 5E						

2005+016:07:30:09	21.484905	-89.809194	316.7	2.6	1326.41	18.51
	keren		978774.7	23.9	18.0	321

waiting to go to site 5C

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---

Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: obs Guns: Pressure: Volume:

---

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

---

2005+016:07:34:59	21.493279	-89.810719	353.5	10.	1326.94	16.21
	keren		978763.2	23.9	19.8	352
on transit to site 5C						

---

2005+016:08:00:08	21.563013	-89.821516	355.0	9.1	1331.05	22.01
	keren		978775.4	24.0	16.5	337
transit to site 5C						

---

2005+016:08:15:12	21.575676	-89.823437	8.8	1.3		22.11
	keren		978769.5	24.0	19.0	321
el cheapo #3 on site 5C						

---

2005+016:08:20:45	21.575052	-89.82313	28.5	1.1	1331.89	22.81
	keren		978767.0	24.0	17.5	330
ready to go to site 4B						

---

2005+016:08:30:11	21.580157	-89.83768	294.1	9.8	1332.81	22.21
	keren		978835.0	24.0	20.7	342
in transit to site 4B						

---

2005+016:08:59:14	21.605027	-89.905784	312.7	0.6	1336.66	23.91
	keren		978791.2	24.0	15.6	343
el cheapo #11 on site 4B						

---

2005+016:09:02:28	21.604119	-89.905981	257.0	1.1	1336.72	22.41
	keren		978777.0	24.0	14.2	17
ready to go to site 2D						

---

2005+016:09:30:07	21.548254	-89.965987	225.3	9.7	1341.03	23.51
	keren		978814.0	24.0	16.2	345
transit to site 2D						

---

2005+016:10:00:06	21.487053	-90.031741	232.0	3.3	1345.83	21.61
	keren		978791.3	23.9	17.7	333
clpse to site 2D						

---

2005+016:10:03:52	21.485566	-90.033066	265.3	1.7	1344.94	20.71
	keren		978784.1	23.9	18.3	343
el cheapo #6 on site 2D						

---

2005+016:10:06:14	21.48493	-90.033729	265.7	1.3	1345.99	21.01
	oscar		978751.6	23.9	13.9	359
watch taken by oscar						

---

2005+016:10:14:09	21.473472	-90.045917	225.0	9.9	1346.9	20.81
	oscar		978792.6	23.9	16.1	353
Transit to Site 1E						

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Area: Mexico Survey: Chicxulub Line: LCHEAPO  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: obs Guns: Pressure: Volume:

---

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

---

2005+016:10:30:07	21.440315	-90.081518	227.3	10.	1349.65	18.91
	oscar		978791.2	23.8	17.3	348
Transit to site 1E						

---

2005+016:10:43:47	21.425575	-90.096992	296.3	1.3	1350.9	19.71
	oscar		978745.6	23.8	21.5	313
LCHEAPO # 16 site 1E						

---

2005+016:10:55:18	21.437905	-90.100104	352.3	9.4	1351.84	18.31
	oscar		978744.8	23.8	20.9	342
transit to site 1C						

---

2005+016:11:00:05	21.450724	-90.102445	351.0	9.2	1352.5	20.11
	oscar		978749.1	23.8	21.5	342
transit to site 1C						

---

2005+016:11:30:03	21.513932	-90.11538	354.8	1.9	1356.33	23.71
	oscar		978752.5	23.9	20.8	343
near to site 1C						

---

2005+016:11:31:27	21.514478	-90.11548	2.3	0.4		23.81
	oscar		978752.0	23.9	20.8	332

---

2005+016:11:32:38	21.514371	-90.115376	30.8	0.4	1356.38	5.51
	oscar		978750.4	23.9	20.9	317
LCHEAPO # 4 site 1C						

---

2005+016:11:37:55	21.512882	-90.114966	97.3	1.0	1356.4	24.01
	oscar		978747.9	23.9	20.9	329
transit to site 2B (depth needs to be fixed in prev. entry to 24 m)						

---

2005+016:12:00:01	21.545564	-90.075488	43.5	8.9	1359.2	24.11
	oscar		978707.7	23.9	19.4	341
trasite to site 2B first DOBS						

---

2005+016:12:26:56	21.570865	-90.051195	339.1	0.3	1361.17	24.21
	oscar		978761.1	24.0	20.2	345
inside of water DOBS test acoustics						

---

2005+016:12:58:56	21.574321	-90.051778	19.0	0.5	1361.5	23.21
	oscar		978764.4	24.0	20.2	305
DOBS # 25 site 2B						

---

2005+016:13:04:39	21.572985	-90.051068	95.8	1.1	1361.64	24.01
	oscar		978756.6	24.0	17.2	313

---

transit to side 3C

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: DOBS Sample Rate: Channels: Aux. Channels:  
 Source: obs Guns: Pressure: dite Volume:

---

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

---

2005+016:13:30:02	21.544577	-89.982577	109.8	8.7	1365.3	23.91
	oscar		978689.4	24.0	18.3	325
transite to side 3C						

---

2005+016:13:42:14	21.542075	-89.970174	342.3	0.6	1366	23.61
	oscar		978747.3	24.0	17.9	338
inside in water DOBS test acoustic						

---

2005+016:13:46:59	21.542122	-89.969857	359.0	0.5	1366.08	23.31
	oscar		978756.3	24.0	16.4	333
Test DOBS out of water near site 1C						

---

2005+016:14:00:28	21.545388	-89.969513	350.8	0.4	1366.3	23.91
	oscar		978758.5	24.0	17.6	335
DOBS # 22 site 3C						

---

2005+016:14:08:47	21.540304	-89.968198	189.0	7.2	1366.6	24.11
	oscar		978754.0	24.0	12.0	282
transite to site 3E (Tcorection the prev. test, is near site 3C						

---

2005+016:14:59:30	21.453201	-89.95019	343.0	0.3	1372.17	16.91
	kevin		978736.0	23.7	18.1	344
On location Site 3E, awaiting deployment.						

---

2005+016:15:18:25	21.456508	-89.9508	348.7	0.2	1372.43	18.01
	kevin		978738.3	23.7	20.1	345
DOBS #23, Site 3E: OBS deployed.						

---

2005+016:15:22:29	21.455854	-89.950539	54.8	1.0	1372.48	18.51
	kevin		978736.3	23.7	15.8	303
Transit to Site 4D.						

---

2005+016:15:29:19	21.465063	-89.941941	44.7	9.7	1373.25	16.91
	kevin		978766.1	23.7	23.3	342
Transit to Site 4D, ETA 16:00.						

---

2005+016:15:59:44	21.515848	-89.886225	326.0	3.5	1377.64	20.21
	kevin		978741.7	23.8	17.9	19
Site 4D, approaching site.						

---

2005+016:16:23:34	21.516303	-89.88711	31.1	0.8	1378.01	20.11
	kevin		978749.6	23.9	17.5	347
DOBS #19, Site 4D, Deployed.						

---

2005+016:17:00:48	21.514849	-89.88749	8.7	2.3	1378.61	20.41
	kevin		978753.7	23.9	18.0	358
OBS #19 not responding acoustically. Release signal sent. Waiting						

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for surface.

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Area: Mexico Survey: Chicxulub Line: OBSD1  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+016:17:30:13 21.516802 -89.8874 38.8 0.6 1379.08 21.11  
 kevin 978756.3 23.9 14.8 333  
 OBS #19 recovered. OBS #13 preparing to be deployed at site 4D.

2005+016:17:46:17 21.516341 -89.887094 0.0 0.9 1379.41 20.81  
 kevin 978757.0 23.9 14.5 359  
 OBS #13, Site 4D, OBS Deployed.

2005+016:17:54:46 21.51261 -89.885835 173.5 6.2 1379.68 20.31  
 kevin 978749.3 23.9 13.1 1  
 Transit to OBS Site 4F, ETA 18:45.

2005+016:18:13:12 21.459206 -89.875169 168.1 10. 1382.94 16.41  
 keren 978722.1 23.8 14.5 3  
 watch taken by keren. transit to site 4F

2005+016:18:30:06 21.428844 -89.869404 193.0 2.0 1384.71 16.11  
 keren 978726.1 23.8 19.9 4  
 transit ti site 4F

2005+016:18:40:26 21.427436 -89.868786 337.5 1.7 1384.97 15.41  
 keren 978723.4 23.8 19.7 29  
 el cheapo #5 on site 4F

2005+016:18:43:13 21.427936 -89.868829 64.0 0.9 1385.01 14.81  
 keren 978732.4 23.8 18.9 294  
 ready to go to site 5G

2005+016:19:00:05 21.413522 -89.828888 107.1 10. 1387.38 26.61  
 keren 978657.4 23.8 21.9 354  
 in transit to site 5G

2005+016:19:22:09 21.39822 -89.786261 86.3 1.4 1389.75 23.21  
 keren 978712.4 23.8 17.8 5  
 El cheapo #7 in site 5G

2005+016:19:24:25 21.39782 -89.785672 77.0 1.2 1389.79 24.51  
 keren 978718.4 23.8 18.2 356  
 ready to go to site 6F

2005+016:19:30:03 21.40038 -89.78231 34.7 6.1 1390.04 25.81  
 keren 978717.0 23.8 20.1 5  
 on transit to site 6F

2005+016:20:00:06 21.451903 -89.757718 280.7 10. 1394.76 15.41  
 keren 978809.0 23.8 19.6 359  
 trabsit to site 6F

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: OBSD1 Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+016:20:28:30	21.457994	-89.729322	43.8	0.7	1397.69	15.11
	keren		978735.5	23.8	17.1	16
El cheapo #18 on site 5G						

---

2005+016:20:30:03	21.457618	-89.729181	74.8	1.0	1397.74	15.21
	keren		978738.2	23.8	19.6	327
IMPORTANT las note should say site 6F instead of 5G						

---

2005+016:20:36:05	21.457207	-89.725659	72.3	7.7	1398.0	15.81
	keren		978741.0	23.8	19.8	12
transite to site 8F						

---

2005+016:21:00:06	21.472782	-89.656131	77.3	10.	1401.94	14.61
	keren		978679.9	23.8	20.2	4
transit to site 8F						

---

2005+016:21:30:09	21.488007	-89.57966	66.1	2.3	1406.29	16.21
	keren		978719.0	23.7	21.2	357
400m to site 8F						

---

2005+016:21:36:58	21.488698	-89.576408	51.3	0.8	1406.48	16.11
	keren		978729.5	23.8	19.6	23
el chaepo #8 on site 8F						

---

2005+016:21:39:25	21.488266	-89.576089	76.3	0.9	1406.51	15.11
	keren		978733.3	23.8	20.7	336
ready to go to site 9G						

---

2005+016:22:00:04	21.470582	-89.525466	107.8	10.	1409.5	15.21
	oscar		978668.8	23.7	20.4	4
watch taken by oscar. Transit to site 9G						

---

2005+016:22:17:34	21.459658	-89.494062	88.0	1.4	1411.3	22.11
	oscar		978720.9	23.8	25.1	4
LCHEAPO # 14 site 9G deployed						

---

2005+016:22:30:03	21.470094	-89.480507	44.5	7.9	1412.33	22.21
	oscar		978691.7	23.8	23.5	357
transit to site 10F						

---

2005+016:23:00:03	21.497978	-89.449645	44.8	5.0	1414.74	15.31
	oscar		978709.3	23.8	20.9	357
transit to site 10F						

---

2005+016:23:30:05	21.515701	-89.430266	5.3	0.3	1416.33	15.81
	oscar		978723.8	23.7	27.0	28
DOBS #28 put overboard at site 10F for accoustics test						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: OBSD1 Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+016:23:40:47	21.519451	-89.430368	7.0	1.2	1416.56	16.31
	oscar		978731.9	23.7	26.9	14
DOBS #28 site 10F deployed						

---

2005+017:00:00:09	21.546931	-89.451511	332.7	8.6	1418.68	19.11
	tamara			23.7	28.2	20
in transit to site 9A						

---

2005+017:00:30:08	21.613225	-89.491373	327.7	8.8	1423.14	21.51
	tamara		978778.1	23.8	24.7	20
transit ti site 9A						

---

2005+017:01:00:09	21.67388	-89.542767	329.0	8.2	1427.56	24.71
	tamara		978789.4	23.8	23.5	9
Transit to site 9A						

---

2005+017:01:30:05	21.720287	-89.551228	14.7	0.5	1430.24	25.91
	tamara		978757.5	23.9	25.8	352
1000m from site 9A. Holding position awaiting completion of DOBS assembly.						

---

2005+017:02:00:08	21.721334	-89.551056	16.3	0.6	1430.55	25.81
	tamara		978758.0	23.9	22.3	25
DOBS near on site 9A						

---

2005+017:02:06:25	21.722491	-89.55108	16.5	0.7	1430.64	24.21
	tamara		978760.4	23.9	23.3	9
Test acoustics of DOBS # 20 near the site 9A						

---

2005+017:02:11:45	21.722575	-89.551235	16.0	0.4	1430.67	26.81
	tamara		978761.6	23.9	25.1	2
test DOBS #20 near the site 9A out of water						

---

2005+017:02:18:08	21.726385	-89.550016	19.0	0.9	1430.93	25.61
	tamara		978753.5	23.9	24.5	10
DOBS #20 site 9A deployed						

---

2005+017:02:30:05	21.713346	-89.554276	198.0	9.1	1431.68	28.61
	tamara		978777.9	23.9	20.1	19
In transit to OBS site 8D.						

---

2005+017:03:00:12	21.62598	-89.580436	194.0	10.	1436.66	22.91
	tamara		978778.9	23.7	19.2	7
In transit to OBS site 8D.						

---

2005+017:03:30:09	21.576941	-89.595603	37.3	0.1	1439.77	20.41
	tamara		978748.5	23.7	19.6	355

---



near site 8D. Preparing to test DOBS #21.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+017:03:45:33 21.576595 -89.59558 35.0 0.7 1439.88 20.11  
 tamara 978748.9 23.7 20.1 16  
 DOBS #21 in water near site 8D. Acoustic test in progress.

2005+017:03:56:17 21.576915 -89.595883 24.0 0.5 1439.96 22.91  
 tamara 978748.1 23.7 22.4 11  
 DOBS #21 back on board near site 8D. Acoustic test failed (weak  
 response to signal). This instrument will not be deployed now.  
 Preparation of replacement DOBS #27 for testing.

2005+017:04:00:07 21.577284 -89.595396 35.5 0.4 1439.99 20.01  
 tamara 978745.9 23.6 22.4 22  
 near site 8D. preparing replacement DOBS #27.

2005+017:04:30:14 21.576851 -89.595167 12.0 0.6 1440.22 19.81  
 tamara 978747.9 23.6 20.3 19  
 preparing DOBS #27, near site 8D.

2005+017:04:47:25 21.577015 -89.595603 21.0 0.0 1440.38 19.91  
 tamara 978749.9 23.6 18.4 19  
 DOBS #27 in water for acoustic testing near site 8D.

2005+017:04:51:44 21.577356 -89.595438 21.8 0.8 1440.42 20.91  
 tamara 978747.7 23.6 18.3 10  
 DOBS #21 back on board following successful acoustic testing. site  
 8D. preparing to deploy.

2005+017:04:56:29 21.577622 -89.595036 19.1 0.1 1440.46 20.61  
 tamara 978747.7 23.6 20.1 23  
 DOBS #27 at site 8D deployed.

2005+017:05:00:07 21.57694 -89.595202 83.3 0.9 1440.51 19.51  
 tamara 978744.6 23.6 16.7 330  
 In transit to site 7E.

2005+017:05:30:24 21.519769 -89.658246 241.3 7.1 1445.4 18.21  
 tamara 978809.5 23.6 20.1 12  
 in transit to OBS site 7E.

2005+017:05:33:49 21.516272 -89.660033 109.5 2.8 1445 17.31  
 tamara 978793.2 23.6 17.1 75  
 Just arriving site 7E

2005+017:06:00:11 21.516626 -89.658757 13.8 0.1 1445.89 17.71  
 keren 978752.1 23.6 18.9 11  
 watch taken by keren.

---

Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+017:06:30:08	21.516694	-89.65924	28.3	0.1	1446.09	17.41
	keren		978754.5	23.6	18.6	11
on site 7E, waiting for the DOBS get ready to be dropped						

---

2005+017:06:38:14	21.516662	-89.659056	28.7	0.2	1446.13	17.31
	keren		978753.0	23.6	21.3	10
procceding with acustic test for DOBS#						

---

2005+017:06:39:06	21.516746	-89.659006	21.3	0.5	1446.13	16.61
	keren		978754.1	23.6	18.6	18
DOBS #26 dropped for acustic test at 12m						

---

2005+017:06:43:04	21.516542	-89.65915	26.0	0.4	1446.15	18.11
	keren		978754.0	23.6	22.6	23
succesful acustic test for dobs #26						

---

2005+017:06:52:39	21.517809	-89.65883	45.7	1.2	1446.26	17.51
	keren		978755.5	23.6	18.4	359
Dobs # 26 on site 7E						

---

2005+017:06:59:13	21.516575	-89.659089	120.3	1.7	1446.36	16.61
	keren		978756.8	23.6	19.7	5
ready to go to site 7C						

---

2005+017:07:00:14	21.51616	-89.658845	109.3	2.0	1446.41	16.91
	keren		978755.8	23.6	16.0	25
transit to site 7C						

---

2005+017:07:30:11	21.548269	-89.665188	358.5	4.2	1448.41	20.01
	keren		978762.3	23.6	19.4	25
transit to site 7C						

---

2005+017:08:01:11	21.581879	-89.67222	359.3	3.6	1450.45	21.51
	keren		978764.6	23.6	21.0	26
waiting for the DOBS to be ready						

---

2005+017:08:30:11	21.602906	-89.67904	23.8	2.2	1451.8	23.51
	keren		978755.3	23.6	22.8	10
waiting for the dobs to get ready						

---

2005+017:09:00:06	21.60437	-89.678542	25.0	0.2	1452.03	22.91
	keren		978761.7	23.6	19.0	17
transite to site 7C and about to test DOBS						

---

2005+017:09:04:12	21.604192	-89.678662	24.1	0.2	1452.05	23.41
	keren		978760.2	23.6	19.4	27
signal received from DOBS						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+017:09:13:53	21.604917	-89.678671	31.3	0.2	1452.13	21.51
	keren		978764.3	23.6	21.6	14
A frame hydraulics got broken						

---

2005+017:09:30:07	21.604297	-89.678445	25.0	0.6	1452.24	22.81
	keren		978760.3	23.6	23.0	15
waiting for the A frame hydraulics to be repaired						

---

2005+017:10:00:10	21.604667	-89.678715	30.0	0.3	1452.44	5.51
	oscar		978758.9	23.6	19.2	27
watch taken by oscar. Waiting for the Aframe hydraulics to be repaired.						

---

2005+017:10:16:05	21.604274	-89.678809	22.5	0.8	1452.54	23.41
	oscar		978758.9	23.6	19.5	34
DOBS #21 site 7C in water for acoustics test.						

---

2005+017:10:21:12	21.605038	-89.678617	31.7	0.3	1452.6	23.51
	tamara		978758.2	23.6	21.3	18
DOBS #21 brought back on board at site 7C. Acoustic testing successful. Preparing for deployment.						

---

2005+017:10:27:56	21.606823	-89.677435	38.0	1.2	1452.73	24.01
	Oscar		978755.8	23.6	19.4	26
DOBS #21 site 7C deployed						

---

2005+017:10:30:03	21.606643	-89.67739	59.0	0.8	1472.75	23.41
	Oscar		978755.1	23.6	18.7	19
Near of site 7C						

---

2005+017:11:00:12	21.619874	-89.731408	292.5	5.9	1455.62	24.51
	Oscar		978810.7	23.7	18.7	20
transit to site 6B						

---

2005+017:11:23:28	21.631595	-89.761404	18.0	0.5	1457.24	24.41
	Oscar		978767.9	23.7	20.0	33
Acoustic test DOBS # 26 near to site 6B						

---

2005+017:11:27:00	21.632273	-89.761677	28.5	1.6	1457.29	25.61
	Oscar		978773.1	23.7	19.9	37
Acoutic test DOBS # 26 near site 6B out of water, test successful						

---

2005+017:11:30:06	21.633995	-89.760828	30.5	2.3	1457.4	25.91
	Oscar		978766.7	23.7	21.3	31
trtansite to site 6B						

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2005+017:11:34:11	21.635848	-89.759803	32.3	1.3	1457.53	26.41
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Oscar  
DOBS #26 site 6B deployed

978762.6 23.7 18.8 40

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+017:12:00:07	21.642473	-89.792077	21.3	0.8	1459.12	25.81
	Oscar		978773.7	23.8	16.5	33
DOBS #19 transit to site 5A						

---

2005+017:12:28:24	21.659625	-89.843604	15.8	0.7	1461.76	28.61
	Tamara		978782.7	23.8	13.9	27
DOBS #19 site 5A in water for acoustic testing.						

---

2005+017:12:33:31	21.660769	-89.844099	25.8	0.8		27.91
	Tamara		978778.9	23.8	15.8	35
DOBS #19, site 5A back on board. acoustic tests successful. ready to deploy.						

---

2005+017:12:40:55	21.664959	-89.842181	32.0	1.2	1462.1	27.21
	Tamara		978765.3	23.8	15.3	48
DOBS #19 site 5A deployed						

---

2005+017:13:00:17	21.658766	-89.878453	265.5	8.0	1463.83	27.71
	Oscar		978842.1	23.7	19.2	36
finish deployed						

---

2005+017:13:05:37	21.656752	-89.89495	264.3	9.1		25.01
	Oscar		978842.3	23.7	21.9	43
Transit to near Line 2 start for streamer deployment						

---

2005+017:13:30:12	21.643842	-89.975385	261.7	10.	1468.54	22.11
	TJS		978849.6	23.7	17.4	26
Transit to streamer deployment site						

---

2005+017:14:03:00	21.625498	-90.08219	260.3	9.7	1473.79	28.01
	Anusha		978844.4	23.8	19.0	31
in transit to streamer deployment - ETA 14.19 GMT						

---

2005+017:14:30:35	21.626261	-90.128426	35.3	1.0	1476.89	29.51
	Kevin		978843.2	23.9	14.1	41
Preparing for streamer deployment.						

---

2005+017:15:30:08	21.660072	-90.107908	28.3	3.4	1479.58	30.81
	Kevin		978766.6	23.9	19.7	53
Streamer Deployment. At B5.						

---

2005+017:16:00:14	21.680811	-90.097966	25.7	2.7	1481.1	32.51
	Kevin		978770.6	23.8	18.8	48
Streamer Deployment. At B6.						

---

2005+017:16:31:05	21.698795	-90.083976	48.1	3.3	1482.64	32.41
	Kevin		978765.8	23.8	18.2	41

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Streamer Deployment. At B9.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+017:17:00:03 21.713605 -90.064838 54.3 4.0 1484.33 32.61  
 Anusha 978764.9 23.8 18.3 48  
 Just about to test the first section of streamer which has been  
 deployed to see how well it is balanced

---

2005+017:17:03:53 21.716014 -90.061463 53.8 4.0 1484.58 33.41  
 Anusha 978761.1 23.8 18.1 47  
 There is 2km of streamer deployed and we're going to do a 180  
 degree turn at 10 degrees a minute and do a buoyancy test in a  
 following sea.

---

2005+017:17:30:16 21.721627 -90.07909 229.8 3.8 1486.33 33.51  
 Anusha 978806.2 23.8 18.5 50  
 Turning to pick up inspector. Streamer deployment paused.

---

2005+017:18:00:11 21.69805 -90.110332 230.1 4.2 1488.39 32.61  
 keren 978802.6 23.8 18.1 56  
 watch taken by keren

---

2005+017:18:30:15 21.674463 -90.141872 230.3 3.7 1490.47 33.61  
 kevin 978796.0 23.9 15.6 67  
 Streamer deployment. Recovering to examine B10.

---

2005+017:19:30:14 21.628109 -90.203565 228.8 3.8 1494.56 30.81  
 Anusha 978786.7 23.9 16.1 49  
 Continuing to deploy the streamer. Currently changing a section.

---

2005+017:20:00:14 21.613651 -90.233823 316.1 4.0 1496.35 31.21  
 Anusha 978794.8 23.9 10.7 49  
 continuing to deploy streamer

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2005+017:21:29:32 21.676268 -90.166153 52.3 4.6 1502.47 33.81  
 Kevin 978760.1 23.9 19.5 45  
 Streamer deployment.

---

2005+017:23:00:02 21.725836 -90.100988 53.8 2.1 1507.86 34.51  
 TJS 978770.1 23.8 20.5 57  
 Streamer deployment continues, but with some complications after  
 2-3km deployed. Since the last line turn, the streamer has not  
 been sitting properly in the water. Bird 4, at least, is believed  
 to be faulty. However, the feeling is that the streamer is  
 behaving as if it is generally too light. == Streamer is now  
 coming BACK IN. == Interestingly, after 3 or 4 birds being  
 taken off, the cable is now sitting properly again. However,  
 around 1630 (2230 GMT) the hydraulics on the streamer reel failed,  
 due to a leak. Estimated time to fix the problem is 1-1.5hrs, so  
 dinner has been taken early, hoping to resume operations around

1800? 1830?

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+017:23:30:06	21.73615	-90.088143	53.0	1.9	1509.03	35.41
	Tamara		978772.4	23.8	22.1	46

---

2005+017:23:51:28	21.743775	-90.079092	52.7	1.7	1509.85	35.81
	Anusha		978774.5	23.9	22.7	59

---

The hydraulics on the streamer reel have been fixed and we have resumed deployment of the streamer once again.

---

2005+018:00:00:07	21.746571	-90.07604	52.3	2.4	1510.16	36.61
	Anusha				23.9	22.3 48

---

Continuing the deployment of the streamer

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2005+018:00:30:08	21.756667	-90.064277	53.3	2.5	1511.28	35.91
	Anusha		978773.9	23.9	19.9	62

---

Continuing the deployment of the streamer. Bird #4 appears to have a dodgy connection and is being attended to.

---

2005+018:01:00:02	21.771811	-90.045955	51.8	3.9	1513.14	36.31
	Anusha		978766.6	23.9	22.9	56

---

Continuing with streamer deployment. We are up to bird #7 so far.

---

2005+018:01:30:09	21.793105	-90.019288	53.8	4.3	1515	36.51
	Penny		978767.9	23.9	18.8	47

---

Just launched bird 12. Now powering down streamer in order to swap in another section.

---

2005+018:01:57:01	21.811349	-89.997127	53.5	3.9		37.31
	Penny		978766.1	23.9	22.3	58

---

Just finished replacing section Channel 186 and about to resume deployment.

---

2005+018:02:00:10	21.813436	-89.994663	52.0	3.7	1516	37.61
	Penny		978770.7	23.9	18.3	55

---

2005+018:02:14:30	21.823452	-89.983057	52.0	4.4		37.21
	Penny		978767.7	23.9	22.5	71

---

Suspended deployment to swap another section - this requires switching reels on the cable storage reels so will take a little while

---

2005+018:02:20:17	21.827663	-89.978211	52.0	4.1	1518	38.71
	Penny		978766.2	23.9	22.4	62

---

Resumed deployment after changing cans: 3159 replaces 3031

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2005+018:02:30:11	21.835077	-89.969559	52.5	4.5	1519	38.11
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Penny  
Deploying streamer

978766.6 23.9 25.4 58

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+018:03:03:23	21.85897	-89.9422	52.0	4.2	1521	38.41
	Penny		978765.4	23.9	16.9	62
Continue to deploy streamer. We now have birfd 1-17 deployed.						

---

2005+018:03:14:24	21.867226	-89.93256	51.7	4.3		38.71
	Penny		978765.2	23.9	18.8	59
Stopped to change a section out						

---

2005+018:03:30:07	21.878247	-89.919656	52.0	4.1	1523	40.61
	Penny		978765.7	23.9	17.9	52
Still changing a section. At around 9.15 had become concerned that nearer sections were shallowing and gradually bringing up the channels towards the tail buoy. Not possible to monitor at present as cable disconnected to change section.						

---

2005+018:04:00:08	21.899094	-89.894306	51.8	4.1	1525	40.41
	Penny		978765.7	23.9	18.6	29
Completed changing can 3172 for 5990 Now reconnected but ship is turning onto reciprocal course so awaiting completion before continuing deployment.						

---

2005+018:04:30:14	21.899282	-89.921162	230.3	4.6	1527	40.31
	Penny		978810.5	23.9	23.2	54
Have now completed turn. Streamer now sinking having floated right up to surface - now doing better than before.						

---

2005+018:05:00:10	21.876216	-89.95352	227.8	3.6	1529	38.91
	Penny		978811.7	23.9	22.4	70
Having a problem with bird 14 section as it seems determined to stay up near the surface. Tail end staying down well, but 14 is pulling up everything forward of this. It appears that there are less weights on this section so have decided to pull in sections with birds 18-14 incl and add weight. This means bringing in around 1200m.						

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2005+018:05:30:09	21.861266	-89.976209	230.0	3.4	1531	40.21
	Penny		978805.9	23.8	22.2	63
Reached bird 14 and now putting on extra weights.						

---

2005+018:06:00:08	21.840887	-90.004511	230.0	3.9	1532.96	39.01
	Sean		978810.4	23.8	21.8	44
Have put more weight (2 kg) on sections near bird 14. Now putting back out streamer to full length						

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2005+018:06:14:24	21.829891	-90.019513	230.3	4.7	1434.0	39.21
	Sean		978815.7	23.9	22.8	58
bird #15 set to 7m						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+018:06:22:52	21.823219	-90.028782	229.3	4.1	1534.63	38.81
	keren		978817.0	23.9	21.1	63

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bird #16 on

2005+018:06:29:54	21.817782	-90.036333	229.1	4.0	1535.13	39.11
	keren		978814.7	23.9	22.2	66

---

bird #17 set

2005+018:06:42:04	21.808198	-90.04952	230.7	4.0	1536.02	37.61
	keren		978815.3	23.9	22.2	62

---

bird #19 set

2005+018:06:52:20	21.800676	-90.05996	231.5	4.4	1536.74	37.81
	keren		978812.2	23.9	23.5	57

---

birds #5 to #13 within the 7m depth range

2005+018:06:57:44	21.796447	-90.065706	228.7	5.2	1537.14	37.91
	keren		978813.5	23.9	20.5	73

---

bird #20 is set

2005+018:07:00:08	21.794333	-90.068586	229.5	5.1	1537.36	37.91
	keren		978816.2	23.9	21.3	63

---

birds #1 to #12 within the 7m depth range

2005+018:07:04:31	21.790593	-90.073652	231.1	4.7	1537.68	37.91
	keren		978816.1	23.9	25.1	54

---

bird #21 set

2005+018:07:07:30	21.788053	-90.077065	229.0	5.2	1537.91	36.91
	keren		978812.5	23.9	16.3	54

---

bird #22 set

2005+018:07:09:52	21.785983	-90.079807	230.3	4.5	1538.1	37.71
	keren		978814.8	23.9	22.2	54

---

bird #23 set

2005+018:07:14:39	21.782291	-90.084866	229.8	3.7	1538.46	37.51
	keren		978812.5	23.9	19.6	45

---

birds # 1 to 6 within the 7m depth range

2005+018:07:19:11	21.779652	-90.088435	230.3	2.9	1538.74	35.91
	keren		978805.1	23.9	23.2	48

---

changing a section of the streamer. we have no bird-signal

2005+018:07:30:11	21.773714	-90.096576	230.0	3.0		36.71
	keren		978801.6	23.8	20.5	59

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A section of the streamear is being changed, the streamer is

powered off and for the moment we do not have signal of the birds

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

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2005+018:07:31:49 21.772892 -90.097769 231.3 2.8 1539.3 36.31  
 keren 978802.3 23.8 21.1 60

A section of the streamer is being changed, the streamer is  
 powered off so we do not have signal of the birds

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2005+018:07:37:29 21.769899 -90.101921 229.3 2.6 1539.6 37.41  
 keren 978801.1 23.8 23.4 69

signal bird has returned

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2005+018:07:40:27 21.768311 -90.104218 231.0 3.0 1539.75 36.51  
 keren 978802.1 23.8 23.1 57

all birds out of 7m depth range

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2005+018:07:57:41 21.757039 -90.120061 230.1 4.0 1540.8 36.41  
 keren 978805.4 23.8 21.6 58

bird #24 set

---

2005+018:08:00:07 21.755248 -90.122558 229.7 4.2 1540.95 37.31  
 keren 978804.5 23.8 22.1 50

birds #1,2,5 within the 7m depth range

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2005+018:08:05:39 21.751156 -90.128059 227.8 4.1 1541.35 36.71  
 keren 978804.4 23.8 19.5 59

bird #25 set

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2005+018:08:09:45 21.747892 -90.132233 228.7 4.3 1541.63 35.31  
 keren 978802.5 23.8 24.8 58

bird #26 set

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2005+018:08:12:50 21.745439 -90.135385 226.7 4.4 1541.81 35.31  
 keren 978803.2 23.8 24.9 56

bird #27 set

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2005+018:08:14:00 21.744484 -90.136606 228.7 4.4 1541.96 36.11  
 keren 978802.0 23.8 23.5 58

birds #1 to #5 within the 7m depth range

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2005+018:08:17:04 21.742067 -90.139754 228.0 4.2 1542.16 34.21  
 keren 978802.7 23.8 23.3 60

bird #28 set

---

2005+018:08:30:10 21.732113 -90.152577 228.0 3.6 1543.07 36.21  
 keren 978799.5 23.7 23.6 68

birds #1 to 4, and #21-22 within the depth range

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2005+018:08:40:16 21.724557 -90.161938 227.3 3.7 36.51  
 keren 978797.4 23.7 21.2 56

birds # 18-26 and #1-4, within the 7m depth range

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+018:09:00:02 21.709239 -90.180488 228.3 4.7 35.41  
 keren 978795.7 23.7 20.0 57  
 birds #1-6, #10-13 and #15-27 are within the 7m depth range

2005+018:09:06:02 21.70403 -90.186785 226.8 4.2 1545.51 31.81  
 keren 978793.7 23.7 18.6 40  
 birds # 4, 5, 8, 14 and 28 OUT of 7m depth range

2005+018:09:08:00 21.702298 -90.188806 228.5 4.5 1545.63 33.61  
 keren 978795.1 23.7 25.1 46  
 birds #14 and 28 OUT of 7m depth range

2005+018:09:30:04 21.684029 -90.213198 234.3 4.4 1547.33 35.61  
 keren 978794.1 23.7 24.3 45  
 birds #14, #16-18 and #24 are out of the 7m depth range

2005+018:09:36:07 21.679252 -90.220257 235.3 4.4 1547.76 33.91  
 keren 978794.9 23.7 21.8 36  
 birds #13-19 and #28 are out of 7m depth range

2005+018:09:53:01 21.665607 -90.240206 236.1 4.5 1549.08 33.61  
 keren 978794.5 23.8 24.1 45  
 streamear deployed. Birds #9-11, #13, #14 and #28 out of 7m depth range

2005+018:10:00:07 21.660012 -90.2485 233.7 4.6 1549.6 33.01  
 oscar. 978794.8 23.8 22.5 48  
 watch taken by oscar. Tension of the streamer 3442. Birds # 7,8,14, 18,19, and 28 out of 7m depth range

2005+018:10:30:08 21.636982 -90.282579 235.3 4.2 1551.84 33.01  
 oscar. 978794.5 23.8 21.3 52  
 tension 3415 bird 9, 14 and 28 out of 7m depth range

2005+018:11:00:09 21.614002 -90.31644 236.3 4.1 1554.05 31.11  
 oscar. 978786.1 23.8 24.6 45  
 tension 3200 bird #14 and 28 out of 7m of depth range

2005+018:11:30:11 21.59076 -90.350802 233.3 4.6 1556.28 30.51  
 oscar. 978781.7 23.7 21.7 69  
 Tension 3420 birds # 14,16,18 and 28 out the 7m depth ranger

2005+018:12:00:11 21.560617 -90.367696 139.7 4.2 1558.32 30.91  
 oscar. 978745.1 23.7 21.6 63  
 Tension of streamer 3000, most birds responding OK, but birds # 3,5 14-19 22-27 out of the 7m depth range The birds # 9 and 14 are not responding (faulty battery packs)

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+018:12:23:32	21.556033	-90.340581	71.7	4.7	1560.09	29.21
	oscar/TJS		978720.6	23.7	21.1	59
Ship completing turn. Central birds (#7-25) very shallow, but assoc. with line turn. Bird 14 diagnostics suggested faulty battery pack causing shallow depth, but possible pressure sensor problem - depth set manually to 10m... waiting for response. Bird 9 diagnostics suggest faulty battery pack, but this bird generally sits well.						

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2005+018:13:00:12	21.566404	-90.292846	72.0	4.0	1562.76	29.81
	oscar/TJS		978726.7	23.7	25.1	60
Streamer tension 4500-5000. Port has been closed, as conditions getting rough (sea state ~6). Guns are to be deployed in readiness (pressure: 2006), but awaiting improvement in conditions. Streamer depth levelling off nicely after line turn, but birds 9 and 14 (Recall: set to 10m...) still in tail-end section yet to level off. Continuing to monitor their behaviour.						

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2005+018:13:32:13	21.575411	-90.25087	73.1	4.2	1565.2	29.41
	oscar/TJS		978728.2	23.7	24.4	65
Streamer tension ~4500. Cable sitting fairly well now. Bird 14 still a little out, but more like 4 or 5m instead of 1 or 2m. Maintaining course and speed. Some streamer QC/diagnostics to be carried out.						

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2005+018:13:37:48	21.576907	-90.243688	72.3	4.6	1565.64	29.21
	oscar/TJS		978728.5	23.7	25.2	58
Guns NOT to be deployed now. Waiting until sea state improves after all. (Currently sea-state 6 / Beau. Scale 6-7).						

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2005+018:14:00:12	21.583123	-90.214482	71.7	4.1	1567.24	27.41
	tamara		978729.5	23.7	23.6	40
still rough seas. Inspectors may not come out to ship today.						

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2005+018:14:30:07	21.591549	-90.175096	74.7	4.2	1569.29	25.11
	Anusha		978734.9	23.6	19.5	74
Streamer tension is 4635. We are currently waiting for the chase boat and details on the environmental inspection before we can start deploying guns						

---

2005+018:15:00:07	21.59986	-90.136258	72.8	4.0	1571.46	29.01
	Anusha		978734.4	23.6	28.3	62
we have permission to start shooting the guns without the chase boat actually coming out to us, so we are just waiting for the wind speed to drop from its current speed of around 26 knots to approx 17 knots (which is beaufort 4) before we can start deploying the guns.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+018:15:30:03	21.608142	-90.098057	73.1	3.8	1573.8	24.61
	Anusha		978736.1	23.5	28.2	60
Still waiting for the wather to calm down before we can deploy the guns. Unfortunately rhe weather appears to be picking up...						

---

2005+018:16:00:08	21.616496	-90.058736	74.3	4.2	1575.83	28.01
	Anusha		978735.6	23.5	27.4	53
Still waiting for the waether to die down - wind speed is currently 26.7 knots						

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2005+018:16:30:02	21.624891	-90.0194	74.0	4.4	1577.96	24.81
	Matt		978741.6	23.6	23.7	60
Waiting for wind to calm down. Wind speed is 27.5 knots. Tension in the streamer is 4788.						

---

2005+018:17:00:07	21.633383	-89.979917	74.3	4.2		24.71
	Anusha		978739.6	23.6	26.1	65
Still waiting for the weather to improve in order to deploy guns.... Waiting... Wind speed still around 7 knots						

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2005+018:17:30:11	21.642043	-89.939618	75.0	4.2	1582.4	25.51
	Anusha		978741.0	23.6	23.6	57
Still waiting for the weather to die down. Wind speed dropped slightly to 24 knots (from 27 knots)						

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2005+018:18:00:03	21.650597	-89.899456	74.7	3.8	1584.44	26.11
	Matt		978743.0	23.5	21.5	61
Wind speed 20.2. Change of watch. Karen and Peggy are now working. Tension in streamer is 3955.						

---

2005+018:18:30:01	21.659079	-89.859642	74.8	4.2	1586.82	28.21
	Peggy		978742.9	23.5	20.7	53
Wind speed 19-22. Streamer tension ~4500. Started to deploy the starboard airgun boom.						

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2005+018:19:00:03	21.66782	-89.818979	76.1	4.8	1588.99	26.41
	Peggy		978741.0	23.5	19.2	55
Wind speed lower: 18-20. Streamer tension ~4000. Deploying the PAM. Proceeding easterly along line .						

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2005+018:19:30:09	21.676461	-89.778782	76.3	4.0	1591.3	28.41
	Peggy		978743.9	23.5	20.4	65
Wind speed 20-22. Streamer tension ~4000. Finished deploying 8 airguns at starboard. Proceeding easterly on line 2.						

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2005+018:20:02:12	21.685493	-89.73623	76.3	4.3	1593.48	27.21
	keren		978734.9	23.6	26.1	71

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tension on the streamer 4100-4500, wind speed 23-25 knots.

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+018:20:08:12	21.687131	-89.728252	75.8	4.0	1593.92	25.91
	keren		978736.5	23.6	26.2	68
two dolphins were noticed inside security radius						

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2005+018:20:30:03	21.693475	-89.69883	76.3	4.4	1595.43	28.21
	keren		978733.4	23.6	23.1	68
wind speed 23-24 knots, tension of streamer 4300-4500. birds #14 and #28 out of 7m depth range						

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2005+018:21:00:05	21.702181	-89.658458	76.8	4.6	1597.6	30.61
	keren		978728.7	23.6	24.1	68
wind speed 20-23 knots, tension of the streamer 4500-4700 . Birds #9, 14 and 28 out of 7m depth range						

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2005+018:21:13:02	21.705878	-89.640818	76.3	4.5	1598.7	27.81
	Peggy		978730.3	23.6	22.9	65
PAM is at 12 m depth. Start listening now. Wind speed higher again: 24-26. Streamer tension ~4500. Going easterly along line 2.						

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2005+018:21:30:02	21.710767	-89.618001	76.5	4.4	1599.93	27.31
	keren		978732.4	23.6	20.8	61
wind speed 18-21 knots, tension on the streamer 4500-4600, birds #14 and 28 out of the 7m depth RANGE.						

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2005+018:22:00:01	21.719471	-89.577375	75.0	5.0	1602.22	26.01
	Peggy		978732.0	23.6	22.6	64
Wind speed 19-23. Streamer tension 3900-4600. Watch taken over by Tamara, Tim and Oscar.						

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2005+018:22:30:15	21.728075	-89.537228	76.1	3.6	1604.23	25.31
	Peggy		978729.2	23.6	21.6	62
wind speed 22 Knot, tensin of streamer 3800-4100 Birds # 14 and 28 out of the 7m depth range						

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2005+018:23:00:07	21.736562	-89.497781	77.0	4.0	1606.33	24.21
	Oscar		978728.9	23.6	19.7	78
wind speed 28.8 knots , streamer tension 3800-4200 Birds # 9,14 y 28 out of the 7m depth range						

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2005+018:23:31:07	21.745363	-89.456817	77.7	4.3	1608.5	26.51
	TJS		978730.2	23.6	16.5	70
Wind speed in range 19-24. Streamer tension ~3800-4200. Streamer looking good, with only known problem birds 9 (9.1m) and 14 (~4.4m) out of depth window. Plan to finish course of line and go into a turn, hoping to try again for line 2 tomorrow when good weather is forecast.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: 1818 Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+019:00:00:09	21.75338	-89.418758	76.7	3.8	1610.6	26.31
	TJS				23.6	20.5 66
streamer tension ~4000. Ship has started turn to the left.						

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2005+019:00:31:01	21.783285	-89.423791	300.0	4.0	1612.64	29.41
	TJS		978792.1	23.6	17.5	84
Streamer tension ~3000. Wind speed ~16.5-22, coming down. Ship turning.						

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2005+019:01:00:10	21.776776	-89.464695	259.7	4.0	1614.49	28.21
	TJS		978796.9	23.6	20.0	65
Streamer tension 2900-3300 wind speed 23.5 knots						

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2005+019:01:30:11	21.768475	-89.504007	260.1	3.6	1616.49	29.71
	TJS		978793.6	23.7	18.3	55
Streamer tension 2500-3000 wind speed 19.3 knots . Ship returning						

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2005+019:02:00:15	21.760308	-89.542213	257.1	3.6	1618.03	28.31
	TJS		978794.2	23.7	18.0	74
Streamer tension ~2500-2800. Wind speed reducing. Turn completed, and on way back to line 2 start. Streamer depth good except for 9 and 14 still. Watch change. OUT: Oscar, Tamara and Tim IN: Matt and Anusha						

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2005+019:02:30:03	21.752082	-89.581173	257.3	3.8	1618.03	25.51
	Anusha		978792.6	23.6	19.6	63
We are sailing back to the start of line 2. Wind speed is 19.6 knots. Streamer tension is 3062.						

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2005+019:03:00:03	21.743728	-89.620057	257.0	4.0	1622.23	29.91
	Anusha		978793.5	23.6	21.1	72
Sailing towards the start of line 2. The wind speed is 21.1 knots. The streamer tension is 2685.						

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2005+019:03:30:01	21.735428	-89.659271	257.8	3.9	1624.21	31.31
	Anusha		978794.7	23.6	16.0	70
Still sailing to the start of line 2. The wind speed is 14.5 knots. The streamer tension is 2866.						

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2005+019:04:00:05	21.726927	-89.698654	258.1	4.1	1626.25	30.61
	Anusha		978797.7	23.6	21.2	88
Still sailing to the start of line 2. Wind speed is 21.5 knots. Streamer tension is 3250.						

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2005+019:04:30:04	21.718452	-89.738141	257.0	4.2	1628.27	5.51
	Anusha		978801.4	23.5	20.8	87
Still sailing to the start of line 2. Wind speed is 21.4 knots.						

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Streamer tension is 3266.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+019:04:59:59	21.710061	-89.777703	257.0	3.5	1630.23	27.21
	Anusha		978804.9	23.6	18.9	96
Still sailing to the start of line 2. The wind speed is 17.5 knots. The streamer tension is 2960. Streamer is well balanced excepting bird 14 which is too light and occasionally bird 9 which is too heavy.						

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2005+019:05:30:05	21.70168	-89.816717	257.3	4.1	1632.14	29.91
	Matt		978806.1	23.6	20.4	81
We are still sailing to the start of line 2. Wind speed is 18.9 knots. Streamer tension is 2981. Birds 9 and 14 are still out of range.						

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2005+019:06:00:00	21.693478	-89.85561	256.7	4.0		31.01
	Peggy		978804.4	23.5	17.8	71
Proceeding to the start of line 2. Windspeed is 17 knots. Streamer tension ~3000. Watch taken over by Keren, Peggy and Sean. KNush knitting has reached a 5 cm length.						

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2005+019:06:30:08	21.685178	-89.894404	256.7	3.9	1636.28	27.51
	Peggy		978802.0	23.5	18.0	90
Streamer tension ~2900. Still proceeding to start of line 2.						

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2005+019:07:00:08	21.676952	-89.932732	256.1	3.8	1638.2	29.31
	Peggy		978804.0	23.4	19.5	78
Still proceeding to start of line 2. Streamer tension ~3000.						

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2005+019:07:30:07	21.66874	-89.971198	256.5	4.1	1640.21	28.71
	Peggy		978806.8	23.4	18.4	67
Proceeding to start of line 2, looking at vacation pictures, at a streamer tension of 2900-3100.						

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2005+019:08:00:06	21.66045	-90.009645	258.3	3.9	1642.1	26.11
	Peggy		978804.9	23.4	16.7	76
procceding to line 2						

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2005+019:08:30:08	21.652308	-90.048065	257.0	3.7	1643.95	27.21
	keren		978802.6	23.5	16.4	70
procceding to line 2						

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2005+019:09:01:59	21.643645	-90.088711	258.3	4.2	1646.02	28.71
	keren		978800.9	23.5	18.0	73
procceding to line 2. Tension on the streamer 2900-300. Birds # 14 and 28 out of 7m depth range.						

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2005+019:09:30:06	21.635888	-90.124651	259.0	4.3	1648.0	29.51
	Peggy		978801.0	23.5	16.8	76

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Still proceeding to start of line 2. Streamer tension 3000.  
Listening to the Beatles.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+019:10:00:01 21.62787 -90.16265 258.7 4.5 1650.1 29.51  
 Peggy 978798.1 23.5 16.5 78  
 Still proceeding to the start of line . Streamer tension ~2900.  
 Watch taken over by Tamara, Tim and Oscar. Listeneing to Billy  
 Joel.

2005+019:10:30:08 21.619807 -90.200328 259.0 3.7 1652.02 28.31  
 Oscar 978796.1 23.4 15.5 82  
 wind speed 14-16 birds # 14 y 28 out of the 7m depth range

2005+019:11:00:12 21.611843 -90.237684 259.0 3.9 1654.02 29.61  
 Oscar 978792.1 23.3 17.5 66  
 wind speed 14-15. Streamer tension 2800-3000 birds # 9,14 and 28  
 out of the 7m range depth

2005+019:11:30:06 21.602324 -90.274445 230.1 4.2 1656.1 29.51  
 Oscar 978787.0 23.4 15.4 88  
 Wuind speed 12-14 knots. Streamer tension 2800-3000. birds # 24-28  
 out of the 7m depth range

2005+019:11:50:46 21.579558 -90.276571 135.0 4.1 1657.56 26.31  
 Oscar 978746.3 23.4 12.6 79  
 ship turning line

2005+019:11:51:22 21.57902 -90.276062 129.1 4.2 2657.6 27.91  
 Oscar 978743.4 23.4 16.9 95  
 gun calibration in progress

2005+019:12:00:07 21.574357 -90.265929 95.7 4.6 1658.23 29.51  
 Oscar 978727.1 23.4 18.2 84  
 Streamer tension 2700-3000 .Wind speed 16-18 . Birds # 9, 16,17,  
 23-28 out of the 7m depth range. Ship turning.

2005+019:12:30:07 21.580516 -90.226681 76.0 4.3 1660.43 27.71  
 Oscar 978729.0 23.3 14.8 92  
 Wind speed 14-16. Streamer tension 3600-3700 . Birds # 6-16 out  
 of the 7m depth range and bird #9 not communication. ship turning

2005+019:13:00:12 21.589018 -90.186889 75.7 4.0 1662.52 27.81  
 Oscar 978729.9 23.3 15.4 83  
 streamer tension ~3600, wind speed ~14. Bird #9 is very shallow.

2005+019:13:30:07 21.597542 -90.14733 74.5 3.7 1664.43 26.61  
 Oscar 978733.5 23.4 13.5 87  
 Streamer tension 3400-3700. wind speed 11-13 knots. Birds # 9 and  
 14 out of the 7m depth range. Bird # 9 very shalow



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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+019:14:00:04 21.606014 -90.108042 76.5 3.8 1666.31 26.51  
Oscar 978737.7 23.4 14.7 77  
Streamer tension 3500-3700. wind speed 16-17. Bied # 9 very  
shallow . Watch taken over by Matt and Anusha

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2005+019:14:30:06 21.614305 -90.068967 76.1 3.6 1668.18 27.71  
MATT 978734.4 23.4 12.5 91  
The wind is 12.4 knots. The tension is 3499. We are waiting a  
letter to clarify the safety radius before we can shoot.

---

2005+019:15:00:01 21.622743 -90.029494 74.8 3.7 1670.21 26.31  
Anusha 978737.8 23.4 14.8 67  
Still waiting for the safety radius letter. Guns are all in the  
water and the streamer is well balanced with the exception of bird  
#9 which is not communicating.

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2005+019:15:30:07 21.631355 -89.989464 75.5 3.9 1672.2 21.91  
Anusha 978740.7 23.3 10.0 66  
Still waiting for the Safety radius letter to come through. The  
wind speed is 12.4 knots and the streamer tension is 3381.  
Seven inspectors from Profepa have just arrived in a boat and are  
about to get on board the ship to look at the guns.

---

2005+019:16:00:13 21.624965 -89.949527 70.3 4.2 1674.25 22.91  
Anusha 978740.0 23.2 12.4 81  
The 7 Profepa inspectors are in the process of getting on board.  
The Streamer tension is 3536. The streamer is looking very well  
balanced (excepting bird #9 which is not communicating)

---

2005+019:16:30:14 21.659471 -89.939306 5.0 4.4 1676.28 28.51  
Anusha 978775.2 23.3 10.5 65  
The 7 Profepa inspectors are still being brought aboard in two  
lots using a rib

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2005+019:17:05:12 21.67965 -89.908902 100.5 4.5 1678.96 30.31  
Anusha 978743.8 23.4 11.1 74  
The inspectors are all on board and are in a meeting. Various  
people are looking around the ship, inspecting the equipment. The  
streamer tension is 3272 and the streamer is looking well balanced  
excepting a slight dip at the front due to the ship's navigation  
(turning a bit).

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2005+019:17:30:12 21.671943 -89.876789 100.3 3.8 1680.63 27.31  
Anusha 978740.7 23.5 11.7 67  
The inspectors are still on board. The streamer tension is 3739  
and the streamer is looking \*beautifully\* balanced!

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

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2005+019:17:59:59 21.665892 -89.837211 85.1 4.0 1682.52 27.11  
 Peggy 978742.9 23.5 12.0 69  
 Streamer tension ~3500. Inspectors stil onboard. Watch taken over  
 by Peggy.

---

2005+019:18:30:01 21.672356 -89.79805 75.0 4.4 1684.49 28.21  
 Peggy 978744.4 23.5 10.3 61  
 Streamer tension ~3600. Inspectors still onboard. Streamer well  
 balanced except for bird 9, from which we get no data. We assume  
 it's at the right depth.

---

2005+019:19:00:04 21.680631 -89.759137 75.0 3.4 1686.42 27.21  
 Peggy 978742.7 23.5 11.6 65  
 Streamer tension ~3500. Inspectors still onboard.

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2005+019:19:30:07 21.689132 -89.719265 76.1 4.0 1688.26 27.01  
 Peggy 978734.7 23.5 14.9 62  
 Streamer tension ~3800. Inspectors still onboard.

---

2005+019:20:00:01 21.697955 -89.677917 76.7 3.6 1690.26 28.11  
 Peggy 978731.2 23.5 15.4 65  
 Streamer tension ~3600.

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2005+019:20:30:00 21.706708 -89.637327 70.3 3.8 1692.38 27.91  
 Peggy 978731.6 23.5 15.6 62  
 Changing course for boat operations: to let the inspectors off the  
 ship. Streamer tension ~3900. Wind speed still low. Nush has  
 started a new colour.

---

2005+019:21:00:05 21.743992 -89.623542 5.0 4.5 1694.75 29.11  
 Peggy 978763.3 23.6 14.0 48  
 Streamer tension ~3900. Inspectors still onboard. We are returning  
 to their vessel.

---

2005+019:21:30:05 21.782943 -89.625665 4.3 4.5 1697.09 29.51  
 Peggy 978764.7 23.7 14.0 70  
 Streamer tension ~3800. Inspectors still onboard.

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2005+019:22:00:06 21.821224 -89.628128 4.5 4.6 1699.41 35.71  
 Peggy 978767.7 23.7 18.3 45  
 Streamer tension ~3600. Inspectors visited the main lab and are  
 now on the fan tail. Tim and Tamara are taking over the watch.

---

2005+019:22:30:11 21.859955 -89.63083 5.0 4.8 1701.77 37.31  
 Peggy 978770.5 23.7 15.9 68  
 streamer tension is ~3600. Mexican inspectors have left the ship.

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+019:23:00:06	21.898363	-89.63355	358.7	4.4	1704.1	38.81
	Peggy		978774.2	23.7	15.1	75
streamer tension ~3500. Birds all in order.						

---

2005+019:23:30:14	21.914069	-89.670094	254.3	5.6	1706.72	39.91
	Oscar		978813.0	23.7	12.2	63
wind speed 11-12. Streamer tension 3900-4000						

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2005+020:00:00:07	21.897922	-89.714737	249.0	4.9	1709.28	39.21
	Tamara			23.7	9.9	49
streamer tension ~3600. True wind speed ~10.						

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2005+020:00:30:05	21.88355	-89.754013	249.0	4.5	1711.53	39.61
	Tamara		978806.9	23.7	9.2	77
Streamer tension 3100-3200. tru wind speed 8-9 . Bird # 9 not communication						

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2005+020:01:00:12	21.869073	-89.792858	248.0	4.4	1713.78	39.41
	Tamara		978809.1	23.6	10.2	62
Streamer tension 3100-3200. wind speed 9-10 Knots. Bird # 9 not have communication						

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2005+020:01:30:09	21.854362	-89.830972	248.3	4.3	1716.01	38.51
	Oscar		978809.5	23.6	10.0	62
wind speed 10.8-11 . Streamer tension 3000-3200. Bird #9 not comunication						

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2005+020:02:00:00	21.839648	-89.868769	247.8	4.6	1718.21	38.21
	Oscar		978810.7	23.6	14.4	67
wind speed 11-12. Streamer tension 3000-3200. Bird # 9 not communication . Watch taken over Anusha and Matt						

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2005+020:02:30:08	21.824676	-89.907356	247.7	4.4	1720.39	36.91
	Matt		978809.8	23.6	17.4	48
Wind is 16.7 knots. Tension is 3176. Inspectors came today. We are hoping to get the sea conditions requirement changed so we can start shooting.						

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2005+020:03:00:11	21.809635	-89.946072	247.5	4.3	1722.67	36.91
	Anusha		978811.3	23.5	17.1	62
Streamer tension is 3146. Sailing to the start of line 2. Guns are deployed but not shooting as yet.						

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2005+020:03:30:09	21.794732	-89.984361	248.3	4.8	1724.86	36.41
	Anusha		978813.2	23.5	19.9	31
Streamer tension is 3248. Streamer is looking extremely well balanced...						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+020:04:00:06 21.779732 -90.023142 248.3 4.5 1727.06 35.91  
 Anusha 978816.5 23.5 20.8 48  
 Streamer tension is 3118. Streamer is well balanced. Still  
 sailing with no guns firing...

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2005+020:04:30:10 21.764816 -90.061483 247.7 4.3 1729.22 35.61  
 Anusha 978815.5 23.5 18.1 39  
 The streamer tension is 3199. Wind speed is 16.2 knots. Streamer  
 is well balanced.

---

2005+020:04:48:45 21.755625 -90.085094 248.0 4.4 1730.49 35.21  
 Matt 978813.1 23.5 15.0 51  
 End of roll #1 of the Bathy-2000.

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2005+020:05:00:06 21.749971 -90.09955 247.1 4.2 1731.39 35.01  
 Matt 978811.2 23.5 19.4 46  
 Wind = 16.4 Tension = 3095 Matt = super cool

---

2005+020:05:30:11 21.735077 -90.137896 248.0 4.3 1733.54 35.71  
 Anusha 978807.6 23.5 17.3 43  
 Wind speed = 16.6 Streamer tension = 3112

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2005+020:06:00:01 21.720232 -90.175852 248.7 4.7 1735.71 36.91  
 Peggy 978803.9 23.5 19.0 41  
 Streamer tension ~3200. Watch taken over by Peggy, Keren and Sean.  
 Music's good.

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2005+020:06:30:07 21.705245 -90.214397 249.1 4.5 1737.91 35.61  
 Peggy 978796.4 23.6 19.3 32  
 Streamer tension ~3000. Streamer well balanced, bird 9 still not  
 responding.

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2005+020:07:00:06 21.690147 -90.253467 247.3 4.5 1740.17 34.91  
 Peggy 978799.1 23.6 17.4 37  
 Streamer tension ~3200.

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2005+020:07:30:11 21.674979 -90.29246 247.8 4.3 1742.45 34.11  
 Peggy 978798.2 23.5 14.6 40  
 Streamer tension ~3400. Nothing's happening.

---

2005+020:08:00:00 21.659949 -90.331092 247.7 4.3 1744.7 33.91  
 Peggy 978796.5 23.5 10.7 47  
 Streamer tension ~3300. Bridge said that they will make a turn in  
 1h. We pressed stop on Dietmar's laptop.

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2005+020:08:30:05 21.644663 -90.370219 247.1 4.3 1747.01 33.21  
 Peggy 978796.1 23.4 13.0 38

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Streamer tension ~3300.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+020:09:00:00	21.62945	-90.409189	243.8	4.5	1749.25	32.41
	Peggy		978790.8	23.4	15.4	30
Streamer tension ~3500.						

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2005+020:09:01:11	21.628643	-90.410744	238.8	4.8	1749.35	32.91
	Peggy		978791.0	23.4	14.0	41
Started turning.						

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2005+020:09:03:27	21.626757	-90.413508	227.0	4.7	1749.53	32.21
	keren		978791.0	23.4	13.5	53
the ship started to turn						

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2005+020:10:00:05	21.559255	-90.409174	156.3	4.3	1753.75	30.51
	Peggy		978746.2	23.4	11.9	42
Streamer tension ~3300. Watch taken over by Tim, Tamara and Oscar.						

---

2005+020:10:21:09	21.546996	-90.386323	86.5	4.4	1755.4	28.41
	Oscar		978720.0	23.3	15.1	46
Finished the turn						

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2005+020:10:30:07	21.548439	-90.37408	73.8	4.8	1756.06	28.21
	Oscar		978719.0	23.3	15.3	32
wind speed 14-16 . Streamer tension 3300-3600.						

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2005+020:11:00:09	21.556881	-90.337063	74.1	4.2	1758.26	29.31
	Oscar		978723.7	23.2	14.3	40
streamer tension ~3300.						

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2005+020:11:30:09	21.564919	-90.299585	74.7	4.2	1760.3	28.21
	Oscar		978724.1	23.2	14.7	36
Streamer tension 3100-3400. wind speed 12-14						

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2005+020:12:00:15	21.573178	-90.2608	75.1	4.4	1762.62	28.21
	TJS		978725.2	23.3	14.2	53
Streamer tension ~3300-3600. Wind speed 11-14. Steaming around, approaching line 2 start as we await permit detail clarification.						

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2005+020:12:30:05	21.581487	-90.222026	74.0	4.0	1764.65	27.11
	TJS		978729.6	23.3	11.2	57
Streamer tension 3300-3600. wind speed 12-14						

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2005+020:13:00:03	21.590024	-90.182521	75.0	3.7	1766.7	26.61
	TJS		978731.4	23.3	11.9	52
Streamer tension 3300-3650. wind speed 10-11 knots.						

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2005+020:13:30:03	21.598378	-90.14326	74.5	3.4	1768.64	26.51
	TJS		978734.0	23.3	13.6	59

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Streamer tension 3200-3400. wind speed 10-12

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source: 1916	Guns:	Pressure:
		Volume: 1663

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+020:14:00:00	21.606814	-90.104251	75.1	3.9	1770.51	27.61
	TJS		978736.8	23.2	7.3	67
wind speed 11-12. Streamer tension 3500-3550.						

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2005+020:14:30:11	21.615326	-90.06441	75.7	4.0	1772.5	28.11
	Anusha		978735.2	23.1	7.4	44
Wind speed = 6.7. Streamer tension = 3495.						

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2005+020:15:00:01	21.62371	-90.025151	74.3	4.1	1774.46	25.11
	Matt		978737.9	23.1	8.4	44
Tension = 3329 Not shooting						

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2005+020:15:30:07	21.632155	-89.985367	74.1	3.6	1773.56	25.51
	Anusha		978741.4	23.2	7.9	42
Wind speed = 6.5. Streamer tension = 3330						

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2005+020:16:00:09	21.64071	-89.945389	73.8	4.3	1778.49	21.51
	Matt		978741.9	23.3	9.3	51
Tension=3556. 2 Chase boats are here. A boat crossed the streamer.						

---

2005+020:16:30:01	21.649257	-89.905668	74.1	3.8	1700.48	26.31
	Matt		978741.3	23.3	10.1	45
Tension = 3417. Birds look good. Emailing authorities about sea state conditions.						

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2005+020:17:00:01	21.657799	-89.865806	74.8	3.8	1782.38	26.21
	Matt		978742.2	23.3	12.1	42
Tension = 3491 Anusha won at drafts with a triple jump of three kings. Still haven't heard back from officials about changes the sea state shooting conditions.						

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2005+020:17:30:07	21.666369	-89.825983	74.8	3.6	1784.27	26.81
	Matt		978742.3	23.3	11.2	54
Tension = 3401. Tea break was enjoyable.						

---

2005+020:18:00:03	21.674747	-89.786628	74.8	3.3	1786.3	29.31
	Matt		978742.5	23.3	6.8	44
Tension = 3498. Wind is low. We might start soon. Change of watch.						

---

2005+020:18:30:08	21.683192	-89.747224	74.7	3.7	1788.27	27.91
	Peggy		978739.0	23.4	6.6	61
Streamer tension ~3500. Looking at pictures from Panama.						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source: 1916	Guns: 166	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+020:18:53:31	21.689693	-89.716594	74.8	3.5	1789.77	27.11
	Peggy		978735.6	23.4	9.1	43

Compressors were started at ~18.40. Wind speed was below 7 for a while. Bridge wants to have it below 6.5 for 15 minutes, before starting ramp up.

---

2005+020:19:00:05	21.69158	-89.708005	75.0	4.2	1790.18	26.81
	Peggy		978734.3	23.4	7.7	56

Streamer tension ~3400. Wind speed slightly higher again.

---

2005+020:19:13:12	21.695208	-89.690855	74.5	4.0	1791.06	27.81
	Peggy		978733.0	23.5	7.5	50

Power to the streamer was turned off.

---

2005+020:19:30:07	21.700027	-89.668586	75.5	4.2	1792.19	28.51
	Peggy		978731.8	23.5	5.9	43

wind speed 4.5-5.5 knots, tension on the streamer 3300-3500.

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2005+020:20:00:08	21.708487	-89.628947	76.3	3.8	1794.31	28.21
	keren		978731.1	23.5	7.4	51

wind speed 5-6 knots. tension on the streamer 3300-3500. all birds in the 7m depth.

---

2005+020:20:30:02	21.716924	-89.589508	76.1	3.8	1796.29	28.11
	Peggy		978730.6	23.5	7.8	65

Streamer tension ~3300. Power to tail buoy back on since 30 minutes. Streamer well balanced at 7 m depth, bird 9 not working. Wind speed slightly too high.

---

2005+020:21:00:01	21.725394	-89.54984	75.7	3.8	1798.19	26.31
	Peggy		978729.8	23.5	7.4	44

Streamer tension ~3400. Streamer well balanced at 7 m. Wind speed still too high.

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2005+020:21:30:05	21.733987	-89.509666	75.8	3.7	1800.04	24.51
	keren		978729.1	23.5	7.3	67

wind speed 7.5- 8.2 knots, tension on the streamer 3300-3500. all birds within 7m depth range.

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2005+020:22:00:07	21.742496	-89.469744	76.1	4.0	1801.91	25.51
	Peggy		978729.3	23.5	5.3	64

Streamer tension ~3500. Streamer well balanced at depth of 7 m, bird 9 still not responding. Wind speed has new display: mostly below 7 knots, but not always. Watch taken over by Tim, Tamara and Oscar.

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2005+020:22:30:01	21.75102	-89.430003	76.8	3.8	1803.77	26.11
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Peggy	978730.5	23.5	4.8	68
Streamer tension 3100-3200. wind speed 3.5-4.2				

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: 1916 Guns: 1 Pressure: Volume: 2008

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

COMMENTS

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2005+020:22:37:31	21.75319	-89.420146	76.7	3.9	1804.24	25.41
	Oscar		978730.3	23.5	6.3	50

wind speed 4.5-5.5. Starting shoot . starting ramp up of guns.

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2005+020:22:52:48	21.758402	-89.399605	76.5	3.8	1805.22	25.61
1625 1 23	Tamara		978731.3	23.5	4.8	60

Dietmar is working on the shot computer. Continued ramp-up.

---

2005+020:23:01:26	21.774756	-89.388546	77.0	4.5	1805.79	25.01
1649 1 47	Tamara		978732.2	23.4	6.0	50

continued ramp-up.

---

2005+020:23:07:24	21.796422	-89.38094	77.0	3.8	1806.21	25.31
1654 2 52	Tamara		978731.6	23.4	7.0	78

tape change. Tape 1: shot 1603 to 1653, File 1-51.

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2005+020:23:10:57	21.813547	-89.377247	77.1	3.9	1806.42	24.91
1673 2 70	Tamara		978731.0	23.4	6.5	84

All 20 guns are now firing. End of ramp-up.

---

2005+020:23:17:33	21.850939	-89.372306	77.5	4.0	1806.88	25.81
1681 2 89	Tamara		978731.4	23.4	4.2	66

time daemon not working.

---

2005+020:23:23:52	21.891068	-89.370403	77.5	4.2	1807.3	26.31
1655 3 1705	Tamara		978731.5	23.4	4.2	61

tape change. start of tape 3.

---

2005+020:23:30:05	21.934188	-89.368102	76.7	3.9	1807	25.51
1726 3 123	Tamara		978731.6	23.4	5.2	63

---

2005+020:23:41:23	22.007065	-89.365246	76.8	4.1	1808.5	26.21
1756 4 154	Tamara		978732.5	23.4	8.7	68

Tape change. starting tape 4.

---

2005+021:00:10:42	21.779276	-89.297542	78.1	4.7	1810.58	26.81
1807 5 205	Tamara		978730.8	23.4	4.7	51

Tape Change. Start of tape 5. Log entry delayed due to problems with pause mv so time and coordinates are not correct.

---

2005+021:00:12:41	21.779769	-89.294617	78.1	4.9	1810.7	28.61
1810 5 208	Tamara		978729.7	23.4	6.7	63

Last shot of the day at 23:59:54. Guns shut down at 6pm local time. End of line 2-- line 2 was extended so we could shoot up until the specified gun shut down time. Tape 5 only has 4 shots on it. This electronic log entry was delayed due to computer

problems so time, coordinates, etc. are not correct.

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Area: Mexico Survey: Chicxulub Line: 1928  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 2  
Source: 1916 Guns: 20 Pressure: 2008 Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+021:00:30:08	21.785079	-89.269347	77.7	4.7	1812.06	26.61
	Peggy		978728.7	23.4	6.3	50
Streamer tension ~3800.						

---

2005+021:01:00:11	21.793259	-89.229448	78.1	4.4	1814.27	28.91
	Tamara		978732.4	23.4	6.8	33
streamer tension ~3300						

---

2005+021:01:30:01	21.801122	-89.190807	77.7	4.5	1816.53	29.21
	Oscar		978733.8	23.4	7.9	30
Streamer tension 3300-3350. wind speed 8.4-8.8						

---

2005+021:02:00:01	21.809216	-89.151604	77.5	4.4	1818.72	27.41
	Tamara		978734.4	23.5	6.3	5
streamer tension ~3400, streamer looks fine, repairs being done ongun #7. Anusha and Matt taking over watch.						

---

2005+021:02:30:12	21.817403	-89.111462	78.1	4.6	1820.97	27.51
	Anusha		978733.7	23.5	8.2	34
Guns shut down for the day but streamer is still in the water looking very well balanced. Tension = 3470.						

---

2005+021:03:00:05	21.825393	-89.072428	78.0	4.0	1823.13	23.41
	Anusha		978735.1	23.5	10.4	49
Gun depths are being adjusted (the null and span of the transducers are being calibrated). Streamer tension is 3244						

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2005+021:03:11:23	21.828458	-89.057565	78.8	4.3	1823.91	23.51
	Anusha		978734.1	23.5	7.9	51
The streamer has been dived as a fishing vessel did not respond to radio communication and its path crossed the streamer						

---

2005+021:03:16:28	21.829835	-89.050808	78.3	4.1	1824.51	24.71
	Anusha		978735.0	23.5	5.8	39
The fishing vessel has passed over the streamer with no incident so we are going to raise the streamer back up.						

---

2005+021:03:29:08	21.833332	-89.03374	77.8	4.6	1825.23	26.61
	Anusha		978733.3	23.5	4.6	64
The streamer has now been raised back up again and is once more almost perfectly balanced!!						

---

2005+021:04:00:10	21.841761	-88.992497	77.5	4.2	1827.48	27.01
	Matt		978736.7	23.5	4.9	57
Tension = 3260. Streamer is riding well. Nothing will cause us to fail. Wind is really low. If it were day, we would be go.						

---

Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+021:04:30:06 21.84975 -88.953165 77.3 4.5 1829.64 27.01  
 Anusha 978740.0 23.6 6.1 23  
 Streamer is well balanced. Streamer tension is 3333.

2005+021:04:31:38 21.850182 -88.951125 77.3 4.4 27.61  
 Anusha 978739.6 23.6 7.6 36

2005+021:05:00:07 21.858002 -88.913033 77.3 4.0 1831.83 25.51  
 Anusha 978744.4 23.6 8.8 26  
 Streamer tension is 3248.

2005+021:05:30:04 21.866076 -88.873614 77.0 4.5 1833.9 25.41  
 Anusha 978748.9 23.5 6.7 45  
 Streamer tension is 3261.

2005+021:05:43:18 21.869693 -88.855982 77.0 4.4 1834.89 25.51  
 Anusha 978749.2 23.5 7.3 62  
 We're going to change course in about 20 minutes (06:05 GMT) -  
 turning starboard.

2005+021:06:00:03 21.872673 -88.833325 101.3 4.6 1836.11 26.21  
 Peggy 978747.6 23.5 6.3 31  
 Streamer tension ~3300. Watch taken over by Keren, Peggy and Sean.

2005+021:06:30:06 21.836502 -88.820337 211.3 4.7 1838.47 24.41  
 Peggy 978790.8 23.3 6.8 34  
 Streamer tension ~3500.

2005+021:06:43:38 21.82674 -88.837156 262.3 4.5 1839.52 23.71  
 Peggy 978811.8 23.3 5.7 27  
 We finished turning.

2005+021:07:00:07 21.822114 -88.860023 257.5 4.2 1840.71 24.01  
 Peggy 978810.5 23.4 7.5 58  
 Streamer tension ~3300.

2005+021:07:30:05 21.8135 -88.90053 258.7 4.1 1842.82 24.41  
 Peggy 978807.7 23.4 5.6 59  
 Streamer tension ~3300.

2005+021:08:00:07 21.805129 -88.940765 258.0 4.4 1844.82 22.91  
 keren 978801.6 23.4 5.4 58  
 Tension on the streamer 2900-300, wind speed 5-6 knots. bird #28  
 out of 7m depth range.

2005+021:08:30:07 21.796626 -88.981191 258.5 4.1 1846.92 21.81

keren	978796.7	23.4	4.9	70
Tension on the streamer 3000-3100, wind speed 4-5 knots.				

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+021:09:00:08 21.78807 -89.021799 258.0 4.2 1849.06 23.81  
 keren 978796.0 23.4 5.9 49  
 tension on the streamer 3050. wind speed 5.0-5.5 knots

2005+021:09:30:07 21.779643 -89.061662 257.3 4.4 1851.16 24.61  
 Peggy 978793.9 23.3 5.3 56  
 Streamer tension ~2600.

2005+021:10:00:00 21.7714 -89.101049 257.3 4.0 1853.22 24.21  
 Peggy 978791.6 23.3 4.6 66  
 Streamer tension ~2600. Wind speed very low. Watch taken over by  
 Tim, Tamara and Oscar.

2005+021:10:30:04 21.763242 -89.13995 257.1 4.2 1855.31 22.31  
 Oscar 978790.7 23.3 3.6 77  
 Streamer tension ~2600. Wind speed 2.8-4.

2005+021:11:00:04 21.755092 -89.178607 257.5 4.1 1857.39 23.61  
 Oscar 978791.2 23.2 4.7 89  
 Streamer tension ~2600. wind speed 4.5-5

2005+021:11:30:03 21.74696 -89.2173 257.3 4.0 1859.44 5.51  
 Oscar 978789.5 23.2 6.7 101  
 Streamer tension ~2600. Wind speed ~ 6

2005+021:12:00:02 21.738765 -89.255778 258.7 4.0 1861.43 23.61  
 Oscar 978790.7 23.2 5.5 95  
 Streamer tension 2500-2700. wind speed ~ 5.5

2005+021:12:30:11 21.730727 -89.294411 257.0 3.5 1863.37 23.31  
 Oscar 978791.9 23.1 7.0 107  
 Streamer tension ~2700. Wind speed ~6 . Aiming for 6.45am ramp-up  
 start, view to then starting line CHICX004.

2005+021:12:46:19 21.726467 -89.314893 257.5 3.5 1864.35 24.31  
 Oscar 978791.7 23.1 7.2 114  
 First shoot not yet recording...gun 5 80 cu in

2005+021:12:50:46 21.72521 -89.320867 258.0 3.6 1864.63 23.91  
 Oscar 978792.8 23.1 6.4 119  
 not recording but now at 2 guns

2005+021:12:54:15 21.724226 -89.325501 257.0 3.7 1864.88 23.51  
 147 6 13 Tamara 978792.9 23.1 6.6 119  
 The first recorded shot. ramp-up now at 2 guns. The first 12  
 files are cycle test shots.

Area: Mexico Survey: Chicxulub Line: chicx4  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels:  
 Source: Airguns Guns: 4 Pressure: 570 Volume: 2030

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+021:12:57:27	21.723299	-89.329825	256.5	4.1	1865.06	22.81
158 6 24	Tamara		978793.5	23.1	4.9	115
ramp-up. 4 guns firing.						

2005+021:13:00:06	21.722511	-89.333403	257.5	4.0	1865.24	22.01
166 6 31	Tamara		978793.4	23.1	5.6	120
ramp-up. 4 guns firing.						

2005+021:13:01:01	21.722249	-89.334627	257.3	3.9	1865	22.91
168 6 34	Tamara		978793.4	23.1	5.9	115
ramp-up. 8 guns now firing.						

2005+021:13:05:52	21.720908	-89.341099	258.1	3.5	1865.63	24.81
182 6 48	Tamara		978793.1	23.1	5.0	115
ramp-up. 16 guns firing						

2005+021:13:08:21	21.720212	-89.344409	258.3	3.7	1865.76	24.51
186 7 52	Tamara		978792.8	23.1	4.2	128
tape change. Starting tape 7. On tape six, the line starts on file 13, shot 147.						

2005+021:13:11:12	21.719428	-89.348223	258.0	4.0	18595	24.51
198 7 63	Tamara		978794.2	23.1	5.9	120
ramp-up ending. all 20 guns firing.						

2005+021:13:24:33	21.715472	-89.367132	257.8	4.1	1866.83	24.61
237 8 103	Tamara		978794.4	23.1	7.2	105
tape change. starting tape 8.						

2005+021:13:30:02	21.713733	-89.375226	257.8	3.9	1867.22	24.31
254 8 119	Tamara		978794.6	23.1	7.1	106
wind speed averaging 6.3 at 0700 local time over last 20 min.						

2005+021:13:33:25	21.712651	-89.380288	258.1	4.4	1867.53	24.21
262 9 128	Tamara		978794.2	23.1	8.4	108
Tape 8 shut down due to tape error. Starting tape 9. On tape 8, shot 261/file 127 is probably corrupt. We need to keep an eye on the tape status to make sure this does not happen again.						

2005+021:13:49:24	21.707852	-89.403308	258.3	4.2	1868.56	23.61
313 10 179	Tamara		978792.3	23.1	8.9	116
Tape change. Starting tape 10. Higher wind speeds may indicate we are no longer below force 3.						

2005+021:14:00:02	21.704565	-89.418838	258.0	3.9	1869.29	24.01
347 10 212	Tamara		978793.1	23.1	10.9	124
Streamer tension ~3300, birds look good. Wind speed (10.5) still						

exceeding force 2, but no decision has been made yet. Anusha and  
Matt taking over watch.

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Area: Mexico Survey: Chicxulub Line: 1846  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: ch  
 Source: Airguns Guns: 20 Pressure: 6947 Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+021:14:06:10	21.702678	-89.427875	257.8	4.3	1869.7	24.21
	Anusha		978792.9	23.1	8.4	133
tape change						

2005+021:14:09:25	21.701666	-89.432662	258.0	4.2	1869.95	25.31
376 10 242	Anusha		978792.9	23.1	9.2	117
Starting shutdown of guns as the weather has increased						

2005+021:14:30:11	21.695179	-89.463514	257.7	4.3	1871.26	23.61
	matt		978792.2	23.1	8.8	137
Still shut down due to wind conditions. Tension = 3355.						

2005+021:14:37:48	21.692774	-89.474888	258.1	3.9	1871.84	23.81
	Anusha		978791.3	23.1	9.0	127
The gravity alarm started beeping but turned itself off within 30 seconds so started recording once more						

2005+021:14:58:11	21.686806	-89.503298	258.1	3.7	1873.05	24.81
	Anusha		978786.4	23.1	4.9	116
Starting ramp up of guns as weather has improved to a 20 min average of 4.85						

2005+021:14:59:21	21.686483	-89.504828	258.3	3.7	1873.18	25.11
243 12 530	Anusha		978786.0	23.1	5.5	106
First shot fired - beginning of ramp up. Starting tape 12 with Shot Point 243 and FFID 530						

2005+021:15:04:18	21.685081	-89.511421	258.5	3.4	1873.51	24.91
544 12 257	Anusha		978786.0	23.1	6.4	111
2nd gun added to ramp up						

2005+021:15:09:48	21.683571	-89.518669	259.0	3.5	1873.85	24.21
559 12 272	Anusha		978785.6	23.1	6.5	122
4 guns now firing						

2005+021:15:14:27	21.682192	-89.525363	258.7	4.4	1874.15	24.71
572 12 285	Anusha		978787.6	23.1	5.7	117
Added 4 more guns - total is 8 guns firing						

2005+021:15:17:56	21.681094	-89.530581	258.8	3.8	1874	25.11
580 12 293	Anusha		978789.5	23.1	5.1	134
EOT 12 580/293 New Tape 13 starts shot number 581, new file number 294						

2005+021:15:24:26	21.679104	-89.54004	258.1	4.1	1874.86	24.91
603 13 316	Anusha		978787.8	23.1	7.9	134
all guns are now on (just before all guns were finally turned on 2						

of them were temporarily misfiring but as soon as all of them were  
turned on they were firing fine)

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Area: Mexico Survey: Chicxulub Line: 2000  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: chicx Guns: 20 Pressure: 6947 Volume: 1813

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH	STANDER	GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+021:15:30:03	21.677397	-89.548164	258.0	4.4	1875.21	24.51
621 13 334	Anusha		978787.5	23.1	6.5	132
All guns are going and streamer is well balanced. Streamer tension is 3293.						

---

2005+021:15:33:38	21.676286	-89.553331	258.0	3.9	1875.5	24.71
632 14 345	Anusha		978787.2	23.1	8.0	117
end of tape 13 (ends on SP 631, FFID 344), start of tape 14 (starts at SP 632, FFID345)						

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2005+021:15:49:34	21.671369	-89.576538	258.0	4.1	1876.8	24.01
681 14 394	Anusha		978789.1	23.1	8.8	135
shut down of guns due to an active fishing vessel. End of tape 14.						

---

2005+021:16:00:03	21.668115	-89.591915	258.8	4.4	1877.28	23.11
	Anusha		978789.3	23.1	8.9	115
Guns are still down due to the fishing vessel. Weather is starting to pick up again ( approx 8.6 knots). Streamer tension is 3197. Streamer is well balanced.						

---

2005+021:16:07:48	21.665823	-89.603089	259.0	4.4	1877.83	23.51
	Anusha		978788.9	23.1	8.8	117
We are veering off the line to the north to avoid a second fishing vessel. We will ramp back up again when we're out of the safety radius of the vessel. Weather is deteriorating however.						

---

2005+021:16:30:02	21.663319	-89.635139	251.1	4.0	1879.35	24.31
	Anusha		978790.4	23.2	9.9	129
The fishing vessels are now clear of the boat but we are waiting for the wind to die down a little before we ramp up again.						

---

2005+021:17:00:02	21.651292	-89.674391	258.1	3.4	1881.25	24.21
	Anusha		978790.5	23.2	9.3	115
Still waiting for the weather to die down before we start shooting... The 5min averages of wind speed is 8.0						

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2005+021:17:30:07	21.642472	-89.714079	260.1	3.4	1883.07	26.51
	Anusha		978794.3	23.3	7.2	128
Still waiting for the weather to calm dow. The wind speed 5 min average is 7.6. Streamer tension is 3015.						

---

2005+021:18:00:04	21.633993	-89.754134	259.5	3.9	1884.87	25.81
	Anusha		978799.2	23.3	7.4	96
ready to ramp up						

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2005+021:18:01:46	21.633537	-89.756326	259.5	3.5	1885.05	25.11
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1063 15 397 Peggy 978799.1 23.3 5.7 106  
1st shot fired at shot number 1063. 1061-1602 are blank shots.

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Area: Mexico Survey: Chicxulub Line: Chicx-04  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 2 Pressure: 225 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+021:18:07:17	21.632048	-89.763459	259.3	3.7	1885.35	25.21
1076 15 410	Peggy		978799.2	23.3	5.7	100
2nd gun added.						

2005+021:18:12:02	21.630645	-89.770406	259.3	4.0	1885.64	25.21
1092 15 426	Peggy		978814.3	23.3	7.3	90
4 guns on						

2005+021:18:17:05	21.629123	-89.777785	259.0	4.0	1885.99	24.51
1109 15 443	Peggy		978806.5	23.3	5.1	97
8 guns on						

2005+021:18:19:43	21.628304	-89.78163	258.8	3.8	1886.17	25.11
1112 16 446	Peggy		978804.7	23.3	4.7	86
tape change from 15 to 16.						

2005+021:18:22:07	21.627557	-89.785137	258.5	4.2	1886.31	25.01
1124 16 458	Peggy		978805.2	23.3	4.7	85
16 guns on						

2005+021:18:26:40	21.626109	-89.791783	258.7	4.0		26.11
	Peggy		978809.6	23.3	5.3	94
last numbers are wrong! it is shot number 1123, and FFID 457						

2005+021:18:27:28	21.625854	-89.792952	258.7	3.9	1886.66	26.91
1138 16 472	Peggy		978810.1	23.3	6.2	94
full gun array on						

2005+021:18:30:01	21.625049	-89.796694	258.7	3.8	1886.84	24.91
1148 16 482	Peggy		978805.9	23.3	4.8	92

2005+021:18:35:10	21.623466	-89.804219	258.8	3.9	1887.17	25.11
1163 17 497	Peggy		978806.1	23.3	4.7	75
tape change from 16 to 17						

2005+021:18:39:29	21.622153	-89.810526	259.5	4.1		24.41
	Peggy		978806.2	23.3	5.0	92
original entry was right for 16 guns on. shot number 1124 and FFID 458.						

2005+021:18:51:46	21.618406	-89.828427	259.0	3.7	1888	24.91
1214 18 548	Peggy		978806.2	23.3	5.2	84
EOT 17 SOT 18 1214/548						

2005+021:19:00:02	21.6158	-89.840508	259.7	4.3	1888.81	21.41
1241 18 575	Peggy		978805.9	23.3	5.7	80





Area: Mexico Survey: Chicxulub Line: Chicx-04  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+021:19:07:32	21.613496	-89.85154	259.3	3.7	1889.34	21.11
1265 19 599	Peggy		978805.8	23.3	4.9	70
EOT 18: 1264/598 SOT 19: 1265/599						

2005+021:19:23:52	21.608501	-89.875563	259.5	4.1	1890.52	23.81
1316 20 650	Peggy		978804.1	23.4	5.6	59
EOT 19: 1315/649 SOT 20: 1316/650						

2005+021:19:29:57	21.606647	-89.88452	259.8	3.7	1890.94	24.81
1335 20 669	Peggy		978804.1	23.4	6.8	61
Streamer tension ~3300.						

2005+021:19:40:13	21.603387	-89.899572	258.7	3.8	1891.57	23.31
1367 21 701	Peggy		978803.7	23.4	7.5	60
EOT 20: 1366/700 SOT 21: 1367/701						

2005+021:19:56:39	21.598398	-89.923642	259.3	4.0	1892.66	24.51
1418 22 752	Peggy		978802.6	23.4	7.7	55
EOT 21: 1417/751 SOT 22: 1418/752						

2005+021:20:00:00	21.597377	-89.928543	259.1	4.4	1892.89	24.21
1428 22 762	Peggy		978801.9	23.4	8.7	39
Streamer tension ~3300. Wind speed has increased slightly.						

2005+021:20:04:46	21.595874	-89.93552	259.1	4.1	1893.22	24.11
1444 22 778	Peggy		978801.6	23.4	7.9	56
guns shot down due to high wind speed of force 3. EOT 22: 1444/778						

2005+021:20:30:02	21.588785	-89.969308	259.5	3.4	1894.72	25.31
	Peggy		978795.7	23.4	8.4	50
Streamer tension ~3800. Wind speed still too high.						

2005+021:21:00:01	21.58059	-90.008092	259.7	3.9	1896.54	23.81
	Peggy		978792.3	23.5	8.8	42
Streamer tension ~3900. Wind speed log has 1.5h average.						

2005+021:21:30:02	21.572311	-90.047232	259.3	3.7	1898.35	24.61
	Peggy		978790.2	23.5	8.5	37
Streamer tension 3800-3900. Streamer well balanced at 7 m depth. Wind speed still too high. Man overboard drill finished.						

2005+021:22:00:04	21.564059	-90.086505	258.7	3.6	1900.15	24.71
	Peggy		978788.3	23.4	9.1	38
Streamer tension ~3800. Wind speed still too high. Watche taken over by Tamara, Tim and Oscar.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Chicx-04 Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+021:22:30:02	21.555815	-90.125697	258.0	3.3	1902.02	25.61
	Peggy		978786.9	23.3	9.3	37
wind speed average 9.1 . Streamer tension 2780-2850						

---

2005+021:23:00:11	21.547282	-90.164912	258.5	3.6	1903.78	26.21
	TJS		978784.8	23.3	10.0	31
Streamer tension ~2800, wind speed average reading 9.7, so still no shooting.						

---

2005+021:23:30:11	21.538352	-90.203495	258.1	3.8	1905.53	26.21
	Tamara		978784.6	23.3	10.0	32
streamer tension ~2800. average wind speed (last 1.5 hour) ~10.1						

---

2005+022:00:00:06	21.530473	-90.242547	261.8	3.0	1907.23	26.61
	Tamara				23.4	9.7 37
average wind speed 10.3, streamer tension 2800-2900						

---

2005+022:00:30:13	21.523179	-90.28335	261.0	3.9	1909.19	25.81
	TJS		978781.1	23.5	10.1	50
Streamer tension ~2800. Wind speed 90min average = 10.1.						

---

2005+022:01:00:10	21.520919	-90.32603	273.1	4.1	1911.18	21.91
	TJS		978781.6	23.4	10.3	53
Average wind speed 10.0, streamer tension ~2800						

---

2005+022:01:30:12	21.520847	-90.368975	273.1	4.2	1913.33	24.71
	TJS		978780.5	23.4	10.6	59
average wind speed 10, streamer tension ~2800						

---

2005+022:02:00:03	21.520872	-90.411898	272.1	3.9	1915.38	26.41
	TJS		978781.1	23.5	11.1	58
Average wind speed 10.4, streamer tension ~2750. Watch take over Anusha and Matt						

---

2005+022:02:30:08	21.520852	-90.454533	272.0	3.9	1917.29	26.11
	Anusha		978779.4	23.4	9.9	68
Guns area all down for the night. Received news that we may be able to shoot in weather conditions up to but not including Beaufort 4. Streamer tension is 2719.						

---

2005+022:03:00:09	21.52085	-90.497244	270.7	4.3	1919.23	28.21
	Anusha		978778.2	23.4	11.4	66
Streamer tension is 2711. Streamer is mostly well balanced - the first 3 birds are a little deep though.						

---

2005+022:03:30:11	21.520849	-90.539907	271.3	4.4	1921.31	29.91
	matt		978779.1	23.3	12.9	63

---

Tension = 2669. Wind speed requirements are now a little higher.  
Hopefully, we'll get some good data tomorrow.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

COMMENTS

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2005+022:04:00:10	21.520811	-90.581519	272.1	4.3	1923.45	30.01
	matt		978780.6	23.4	15.0	72

Tension = 2722. Doing fine.

---

2005+022:04:30:08	21.520911	-90.622668	273.3	4.5	1925.58	30.31
	matt		978783.0	23.4	17.3	80

Tension = 2688. Calm and easy going. Everything excellent.

---

2005+022:04:59:06	21.520802	-90.662423	273.5	4.1	1927.68	30.51
	matt		978785.3	23.5	17.5	84

Turning to port in about 15 minutes.

---

2005+022:05:20:25	21.510615	-90.688364	200.0	4.8	1929.34	30.91
	anusha		978775.8	23.5	15.7	98

The first 4 birds on the streamer closest to the ship are a bit low (the first one is the deepest at 11m) and the data from the front of the streamer looks fairly noisy

---

2005+022:05:30:08	21.497694	-90.690624	174.8	4.4	1930.08	30.01
	anusha		978756.7	23.5	20.2	91

Front of the streamer is still looking noisy... Front of streamer is still too deep - up to 10 m depth. Bird #9 is now communicating and says it is at 9.9 m depth

---

2005+022:05:33:02	21.493894	-90.690832	175.0	4.4	1931.38	29.21
	anusha		978755.2	23.5	18.5	82

Streamer still noisy at the front

---

2005+022:05:48:21	21.474038	-90.691222	163.3	4.2	1931.42	28.61
	anusha		978753.4	23.5	20.0	97

Noise has now moved to the centre of the streamer. The front of the streamer is no longer too deep. Streamer tension is 3018

---

2005+022:06:00:05	21.463415	-90.681938	104.1	4.6	1932.26	28.21
	anusha		978727.0	23.5	19.4	94

Peggy and Keren taking over watch. The noise has moved to the front of the streamer once again and the front of the streamer is dipping. Bird #9 is no longer communicating.

---

2005+022:06:30:06	21.459278	-90.644295	89.8	3.9	1934.34	27.11
	Peggy		978721.3	23.4	18.0	91

Streamer tension ~3000. Streamer well balanced at 7 m depth, except for bird 9 which is not responding and bird 28 which is too low. Wind speed too high.

---

2005+022:07:00:06	21.459107	-90.60693	89.7	3.8	1936.36	24.51
	Peggy		978718.9	23.4	20.5	84

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Streamer tension ~3000.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+022:07:30:02	21.459056	-90.568772	91.7	4.3	1938.36	26.01
	Peggy		978716.5	23.3	20.7	106
Streamer tension ~3000.						

---

2005+022:08:00:09	21.458824	-90.530172	93.5	4.1	1940.38	24.71
	Peggy		978712.1	23.2	21.3	123
Streamer tension ~3000.						

---

2005+022:08:30:05	21.458709	-90.49221	93.7	3.7	1942.3	24.01
	keren		978714.5	23.1	18.2	134
tension on the streamer 3000-3050, wind speed 19-20.						

---

2005+022:09:00:02	21.458567	-90.454099	94.0	3.7	1944.26	22.41
	Peggy		978714.5	23.2	17.2	139
Streamer tension ~3100.						

---

2005+022:09:30:06	21.458476	-90.415691	93.7	3.7	1946.19	22.51
	Peggy		978714.6	23.2	17.5	134
Streamer tension ~3000.						

---

2005+022:09:39:39	21.458411	-90.403564	94.3	3.6	1946.91	23.01
	Peggy		978714.1	23.2	17.7	135
Started course change. Streamer tension ~3100.						

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2005+022:10:00:04	21.458381	-90.377261	93.3	4.1	1948.12	23.01
	Peggy		978714.1	23.1	19.9	142
Streamer tension ~3100. Watche taken over by Tim, Tamara and Oscar						

---

2005+022:10:30:06	21.463863	-90.338886	81.5	3.9	1950.1	23.31
	Tamara		978713.1	23.1	16.7	141
streamer tension ~3200. 90-min average wind speed 17.2						

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2005+022:11:00:13	21.471835	-90.301265	82.0	3.7	1952.07	23.91
	Tamara		978714.0	23.0	16.1	146
streamer tension ~3100, average wind speed 17.0						

---

2005+022:11:30:08	21.479521	-90.264146	81.3	3.8	1954.13	23.51
	Tamara		978714.1	22.9	15.9	159
streamer tension ~3000, avg wind 16.5.						

---

2005+022:12:00:15	21.487388	-90.226934	81.7	4.1	1956.13	21.51
	Tamara		978717.2	22.9	15.8	152
streamer tension ~3000, avg wind 16.3						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume: 1267

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+022:12:30:04	21.495039	-90.190246	82.3	3.8	1958.5	22.61
	Tamara/TJS		978720.5	22.9	16.0	149
On approach to line chix6. Wind speed 90min average = 16.1. LDO called to say official written confirmation still NOT received, so wind speed limit remains at 7. Streamer tension (~3050) and depth (~7) just dandy.						

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2005+022:13:00:34	21.502866	-90.153187	83.5	3.7	1960.07	24.11
	Tamara/TJS		978720.2	22.9	18.6	141
Wind speed 90min average = 16.8, current wind speed around 19.1. Streamer fine (tension ~3000, depth ~7).						

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2005+022:13:30:10	21.510588	-90.116066	82.3	4.1	1962.0	21.61
	TJS		978718.4	23.0	18.1	145
Same story. Wind speed 90min average = 18.2. Streamer OK (tension ~3275).						

---

2005+022:14:00:07	21.518804	-90.076799	81.3	4.2	1964.25	22.81
	Anusha		978720.0	23.0	20.2	144
Not shooting due to bad weather (wind speed of 19.1 knots) and lack of permission to shoot in beaufort 4. Streamer looking well balanced and streamer tension is 3240.						

---

2005+022:14:30:03	21.527027	-90.037458	81.1	3.7	1965.91	22.31
	matt		978721.3	23.0	17.9	139
Tension = 3166. Waiting. Wind high, no clearance.						

---

2005+022:15:00:10	21.535263	-89.998253	80.7	3.9	1967.91	22.41
	anusha		978725.0	23.1	16.7	143
weather still too bad for shooting. Streamer tension is 3234. Streamer is well balanced.						

---

2005+022:15:30:16	21.543546	-89.958749	80.7	4.0	1969.86	23.51
	anusha		978727.6	23.1	15.9	138
Streamer is balanced. tension is 3266						

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2005+022:16:00:12	21.551758	-89.919361	79.1	3.8	1971.81	23.51
	anusha		978730.8	23.1	11.1	148
weather still too rough too shoot. tension is 3278						

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2005+022:16:30:29	21.560153	-89.879463	79.3	3.7	1973.64	23.01
	matt		978733.5	23.1	11.3	130
tenion= 3214. Activity = none Waiting = yes						

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2005+022:17:00:12	21.568226	-89.840823	78.5	3.6	1975.49	21.51
	matt		978737.4	23.1	10.3	122
tension = 3217. Don't Panic. All is going fine.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+022:17:30:11 21.577108 -89.802283 67.3 4.2 1977.4 21.31  
 matt 978738.4 23.1 10.1 102  
 Tension = 3275. Things are going good. We are waiting. I can't  
 find the words to discribe the intensity of the waiting.

---

2005+022:18:00:04 21.588011 -89.764592 84.7 3.8 1979.48 23.21  
 Peggy 978735.7 23.1 7.4 78  
 Streamer tension ~3300. Watch taken over by Keren and Peggy.

---

2005+022:18:11:01 21.588116 -89.749823 89.3 4.2 1980.25 22.61  
 1036 23 1 Peggy 978735.0 23.2 8.7 81  
 1 gun on, ramp up started

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2005+022:18:15:49 21.588716 -89.743483 77.8 3.6 1980.52 22.11  
 1050 23 15 Peggy 978734.5 23.2 7.2 89  
 2 guns firing. Streamer tension ~3600.

---

2005+022:18:20:54 21.590001 -89.736879 78.0 3.8 1980.88 22.51  
 1064 23 29 Peggy 978734.5 23.1 7.4 67  
 4 guns firing. Bridge will speed up once ramp up is completed.

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2005+022:18:25:56 21.591285 -89.730514 77.7 3.7 1981.16 23.11  
 1077 23 42 Peggy 978735.0 23.2 9.0 69  
 8 guns firing. Streamer tension ~3000.

---

2005+022:18:30:06 21.592382 -89.725266 77.1 4.0 1981.4 23.41  
 1087 24 52 Peggy 978735.4 23.2 8.4 68  
 EOT 23: 1086/51 SOT 24: 1087/52

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2005+022:18:31:29 21.592771 -89.723431 77.3 3.8 1981.49 22.91  
 1091 24 56 Peggy 978734.9 23.2 8.1 70  
 16 guns firing

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2005+022:18:34:58 21.593766 -89.718748 77.1 4.1 1981.7 22.71  
 1103 24 68 Peggy 978732.8 23.2 8.6 70  
 full gun array firing. ramp up finished. Gun array a bit shallow.  
 Streamer tension ~3400. Streamer well balanced at 7 m depth. Bird  
 9 slightly too deep.

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2005+022:18:47:04 21.597343 -89.701551 77.0 4.1 1982.55 22.61  
 1138 25 103 Peggy 978729.4 23.2 8.1 70  
 EOT 24: 1137/102 SOT 25: 1138/103

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2005+022:19:00:07 21.601276 -89.682792 77.1 4.6 1938.49 22.71  
 1180 25 145 keren 978727.0 23.2 8.5 70  
 streamer tension 3500-3600, wind speed 8.5

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Area: Mexico Survey: Chicxulub Line: Chix6  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+022:19:03:48	21.602393	-89.677504	77.7	4.5	1983.76	23.11
1198 26 154	keren		978749.6	23.2	10.0	69
EOT 25: 1188/153 SOT 26: 1189/154						

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2005+022:19:10:01	21.604273	-89.66857	77.8	4.4		23.31
	keren		978725.6	23.2	8.1	68
Gun array ate better depth. Hose to gun 14 that reads depth wsa broken, now repaired.						

---

2005+022:19:21:09	21.607628	-89.652637	77.8	4.0	1985.0	23.51
1240 27 205	Peggy		978723.0	23.2	10.5	66
EOT 26: 1239/204 SOT 27: 1240/205						

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2005+022:19:30:07	21.610271	-89.639742	78.0	4.1	1985.69	23.91
1269 27 233	Peggy		978720.3	23.2	11.3	65
Streamer Tension = 3600						

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2005+022:19:37:18	21.612433	-89.629458	77.8	4.3	1986.13	23.61
1291 28 256	Peggy		978718.7	23.3	11.4	61
EOT 27: 1290/255 SOT 28: 1291/256						

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2005+022:19:54:09	21.617438	-89.605438	77.5	4.1	1987.32	22.51
1342 29 307	Peggy		978715.8	23.3	11.3	54
EOT 28: 1341/306 SOT 29: 1342/307						

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2005+022:20:00:02	21.619214	-89.597109	77.3	4.0	1987.72	23.21
1359 29 324	Peggy		978715.8	23.3	12.3	59
Streamer tension ~3600.						

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2005+022:20:11:07	21.622468	-89.581361	76.8	4.2	1988.45	22.61
1393 30 358	Peggy		978714.2	23.3	12.4	48
EOT 29: 1392/357 SOT 30: 1393/358						

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2005+022:20:28:02	21.627525	-89.557339	77.1	4.7	1989.63	19.61
1444 31 408	Peggy		978714.0	23.3	11.5	46
EOT 30: 1443/408. SOT 31: 1444/409. Streamer tension ~3600. Wind speed 1.5h average = 11.0.						

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2005+022:20:44:54	21.632532	-89.533328	76.5	4.1	1990.81	21.31
1495 32 460	Peggy		978714.2	23.3	13.2	43
EOT 31: 1494/459. SOT 32: 1495/460.						

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2005+022:21:00:07	21.637048	-89.511758	76.3	4.5	1991.95	20.41
1540 32 506	keren		978711.6	23.4	14.1	34
tension on the streamer 3578. wind speed 14.5						

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2005+022:21:02:09	21.637645	-89.508875	76.7	4.5	1992.08	20.31
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1546 33 511 Peggy 978701.1 23.4 13.7 31  
EOT 32: 1545/510. SOT 33: 1546/511.

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Area: Mexico Survey: Chicxulub Line: Chix6  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+022:21:18:54	21.642642	-89.485089	75.7	4.2	1993.31	21.31
1597 34 562	keren		978714.3	23.3	13.6	31
EOT 561/1596 BOT 562/1597						

---

2005+022:21:30:04	21.645952	-89.469283	76.3	3.9	1994.03	22.01
1631 34 596	keren		978714.8	23.3	13.9	33
streamer tension 3500-3600, wind speed 15-16						

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2005+022:21:35:50	21.647635	-89.461127	76.3	4.0	1994.4	23.21
1648 35 613	keren		978714.9	23.3	14.9	34
EOT 34:1647/612 SOT 35: 1648/613						

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2005+022:21:53:01	21.65274	-89.436863	76.3	3.9	1995.58	23.11
1699 36 664	keren		978716.7	23.3	16.2	41
EOT 35:1698/663 SOT 36: 1699/664						

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2005+022:22:00:00	21.654799	-89.427091	76.5	3.9	1996	22.81
1721 336 686	keren		978716.8	23.3	15.3	32
Streamer tension ~3500. Watch taken over by Tamara, Tim and Oscar.						

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2005+022:22:10:31	21.657829	-89.412425	76.5	4.3	1996.77	22.61
1700 37 715	Tamara		978718.1	23.3	17.4	35
EOT 36: 1749/714 SOT 37: 1750/715						

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2005+022:22:27:16	21.662735	-89.389119	75.8	3.9	1997.88	22.71
1801 38 766	Tamara		978721.5	23.3	17.4	34
EOT 37: 1800/765 SOT 38: 1801/766						

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2005+022:22:30:05	21.663556	-89.38519	76.0	4.0	1998.09	22.61
1808 38 773	Tamara		978721.3	23.3	17.0	34
streamer tension ~3500. birds fine.						

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2005+022:22:45:07	21.66788	-89.364313	75.8	4.0	1999.09	22.71
1852 39 817	Tamara		978724.8	23.3	19.1	40
EOT 38: 1851/816 SOT 39: 1852/817						

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2005+022:23:00:04	21.672276	-89.343658	75.3	3.9	2000.1	22.01
1897 39 861	Tamara		978726.2	23.3	19.4	41
streamer tension ~3500. 90-min avg wind speed continues to increase (16.9). Wind related shutdown is imminent.						

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2005+022:23:01:59	21.672842	-89.34101	76.0	4.2	2000.22	22.71
1903 40 868	Tamara		978726.4	23.3	16.4	43
EOT 39: 1902/867 SOT 40: 1903/868 Shut down due to weather.						

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2005+022:23:06:55	21.674311	-89.334241	75.8	3.8	2000.64	22.21
1908 40 873	Tamara		978726.7	23.3	18.1	43

EOT 40: 1908/873. Last shot at 23:03. Due to shutdown caused by weather.

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Area: Mexico Survey: Chicxulub Line: Chix6  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 1896

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+022:23:29:03	21.6807	-89.304502	76.3	4.1	2002.12	22.11
	TJS		978728.5	23.3	19.4	49
No more action today. Given ramp up time, current wind speed and final shot time, not going to be possible to acquire anymore data. Wind speed 90min average currently ~17.8, with 5min average now in region of 18.0 Streamer good. Tension ~3350. Bird 9 reporting some data still, after new lease of life, even if fin not responding. Time now to re-tension some tapes...						

---

2005+023:00:00:06	21.689122	-89.263799	76.5	4.3	2004.31	22.21
	TJS				23.3	17.5 47
Average wind speed 18 Knots in 90 min. streamer tension ~3300						

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2005+023:00:30:02	21.697368	-89.224476	76.5	4.4	2006.47	22.71
	TJS		978729.0	23.3	16.9	57
Average wind speed 18.2 . Streamer tension ~3300						

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2005+023:01:00:11	21.706087	-89.183462	76.3	4.3	2008.73	21.41
	TJS		978726.2	23.3	16.9	55
Average wind speed 18.2 for 90 min. Streamer tension ~3200						

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2005+023:01:30:05	21.714427	-89.144222	76.3	4.5	2010.9	22.91
	TJS		978726.2	23.3	18.7	62
wind speed 90 min average = 17.6 . Streamer tension ~3200						

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2005+023:02:00:11	21.722753	-89.10488	76.5	4.5	2013.03	20.31
	Tamara		978726.4	23.3	16.4	59
streamer tension ~3300. Matt and Anusha taking over watch.						

---

2005+023:02:30:00	21.731051	-89.065514	76.3	4.4	2015.11	21.41
	matt		978725.9	23.3	15.0	52
Tension = 3280. Meeting about Beufort scale. So lads, the wind is blowin, Upon the sea tonight. It's just a bit high For thing to be alright, But lets hope it clears by day.						

---

2005+023:03:04:47	21.740838	-89.019686	75.7	4.1	2017.7	22.01
	anusha		978728.3	23.4	15.8	51
Streamer still well balanced. Tension = 3288. Sailing in the night time therefore no guns shooting...						

---

2005+023:03:30:25	21.748072	-88.985723	76.3	4.3	2091.58	22.31
	anusha		978729.7	23.4	13.9	58
streamer tension is 3320.						

---

2005+023:04:00:01	21.756339	-88.94698	77.3	4.4	2021.64	22.01
	matt		978732.3	23.4	13.1	66
tension = 3277. Streamer looks good.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+023:04:30:38	21.764864	-88.906301	78.7	4.1	2023.9	22.71
	anusha		978740.5	23.2	11.7	108
streamer tension is 3232. Streamer very well balanced.						

---

2005+023:05:00:11	21.773165	-88.867368	79.3	4.3	2025.95	22.51
	anusha		978745.8	23.1	11.6	120
streamer tension = 3299. streamer is still well balanced.						

---

2005+023:05:30:09	21.781643	-88.827498	79.8	4.1	2027.95	22.71
	matt		978747.0	23.1	12.6	132
tension = 3309. Wind is a little lower. Que bueno.						

---

2005+023:05:42:22	21.78499	-88.811191	84.7	4.1	2028.81	22.91
	matt		978747.2	23.1	10.1	134
Turning to starboard (estibor). Tension = 3151.						

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2005+023:06:00:08	21.772329	-88.793593	170.1	4.3	2030.17	21.31
	matt		978766.3	23.1	10.1	134
Streamer tension = 3034						

---

2005+023:06:27:44	21.743792	-88.811342	262.5	5.2		20.01
	matt		978814.5	23.1	9.8	141
Streamer tension ~3400. Anthony is grossly overrated, but sweet in his own gross way.						

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2005+023:06:36:20	21.741805	-88.824028	256.8	4.8	2033.13	20.11
	Peggy		978812.9	23.1	8.1	143
Finished turning. Wind speed 1.5h average = 10.6						

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2005+023:07:00:03	21.734182	-88.858437	257.3	4.8	2035.03	20.21
	Peggy		978810.9	23.1	7.2	151
Streamer tension = ~3600. Streamer well balanced at 7 m depth after turn, except for bird 9 which is still not responding. Wind speed 1.5 average = 9.6						

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2005+023:07:30:02	21.724681	-88.902906	256.0	4.5	2037.41	21.51
	Peggy		978801.2	23.1	7.7	151
Streamer tension = 3400. Wind speed 1.5h average = 8.3						

---

2005+023:08:00:12	21.715183	-88.947103	256.3	4.2	2039.68	22.71
	Peggy		978794.9	23.2	8.5	158
Streamer tension = 3300. Wind speed 1.5h average = 7.4. Matt = super sweet and writes beautiful poems.						

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2005+023:08:30:08	21.705768	-88.990839	256.7	4.6	2041.99	21.41
	keren		978790.1	23.2	6.4	147
streamer tension 3400-3500, wind speed 6.8						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+023:09:00:15	21.696342	-89.034647	257.1	4.5	2044.28	21.61
	keren		978788.0	23.2	5.8	151
Streamer tension = 3500. Wind speed 1.5h average = 6.8						

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2005+023:09:30:08	21.686943	-89.079056	256.1	4.7	2046.62	20.91
	keren		978789.5	23.2	8.1	162
Streamer tension 3400-3500, wind speed average: 6.7						

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2005+023:10:00:08	21.677538	-89.122792	256.7	4.5	2049.02	20.81
	Peggy		978789.1	23.2	8.2	161
Streamer tension = 3100. Wind speed 1.5h average = 7.1. Watch taken over by Tim, Tamara and Oscar.						

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2005+023:10:30:10	21.668106	-89.166718	256.1	5.0	2051.43	20.11
	Tamara		978789.4	23.1	7.8	168
streamer tension ~3100						

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2005+023:11:00:21	21.65863	-89.21083	256.5	4.7	2053.93	20.21
	Tamara		978790.9	23.1	8.8	170
wind speed 90 min average =8 . Streamer tension ~3120						

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2005+023:11:30:08	21.649463	-89.253645	256.0	4.7	2056.32	21.11
	Tamara		978791.5	23.1	6.5	175
Wind speed 90 min average =7.8 , streamer tension ~3050						

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2005+023:12:00:13	21.640136	-89.297134	255.7	4.7	2058.68	20.61
	TJS		978791.3	23.1	5.3	195
Wind speed 90min average = 7.4, streamer tension (~3200) and depth fine. On run-in for line Chix8, looking to start shooting 6.45 (ramp-up start, for 7.15 proper)						

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2005+023:12:30:14	21.630671	-89.341132	256.1	5.0	2061.02	20.51
	Tamara		978787.1	23.1	6.9	194
streamer tension ~3200						

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2005+023:12:45:59	21.625832	-89.36379	256.1	4.3	2062.26	20.91
124 41	TJS		978781.0	23.1	7.3	190
Ramp-up started for line chix8						

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2005+023:12:50:46	21.624419	-89.370409	255.7	4.2	2062.56	21.01
137? 41	TJS		978779.5	23.1	6.9	199
Two guns firing, total vol. 225cub in						

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2005+023:12:55:31	21.623007	-89.376949	256.0	4.2	2062.92	20.91
152 41 28	TJS		978778.2	23.1	6.8	201
Four guns firing						

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Area: Mexico Survey: Chicxulub Line: chix8  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: ch  
 Source: Airguns Guns: 8 Pressure: 1400 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+023:13:00:37	21.621477	-89.38407	256.3	4.3	2063.28	20.71
167 41 44	TJS		978777.6	23.1	6.1	204
Eight guns firing						

2005+023:13:03:28	21.620597	-89.388157	256.0	4.7	2063.51	20.61
174 41 51	TJS		978778.0	23.1	6.8	208
Tape change EOT 41 LSP174 FFID 51, New tape 42						

2005+023:13:05:32	21.619962	-89.391129	255.8	4.4	2063.67	20.91
182 42 58	TJS		978778.0	23.1	6.2	208
Sixteen guns firing.						

2005+023:13:10:40	21.618346	-89.398613	255.8	4.8	2064.07	20.51
198 42 75	TJS		978779.5	23.1	5.5	211
All 20 guns firing, total vol. 6947 cub in.						

2005+023:13:19:40	21.615502	-89.411815	256.3	4.8	2064.79	20.31
225 42 102	TJS		978776.9	23.1	5.2	214
Tape change. EOT:42 FSP:175 (FFID:52) LSP:225 (FFID:102) //						
BOT:43 FSP:226 (FFID:103)						

2005+023:13:30:04	21.612267	-89.426911	256.3	4.8	2065.61	20.41
258 43 135	TJS		978775.4	23.1	4.6	219
Wind speed 90min average = 6.3 Streamer looking good. Cruising along...						

2005+023:13:36:24	21.610304	-89.436053	256.0	4.9	2066.5	20.31
276 43 153	TJS		978774.9	23.1	5.7	213
Tape change. EOT:43 FSP:226 (FFID:103) LSP:276 (FFID:153) //						
BOT:44 FSP:277 (FFID:154). ### NB: Label printer error, so manually written ###						

2005+023:13:53:11	21.605128	-89.460293	256.8	4.6	2067.63	20.71
327 44 204	TJS		978773.5	23.1	5.4	212
Tape change. EOT:44 FSP:277 (FFID:154) LSP:327 (FFID:204) //						
BOT:45 FSP:328 (FFID: 205). Label printer problems still.						

2005+023:13:58:55	21.603363	-89.46856	256.7	4.4	2067.91	20.81
45 347	TJS		978773.2	23.1	6.7	208
###Beware! Label printer problems continue. Likes to display error messages and lose track of BOT/EOT, but picks up again once restarted... Keep track of FSP/LSP...### Wind speed 90min average ~ 6.1, streamer OK. Handing over watch to Matthew and Anoushka...						

2005+023:14:10:29	21.599724	-89.485294	256.3	4.8	2068.82	20.01
379 46 256	Anusha		978767.0	23.1	6.0	225

Tape Change - end of tape 45 (end values are SP 378 and FFID 255)

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Area: Mexico Survey: Chicxulub Line: chix8  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: ch  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+023:14:26:37	21.594764	-89.508687	257.7	5.0	2070.11	19.21
430 47 307	Anusha		978773.2	23.1	4.5	237
End of tape 46 (End of tape sp = 429, FFID = 306)						

2005+023:14:42:46	21.589674	-89.532211	257.1	4.7	2071.49	20.81
481 48 358	Anusha		978775.2	23.1	4.4	247
Tape change - end of tape 47 (last sp 480, FFID 357)						

2005+023:14:59:08	21.58464	-89.555859	257.8	4.8	2072.69	21.11
532 49 409	Anusha		978777.1	23.1	4.3	264
Tape change (last tape 48, end SP=531 and FFID=408)						

2005+023:15:15:42	21.579337	-89.580182	257.8	5.0	2074.02	20.71
583 50 460	Anusha		978782.0	23.0	4.5	260
Tape change (last tape = 49, last SP = 582, FFID = 459)						

2005+023:15:30:11	21.574754	-89.601838	257.8	5.0	2075.14	19.81
629 50 506	Anusha		978782.4	23.0	3.9	244
Streamer is very well balanced. Streamer tension is 3287.						

2005+023:15:32:09	21.574128	-89.604776	257.5	5.3	2075.42	20.01
634 51 511	Anusha		978783.2	23.0	4.9	244
Tape change (last tape = 50, last SP = 633, FFID = 510)						

2005+023:15:48:08	21.569126	-89.627858	258.5	4.8	2076.77	20.41
685 52 562	Anusha		978784.3	23.1	3.8	238
Tape change (last tape = 51, last SP = 561, FFID = 684)						

2005+023:16:00:12	21.565456	-89.645214	258.3	4.9	2077.62	19.51
	Anusha		978787.8	23.0	3.6	237
Streamer still well balanced. Tension = 3208. Still shooting line Chicx 8 with no interruptions as yet.						

2005+023:16:04:43	21.564023	-89.651805	258.3	5.0	2077.99	19.51
736 53 613	Anusha		978789.4	23.0	3.8	238
Tape change (last tape = 52, last SP = 735, FFID = 612)						

2005+023:16:21:17	21.558855	-89.675813	259.1	5.0	2079.35	18.91
787 54 664	Anusha		978792.6	23.1	3.1	220
Tape change (last tape = 53, last SP = 786, FFID = 663)						

2005+023:16:30:02	21.55614	-89.68844	259.5	4.9	2080.36	19.41
814 54 691	Anusha		978793.1	23.1	3.5	232
Shut down of guns due to fishermen in the way. last FFID = 691, last SP = 814						

2005+023:16:41:44	21.552528	-89.705472	259.1	4.8	2081.09	19.21
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850      55    692      Anusha                      978793.0 23.1   3.7    230  
Ramp up started - boats are now out of the way.   1 gun on now

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Area: Mexico Survey: Chicxulub Line: chix8  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: ch  
 Source: Airguns Guns: 2 Pressure: 225 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+023:16:46:56	21.55088	-89.713071	259.0	5.0	2081.52	19.61
866 55 708	Anusha		978794.9	23.1	2.6	241
second gun is now on						

2005+023:16:52:07	21.549232	-89.720663	259.0	4.9	2081.99	19.71
881 5 743	Anusha		978792.0	23.1	2.0	223
Four guns now on						

2005+023:16:57:11	21.547617	-89.72808	259.0	4.9	2082.27	19.41
896 55 738	Anusha		978792.1	23.1	1.4	236
8 guns now on						

2005+023:16:59:40	21.546846	-89.731716	259.8	4.8	2082.6	19.71
901 56 743	Anusha		978792.2	23.1	1.1	224
tape change (last tape = 55, last SP = 900, FFID = 742). Streamer well balanced. Still have only 8 guns firing as ramping up)						

2005+023:17:02:16	21.546057	-89.735523	259.1	4.9	2082.77	19.51
912 56 754	Anusha		978792.5	23.1	1.4	211
16 guns now on						

2005+023:17:06:57	21.544622	-89.74237	259.0	4.9	2083.18	19.61
927 56 769	Anusha		978794.8	23.1	2.7	216
All 20 guns aere now on						

2005+023:17:14:29	21.542228	-89.753423	259.3	5.0	2083.88	20.01
952 57 794	Anusha		978794.3	23.1	1.8	233
tape change (last tape = 56, last SP = 951, FFID = 793)						

2005+023:17:31:03	21.537037	-89.777436	259.7	4.9	2085.25	19.61
1003 58 845	Anusha		978794.4	23.1	2.6	292
tape change (last tape = 57, last SP = 844, FFID = 844)						

2005+023:17:47:38	21.531923	-89.801424	260.3	5.1	2086.61	19.71
1054 59 896	Anusha		978794.9	23.1	4.9	304
tape change (last tape = 58, last SP = 1053, FFID = 895)						

2005+023:18:00:02	21.528047	-89.819386	260.3	4.8	2087.5	20.41
1093 59 935	Peggy		978795.0	23.1	4.9	308
Streamer tension = 3100. Wind speed 1.5h average = 2.9. Nush has knitted 20 cm and 3 colours.						

2005+023:18:04:13	21.526755	-89.825419	260.5	4.8	2087.84	19.41
1105 60 947	Peggy		978795.0	23.1	5.3	304
EOT 59: 1104/946 SOT 60: 1105/947						

2005+023:18:16:18	21.523068	-89.842847	260.5	5.0	2088.87	18.01
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1149 60 991 Peggy 978794.6 23.1 5.1 321  
gun shutdown due to observation of a turtle. EOT 60: 1149/991

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Area: Mexico Survey: Chicxulub Line: chix8  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: ch  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+023:18:30:02	21.518974	-89.861781	260.5	4.8	2989.9	21.31
	Peggy		978792.3	23.1	4.9	337
Waiting to shot again. WInd speed 4.5.						

2005+023:18:40:13	21.515788	-89.876666	259.8	5.1	2090.76	20.21
1215 61 999	Peggy		978790.8	23.1	6.3	326
SOT 61						

2005+023:18:42:16	21.515132	-89.879691	259.7	5.0		20.11
	Peggy		978790.4	23.1	4.9	320
shot points 1208 to 1214, and file numbers 992 to 998 are blank shots						

2005+023:18:45:22	21.514154	-89.884253	259.7	4.8	2091.19	20.11
1231 61 1015	Peggy		978789.5	23.1	3.1	307
2 guns firing						

2005+023:18:50:48	21.512439	-89.892125	260.8	4.5	2091.61	20.11
1248 61 1032	Peggy		978787.8	23.1	4.9	333
4 guns firing						

2005+023:18:55:33	21.510975	-89.899026	259.8	4.6	2092.06	20.01
1262 62 1046	Peggy		978787.0	23.1	5.3	346
8 guns firing. EOT 61: 1258/1042. SOT 62: 1259/1043.						

2005+023:19:00:34	21.509394	-89.906332	260.0	5.1	2092.41	19.21
1278 62 1062	Peggy		978786.2	23.1	5.5	344
16 guns firing. Wind speed 1.5h average = 4.7. Streamer tension = 3200. Streamer well balanced at 7 m depth, bird 9 not responding, shows at the surface.						

2005+023:19:05:59	21.507663	-89.914244	260.5	4.9	2092.88	18.71
1295 62 1079	Peggy		978785.4	23.1	4.9	336
20 guns firing						

2005+023:19:11:12	21.506027	-89.921888	261.1	5.0	2093.27	18.81
1310 63 1094	Peggy		978784.9	23.1	6.2	340
EOT 62: 1309/1093. SOT 63: 1310/1094.						

2005+023:19:28:16	21.50076	-89.94663	260.0	5.0	2094.68	17.81
1361 64 1145	Peggy		978783.5	23.1	9.4	351
EOT 63: 1360/1144. SOT 64: 1361/1145. Streamer tension = 3100. Wind speed 1.5h average = 5.6.						

2005+023:19:44:31	21.495711	-89.970074	261.8	4.8	2096.0	19.01
1412 65 1196	Peggy		978783.2	23.1	8.6	356
EOT 64: 1411/1195. SOT 65: 1412/1196.						

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Area: Mexico Survey: Chicxulub Line: chix8  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+023:20:00:07	21.490873	-89.992742	261.5	5.0	2097.3	19.91
1463 66 1247	Peggy		978782.1	23.2	10.4	9
EOT 65: 1462/1246. SOT 66: 1463/1247. Streamer tension = 3100.						
Wind speed 1.5 average = 7.0.						

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2005+023:20:17:17	21.485478	-90.017759	262.3	4.7	2098.7	20.31
1514 67 1298	Peggy		978780.5	23.2	9.8	358
EOT 66: 1513/1297. SOT 67: 1514/1298.						

---

2005+023:20:30:07	21.48146	-90.036593	261.0	4.3	2099.68	21.61
1554 67 1338	keren		978779.0	23.3	10.5	348
streamer tension 3160, wind speed average: 8.5						

---

2005+023:20:34:21	21.480086	-90.042814	261.3	4.4	2100.0	21.31
1565 68 1348	keren		978779.7	23.3	11.9	359
EOT 67:1564/1348 SOT 68:1565/1349						

---

2005+023:20:49:59	21.47515	-90.065759	262.3	4.4	2101.13	20.91
1616 69 1400	Peggy		978777.0	23.3	10.3	10
EOT 68: 1615/1399. SOT 69: 1616/1400.						

---

2005+023:21:00:01	21.472064	-90.080334	261.7	4.8	2101.92	20.41
1647 68 1431	Peggy		978777.3	23.3	10.9	9
Streamer tension = 3000. Wind speed 1.5h average = 9.8.						

---

2005+023:21:07:06	21.469812	-90.09062	261.3	4.6	2102.52	21.31
1667 70 1451	Peggy		978777.3	23.3	9.2	14
EOT 69: 1666/1450. SOT 70: 1667/1451.						

---

2005+023:21:23:38	21.464705	-90.114632	262.5	4.8	2103.92	20.41
1718 71 1502	keren		978777.2	23.4	15.0	25
EOT 70:1717/1501 SOT 71:1718/1502						

---

2005+023:21:30:09	21.462683	-90.124127	262.5	4.6	2104.26	20.31
1740 71 1524	keren		978777.1	23.4	17.9	10
streamer tension 3000-3100, wind speed11.4						

---

2005+023:21:41:24	21.459106	-90.140527	261.1	4.7	2105.13	20.11
1769 72 1553	keren		978776.3	23.4	15.9	15
EOT 71: 1768/1552. SOT 72: 1769/1553.						

---

2005+023:21:56:20	21.454437	-90.162467	261.7	5.2	2106.46	19.61
1820 73 1604	Peggy		978775.8	23.4	15.4	21
EOT 72: 1819/1603. SOT 73: 1820/1604. Streamer tension = 3100.						
Wind speed 1.5h average = 13.2.						

---

Area: Mexico Survey: Chicxulub Line: chix8  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+023:22:07:57	21.450732	-90.179551	261.0	5.0	2107.39	18.51
1857 73 1641	Tamara		978776.3	23.4	15.3	20
pulling 3 guns in preparation for turn to beginning of line chicx6.						

2005+023:22:12:42	21.449202	-90.186597	262.7	5.1	2107.79	20.41
1870 74 1655	Tamara		978776.7	23.4	14.6	24
EOT 73: 1870/1654 SOT 74: 1871/1655 Guns 8, 9, 10 are being pulled in (and turned off) (Tamara, Tim, Oscar on watch)						

2005+023:22:15:18	21.448841	-90.190388	276.1	4.2	2107.93	21.31
1881 75 1665	Tamara		978776.7	23.4	14.8	18
EOL chicx8. EOT 74: 1880/1664 Last shot on chicx8 #1880. Starting turn. We're going to be shooting an OBS line around turn on a time cycle (every 20 sec). SOT 75: 1881/1665. Guns 8,9,10 are off.						

2005+023:22:22:12	21.451363	-90.200183	310.3	4.5		21.41
	Tamara		978777.3	23.4	17.1	9
correction to last log: we are NOT starting tape 75. The streamer is not recording. This is OBS ONLY.						

2005+023:22:30:03	21.459827	-90.207462	350.1	4.9	2109.06	20.41
NA NA	Tamara		978768.4	23.4	15.7	14
on turn from chicx8 to chicx6. 1.5h avg wind speed: 14.9. streamer tension ~3200.						

2005+023:22:59:25	21.493096	-90.197008	69.8	4.4	2111.23	23.51
	Tamara		978716.1	23.4	17.2	13
Ship has finished turning. Streamer tension ~3900. 1.5h avg wind speed 16.2						

2005+023:23:07:05	21.496078	-90.186131	74.0	4.7	2111.79	23.81
	Tamara		978718.6	23.4	15.2	15
all guns (8: 875 cu in, 9: 145 cu in, 10: 200 cu in) back on and firing. still firing every 20s while streamer straightens out.						

2005+023:23:25:07	21.501271	-90.160931	75.8	4.1	2113	24.11
	Tamara		978715.4	23.4	12.4	5
EOL OBS turning line - line 8-6 link						

2005+023:23:27:14	21.501862	-90.157948	75.0	3.9	2113.31	24.51
169 75 1	Penny		978715.4	23.4	11.4	4
start line 6A - W-E along west end of line 6						

2005+023:23:35:25	21.504198	-90.146529	74.8	4.2	2113.86	24.51
27	Tamara		978715.9	23.4	10.0	352

appendix to last log: back to 50m shot intervals for start of line  
6A

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Area: Mexico Survey: Chicxulub Line: chix6A  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+023:23:44:26	21.506851	-90.133969	74.5	4.0	2114.43	23.71
220 76 52	Tamara		978715.8	23.4	13.6	2
EOT 75:219/51 SOT 76:220/52						

2005+024:00:00:02	21.511357	-90.112274	73.7	4.4	2115.56	23.51
266 76 98	Tamara			23.3	14.4	3
EOL chicx6A. EOT 76: 266/98 streamer tension ~3800. avg wind speed 14.3.						

2005+024:00:30:09	21.533824	-90.083342	349.8	4.4	2117.66	24.21
	Tamara		978752.9	23.3	18.0	11
Streamer tension ~3600 , wind speed 90 min average = 13.9						

2005+024:01:00:09	21.540708	-90.127661	266.1	4.3	2119.95	25.31
	Tamara		978794.5	23.3	21.5	19
Streamer tension 3550, wind speed 90 min. average = 15.7						

2005+024:01:30:07	21.531814	-90.173307	266.8	4.2	2122.04	25.31
	Tamara		978786.7	23.3	20.7	15
Streamer tension 3200, wind speed 90 min average = 18.5						

2005+024:02:00:02	21.523483	-90.217164	264.7	4.2	2123.97	25.51
	Tamara		978785.7	23.3	16.6	7
streamer tension ~3000. avg wind speed 19.9. watch taken over by Anusha/Matt.						

2005+024:02:30:12	21.514983	-90.261255	264.5	4.2	2125.9	25.21
	Anusha		978781.7	23.3	19.2	14
Streamer tension = 3013. Streamer is well balanced.						

2005+024:03:04:14	21.505212	-90.311373	264.0	4.2	2128.37	22.11
	Anusha		978780.2	23.2	22.4	35
Streamer tension is 3137. Streamer is well balanced.						

2005+024:03:30:11	21.497902	-90.349101	262.7	3.8	2130.16	23.71
	matt		978779.0	23.2	19.7	33
Tension = 3019. We are retensioning tapes.						

2005+024:04:00:11	21.489453	-90.392297	263.5	3.8	2132.23	25.01
	anusha		978779.1	23.2	21.3	25
Streamer tension is 3032. Streamer is well balanced						

2005+024:04:30:06	21.481099	-90.435388	265.0	4.2	2134.35	26.11
	anusha		978779.0	23.3	17.9	33
streamer tension is 3219. streamer is balanced						

2005+024:05:00:07	21.472747	-90.478794	264.3	4.1	2136.44	25.51
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anusha 978777.4 23.3 19.6 32  
Streamer tension is 3460. Streamer is well balanced.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Airguns Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

---

2005+024:05:30:05	21.46416	-90.522576	264.5	3.7	2138.44	25.01
	matt		978776.6	23.4	14.5	22
Tension = 3455. No need to be wordy because it's eleven thirty.						

---

2005+024:05:32:14	21.463554	-90.525756	264.3	4.4	2138.58	26.01
	matt		978777.8	23.4	17.7	31
There is a bump in the middle of the streamer.						

---

2005+024:06:00:03	21.455673	-90.56639	263.7	4.4	2140.54	25.11
	Peggy		978780.7	23.4	16.9	32
Streamer tension = 3800. Streamer is a little bit bumpy. Wind speed 1.5h average = 18.3. Nush knitting = 30 cm. Matt has turned all alternative. Watch taken over by Sean, Peggy and Keren.						

---

2005+024:06:30:09	21.444135	-90.610075	228.5	4.7	2142.64	24.81
	keren		978777.7	23.4	21.1	30
streamer tension 3800-3900,						

---

2005+024:07:00:17	21.403312	-90.611883	159.8	4.8	2144.96	23.51
	Peggy.		978740.4	23.3	22.3	16
Streamer tension = 3800.						

---

2005+024:07:30:14	21.363162	-90.602662	160.8	4.6	2147.25	22.31
	Peggy		978738.8	23.2	19.1	24
Streamer tension = 4100.						

---

2005+024:08:00:22	21.34563	-90.568582	81.0	4.6	2149.59	20.41
	Peggy		978710.9	23.1	18.1	24
Streamer tension quite high: ~5000. Streamer has a bubble at the surface. Front is down, so should be fine to get the rest of the streamer down again. Wind speed 1.5h average 19.7						

---

2005+024:08:30:11	21.345836	-90.524466	82.3	4.9	2151.99	20.81
	Peggy		978711.0	23.0	19.6	25
Streamer tension = 4200. Streamer a bit better balanced. Wind speed 1.5h average = 20.7						

---

2005+024:09:00:12	21.346258	-90.48123	79.3	4.6	2154.39	20.01
	Peggy		978712.4	23.0	20.9	25
Streamer tension = 4000. Wind speed 1.5h average= 20.0						

---

2005+024:09:30:13	21.354568	-90.438581	74.0	4.8	2156.8	20.81
	Peggy		978712.1	22.9	22.7	31
Streamer tension = 4600.						

---

2005+024:10:00:04	21.362562	-90.395658	76.3	4.9	2159.22	19.11
	Peggy		978713.2	22.9	21.5	33

---

Streamer tension 4800, wind speed 90 min average = 20.7

---

Area: Mexico Survey: Chicxulub Line: chix10  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Airguns Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+024:10:30:04 21.369761 -90.352424 72.8 5.0 2161.65 18.51  
 TJS 978705.3 22.9 18.1 40

Wind speed 90min average=20.4, streamer tension around 4000-4400.  
 On run in to line chix10 (~17-18km to start), conditions feeling a  
 little rough...

2005+024:11:00:08 21.378272 -90.310927 75.0 5.0 2164.01 17.21  
 TJS 978706.4 22.9 21.5 31

Streamer tension 4200, wind speed 90 min average = 20

2005+024:11:30:05 21.386749 -90.26909 74.7 5.0 2166.38 17.01  
 TJS 978704.0 22.9 16.6 32

Wind speed 90min average = 19.5, streamer tension ~4500. Nothing  
 special to report.

2005+024:12:00:02 21.395403 -90.226579 73.7 4.4 2168.81 18.41  
 TJS 978706.7 23.0 21.2 33

Streamer tension ~4400 , wind speed 90 min avrage = 19.1

2005+024:13:00:51 21.413126 -90.139157 74.5 4.9 2173.76 17.81  
 TJS 978698.1 22.9 13.8 26

Streamer Tension: 4500. Wind Average: 18.6

2005+024:13:06:37 21.414776 -90.130885 74.7 5.0 2174.24 17.41  
 TJS 978701.9 22.9 18.8 26

Wind speed 90min average = 18.5, doing some processing with Sean

2005+024:13:31:21 21.421993 -90.095311 74.0 4.9 2176.26 17.11  
 TJS 22.9 19.6 28

Wind speed 90min average = 17.8, streamer tension ~4600, depth  
 good.

2005+024:14:02:53 21.43075 -90.052156 72.8 4.2 2178.73 15.81  
 matt 978707.7 22.9 17.3 24

tension=3815

2005+024:14:26:15 21.436497 -90.023657 74.3 3.9 2180.34 14.71  
 416 77 1 Anusha 978711.4 22.9 18.7 39

Starting ramp up of gus as weather has improved - 1st gun now on

2005+024:14:30:08 21.43739 -90.019409 74.5 3.9 2180.56 18.01  
 425 77 10 Anusha 978711.1 22.8 16.9 47

In the middle of the gun ramp up - one gun on so far.

2005+024:14:31:47 21.43781 -90.017498 74.5 4.2 2180.68 16.61  
 428 77 13 Anusha 978711.2 22.8 16.6 42

2 guns now on

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---

Area: Mexico	Survey: Chicxulub	Line: Chicx
Shot Rate: 50	Sample Rate: 2	Channels: 480
Source: Airguns	Guns: 4	Pressure: 570
		Aux. Channels: 0
		Volume: 2000

---

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				

---

2005+024:14:36:41	21.438964	-90.011844	75.0	4.0	2180.99	17.91
440	77	25	Anusha	978709.9	22.8	18.4
					35	

---

2005+024:14:37:40	21.439183	-90.010721	75.7	3.8	2181.04	19.11
	Anusha		978712.1	22.8	16.9	55

---

The last entry was to mark 2 guns being added to the ramp up bringing the total up to 4 guns.

---

2005+024:14:41:45	21.440023	-90.006148	73.3	3.4	2181.32	17.41
453	77	38	Anusha	978712.3	22.8	17.4
					41	

---

Down to one gun only as powering down due to a dolphin sighting. We have to begin ramping up in 15 minutes.

---

2005+024:14:47:50	21.441451	-89.999204	73.8	4.2	2181.75	17.51
467	78	52	Anusha	978820.4	22.8	17.2
					56	

---

tape change (last tape = 77, last SP = 466, FFID = 51)

---

2005+024:14:56:05	21.443404	-89.989778	73.3	3.8	2182.3	17.41
490	78	78	Anusha	978712.3	22.8	14.3
					43	

---

We're going to start a port turn soon as otherwise we'll miss the drill site. We'll do as much of the ramp up as possible during the turn itself then come back on line. End of tape 78 (SP 490, FFID 490)

---

2005+024:14:58:25	21.443952	-89.987095	73.8	3.6	2182.45	17.21
	Anusha		978769.0	22.8	14.1	50

---

Shut down of the one gun due to a turtle sighting

---

2005+024:15:06:39	21.446382	-89.977814	55.7	3.8	2182.97	17.71
	Anusha		978711.7	22.8	18.4	61

---

at 16:23 we can restart the ramp up whilst we're on the turn:

---

2005+024:15:16:59	21.457395	-89.972352	4.7	4.9	2183	17.11
	Anusha		978732.1	22.9	17.1	55

---

The last FFID of the last shot on tape 78 was 75, not 78 as previously stated

---

2005+024:15:26:31	21.469156	-89.978941	319.1	5.0	2184.48	15.61
	Anusha		978763.1	22.9	13.5	54

---

1st shot of the ramp up (we're in the middle our turn to port. One gun now firing. The line in called OBS but we're not recording the data. The shooting is on time (20 seconds) not distance

---

2005+024:15:30:12	21.471912	-89.983856	301.0	4.9	2184.77	16.61
	matt		978773.5	22.9	13.9	66

---

tension =3090 turning to get a better position on chicx10.

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---

Area: Mexico Survey: Chicxulub Line: Chicx10  
Shot Rate: 20se Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: Airguns Guns: 2 Pressure: 225 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

---

2005+024:15:32:13	21.472756	-89.986798	290.7	5.1	2184.89	15.41
	matt		978776.2	22.9	14.9	52

2nd gun now on.

---

2005+024:15:37:05	21.473143	-89.994321	274.7	5.4	2185.42	16.91
	Anusha		978783.1	22.9	15.4	57

4 guns now on

---

2005+024:15:42:16	21.473017	-90.002476	275.3	5.2	1286.05	18.61
	Anusha		978779.5	22.9	13.4	45

8 guns now on

---

2005+024:15:47:22	21.472508	-90.010139	267.7	4.9	2186.29	19.21
	Anusha			22.9	14.0	41

16 guns now on

---

2005+024:16:00:07	21.469794	-90.029099	262.3	4.9	2187.34	18.91
	Anusha		978779.3	22.9	10.8	56

Still have just 16 guns - the ramp up can not be completed until the turn has finished as some guns are out of the water

---

2005+024:16:05:02	21.468417	-90.036404	264.1	5.0	2187.74	19.71
	Anusha		978780.4	22.9	12.6	51

We are nearly all the way through the ramp up - we have stopped on 17 guns as 3 guns (guns 11, 12 & 13) are out of the water due to the port turn we are currently doing. The current volume is 5647 (which is in between the 16 and 20 gun volume). We will only be back on line chicx 10 in about an hour which is when we'll be able to put the final 3 guns in the water.

---

2005+024:16:20:56	21.464627	-90.059706	266.0	4.6	2189.91	19.41
	Anusha		978774.2	22.9	11.0	50

The first shot of our \*reshooting\* of Chicx 10 will start with an FFID of 76. The first 1 to 75 FFIDs relate to our first attempt at line 10 which was aborted. These first attempt shots will have the same shot numbers as as when we start reshooting but will probably be ditched as we never reached more than 4 guns when ramping up the first time. We are currently still shooting with just 17 guns, waiting to finish our turn and get back on line before the final 3 guns can go in the water

---

2005+024:16:36:29	21.460425	-90.082135	265.0	4.8	2190.28	20.41
	Anusha		978780.9	23.0	11.6	49

About to start the second turn to port in 3 minutes

---

2005+024:16:48:08	21.454256	-90.098042	224.0	5.3	2191.27	19.41
	Anusha		978771.7	23.0	12.0	46

Gun number 1 has been turned off (it has been brought in to fix a  
problem on it)

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---

Area: Mexico Survey: Chicxulub Line: Chicx10  
Shot Rate: 20se Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: Airguns Guns: 16 Pressure: 5582 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

---

2005+024:17:00:02	21.43865	-90.10362	165.0	5.0	2192.25	18.41
	Anusha		978742.5	23.0	14.5	50
still in the middle of our turn to port to get back on line 10. Guns 1, 11, 12 & 13 are still down. The streamer is dipping towards the front - due to the turn.						

---

2005+024:17:11:11	21.426855	-90.095069	110.7	4.5	2193.17	18.71
	Anusha		978709.8	22.9	15.8	44
We are now at the point of closest approach to DOBS 23, site 3E						

---

2005+024:17:29:42	21.427031	-90.069098	73.3	4.7	2194.62	18.21
	Anusha		978728.7	22.9	14.4	60
All guns excepting 1 and 11 are back on. We've just turned back onto line 10 and are waiting for the streamer to straighten out before we start recording						

---

2005+024:17:34:04	21.428408	-90.063213	72.5	4.1	2195.12	16.61
	Anusha		978705.4	22.9	14.1	45
All guns are now on!						

---

2005+024:17:56:08	21.43411	-90.035675	74.3	4.4	2196.41	17.01
	matt		978705.9	22.9	14.3	41
Started recording on line Chixc 10. There is a large bump near the end of the streamer.						

---

2005+024:17:57:55	21.434545	-90.033447	75.3	4.3	2196.57	18.01
	matt		978707.8	22.9	15.6	61
The streamer is not fully straight. We are just coming out of a turn.						

---

2005+024:17:59:17	21.434888	-90.031749	74.3	3.9	2196.63	17.61
	matt		978706.6	22.9	12.8	38
Line Chicx 10, tape 79, first shot # = 189. first file # = 76.						

---

2005+024:18:01:02	21.435298	-90.02958	74.5	4.1	2196.74	17.71
	matt		978709.4	22.9	15.8	48
We are only going 4.1 knots because going faster would require a third engine.						

---

2005+024:18:03:15	21.435837	-90.026814	74.3	4.2	2196.9	17.31
	matt		978717.7	22.9	14.1	55
The tail end of the streamer is starting to dip. It is within 5 m of the bottom. We are contemplating adding a third engine to speed up.						

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Area: Mexico Survey: Chicxulub Line: Chicx10  
Shot Rate: 20se Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH		
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP	WSPD	WDIR
COMMENTS								

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2005+024:18:14:55	21.438916	-90.012362	74.1	4.1	2197.79	18.71	
240	80	127	Peggy	978709.8	22.9	12.0	61
EOT 79: 239/126. SOT 80: 240/127. Streamer tension = 3500.							
Streamer has straightened out better. Wind speed 1.5h average = 14.4							

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2005+024:18:30:04	21.442557	-89.993546	74.3	4.0	2198.85	18.01	
279	80	166	Peggy	978708.7	22.9	13.7	49
The streamer has straightened itself out and is now well balanced again. Streamer tension is 3654.							

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2005+024:18:34:19	21.443656	-89.98824	73.8	4.3	2199.15	17.61	
291	81	178	Peggy	978708.5	22.9	15.1	50
EOT 80: 290/177. SOT 81: 291/178.							

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2005+024:18:53:42	21.448549	-89.964229	75.0	4.5	2200.51	17.21	
342	81	229	Peggy	978707.7	22.9	15.3	60
EOT 80: 341/228. SOT 81: 342/229. Streamer tension = 3600.							
Streamer well balanced at 7 m. Wind speed 1.5h average = 14.3.							

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2005+024:19:12:09	21.45343	-89.940215	75.5	4.4	2201.88	18.31	
393	83	280	Peggy	978704.1	22.9	13.7	66
EOT 82: 392/279. SOT 83: 393/280.							

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2005+024:19:30:44	21.45835	-89.91613	75.3	4.5	2203.24	16.51	
444	84	331	Peggy	978704.9	22.9	15.4	61
EOT 83: 443/330. SOT 84: 444/331. Streamer tension = 4000.							
Streamer well balanced at 7m depth. Wind speed 1.5h average 14.3.							

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2005+024:19:49:41	21.463355	-89.891403	75.3	4.6	2204.66	18.11	
495	85	382	Peggy	978703.0	22.9	15.9	78
EOT 84: 494/381. SOT 85: 495/382. Streamer tension = 3400.							
Streamer is well balanced at 7m. Wind speed = 13.3.							

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2005+024:20:00:05	21.466083	-89.877808	75.0	4.4	2205.45	16.51	
526	85	413	Peggy	978706.6	22.9	14.6	50
Streamer tension = 3900. Streamer well balance at 7m depth. Wind speed 1.5h average 14.5.							

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2005+024:20:08:06	21.468162	-89.867294	75.3	4.5	2206.03	16.21	
546	86	433	Peggy	978708.3	22.9	12.2	67
EOT 85: 545/432. SOT 86: 546/433.							

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2005+024:20:28:04	21.473443	-89.841205	76.0	4.3	2207.5	17.21	
597	87	484	Peggy	978713.6	22.9	13.3	53
EOT 86: 596/483. SOT 87: 597/484. Streamer tension = 3800/							
Streamer well balanced at 7m depth. Wind speed 1.5h average = 13.7							

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Area: Mexico Survey: Chicxulub Line: Chicx10  
Shot Rate: 20se Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+024:20:45:12	21.477863	-89.819223	75.5	4.2	2208.74	17.71
648 88 535	Peggy		978717.9	22.9	11.8	55
EOT 87: 647/534. SOT 88: 648/535.						

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2005+024:21:00:10	21.48175	-89.800393	74.5	4.3	2209.85	18.71
690 88 577	Peggy		978664.9	23.0	13.1	49
Streamer tension = 3400. Streamer well balanced at 7m depth. Wind speed 1.5h average = 12.8.						

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2005+024:21:03:44	21.482684	-89.795893	76.0	4.4	2210.21	16.91
699 89 586	Peggy		978722.4	23.0	12.2	45
EOT 88: 698/585 SOT 89: 699/586						

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2005+024:21:22:41	21.487487	-89.771853	76.0	4.2	2211.43	18.51
637 90 750	Peggy		978722.4	23.0	11.1	68
EOT 89: 636/749. SOT 90: 637/750.						

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2005+024:21:30:04	21.489348	-89.762606	75.1	4.2	2211.97	16.51
770 90 657	Peggy		978721.9	23.0	10.8	41
Streamer tension = 3600. Streamer well balanced at 7m depth. Wind speed 1.5h average = 12.1						

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2005+024:21:42:32	21.492587	-89.746976	75.5	4.2	2212.84	16.81
801 91 688	Peggy		978854.9	23.0	13.6	61
EOT 90: 800/687. SOT 91: 801/688.						

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2005+024:22:01:33	21.49744	-89.723098	75.3	4.3	2214.2	16.91
852 92 739	Peggy		978723.2	23.0	12.5	62
EOT 91: 851/738. SOT 92: 852/739. Streamer tension = 3600. Streamer well balanced at 7m depth. Wind speed 1.5h average = 12.4. Watch taken over by Tim, Tamara and Oscar.						

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2005+024:22:20:36	21.502157	-89.699188	75.7	4.4	2215.55	17.61
903 93 790	Tamara		978722.8	23.0	15.7	46
EOT 92: 902/789 SOT 93: 903/790						

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2005+024:22:30:12	21.504668	-89.68711	75.8	4.3	2216.25	17.71
929 93 816	Tamara		978722.5	23.0	12.7	46
streamer tension 3800						

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2005+024:22:39:32	21.507161	-89.674751	75.5	4.4	2216.93	17.31
954 94 841	Tamara		978720.8	23.0	14.6	52
EOT 93: 953/840 SOT 94: 954/841						

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2005+024:22:56:58	21.511841	-89.651546	76.3	4.6	2218.33	18.51
1005 95 892	Tamara		978721.6	23.0	14.4	41
EOT 94: 1004/891 SOT 95: 1005/892						

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Area: Mexico Survey: Chicxulub Line: Chicx10  
 Shot Rate: 20 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						
2005+024:23:14:59	21.516751	-89.627567	76.1	4.4	2219.61	17.91
1056 96 943	TJS		978718.4	23.0	14.0	37
EOT 95: 1055/942 SOT 96: 1056/943						
2005+024:23:30:12	21.520881	-89.607106	76.0	4.6	2220.78	16.81
1099 96 986	Tamara		978713.4	23.0	10.3	36
streamer tension ~3900						
2005+024:23:33:29	21.521792	-89.602654	76.7	4.6	2221.08	17.91
1107 97 994	Tamara		978714.7	23.0	11.5	33
EOT 96: 1106/993 SOT 97: 1107/994						
2005+024:23:51:14	21.526599	-89.5787	75.8	4.5	2222.38	16.91
1158 98 1045	Tamara		978710.9	23.0	14.3	40
EOT 97: 1157/1044 SOT 98: 1158/1045						
2005+024:23:59:51	21.528987	-89.567112	76.8	4.4	2223.04	978710.3
1185 98 1072	Tamara			23.0	12.4	42
Last shot (1185) for the day on Chicx10. We did not complete the entire intended line due to earlier delays. EOT 98: 1185/1072. EOL chicx10. For some reason the last shot number is displaying on one of the computers and on the tape label as #0 instead of 1185. streamer tension ~4000. avg wind speed 13.4. Streamer is fine.						
2005+025:00:30:14	21.542748	-89.525827	54.3	5.7	2225.52	18.91
	Tamara		978708.1	23.0	12.5	37
Streamer tension ~5900 . wind speed 90 min. average =12.9, turn						
2005+025:01:00:03	21.573011	-89.483009	55.3	5.7	2228.49	19.61
	Tamara		978702.7	23.1	9.9	68
Streamer tension ~6200 wind speed 90 min average =12.3						
2005+025:01:30:03	21.603248	-89.440019	54.3	5.8	2231.33	20.81
	Tamara		978705.3	23.1	9.1	43
Streamer tension ~ 5650 , wind speed 90 min average = 11.5						
2005+025:02:00:01	21.631987	-89.399085	54.3	5.5	2234.06	21.01
	Tamara		978712.9	23.1	12.7	59
Streamer tension ~5400 , wind speed 90 min average = 13						
2005+025:02:30:05	21.660386	-89.358868	55.3	5.3	2236.61	21.91
	matt		978723.7	23.2	14.9	47
Tension = 5140. Streamer is looking good.						
2005+025:03:00:04	21.688907	-89.318247	55.1	5.3	2239.23	22.71
	matt		978728.0	23.3	12.8	59
Tension = 5638. Streamer looks good.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: 0 Sample Rate: Chic Channels: 2000 Aux. Channels:  
 Source: Airguns Guns: 20 Pressure: 2 Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+025:03:30:14	21.717809	-89.276935	58.0	5.2	2241.95	24.11
	matt		978730.4	23.4	12.4	48
tension = 2241.97. streamer looks good.						

---

2005+025:04:00:06	21.746076	-89.236171	55.3	4.6	2244.5	26.61
	matt		978727.0	23.4	8.5	56
tension = 5178. Streamer looks okay.						

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2005+025:04:30:10	21.77492	-89.19514	55.7	5.8	2247.2	19.51
	matt		978728.9	23.3	13.9	61
tension = 5402. Streamer looks good.						

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2005+025:05:00:14	21.804411	-89.15329	55.3	5.7	2249.99	28.41
	matt		978732.4	23.3	8.5	72
tension = 5240. streamer looks fine.						

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2005+025:05:30:14	21.832783	-89.112812	55.3	5.0	2252.74	26.61
	matt		978737.1	23.1	8.2	70
tension = 5073. streamer = going good.						

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2005+025:06:00:01	21.860525	-89.073354	55.3	5.0	2255.4	26.81
	matt		978737.0	23.1	8.1	47
tension = 5144. streamer is alright. Change of Watchstanders.						

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2005+025:06:30:02	21.888115	-89.034108	55.3	5.9	2258.36	31.31
	Peggy		978738.9	23.1	9.4	60
Streamer tension = 5000. Streamer well balanced at 7m depth. Wind speed 1.5h average = 8.9						

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2005+025:07:00:12	21.915937	-88.994562	54.5	5.7	2261.22	32.21
	Peggy		978741.3	23.2	10.0	62
Streamer tension = 5400. Average wind speed = 8.7						

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2005+025:07:29:22	21.942907	-88.956227	54.8	5.9	2264.01	33.11
	Peggy		978744.3	23.2	9.4	78
Streamer tension = 5400. Streamer well balanced at 7m depth. Average wind speed = 9.0						

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2005+025:07:59:15	21.970496	-88.916792	54.7	5.9	2266.9	33.31
	Peggy		978743.2	23.2	10.4	87
Streamer tension = 5500. Average wind speed = 9.7						

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2005+025:08:30:15	21.999414	-88.875786	54.8	5.9	2269.89	34.61
	Peggy		978745.8	23.1	10.3	86
Streamer tension = 5400. Wind speed average = 10.1						

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2005+025:09:00:10	22.026882	-88.83663	54.3	5.6	2272.72	33.81
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keren 978752.2 23.1 13.1 66  
streamer tension 5000-5100, wind speed average: 10.1

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+025:09:30:02	22.053879	-88.798191	54.1	5.5	2275.5	35.21
	Peggy		978761.3	23.1	9.4	45
Streamer tension = 5000. Streamer is well balanced at 7m depth. Wind speed 1.5h average = 9.9. Heezen doesn't listen to Kevin anymore.						

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2005+025:10:00:02	22.080851	-88.759692	53.7	5.4	2278.27	35.61
	Peggy		978764.2	23.2	8.2	81
Streamer tension = 5000. Streamer well balanced at 7m. Wind speed 1.5h average = 9.9. Change of watch standers.						

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2005+025:10:30:05	22.108308	-88.720663	54.0	5.5	2281.09	37.31
	Oscar		978768.8	23.3	8.2	64
Streamer tension ~5200, wind speed 90 min average = 10.2						

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2005+025:11:00:04	22.135668	-88.681662	53.8	5.3	2283.92	36.61
	Oscar		978771.0	23.3	11.7	76
Stremer tension ~ 4800 , wind speed 90 min. 11.1						

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2005+025:11:30:05	22.162991	-88.642739	52.8	5.7	2286.69	37.61
	Oscar		978772.9	23.3	12.3	60
Streamer tension ~ 4900, wind speed 90 min. average = 11.4						

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2005+025:12:00:11	22.190661	-88.60329	53.5	5.5	2289.5	39.41
	Tamara		978773.1	23.0	11.4	37
streamer tension ~5200. starting turn shortly.						

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2005+025:12:30:07	22.171744	-88.569979	188.8	5.2	2292.37	37.41
	Tamara		978800.0	22.9	13.7	51
turning towards regional line chicxR1. ramp up expected to begin at 1310. streamer tension ~4000, average wind speed ~0.9						

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2005+025:13:00:08	22.139707	-88.600847	225.7	4.8	2294.87	36.51
	Tamara		978824.4	23.1	8.6	72
streamer tension ~3500. ramp-up start time 13.07. streamer is still curved from turn.						

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2005+025:13:07:18	22.132895	-88.608442	226.0	4.8	2295.45	35.91
-20 99 1	Tamara		978825.8	23.1	12.1	47
1st shot. 1 gun firing. tape label will miss first 2 shots.						

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2005+025:13:12:22	22.128055	-88.613807	226.3	4.4	2295.88	36.61
-5 99 16	Tamara		978816.6	23.1	8.0	63
2 guns firing.						

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2005+025:13:17:25	22.123219	-88.619141	226.3	4.7	2296.25	37.01
10 99 31	Tamara		978818.8	23.1	12.9	50

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4 guns firing. Gun 1 not registering on gun monitor, but we  
think it's firing.

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Area: Mexico Survey: Chicxulub Line: chicxR1  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 8 Pressure: 1400 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+025:13:22:26	22.118402	-88.624472	226.0	4.5	2296.64	36.11
25 99 46	Tamara		978825.5	23.2	9.3	65
8 guns firing. volume values have been corrected on gun monitor.						

2005+025:13:24:53	22.116075	-88.627079	226.3	4.7	2296.84	36.01
30 100 51	Tamara		978831.3	23.2	10.6	76
EOT 99: 30/51 SOT 100: 31/52						

2005+025:13:27:35	22.113509	-88.629931	226.3	4.6	2297.06	35.51
41 100 62	Tamara		978840.3	23.2	6.8	63
16 guns firing						

2005+025:13:29:38	22.111544	-88.632102	225.0	4.9		37.21
	Tamara		978825.7	23.2	8.8	79
volume for 16 guns						

2005+025:13:32:27	22.108861	-88.6351	225.7	4.6	2297.45	35.71
56 100 77	Tamara		978825.1	23.2	10.0	72
20 guns firing. total ramp-up. streamer is now straight.						

2005+025:13:43:31	22.098151	-88.646815	225.3	4.6	2298.28	35.71
82 101 103	TJS		978825.2	23.2	13.6	51
Tape change. EOT: 100 LSP:81 LFFID:102 / BOT: 101 FSP:82 FFFID: 103 (NB: Reel 100 may be called reel 00 on tape)						

2005+025:13:57:36	22.084445	-88.661988	225.3	4.6	2299.43	34.51
133 102 154	Tamara		978849.3	23.2	11.8	56
EOT 101: 132/153 SOT 102: 133/154						

2005+025:14:00:06	22.081999	-88.664702	225.3	4.8	2299.53	35.11
	matt		978828.4	23.2	10.2	56
tension = 3910. streamer is looking alright. Change of watch.						

2005+025:14:14:05	22.068391	-88.679725	225.0	4.8	2300.94	34.81
187 103 205	Anusha		978823.2	23.2	8.6	64
Tape change - EOT 102 (SP = 183, FFID = 204) BOT 103 (SP = 187, FFID = 205) Three shots were not recorded (SP 184 - 186) due to there not being a tape ready to be written on in the drive.						

2005+025:14:30:11	22.052669	-88.697097	224.0	4.6	2306.06	33.91
236 103 254	Anusha		978808.3	23.3	8.4	51
Shooting line Chicx R1, Streamer tension = 3655.						

2005+025:14:31:34	22.051323	-88.698571	224.3	4.8	2302.28	34.81
238 104 256	Anusha		978784.7	23.3	9.2	59
Tape Change - EOT 103 (SP 237, FFID 255) BOT 104 (SP 238, FFID 256)						

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Area: Mexico Survey: Chicxulub Line: chicxR1  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+025:14:47:50	22.035403	-88.716128	224.3	4.7	2303.42	32.61
289 105 307	Anusha		978819.4	23.3	11.7	39
Tape change (EOT 104, SP 288, FFID 306) BOT 105 (SP 289, FFID 307)						

2005+025:15:00:10	22.023395	-88.729414	224.3	4.5	2304.39	32.21
327 105 345	Anusha		978816.2	23.3	12.9	42
Streamer tension is 2304.52						

2005+025:15:03:26	22.020206	-88.732935	224.3	4.6	2304.7	34.21
338 105 356	Anusha		978816.5	23.3	11.0	36
Raid box is beeping - has come up with a 'RAID error' - Anthony is looking at it						

2005+025:15:04:36	22.019063	-88.734202	223.7	4.9	2304.81	33.81
240 106 358	Anusha		978816.8	23.3	11.8	41
Tape change (EOT 105, SP 339, FFID 357) (BOT 106, SP 340, FFID 358)						

2005+025:15:20:45	22.003233	-88.751618	223.5	4.6	2306.03	32.41
391 107 409	Anusha		978810.8	23.2	6.5	59
Tape change, EOT 106 (SP 390, FFID 408) SOT 107 (SP 391, FFID 409)						

2005+025:15:30:19	21.993895	-88.761929	224.0	5.0	2306.71	32.31
	matt		978789.8	23.2	14.1	31
Tension =3484. Streamer is looking okay. Taking data on line ChixR1.						

2005+025:15:37:17	21.987207	-88.76935	224.0	4.8	2307.45	31.91
442 108 460	Anusha		978805.7	23.2	10.8	40
Tape change. EOT 107 (SP 441, FFID 459) BOT 108 (SP 442, FFID 460)						

2005+025:15:53:55	21.971117	-88.787075	223.7	4.9	4308.65	29.01
493 109 511	Anusha		978800.8	23.1	4.5	44
Tape change. EOT 108 (SP 492, FFID 510), BOT 109 (SP 493, FFID 511)						

2005+025:16:00:11	21.965029	-88.793815	224.0	4.4	2309.07	29.01
	Anusha		978801.7	23.0	7.7	30
Streamer tension is 3630. Shooting line R1. Streamer is looking balanced						

2005+025:16:10:18	21.955113	-88.804715	223.0	4.2	2309.82	28.81
544 110 562	Anusha		978801.6	23.0	9.7	48
tape change. EOT 109 (SP 543, FFID 561). BOT (SP 544, FFID 562)						

Area: Mexico Survey: Chicxulub Line: chicxR1  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				

2005+025:16:27:04 21.938867 -88.82264 224.0 4.4 2311.07 28.71  
 595 111 613 Anusha 978800.2 23.0 11.4 45  
 Tape change. EOT 110 (SP 594, 612 FFID) BOT 111 (SP 595, 613 FFID)

2005+025:16:30:08 21.935849 -88.825967 224.3 4.8 2311.31 30.41  
 605 111 623 Anusha 978801.5 23.0 10.1 61  
 Streamer is well balanced. Streamer tension is 3468. Still shooting line R1 - no interruptions to the shooting as yet.

2005+025:16:43:19 21.92299 -88.840202 224.1 3.9 2312.33 28.31  
 646 112 664 Anusha 978801.6 22.9 9.4 56  
 Tape change. EOT 111 (SP 645, FFID 663), BOT 112 (SP 112, FFID 664)

2005+025:17:00:02 21.906838 -88.857981 224.7 3.9 2313.51 28.01  
 697 113 715 Anusha 978825.2 22.9 10.9 61  
 Tape change. EOT 112 (SP 696, FFID 714). BOT 113 (SP 697, FFID 715)

2005+025:17:16:32 21.890939 -88.87554 224.0 4.1 2314.73 26.71  
 748 114 766 Anusha 978803.7 22.9 10.8 86  
 Tape change. EOT 113 (SP 747, FFID 765). BOT 114 (SP 748, 766)

2005+025:17:30:14 21.877702 -88.89007 224.3 4.5 2315.53 26.01  
 Anusha 978842.5 22.9 11.9 64  
 Streamer is well balanced. Streamer tension is 3609

2005+025:17:33:13 21.874779 -88.893317 225.0 3.8 2315.85 26.51  
 799 115 817 Anusha 978803.4 22.9 9.7 75  
 Tape change. EOT 114 (SP 798, FFID 816) BOT 115 (SP 799, FFID 817)

2005+025:17:49:25 21.858856 -88.910952 225.0 4.0 2316.91 26.01  
 851 116 869 Anusha 978792.5 22.9 12.8 70  
 Tape change. EOT 115 (SP 850, FFID 868). BOT 116 (SP 851, FFID 869)

2005+025:17:52:45 21.855596 -88.914527 223.7 3.9 2317.07 25.41  
 850 116 868 Anusha 978801.5 22.9 9.7 63  
 \*CORRECTION\* last log entry of the tape change was incorrect - should have read EOT 115 (SP 849, FFID 867). BOT 116 (SP 850, FFID 868)

2005+025:18:00:02 21.848512 -88.922263 225.3 4.0 2317.57 24.71  
 884 16 902 Peggy 978799.5 22.9 11.4 64  
 Streamer tension = 3400. Streamer well balanced at 7m depth. Wind

speed 1.5h average = 10.7. Watch standers change.

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Area: Mexico Survey: Chicxulub Line: chicxR1  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+025:18:06:10	21.842577	-88.92885	226.3	4.0	2318.05	26.51
901 17 919	Peggy		978798.2	22.9	10.3	79
EOT 16: 900/918. SOT 17: 901/919.						

2005+025:18:23:05	21.826251	-88.94687	224.7	4.3	2319.16	25.31
970 18 952	Peggy		978809.0	22.9	10.0	80
EOT 17: 969/951. SOT 18: 970/952.						

2005+025:18:30:03	21.81952	-88.954248	225.1	4.1	2319.58	23.91
975 18 993	Peggy		978795.1	22.9	9.3	87
Streamer tension = 3400. Wind speed 1.5h average = 10.8						

2005+025:18:39:44	21.810219	-88.964547	225.1	3.9	2320.31	23.31
1003 20 1021	Peggy		978803.0	22.9	9.7	99
EOT 19: 1002/1020. SOT 20: 1003/1021.						

2005+025:18:42:32	21.807539	-88.967527	225.3	4.2		22.71
	Peggy		978792.9	22.9	11.0	79
at 18.23 shot number and file number are swapped						

2005+025:18:56:23	21.794153	-88.982243	225.0	4.5	2321.41	21.81
1054 21 1072	Peggy		978790.1	22.9	12.1	77
EOT 20: 1053/1071. SOT 21: 1054/1072.						

2005+025:19:00:02	21.790636	-88.986125	224.7	4.1	2321.7	21.31
1067 20 1085	Peggy		978783.0	22.9	12.7	77
streamer tension 3300-3400, wind speed average 10.8						

2005+025:19:12:56	21.778079	-88.99993	225.1	4.2	2322.59	21.91
1105 21 1123	Peggy		978789.4	22.9	10.3	82
EOT 20: 1104/1122. SOT 21: 1105/1123.						

2005+025:19:29:34	21.762105	-89.01761	226.0	4.0	2323.74	22.71
1156 22 1174	Peggy		978787.9	22.9	9.7	64
EOT 21: 1155/1173. SOT 22: 1156/1174. Streamer tension = 3500.						
Streamer well balanced at 7m depth. Wind speed 1.5h average = 10.6						

2005+025:19:46:16	21.746019	-89.035273	225.0	4.2	2324.96	22.91
1207 22 1225	Peggy		978784.5	23.0	9.8	63
EOT 22: 1206/1224. SOT 23: 1207/1225.						

2005+025:20:00:02	21.732696	-89.049998	225.7	4.0	2325.93	21.81
1251 23 1269	Peggy		978782.7	23.0	10.9	60
Streamer tension = 3600. Streamer well balanced. Wind speed 1.5h average = 10.6.						

2005+025:20:02:26	21.730347	-89.052577	225.7	4.2	2326.09	21.81
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1258 24 1276 Peggy 978782.4 23.0 10.1 64  
EOT 23: 1257/1275. SOT 24: 1258/1276.

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Area: Mexico Survey: Chicxulub Line: chicxR1  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+025:20:19:07	21.714068	-89.070447	225.7	4.1	2327	22.11
1308 25 1327	keren		978781.0	23.0	12.7	61

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SOF 25: 1309/1327 EOT 24 1308/1326

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2005+025:20:30:02	21.703472	-89.082204	224.8	4.0	2328.03	21.91
1544 25 1562	Peggy		978779.8	23.0	8.7	55

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Streamer tension = 3600. Streamer well balanced at 7m depth. Wind speed 1.5h average = 10.6

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2005+025:20:35:48	21.697858	-89.088382	225.5	4.4	2328.42	22.01
1360 26 1378	Peggy		978779.7	23.0	9.9	70

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EOT 25: 1359/1377. SOT 26: 1360/1378.

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2005+025:20:57:22	21.676798	-89.111518	225.3	4.3	2329.97	20.61
1411 27 1429	Peggy		978779.7	23.1	12.1	58

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EOT 26: 1410/1428. SOT 27: 1411/1429. Streamer tension = 3600. Streamer well balanced at 7 m depth. Wind speed 1.5h average = 10.5

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2005+025:21:08:40	21.665743	-89.12373	225.1	4.6	2330.8	19.81
1462 28 1480	Peggy		978778.7	23.1	11.4	46

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EOT 27: 1461/1479. SOT 28: 1462/1480.

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2005+025:21:25:06	21.649653	-89.141412	224.8	5.1	2332.1	20.81
1513 29 1531	Peggy		978779.2	23.1	15.7	52

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EOT 28: 1512/1530. SOT 29: 1513/1531.

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2005+025:21:30:01	21.644862	-89.146729	225.3	4.9	2332.5	19.61
1531 29 1549	Peggy		978779.2	23.1	14.1	63

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Streamer tension = 3700. Streamer well balanced at 7m depth. Wind speed 1.5h average = 11.3.

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2005+025:21:41:26	21.633759	-89.158983	224.0	4.9	2333.48	19.01
1544 30 1582	Peggy		978786.8	23.1	13.9	62

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EOT 29: 1563/1581. SOT 30: 1564/1582.

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2005+025:21:57:27	21.618109	-89.176105	225.5	5.0	2334.78	18.71
1615 31 1633	Peggy		978779.1	23.0	13.4	59

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EOT 30: 1614/1632. SOT 31: 1615/1633. Streamer tension = 3600. Wind speed 1.5h average = 12.5

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2005+025:22:04:02	21.611729	-89.183157	224.3	4.9	2335.33	18.11
1636 131 1654	Tamara		978778.2	23.0	13.7	61

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guns 9 (145 cu in), 10 (200 cu in) off in preparation for turn.  
We are finishing regional line and are turning towards line 10 (chicx10A). Continuing to shoot and record.

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Area: Mexico Survey: Chicxulub Line: chicxR1  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 18 Pressure: 6602 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+025:22:13:43	21.602315	-89.193772	233.8	5.0	2336.13	19.11
1666 131/ 1684	Tamara		978778.8	23.0	14.3	45
Starting turn towards chicxR2. OBS only during turn. EOT 131: 1665/1683. One shot (1666) was recorded to tape #132. SOT 132: 1666/1684 EOT 132: 1666/1684 ***seisnet disk filled up and we missed FFID 1667-1677						

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2005+025:22:19:49	21.59841	-89.202	254.8	5.0	2336.66	18.81
	Tamara		978785.4	23.0	16.0	50
finished with turn. putting guns 9, 10 back out. still on OBS only line.						

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2005+025:22:29:32	21.595236	-89.216237	261.3	4.9	2337.49	17.91
	Tamara		978787.7	23.0	12.6	44
all guns back on.						

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2005+025:22:43:18	21.591636	-89.236283	260.3	4.8	2338.6	18.51
141 133 0	Tamara		978788.1	23.0	13.4	50
SOL chicxR2 (end of OBS only line). First shot on line.						

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2005+025:22:59:46	21.586867	-89.260234	260.5	5.0	2339.94	17.91
192 134 52	Tamara		978787.7	23.0	18.1	54
EOT 133: 191/51 SOT 134: 192/52 streamer tension ~3600, avg wind speed 14.8.						

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2005+025:23:17:04	21.582009	-89.285317	260.3	4.8	2341.4	18.71
243 135 103	TJS		978782.4	23.0	15.3	41
New tape. EOT: 134 LSP: 242 FFID: 102 // BOT: 135 FSP: 243 FFID: 103						

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2005+025:23:30:03	21.578354	-89.304052	260.1	4.9	2341.42	18.91
284 135 144	TJS		978778.0	23.0	15.2	49
Streamer fine (tension ~3500, depth level). Wins speed 90min average creeping up to 15.3.						

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2005+025:23:33:56	21.577255	-89.309637	260.8	4.9	2342.84	18.81
294 136 154	TJS		978776.5	23.0	17.1	58
Tape change. EOT:135 LSP:293 FFID:153 // BOT:136 FSP:294 FFID:154.						

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2005+025:23:49:52	21.572726	-89.332518	260.3	4.8	2344.06	18.91
205 137 345	Tamara		978773.2	23.0	15.2	47
EOT 136: 204/344 SOT 137: 205/345						

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2005+026:00:00:04	21.569992	-89.347236	260.1	4.8	2344.99	18.01
376 137 236	Tamara			23.0	15.5	61
EOL chicxR2. Last shot. EOT 137: 376/236. streamer tension ~3600. wind speed 15.5						

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Area: Mexico Survey: Chicxulub Line: chicxR2  
 Shot Rate: 50 Sample Rate: 2 Channels: Aux. Channels: 0  
 Source: airguns Guns: Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+026:00:30:08	21.585117	-89.380815	9.3	4.8	2347.35	19.91
	Tamara		978745.2	23.0	14.6	45
Streamer tension ~3300, wind speed 15.2						

2005+026:01:00:04	21.619099	-89.353343	44.5	4.6	2349.81	21.51
	Tamara		978722.5	23.1	19.0	56
streamer tension ~4000. soon we'll be bringing in part of the streamer to replace a section...						

2005+026:01:25:21	21.641261	-89.333025	43.8	3.0		22.51
	Penny		978739.4	23.1	13.6	42
Have taken in central guns, turned to NE and slowed down in order to bring in streamer to change noisy section. Some concern about PAM hitting seabed.						

2005+026:01:30:08	21.644808	-89.329815	44.0	3.2	2352	21.01
	Penny		978739.1	23.1	17.6	68
Bringing in streamer. Windspeed 15.7. Tim, Tamara and Oscar on deck helping.						

2005+026:02:00:07	21.661154	-89.315803	44.0	2.2	2353	21.71
	Penny		978748.0	23.2	15.8	60
Now have 5 birds on board. Streamer and guns OK. PAM has been brought in to shallow depth.						

2005+026:02:30:07	21.67604	-89.303605	44.1	2.2	2353	22.01
	Penny		978749.9	23.2	15.4	65
Bringing in the streamer. Found that section 36, 3192, was full of water - shark bite? Changed this section. wind speed 15.9 knots.						

2005+026:03:00:08	21.69193	-89.291123	43.3	2.2	2355	23.01
	Penny		978749.9	23.3	17.1	71
Cleaned connectors in can 2462 but it doesnt seem to have helped.						

2005+026:03:19:45	21.702327	-89.28334	44.7	2.4	2355	23.61
	Penny		978741.2	23.3	16.6	75
Section with can number 3182 contained the noisy traces 373-378 that needed changing. Powered down cable to change section.						

2005+026:03:30:11	21.707733	-89.279365	44.1	2.1	2357	23.61
	Penny		978751.6	23.3	16.0	68
redeploying streamer. Brief panic as one bird plummets to 18m. Speeding up to 4 knots. 0354 bird 23 gone over. 0356 bird 24						

2005+026:04:00:07	21.727357	-89.260869	49.5	3.6	2357	23.61
	Penny		978741.2	23.3	17.1	72

Connected bird 25 at 0400. Small problem as was 'open loop' - now  
fixed. Windspeed 15.9 0414 bird 27. 0419 bird 28

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: 2 Sample Rate: 0 Channels: chic Aux. Channels: 20  
 Source: airguns Guns: 694 Pressure: 50 Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				

2005+026:04:31:16	21.753543	-89.233742	49.1	4.2	2359	23.71
	Penny		978741.0	23.2	15.4	90
Finished streamer redeployment. Now putting airguns back. Ship going to speed up slightly to get to line 2 east side for tomorrow. Wind speed 15.8						

2005+026:05:00:13	21.766121	-89.200021	77.8	4.9	2361.79	23.41
	Anusha		978730.1	23.1	13.9	98
We are just looping around in order to get to the eastern end of line 2 tomorrow. The streamer is fully out and the PAM has just been put back in fully. Main job is to retension tapes tonight.						

2005+026:05:30:11	21.775804	-89.156923	78.8	4.6	2364.04	22.71
	matt		978731.2	23.0	14.3	107
Tension =3462. streamer = good.						

2005+026:06:00:01	21.784069	-89.118112	79.3	4.0	2366.15	25.01
	matt		978731.7	22.9	15.0	105
Streamer tension = 3400. Streamer well balanced at 7m depth, bird 9 not responding. Wind speed 1.5h average = 14.9						

2005+026:06:30:12	21.792751	-89.077858	78.7	3.9	2368.27	24.21
	Peggy		978733.5	22.9	11.9	105
Streamer tension = 3400. Streamer well balanced at 7m depth.m Wind speed 1.5h average 14.1						

2005+026:07:00:14	21.798477	-89.038645	85.0	3.7	2370.29	24.51
	Peggy		978733.5	22.9	13.3	115
Streamer tension = 3300. Streamer well balanced at 7m depth. Wind speed 1.5h average = 13.7.						

2005+026:07:30:09	21.79988	-88.998789	89.3	3.7	2372.38	22.21
	keren		978733.5	22.9	9.9	97
streamer tension 3400-3600, wind speed average: 12.3						

2005+026:07:59:42	21.803341	-88.958534	54.8	4.8	2374.4	23.51
	keren		978733.2	22.8	12.1	105
Streamer tension = 3800. Wind speed 1.5h average = 11.7. Finished retensioning tapes, and now helping Kevin copying data from the tapes. We are happy to be bothered by Kevin, as Kevin is happy to be bothered by Nush.						

2005+026:08:30:07	21.834426	-88.973838	284.0	4.6	2376.78	26.41
	keren		978805.8	22.9	10.5	118
streamer tension 3400-3600. wind speed average: 10.8						

2005+026:09:00:11	21.838505	-89.016849	264.5	4.6	2378.85	25.91
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Peggy 978800.1 22.9 9.4 109  
Streamer tension = 3500. Wind speed average = 10.0

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+026:09:30:12	21.830552	-89.058082	257.1	3.9	2380.86	24.11
	Peggy		978797.0	22.9	8.5	122
tension on the streamer 3230						

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2005+026:10:00:12	21.821751	-89.099208	257.1	4.0	2382.95	25.81
	Peggy		978797.0	22.9	8.3	117
Streamer tension = 3100. Streamer well balanced at 7m depth. Wind speed average = 9.4. Watch standers change. Decon is fun!						

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2005+026:10:30:10	21.813024	-89.140508	256.0	4.1	2385.05	26.41
	Peggy		978797.1	22.9	8.3	120
Wind speed 90min average = 9.4, same for last hour. Constant?!						
On way to start of chix2. Streamer fine. Tension ~ 3000, depth ~7m.						

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2005+026:11:00:18	21.804167	-89.181827	255.5	4.2	2387.01	28.81
	Tamara		978796.2	22.9	10.4	129
streamer tension ~3000, wind speed 9.4						

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2005+026:11:30:09	21.79547	-89.222597	256.1	3.9	2389.13	29.51
	Tamara		978795.2	23.0	9.8	126
streamer tension ~3000, wind speed 9.5						

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2005+026:12:00:13	21.786539	-89.263666	256.1	4.3	2391.2	26.11
	Tamara		978794.4	23.1	10.4	133
streamer tension ~3000, wind speed 9.7						

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2005+026:12:30:05	21.777851	-89.304592	256.3	4.2	2393.23	25.91
	Tamara		978795.1	23.1	10.7	134
Streamer tension ~2900 , wind speed 90 min average = 10						

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2005+026:12:37:12	21.775814	-89.314316	256.5	3.8	2393.7	26.71
	TJS		978795.2	23.1	9.8	129
PROBLEM: Syntron QC screen displaying unusual 'listen' mode bars. Instead of fine traces with usual listen mode display, see thick green bars going across the screen. Error messages on Syntron Operator display include comments such as telemetry problems. Diagnostics show problem with first can in dead section not 'talking'. Dietmar and Ted attending to problem. Meantime, guns prepared with normal 6.45am ramp-up start.						

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2005+026:12:46:56	21.773044	-89.327262	255.7	3.6	2394.3	26.31
	TJS		978794.9	23.1	10.2	128
Ramp-up start, with TIME cycle shots every 20sec. 12:48:05 = first shot, 1 gun 80cu in. Problems with streamer still, need to bring in. After ramp-up line will be an "OBS line" only, until streamer fixed. Less than 20 guns for OBS line whilst streamer						

being retrieved. When all fixed, start chix2 proper.

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Area: Mexico Survey: Chicxulub Line: OBS line  
 Shot Rate: 20se Sample Rate: 2 Channels: 480 Aux. Channels: Ch  
 Source: Airguns Guns: 2 Pressure: 225 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+026:12:55:49	21.77055	-89.33906	255.8	4.0	2394.88	25.91
	TJS		978794.3	23.2	8.9	130
2 guns firing, #5 and #9 (tot = 225 cu in).						

2005+026:13:00:32	21.769303	-89.344763	255.3	3.0	2395.15	25.91
	TJS		978791.9	23.2	11.8	139
4 guns firing, #1,5,9,12 Tot = 570cu in. Streamer problems persist. Dietmar on the case.						

2005+026:13:05:15	21.768198	-89.350069	256.1	3.0	2395.4	28.31
	TJS		978783.3	23.2	9.2	135
8 guns firing. #1,5,9,10,12,14,19,20 Tot = 1400 cu in.						

2005+026:13:10:44	21.766906	-89.356204	255.8	3.0	2395.72	25.11
	TJS		978789.3	23.2	8.8	134
15 guns are firing. 1,2,3,4,5,6,7,13,14,15,16,17,18,19,20 guns firing. Note the sequence is slightly different as it is an OBS line.						

2005+026:13:15:52	21.765677	-89.36194	254.8	3.3		25.11
	TJS		978788.9	23.2	9.4	145
16 guns now firing. Gun #8 has been added to previous 15. Last four guns to be added when streamer is in (9, 10, 11, 12). Current tot vol = 6947 - 795 (total of four missing) = 6152 cu in.						

2005+026:13:21:13	21.764384	-89.36792	255.0	3.3	2396.38	25.01
	TJS		978788.2	23.2	9.9	136
1) Suggestion that there are problems with the streamer reel itself. More info when available. 2) Fishing boats nearby. Possible shut down may be necessary... 3) To clarify, successful ramp-up from 1 through to 16 guns, but order slightly changed, with 9,10,11,12 omitted.						

2005+026:13:33:09	21.761519	-89.381044	255.0	3.5	2396.9	25.21
	TJS		978787.5	23.2	10.0	144
Shut-down due to fishermen nearby. Guns turned off. Streamer repair continues.						

2005+026:13:46:02	21.758453	-89.395617	255.7	3.0		25.91
	TJS		978788.6	23.2	9.8	131
Fishermen out of way again. Ramp-up to start again.						

2005+026:13:47:11	21.758171	-89.396921	255.8	3.2	2397.66	25.01
	TJS		978788.7	23.2	8.7	132
1 gun on, #5. Tot 80 cu in. OBS line, not chix2						

2005+026:13:52:10	21.756948	-89.402552	255.3	3.1	2398.0	25.51
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TJS	978788.3	23.2	9.7	129
2 guns firing, #1 and 5 = 225 cu in.				

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Area: Mexico Survey: Chicxulub Line: OBS line  
Shot Rate: OBS Sample Rate: OBS Channels: line Aux. Channels:  
Source: Airguns Guns: 4 Pressure: 836 Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH	STANDER	GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+026:13:57:15	21.755733	-89.408304	255.8	3.2	2398.28	25.11
	TJS		978788.4	23.3	9.6	134
4 guns firing: #1 5 16 20 Tot = 836 cu in. ###Streamer update: tow leader is faulty (big metal cable with fuzzy bits to suppress cable vibes). Needs replacing.###						

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2005+026:14:01:59	21.754563	-89.413665	255.5	3.4	2398.51	26.51
	TJS		978788.0	23.3	9.2	132
11 guns firing. Guns #1 2 3 4 5 14 16 17 18 19 20 Tot = 2821 cu in						

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2005+026:14:07:12	21.753283	-89.419594	255.3	3.4	2398.72	24.81
	TJS		978787.8	23.3	8.8	129
15 guns firing. Added guns #6 7 13 15 = add 2456 Total = 5277 cu in. Note timing of shots was at 10secs, now corrected to 20secs.						

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2005+026:14:12:10	21.752105	-89.425257	256.0	3.2	2399.02	26.31
	TJS		978787.7	23.3	10.5	138
16 guns firing. Gun #8 (875cu in) added, total = 6152 cu in.						

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2005+026:14:20:05	21.750212	-89.434236	255.0	3.4	2399.45	23.41
	Anusha		978787.3	23.3	10.4	127
Cable repairs continue - the cable power has been turned off in preparation for it being broken.						

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2005+026:14:26:17	21.748704	-89.441288	254.8	3.0	2399.76	25.81
	Anusha		978793.7	23.3	9.7	148
The lead in cable has been found to be faulty. Still discussing what to do...						

---

2005+026:14:29:11	21.748015	-89.444584	255.0	2.9	2399.89	25.21
	Anusha		978787.0	23.3	10.5	149
The plan is to change the tow lead section. The streamer is going to be partly pulled in, have a stretch section attached, put out again and have the cable towed by this new stretch section instead of the tow lead. Once this is done we will end the OBS line (which we are currently shooting) and start recording line 2 on the cable. Note - the cable geometry may be slightly different with a different lead in length. Once we start recording line 2 on the cable, the tow in section will be changed. Once this is done we will then halt the recording of line 2, reattach the tow in section and recommence the recording of line 2, so line 2 will end up with a gap in it.						

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Area: Mexico Survey: Chicxulub Line: line  
 Shot Rate: OBS Sample Rate: OBS Channels: line Aux. Channels: OB  
 Source: Airguns Guns: 16 Pressure: 6152 Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+026:14:51:12	21.742532	-89.46939	248.8	2.6	2401.09	25.11
	Anusha		978780.6	23.4	12.0	142
There are a lot of little fishing boats ahead which have no means of propulsion (they just drift around). They may drift far enough north to get out of our way but we are going to do a 5 degree turn to port and will then get back on course once they are out of the way.						

2005+026:14:53:42	21.741727	-89.472129	249.3	2.9	2401.2	25.31
	Anusha		978773.5	23.4	10.6	159
The new streamer stretch section has been added and the streamer is now ready to be powered back up again. The recording of line 2 should start shortly.						

2005+026:14:57:48	21.740408	-89.476617	249.3	2.8		23.91
	Anusha		978785.9	23.4	12.2	153
stopped shooting by mistake - program error when trying to start line 2						

2005+026:14:59:21	21.739905	-89.478313	249.7	3.4		24.21
	Anusha		978786.3	23.4	12.2	140
We had a manual shot by Dietmar just now to ensure we're within our 2 min limit						

2005+026:15:00:31	21.739536	-89.479597	249.1	3.2		24.51
	Anusha		978786.0	23.4	12.4	148
A second manual shot has just been fired by Dietmar						

2005+026:15:01:42	21.739159	-89.480886	249.3	3.1		24.51
	Anusha		978786.3	23.4	11.8	148
A third manual shot has been fired by Dietmar						

2005+026:15:02:53	21.738781	-89.482185	249.3	3.1	2401.54	24.51
	matt		978786.1	23.4	11.7	137
4th manual shot						

2005+026:15:03:52	21.738461	-89.483262	249.7	2.9	2401.58	24.51
	matt		978786.1	23.4	10.9	136
1st automatic shot. Shots firing normal now.						

2005+026:15:05:21	21.737983	-89.484885	249.0	3.0	2401.77	24.51
263 138 1	anusha		978786.0	23.4	10.4	141
First automatic shot was on tape 138 (SP 263, and FFID 1)						

Area: Mexico Survey: Chicxulub Line: line  
 Shot Rate: OBS Sample Rate: OBS Channels: line Aux. Channels: OB  
 Source: Airguns Guns: 16 Pressure: 6152 Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				

2005+026:15:19:55	21.733308	-89.500804	249.1	3.1		24.51
	anusha		978786.0	23.4	10.1	147
A new stretch section was NOT put in eventually - the streamer is currently being towed by just the one stretch section which was on it before... Therefore the guns are right up close to the 1st streamer receiver. The arrivals on the first streamer channels are coming in almost as soon as the shots are fired - there was concern that some on the arrivals were being cut off as they were coming in too early but it was decided that it just appeared that way due to the low resolution of the QC viewer and the closeness of the guns to the first channels.						

2005+026:15:25:20	21.731561	-89.506712	251.8	3.3		24.81
	anusha		978785.6	23.4	12.0	131
We are currently sailing approx parallel to the streamer to avoid the boats						

2005+026:15:26:11	21.731334	-89.507656	254.5	3.2	2402.82	24.51
314	139	52	anusha		978785.6	23.4
Tape change. EOT 138 (SP 313, FFID 51). BOT 139 (SP 314, FFID 52)						

2005+026:15:30:04	21.730492	-89.512122	257.0	3.2	2402.92	24.71
314	139	52	anusha		978786.4	23.4
Shooting line 2. Streamer is currently towed on its stretch section so the gun-channel 1 distance will be different. The tow lead is being changed and once this is done it will be reattached to the cable. Wind speed is 10.8. No means of monitoring the streamer tension at the moment.						

2005+026:15:36:07	21.729065	-89.519229	255.0	3.2	2403.41	26.11
	anusha		978775.9	23.4	10.8	144
We can change the position of the chinese finger on the tow in lead. This will enable us to to adjust the position of the first offset we're getting on the streamer. Have decided to move it so that we have 100m offset to the first channel to ensure we get the pre-critical offsets.						

2005+026:15:45:32	21.726709	-89.530408	254.8	3.1	2403.93	26.41
365	140	103	anusha		978787.6	23.4
Tape change. EOT 139 (SP 364, FFID 102). BOT 140 (SP 365, FFID 103)						

2005+026:15:49:18	21.725767	-89.53491	255.3	3.4	2404.07	26.71
	anusha		978788.3	23.4	10.1	135
Note - these shots are still all being fired with just 16 guns (missing guns # 9 10 11 12) as they are out of the water whilst						



the streamer is being worked on

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Area: Mexico Survey: Chicxulub Line: line  
 Shot Rate: OBS Sample Rate: OBS Channels: line Aux. Channels: OB  
 Source: Airguns Guns: 16 Pressure: 6152 Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+026:15:55:54	21.724081	-89.542801	255.0	3.4	2404.51	24.41
	anusha		978788.8	23.4	10.3	152
We are breaking the streamer - the streamer power is going to be turned off to test the new streamer. The line name will remain as line 2 but the shots will not be recorded on the streamer for a bit.						

2005+026:16:02:23	21.722345	-89.550545	254.0	3.4	2404.82	24.91
391 140 129	anusha		978789.1	23.4	9.6	142
End of tape 140 as we stopped recording on the streamer whilst reattaching the tow lead. EOT 140 (SP 391, FFID 129) The New FFID number on tape 141 will be set to 130. NOTE - the line did not end - we are still shooting under the name of line 2.						

2005+026:16:05:52	21.721376	-89.5547	254.0	3.5		25.41
	anusha		978790.0	23.3	10.0	136
We are now going back to the old streamer configuration - towing off the stretch section so we can record whilst the new tow lead is being wound onto the reel.						

2005+026:16:08:00	21.720786	-89.557224	254.3	3.2	2405.2	25.91
421 141 130	anusha		978788.5	23.3	9.8	130
Have started recording shots again with the streamer being towed off the clamp from the stretch section. We are continuing on the line chicx 2a. BOT 141 (SP 421, FFID 130). Note - we are still shooting with just 16 guns until the streamer has been fixed.						

2005+026:16:11:58	21.719678	-89.561886	253.8	2.9		27.51
	anusha		978788.3	23.3	9.0	143
The near offset for line Chicx 2a is 13m (whilst the streamer is being towed off the clamp from the stretch section). When we start line chicx 2b with the new tow lead the near offset should be 112.25m						

2005+026:16:28:30	21.715276	-89.581462	256.8	3.5	2406.27	28.31
472 142 181	anusha		978788.7	23.3	8.3	131
Tape change. EOT 141 (SP 471, FFID 180). BOT 142 (SP 472, FFID 181)						

2005+026:16:48:38	21.711064	-89.605509	258.8	3.0	2407.49	28.01
523 143 232	anusha		978789.3	23.3	8.4	133
Tape change. EOT 142 (SP 522, FFID 231). BOT 143 (SP 523, FFID 232)						

2005+026:16:56:48	21.709331	-89.61528	259.0	3.2		26.81
543 143 252	anusha		978789.6	23.3	7.9	123
streamer has been powered down. We have finished line 2a are now						

starting a ver short OBS line. Line 2a ended on tape 143 (SP 543,  
FFID 252)

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Area: Mexico Survey: Chicxulub Line: line2a  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: Airguns Guns: 16 Pressure: 6152 Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+026:17:01:08	21.708416	-89.620446	258.5	3.5		27.21
	anusha		978789.5	23.3	6.0	137
we are currently shooting an OBS line (as the new tow lead is being attached and the streamer is therefore not recording). When we finally put the streamer out with the new tow lead and power it up again we will then start line chicx 2b.						

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2005+026:17:22:36	21.703934	-89.64594	258.8	3.4		28.31
	anusha		978796.3	23.2	6.7	130
Guns # 9 and 10 are now firing.						

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2005+026:17:25:07	21.703434	-89.648825	258.7	3.5		28.71
	anusha		978789.5	23.2	5.9	135
gun #12 has been added.						

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2005+026:17:26:44	21.7031	-89.650704	259.1	3.6	2409.48	29.31
618 144 1	anusha		978789.5	23.2	6.5	127
All guns are now on and we have recommenced recording on the streamer. We have started line Chicx 2b. The first shot recorded on line 2b is SP 618, FFID 1. The streamer tension is 2650.						

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2005+026:17:43:31	21.698405	-89.674614	257.3	4.1	2410.65	28.01
669 145 52	anusha		978796.4	23.2	4.8	117
Tape change. EOT 144 (SP 668, FFID 51). BOT 145 (SP 669, FFID 52)						

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2005+026:17:49:58	21.696392	-89.683942	257.3	4.5		28.21
	anusha		978797.9	23.2	4.9	122
The first 2 birds on the streamer (# 27 & 28) are riding high - probably because of the short tow-in distance on the streamer. They may remain like that for good...						

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2005+026:18:00:04	21.693304	-89.698728	257.8	4.1	2411.78	27.81
718 146 103	Peggy		978800.9	23.2	3.9	98
EOT 145: 719/102. SOT 146: 718/103. Streamer tension = 2700. Streamer well balanced at 7m depth. Bird 9 not responding. Last 2 birds slightly too deep. Wind speed 1.5h average = 6.9. Watch standers change.						

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2005+026:18:17:00	21.688383	-89.72349	257.3	3.7	2412.97	26.71
771 147 154	Peggy		978799.8	23.2	3.8	114
EOT 146: 770/153. SOT 147: 771/154.						

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2005+026:18:30:02	21.684279	-89.742418	257.5	4.1	2413.88	29.31
813 147 196	Peggy		978801.5	23.2	3.0	84
Streamer tension = 2800. Wind speed 1.5h average = 5.5						

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Area: Mexico Survey: Chicxulub Line: line2a  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+026:18:33:06	21.683336	-89.746841	257.7	4.6	2414.08	5.51
822 148 205	Peggy		978801.5	23.1	3.5	90

EOT 147: 821/204. SOT 148: 822/205.

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2005+026:18:49:48	21.678175	-89.770872	257.7	4.0	2415.2	26.81
873 149 256	Peggy		978804.7	23.1	3.9	92

EOT 148: 872/255. SOT 149: 873/256.

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2005+026:19:00:06	21.675028	-89.785729	257.1	4.4	2415.92	28.11
910 149 293	Anusha		978806.9	23.1	5.0	48

Streamer tension is 2839. Streamer is well balanced except birds # 27 & 28 which are riding high - they look as if they will do this permanently. Perhaps when we next bring the streamer in we will put more lead on this end section. Wind speed 1.5h average = 4.4.

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2005+026:19:07:00	21.672877	-89.795696	257.0	4.4	2416.43	28.91
924 150 307	Peggy		978807.6	23.1	5.9	69

EOT 149: 923/306. SOT 150: 924/307.

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2005+026:19:23:50	21.667694	-89.819895	258.3	4.2	2417.68	27.71
975 151 358	Peggy		978807.5	23.1	4.9	60

EOT 150: 974/357. SOT 151: 975/358.

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2005+026:19:30:09	21.665798	-89.828948	258.3	3.7	2418.08	28.31
996 151 379	Peggy		978805.3	23.1	5.3	52

Streamer tension = 2800. Wind speed average = 4.4

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2005+026:19:40:28	21.662588	-89.843664	257.7	4.1	2418.82	28.01
1026 152 409	Peggy		978807.0	23.2	6.7	55

EOT 151: 1025/408. SOT 152: 1026/409.

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2005+026:19:56:47	21.657483	-89.867729	258.0	4.1	2419.91	5.51
1078 153 460	Peggy		978807.3	23.2	6.9	46

EOT 152: 1076/459. SOT 153: 1077/460. Streamer tension = 2800. Wind speed average = 5.1.

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2005+026:20:13:20	21.65233	-89.891652	257.5	4.3	2421.03	27.91
1128 154 511	Peggy		978806.3	23.2	7.5	43

EOT 153: 1127/510. SOT 154: 1128/511.

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2005+026:20:30:01	21.647211	-89.91571	258.3	4.0	2422.07	27.71
1179 155 562	Peggy		978805.9	23.2	9.1	48

EOT 154: 1178/561. SOT 155: 1179/562. Streamer tension = 2900. Wind speed average = 6.5.

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Area: Mexico Survey: Chicxulub Line: chicx2b  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+026:20:44:08	21.642793	-89.936164	258.0	4.5		26.41
	Peggy		978804.3	23.2	8.2	38
A navy ship passed along side and caused noisyness on the data.						
The ship left 10-15 minutes ago.						

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2005+026:20:46:33	21.642018	-89.93966	258.5	4.0	2423.22	26.51
1230 156 613	Peggy		978806.0	23.2	8.6	43
EOT 155: 1229/612. SOT 156: 1230/613.						

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2005+026:20:53:05	21.640021	-89.949154	258.5	4.3	2423.77	22.61
	Peggy		978806.3	23.3	8.8	53
We will deviate 5 degrees to the south of the line to avoid some small fishing ships.						

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2005+026:20:56:49	21.638505	-89.954469	249.8	4.0	2423.99	27.01
	Peggy		978809.6	23.3	8.0	50
We will deviate another 5 degrees to the south.						

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2005+026:21:00:01	21.636764	-89.958856	248.3	4.1	2424.21	23.31
1273 156 656	Peggy		978805.7	23.3	8.6	39

---

2005+026:21:01:09	21.636142	-89.960414	248.3	4.2	2424.35	23.01
	Peggy		978805.0	23.2	8.7	42
guns are off due to fishing boats on the way.						

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2005+026:21:04:41	21.634196	-89.965284	248.3	4.3	2424.57	23.11
	Peggy		978805.0	23.3	8.2	40
EOT 156: 1278/661. last few shot numbers are blank shots. Streamer tension = 2900. Wind speed average = 7.5						

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2005+026:21:07:38	21.632586	-89.969353	250.3	4.7	2424.79	23.71
	Peggy		978804.8	23.3	9.3	36
We're deviating 5 degrees back to the north.						

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2005+026:21:13:52	21.629857	-89.978214	253.0	4.2	2425.25	24.41
	Peggy		978805.3	23.3	9.4	40
1 gun firing						

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2005+026:21:15:29	21.629156	-89.980525	253.5	4.3		26.21
	Peggy		978805.3	23.3	9.9	35
SOT 157: 1317/662. 2 shots of ramp up were not recorded						

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2005+026:21:17:57	21.62808	-89.984043	252.3	3.8	2425.49	27.31
	Peggy		978805.2	23.3	8.7	37
we will deviate 5 degrees to the south						

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Area: Mexico Survey: Chicxulub Line: chicx2b  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: Airguns Guns: 2 Pressure: 225 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				

2005+026:21:19:00 21.627547 -89.985498 248.3 3.9 2425.57 27.21  
 1332 157 677 Peggy 978804.8 23.3 8.8 37  
 2 guns firing. We will deviate another 5 degrees to the south.

2005+026:21:24:12 21.624322 -89.992463 243.3 4.4 2425.91 25.91  
 1347 157 692 Peggy 978801.7 23.3 9.1 34  
 4 guns firing. Streamer tension = 2900. Wind speed average = 8.1

2005+026:21:26:37 21.622757 -89.995659 243.0 4.0 2426.08 27.11  
 1354 157 699 Peggy 978802.2 23.3 10.6 28  
 guns off due to fishing boats in the way. last shot = 1354

2005+026:21:31:18 21.619769 -90.001833 243.7 3.7 2426.38 26.91  
 Peggy 978800.6 23.3 10.2 27  
 EOT 157: 1362/707. Last shot numbers are blank shots.

2005+026:21:38:41 21.615098 -90.011585 243.5 4.0 2426.9 26.01  
 1390 158 708 Peggy 978799.5 23.3 9.9 32  
 1 gun firing. SOT 158: 1390/708. We will deviate 5 degrees to the south. We missed a few shots of the ramp up.

2005+026:21:45:03 21.611851 -90.020342 252.7 3.6 2427.32 24.51  
 1410 158 728 Peggy 978800.0 23.3 11.5 25  
 2 guns firing. We are heading for the end of line 2 instead of turning back onto line 2 immediately.

2005+026:21:49:47 21.610066 -90.027099 258.3 4.0 2427.63 25.51  
 1424 158 742 Peggy 978800.6 23.3 11.8 19  
 4 guns firing

2005+026:21:54:56 21.608422 -90.034653 257.8 4.1 2427.96 26.41  
 1440 158 758 Peggy 978801.4 23.3 11.4 27

2005+026:21:55:34 21.608221 -90.035583 257.8 4.0 2427.99 26.41  
 1441 159 759 Peggy 978801.4 23.3 10.9 19  
 EOT 158: 1440/758. SOT 159: 1441/759. Streamer tension = 3000. Wind speed average = 9.1. Watch standers change.

2005+026:21:59:57 21.606795 -90.042019 258.7 4.1 2428.3 26.21  
 1456 159 774 Peggy 978801.0 23.3 10.9 28  
 16 guns firing

2005+026:22:04:58 21.605468 -90.049411 261.0 3.5 2428.61 26.51  
 1471 159 789 Tamara 978800.9 23.2 11.4 28  
 all 20 guns firing. end of ramp-up.

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Area: Mexico Survey: Chicxulub Line: chicx2b  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: Airguns Guns: 16 Pressure: 4082 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+026:22:12:22	21.603844	-90.060322	264.8	3.7	2429.08	27.21
1492 160 810	Tamara		978800.0	23.3	11.4	26
EOT 159: 1491/809 SOT 160: 1492/810						

---

2005+026:22:28:27	21.601549	-90.084249	266.3	3.8	2430.15	27.11
1543 161 81	Tamara		978798.9	23.3	12.7	26
EOT 160: 1542/860 SOT 161: 1543/861 streamer tension ~3100, avg wind speed 10.3						

---

2005+026:22:44:55	21.598615	-90.108658	264.1	3.7	2431.26	27.11
1594 162 912	Tamara		978800.7	23.3	12.9	31
EOT 161: 1593/911 SOT 162: 1594/912 ***correction: guns=20, volume=6947 for all entries after end of ramp-up***						

---

2005+026:23:01:23	21.594977	-90.132971	263.5	3.9	2432.39	27.01
1645 163 963	Tamara		978799.7	23.3	12.0	38
EOT 162: 1644/962 SOT 163: 1645/963 streamer tension ~3000, wind speed 11.7. Still approaching line chicx2.						

---

2005+026:23:21:47	21.591099	-90.163229	264.7	3.8	2433.8	27.21
1696 164 1014	Tamara		978798.0	23.3	13.2	36
EOT 163: 1695/1013 SOT 164: 1696/1014						

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2005+026:23:26:48	21.590171	-90.170632	264.7	4.0	2434.18	27.81
1718 164 1027	Tamara		978798.5	23.3	12.0	38
*****shooting stopped for a few minutes (~23:20?) because there was no run-out on the line. Shooting has been restarted. Data jumps from shot 1708/file 1026 to 1718/file 1027. So 10 potential shots have been lost. Problem was fixed and shooting will resume until 6pm.						

---

2005+026:23:37:27	21.58791	-90.18635	263.8	4.6	2434.91	28.01
1756 165 1065	Tamara		978796.9	23.3	14.8	29
EOT 164:1755/1064 SOT 165:1756/1065						

---

2005+026:23:54:31	21.584197	-90.211508	263.5	4.5	2436.19	28.31
1807 166 1116	Tamara		978794.0	23.4	13.2	29
EOT 165: 1806/1115 SOT 166: 1807/1116						

---

2005+027:00:00:05	21.582992	-90.219744	264.0	4.8	2436.76	28.51
1827 166 1136	Tamara				23.4	14.7 27
EOL chicx2b. Last shot 1827. EOT 166:1827/1136. Guns are off. streamer tension ~3000, avg wind speed 13.5.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+027:00:30:11	21.588958	-90.26394	300.3	5.3	2439.23	29.61
	TJS		978791.1	23.4	13.2	51

---

Streamer is fine; tension ~3400, depth fine except nearest bird.  
 Wind speed 90min average = 13.9. Not much action. Copying tapes  
 to disk for data from line R1. Data need copying as the increased  
 shot rate at times during shooting of R1 resulted in some shots  
 not being written to disk through the 'new system'.

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2005+027:01:00:06	21.608858	-90.303745	303.0	5.0	2441.71	32.81
	Tamara		978790.7	23.4	10.6	50

---

streamer tension ~3300

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2005+027:01:30:11	21.62897	-90.343528	302.3	5.1	2444.28	33.81
	TJS		978792.3	23.4	15.4	40

---

Streamer tension ~3300, depth good.

---



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2005+027:02:00:17	21.649186	-90.383859	300.0	5.4	2446.86	34.51
	Tamara		978796.7	23.4	11.3	41

---

streamer tension ~3500. change of watchstanders...

---



---

2005+027:02:30:21	21.670144	-90.426256	300.0	5.5	2449.57	35.31
	Tamara		978801.4	23.4	11.4	52

---

We are looping round to the base of Regional line 3 overnight in  
 order to be at the southern end ready to shoot in the morning.  
 Streamer tension is 3614 and the streamer is looking well  
 balanced.

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---

2005+027:03:00:13	21.692282	-90.470762	300.8	5.8	2452.38	37.81
	Anusha		978794.1	23.4	13.9	59

---

The streamer tension is 3659 and the streamer is well balanced

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2005+027:03:30:14	21.719324	-90.507457	0.5	5.0	2455.0	39.21
	matt		978774.4	23.4	15.8	50

---

tension = 3040. Streamer looks ok. We are in a turn right now.

---



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2005+027:04:00:06	21.757556	-90.488412	35.0	5.1	2457.58	42.71
	anusha		978751.7	23.4	14.9	54

---

tension is 3540, streamer is balanced, but the middle section is  
 very noisy as we are in the midst of a turn.

---



---

2005+027:04:30:09	21.754171	-90.447009	114.7	4.7	2468.13	40.41
	matt		978739.9	23.4	14.0	65

---

tension = 3488. turning. Noise in middle of streamer. No noise  
 in the lab. Very quiet.

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2005+027:05:00:08	21.734641	-90.407431	114.3	4.9	2462.63	39.61
	matt		978741.4	23.4	17.5	73

---

tension = 3290. streamer looks alright.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+027:05:30:07	21.715623	-90.368587	115.5	5.0	2465.06	37.51
	matt		978745.6	23.4	20.3	91
tension = 3314. streamer looks good.						

---

2005+027:06:00:06	21.696332	-90.329538	115.5	5.0	2467.61	37.31
	Peggy		978742.0	23.4	20.8	85
Streamer tension = 3200. Streamer well balanced at 7m depth. Bird 9 not responding. Last bird too shallow. Wind speed 1.5h average = 17.7. Watch standers change.						

---

2005+027:06:30:18	21.677017	-90.290398	116.0	4.8	2470.1	36.41
	Peggy		978736.3	23.4	19.1	94
streamer tension 3300						

---

2005+027:07:00:19	21.657881	-90.251383	115.0	4.7	2472.59	33.91
	Peggy		978736.5	23.3	17.4	99
Streamer tension = 3300. Wind speed average = 19.5						

---

2005+027:07:28:40	21.639528	-90.214283	114.3	4.6	2474.94	33.21
	Peggy		978735.9	23.3	18.1	100
Streamer tension = 3200. Streamer well balanced at 7m depth. Bird 9 not responding. Birds 27-28 too shallow. Wind speed average = 19.2. Keren is picking fk filters.						

---

2005+027:08:00:13	21.619281	-90.173273	115.7	4.7	2477.48	29.21
	Peggy		978737.5	23.2	14.9	93
Streamer tension = 3300. Wind speed average = 18.3.						

---

2005+027:08:30:17	21.599714	-90.133502	115.3	4.4	2479.74	27.91
	keren		978733.9	23.1	18.6	98
tension on the stremer 3400-3500						

---

2005+027:09:00:33	21.580005	-90.093321	117.1	4.5	2482.01	25.91
	Peggy		978730.4	23.0	15.8	104
Streamer tension = 3400. Wind speed average = 17.1.						

---

2005+027:09:30:28	21.560602	-90.054268	116.0	4.2	2484.25	24.41
	Peggy		978726.8	22.9	19.5	103
Streamer tension = 3500. Wind speed average = 17.2.						

---

2005+027:10:00:21	21.541496	-90.01538	116.0	4.4	2486.45	23.91
	Peggy		978725.8	22.9	17.1	107
Streamer tension = 3200. Wind speed average = 17.6						

---

2005+027:10:30:15	21.522849	-89.977556	115.0	4.4	2488.63	22.21
	Tamara		978724.0	22.8	18.1	108
streamer tension ~3200, avg wind speed high (18.0)						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+027:11:01:39	21.503868	-89.939278	115.1	4.8	2490.9	19.81
	Tamara		978722.6	22.8	17.6	108
streamer tension ~3200, avg wind speed 18.3 (too high)						

---

2005+027:11:30:07	21.486345	-89.903717	115.3	4.7	2493.24	17.81
	Tamara		978713.8	22.8	18.0	107
streamer tension ~3300, avg wind speed 8.3						

---

2005+027:12:00:04	21.467361	-89.865202	116.1	5.0	2495.65	16.41
	Tamara		978709.2	22.7	17.1	107
streamer tension ~3400. avg wind speed 17.7. la dee da.						

---

2005+027:12:30:04	21.435621	-89.849328	209.0	4.8	2498.15	14.91
	Tamara		978748.9	22.6	15.5	102
streamer tension ~2900, avg wind speed 16.9. Turning to get to start of line chicxR3. ETA/start of shooting 13:00.						

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2005+027:12:45:29	21.41972	-89.8639	244.0	4.7	2499.43	24.01
-194 167 1	Tamara		978752.3	22.5	17.0	97
Start of Ramp-up. 1 gun firing. 1st shot. Still turning towards line. streamer is curved.						

---

2005+027:12:51:06	21.418046	-89.871668	269.3	4.5	2449.86	14.51
-181 167 14	Tamara		978756.4	22.5	16.5	98
2 guns firing. still turning. streamer curved.						

---

2005+027:12:56:01	21.418592	-89.87856	284.3	4.7	2500.25	14.81
-167 167 28	Tamara		978756.3	22.5	15.1	100
8 guns on. Finished turning. streamer still curved.						

---

2005+027:13:01:07	21.420972	-89.885097	298.1	4.6	2500.8	14.61
-154 167 41	Tamara		978753.6	22.5	15.5	109
14 guns firing. guns 9, 10 are not on because streamer is not straight.						

---

2005+027:13:05:44	21.423612	-89.890699	301.0	4.4	2500.99	15.11
-143 168 52	Tamara		978752.7	22.5	15.3	110
EOT 167:-143/51 SOT 168:-142/52 19 guns firing. 10 is off.						

---

2005+027:13:08:01	21.424965	-89.893378	302.3	4.4	2501.18	15.71
-135 168 60	Tamara		978752.0	22.5	16.8	106
20 guns firing. end of ramp-up.						

---

2005+027:13:22:55	21.433873	-89.912105	293.3	4.6	2502.32	15.71
-92 169 103	Tamara		978757.7	22.6	16.7	107
EOT 168: -93/102 SOT 169: -92/103 streamer still curved.						

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Area: Mexico Survey: Chicxulub Line: chicxR3  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+027:13:30:03	21.437795	-89.921453	300.1	4.9	2502.89	16.01
-68 129 127	Tamara		978759.0	22.6	16.9	109
streamer tension ~2900, avg wind speed 16.0.						

2005+027:13:39:33	21.443775	-89.933832	300.1	4.9	2503.67	16.51
-41 170 154	TJS		978761.4	22.6	17.4	111
EOT:169 LSP:-42 FFID: 153 // BOT:170 FSP:-41 FFID:154. ~1km away from drill site. Streamer is about 2/3 straight, so near 3-4km at least should be good for drill site.						

2005+027:13:56:26	21.453971	-89.956457	300.5	4.9	2505.05	18.21
10 171 205	Tamara		978768.1	22.7	18.8	112
EOT 170: 9/204 SOT 171: 10/205 streamer straight. we have passed over ODP site.						

2005+027:14:00:16	21.45646	-89.961532	302.7	4.9	2505.37	17.41
23 171 218	Tamara		978769.2	22.7	16.2	112
streamer tension ~2800, wind speed 16.5. change of watch						

2005+027:14:12:38	21.464813	-89.977574	301.5	4.9	2506.45	17.31
61 172 256	Anusha		978773.0	22.7	18.1	113
Tape change. EOT 170 (SP 60, FFID 255) BOT 171 (SP 61, FFID 256)						

2005+027:14:30:05	21.476151	-90.000638	301.7	4.9	2508.07	18.11
112 173 307	Anusha		978776.1	22.7	16.3	116
Tape change. EOT 172 (SP 111, FFID 306) BOT 173 (SP 112, FFID 307)						

2005+027:14:45:47	21.486403	-90.021239	301.7	4.8	2509.3	20.31
163 174 358	Anusha		978776.4	22.7	14.3	124
Tape change. EOT 173 (SP 162, FFID 357). BOT 174 (SP 163, FFID 358)						

2005+027:14:58:41	21.494845	-90.038232	300.7	4.7	2510.17	20.81
	Anusha		978777.1	22.8	14.3	120
We are going to veer 15 degrees to the right to avoid fishhigh boats						

2005+027:15:02:19	21.497465	-90.042757	311.1	4.6	2510.51	20.41
214 175 409	Anusha		978776.8	22.8	15.9	116
Tape change. EOT 174 (SP 213, FFID 408) BOT 175 (SP 214, FFID 409)						

2005+027:15:19:01	21.511444	-90.062646	311.8	4.5	2511.76	21.31
265 176 460	Anusha		978776.8	22.8	14.2	113
Tape change. EOT 175 (SP 264, FFID 459) BOT 176 (SP 265, FFID 460)						

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Area: Mexico Survey: Chicxulub Line: chicxR3  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+027:15:29:45	21.518701	-90.076652	299.3	4.3	2512.47	23.01
	Anusha		978781.3	22.8	15.2	112
Shooting line R3. We are still heading off course to the right by 15 degrees due to fishing boats. The streamer tension is 2995 and the streamer is well balanced. The ground roll has been very large over the past 30 minutes						

---

2005+027:15:35:53	21.522386	-90.084934	297.5	3.8	2513.06	23.11
316 177 511	Anusha		978782.6	22.8	12.5	120
Tape change. EOT 176 (SP 315, FFID 510) BOT 177 (SP 316, FFID 511)						

---

2005+027:15:51:59	21.5316	-90.106912	297.3	3.8	2514.16	23.81
367 178 562	Anusha		978784.7	22.9	12.9	106
Tape change. EOT 177 (SP 366, FFID 561) BOT 178 (SP 367, FFID 562)						

---

2005+027:16:00:21	21.536417	-90.118313	297.8	4.0	2514.64	24.31
	Anusha		978784.8	22.9	12.8	103
We are nearly back on line R3 (having deviated from it slightly to avoid boats ahead). The streamer tension is 2936 and the streamer is balanced						

---

2005+027:16:08:58	21.541396	-90.130079	297.1	3.9	2515.75	25.01
613 179 418	Anusha		978785.2	22.9	13.7	99
Tape change. EOT 178 ( 417 SP, 612 FFID ) BOT 179 (SP 613, 418 FFID )						

---

2005+027:16:26:37	21.551823	-90.154018	302.0	3.3	2516.21	25.81
	matt		978787.5	22.9	12.1	93
end tape 179. sot: shot 418, file 613 eot: shot 468, file 663						

---

2005+027:16:30:08	21.554188	-90.15862	303.7	3.8	2516.42	25.21
	matt		978786.6	23.0	13.7	101
tension = 2880. Things good.						

---

2005+027:16:41:54	21.562107	-90.173927	301.8	4.0	2517.27	25.81
520 181 715	Anusha		978787.4	23.0	13.2	99
Tape change. EOT 180 (SP 519, FFID 714) BOT 181 (SP 520, FFID 715)						

---

2005+027:16:58:33	21.572823	-90.195685	302.0	3.7	2518.32	26.41
571 182 770	Anusha		978790.4	23.1	12.6	94
Tape change. EOT 181 (SP 570, FFID 766) BOT 182 (SP 571, FFID 770)						

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Area: Mexico Survey: Chicxulub Line: chicxR3  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+027:17:15:22	21.583699	-90.21767	301.8	3.8	2519.75	27.91
622 183 817	Anusha		978790.8	23.2	12.3	103
tape change. EOT 182 (SP 621, FFID 816) BOT 183 (SP 622, FFID 817)						

---

2005+027:17:30:03	21.593225	-90.236839	301.7	4.5		28.31
	Anusha		978791.1	23.2	11.8	94
Streamer is well balanced, tension is 2893. We are back on line R3 (having had a slight deviation to avoid fishing boats). The water wave is very prominent here and the ground roll much less so (in contrast to data from about 1 hr ago)						

---

2005+027:17:31:31	21.594173	-90.238758	302.0	4.7	2520.65	28.71
673 184 868	Anusha		978791.1	23.2	13.9	89
Tape change. EOT 183 (SP 672, FFID 867) BOT 184 (SP 673, FFID 868)						

---

2005+027:17:49:08	21.60558	-90.261745	301.3	5.0	2522.0	30.51
	matt		978791.8	23.3	13.0	94
End tape 184. SOT: shot 673, file 723. EOT: shot 868, file 918.						

---

2005+027:18:00:00	21.612745	-90.276196	301.5	5.0	2523.05	30.91
762 148 975	Peggy		978791.8	23.3	12.7	94
Streamer tension = 3000. Streamer well balanced at 7m. Bird 9 not responding. Birds 27-28 are too shallow. Wind speed 1.5 average = 13.3. Change of watch standers.						

---

2005+027:18:05:00	21.615999	-90.282884	301.5	4.8	2523.38	30.81
775 186 970	Peggy		978793.0	23.3	11.7	94
EOT 185: 774/969. SOT 186: 775/970.						

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2005+027:18:21:29	21.626887	-90.304768	301.8	4.7	2524.73	31.71
	keren		978793.7	23.3	13.5	91
EOT 186: 825/1020 SOT 187: 826/1021						

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2005+027:18:30:01	21.632507	-90.316116	301.0	5.0	2525.48	33.31
855 187 1050	Peggy		978793.7	23.4	14.2	87
Streamer tension = 3000. Wind speed 1.5h average = 13.3.						

---

2005+027:18:37:45	21.637586	-90.326439	301.1	5.0	2526.19	33.51
	keren		978794.0	23.4	13.8	96
EOT 187: 876/1071 SOT 188: 877/1072						

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2005+027:18:54:10	21.648401	-90.348202	300.8	4.9	2527.6	34.31
928 189 1123	keren		978795.9	23.4	12.6	87
EOT 188: 927/1122 SOT 189: 928/1123						

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Area: Mexico Survey: Chicxulub Line: chicxR3  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+027:19:00:05	21.65227	-90.356092	300.3	4.8	2528.03	34.51
949 189 1144	Peggy		978797.0	23.4	12.1	83
Streamer tension = 3000. Wind speed 1.5h average = 13.3.						

2005+027:19:10:08	21.658895	-90.369521	302.0	5.1	2528.84	35.01
979 190 1174	Peggy		978798.6	23.4	13.4	87
EOT 189: 978/1173. SOT 190: 979/1174.						

2005+027:19:26:30	21.669654	-90.391122	301.3	5.0	2530.22	34.91
1030 191 1225	Peggy		978800.0	23.4	13.3	88
EOT 190: 1029/1224. SOT 191: 1030/1225. Streamer tension = 3000. Wind speed 1.5h average = 12.8.						

2005+027:19:43:27	21.680795	-90.41368	300.5	5.1	2531.7	35.51
1081 192 1276	keren		978800.9	23.4	11.9	80
EOT 191:1080/1275 SOT 192:1081/1276						

2005+027:19:59:21	21.691233	-90.434776	301.0	5.1	2532.98	36.61
1132 192 1327	Peggy		978800.6	23.5	13.1	67
EOT 191: 1131/1326. SOT 192: 1132/1327. Streamer tension = 3000. Wind speed 1.5h average = 12.7.						

2005+027:20:16:07	21.702207	-90.45697	300.7	4.8	2534.39	38.71
1183 194 1378	Peggy		978793.5	23.5	11.3	73
EOT 193: 1182/1377. SOT 194: 1183/1378.						

2005+027:20:24:42	21.707848	-90.468286	300.5	5.1	2535.11	38.51
1208 195 1403	Peggy		978793.3	23.5	12.2	76
EOT 194: 1207/1402. SOT 195: 1208/1403.						

2005+027:20:31:22	21.712226	-90.477136	299.8	5.3		39.11
	Peggy		978793.4	23.5	12.6	81
There was an error on the last tape (194) and the tape didn't eject automatically. Most probably the last shot(s) on tape 194 are bad.						

2005+027:20:33:21	21.71352	-90.479771	299.7	5.1	2535.85	37.81
1238 195 1433	Peggy		978793.5	23.5	12.8	79
Streamer tension = 3000. Wind speed 1.5h average = 12.6.						

2005+027:20:40:10	21.71795	-90.488802	299.8	5.3	2536.42	38.31
1259 196 1454	Peggy		978795.7	23.5	11.3	82
EOT 195: 1258/1453. SOT 196: 1259/1454.						

2005+027:20:57:15	21.729138	-90.511297	300.3	5.2	2537.86	40.41
1310 197 1505	Peggy		978793.9	23.5	12.8	75
EOT 196: 1309/1504. SOT 197: 1310/1505. Streamer tension = 3000.						

Wind speed 1.5h average = 12.5.

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Area: Mexico Survey: Chicxulub Line: chicxR3  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+027:21:13:46	21.73991	-90.533137	300.0	5.0	2539.26	40.11
1361 198 1556	Peggy		978797.4	23.5	14.6	70
EOT 197: 1360/1555. SOT 198: 1361/1556.						

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2005+027:21:30:06	21.750603	-90.554627	300.0	4.9	2540.63	42.21
1412 199 1607	Peggy		978799.0	23.5	13.7	73
EOT 198: 1411/1606. SOT 199: 1412/1607. Streamer tension = 3000. Streamer well balanced at 7m depth. Bird 9 not responding. Birds 27-28 too shallow. Wind speed 1.5h average = 13.0.						

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2005+027:21:46:52	21.761491	-90.576754	300.3	5.1	2542.05	42.21
1463 200 1658	Peggy		978802.5	23.6	14.8	63
EOT 199: 1462/1657. SOT 200: 1463/1658.						

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2005+027:22:00:05	21.770136	-90.594172	300.5	5.2	2543.26	40.81
1505 200 1700	keren		978806.3	23.6	15.4	69
streamer tension 3000-3100						

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2005+027:22:03:20	21.772264	-90.598461	300.3	5.1	2543.46	5.51
1514 201 1709	Tamara		978807.1	23.6	13.9	67
EOT 200: 1513/1708 SOT 201: 1514/1709						

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2005+027:22:20:03	21.78314	-90.620546	300.3	5.1	2544.86	42.21
1565 202 1760	Tamara		978808.9	23.6	13.7	63
EOT 201: 1564/1759 SOT 202: 1565/1760						

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2005+027:22:30:18	21.789851	-90.634049	300.0	4.9	2545.72	42.81
1598 202 1793	TJS		978810.3	23.6	16.2	56
Streamer fine. Wind speed 90min average = 14.5, Some problems again with SeisNet - Anthony attended/ing.						

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2005+027:22:35:47	21.793439	-90.641284	300.1	5.1	2546.28	42.91
1616 203 1811	TJS		978810.7	23.6	17.5	60
EOT: 202 LSP: 1615 FFID: 1810 // BOT: 203 FSP: 1616 FFID: 1811						

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2005+027:22:52:32	21.804311	-90.66334	300.1	5.0	2547.69	44.21
1667 204 1862	TJS		978810.5	23.6	17.6	54
EOT: 203 LSP: 1666 FFID: 1861 // BOT: 204 FSP: 1667 FFID: 1862						

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2005+027:23:09:35	21.81539	-90.685732	299.3	5.1	2549.0	46.11
1718 205 1913	TJS		978810.7	23.6	16.5	58
EOT: 204 LSP: 1717 FFID: 1912 // BOT: 205 FSP: 1718 FFID: 1913.						

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2005+027:23:25:35	21.825822	-90.706666	300.0	4.9	2550.34	46.71
1769 206 1964	Tamara		978809.5	23.6	17.2	59
EOT 205: 1768/1963 SOT 206: 1769/1964						

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Area: Mexico Survey: Chicxulub Line: chicxR3  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+027:23:29:58	21.828679	-90.712384	300.1	4.9	2550.79	46.81
1786 206 1981	Tamara		978809.2	23.6	15.8	58
streamer tension ~3000. avg wind speed 16.5.						

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2005+027:23:42:50	21.837094	-90.729137	299.7	5.0	2551.78	44.21
1820 207 2015	Tamara		978806.5	23.6	17.8	56
EOT 206: 1819/2014 SOT 207: 1820/2015						

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2005+027:23:58:58	21.8477	-90.750095	299.3	4.8	2553.13	47.31
1871 208 2066	Tamara		978806.2	23.6	15.1	58
EOT 207: 1870/2065 SOT 208: 1871/2066						

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2005+028:00:00:02	21.848405	-90.751479	299.7	4.8	2553.25	46.61
1874 208 2069	TJS			23.5	15.4	66
End of line, and end of TWO tapes (only 3 shots on 2nd tape). First tape EOT: 207 LSP: 1870 FFID: 2065, Second tape BOT: 208 FSP: 1871 FFID: 2066, EOT: 208 LSP: 1874 FFID: 2069. A good day's shooting.						

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2005+028:00:30:15	21.8831	-90.80351	354.1	4.7	2555.81	47.71
	TJS		978786.9	23.5	18.3	53
Streamer fine; tension ~ 3000, depth good. Wind speed 90min average = 16.7 // Not much going down.						

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2005+028:01:03:48	21.92373	-90.79068	355.0	4.9	2558.57	48.61
	Tamara		978788.7	23.5	15.9	55
Streamer tension ~3200. GPS-04 stopped working for about 10 minutes. It's fixed now.						

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2005+028:01:30:09	21.959775	-90.798288	355.0	5.0	2560.71	49.91
	Tamara		978790.5	23.5	17.1	65
streamer tension ~3100. groovy.						

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2005+028:02:00:09	22.001029	-90.806883	354.5	4.8	2563.1	50.61
	matt the great		978797.8	23.5	21.9	70
tension = 3149. streamer is good. Night time shut down. Start of watch for Queen Anusha and Matt the Great.						

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2005+028:02:30:01	22.04163	-90.815266	354.5	4.7	2565.51	48.91
	matt the great		978803.1	23.4	21.5	70
tension = 2984. streamer looks good. Science crew is trying to fix GPS error.						

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2005+028:03:00:08	22.082306	-90.823745	354.7	4.6	2567.95	49.91
	matt the great		978806.3	23.4	21.0	78
tension = 3073. All good.						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+028:03:30:11 22.120754 -90.836497 310.0 5.1 2570.46 49.41  
anusha 978828.6 23.4 17.2 93  
Streamer is balanced and tension is 3319. Wind speed is rising...  
It is currently 19.0 knots

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2005+028:04:00:06 22.103366 -90.864542 170.7 4.7 2573.05 50.11  
anusha 978806.3 23.4 20.5 83  
Streamer tension is 2930. Streamer is currently very noisy as  
we're in the middle of a 180 deg turn in order to get to our  
starting point tomorrow.

---

2005+028:04:30:07 22.059286 -90.855251 166.0 5.7 2575.68 50.61  
mat 978794.2 23.4 21.6 80  
tension = 2575.71 steamer is good. Just finished a turn.

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2005+028:05:00:11 22.014203 -90.845848 165.3 5.4 2578.49 50.41  
mat 978790.1 23.4 18.7 80  
tension = 4301. streamer is good.

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2005+028:05:30:05 21.969621 -90.836573 165.3 5.8 2581.3 50.61  
mat 978782.3 23.4 23.8 86  
tension = 4611 streamer is looking nice. all good.

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2005+028:06:00:51 21.924575 -90.827244 162.0 5.3 2584.21 48.01  
anusha 978777.7 23.4 23.2 88  
Streamer is balanced. Wind is rising. Tension is 3557

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2005+028:06:30:03 21.884421 -90.818837 162.1 5.4 2586.73 49.11  
Peggy 978777.0 23.5 24.9 104  
Streamer tension = 3600. Wind speed 1.5h average = 22.4.

---

2005+028:07:00:34 21.842724 -90.81076 162.3 4.7 2589.3 49.31  
Peggy 978770.4 23.5 23.8 109  
Streamer tension = 3400. Wind speed 1.5h average = 22.3.

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2005+028:07:30:11 21.804651 -90.802513 162.0 4.3 2591.66 47.91  
Peggy 978760.3 23.4 23.9 114  
Streamer tension = 3400. Buble in streamer: surfaces near to end.  
Wind speed 1.5h average = 23.8.

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2005+028:08:00:25 21.763133 -90.793953 161.5 4.8 2594.21 44.91  
Peggy 978765.2 23.4 22.3 121  
Streamer tension = 3700. Streamer well balanced at 7m. Wind speed  
1.5h average = 23.7.

---

2005+028:08:30:17 21.721803 -90.785311 163.0 5.0 2596.75 38.61  
Peggy 978763.8 23.4 18.8 112

Streamer tension = 3700. Streamer well balanced at 7m depth. Wind  
speed 1.5h average = 23.3.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+028:09:00:03	21.680582	-90.776718	162.3	5.0	2599.26	36.71
	Peggy		978761.3	23.3	19.6	129
Streamer tension = 3800. Streamer well balanced at 7m depth. Wind speed 1.5h average = 22.3.						

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2005+028:09:23:12	21.648551	-90.770123	162.3	4.5	2601.21	36.11
	Peggy		978757.3	23.3	18.6	121
The ship will slow down to 4.5 knots, so we arrive at the start of the line later. This is because the wind speed is too high to start shooting soon.						

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2005+028:09:30:01	21.640066	-90.768356	161.3	4.5	2601.72	33.71
	Peggy		978757.5	23.3	19.8	115
Streamer tension = 3000. Wind speed 1.5h average = 20.8.						

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2005+028:10:00:01	21.603744	-90.760769	162.3	4.2	2603.95	33.81
	Peggy		978753.1	23.3	18.0	111
Streamer tension = 3000. Wind speed 1.5h average = 19.5. Watch standers change.						

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2005+028:10:30:13	21.567083	-90.753061	161.5	4.6	2606.18	33.11
	Peggy		978749.5	23.2	18.7	119
Streamer tension ~ 2900, wind speed 90 min average 18.6 Knots						

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2005+028:11:00:16	21.530748	-90.74556	162.0	4.4	2608.41	32.91
	Oscar		978748.6	23.2	22.1	117
Streamer tension ~2900, wind speed 90 min average 18.6 knots						

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2005+028:11:30:12	21.49431	-90.738013	161.7	4.3	2610.65	29.61
	Oscar		978748.1	23.2	17.7	118
Streamer tension ~ 3000 wind speed 90 min average = 18.6						

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2005+028:12:00:24	21.458121	-90.730428	161.8	4.0	2612.89	28.01
	TJS		978746.3	23.1	18.3	121
Streamer tension ~ 2800, depth good. Wind speed 90min average ~ 18.6, but 15min average creeping up to 19... On run-in to line Chix R4						

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2005+028:12:30:09	21.42285	-90.72308	162.5	3.8	2614.89	27.51
	Tamara		978742.0	23.1	17.4	115
streamer tension ~3000, wind speed too high (avg 18.4) and not decreasing.						

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2005+028:13:00:10	21.38693	-90.715651	163.1	3.5	2616.72	24.21
	Tamara		978741.7	23.1	18.3	114
streamer tension ~2900, avg wind speed 18.3. start of shooting delayed.						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+028:13:11:39	21.373362	-90.712842	161.7	4.0	2617.49	23.51
	Tamara		978742.2	23.0	18.5	112
Weather bad. Beaufort 5. Starting turn towards line R5, as R4 not looking possible.						

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2005+028:13:30:02	21.354449	-90.725881	249.1	4.2	2618.72	23.71
	Tamara		978776.7	23.0	19.3	110
streamer tension ~2900, wind speed too high (avg 18.3). still turning.						

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2005+028:14:00:09	21.378633	-90.753107	355.5	3.7	2620.78	25.01
	Tamara		978755.2	23.1	17.4	107
streamer tension ~2500. avg wind speed 18.0. Bird 8 is a little deep. Returning to start of line R4 and hoping wind comes down...						

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2005+028:14:30:05	21.415345	-90.760459	356.8	4.3	2622.55	29.31
	matt		978753.9	23.2	16.0	115
tension = 2819. Wind = Beaufort 5. Not shooting.						

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2005+028:14:37:19	21.424317	-90.762338	358.0	4.3	2623.05	29.21
	matt		978755.9	23.2	16.2	107
Turning again to start of line. This should take about 36 minutes.						

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2005+028:14:46:35	21.435878	-90.761872	27.0	4.5	2623.92	30.01
	matt		978747.4	23.2	15.5	103
turning to line R4. Waiting to finish turn. Waiting for streamer to straighten. Wind is alright = 16.9 Should be finished in about 25 min (about 9:10) MMOs hear some dolphins on the PAM a short while ago.						

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2005+028:15:00:02	21.44795	-90.749471	75.1	4.6	2624.72	28.91
	matt		978725.1	23.2	16.6	101
Tension = 2722. Finishing turn then we will ramp up when the steamer straightens a bit.						

---

2005+028:15:19:06	21.437105	-90.726874	148.8	4.5	2626.29	27.91
	matt		978728.7	23.1	15.7	96
Enabled OBS line. Not recording. Just ramping up some guns.						

---

2005+028:15:20:24	21.435443	-90.726058	155.0	4.4	2626.31	28.81
	matt		978730.6	23.1	15.8	93
First gun shot.						

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Area: Mexico Survey: Chicxulub Line: OBS  
 Shot Rate: 20 s Sample Rate: Channels: Aux. Channels:  
 Source: airguns Guns: 1 Pressure: 80 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+028:15:23:25	21.431255	-90.72503	168.3	4.5	2626.8	27.71
	matt		978736.5	23.1	15.7	94
We are now back on the line and going at 5 knots. The line we are shooting is 'OBS' - we are not going to record on the streamer for another 25 minutes until it has straightened out. We had trouble getting the guns to fire every 20 seconds for approx 10 gun shots as the program was still firing on distance however this is now sorted. We are doing a 50 minute ramp up as dolphins have been heard on the PAM so we are hoping to make it swim away with a slower ramp up.						

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2005+028:15:30:57	21.421062	-90.723086	163.7	4.1	2627.11	26.91
	Anusha		978743.3	23.1	14.1	105
2 guns are now firing. We are now 5.2 nm before the start of line R4. We should hope to have the streamer fully straightened and recording 2 nm before the start of the line.						

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2005+028:15:40:46	21.407811	-90.720038	164.7	4.3	2627.86	24.71
	Anusha		978741.3	23.1	16.3	104
4 guns now firing						

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2005+028:15:49:18	21.396114	-90.717566	165.0	4.5	2628.51	25.01
76 209 4	Anusha		978741.3	23.1	14.2	100
First shot on line chicxR4 - SP 76, FFID 4. Tape 209						

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2005+028:15:51:46	21.392717	-90.716856	166.1	4.2	2528.56	24.61
	Anusha		978741.7	23.1	12.3	98
8 guns now firing						

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2005+028:16:00:57	21.380147	-90.714323	164.8	4.5	2629.22	24.51
112 209 40	Anusha		978741.5	23.1	15.2	98
16 guns are now on						

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2005+028:16:04:57	21.374611	-90.713173	164.3	4.6	2629.52	22.91
124 210 52	Anusha		978741.4	23.1	15.9	100
Tape change. EOT 209 (SP 123 , FFID 51) BOT 210 (SP 124, FFID 52).						

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2005+028:16:10:55	21.366364	-90.711395	164.7	4.5		23.51
210 210	Anusha		978741.0	23.1	14.3	100
ALL guns were firing by shot point number 130. *NOTE* Must look at channel 402 as it has high amplitude noise on it						

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2005+028:16:21:19	21.352195	-90.708433	165.7	4.5	2630.74	23.91
175 211 103	Anusha		978740.6	23.0	13.4	88
Tape change. EOT 210 (SP 174, FFID 102). BOT 211 (SP 175, FFID 103)						

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Area: Mexico Survey: Chicxulub Line: chicxR4  
Shot Rate: 20se Sample Rate: OBS Channels: 2000 Aux. Channels: OB  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
COMMENTS

2005+028:16:30:11 21.340138 -90.705917 165.3 4.3 2631.43 23.01  
204 211 132 Anusha 978738.9 23.0 14.2 81  
The boat has just reached the original start of line chicx R4

2005+028:16:37:49 21.329733 -90.703729 165.7 4.0 2631.97 23.71  
226 212 154 Anusha 978739.5 23.0 11.5 90  
Tape change. EOT 211 (SP 225, FFID 153). BOT 212 (SP 226, FFID 154)

2005+028:16:54:16 21.307122 -90.699085 164.8 4.1 2633.21 23.21  
277 213 205 Anusha 978737.9 22.9 10.9 88  
Tape change. EOT 212 (SP 276, FFID 204) BOT 213 (SP 277, FFID 205)

2005+028:17:00:08 21.299015 -90.697324 165.5 4.3 22.31  
Anusha 978737.8 22.9 11.0 84  
We are shooting line R4 - so far there have been no problems /  
interruptions to the shooting. Streamer tension = 3356, Streamer  
is well balanced.

2005+028:17:10:43 21.284432 -90.694331 166.3 4.1 2634.49 22.61  
328 214 256 Anusha 978738.1 22.9 11.4 74  
Tape change. EOT 213 (SP 327, FFID 255) BOT 214 (SP 328, FFID 256)

2005+028:17:16:05 21.276989 -90.692966 173.0 4.7 2634.72 21.71  
Anusha 978737.0 22.9 9.1 65  
We are moving 5 degrees to the right to avoid fishing boats.

2005+028:17:19:33 21.272091 -90.692679 170.5 4.5 2634.88 21.91  
matt 978741.5 22.9 9.7 73  
Heading back to the line.

2005+028:17:27:04 21.261772 -90.690596 164.7 4.5 2635.49 21.91  
matt 978736.4 22.9 10.4 67  
End of tape 214. shots 226-276. files 154-204.

2005+028:17:30:06 21.257664 -90.689602 164.1 4.5 2635.65 22.71  
matt 978735.2 22.9 11.1 71  
tension = 3219. shooting going well.

2005+028:17:34:01 21.252339 -90.688296 164.3 4.8 2635.96 21.51  
matt 978735.0 22.9 10.3 69  
10 minutes until the end of the line. Tension = 3250

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Area: Mexico Survey: Chicxulub Line: chicxR4  
Shot Rate: 20se Sample Rate: OBS Channels: 2000 Aux. Channels: OB  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+028:17:43:32	21.239326	-90.685156	164.0	4.9	2637.19	21.01
	matt		978734.4	22.9	10.5	59
End of line ChicxR4. We are unsure about the final shots on tape 215 and the shots on tape 16. We're giving them to Kev to get the correct values.						

---

2005+028:18:00:04	21.225986	-90.668213	85.3	4.4	2638.01	20.61
225 217 1	Peggy		978708.9	22.9	11.0	58
Start of line R5. Head of streamer up: first 4 birds too shallow probably due to turn. Streamer tension = 3000. Wind speed 1.5h average = 10.8.						

---

2005+028:18:17:47	21.234641	-90.644515	60.0	4.7	2639.53	19.71
276 218 52	Peggy		978711.4	22.9	12.0	50
EOT 217: 275/51. SOT 218: 276/52. Penguin has returned.						

---

2005+028:18:20:21	21.236364	-90.641362	60.5	4.6	2639.61	19.21
286 218 62	Peggy		978712.6	22.9	11.8	48
We finished turning. Streamer still bubbly.						

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2005+028:18:25:22	21.239679	-90.63529	60.5	4.6	2640.02	20.21
300 218 76	Peggy		978712.7	23.0	12.6	46
All guns firing. We are heading for an intersection with line R5 in about 6 miles.						

---

2005+028:18:30:06	21.242836	-90.629515	60.3	4.9	2640.37	19.91
313 218 89	Peggy		978712.9	23.0	12.5	52
Streamer tension = 3300. Streamer well balanced at 7m depth, except for birds 27-28, which are too shallow. Wind speed 1.5h average = 11.0.						

---

2005+028:18:35:03	21.246279	-90.623205	60.7	5.1	2640.76	19.51
327 219 103	Peggy		978711.6	23.0	12.9	45
EOT 218: 326/102. SOT 219: 327/103. Streamer: birds 27-28, 8, 10 too shallow. Bird 9 not responding.						

---

2005+028:18:52:29	21.258204	-90.601559	60.0	4.6	2642.16	20.21
378 220 154	Peggy		978711.9	23.0	13.6	43
EOT 219: 377/153. SOT 220: 378/154.						

---

2005+028:18:58:17	21.262129	-90.594467	60.8	4.7	2642.61	19.71
395 220 171	Peggy		978712.1	23.0	14.3	46
Start turning onto line R5 for ~15 minutes or 10-12 degrees. Streamer tension = 3100. Streamer well balanced at 7m depth. Wind speed 1.5h average = 11.9.						

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2005+028:19:10:29	21.269437	-90.579035	65.5	4.6	2643.56	20.11
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429      221   205      Peggy                      978710.2 23.0   15.3   43  
EOT 220: 428/204. SOT 221: 429/205.

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Area: Mexico Survey: Chicxulub Line: chicxR5  
Shot Rate: 20se Sample Rate: 50 Channels: 2000 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+028:19:27:43	21.277489	-90.556469	72.3	4.9	2644.9	19.81
480 213 256	Peggy		978708.5	23.0	15.5	41
EOT 212: 479/255. SOT 213: 480/256. Streamer tension = 3100. Streamer well balanced at 7m depth, bird 28 too shallow. Wind speed 1.5h average = 13.5.						

---

2005+028:19:41:09	21.282472	-90.538607	71.7	4.6	2645.97	19.61
519 222 295	Peggy		978709.0	23.0	17.0	42
We are intersecting line R5.						

---

2005+028:19:45:23	21.284099	-90.533043	71.3	4.5	2646.26	19.71
531 223 307	Peggy		978709.6	23.0	17.0	44
EOT 222: 530/306. SOT 223: 531/307.						

---

2005+028:20:00:03	21.289939	-90.513276	71.8	4.9	2647.44	19.71
575 223 351	Peggy		978709.8	23.0	15.1	44
Streamer tension = 3200. Streamer well balanced at 7m depth. Bird 27-28 too shallow. Wind speed 1.5h average = 15.1.						

---

2005+028:20:03:16	21.291216	-90.508854	71.1	4.8	2647.67	19.91
582 224 358	Peggy		978709.6	23.0	15.7	45
EOT 223: 581/357. SOT 224: 582/358.						

---

2005+028:20:20:04	21.29789	-90.485854	71.3	4.9	2649.0	19.51
633 225 409	Peggy		978709.3	22.9	17.1	47
EOT 224: 632/408. SOT 225: 633/409.						

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2005+028:20:30:03	21.301707	-90.47267	71.3	4.5	2649.79	18.61
663 225 439	Peggy		978710.5	22.9	19.6	45
Streamer tension = 3000. Streamer well balanced at 7m depth. Birds 27-28 too shallow. Wind speed 1.5h average = 16.2.						

---

2005+028:20:37:43	21.304625	-90.462723	70.7	4.5	2650.35	19.31
684 226 460	keren		978710.0	22.9	18.4	46
EOT 225:683/459 SOT 226: 684/460						

---

2005+028:20:48:01	21.308519	-90.449206	71.3	4.5	2651.57	18.71
713 226 489	Peggy		978709.3	22.9	18.9	42
Guns shot down due to high wind speed. Last shot number = 713, FFID = 489. Label printed said that last FFID was 490. Next FFID was set to 491.						

---

2005+028:21:00:03	21.313089	-90.433654	71.5	4.4	2652.04	18.61
	Peggy		978710.8	22.9	18.8	48
Streamer tension = 3000. Wind speed 1.5h average = 17.3.						

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2005+028:21:22:49	21.321528	-90.404508	70.5	4.5	2653.75	18.41
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Peggy 978711.5 22.9 16.6 48  
5 dolphins out of sight since 10 minutes.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: chicxR5 Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+028:21:30:02	21.324209	-90.395319	70.3	4.5	2654.27	18.51
	Peggy		978712.0	22.9	19.9	48
Streamer tension = 2900. Wind speed 1.5h average = 17.7.						

---

2005+028:21:45:01	21.33002	-90.375545	71.3	5.0	2655.44	17.61
	Peggy		978707.9	22.9	16.9	52
Start turning to port: onto line R6.						

---

2005+028:22:00:00	21.346947	-90.364025	15.3	5.3	2656.68	18.01
	Peggy		978731.3	22.9	19.4	53
Streamer tension = 3500. Streamer front too shallow due to turn. Tailbuoy alarm due to turning. Is now working again. Wind speed 1.5h average = 18.0. Watch standers change.						

---

2005+028:22:02:55	21.351154	-90.363611	12.7	5.0	2656.98	18.51
	Tamara		978734.0	22.9	18.5	55
finished the turn onto chicxR6. wind still too high to shoot.						

---

2005+028:22:30:10	21.386567	-90.360389	16.3	4.4	2659.0	20.71
	Tamara		978735.6	22.9	18.3	51
Streamer tension ~3000, wid speed 90 min average =18.3						

---

2005+028:23:00:10	21.42396	-90.355159	17.0	4.1	2661.08	22.11
	TJS		978738.1	22.9	19.5	55
Continue not to shoot due to high wind speeds. Streamer tension fine, ~3000, and depth good. Wind speed 90min average = 19.0						

---

2005+028:23:30:10	21.461093	-90.348366	20.1	3.8	2662.99	23.81
	Tamara		978737.2	23.0	17.7	55
streamer tension ~3000, avg wind speed 19.8... i guess we won't be shooting anymore today. alas.						

---

2005+029:00:00:09	21.497972	-90.339966	22.7	4.0	2664.82	22.01
	Tamara				23.1	19.3
streamer tension ~3000. avg wind 20.1						

---

2005+029:00:30:08	21.535963	-90.335508	10.7	4.1	2666.79	23.51
	Tamara		978748.7	23.2	18.4	62
streamer tension ~3100/						

---

2005+029:01:00:07	21.575585	-90.335411	11.0	4.2	2668.97	28.71
	Tamara		978752.2	23.2	21.3	65
streamer tension ~3200						

---

2005+029:01:30:12	21.614618	-90.335632	9.1	4.7	2671.31	32.71
	Tamara		978758.3	23.3	23.4	69
streamer tension ~3000						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: chicxR6 Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+029:02:00:03	21.652868	-90.336053	10.0	4.2	2673.63	35.01
	Tamara		978766.1	23.3	19.7	83
Streamer tension ~2950, wind speed 90 min average = 20.4						

---

2005+029:02:30:08	21.690423	-90.337178	10.8	4.6	2675.79	35.61
	Matt		978771.9	23.3	21.1	74
tension = 2840. Retensioning tapes. Streamer = good.						

---

2005+029:03:00:08	21.728212	-90.338547	5.5	4.2	2678.04	37.31
	Matt		978779.8	23.4	21.3	61
Tension = 2700. streamer is fine.						

---

2005+029:03:13:52	21.7451	-90.337919	13.7	4.5	2679.05	39.01
	Matt		978777.7	23.4	21.0	70
Streamer has a upward buldge in the part closest to the ship.						

---

2005+029:03:27:39	21.762547	-90.33773	8.8	4.2	2680.09	40.71
	Matt		978777.8	23.4	18.9	70
Bulge making its way through the streamer.						

---

2005+029:03:30:11	21.765711	-90.337793	9.8	4.6	2680.27	39.81
	Matt		978777.6	23.4	20.7	72
tension = 2973. bulge moving through the estreamer.						

---

2005+029:04:00:15	21.80365	-90.336439	9.8	4.3	2682.54	40.91
	Matt		978778.9	23.4	18.9	73
tension = 2884 Streamer has a small downward bulge near the front of the streamer.						

---

2005+029:04:30:17	21.843557	-90.3372	7.1	4.6	2684.88	42.21
	Matt		978790.0	23.4	22.3	74
tension =3106 Streamer back to good.						

---

2005+029:05:00:09	21.88157	-90.336732	11.7	4.7	2687.13	43.61
	Matt		978790.0	23.4	16.5	76
tension = 2717. estreamer looks good.						

---

2005+029:05:30:04	21.919269	-90.335975	11.3	4.6	2689.38	44.11
	Matt		978793.9	23.4	20.5	82
tension = 3352. streamer looks fine. Night time, no shooting.						

---

2005+029:05:38:59	21.93204	-90.335365	6.5	5.2	2690.12	44.01
	Matt		978794.5	23.4	18.7	86
Turning to port. Tension = 3577.						

---

2005+029:06:00:19	21.949027	-90.358302	260.3	5.0	2691.96	44.91
	keren		978834.3	23.4	18.7	95

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streamer tension 2900-3000, we are turning to port to avoid a  
boat, wind speed is 18.9.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: chicxR6 Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+029:06:30:03	21.916358	-90.380903	180.0	5.2	2694.58	44.51
	Peggy		978797.9	23.4	17.3	91
Streamer tension = 3600. Streamer bubbly. Wind speed 1.5h average = 18.8.						

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2005+029:07:00:16	21.87349	-90.377473	163.0	5.2	2697.09	42.51
	keren		978781.6	23.4	18.9	99
wind speed average 18.4, streamer tension 4100-4200						

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2005+029:07:30:13	21.829961	-90.367391	162.7	5.6	2699.91	41.71
	keren		978776.5	23.4	17.5	94
all righth						

---

2005+029:08:00:22	21.787068	-90.359294	178.5	4.5	2702.4	40.01
	Peggy		978778.1	23.4	14.7	95
Streamer tension = 3100. Streamer reasonably balanced at 7m depth. Birds 27-28 too shallow. Wind speed 1.5h average 16.7.						

---

2005+029:08:30:12	21.748138	-90.360362	174.7	4.6	27046.6	38.11
	keren		978777.5	23.4	16.6	95
all righth						

---

2005+029:09:00:12	21.709656	-90.362435	175.1	4.6	2706.84	36.91
	keren		978778.1	23.3	15.5	105
streamer tension 2900-300						

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2005+029:09:30:18	21.668821	-90.365056	177.1	4.6	2709.3	35.31
	keren		978772.8	23.3	14.7	100
wind speed average 15.8, streamer tension 3000-3400						

---

2005+029:10:00:07	21.629859	-90.367466	177.7	4.3	2711.55	34.01
	keren		978764.6	23.3	14.7	92
Streamer tension ~2950, wind speed 90 min average =15						

---

2005+029:10:30:06	21.590944	-90.369969	177.5	4.4	2713.85	29.81
	keren		978756.9	23.3	13.6	92
Streamer tension 2950, wind speed 90 min average = 14.1						

---

2005+029:11:00:23	21.551575	-90.372405	175.3	4.8	2716.02	29.81
	Tamara		978753.1	23.2	13.7	94
streamer tension ~3300, avg wind 13.7						

---

2005+029:11:30:12	21.512915	-90.374784	176.3	4.0	2718	24.91
	Tamara		978748.7	23.1	13.7	109
Streamer tension 2950, wind speed 90 min average = 13.7						

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2005+029:11:36:02	21.505252	-90.375114	171.8	4.3	2718.41	23.31
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Tamara  
starting turn to port

978748.2 23.1 11.6 115

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Area: Mexico Survey: Chicxulub Line: chixR6  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+029:12:00:15 21.484857 -90.352583 79.3 4.1 2720.13 25.21  
 TJS 978711.6 23.0 15.1 123  
 Streamer yet to straighten, coming out of turn still. Tension and  
 depth fine. Wind speed 90min average = 13.9, so looking good for  
 start this morning.

2005+029:12:12:32 21.496723 -90.340924 21.8 4.5 2720.98 23.01  
 TJS 978729.9 23.0 13.9 117  
 Finish of turn.

2005+029:12:30:47 21.521019 -90.333654 21.0 4.3 2722.28 23.01  
 Tamara 978739.5 23.1 12.7 118  
 streamer tension ~3300, avg wind 13.8

2005+029:12:45:53 21.540438 -90.327624 26.7 3.8 2723.37 25.21  
 467 227 1 Tamara 978739.1 23.1 12.3 116  
 start of ramp-up. 1 gun on. 1st Shot. (time is actually 2nd shot)

2005+029:12:51:29 21.547558 -90.324942 27.1 3.9 2723.67 26.61  
 484 227 18 Tamara 978739.7 23.1 13.2 119  
 2 guns firing.

2005+029:12:56:58 21.554705 -90.322226 27.3 4.8 2724.1 29.61  
 500 227 34 Tamara 978739.8 23.1 11.8 118  
 4 guns firing.

2005+029:13:01:41 21.560835 -90.319908 26.8 4.3 2724.45 28.81  
 515 227 49 Tamara 978740.7 23.1 12.7 114  
 8 guns firing. streamer tension ~3500. birds 27, 28 riding  
 shallow. beaufort 4.

2005+029:13:03:13 21.562852 -90.319128 27.1 4.5 2724.57 28.41  
 518 228 52 Tamara 978741.7 23.1 13.3 123  
 EOT 227: 517/51 SOT 228: 518/52

2005+029:13:06:26 21.567138 -90.317483 27.0 4.2 2724.8 28.41  
 ~526 Tamara 978741.2 23.1 12.5 114  
 16 guns

2005+029:13:11:32 21.573965 -90.3149 25.7 5.2 2725.25 29.61  
 546 228 80 Tamara 978741.2 23.1 13.7 119  
 20 guns firing, full volume. FSP with 20 guns: 546, FFID: 80, on  
 tape: 000228

2005+029:13:20:09 21.58507 -90.310471 28.5 5.2 2726.0 30.61  
 569 229 103 Tamara 978743.0 23.1 12.7 122  
 Tape change. EOT: 228 LSP: 568 FFID: 102 // BOT: 229 FSP: 569

FFID: 103

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Area: Mexico Survey: Chicxulub Line: chicxR6  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+029:13:30:09	21.597703	-90.305009	29.0	5.0	2726.75	31.11
603 229 137	Tamara		978744.3	23.1	13.0	111
streamer tension ~3300, wind speed 12.5						

2005+029:13:35:55	21.605104	-90.301782	29.0	5.0	2727.26	31.01
620 230 154	Tamara		978745.9	23.1	14.5	123
EOT 229: 619/153 SOT 230: 620/154						

2005+029:13:52:39	21.626356	-90.292543	31.0	4.9	2728.65	30.51
671 231 205	Tamara		978750.0	23.1	15.3	130
EOT 230: 670/204 SOT 231: 671/205						

2005+029:14:00:06	21.635522	-90.287845	34.0	4.9	2729.26	32.71
	Tamara		978749.8	23.1	12.5	130
Streamer tension = 3235. Streamer is balanced. We are in the middle of Shooting line R6 ( the CRP profile)						

2005+029:14:09:39	21.647171	-90.281584	32.8	5.1	2730.0	35.01
722 232 252	Anusha		978750.1	23.1	13.7	144
Tape change. EOT 231 (SP 721, FFID 255). BOT 232 (SP 722, FFID 255)						

2005+029:14:26:31	21.668111	-90.270601	34.0	5.0	2731.59	34.81
773 233 307	Anusha		978754.5	23.1	15.5	130
Tape change. EOT 232 (SP 772, FFID 306) BOT 233 (SP 773, FFID 307)						

2005+029:14:29:37	21.67193	-90.268546	36.3	4.9	2731.77	34.11
	Anusha		978781.4	23.1	16.6	129
tension = 3363. Streamer = good.						

2005+029:14:43:01	21.687905	-90.258703	38.0	5.0	2732.76	34.91
	Matt		978753.1	23.2	13.6	130
End Tape 233. Shots: 307-357 Files: 773-823						

2005+029:14:59:30	21.707784	-90.24645	37.3	5.2	2734.25	36.61
875 235 409	Anusha		978752.3	23.2	16.0	129
Tape change. EOT 234 (SP 874, FFID 408). BOT 235 (SP 875, FFID 409)						

2005+029:15:12:41	21.723392	-90.236072	40.0	5.2		37.01
	Anusha		978746.1	23.2	15.4	125
Front end of streamer started to rise a little -the first 6 birds were affected. They are coming back down now though...						

2005+029:15:16:03	21.727282	-90.233244	41.5	5.2	2735.76	37.01
460 236 926	Anusha		978746.1	23.2	15.7	122

Tape change. EOT 236 (SP 925, FFID 459) BOT (SP 460, FFID 926)

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Area: Mexico Survey: Chicxulub Line: chicxR6  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+029:15:30:11	21.743501	-90.221507	41.1	4.8		37.81
	Anusha		978750.4	23.3	15.1	122

Front end of streamer has come down (excepting the front 2 birds which are always up. Streamer tension is 3319.

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2005+029:15:32:38	21.746301	-90.219469	40.1	5.1	2737.24	38.11
511 237 977	Anusha		978751.6	23.3	15.1	120

Tape change. EOT 236 (SP 976, FFID 510) BOT 237 (SP 511, FFID 977)

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2005+029:15:49:28	21.765161	-90.205009	44.8	5.1		38.41
1028 238 562	Anusha		978752.1	23.3	15.9	117

Tape change. EOT 237 (SP 1027, FFID 561) BOT 238 (SP 1028, FFID 562)

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2005+029:16:00:08	21.776945	-90.195144	44.0	5.0	2739.44	39.31
	Anusha		978756.3	23.4	15.0	119

streamer tension = 3450. Streamer is balanced. Shooting the CRP profile with no problems. Wind speed is currently about 13. All is good.

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2005+029:16:03:49	21.780976	-90.191759	44.3	5.1		38.91
	Anusha		978757.3	23.4	14.5	114

The QC of the shot records no longer show ground roll - we may have got into deep enough water that the bubble no longer hits the sea floor - hence no ground roll. \*\* Check for a bubble pulse on records here \*\*

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2005+029:16:05:55	21.783296	-90.18981	43.7	5.3	2739.89	38.61
622 239 1079	Anusha		978758.1	23.4	13.8	116

Tape change. EOT 238 (SP 1078, FFID 612) BOT 239 (SP 1079, FFID 622)

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2005+029:16:22:43	21.801112	-90.174632	46.7	5.0	2741.4	39.91
1130 240 644	Anusha		978761.9	23.4	14.0	116

Tape change. EOT 239 (SP 663, FFID 1129) BOT 240 (SP 1130, FFID 644). The ground roll has reappeared once more - we are still in water depth of about 40 m so perhaps we were not out of the bubble range...

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2005+029:16:30:06	21.808731	-90.16764	47.0	5.1	2741.77	39.81
	Matt		978762.1	23.4	12.6	117

tension=3290. Streamer looks ok.

---

2005+029:16:40:19	21.819166	-90.15787	46.8	4.8	2742.66	40.21
	Matt		978762.8	23.4	13.0	112

End tape 240. Shots: 1130-1180. File: 644-714. Ground roll has

gone away again.

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Area: Mexico Survey: Chicxulub Line: chicxR6  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+029:16:56:51	21.835993	-90.14228	47.5	4.8	2744.21	41.21
1232 242 766	Matt		978763.6	23.5	13.3	107
Tape Change. EOT (SP 1231, FFID 765), BOT 242 (SP 1232, FFID 766)						

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2005+029:17:00:09	21.839086	-90.139016	50.8	4.9	2744.34	40.71
	Matt		978764.2	23.5	12.1	116
Streamer is well balanced, tension = 3150. We are still shooting the 1st part of the CRP line which has so far been uneventful and uninterrupted.						

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2005+029:17:03:04	21.841783	-90.136104	51.5	5.0	2744.61	41.21
	Anusha		978764.3	23.5	10.2	119
The bridge has phoned to say their engines are maxed out - they can't go any faster. Speed = 4.8 knots						

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2005+029:17:14:41	21.852449	-90.124371	51.3	4.8	2745.7	41.51
1283 243 817	Anusha		978765.1	23.5	11.7	111
Tape Change. EOT 242 (SP 1282, FFID 816) BOT 243 (1283, FFID 817)						

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2005+029:17:30:08	21.866915	-90.108609	51.7	5.1	2746.69	41.41
	matt		978768.5	23.5	11.3	108
tension = 3292. streamer = good. Small ground roll.						

---

2005+029:17:32:10	21.868798	-90.106556	51.8	4.8	2746.99	42.21
	matt		978768.1	23.5	11.6	114
end tape 243. Shots:1283-1333. files:817-867						

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2005+029:17:41:28	21.87714	-90.096719	54.3	4.8	2747.75	42.61
	anusha		978764.9	23.5	11.9	116
We are swerving to the right as there is fishing gear in the way ahead.						

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2005+029:17:48:53	21.883706	-90.088645	59.0	5.0	2478.37	42.51
1385 245 919	anusha		978765.3	23.5	9.7	112
Tape change. EOT 244 (SP 1384, FFid 918). BOT 245 (SP 1385, FFID 919)						

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2005+029:18:00:02	21.889943	-90.074272	73.8	4.9	2749.15	42.91
	matt		978760.2	23.5	9.4	118
Turning to starboard to avoid fishing line. Tension = 3362.						

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2005+029:18:03:09	21.891291	-90.070079	73.7	4.7	2749.51	43.71
	matt		978760.2	23.5	10.4	111
turn to the starboard						

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Area: Mexico Survey: Chicxulub Line: chicxR6  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+029:18:07:17	21.892668	-90.064479	79.5	4.9	2749.83	42.51
1436 246 970	Peggy		978760.0	23.5	7.4	110
EOT 245: 1435/969. SOT 246: 1436/970.						

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2005+029:18:13:22	21.89454	-90.056179	79.0	4.9		39.81
	Peggy		978760.0	23.5	11.0	108
The name of the boat we had to swerved around at noon is Jorge Carlos. We missed all nets. Position was 21.54, 90.04.						

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2005+029:18:27:09	21.898912	-90.037411	78.8	4.8	2751.43	41.21
1021 247 1489	Peggy		978763.6	23.4	8.9	101
EOT 246: 1020/1488. SOT 247: 1021/1489. Streamer tension = 3300. Streamer well balanced at 7m depth. Wind speed 1.5h average = 10.4.						

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2005+029:18:45:28	21.904736	-90.01201	79.3	5.4	2752.94	42.31
1540 248 1072	Peggy		978762.1	23.5	8.7	109
EOT 247: 1539/1071. SOT 248: 1540/1072.						

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2005+029:19:00:09	21.910626	-89.991814	65.3	5.1	2754.16	41.41
1587 248 1114	Peggy		978762.3	23.5	10.1	113
Streamer tension = 3400. Wind speed 1.5h average = 9.4.						

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2005+029:19:03:47	21.913807	-89.987506	50.3	5.4	2754.47	41.51
1596 249 1123	Peggy		978764.2	23.5	9.2	103
EOT 248: 1595/1122. SOT 249: 1596/1123.						

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2005+029:19:21:31	21.932867	-89.971077	44.1	5.1	2755.98	43.41
1647 250 1174	Peggy		978769.4	23.5	8.5	95
EOT 249: 1646/1173. SOT 250: 1647/1174.						

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2005+029:19:30:05	21.942258	-89.963332	44.0	4.9	2756.73	42.61
1674 250 1201	keren		978768.4	23.5	9.5	94
streamer tension 3450. Wind speed average 9.1						

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2005+029:19:39:15	21.952298	-89.955159	44.0	5.0	2757.47	42.91
1702 251 1225	Peggy		978768.5	23.6	9.1	96
EOT 250: 1701/1224. SOT 251: 1702/1225.						

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2005+029:19:58:11	21.97295	-89.938194	44.3	5.0	2759.05	43.71
1753 152 1276	Peggy		978769.3	23.6	8.0	86
EOT 151: 1752/1275. SOT 152: 1753/1276. Streamer tension = 3400. Wind speed 1.5h average = 8.9.						

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2005+029:20:07:25	21.983085	-89.929847	43.8	5.1	2759.83	43.51
	Peggy		978769.3	23.6	9.4	93
We are slowly getting back onto line R6.						



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Area: Mexico Survey: Chicxulub Line: chicxR6  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+029:20:15:22	21.990858	-89.921693	59.3	5.0	2760.5	44.31
1804 253 1327	Peggy		978766.6	23.7	8.1	95
EOT 152: 1803/1326. SOT 153: 1804/1327. We are back on line R6.						

2005+029:20:30:02	21.999495	-89.90282	69.0	5.0	2761.73	46.41
1849 253 1372	Peggy		978760.6	23.7	9.5	92
Streamer tension = 3400. Wind speed 1.5h average = 9.2. We are turning again.						

2005+029:20:32:46	22.001106	-89.899274	68.5	4.9	2761.94	44.21
1855 254 1378	Peggy		978759.5	23.7	9.6	96
EOT 253: 1854/1377. SOT 254: 1855/1378.						

2005+029:20:49:55	22.011317	-89.876985	72.0	5.1	2763.35	45.21
1906 255 1429	Peggy		978759.3	23.7	9.5	84
EOT 254: 1905/1428. SOT 255: 1906/1429.						

2005+029:21:00:09	22.016619	-89.862849	72.0	5.0	2764.25	44.61
1940 255 1463	keren		978757.8	23.8	9.8	87
wind speed average: 9.4, streamer tension 3400-3500.						

2005+029:21:06:37	22.019965	-89.853761	71.7	5.1	2764.82	45.11
1957 256 1480	keren		978757.3	23.8	9.7	89
EOT 255:1956/1479 SOT 256: 1957/1480						

2005+029:21:23:15	22.028097	-89.831502	72.3	5.1	2766.14	45.11
2008 257 1531	Peggy		978758.0	23.8	10.1	83
EOT 256: 2007/1530. SOT 257: 2008/1531.						

2005+029:21:30:00	22.0312	-89.822264	75.0	4.7	2766.7	45.51
2030 257 1553	Peggy		978758.0	23.8	8.9	68
Streamer tension = 3200. Streamer well balanced at 7m depth. Bird 9 not responding. Birds 27-28 too shallow. Wind speed 1.5h average = 9.7.						

2005+029:21:40:27	22.035648	-89.807859	75.7	5.1	2767.58	45.11
2059 258 1582	Peggy		978758.1	23.8	9.8	67
EOT 257: 2058/1581. SOT 258: 2059/1582.						

2005+029:21:57:30	22.042577	-89.784266	75.7	4.8	2769.01	44.61
2110 259 1633	Peggy		978757.4	23.8	9.8	63
EOT 258: 2109/1632. SOT 259: 2110/1633. Streamer tension = 3300. Wind speed 1.5h average = 9.7. Watch standers change.						

2005+029:22:14:27	22.048392	-89.760524	79.1	4.9	2770.38	45.41
2161 260 1684	Tamara		978757.6	23.8	9.2	49
EOT 259: 2160/1683 SOT 260: 2161/1684						

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Area: Mexico Survey: Chicxulub Line: chicxR6  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+029:22:31:31	22.053332	-89.736289	80.3	5.1	2771.79	46.51
2212 261 1735	Tamara		978758.3	23.8	9.8	42
EOT 260: 2211/1734 SOT 261: 2212/1735						

2005+029:22:33:55	22.054016	-89.732899	79.3	4.8	2772.07	46.61
	Tamara		978758.6	23.8	10.6	44
Parity errors spotted on syntron display (F4 key window). Dietmar attending.						

2005+029:22:39:07	22.055501	-89.725573	80.0	5.1		46.11
	Tamara		978758.1	23.8	10.5	36
Parity errors --> File number 1740 suspected bad.						

2005+029:22:49:33	22.058493	-89.710831	79.5	4.8	2773.28	46.71
2263 262 1786	Tamara		978758.6	23.8	10.5	36
EOT 261:2262/1785 SOT 262: 2263/1786						

2005+029:23:00:09	22.061579	-89.695976	79.1	5.1	2774.14	46.51
2298 262 1821	Tamara		978757.8	23.8	11.9	36
streamer tension ~3300, wind fine... still working to fix errors...						

2005+029:23:05:47	22.063219	-89.688096	78.7	4.6	2774.61	46.11
2314 263 1837	Tamara		978757.6	23.8	11.5	33
EOT 262: 2313/1836 SOT 263: 2314/1837						

2005+029:23:23:03	22.067733	-89.663846	83.8	5.0	2776.0	46.61
2365 264 1888	Tamara		978755.6	23.8	12.4	36
EOT 263: 2364/1887 SOT: 2365/1888						

2005+029:23:30:05	22.068836	-89.653933	84.1	5.0	2776.66	46.41
	TJS		978755.0	23.8	12.6	39
Wind speed average 90min = 10.5 ##### Watch out for parity errors registering in the Syntron display. Note FFIDs and notify Dietmar for really bad errors (where c field is really big, e.g. ~268000). #####						

2005+029:23:39:54	22.07034	-89.640044	84.3	5.0	2777.37	47.51
2416 265 1939	Tamara		978755.2	23.7	11.1	37
EOT 264: 2415/1938 SOT 265: 2416/1939						

2005+029:23:57:02	22.072941	-89.615623	84.3	5.0	2778.77	47.01
2467 266 1990	Tamara		978756.6	23.7	12.1	41
EOT 265: 2466/1989 SOT 266: 2467/1990						

2005+030:00:00:03	22.073198	-89.611302	86.1	5.0	2779.03	46.71
2477 266 2000	Tamara				23.7	11.8 46

Last shot. all guns off. EOT 266: 2477/2000. End of first part of  
chicxR6.

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Area: Mexico Survey: Chicxulub Line: chicxR6  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+030:00:30:12	22.075537	-89.567164	87.1	5.0	2781.53	46.81
	Oscar		978754.7	23.7	12.5	48
Streamer tension ~3550, wind speed 90 min average = 12.2						

2005+030:01:00:10	22.077798	-89.52209	86.1	5.1	2784.12	46.91
	Oscar		978753.8	23.6	14.5	58
Streamer tension = 3600, wind speed 90 min average = 13 knots						

2005+030:01:30:07	22.08011	-89.477387	87.3	5.0	2786.69	47.61
	Oscar		978753.6	23.6	14.1	55
streamer tension ~3500, streamer balanced. We have to take about half the streamer in to fix it... starting soon.						

2005+030:02:00:12	22.094097	-89.437961	55.1	3.9	2789	46.41
	Penny		978759.2	23.6	13.8	58
Decided to bring half of streamer in to investigate reason for parity errors. Real watchstanders helping on deck.						

2005+030:02:30:11	22.107768	-89.420172	56.1	2.2	2790	47.31
	Penny		978775.5	23.5	13.0	54
They have brought in two birds and the streamer is lying well.						

2005+030:03:00:12	22.119251	-89.405349	55.7	2.1	2792	47.11
	Penny		978775.4	23.5	13.2	59
9 birds in and still coming.						

2005+030:03:30:39	22.130794	-89.390354	56.1	2.5	2792.83	48.01
	Penny		978775.0	23.5	15.6	64
Still pulling in streamer. 1/2 way.						

2005+030:03:44:15	22.136217	-89.383317	55.7	2.2	2793	48.31
	Penny		978775.3	23.5	15.1	64
Bird 14 had fishing line wrapped around it and part of the streamer behind it.						

2005+030:04:30:21	22.155315	-89.358386	56.5	2.2	2795	48.41
	Penny		978776.0	23.5	15.2	62
Have replaced 1 section and are testing it.						

2005+030:05:00:12	22.166926	-89.344112	56.3	2.3	2796	48.21
	Penny		978776.5	23.4	14.0	73
New section seemed successful. Ship beginning to turn to stbd to start back to work area.						

2005+030:05:30:13	22.152685	-89.32059	187.0	4.5	2798	48.61
	Penny		978786.2	23.4	12.7	56
Situation has improved with new section but is not cured. Now						

steaming back towards work area so possible work is limited.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+030:06:00:08	22.126301	-89.34491	221.3	3.0	2800.42	47.31
	keren		978801.4	23.4	12.6	72
watch taken by keren, peggy & sean.1 Streamer is beeing repaired						

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2005+030:06:30:06	22.11041	-89.36369	223.1	2.6	2801.75	46.91
	keren		978800.0	23.4	12.3	68
changing birds, repairing streamer. Wind speed average is not available on the screen						

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2005+030:07:00:07	22.091693	-89.386176	227.0	4.1	2803..2	46.41
	keren		978806.5	23.4	13.3	64
bird #15: batteries changed; bird #14 has taken the place of bird #28 (and viceversa). Wind speed average still not available on screen						

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2005+030:07:30:09	22.066951	-89.416284	226.0	4.2	2805.46	46.11
	keren		978805.5	23.4	13.1	76
birds #1-#22 on the water, birds#1-12 within the 7m depth range(except bird #9).						

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2005+030:08:00:06	22.042112	-89.446884	225.3	4.9	2807.63	45.31
	keren		978807.4	23.4	10.7	76
all birds into water. Birds # 13, 14, 27, 28 OUT of 7m depth range. Bird # 9 is not working. Winds speed average is not available on screen.						

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2005+030:08:03:52	22.038725	-89.450866	225.8	4.6	2807.91	46.01
	keren		978807.8	23.4	12.4	76
tension on the streamer 2874, turning on the starboard.						

---

2005+030:08:30:03	22.034031	-89.488576	271.0	4.6	2809/95	44.91
	keren		978818.6	23.4	12.6	71
Streamer tension = 3200. Streamer well balanced at 7m depth, a little bit bubbly. Bird 9 not responding. Birds 27-28 too shallow. Wind speed 1.5h average = 11.9.						

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2005+030:09:00:34	22.033944	-89.534172	271.8	4.7	2812.37	46.01
	Peggy		978819.6	23.4	12.1	81
Streamer tension = 3300. Wind speed 1.5h average = 11.7.						

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2005+030:09:30:15	22.033708	-89.578667	270.8	4.5	2814.79	46.41
	Peggy		978818.6	23.4	11.4	80
Streamer tension = 2800. Wind speed 1.5h average = 11.7.						

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2005+030:10:00:03	22.033625	-89.624079	270.1	4.5	2817.09	44.71
	Peggy		978822.7	23.4	11.7	80
Streamer tension = 3200. Wind speed 1.5h average = 11.6. Watch						

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standers change.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+030:10:30:06	22.033402	-89.670336	270.7	4.5	2819.43	45.11
	Oscar		978820.8	23.4	9.7	92
Streamer tension ~ 2800, wind speed 90 min average =11.3						

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2005+030:11:00:14	22.033321	-89.714613	270.7	4.9	2821.73	45.61
	Oscar		978822.4	23.5	12.4	100
Streamer tension ~2900, wind speed 90 min average =11.3						

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2005+030:11:12:34	22.03318	-89.732955	269.7	4.8	2822.72	45.91
	Tamara		978823.0	23.6	10.6	95
Starting turn to the right towards line start						

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2005+030:11:30:08	22.047466	-89.751512	356.3	4.8	2824.13	46.41
	Tamara		978803.3	23.6	11.2	92
streamer tension 2800. avg wind speed 11.3						

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2005+030:12:00:11	22.065145	-89.720484	91.1	5.0	2826.56	46.21
	Tamara		978759.3	23.6	10.1	92
Streamer tension ~3400, wind speed 90 min average =11.7						

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2005+030:12:30:07	22.066676	-89.676238	87.5	4.9	2829.13	46.31
	Tamara		978754.8	23.5	11.0	97
Coming in for continuation of line R7. Wind speed 90min average = 11.7						

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2005+030:12:46:24	22.068931	-89.652926	83.8	5.0	2830.49	47.51
2389 267 4	Tamara		978755.9	23.5	10.8	88
Start ramp-up. 1st shot. SOL chicxR6b. SOT 267: 2389/4. ****The first three files on tape 267 are blank. channel 312 still looks spikey.						

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2005+030:12:51:46	22.069781	-89.645497	85.1	5.0	2830.94	45.91
2405 267 20	Tamara		978756.3	23.5	10.1	93
2 guns firing. also: channel 14 spikey, investigate channels 239, 376.						

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2005+030:12:56:34	22.070542	-89.638679	84.0	5.0	2831.31	46.61
2419 267 34	Tamara		978756.8	23.5	9.9	89
4 guns firing						

---

2005+030:13:01:36	22.071278	-89.631415	85.3	5.1	2831.73	46.91
2434 267 49	Tamara		978754.7	23.5	10.1	78
8 guns firing						

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2005+030:13:02:39	22.071431	-89.629904	84.7	4.7	2831.8	46.31
2437 268 52	Tamara		978755.2	23.5	10.2	76
EOT 267: 2436/51 SOT 268: 2437/52. label machine not working...						

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Area: Mexico Survey: Chicxulub Line: chicxR6b  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 16 Pressure: 4082 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+030:13:07:26	22.07218	-89.622867	84.3	5.4	2832.23	46.51
2452 268 67	Tamara		978754.1	23.5	10.8	86
16 guns firing						

2005+030:13:12:00	22.072923	-89.616105	84.5	4.9	2832.61	46.81
2466 268 81	Tamara		978754.1	23.5	9.8	90
end of ramp-up. 20 guns firing.						

2005+030:13:19:19	22.073521	-89.605464	87.7	5.2	2833.22	47.71
2488 269 103	Tamara		978756.2	23.5	10.3	80
EOT 268: 2487/102 SOT 269: 2488/103						

2005+030:13:30:06	22.074258	-89.589868	88.5	4.8	2834.11	47.91
2520 269 135	Tamara		978757.3	23.5	9.9	75
streamer tension ~3400, avg wind speed 10.7, approaching intersection with chicxR7						

2005+030:13:34:47	22.074536	-89.583278	88.0	5.0	2834.57	46.91
2533 269 148	Tamara		978756.6	23.5	10.2	75
approx intersection with chicxR7						

2005+030:13:36:35	22.074642	-89.580757	87.5	4.7	2834.66	47.61
2539 270 154	Tamara		978757.1	23.5	10.0	75
EOT 269: 2538/153 SOT 270: 2539/154						

2005+030:13:54:38	22.075551	-89.555415	90.3	4.9	2836.13	47.11
2590 271 205	Tamara		978755.6	23.5	10.2	80
EOT 270: 2589/204 SOT 271: 2590/205						

2005+030:14:00:14	22.075509	-89.547594	90.8	4.9	2836.57	47.21
2607 271 222	Tamara		978755.1	23.5	9.9	91
streamer tension ~3400. avg wind 10.1. change of watch.						

2005+030:14:29:41	22.074858	-89.506776	90.5	4.9	2839.06	46.61
2692 273 307	ANUSHA		978757.2	23.4	12.1	96
TAPE CHANGE. EOT 272 (SP 2691, FFID 306) BOT 273 (SP 2692, FFID 307)						

2005+030:14:47:34	22.073184	-89.481792	93.7	4.7	2840.39	46.81
2743 274 258	ANUSHA		978754.6	23.4	11.2	79
Tape change. EOT 273 (SP 2742, FFID 257) BOT 274 (SP 258, FFID 2743)						

2005+030:14:59:55	22.071961	-89.46464	94.8	4.8	2841.39	45.71
	ANUSHA		978752.3	23.4	13.4	84

We are shooting the 2nd line of the CRP profile - R6b. The streamer is wellbalanced and the front appears to be sitting a

little lower now that extra weights were added to the front couple  
of sections last night.

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Area: Mexico Survey: Chicxulub Line: chicxR6b  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+030:15:05:10	22.071406	-89.457371	94.7	4.8	2841.89	45.91
2794 295 409	ANUSHA		978753.8	23.4	12.3	80
Tape change. EOT 274 (SP 2793, FFID 408) BOT 275 (SP 2794, 409)						

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2005+030:15:23:32	22.068413	-89.432458	97.5	4.6	2843.38	46.21
2845 276 460	ANUSHA		978753.2	23.4	11.9	81
Tape change. EOT 276 (SP 2844, 459) BOT 276 (SP 2845, 460)						

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2005+030:15:30:10	22.067166	-89.423454	96.8	4.8	2843.84	46.31
	ANUSHA		978751.4	23.4	14.5	85
Streamer tension = 3273. Streamer is balanced. Still sailing line R6b with no interruptions so far today						

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2005+030:15:41:11	22.065087	-89.40809	97.0	5.2	2844.98	44.61
2896 277 511	ANUSHA		978750.7	23.3	12.8	91
Tape change. EOT 276 (SP 2895, FFID 510) BOT 277 (SP 2896, FFID 511)						

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2005+030:15:58:42	22.060964	-89.384124	102.3	5.1	2846.36	44.11
2947 278 562	ANUSHA		978751.3	23.3	14.8	94
Tape change. EOT 277 (SP 2946, SP 561) BOT 278, (SP 2947, FFID 562)						

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2005+030:16:30:13	22.051687	-89.341266	105.0	4.8	7848.64	44.51
	ANUSHA		978750.2	23.3	13.6	104
The streamer is balanced and tension is 3287.						

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2005+030:16:33:51	22.050377	-89.336335	104.5	4.8	2849.08	44.31
3049 280 664	ANUSHA		978750.8	23.3	14.8	98
Tape Change. EOT 279 (SP 3048, FFID 663) BOT 280 (SP 3049 FFID 664)						

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2005+030:16:51:35	22.043857	-89.312424	105.5	4.8	2850.8	43.71
	MATT		978750.2	23.3	11.3	97
END TAPE 280. SHOT: 3049-3099. TAPE: 664-714.						

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2005+030:17:00:05	22.040761	-89.301118	105.8	4.6	2850.98	43.11
	MATT		978751.6	23.3	11.5	90
SHOOTING ON LINE CHICXR6. TENSION =3140.						

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2005+030:17:10:12	22.036944	-89.287705	109.0	4.9	2851.89	42.71
	MATT		978750.7	23.3	11.6	79
END TAPE 282. SHOTS:3100-3150. FILE: 715-765.						

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2005+030:17:26:53	22.029438	-89.265539	111.0	4.8	2853.19	42.61
	MATT		978748.7	23.3	12.0	85
END OF TAPE:282. SHOT: 3151-3201. FILE: 766-816.						

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Area: Mexico Survey: Chicxulub Line: chicxR6b  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH	STANDER	GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+030:17:30:09	22.027951	-89.261245	110.5	4.7	2853.52	42.61
	MATT		978749.1	23.4	11.7	97
Streamer is well balanced. Tension is 3371. Shooting is all going well!!						

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2005+030:17:46:34	22.02052	-89.239791	109.5	4.8	2854.74	42.31
	MATT		978749.9	23.4	11.0	93
End tape: 283. shots: 3202-3252. file: 817-867.						

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2005+030:18:00:03	22.013615	-89.222591	113.5	4.8	2855.95	40.31
3299 284 914	Peggy		978748.6	23.5	10.7	99
Streamer tension = 3300. Streamer well balanced at 7m depth. Wind speed 1.5h average = 11.6.						

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2005+030:18:02:56	22.012075	-89.218934	113.0	4.6	2856.16	40.91
3304 285 919	Peggy		978749.6	23.5	11.9	98
EOT 284: 3303/918. SOT 285: 3304/919.						

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2005+030:18:20:29	22.002709	-89.196504	113.3	5.0	2857.58	40.31
3355 286 970	Peggy		978749.6	23.5	10.6	97
EOT 285:3354/969. SOT 286:3355/970.						

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2005+030:18:30:08	21.99723	-89.184001	115.3	5.0	2858.39	42.21
3386 286 1001	keren		978748.5	23.6	10.0	95
wind speed average 11.2, bird #28 out of 7m depth range, streamer tension 3300-3400.						

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2005+030:18:37:15	21.99278	-89.174958	115.8	4.7	2858.96	40.91
3406 287 1021	keren		978748.8	23.6	9.8	83
EOT 286:3405/1020 SOT 287:3406/ 1021						

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2005+030:18:49:05	21.985354	-89.159904	115.5	4.8	2860.12	38.71
3442 287 1057	keren		978747.8	23.6	10.4	86
There was a powerdown of the guns following a request from the marine mammal observers. They saw a turtle.						

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2005+030:18:54:59	21.981705	-89.152408	115.3	4.9	2860.44	38.41
3457 288 1072	keren		978748.1	23.6	8.9	89
EOT 287:3456/1071 SOT 288:3457/1072 only one gun on due to a turtle						

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2005+030:19:11:31	21.970741	-89.131715	119.1	4.9	2861.82	37.91
3508 289 1123	Peggy		978747.3	23.6	9.9	83
EOT 288: 3507/1122. SOT 289: 3508/1123.						

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2005+030:19:15:59	21.967554	-89.12626	118.8	5.0	2862.22	37.31
3522 289 1137	Peggy		978746.8	23.6	9.2	88



2 guns firing

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Area: Mexico Survey: Chicxulub Line: chicxR6b  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 4 Pressure: 570 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+030:19:21:31	21.963586	-89.119542	118.0	5.0	2862.66	36.81
3538 289 1153	Peggy		978748.5	23.6	9.7	78
4 guns firing. Streamer tension = 3400.						

2005+030:19:26:16	21.960218	-89.113736	118.3	4.7	2863.04	37.31
3552 289 1167	Peggy		978747.0	23.6	10.4	82
8 guns firing						

2005+030:19:28:40	21.958507	-89.110818	118.5	5.0	2863.23	37.41
3559 290 1175	Peggy		978745.9	23.6	10.5	81
EOT 289: 3558/1173. SOT 290: 3559/1174.						

2005+030:19:31:24	21.956561	-89.107481	118.7	4.9	2863.48	37.11
3567 290 1182	Peggy		978745.4	23.6	10.4	83
16 guns firing. Streamer tension = 3400.						

2005+030:19:36:24	21.952966	-89.101359	118.8	4.9	2863.89	35.81
3582 290 1197	Peggy		978744.6	23.6	10.4	73
20 guns firing. Ramp up finished.						

2005+030:19:46:19	21.945516	-89.08926	121.0	4.8	2864.7	35.41
3610 291 1225	keren		978745.1	23.6	10.0	60
EOT 290:3609/1224 SOT 291:3610/1225						

2005+030:20:00:09	21.934515	-89.072782	121.1	5.0	2865.86	33.21
3655 291 1270	keren		978743.4	23.6	10.0	62
bird # 28 out of 7m depth range, streamer tension 3400.wind speed range 9.8						

2005+030:20:02:55	21.932303	-89.069511	120.8	4.7	2866.11	32.61
3661 292 1276	keren		978745.3	23.6	11.0	69
EOT 291:3660/1275 SOT 292:3661/1276						

2005+030:20:19:23	21.919123	-89.049981	120.8	5.1	2867.57	32.01
3712 293 1327	keren		978742.9	23.6	11.1	71
EOT 292:3711/1326 SOT 293:3712/1327						

2005+030:20:30:24	21.909802	-89.037329	123.8	4.9	2868.36	31.91
3745 293 1350	keren		978744.6	23.6	12.6	69
streamer tension 3300-3400, wind speed average 10.1						

2005+030:20:38:00	21.903229	-89.028668	123.7	4.8	2868.99	31.71
3763 294 1378	keren		978744.5	23.6	11.8	65
EOT 293:3762/1377 SOT 294:3763/1378						

2005+030:20:53:16	21.890223	-89.011404	123.8	5.1	2870.22	30.31
3814 295 1429	keren		978741.9	23.6	12.2	57

EOT 294:3813/1428 SOT 295: 3814/1429

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Area: Mexico Survey: Chicxulub Line: chicxR6b  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+030:21:00:05	21.884187	-89.00382	127.1	4.9	2870.79	29.31
3836 295 1451	keren		978743.1	23.6	12.9	65
streamer tension 3300-3400, wind speed average 10.9, bird #28 out of 7m depth range						

2005+030:21:10:33	21.874299	-88.992588	127.5	4.8	2871.59	29.51
3865 296 1480	keren		978744.1	23.5	13.8	65
EOT 295:3864/1479 SOT 296:3865/1480						

2005+030:21:26:56	21.859054	-88.975319	126.1	3.7	2872.74	26.21
3916 297 1531	keren		978744.9	23.6	13.7	62
EOT 296: 3915/1530 SOT 297:3916/ 1531						

2005+030:21:43:48	21.842718	-88.957825	131.5	4.1	2873.89	27.21
3967 298 1582	keren		978747.4	23.4	12.5	59
EOT 297:3966/1581 SOT 298:3967/1582						

2005+030:22:00:19	21.826122	-88.941495	130.1	4.2	2874.97	25.41
4018 299 1632	Tamara		978747.8	23.3	11.9	61
EOT 298: 4017/1632 SOT 299: 4018/1633						

2005+030:22:17:45	21.808409	-88.924566	132.8	3.7	2876.03	24.01
4069 300 1684	Tamara		978750.2	23.3	12.9	58
EOT 299: 4068/1683 SOT 300: 4069/1684						

2005+030:22:30:03	21.795358	-88.913	135.1	3.8	2876.81	25.11
4107 300 1722	Tamara		978751.0	23.3	13.2	47
streamer tension ~3400, avg wind 13.1						

2005+030:22:34:44	21.790312	-88.908629	134.5	3.9	3411	22.51
4120 301 1735	Tamara		978751.8	23.3	13.6	47
EOT 300: 4119/1734 SOT 301: 4120/1735						

2005+030:22:51:21	21.772504	-88.893184	137.5	4.1	2878.24	22.81
4171 302 1786	Tamara		978751.9	23.2	13.7	53
EOT 301: 4170/1785 SOT 302: 4171/1786						

2005+030:23:00:03	21.762695	-88.88564	138.0	3.9	2878.83	22.01
4198 302 1813	Tamara		978752.9	23.2	15.8	61
streamer tension ~3500, wind speed 13.6						

2005+030:23:07:59	21.753685	-88.878802	137.7	4.0	2879.36	22.41
4222 303 1837	TJS		978756.2	23.2	15.8	57
EOT: 302 LSP: 4221 FFID:1836 // BOT: 303 FSP:4222 FFID:1837						

2005+030:23:24:04	21.735464	-88.864939	137.7	4.3	2880.46	20.61
4273 304 1888	TJS		978754.6	23.2	16.2	65

EOT: 303 LSP: 4272 FFID: 1887 // BOT: 304 FSP: 4273 FFID: 1888 //

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Area: Mexico Survey: Chicxulub Line: chicxR6b  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+030:23:30:39	21.727727	-88.859667	142.1	4.6	2880.97	19.91
4294 304 1909	TJS		978757.9	23.1	13.9	59
Wind speed 90min average = 14.5, water depth getting shallower ~ 19.5 - 20m						

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2005+030:23:40:32	21.715888	-88.851968	142.5	4.9	2881.79	18.71
4324 305 1939	Tamara		978756.5	23.1	16.3	54
EOT 304: 4323/1938 SOT 305: 4324/1939						

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2005+030:23:52:16	21.701824	-88.842878	142.7	4.9	2882.79	17.51
4360 305 1975	Tamara		978754.5	23.1	15.0	61
end of streamer seems to be displaced a little to the SW of curve						

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2005+030:23:57:00	21.696138	-88.839199	142.5	4.9	2883.16	17.31
4375 306 1990	Tamara		978754.3	23.1	16.4	63
EOT 305: 4374/1989 SOT 306: 4375/1990						

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2005+030:23:59:56	21.692591	-88.8369	142.7	5.0	2883.4	978753.4
4385 306 2000	Tamara			23.1	14.5	63
last shot of day. all guns off. EOT 306: 4385/2000. EOL chicxR6b. water depth ~16. streamer tension ~3400. We'll be turning soon and heading north towards the start of line R7.						

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2005+031:00:07:44	21.68295	-88.830914	151.0	5.1	2884.07	16.11
	Tamara		978751.9	23.1	18.1	53
we have started the turn to the right						

---

2005+031:00:30:03	21.656261	-88.847767	264.8	5.5	2886.16	16.11
	Tamara		978804.7	23.2	14.5	50
streamer tension ~3400, CBD= 16 m. still turning.						

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2005+031:01:00:05	21.685158	-88.880704	338.8	4.9	2888.87	17.71
	Tamara		978781.4	23.1	15.1	80
streamer tension 3400, CBD 18m						

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2005+031:01:30:05	21.721841	-88.903053	338.7	4.2	2891	22.01
	Tamara		978783.8	23.0	12.7	77
Moving north away from shallow water						

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2005+031:02:00:07	21.75813	-88.925263	337.7	4.3	2893.61	23.31
	Tamara		978789.1	23.0	13.2	83
streamer tension ~3200, streamer looks fine... chnage of watch...						

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2005+031:02:30:08	21.79427	-88.947295	338.3	4.4	4895.85	22.41
	Anusha		978784.0	23.1	14.6	86
Streamer is balanced and tension = 3218. We are not shooting as it is night time						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+031:03:00:09 21.831045 -88.969745 339.0 4.3 2898.07 27.11  
 Anusha 978785.1 23.1 16.7 91  
 Streamer is balanced. Tension is 3255

2005+031:03:30:00 21.867826 -88.992084 339.5 5.0 2900.2 28.31  
 Matt 978786.9 23.2 20.5 95  
 tension = 3521. Streamer good.

2005+031:04:00:03 21.904845 -89.014689 338.3 5.2 2902.68 31.91  
 Matt 978787.3 23.3 17.8 108  
 Tension = 3330. Streamer good.

2005+031:04:30:07 21.940995 -89.0369 339.7 4.8 2905.21 34.31  
 Anusha 978788.6 23.4 16.1 97  
 tension is 3188, streamer is balanced

2005+031:05:06:49 21.985278 -89.063943 339.0 5.0 2908.07 36.21  
 matt 978791.5 23.3 16.9 106  
 Tension = 3174. Streamer = good.

2005+031:05:30:07 22.013602 -89.081178 338.0 4.9 2909.99 39.01  
 matt 978793.9 23.3 16.3 114  
 tension = 3202 streamer is ok.

2005+031:06:00:11 22.050303 -89.103731 338.3 5.1 2912.55 41.51  
 keren 978796.8 23.3 16.6 116  
 streamer tension 3000-3200, wind speed average: 16.5

2005+031:06:30:10 22.08531 -89.125037 337.8 4.6 2914.97 43.21  
 keren 978799.7 23.3 18.5 114  
 tension streamer 2800-2900

2005+031:07:00:17 22.120376 -89.146467 337.7 4.9 2917.46 46.11  
 keren 978801.9 23.3 15.4 123  
 wind speed average 17.0, streamer tension 3000

2005+031:07:30:17 22.155331 -89.168058 338.1 4.7 2919.8 47.41  
 keren 978804.0 23.2 11.8 115  
 wind speed 16.5, streamer tension 2800

2005+031:08:00:13 22.189311 -89.188662 337.0 4.8 2922.12 49.11  
 keren 978806.8 23.3 13.0 120  
 wind speed average 15.2, streamer tension 2800-2900

2005+031:08:30:08 22.22426 -89.210109 337.5 5.0 2924.52 50.61  
 Sean 978809.2 23.3 13.6 106  
 On our way to R7 ST=3100, streamer beautiful Watchstanders



slacking off.... :-)

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+031:09:00:10	22.237793	-89.245958	247.3	4.7	2926.97	50.31
	Peggy		978824.9	23.4	14.6	103
Streamer tension = 2800. Streamer well balanced at 7m depth. Wind speed 1.5h average = 14.1. We were NOT slacking!!!!!!!!!!						

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2005+031:09:30:14	22.222864	-89.287765	245.5	4.6	2929.35	50.91
	Peggy		978823.2	23.4	14.8	106
ST = 3000. Streamer well balanced at 7m depth. Wind speed 1.5h average = 14.4.						

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2005+031:10:00:10	22.20803	-89.329707	245.5	4.8	2931.75	50.91
	Oscar		978824.0	23.4	14.5	101
Streamer tension ~ 3200, wind speed 90 min average =14.5						

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2005+031:10:30:11	22.193135	-89.371701	246.8	4.8	2934	50.31
	Oscar		978824.3	23.4	15.4	99
streamer tension 3000						

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2005+031:11:00:12	22.178315	-89.413972	249.0	4.6	2936.58	49.91
	Tamara		978824.4	23.3	15.1	107
streamer tension ~3000, avg wind 14.3						

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2005+031:11:30:12	22.163588	-89.455608	247.3	4.6	2938.94	50.21
	Tamara		978822.5	23.4	13.4	113
streamertension 3000						

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2005+031:12:00:16	22.148881	-89.497106	246.5	4.8	2941.29	49.41
	Tamara		978822.2	23.5	12.3	116
streamer tension ~2800. avg wind 14.5						

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2005+031:12:30:15	22.134467	-89.538018	249.0	4.6	2943.6	48.31
	Tamara		978823.4	23.5	13.7	107
streamer tension ~2900, streamer looks fine, avg wind 14.3						

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2005+031:12:45:37	22.127515	-89.559112	249.1	4.6	2944.8	48.21
	Tamara		978824.3	23.5	13.8	119
start of ramp-up. 1 gun firing. OBS only until we are done turning.						

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2005+031:12:50:49	22.125332	-89.566154	250.0	4.6	2945.15	48.51
	Tamara		978823.4	23.5	13.6	108
2 guns firing						

---

2005+031:12:55:52	22.123224	-89.572934	244.1	4.5	2945.55	47.71
	Tamara		978822.6	23.5	15.1	122
4 guns firing						

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Area: Mexico Survey: Chicxulub Line: OBS  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 8 Pressure: 1400 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+031:13:00:53	22.119427	-89.578975	219.3	4.5	2945.94	48.31
	Tamara		978819.9	23.5	15.7	124
8 guns on						

2005+031:13:05:57	22.113836	-89.583367	199.0	4.6	2946.35	47.91
	Tamara		978813.0	23.5	15.3	118
16 guns firing						

2005+031:13:10:42	22.107767	-89.585221	180.0	4.8	2946.75	47.71
	Tamara		978801.2	23.5	16.0	115
17 guns on. 13, 12, 11 still not on because of turn. we have finished the turn.						

2005+031:13:19:50	22.095286	-89.585408	169.8	4.6	2947.46	47.71
	Tamara		978789.6	23.5	15.8	109
19 guns firing... except #10						

2005+031:13:26:48	22.085827	-89.584786	169.8	4.6	2948.0	47.11
	Tamara		978788.4	23.5	16.1	103
all 20 guns firing. end of ramp up. preparing to shoot MCS...						

2005+031:13:27:47	22.084478	-89.584709	170.7	4.7	2948.11	46.71
235 307 2	Tamara		978788.8	23.5	15.5	109
First shot of line chicxR7. One blank shot on tape. ***NOTE: Only front half of streamer is straight. NOTE 2: OBS line was on 20s intervals, NOT 50m.						

2005+031:13:43:58	22.06182	-89.584234	173.5	5.0	2949.41	47.11
285 308 52	Tamara		978788.3	23.5	12.7	105
EOT 307: 284/51 SOT 308: 285/52						

2005+031:14:00:23	22.038904	-89.583772	171.7	4.7	2950.76	45.81
309	Tamara		978786.0	23.4	16.2	97
EOT 308: SOT 309: Tape change but not sure of the shot numbers						

2005+031:14:03:31	22.034582	-89.583655	172.8	4.5	2951.31	45.71
	Anusha		978786.0	23.4	12.6	101
The last shot point - shot number 322, FFID 89, is the last time the shot numbers were correct. Then for the next shots (shot points 323-344, FFID 90-111) have their shot point no as zero. There may also be a couple of shots missing. There is also a header gap from shots 308 - 313. KEVIN - over to you....						

2005+031:14:17:34	22.015125	-89.583281	172.1	4.8	2952.16	44.81
387 310 154	Anusha		978783.0	23.4	16.0	103
Tape change. EOT 309 (SP 386, FFID 153) BOT 310 (SP 387, FFID 154)						

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Area: Mexico Survey: Chicxulub Line: chicxR7  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+031:14:30:09	21.9976	-89.582891	172.1	5.0	2953.05	43.91
	matt		978780.3	23.4	15.7	99
Shot and file numbering problem resolved. Kevin will check the mystery tape later. tension = 3152.						

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2005+031:14:33:29	21.992942	-89.582801	172.0	5.1	2953.53	44.11
438 311 205	matt		978779.4	23.4	16.4	103
Tape Change. EOT 310 (SP 437, FFID 204) BOT 311 (SP 438, FFID 205)						

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2005+031:14:50:31	21.969186	-89.582315	172.7	4.9	2954.8	42.41
489 312 256	matt		978777.7	23.4	14.9	98
Tape Change - EOT 311 (SP 488, FFID 255) BOT 312 (SP 489, FFID 256)						

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2005+031:15:00:02	21.95574	-89.582042	172.3	4.8	2955.49	42.01
	matt		978795.9	23.4	14.0	103
Tension = 3162. Streamer good. data acquisition going well.						

---

2005+031:15:06:25	21.946888	-89.581868	172.1	5.0	2956.21	42.01
540 313 307	matt		978776.8	23.4	16.0	106
Tape change. EOT 312 (SP 539, FFID 306) BOT 313 (SP 540, FFID 307)						

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2005+031:15:22:55	21.923944	-89.581358	172.7	4.9	2957.43	40.91
591 314 358	anusha		978774.0	23.4	16.1	111
Tape Change EOT 314 (SP 590, FFID 357) BOT 314 (SP 591, FFID 358)						

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2005+031:15:30:09	21.913906	-89.581153	172.1	4.8	2958.02	40.61
	anusha		978773.4	23.4	13.3	105
Streamer tension = 3181. Streamer is all balanced. We are sailing along line R7 - no interruptions to shooting as yet.						

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2005+031:15:39:33	21.900872	-89.580901	171.5	4.7	2858.8	39.11
642 315 409	anusha		978772.9	23.4	17.0	111
Tape change. EOT 314 (SP 641, FFID 408) BOT 315 (SP 642, FFID 409)						

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2005+031:15:56:13	21.877875	-89.580384	171.5	4.8	2960.21	37.81
693 316 460	anusha		978770.0	23.4	17.1	106
Tape change. EOT 315 (SP 692, FFID 459) BOT 316 (SP 693, FFID 460)						

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2005+031:16:00:17	21.872279	-89.580289	171.3	5.0	2960.46	37.41
	anusha		978768.8	23.4	15.9	111
Streamer tension is 3107, Streamer is well balanced.						

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Area: Mexico Survey: Chicxulub Line: chicxR7  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+031:16:13:01	21.854569	-89.579965	172.1	4.8	2961.53	37.01
511 317 744	anusha		978768.3	23.4	17.5	110
Tape change. EOT 316 (SP 743, 510) BOT 317 (SP 744, FFID 511)						

2005+031:16:29:39	21.831611	-89.579409	172.0	4.9	2962.8	36.21
795 318 562	anusha		978765.2	23.4	17.3	107
Tape change. EOT 317 (SP 794, FFID 561) BOT 318 (SP 795, FID 562)						

2005+031:16:46:45	21.807629	-89.578953	171.0	4.8	2964.19	33.71
	Matt		978765.2	23.4	16.4	97
End tape 318. Shots: 795-845. Files: 562-612. Streamer is feathered (Not on the line).						

2005+031:17:00:12	21.788659	-89.57853	172.0	5.0	2965.29	32.01
	anusha		978763.7	23.3	16.6	100
Streamer is balanced and tension = 3300						

2005+031:17:02:42	21.785136	-89.578472	171.5	4.9	2965.58	32.11
897 320 664	anusha		978763.4	23.3	15.3	94
Tape change EOT 319 (SP 896, FFID 663) BOT 320 (SP 897, FFID 664)						

2005+031:17:19:01	21.762688	-89.578031	169.7	4.6	2966.86	28.31
948 321 715	anusha		978762.4	23.2	15.5	109
Tape change. EOT 320, (SP 947, FFID 714) BOT 321, (SP 948, FFID 715)						

2005+031:17:30:48	21.746353	-89.577627	171.3	3.7	2967.58	26.51
	anusha		978762.4	23.2	14.8	101
Streamer is balanced, tension is 3185. We are currently going a`over a hard bottom - lots of reverberation can be felt after each shot....						

2005+031:17:35:18	21.740103	-89.577525	171.5	4.3	2968.13	27.01
	anusha		978762.3	23.2	16.3	96
Shut down due to fishing vessels in the way						

2005+031:17:45:58	21.725325	-89.577257	170.0	4.1	2968.86	28.01
	anusha		978760.5	23.2	17.1	91
Tape change, EOT 321 (SP 998, 765) BOT 322 (SP 999, FFID 766)						

2005+031:17:49:34	21.720362	-89.57712	170.0	4.0		27.41
	anusha		978760.8	23.2	16.7	93
The last tape 322 has 1 shot on it SP 999, FFID 766. However the guns probably did not go off for this shot as it was the last shot of the line before the shutdown and the shot was recorded without the guns firing						

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Area: Mexico Survey: Chicxulub Line: chicxR7  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+031:17:51:32	21.717643	-89.577055	170.8	4.5		28.01
	anusha		978760.4	23.2	16.1	88
The vessles arte out of the way. A turtle was spotted at 11.42 lacial time by the MMOs.						

2005+031:17:52:21	21.716507	-89.57702	170.3	4.6	2969.21	28.71
1050 323 767	anusha		978760.1	23.2	16.7	94
Started ramp up of guns - one gun firing. 1st shot = SP 1050, FFID 767. This new section of the line is called R7a						

2005+031:17:57:26	21.709437	-89.57686	171.3	4.6	2969.36	28.31
	anusha		978759.7	23.1	17.7	90
Two guns on.						

2005+031:18:00:01	21.705838	-89.576795	171.5	4.0	2969.55	27.41
	matt		978759.6	23.1	17.3	89
Ramping up- 2 guns on. Tension = 3192. This is an every thirty minute log.						

2005+031:18:02:29	21.702406	-89.576728	171.1	4.2		28.71
~1080 323 ~797	Peggy		978759.1	23.1	15.5	84
4 guns firing./ Is probably an earlier shot number.						

2005+031:18:07:32	21.695402	-89.576603	171.0	3.8	2970.18	27.11
1098 323 815	Peggy		978758.7	23.1	15.9	81
8 guns firing						

2005+031:18:08:50	21.693597	-89.576558	170.8	4.0	2970.23	27.31
1101 324 818	Peggy		978758.6	23.1	16.2	90
EOT 323: 1100/817. SOT 324: 1101/818.						

2005+031:18:12:35	21.688382	-89.576451	171.0	4.0	2970.51	26.51
1113 324 830	Peggy		978757.7	23.1	16.6	88
16 guns firing.						

2005+031:18:17:33	21.681463	-89.576266	171.5	4.1	2970.88	26.31
1129 324 846	Peggy		978756.5	23.1	16.0	83
20 guns firing. ramp up completed.						

2005+031:18:25:40	21.670152	-89.576066	172.1	4.1	2971.38	23.71
1152 325 869	Peggy		978754.6	23.2	14.1	82
EOT 324: 1151/868. SOT 325: 1152/869.						

2005+031:18:29:43	21.66452	-89.575964	171.3	4.4		22.71
	Peggy		978753.8	23.2	15.9	86
We are veering off 5 degrees to port to avoid fishing vessels. ST = 3300. Streamer well balanced at 7m depth.						

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Area: Mexico Survey: Chicxulub Line: chicxR7a  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+031:18:30:54	21.66289	-89.57587	166.0	4.0	2971.82	22.31
1169 325 886	Peggy		978753.2	23.2	15.0	84
shutdown due to fishing boat						

2005+031:18:38:08	21.653157	-89.573951	160.3	4.2		23.81
	Peggy		978746.2	23.1	16.7	79
EOT 325: 1169/886.						

2005+031:18:42:17	21.647608	-89.572656	160.5	3.9		23.61
	Peggy		978744.7	23.2	17.6	82
we came 5 degrees back to the line. Gunners said that 1 gun is firing, but it doesn't seem to.						

2005+031:18:43:58	21.645343	-89.5722	165.1	4.2	2972.71	23.21
1208 326 891	Peggy		978744.0	23.1	17.2	81
1204-1207 are blank shots. 1204 has no navigation header.						

2005+031:18:47:05	21.641052	-89.571751	169.7	4.4		22.61
1218	Peggy		978744.7	23.2	17.7	81
Streamer too deep at birds 26-25.						

2005+031:18:48:11	21.639514	-89.571731	174.3	4.5	2972.98	23.01
1220 326 903	Peggy		978745.4	23.2	18.1	76
2 guns firing.						

2005+031:18:52:22	21.633644	-89.571933	174.3	4.3	2973.26	22.91
1234 326 917	Peggy		978749.5	23.2	16.8	79
4 guns firing. Streamer better balanced again.						

2005+031:18:58:06	21.625579	-89.572639	179.3	4.0	2973.67	23.01
1252 326 935	Peggy		978750.6	23.2	16.9	82
8 guns firing						

2005+031:18:59:10	21.624081	-89.572879	184.3	4.3	2973.72	22.71
1255 327 938	Peggy		978751.6	23.2	18.0	76
EOT 326: 1254/937. SOT 327: 1255/938. ST = 3400. Streamer well balanced at 7m depth. Wind speed 1.5h average = 16.3.						

2005+031:19:02:42	21.619114	-89.573938	184.7	4.4	2973.99	21.81
1266 327 949	Peggy		978753.3	23.2	17.2	76
16 guns firing						

2005+031:19:07:25	21.612646	-89.575077	178.0	3.8	2973.34	21.51
1281 327 964	Peggy		978753.4	23.2	17.0	74
20 guns firing. ramp up completed						

2005+031:19:16:35	21.600394	-89.575057	168.1	3.7	2974.98	21.91
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1306 328 989 keren 978745.5 23.2 18.6 79  
EOT 327: 1305/988 SOT 328: 1306/989

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Area: Mexico Survey: Chicxulub Line: ChicxR7b  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH	STANDER	GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+031:19:30:02	21.581914	-89.574098	171.3	4.0	2975.9	21.11
1348 328 1031	Peggy		978743.7	23.2	16.8	70

ST = 3400. Streamer well balanced at 7m depth. Wind speed 1.5h average = 16.6.

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2005+031:19:33:03	21.577685	-89.574015	171.7	4.2	2976.07	21.01
1357 329 1040	Peggy		978743.1	23.2	16.3	75

EOT 328: 1356/1039. SOT 329: 1357/1040.

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2005+031:19:45:28	21.560503	-89.573838	170.3	4.7	2977.25	19.41
1392 329 1075	Peggy		978743.2	23.1	17.4	71

Powerdown due to turtle sighting. Shot 1392 is the last shot with 20 guns. After that a few guns were on for a few shots, and then only one gun. We are taking out 3 guns in preparation of the turn.

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2005+031:19:49:55	21.554514	-89.573707	169.5	4.9	2977.38	19.41
1408 330 1091	Peggy		978742.2	23.1	17.4	62

EOT 329: 1407/1090. SOT 330: 1408/1091.

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2005+031:19:54:22	21.548416	-89.573486	168.0	4.9	2977.83	18.71
1421 330 1104	Peggy		978741.9	23.1	16.9	69

Started turning to port, onto line 10, cutting line R7b short by about a mile. ST = 3300. Streamer well balanced at 7m depth. Wind speed 1.5h average = 16.9.

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2005+031:19:58:50	21.542349	-89.571859	149.5	5.1	2978.19	18.81
1436 330 1119	Peggy		978736.1	23.1	18.8	66

Shutdown due to weather.

---

2005+031:20:02:48	21.537837	-89.568913	129.8	4.7		18.01
	Peggy		978726.5	23.1	19.1	67

EOT 330: 1436/1119.

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2005+031:20:16:49	21.532781	-89.549924	82.8	5.0	2979.59	18.51
	Peggy		978705.7	23.1	20.0	63

Finished turn. We are now on line 10a.

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2005+031:20:23:59	21.534353	-89.539544	78.0	4.7		17.81
	Peggy		978704.8	23.1	18.7	61

slowing down slightly to wait for the weather to improve.

---

2005+031:20:30:05	21.536013	-89.531719	76.7	4.2	2980.6	17.71
	Peggy		978708.4	23.1	20.7	66

ST = 3200. Streamer well balanced at 7m depth. Birds 2, 27, 28 out of depth range. Wind speed 1.5h average = 18.1.

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2005+031:21:00:08	21.543875	-89.49337	78.0	4.4	2982.78	18.01
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Peggy 978705.4 23.1 18.7 57  
ST = 3200. Streamer well balanced. Wind speed 1.5h average = 19.1.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+031:21:30:10	21.551634	-89.454907	76.3	4.3	2984.96	18.11
	Peggy		978703.9	23.1	20.6	58
ST = 3100. Streamer well balanced at 7m depth. Wind speed 1.5h average = 20.3.						

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2005+031:22:00:15	21.559284	-89.41703	76.8	4.3	2987.09	18.31
	Peggy		978704.6	23.1	25.6	59
Streamer tension ~2900, wind speed 90 min =21.4 knots						

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2005+031:22:30:09	21.567187	-89.378215	77.3	4.3	2989.34	18.81
	Peggy		978705.2	23.2	23.6	60
No shooting. Wind speed average remains high, at ~ 22.1						

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2005+031:22:47:16	21.571896	-89.356047	68.7	4.5	2990.6	18.41
	TJS		978706.0	23.2	26.7	64
Started turn north with streamer to be retrieved...						

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2005+031:22:59:58	21.586279	-89.346749	7.0	5.2	2991.7	19.11
	TJS		978732.3	23.2	26.2	70
Wind speed still high ~ 23.0. Streamer to be retrieved at 6pm.						

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2005+031:23:30:09	21.628905	-89.351791	10.0	4.6	2994.07	21.71
	Tamara		978750.8	23.1	26.8	60
streamer tension ~3700, avg wind speed 23.7. proceeding N and we'll start bringing in the streamer around 12:00						

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2005+032:00:30:15	21.698622	-89.329858	62.3	4.6	2998.73	23.51
	TJS		978734.0	23.1	24.9	66
Windy, 90min average is 24.8. Streamer surfaced but apparently now going back down. Ted and Dietmar know about this... We are about to retrieve.						

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2005+032:00:39:09	21.703423	-89.32208	61.8	2.6	2999	23.21
	Penny		978743.5	23.2	22.1	72
Start to bring in streamer						

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2005+032:01:30:12	21.724055	-89.294292	61.7	2.2	3001	25.01
	Penny		978750.2	23.2	23.3	80
Bringing in streamer. Now have first four birds on board. Patched cut in first section.						

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2005+032:02:00:11	21.736388	-89.279743	67.3	2.5	3002	23.61
	Penny		978749.7	23.3	30.2	74
Now have 8 birds on board. Concern about cross current and streamer not leading fully astern. Being straightened out.						

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2005+032:02:30:11	21.737409	-89.26044	86.8	2.4	3003	23.91
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Penny 978729.3 23.3 21.0 89  
Now have 10 birds on board. Going well.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+032:03:00:12	21.737636	-89.240663	91.0	2.2	3004	22.61
	Penny		978746.1	23.3	27.0	97
Now have 14 birds in. Halfway!						

---

2005+032:03:30:14	21.735623	-89.22035	99.5	2.2	3005	23.61
	Penny		978745.5	23.4	25.7	113
Now have 20 birds in board.						

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2005+032:03:59:38	21.728024	-89.200112	109.1	2.2	3006	22.31
	Penny		978741.6	23.3	20.4	115
27 birds now in. Nearly there!						

---

2005+032:04:11:37	21.725053	-89.194759	108.7	1.5	3007	21.81
	Penny		978752.4	23.3	20.4	113
Tail buoy now in and being strapped down on deck.						

---

2005+032:04:30:15	21.714485	-89.178109	155.3	4.5	3008.14	21.91
	Matt		978738.1	23.3	17.2	104
Streamer out of water.						

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2005+032:05:30:12	21.695149	-89.255081	254.8	4.9	3012.95	22.31
	Matt		978797.6	23.2	18.3	118
The tail buoy and streamer are out of the water. We are just sailing around to the start of the next line for tomorrow morning. The profepa inspectors are NOT coming tomorrow any more.						

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2005+032:07:31:20	21.651098	-89.40637	130.1	4.2	3021.77	22.11
	Peggy		978739.9	23.1	16.7	136
Wind speed 1.5h average = 18.9. We are picking velocities.						

---

2005+032:08:30:27	21.601411	-89.341495	125.1	5.0	3026.1	20.61
	Peggy		978717.6	23.1	14.7	126
Wind speed 1.5h average = 18.4.						

---

2005+032:10:00:37	21.547412	-89.375324	257.8	4.6	3033.23	16.91
	Peggy		978765.1	23.1	12.7	109
Wind speed 1.5h average = 12.7.						

---

2005+032:10:30:15	21.538961	-89.415247	257.5	4.6	3035.5	16.31
	Tamara		978763.8	23.1	13.4	110

---

2005+032:11:00:12	21.530664	-89.454951	257.0	4.4	3037.74	16.81
	Tamara		978763.5	23.1	14.0	110
avg wind 12						

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2005+032:11:30:58	21.522138	-89.49528	257.7	4.5	3040.04	16.51
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12.1

Tamara

978765.1 23.0 12.9 109

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+032:12:30:03 21.505952 -89.572387 257.0 4.5 3044.42 16.01  
 Tamara 978771.1 23.0 16.4 108  
 avg wind = 13.1

2005+032:12:46:11 21.501591 -89.593426 256.7 4.3 3045.72 16.31  
 TJS 978773.3 23.0 16.9 108  
 Shooting to commence shortly, for OBS instruments only.

2005+032:12:50:27 21.500421 -89.59905 257.0 4.5 3046.01 16.01  
 n/a n/a n/a TJS 978774.2 23.0 17.1 106  
 Ramp-up start, 1 gun firing

2005+032:12:52:52 21.499774 -89.602242 257.3 4.5 3046.42 16.01  
 TJS 978774.7 23.0 16.5 109  
 Shooting problems. The guns are not firing, ...apparently ..an  
 issue with the computers. Sean is pressing a button to fire the  
 guns manually, so firing may not be exactly every 20secs. Time  
 now 12.58, so this has been going on for some time. TWO guns have  
 kicked in now. Continue to fire manually.

2005+032:13:04:24 21.492799 -89.615033 191.3 4.7 3046.99 17.01  
 TJS 978768.7 23.0 16.9 118  
 4 guns now firing. The problems seem to go on, with manual  
 shooting continuing (irregular).

2005+032:13:11:07 21.484384 -89.61392 135.0 4.6 3047.53 15.71  
 n/a n/a n/a TJS 978741.3 23.0 15.4 115  
 8 guns firing. Still manual firing.

2005+032:13:11:58 21.483599 -89.613051 125.7 4.9 3047.63 16.31  
 n/a n/a n/a TJS 978736.2 23.0 15.4 115  
 Auto-firing now back on. If in doubt, reboot.

2005+032:13:16:01 21.482033 -89.607519 85.0 4.8 3047.93 15.41  
 n/a n/a n/a TJS 978715.8 23.0 16.2 120  
 16 guns firing.

2005+032:13:20:38 21.482909 -89.600587 82.5 4.9 16.31  
 TJS 978708.3 23.0 14.7 108  
 Correction: 13 guns firing; 1,2,3,4,5,9,10,14,16,17,18,19,20

2005+032:13:21:34 21.483119 -89.599218 82.1 4.9 3047.59 15.71  
 n/a n/a n/a TJS 978708.1 23.0 14.7 107  
 16 guns firing proper: 1,2,3,4,5,6,8,9,10,13,14,16,17,18,19,20 =  
 6947-1416 = 5531 cu in (1416 = tot of 7,11,12,15)

Area: Mexico Survey: Chicxulub Line: Chix12b  
 Shot Rate: 20se Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: Yes Guns: 18 Pressure: 5531 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+032:13:25:37	21.484181	-89.59339	79.8	4.7	3048.73	15.21
n/a n/a n/a	TJS		978708.9	23.0	16.5	112
18 guns on. Coming out of turn still. All but #7 and 15 in water = 6947 - (466+500) = 5981 cu in						

2005+032:13:41:14	21.489021	-89.570892	79.0	5.0	3050.03	16.51
n/a n/a n/a	TJS		978706.5	23.0	16.3	113
19 guns on. #15 still to go in.						

2005+032:13:42:25	21.489395	-89.569174	79.0	4.9	3050.11	15.31
n/a n/a n/a	TJS		978706.2	23.0	14.0	111
All 20 guns in water.						

2005+032:14:00:09	21.49478	-89.543427	79.5	4.9	3051.69	15.51
n/a n/a n/a	TJS		978704.2	23.0	14.3	107
Change of watch standers... all being well. Current wind speed average = 15.2						

2005+032:14:30:16	21.503946	-89.499879	79.8	5.0	3054.02	15.71
	TJS		978701.3	23.0	15.9	113
All guns firing and wind speed is 15.5 instantaneously...						

2005+032:15:07:45	21.515245	-89.445948	79.8	4.9	3057.09	16.21
	Anusha		978699.4	23.0	13.7	118
all guns firing ok. streamer is not in the water - we are doing airgun only lines today						

2005+032:15:21:23	21.519373	-89.426362	79.7	4.9	3058.22	15.71
	Anusha		978697.6	23.1	16.4	115
power down for dolphin sighting						

2005+032:15:23:09	21.519904	-89.423823	80.0	4.9		15.71
	Anusha		978697.7	23.1	14.6	115
As well as the dolphin sighting - there are fishing boats eitherside so soon we will have to shut down our one gun still shooting						

2005+032:15:25:36	21.520647	-89.420305	79.8	4.9	3058.57	15.91
	Anusha		978697.7	23.1	15.5	114
all guns are off - full shut down due to fishing boats						

2005+032:15:30:13	21.522069	-89.413697	78.8	4.8		16.11
	Anusha		978697.6	23.1	16.0	109
all guns still off due to fishing vessels						

2005+032:15:33:37	21.523118	-89.408817	80.0	4.9	3059.25	15.71
	Anusha		978697.6	23.1	14.0	107

we are going to deviate from our course a little to the right to  
avoid fishing boats

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Area: Mexico Survey: Chicxulub Line: Chix12b  
 Shot Rate: 20se Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: Yes Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+032:15:35:58	21.523823	-89.405437	79.8	4.9	3059.41	15.91
	Anusha		978697.3	23.1	16.5	109
we are going to go 10 degrees to the left to avoid fishing vessels now						

2005+032:15:41:47	21.526918	-89.397498	68.8	4.8		15.81
	Anusha		978699.7	23.1	14.8	105
we are about to start ramping up the guns again...						

2005+032:15:43:09	21.527694	-89.395644	69.5	4.8	3060.05	15.51
463	Anusha		978699.3	23.1	15.4	105
1st shot with 1 gun. We have moved back 10 degrees to the right						

2005+032:15:54:46	21.53267	-89.379242	76.5	5.0	3060.96	16.21
	Anusha		978699.2	23.1	12.4	106
4 guns are going now - though the timing of this addition of 3 guns is uncertain						

2005+032:15:59:36	21.534149	-89.37224	82.3	5.0	3068.31	16.01
	Anusha		978698.9	23.1	12.4	99
8 guns now on						

2005+032:16:04:08	21.535094	-89.365577	85.3	5.0	3061.75	16.21
	Anusha		978698.1	23.1	13.3	104
16 guns now on						

2005+032:16:08:02	21.53564	-89.359847	85.0	4.9		16.01
	Anusha		978698.0	23.1	13.8	109
all guns on						

2005+032:16:08:59	21.535775	-89.35846	84.8	4.8		16.11
	Anusha		978697.9	23.1	13.8	109
There are 20 guns going and we are continuing with line chicx 12b						

2005+032:16:30:09	21.540457	-89.32755	80.0	4.9	3063.75	16.11
	Matt		978699.5	23.1	11.2	106
20 guns shooting. Line Chix12b.						

2005+032:16:35:21	21.541957	-89.319895	78.8	4.9	3064.33	16.31
	Matt		978699.9	23.1	9.6	105
ETA to the end of the line is 20 min( 10.55am local time)						

2005+032:16:54:56	21.547666	-89.291593	80.8	4.9	3066.16	16.61
	Anusha		978705.1	23.2	13.0	107
Reached the end of line 12B. Starting to turn to the right to get onto line 14B. NOTE - all these lines are being logges as OBS lines						

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Area: Mexico Survey: Chicxulub Line: Chix12b  
 Shot Rate: 20se Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: Yes Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+032:17:00:12	21.545501	-89.284492	133.7	5.0	3066.22	16.81
	matt		978707.2	23.2	13.9	87
20 guns shooting. Turning to line Chix14b.						

2005+032:17:30:12	21.504129	-89.279953	229.8	5.2	3068.99	14.51
	anusha		978748.6	23.2	12.4	74
Still on the OBS shooting line - nearing the end of the turn onto our airgun only line chicx 14b. Shooting on time - 20 sec.						

2005+032:17:32:38	21.502617	-89.283339	258.3	5.0	3069.15	16.51
	anusha		978760.5	23.2	13.3	74
Start of the OBS shooting line 14b - still shooting on time						

2005+032:18:00:03	21.494583	-89.323525	257.5	5.0		14.91
867	Peggy		978764.1	23.2	9.7	65
Wind speed 1.5h average = 12.0.						

2005+032:18:30:08	21.485476	-89.367126	257.7	5.1	3073.88	23.81
958	Peggy		978764.1	23.2	11.7	43
Wind speed 1.5h average = 11.6.						

2005+032:19:01:09	21.476044	-89.412096	258.8	5.0	3076.36	25.21
1049	Peggy		978764.2	23.2	12.4	33
Wind speed 1.5h average = 11.4.						

2005+032:19:14:23	21.472007	-89.431325	257.5	5.0	3077	29.41
	Penny		978766.0	23.2	13.1	32
Noticed CBD reading is on a multiple - should be reading around 14-15m. Ted looking into it.						

2005+032:19:30:00	21.46718	-89.454071	258.1	5.0	3078.69	23.31
1135	Peggy		978768.8	23.2	12.1	36
Wind speed 1.5h average = 12.1.						

2005+032:20:03:25	21.456926	-89.503051	258.5	4.8	3081.44	25.61
1236	Peggy		978769.9	23.2	19.8	35
Wind speed 1.5h average = 14.4. Wind increasing very rapidly.						

2005+032:20:30:10	21.448867	-89.541693	258.8	4.5	3083.56	26.01
1316	Peggy		978770.3	23.2	20.0	38
Wind speed 1.5h average = 16.7. Slowing down due to fishing vessel.						

2005+032:20:34:48	21.447596	-89.547596	259.0	3.4	3083.89	25.21
	Peggy		978767.8	23.2	17.9	44
Shutdown due to weather. We will go at 4.5 knots over the ground.						



Area: Mexico Survey: Chicxulub Line: Chix14b  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+032:21:00:17 21.44084 -89.579981 260.0 3.8 3085.56 26.11  
 Peggy 978767.9 23.2 20.4 48  
 Wind speed 1.5h average = 18.3.

2005+032:21:30:19 21.440568 -89.616236 352.3 4.2 3087.57 24.01  
 Peggy 978773.6 23.1 22.7 43  
 Wind speed 1.5h average = 19.8. Wind speed increasing again. Shot  
 numbers on OBS line not counting anymore: disabled (not certain at  
 what time).

2005+032:21:48:43 21.45852 -89.605287 76.5 4.2 3088.96 5.51  
 Peggy 978712.9 23.2 22.6 58  
 We have finished our turn and are now on line 13.

2005+032:22:00:13 21.461656 -89.590715 76.7 4.3 3089.79 24.21  
 Peggy 978711.2 23.2 20.6 57  
 Wind speed 1.5h average = 20.2. Watch standers change.

2005+032:22:30:09 21.469669 -89.552433 76.5 4.3 3091.95 14.71  
 Oscar 978707.4 23.2 20.7 64  
 Wind speed average = 20.4

2005+032:23:00:07 21.477729 -89.514375 77.3 4.4 3094.13 14.61  
 Tamara 978706.2 23.2 21.5 66  
 wind still too high...

2005+032:23:30:22 21.485747 -89.476039 77.0 4.2 3096.29 5.51  
 Tamara 978705.9 23.2 23.6 67  
 wind 21.4

2005+033:00:00:12 21.493467 -89.439147 77.1 4.2 3098.39 14.61  
 Oscar 23.2 22.6 69  
 wind speed avg 90 min= 22.8

2005+033:00:30:12 21.508236 -89.409291 0.3 5.0 3100.52 16.41  
 Oscar 978726.8 23.2 21.7 74  
 wind speed avg 90 min = 23.7

2005+033:01:00:12 21.536791 -89.433304 288.3 4.8 3103.01 17.51  
 Oscar 978767.3 23.2 22.9 70  
 wind speed avg 90 min=22.8

2005+033:01:30:07 21.54809 -89.473659 290.8 5.3 3105.35 18.21  
 Oscar 978770.1 23.2 23.8 69

2005+033:02:00:05 21.559845 -89.517478 293.0 4.9 3107.87 19.21

Oscar	978771.1	23.2	24.8	71
change of watch. dum diddy dum...				

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source: Chix14b	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+033:02:30:10	21.555651	-89.562179	259.3	4.9	3110.34	19.31
	matt		978776.7	23.2	23.8	78
Not shooting. No streamer in water.						

---

2005+033:03:00:08	21.547158	-89.606277	260.0	5.0	3112.81	19.11
	matt		978780.9	23.1	21.2	78
Night time with no activity.						

---

2005+033:04:00:18	21.530945	-89.689971	255.7	4.6	3117.57	18.91
	matt		978788.1	23.1	19.9	102
Just hanging out because we are not shooting and there is no streamer in the water.						

---

2005+033:04:30:15	21.523127	-89.730258	259.5	4.8	3119.85	18.91
	matt		978787.0	23.1	21.4	109
nothing to report. (expect what I just wrote ... and this I'm writing)						

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2005+033:05:00:14	21.514968	-89.773396	257.3	4.7	3122.27	18.61
	matt		978790.7	23.1	17.0	116
All excellent.						

---

2005+033:05:30:11	21.506487	-89.816918	258.3	4.8	3124.75	18.51
	matt		978791.3	23.1	16.0	122

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2005+033:06:00:04	21.498128	-89.860599	258.1	5.1	3127.31	18.41
	Peggy		978787.0	23.1	19.7	121
Wind speed 1.5h average = 18.6. Watch standers change.						

---

2005+033:06:30:46	21.495811	-89.905842	280.5	5.3	3129.86	18.01
	Peggy		978783.3	23.1	19.6	120
Wind speed 1.5h average = 18.1.						

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2005+033:07:00:15	21.484818	-89.949094	246.0	5.1	3132.38	16.51
	Peggy		978778.4	23.2	17.1	120
Wind speed 1.5h average = 18.4. Processing processing...						

---

2005+033:07:30:44	21.471026	-89.993574	260.3	5.2	3135.0	16.81
	Peggy		978780.1	23.2	16.2	125
Wind speed 1.5h average = 18.2. Focus is doing weird things with the stacking velocities...						

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2005+033:08:00:15	21.455137	-90.025421	175.0	3.9	3137.27	17.01
	Peggy		978744.8	23.2	16.1	119
Wind speed 1.5h average = 17.7.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+033:08:30:31 21.418846 -90.024296 165.5 4.3 3139.41 16.51  
 Peggy 978730.9 23.2 16.7 127  
 Wind speed 1.5h average = 16.7.

2005+033:09:01:22 21.382929 -90.018876 155.7 4.5 3141.56 16.11  
 Peggy 978722.6 23.1 16.2 119  
 Wind speed 1.5h average = 16.2. Picking velocities...

2005+033:09:30:52 21.381857 -89.984808 80.0 4.6 3143.62 23.91  
 Peggy 978697.8 23.1 14.0 131  
 Wind speed 1.5h average = 15.8.

2005+033:10:08:21 21.391592 -89.937722 79.1 3.9 3146.31 28.21  
 Peggy 978695.0 23.0 10.8 120  
 Wind speed 1.5h average = 15.0.

2005+033:10:30:12 21.397048 -89.912065 79.8 4.1 3147.73 27.81  
 Peggy 978693.3 23.0 18.3 131  
 avg wind 14.7

2005+033:11:00:13 21.404379 -89.876965 81.1 4.0 3149.7 25.21  
 Peggy 978692.1 23.0 15.0 129  
 wind 14.7

2005+033:11:30:22 21.411667 -89.841522 79.7 3.6 3151.65 26.71  
 tamara 978696.9 23.0 15.2 127  
 wind 14.8

2005+033:12:00:17 21.418819 -89.807967 80.0 2.9 3153.54 30.01  
 tamara 978708.6 23.0 14.9 132  
 wind 14.6

2005+033:12:30:12 21.424427 -89.781038 80.5 2.9 3155.07 31.21  
 tamara 978714.6 23.0 14.1 123  
 avg wind 14.0

2005+033:12:49:39 21.427938 -89.763803 80.0 2.8 3156.06 27.01  
 tamara 978718.0 23.0 12.5 127  
 preparing to get the inspectors onboard. after that we'll put the  
 guns in the water. ramp-up has been delayed until the inspectors  
 are on the ship.

2005+033:13:00:14 21.429976 -89.754433 80.5 3.0 3156.6 21.11  
 tamara 978719.0 23.0 12.7 132  
 preparing for the inspectors to board. they are 4 miles away.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: n/a Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: n/a Guns: n/a Pressure: n/a Volume: n/a

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+033:13:19:30	21.42683	-89.740636	135.3	2.5	3157.49	26.51
n/a n/a n/a	TJS		978729.3	23.0	11.0	123
Inspectors are now onboard. Start of turn to head towards beginning of line.						

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2005+033:13:30:13	21.428038	-89.732926	34.3	3.8	3157.97	27.01
	TJS		978724.0	23.0	11.1	157
Wind speed 90min average = 13.1 Still in turn. SG discussing with gunners whether to start ramp-up while still in turn...						

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2005+033:13:36:30	21.435625	-89.73172	0.1	4.6	3158.52	24.11
n/a n/a n/a	TJS		978740.4	23.0	14.6	143
1 gun firing. Gun #5.						

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2005+033:13:41:33	21.442137	-89.73266	355.5	4.3	3158.84	15.51
n/a n/a n/a	TJS		978748.5	23.0	14.3	132
2 guns, #5 and #9 = 225 cu in.						

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2005+033:13:44:25	21.445627	-89.73341	350.3	4.4	3159.05	14.71
n/a n/a n/a	TJS		978751.0	23.0	16.1	135
SHUT DOWN - Small boat in the way.						

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2005+033:13:51:16	21.451704	-89.739442	289.3	4.5	3159.61	15.31
n/a n/a n/a	TJS		978768.4	23.0	12.0	145
Another fishing boat near the start of the line. Delay continues.						

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2005+033:13:58:34	21.451419	-89.749202	259.3	4.5	3160.11	15.31
	TJS		978777.8	23.0	14.5	127
Ramp up started. 1 gun						

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2005+033:14:03:56	21.450041	-89.756398	257.7	4.4	3160.47	15.71
	matt		978777.5	23.0	15.4	125
2 guns on. 225 cubic in.						

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2005+033:14:09:20	21.448623	-89.763347	258.0	4.3	3160.92	14.81
	matt		978775.1	23.0	14.7	126
4 guns now on.						

---

2005+033:14:13:54	21.4474	-89.769368	258.1	4.5	3161.27	15.91
	anusha		978774.6	23.0	12.3	126
8 guns now going.						

---

2005+033:14:15:57	21.446869	-89.772034	259.8	4.5	3161.4	15.21
	anusha		978775.1	23.0	13.0	131
We are going to change course slightly to the right to avoid a fishing boat in the way						

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Area: Mexico Survey: Chicxulub Line: OBS  
 Shot Rate: 20se Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: Airguns Guns: 8 Pressure: 81400 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+033:14:17:47	21.446675	-89.774445	268.1	4.3	3161.59	16.51
	anusha		978773.8	23.0	12.7	114
shut down due to fishing vessel.						

2005+033:14:22:05	21.446271	-89.780102	258.8	4.4	3161.9	15.61
	anusha		978773.5	23.0	11.5	131
8 guns now back on - we didn't have to restart the rampup from the start as the shutdown was under 8 minutes						

2005+033:14:27:01	21.444954	-89.786451	258.3	4.3	3162.22	15.51
	anusha		978772.3	23.0	7.4	116
16 guns firing						

2005+033:14:30:06	21.444087	-89.790499	258.0	4.5	3162.46	15.71
	anusha		978771.9	23.0	6.3	110
we are in the middle of a ramp up - 16 guns firing so far... Windspeed is fine. The inspectors from profepa are here						

2005+033:14:31:52	21.443587	-89.792823	258.3	4.4	3162.6	15.71
	anusha		978771.3	23.0	5.8	119
All 20 guns now on						

2005+033:14:33:07	21.44324	-89.794473	260.8	4.3	3162.68	16.61
	anusha		978771.7	23.0	5.4	117
We are moving 10 degrees to the right to avoid fishing vessels						

2005+033:14:35:49	21.442951	-89.798093	267.8	4.4	3162.91	16.81
	anusha		978771.3	23.0	6.0	114
shutdown of guns due to fishing vessels						

2005+033:14:39:23	21.442649	-89.802889	268.5	4.5		15.71
	anusha		978771.0	23.0	5.6	119
All 20 guns are back on (ramp up unnecessary as shutdown was for less than 8 minutes)						

2005+033:15:00:14	21.435027	-89.829888	253.7	4.5	3164.72	14.91
	anusha		978763.6	23.1	6.8	107
shooting line 12b. everthing fine						

2005+033:15:30:12	21.42586	-89.872304	259.0	4.8	3167.09	14.81
	anusha		978759.8	23.1	7.7	115
Shooting line 12a. Airguns only line - no streamer						

2005+033:16:00:09	21.416688	-89.915596	259.0	4.8	3169.49	15.21
	matt		978757.4	23.1	5.8	74
shooting with 20 guns.						

Area: Mexico Survey: Chicxulub Line: OBS  
 Shot Rate: 20se Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+033:16:30:11	21.407508	-89.959361	259.0	5.0	3172.1	16.11
	anusha		978761.0	23.1	7.3	41
Still shooting line 12a (under the line name 'OBS') with airguns only.						

2005+033:16:49:23	21.401648	-89.987232	259.0	4.9	3173.68	16.11
	anusha		978762.7	23.1	7.3	38
Gun 10 has been turned off for about 5 min to repair a broken buoy on it.						

2005+033:16:54:16	21.400138	-89.994393	259.3	4.9	3174.07	15.71
	anusha		978763.9	23.2	6.1	34
gun 10 is back in the water - all 20 guns firing once more...						

2005+033:17:00:09	21.398361	-90.002931	259.3	5.0	3174.55	16.61
	anusha		978761.4	23.2	8.5	32
Shooting airgun line 12 b - line name is OBS						

2005+033:17:30:21	21.389191	-90.046649	260.1	4.9	3177.02	16.41
	anusha		978763.9	23.2	8.5	24
continuing to shoot OBS line over chicx 12a						

2005+033:17:54:36	21.38161	-90.081757	258.8	4.7	3179.04	16.01
	anusha		978763.5	23.2	11.3	17
we are slowing down a bit to let a fishing vessel get out of the way.						

2005+033:17:58:27	21.38043	-90.08673	253.5	4.4	3179.34	16.51
598	Peggy		978760.9	23.3	11.9	21
turning slightly early onto line 14A due to fishing vessel(s) in the way. Wind speed 1.5h average = 8.2. Watch standers change.						

2005+033:18:22:33	21.349044	-90.090708	173.7	5.0	3181.33	23.41
670	Peggy		978725.3	23.2	13.5	9
Starting to pull in guns 15 and 16.						

2005+033:18:30:07	21.338869	-90.088532	139.0	4.0	3181.92	26.01
692	Peggy		978721.2	23.2	13.5	15
Wind speed 1.5h average = 9.8.						

2005+033:18:35:13	21.335582	-90.081983	92.0	4.6		25.31
	Peggy		978697.3	23.3	14.0	18
Gun 14 needs to be pulled out .						

2005+033:18:37:04	21.33574	-90.079378	75.0	4.3	3182.47	25.61
714	Peggy		978691.3	23.3	14.0	11
Gun 16 is back on. Done with the turn.						

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Area: Mexico Survey: Chicxulub Line: OBS  
 Shot Rate: 20se Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+033:18:40:10	21.336605	-90.07497	75.0	4.6	3182.69	24.01
	Peggy		978692.8	23.3	15.3	7
Gun 14 is still on and firing. It will be pulled out after gun 15 is fixed.						

2005+033:18:51:00	21.340152	-90.058908	74.7	4.7	3183.55	24.91
755	Peggy		978690.5	23.3	14.5	7
Gun 15 is back on and firing, gun 14 is pulled in.						

2005+033:18:53:18	21.340874	-90.055549	75.3	4.7	3183.77	23.61
762	Peggy		978690.8	23.3	14.4	8
Shutdown due to turtle sighting. Spectra disabled.						

2005+033:19:00:56	21.343112	-90.044582	75.7	4.4	3184.29	22.81
	Peggy		978691.4	23.3	14.8	10
Wind speed 1.5h average = 11.9. We are waiting for 25 minutes to ramp up again.						

2005+033:19:12:40	21.346632	-90.027876	74.7	4.5	3185.26	26.11
	Peggy		978692.1	23.3	13.9	11
Another turtle sighting, that means that the ramp up will be delayed until 19.33.						

2005+033:19:24:02	21.350054	-90.011709	75.1	4.2	3186.08	27.21
	Peggy		978691.7	23.3	16.6	13
Another turtle sighting. Ramp up delayed until 19.46.						

2005+033:19:33:20	21.352783	-89.998369	75.3	4.1	3186.73	25.81
	Peggy		978691.5	23.3	16.8	18
Altering course to avoid fishing vessel.						

2005+033:19:34:51	21.353108	-89.996206	85.0	4.4		25.91
	Peggy		978691.4	23.3	17.1	15
Turning 3.5 km to starboard						

2005+033:19:50:41	21.356274	-89.972808	75.3	4.2	3187.95	23.31
	Peggy		978687.3	23.2	17.8	20
We are waiting for ramp up because of a small boat on our way. Wind speed increasing rapidly; 1.5h average = 15.2; 1min average = 17.2.						

2005+033:19:53:54	21.357336	-89.968096	74.0	4.3	3188.21	24.01
1	Peggy		978687.2	23.2	17.6	17
1 gun firing. Start of ramp up.						

2005+033:19:59:13	21.359614	-89.960453	70.3	4.3		25.31
17	Peggy		978687.0	23.2	15.9	16

2 guns firing. Wind speed 1.5h average = 15.4.

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Area: Mexico Survey: Chicxulub Line: Chixl4a  
 Shot Rate: 20se Sample Rate: N/A Channels: N/A Aux. Channels: N/  
 Source: airguns Guns: 2 Pressure: 225 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+033:20:01:40	21.360737	-89.956967	65.3	4.0	3188.76	23.61
25	Peggy		978686.6	23.2	15.9	18
We are turning 10 degrees to port side (north) because of fishing boats.						

2005+033:20:04:15	21.362495	-89.953618	59.5	4.2	3189.93	24.01
32	Peggy		978687.5	23.2	17.1	16
4 guns firing.						

2005+033:20:09:15	21.366017	-89.947133	59.3	4.5	3189.29	24.41
47	Peggy		978688.6	23.2	16.9	20
8 guns firing. Wind speed 1.5h average = 15.7.						

2005+033:20:10:53	21.367147	-89.945022	58.7	4.6	3189.45	23.51
52	Peggy		978688.6	23.2	17.7	16
Shutdown due to fishing boats.						

2005+033:20:20:16	21.374738	-89.933747	55.5	4.3	3190.11	26.41
	Peggy		978690.6	23.2	17.4	14
We are turning 10 degrees back to starboard.						

2005+033:20:21:54	21.375787	-89.931588	65.5	4.4	3190.26	26.01
	Peggy		978690.2	23.2	17.6	1
We are turning another 10 degrees to starboard (south).						

2005+033:20:32:55	21.377305	-89.915313	88.8	4.1	3191.12	26.41
	Peggy		978682.6	23.2	15.9	16
We are trying to turn the guns back on. Wind speed 1.5h average = 16.4.						

2005+033:20:41:01	21.376881	-89.903603	89.5	4.3	3191.73	24.91
4	Peggy		978683.2	23.2	18.4	19
1 gun firing. Start of ramp up.						

2005+033:20:45:52	21.376642	-89.896612	89.3	4.0	3192.06	22.71
15	Peggy		978683.1	23.2	17.9	16
2 guns firing. Turning back to port side.						

2005+033:20:51:10	21.376964	-89.889067	84.1	3.8	3192.37	25.91
30	Peggy		978683.2	23.2	17.1	23
4 guns firing.						

2005+033:20:52:00	21.377016	-89.887877	84.8	4.1		26.41
	Peggy		978683.1	23.2	17.0	17
Depth reading is consistently wrong because it doesn't work in this shallow water. We have been at ~15.5 m depth for over an hour. Now depth = 16.3 m according to other bathymetry reading.						

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Area: Mexico Survey: Chicxulub Line: Chixl4a  
 Shot Rate: 20s Sample Rate: N/A Channels: N/A Aux. Channels: N/  
 Source: airguns Guns: 8 Pressure: 1400 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+033:20:56:21	21.377581	-89.881702	80.1	4.2	3192.76	25.31
45	Peggy		978682.8	23.2	15.1	13
8 guns firing. Wind speed 1.5h average = 16.9. Depth = 15.9 m.						

2005+033:21:01:12	21.378673	-89.874583	77.1	4.3	3193.08	21.81
60	Peggy		978682.1	23.2	16.9	21
16 guns firing. Depth = 16.2 m.						

2005+033:21:07:59	21.380713	-89.864792	74.3	4.2	3193.54	24.61
80	Peggy		978682.2	23.2	15.4	20
20 guns firing. Ramp up completed Wind speed 1.5h average = 16.8. Depth = 16.6 m.						

2005+033:21:30:14	21.387659	-89.832624	75.7	4.6	3195.23	26.91
147	Peggy		978684.7	23.2	13.7	21
Shutdown due to turtle sighting. Speed over the ground = 5.1 knots, so we can ramp up in 23 min.						

2005+033:21:51:44	21.394181	-89.801371	75.3	4.1	3196.74	25.51
	Peggy		978690.9	23.3	18.3	21
Boat with divers close by. Delay ramp up.						

2005+033:22:00:08	21.396627	-89.789708	74.3	4.4	3197.33	23.31
	Peggy		978693.7	23.3	17.8	20
Wind speed 1.5h average = 16.8. Water depth = 22.3 m (working again). Watch standers change.						

2005+033:22:23:27	21.403516	-89.756962	74.1	4.5	3199.02	24.81
n/a	n/a n/a	TJS	978699.5	23.2	19.7	23
Ramp up cancelled due to weather problems. Ready to start after delay for divers and a turtle, but wind speed 90min average now reached 17.1... Starting turn. OBS operations to commence shortly.						

2005+033:22:40:16	21.419468	-89.746064	7.8	4.6	3200.27	28.21
	Tamara		978738.9	23.2	18.8	21
we've finished shooting for today. bringing guns in. bringing in the PAM. wind speed 17.6.						

2005+033:23:00:23	21.445486	-89.746305	6.5	4.7	3201.81	14.81
	Tamara		978744.5	23.3	19.5	18
depth 16.7, wind 18.1						

2005+033:23:30:36	21.487686	-89.747402	6.0	5.1	3204.31	17.31
	Tamara		978751.6	23.2	17.7	27
wind 18.8, depth 19m. inspectors are completing paperwork. OBS retrieval/redeployment will begin tonight.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

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2005+034:00:00:16 21.527536 -89.749037 5.7 5.0 3206.68 19.51  
 Tamara 23.2 19.0 28  
 depth 20.9m. en route to first OBS site. Inspectors about to  
 leave with Oscar. Booms are in.

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2005+034:00:30:16 21.495292 -89.782603 230.0 10. 3210.25 17.81  
 n/a n/a n/a TJS 978810.5 23.2 21.6 44  
 On way to first OBS retrieval site. ETA about 1900-1915 local  
 time. Wind speed 90min average = 19.1. BATHY water depth ~  
 19.1m.

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2005+034:01:00:14 21.435754 -89.852428 224.8 10. 3215.47 15.21  
 Tamara 978786.7 23.2 19.3 50  
 water depth 16.5m, approaching OBS site 4F in ~10 minutes.  
 Preparing for 1st recovery.

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2005+034:01:16:21 21.422809 -89.872585 43.5 1.2 3216.92 15.11  
 Tamara 978745.5 23.2 14.3 356  
 640m from site 4F. pinging OBS #5. this will be our first  
 retrieval of OBS recovery/redeployment operations.

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2005+034:01:25:29 21.424748 -89.871272 47.5 0.9 3217.07 14.91  
 Tamara 978722.7 23.2 19.5 57  
 response from OBS #5 (LC) has been received. 385m away from site.  
 Holding position until OBS pops up.

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2005+034:01:27:55 21.425226 -89.871014 46.7 0.6 3217.09 15.01  
 Tamara 978722.7 23.2 18.3 54  
 burning of release wire has started from LC #5 at site 4F. It  
 should be on the surface approx 01:36...

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2005+034:01:32:29 21.425834 -89.870914 50.1 0.7 3217.13 14.81  
 Tamara 978725.8 23.2 18.7 54  
 OBS (LC #5) is on the surface, site 4F.

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2005+034:01:40:59 21.42645 -89.869703 114.0 1.0 3212.25 15.71  
 Tamara 978720.6 23.2 16.2 26  
 OBS LC-5 onboard, site 4F. securing and heading to next site  
 (01:42), site 3E.

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2005+034:02:00:07 21.440227 -89.90108 286.7 10. 3219 16.21  
 Tamara 978801.9 23.2 15.1 71  
 water depth 18m. in transit to site 3E.

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2005+034:02:26:34 21.454835 -89.955463 70.8 1.9 3222.84 19.11  
 Tamara 978730.1 23.2 12.2 55  
 500m from site 3E, pinging DOBS #23. we expect to receive signal

at ~350m.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+034:02:30:02	21.45526	-89.954457	68.3	1.1	3222.89	18.01
	Tamara		978722.9	23.2	12.0	53
DOBS #23 responding to pinging, site 3E						

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2005+034:02:30:34	21.455332	-89.954275	67.3	1.2	3222.9	17.71
	Tamara		978724.6	23.2	12.0	53
DOBS #23 released. should be up in 1 min.						

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2005+034:02:31:22	21.455465	-89.953954	66.7	1.5	3222.92	17.51
	Tamara		978729.2	23.2	13.7	61
DOBS #23 has surfaced and been spotted. preparing to retrieve, site 3E.						

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2005+034:02:41:58	21.455103	-89.954361	158.7	1.2	3223.09	17.41
	Tamara		978741.2	23.2	14.0	56
DOBS #23 on board and being secured, site 3E. Moving to next location (3C). water depth 19.3m						

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2005+034:03:00:26	21.485569	-89.959898	356.3	10.	3225.05	16.31
	Tamara		978755.5	23.2	13.3	62
CBD 18.3m. in transit to OBS site 3C.						

---

2005+034:03:27:48	21.543677	-89.97284	69.3	1.0	3228.52	24.51
	Tamara		978750.5	23.3	13.8	77
pinging OBS DOBS #22. ~390m from site 3C.						

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2005+034:03:36:31	21.544872	-89.971269	83.3	0.6	3228.64	24.51
	Tamara		978755.6	23.3	14.6	75
released DOBS #22 after initial lack of response. OBS responded affirmatively so it has been released. ~200m from site 3C.						

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2005+034:03:37:49	21.544872	-89.971133	94.8	0.5	3228.64	24.01
	Tamara		978753.2	23.3	14.7	76
DOBS #22 spotted on surface.						

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2005+034:03:48:18	21.544703	-89.971268	177.7	0.4	3228.78	24.51
	Tamara		978764.8	23.3	12.9	76
DOBS #22 on board at site 3C. moving on towards site 2B.						

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2005+034:04:00:04	21.55161	-89.994232	293.0	8.7	3229.95	24.11
	Tamara		978824.6	23.3	11.8	87
depth 24.41. in transit to site 2B						

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2005+034:04:35:30	21.574474	-90.054722	85.7	0.6	3233.52	24.31
	Tamara		978751.8	23.4	9.6	65
pinging DOBS 25, 300m. it has responded, site 2B... it has been released (4:36)						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+034:04:37:02	21.574449	-90.054389	84.1	0.5	3233.54	24.21
	Tamara		978751.9	23.4	9.5	61
DOBS 25 has surfaced and been spotted, site 2B						

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2005+034:04:48:07	21.57359	-90.052762	142.5	0.6	3233.7	24.21
	Tamara		978760.5	23.4	8.3	52
DOBS #25 on board. proceeding to site 1C.						

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2005+034:05:00:12	21.556907	-90.070827	225.5	9.2	3235.08	23.91
	Tamara		978809.3	23.4	9.6	69
proceeding to OBS 1C to retrieve LC #4. water depth 24m						

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2005+034:05:33:12	21.514037	-90.118925	82.3	0.4	3238.46	24.11
	Tamara		978739.4	23.4	10.3	52
LC-4 responding to pinging. released (05:34). site 1C. 8 min count-down...						

---

2005+034:05:37:33	21.514014	-90.117923	74.7	0.8	3238.51	24.11
	Anusha		978744.0	23.4	11.5	58
LC-04 spotted on the surface						

---

2005+034:05:46:17	21.513738	-90.11603	136.3	0.5	3238.64	24.81
	Anusha		978746.6	23.4	12.9	45
OBS has been hooked.						

---

2005+034:05:48:25	21.513325	-90.116248	148.0	0.8	3238.67	24.51
	Anusha		978749.8	23.4	12.6	50
OBS (LC 4) is now on board and we are preparing to move onto the next site which is 2B						

---

2005+034:06:00:07	21.507664	-90.101742	108.5	8.6	3239.47	22.11
	Peggy		978699.7	23.4	15.2	66
Watch standers change.						

---

2005+034:06:30:06	21.48563	-90.040412	90.0	2.0	3242.92	21.11
	keren		978722.3	23.3	13.0	64
700m to site 2D						

---

2005+034:06:37:06	21.485378	-90.036515	86.5	1.1	3243.13	20.71
	keren		978731.2	23.3	12.8	72
receiving signal LC-06						

---

2005+034:06:52:09	21.485264	-90.03312	102.0	0.3	3243.33	21.01
	keren		978744.6	23.3	12.3	62
LC # 6 on board						

---

2005+034:06:58:44	21.485995	-90.032844	352.1	3.8	3243.47	20.91
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keren  
transit to site 2C

978742.6 23.3 15.3 138

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+034:07:19:45	21.519282	-90.040277	357.1	3.8	3245.39	22.41
	keren		978754.9	23.3	12.1	56
1000M TO SITE 2C						

---

2005+034:07:30:09	21.524453	-90.041912	1.8	1.3	3245.69	22.81
	keren		978757.8	23.3	12.2	56
getting ready LC #6						

---

2005+034:07:47:45	21.528246	-90.046224	50.3	0.4	3246.25	23.91
	keren		978746.9	23.3	9.7	84
400m to site 2C						

---

2005+034:07:59:33	21.530108	-90.042576	66.5	1.3	3246.48	23.71
	keren		978743.9	23.3	10.9	68
LC#6 deployed on site 2C						

---

2005+034:08:02:44	21.530685	-90.041919	48.3	0.9	3246.53	23.91
	keren		978745.6	23.3	9.5	76
transit to site 3B						

---

2005+034:08:30:05	21.583107	-89.986105	47.3	6.6	3257.49	23.81
	keren		978711.3	23.3	9.3	86
100m to site 3c						

---

2005+034:08:34:24	21.587748	-89.981133	49.3	3.1		23.61
	keren		978733.0	23.3	9.1	91
last log should said 1000m (thousand)						

---

2005+034:08:38:50	21.589874	-89.978859	55.3	1.2	3250.96	23.41
	keren		978750.4	23.2	8.8	74
LC# 5 deployed on site 3B and receiving signal						

---

2005+034:08:40:46	21.590276	-89.97852	59.0	0.6	3250.97	24.71
	keren		978755.0	23.2	7.3	81
transit to site 4B to recover LC						

---

2005+034:09:00:05	21.59906	-89.934395	77.7	8.9	3253.27	24.61
	keren		978697.4	23.2	10.7	97
transit to site 4b to recover LC#11						

---

2005+034:09:16:47	21.604949	-89.908888	85.0	1.6	3254.55	22.21
	keren		978751.8	23.2	7.9	97
LC# 11 released						

---

2005+034:09:21:09	21.605166	-89.908581	60.7	1.6	3254.61	22.41
	keren		978768.3	23.2	8.2	102
EL #11 on the surface						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+034:09:27:34	21.60478	-89.905743	109.3	0.4	3254.75	21.91
	keren		978759.8	23.2	5.0	98
LC#11 on board						

---

2005+034:09:34:38	21.603981	-89.906127	141.3	0.6	3254.81	22.11
	keren		978771.8	23.2	6.5	81
ready to go to next site						

---

2005+034:10:00:07	21.541442	-89.939091	205.5	9.0	3258.48	23.41
	keren		978795.4	23.2	8.1	75
transit to site 3D						

---

2005+034:10:21:28	21.50104	-89.960167	189.5	1.4	3261.09	18.21
	keren		978762.1	23.2	10.3	84
LC-4 deployed at site 3D. proceeding to site 4D						

---

2005+034:10:30:23	21.501073	-89.955498	98.3	6.9	3261.45	17.61
	Tamara		978735.5	23.2	11.5	19
CBD 17m						

---

2005+034:11:00:49	21.515414	-89.891813	76.3	2.0	3265.33	20.61
	Tamara		978740.3	23.2	6.2	58
pinging LC-4 at 500m from site 4D... closing in...						

---

2005+034:11:04:11	21.515801	-89.89003	75.3	1.0	3265.44	20.51
	Tamara		978741.2	23.2	5.5	91
LC 13 released after pinging, site 4D.						

---

2005+034:11:08:11	21.515697	-89.889826	78.0	0.5	3265.45	20.31
	Tamara		978751.8	23.1	7.1	84
LC #13 spotted on surface, site 4D.						

---

2005+034:11:16:04	21.516046	-89.887361	61.5	0.7	3265.6	19.81
	Tamara		978746.9	23.1	5.9	102
LC 13 has been hooked....						

---

2005+034:11:16:33	21.51609	-89.887269	59.7	0.7	3265.61	20.41
	Tamara		978747.4	23.1	5.9	102
LC 13 on deck, site 4D. Proceeding to site 3F.						

---

2005+034:11:30:13	21.492934	-89.899374	207.7	10.	3267.24	17.81
	Tamara		978784.3	23.1	7.2	88
transit to site 3F to deploy. CBD 17m						

---

2005+034:11:37:06	21.47493	-89.908829	206.0	10.	3268.58	17.21
	Tamara		978773.1	23.1	6.9	86
receiving radio signal from LC-11, enroute to deployment site 3F.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

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2005+034:12:00:12 21.417702 -89.938615 204.3 4.7 3272.2 15.31  
 Tamara 978754.9 23.1 7.1 79  
 700m from deployment site 3F. ready to deply instrument (LC 11).  
 CBD 17m

---

2005+034:12:07:32 21.412102 -89.941401 207.3 1.8 3272.57 15.01  
 Tamara 978734.0 23.1 5.6 85  
 LC #11 deployed, site 3F. Instrument responding to signals.  
 Proceeding to next site (1G)

---

2005+034:12:30:08 21.384361 -89.992036 240.5 10. 3275.84 23.41  
 Tamara 978790.4 23.1 6.7 96  
 en route to 1G (ETA 07:07). preparing OBS for deployment. CBD  
 15.7m

---

2005+034:13:00:12 21.340663 -90.071611 240.3 5.3 3280.8 24.91  
 Tamara 978788.9 23.1 6.9 84  
 approaching site 1G. OBS ready for deployment. 700m to site.

---

2005+034:13:06:59 21.337012 -90.078127 241.3 1.9 3281.21 25.91  
 Tamara 978748.4 23.1 4.8 97  
 LC #13 deployed, site 1G. proceeding to site 1E for retrieval.

---

2005+034:13:30:14 21.385474 -90.093682 346.7 10. 3284.21 16.41  
 Tamara 978748.4 23.2 8.1 101  
 en route to site 1E. CBD 17.5m

---

2005+034:13:52:57 21.425096 -90.101666 92.5 1.3 3286.65 17.61  
 Tamara 978737.4 23.2 7.2 54  
 pinging LC-10. w/in 500m of site 1E.

---

2005+034:13:54:51 21.425083 -90.100785 86.3 1.5 3286.72 17.81  
 Tamara 978729.0 23.2 8.2 99  
 LC-10 released after responding to pings. <400m to site 1E.

---

2005+034:13:58:33 21.425042 -90.099346 86.8 0.8 3286.78 18.51  
 Tamara 978762.2 23.2 6.7 105  
 LC-10 spotted on surface, site 1E. retrieving...

---

2005+034:14:06:22 21.42482 -90.097001 135.7 0.6 3286.92 18.51  
 Kevin 978728.3 23.2 7.4 71  
 OBS LC-10 recovered. Proceeding to Site 2E.

---

2005+034:14:30:16 21.439254 -90.037368 76.0 10. 3290.33 18.21  
 Kevin 978666.4 23.2 6.1 88  
 Still in transit to Site 2E.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+034:15:01:06	21.441266	-90.023958	57.0	0.9	3291.36	17.81
	Kevin		978726.8	23.2	4.6	119
OBS Site 2E. LC-10 deployed.						

---

2005+034:16:01:32	21.469756	-90.107119	65.7	0.4	3296.38	20.11
	Kevin		978743.7	23.4	5.0	108
OBS Site 1D approach. 100m.						

---

2005+034:16:07:26	21.470329	-90.106306	21.3	0.4	3296.46	19.81
	Kevin		978737.7	23.4	4.6	115
Site 1D. OBS D7 deployed.						

---

2005+034:16:54:41	21.559223	-90.124949	71.5	0.4	3301.22	26.11
	Kevin		978745.6	23.5	5.0	92
Site: 1B. OBS: D4 deployed. Instr. #22						

---

2005+034:18:14:07	21.452405	-89.949976	127.1	1.7	3311.75	17.41
	keren		978720.0	23.3	5.4	2
DOBS #23 deployed on site 3E						

---

2005+034:18:17:54	21.45175	-89.948777	79.7	1.2	3311.82	18.11
	keren		978728.6	23.4	5.2	18
transit to site 5A						

---

2005+034:19:00:10	21.551604	-89.892691	24.8	8.1	3318.24	22.71
	keren		978733.6	23.3	7.7	6
transit to site 5A						

---

2005+034:19:52:53	21.662686	-89.842558	5.3	0.9	3324.39	26.81
	keren		978774.9	23.4	6.5	352
dobs #19 released, radio may not work						

---

2005+034:19:54:04	21.662981	-89.842566	1.0	0.8	3324.41	26.71
	keren		978774.8	23.4	6.2	357
dobs #19 on surface, radio is not working properly						

---

2005+034:19:59:17	21.664603	-89.842697	8.5	0.5	3324.49	28.21
	keren		978775.3	23.5	7.1	341
DOBS #19 hooked						

---

2005+034:20:00:03	21.664725	-89.842671	11.3	0.4	3324.5	27.91
	keren		978773.9	23.6	6.3	329
DOBS # 19 on board						

---

2005+034:20:30:09	21.595971	-89.834946	180.8	9.6	3328.18	23.41
	keren		978772.3	23.3	7.0	0
transit to site 5C						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+034:20:57:03	21.572184	-89.82427	13.5	1.4	3330.56	20.41
	keren		978762.3	23.5	8.9	357
LC # 3 released						

---

2005+034:21:01:41	21.573035	-89.824069	3.0	0.1	3330.6	22.81
	keren		978766.8	23.6	7.6	13
LC #3 on surface						

---

2005+034:21:10:18	21.57534	-89.823782	11.7	0.5	3330.72	22.51
	keren		978766.6	23.6	7.8	9
LC # 3 on board						

---

2005+034:21:30:09	21.584255	-89.82624	353.7	7.1	3331.39	24.01
	keren		978780.0	23.5	10.5	4
transit to site 5B						

---

2005+034:22:00:15	21.620725	-89.832839	353.1	0.4	3333.28	25.11
	keren		978776.7	23.5	8.4	1
LC # 3 deployed on site 5B						

---

2005+034:22:02:13	21.620696	-89.832958	358.7	0.2	3333.29	24.31
	keren		978775.4	23.4	8.9	356
ready to go to site 6B						

---

2005+034:22:30:25	21.629344	-89.766671	78.3	2.9	3336.51	25.31
	Tamara		978724.9	23.6	10.2	356
transit to site 6B						

---

2005+034:22:39:22	21.631965	-89.760203	359.8	1.2	3336.89	25.51
	Tamara		978756.4	23.7	12.2	3
pinging DOBS #24, 400m from site 6B						

---

2005+034:22:45:17	21.6337	-89.760208	12.3	0.1	3336.98	26.21
	Tamara		978770.0	23.6	12.7	348
DOBS #24 responding. DOBS released. 300m from site 6B.						

---

2005+034:22:47:01	21.633633	-89.760154	14.5	0.4	3336.97	26.01
	Tamara		978770.4	23.7	12.9	349
DOBS 24 on surface, site 6B.						

---

2005+034:22:55:21	21.635049	-89.760481	39.0	0.6	3337.08	27.01
	Tamara		978770.7	23.6	12.8	311
DOBS 24 has been hooked, site 6B						

---

2005+034:22:56:45	21.634957	-89.760301	59.8	0.6	3337.09	25.61
	Tamara		978768.5	23.6	10.5	309
DOBS #24 on board, site 6B. moving on to next site (7C)						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+034:23:38:17	21.603241	-89.677813	3.1	1.2	3341.38	23.41
	Tamara		978746.2	23.6	16.4	28
pinging DOBS 21, <500m from site 7C						

---

2005+034:23:47:15	21.604813	-89.67774	7.1	0.4	2241.48	23.21
	Tamara		978760.6	23.6	14.9	353
DOBS 21 responding to pinging (finally), 200m from site 7C						

---

2005+034:23:48:27	21.604754	-89.677734	13.0	0.4	3341.49	23.01
	Tamara		978759.4	23.6	16.1	9
release signal sent to DOBS 21, near site 7C (but no response yet...)						

---

2005+034:23:53:25	21.6049	-89.677664	358.5	0.5	3341.53	23.21
	Tamara		978758.9	23.6	17.0	1
DOBS 21 on surface, site 7C. This OBS took a long time to respond... In other news, apparently one of our instruments is onshore, brought in by fishermen-- it is unclear at this time which instrument this is. All have been recovered successfully thus far.						

---

2005+035:00:01:45	21.605907	-89.678978	64.5	1.0	3341.68	22.71
	Tamara				23.6	13.4 344
DOBS 21 hooked, site 7C						

---

2005+035:00:02:56	21.605763	-89.678748	69.0	0.6	3341.69	22.81
	Tamara				23.6	15.0 331
DOBS 21 on board. Proceeding to site 6F (site order has been changed to accommodate transfer of Mexican MMOs). no confirmation on whether the reported OBS onshore is actually one of our instruments.						

---

2005+035:00:48:10	21.495803	-89.731464	180.0	10.	3348.75	17.11
	Tamara		978768.3	23.4	19.3	22
in transit to OBS site 6F. depth 19m.						

---

2005+035:01:00:09	21.463121	-89.733867	182.3	5.0	3350.69	16.21
	Tamara		978755.5	23.4	21.8	8
in transit to site 6F						

---

2005+035:01:14:19	21.457593	-89.733259	25.3	2.4	3351.45	14.81
	Tamara		978739.7	23.4	21.6	9
LC #18 responding to pinging, site 6F						

---

2005+035:01:15:38	21.459692	-89.734658	29.3	0.4	3351.47	15.81
	Tamara		978738.9	23.4	19.8	12
LC 18 released, site 6F.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

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2005+035:01:20:13 21.468715 -89.741358 10.5 0.3 3351.51 15.81  
 Tamara 978747.4 23.4 20.2 24  
 LC 18 on surface. chase boat with new MMOs waiting while we  
 retrieve instrument.

---

2005+035:01:29:21 21.505938 -89.751308 62.3 0.9 3351.64 15.41  
 Tamara 978748.1 23.4 17.5 351  
 LC 18 has been hooked, site 6F.

---

2005+035:01:30:45 21.514182 -89.752783 78.7 1.1 3351.67 15.61  
 Tamara 978746.0 23.4 17.2 346  
 LC #18 on board, site 6F

---

2005+035:02:00:12 21.671637 -89.786952 14.0 1.8 3352.38 15.01  
 Tamara 978737.4 23.4 18.3 57  
 transfer of MMOs (and groceries) complete. Heading to next site  
 (5G). transporting watermelons to galley...

---

2005+035:02:30:28 21.550435 -89.883803 235.0 7.7 3357.32 25.51  
 Tamara 978788.5 23.3 16.3 16  
 in transit to site 5G to recover LC-7.

---

2005+035:02:37:01 21.565238 -89.88762 83.8 2.0 3357.74 25.61  
 Tamara 978738.6 23.3 16.9 88  
 pinging LC 7, 300m from site 5G... responding

---

2005+035:02:37:35 21.567348 -89.887328 77.8 0.8 3357.75 26.11  
 Tamara 978732.1 23.3 16.9 88  
 LC 7 released, site 5G

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2005+035:02:42:29 21.584054 -89.882542 27.5 0.6 3357.83 24.01  
 Tamara 978724.7 23.3 17.3 31  
 LC #7 on surface, site 5G

---

2005+035:02:48:20 21.622178 -89.850638 33.0 0.3 3357.91 23.41  
 Tamara 978723.7 23.3 15.9 12  
 LC 7 has been hooked, site 5G

---

2005+035:02:49:24 21.62784 -89.84374 39.5 0.5 3357.92 26.21  
 Tamara 978725.5 23.3 15.6 15  
 LC 7 on board, site 5G. proceeding to site 5F.

---

2005+035:03:00:22 21.706133 -89.838995 350.1 8.7 3358.61 27.71  
 Tamara 978741.4 23.3 17.8 14  
 in transit to site 5F, depth 16.5m

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+035:03:31:51	21.442754	-89.79547	2.8	0.3	3360.75	15.71
	Tamara		978737.8	23.3	17.9	32
LC-18 deployed, site 5F. pinging tests successful. proceeding to site 5E.						

---

2005+035:04:00:09	21.48398	-89.806109	29.5	1.3	3363.8	18.41
	Tamara		978737.0	23.3	17.4	37
<500 m from site 5E. 20m depth						

---

2005+035:04:03:58	21.484667	-89.80582	15.3	0.4	3363.83	17.71
	Tamara		978748.4	23.3	17.9	18
pinging LC 12, 300m from site 5E... it has responded						

---

2005+035:04:05:23	21.484854	-89.805752	13.0	0.3	3363.85	18.21
	Tamara		978751.0	23.3	18.1	18
LC 12 has been released, site 5E						

---

2005+035:04:10:00	21.485086	-89.805604	14.3	0.3	3363.88	17.31
	Tamara		978751.1	23.3	18.6	10
LC 12 on the surface, site 5E... retrieving.						

---

2005+035:04:20:20	21.486535	-89.804651	68.3	0.9	3364.03	17.91
	Tamara		978751.8	23.3	18.3	333
LC 12 hooked, site 5E						

---

2005+035:04:21:14	21.486306	-89.804688	86.3	1.1	3364.04	18.91
	Tamara		978751.8	23.3	15.8	331
LC-12 on board, site 5E. proceeding to site 6E for LC deployment.						

---

2005+035:04:30:15	21.488763	-89.790526	75.7	9.9	3364.88	17.51
	Tamara		978708.2	23.3	23.3	5
in transit to site 6E. CBD 19m						

---

2005+035:05:00:06	21.500477	-89.732493	30.7	1.2	3368.22	16.61
	Tamara		978671.9	23.3	20.4	7
preparing LC 7 for deployment, closing in on site 6E (~300m). water depth 19m						

---

2005+035:05:08:47	21.502507	-89.731662	25.8	0.7	3368.36	18.11
	Tamara		978751.8	23.3	20.8	346
LC #7 deployed, site 6E. pinging instrument...						

---

2005+035:05:11:01	21.502354	-89.73137	46.0	0.9	3368.38	17.61
	Tamara		978750.6	23.3	20.2	341
ping tests successful on LC 7. proceeding to site 6D.						

---

2005+035:05:30:12	21.537877	-89.740006	346.0	9.0	3370.64	18.71
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Tamara  
in transit to site 6D.

978771.4 23.3 21.6 356

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+035:05:34:51	21.543582	-89.741587	346.3	1.1	3371.01	20.21
	Tamara		978771.3	23.3	21.3	360
Pinging LC #2, site 6D. LC 2 has been released (05:35)						

---

2005+035:05:39:28	21.544767	-89.741955	1.1	1.1	3371.08	20.11
	Tamara		978761.8	23.3	22.7	8
LC 2 on surface, site 6D.						

---

2005+035:05:56:31	21.545261	-89.740289	82.0	1.0	3371.38	19.71
	Tamara		978758.3	23.3	19.2	335
LC 2 hooked, site 6D						

---

2005+035:05:58:46	21.544699	-89.740149	91.1	0.9	3371.43	19.61
	Tamara		978758.1	23.3	19.8	351
LC 2 on board. proceeding to site 6C.						

---

2005+035:06:30:20	21.575654	-89.74673	352.7	3.1	3373.46	20.61
	keren		978768.9	23.3	24.0	353
Watch taken by keren + Penguin & Peggy's duck. Transit to site 6C						

---

2005+035:06:57:34	21.591374	-89.75047	353.0	1.8	3374.39	23.21
	keren		978769.0	23.3	19.7	14
LC #12 deployed on site 6C						

---

2005+035:07:01:53	21.590966	-89.750067	89.5	1.0	3374.44	21.71
	keren & penguin		978765.5	23.3	20.7	326
transit to go to site 7A						

---

2005+035:07:30:08	21.640808	-89.723729	26.5	8.2	3377.53	25.21
	keren & penguin		978736.9	23.3	23.0	346
trnasit to site 7A						

---

2005+035:08:00:08	21.689074	-89.696035	4.3	2.5	3380.51	27.31
	keren & penguin		978762.0	23.3	17.0	3
500 m to site 7C						

---

2005+035:08:03:24	21.690863	-89.696071	359.5	1.6	3380.6	28.41
	keren & penguin		978764.8	23.3	16.4	355
LC# 15 released						

---

2005+035:08:07:52	21.692398	-89.696223	2.5	0.1	3380.68	28.31
	keren & penguin		978765.1	23.3	18.6	350
LC #15 on the surface						

---

2005+035:08:21:21	21.694504	-89.696283	65.0	1.0	3380.06	27.91
	keren & penguin		978766.6	23.3	15.0	332
LC #15 hooked						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+035:08:21:45 21.694458 -89.696218 66.5 0.9 3380.87 26.61  
 keren & penguin 978764.2 23.3 15.0 332  
 LC #15 on board, redy to go to site 6A

2005+035:08:30:12 21.693584 -89.700493 258.1 7.5 3381.2 26.81  
 keren & penguin 978777.4 23.3 13.0 347  
 transit to site 6A

2005+035:09:00:08 21.677115 -89.769155 2.0 2.8 3384.94 25.11  
 keren & penguin 978789.9 23.2 15.7 354  
 About to deploy LC # 2, 300m to the site

2005+035:09:05:36 21.680279 -89.76908 358.0 1.0 3385.13 26.41  
 keren & penguin 978773.0 23.2 17.3 355  
 LC #2 deployed on site 6A

2005+035:09:08:24 21.680304 -89.769222 324.8 0.7 3385.15 25.91  
 keren & penguin 978771.5 23.2 17.3 16  
 ready to go to site 4A

2005+035:09:30:16 21.669707 -89.816095 260.3 9.6 3387.65 26.41  
 keren & penguin 978845.6 23.2 20.7 347  
 transit to site 4A

2005+035:09:34:47 21.667521 -89.826423 262.5 5.8 3388.16 25.51  
 keren & penguin 978834.5 23.2 16.0 354  
 having some problems with the DOBS signal

2005+035:10:00:12 21.648324 -89.88958 253.0 9.5 3391.53 24.41  
 keren & penguin 978842.1 23.2 19.1 348  
 transite to site 4A

2005+035:10:19:36 21.649615 -89.915123 333.7 1.7 3393.05 26.81  
 Tamara 978778.8 23.2 18.1 346  
 DOBS #19 deployed, site 4A. DOBS responding to tests. proceeding to 4C.

2005+035:10:30:24 21.635529 -89.914787 167.1 9.5 3393.94 21.61  
 Tamara 978759.9 23.2 15.8 1  
 in transit to site 4C to deploy. last DOBS (#19) not responding to radio signals

2005+035:11:00:13 21.559553 -89.900117 172.7 3.5 3398.1 22.21  
 Tamara 978760.3 23.2 17.4 8  
 in transit to site 4A. ready to deploy (dobs#21)

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

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2005+035:11:09:49 21.560809 -89.896411 19.3 1.2 3398.49 23.21  
 Tamara 978757.4 23.2 18.4 4  
 DOBS #21 deployed, site 4C. ping tests fine. proceeding to site 5D.

---

2005+035:11:30:04 21.54613 -89.860739 111.0 6.6 3400.35 21.81  
 Tamara 978711.4 23.2 17.7 13  
 in transit to site 5D

---

2005+035:11:58:39 21.531667 -89.814025 24.7 1.4 3403.0 19.31  
 Tamara 978748.8 23.2 19.7 348  
 DOBS 24 deployed, site 5D. ping tests ok. proceeding to site 7C.

---

2005+035:12:30:12 21.546214 -89.735951 78.3 9.9 3407.08 19.51  
 Tamara 978692.8 23.2 21.5 4  
 in transit to site 7D

---

2005+035:13:01:43 21.562312 -89.667935 17.3 1.1 3411.33 19.21  
 Tamara 978750.4 23.2 20.2 351  
 LC-15 deployed, site 7D. \*\*\*NOTE: LC-15 has data logger #17.  
 proceeding to site 7E.

---

2005+035:13:29:19 21.514871 -89.660581 34.0 1.3 3414.28 17.21  
 Tamara 978750.3 23.2 15.2 61  
 pinging DOBS #26, 300m from site 7E

---

2005+035:14:00:07 21.514541 -89.660431 90.5 1.9 3415.0 17.41  
 Tamara 978768.2 23.2 15.7 92  
 still waiting for DOBS 26 to respond to pings, site 7E. We are  
 coming around to the site again and will attempt to release it  
 (and hope for the best). watch change. NOTE: we have no radio  
 frequency for this instrument.

---

2005+035:14:30:16 21.517637 -89.659675 357.3 0.1 3415.35 18.31  
 Anusha 978753.6 23.2 18.5 7  
 DOBS #26 at site 7E is still not responding. We have sent the  
 release code as well as trying to ping it. We have also have had  
 an e-mail from Durham saying that 2 of our instruments (one of  
 each type) have been washed up - we are debating what to do.

---

2005+035:14:43:59 21.518249 -89.659252 9.3 0.4 17.91  
 Anusha 978752.4 23.2 20.3 352  
 We are heading out to site 8 D.. The port captain has instruments  
 #17 (an LCHEAPO) and and #28 (DOBS) in progress.

---

2005+035:15:24:48 21.5758 -89.596966 20.5 1.3 19.61  
 Anusha 978740.1 23.2 21.8 18

---

OBS 27 has responded to pinging

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+035:15:25:32 21.576004 -89.596829 15.7 1.2 3420.29 20.41  
 Anusha 978741.3 23.2 22.8 13  
 DOBS #27 was released and is now on the surface.

2005+035:15:41:06 21.575487 -89.5948 87.3 1.3 3420.55 20.01  
 Anusha 978744.9 23.2 22.9 336  
 OBS D27 Site 8D. OBS recovered.

2005+035:16:39:18 21.605363 -89.450656 10.3 1.1 3228.23 21.11  
 Anusha 978734.9 23.2 16.5 13  
 OBS #9 at site 10D has just been successfully pinged and released.  
 Should be here in 5 minutes.

2005+035:16:43:52 21.606519 -89.450456 5.0 0.9 3428.31 19.01  
 Anusha 978739.3 23.2 18.1 11  
 OBS LC9 Site 10D sighted.

2005+035:16:50:11 21.60737 -89.448809 69.8 1.1 3428.43 20.71  
 Anusha 978733.1 23.2 16.8 334  
 OBS LC9. Site 10D. OBS onboard. Proceeding to 8F.

2005+035:17:30:19 21.538093 -89.521928 226.0 10. 3434.07 18.11  
 Anusha 978790.2 23.2 16.7 8  
 OBS LC8. Proceeding to Site 8F.

2005+035:18:00:24 21.484767 -89.583381 188.1 3.5 3438.71 15.81  
 Anusha 978764.8 23.3 18.4 25  
 transit to site 8F

2005+035:18:10:48 21.485572 -89.577606 20.0 1.0 3439.15 15.11  
 keren 978728.8 23.3 15.7 30  
 LC released

2005+035:18:14:06 21.486157 -89.576978 26.7 0.8 3439.21 14.71  
 keren 978737.9 23.3 17.5 9  
 on surface

2005+035:18:24:10 21.487183 -89.576551 89.7 1.1 3439.39 15.91  
 keren 978736.4 23.3 15.6 344  
 LC on board, ready to go to next site 9F

2005+035:18:30:05 21.487452 -89.5706 75.0 8.1 3439.75 15.91  
 keren 978725.2 23.3 17.3 27  
 transit to site 9F

2005+035:19:00:05 21.501477 -89.504022 12.0 3.3 3443.64 15.81  
 keren 978729.3 23.3 18.7 5



close to site 9F

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+035:19:06:27	21.504107	-89.503275	359.3	0.4	3443.79	16.11
	keren		978733.5	23.3	15.6	13
LC # 9 deployed on site 9F						

---

2005+035:19:08:14	21.503716	-89.503251	349.3	0.9	3443.83	15.41
	keren		978734.3	23.3	15.1	21
transit to site 8G						

---

2005+035:19:30:07	21.47508	-89.528327	221.7	10.	3446.06	5.51
	keren		978783.3	23.4	15.4	19
transit to site 8G						

---

2005+035:20:00:06	21.443686	-89.567108	10.1	1.5	3449.36	28.51
	keren		978734.8	23.4	18.2	13
close to site 8G						

---

2005+035:20:01:49	21.4443	-89.567007	9.0	1.0	3449.4	24.21
	keren		978734.9	23.4	16.5	15
LC # 8 deployed on site 8G						

---

2005+035:20:32:26	21.452743	-89.501347	78.5	5.8	3452.93	22.31
	keren		978679.9	23.4	16.0	4
close to site 8G						

---

2005+035:20:35:27	21.454205	-89.497033	24.7	4.3		23.01
	keren		978697.0	23.4	13.6	44
last log should say "close to site 9G"						

---

2005+035:20:38:17	21.456459	-89.496118	20.7	1.4	3453.33	19.51
	keren		978715.7	23.3	14.3	22
LC # 14 has been released						

---

2005+035:20:41:35	21.45727	-89.495535	20.7	1.1	3453.4	22.21
	keren		978731.2	23.3	19.8	16
LC #14 on the surface						

---

2005+035:20:48:04	21.459139	-89.494581	50.0	0.4	3453.52	21.51
	keren		978734.3	23.3	18.5	343
LC # 14 on board						

---

2005+035:21:00:18	21.460302	-89.491821	25.1	5.9	3453.89	23.41
	keren		978727.5	23.3	21.4	7
transit to site 10G						

---

2005+035:21:30:10	21.529753	-89.456757	29.7	8.9	3458.44	15.51
	keren		978708.2	23.3	17.4	2
trnsite to site 10G						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

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2005+035:22:03:27 21.56394 -89.439615 11.0 1.5 3460.71 19.31  
 Tamara 978733.3 23.2 14.7 25  
 LC-14 deployed, site 10E (\*\*\*\*\*NOTE CORRECTED SITE ID). proceeding  
 to site 9D

---

2005+035:22:30:24 21.579384 -89.492819 293.1 6.7 3463.75 20.41  
 Tamara 978780.8 23.2 17.3 23  
 In transit to site 9D

---

2005+035:23:00:53 21.593079 -89.521923 43.7 1.8 3465.53 21.01  
 Tamara 978735.2 23.3 17.3 37  
 Deployment DOBS # 27 on site 9D. In transit to site 9 C

---

2005+035:23:30:11 21.632903 -89.530954 355.0 2.8 3467.78 21.51  
 Tamara 978758.9 23.4 15.7 28  
 in transit to site 9C

---

2005+035:23:31:59 21.633707 -89.530906 14.1 1.3 3467.82 21.81  
 Tamara 978763.0 23.4 13.3 2  
 Pinging LC-1, 400m from site 9C

---

2005+035:23:40:12 21.636001 -89.531481 7.8 0.4 3467.97 20.71  
 Tamara 978749.1 23.4 16.1 30  
 LC-1 finally responded to pinging (~180m away). LC-1 released,  
 site 9C

---

2005+035:23:44:20 21.635851 -89.532072 3.3 0.7 3468.0 22.01  
 Tamara 978750.8 23.4 16.8 38  
 LC-1 surfaced, site 9C

---

2005+035:23:51:22 21.636434 -89.531247 79.3 1.1 3468.11 21.71  
 Tamara 978744.2 23.4 16.3 21  
 LC-1 hooked, site 9C

---

2005+035:23:52:26 21.636173 -89.53117 93.5 0.9 3468.13 20.91  
 Tamara 978742.2 23.4 16.2 10  
 LC-1 on board, site 9C. proceeding to site 9B.

---

2005+036:00:00:06 21.641852 -89.532007 352.0 5.2 3468.54 21.01  
 Tamara 23.4 17.2 35  
 in transit to site 9B

---

2005+036:00:31:22 21.675963 -89.539364 0.0 2.5 3470.45 24.41  
 Tamara 978758.7 23.4 18.8 34  
 in transit to site 9B. preparing for redeployment of LC-1

---

2005+036:00:38:25 21.68187 -89.540736 357.0 1.0 3470.8 26.21

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Tamara 978759.9 23.4 16.1 45  
LC-1 deployed, site 9B. proceeding to site 9A.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+036:01:00:07	21.719818	-89.550404	347.8	2.5	3472.97	26.51
	Tamara		978775.6	23.4	18.4	39
in transit to site 9A for retrieval						

---

2005+036:01:07:43	21.723972	-89.551446	28.0	0.7	3473.23	24.91
	Tamara		978764.4	23.4	16.4	12
DOBS 20 released, site 9A						

---

2005+036:01:10:08	21.72427	-89.551355	23.0	0.4	3473.25	25.81
	Tamara		978760.2	23.4	17.5	33
DOBS 20 on surface, site 9A						

---

2005+036:01:18:03	21.72555	-89.550303	75.7	0.8	3473.38	27.11
	Tamara		978757.0	23.4	14.1	0
DOBS 20 has been hooked, site 9A						

---

2005+036:01:20:05	21.72505	-89.550175	96.5	0.9	3473.41	25.11
	Tamara		978758.5	23.4	13.6	8
DOBS 20 on board, site 9A. moving on towards site 8B.						

---

2005+036:01:30:15	21.714298	-89.560453	230.0	9.6	3474.26	5.51
	Tamara		978803.0	23.4	13.8	24
in transit to site 8B						

---

2005+036:01:56:51	21.663365	-89.613647	261.7	2.7	3478.13	22.71
	Tamara		978797.6	23.4	15.6	2
LC-10 responding to pinging, near site 8B						

---

2005+036:01:59:57	21.663585	-89.615535	4.7	0.9	3478.23	23.71
	Tamara		978777.5	23.4	13.7	326
LC 10 released, site 8B						

---

2005+036:02:04:48	21.665411	-89.615068	20.0	1.4	3478.35	24.51
	Tamara		978754.5	23.4	16.0	31
LC-10 on the surface, site 8B						

---

2005+036:02:09:56	21.666048	-89.613803	55.5	0.7	3478.44	24.11
	Tamara		978748.0	23.4	13.5	33
LC 10 hooked, 8B						

---

2005+036:02:10:39	21.665942	-89.61376	65.3	0.9	3478.45	23.41
	Tamara		978751.2	23.4	15.9	16
LC-10 on board, site 8B. moving on to site 7B						

---

2005+036:02:30:06	21.655795	-89.655595	258.0	10.	3480.67	25.51
	Tamara		978833.0	23.3	13.8	35
in transit to site 7B						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+036:03:03:00	21.651179	-89.686701	22.8	0.2	3482.68	23.61
	Tamara		978759.8	23.3	17.8	9
LC-10 deployed, site 7B. responding to pings, moving on to site 8C.						

---

2005+036:03:31:44	21.627719	-89.623884	110.5	9.7	3486.18	22.91
	Tamara		978683.9	23.3	15.0	10
In transit to site 8C						

---

2005+036:03:59:02	21.622098	-89.604312	8.5	1.0	3487.56	22.91
	Tamara		978745.7	23.3	17.6	39
DOBS 20 deployed at site 8C						

---

2005+036:04:02:18	21.621963	-89.60489	297.5	0.9	3487.61	23.71
	Tamara		978750.4	23.3	19.4	44
moving on to site 7E for 2nd attempt at contacting DOBS #26						

---

2005+036:04:30:59	21.552826	-89.640909	206.3	10.	3491.9	19.81
	Tamara		978785.9	23.2	20.8	11
in transit to site 7E						

---

2005+036:04:44:42	21.517563	-89.662634	220.3	9.2		18.51
	Tamara		978801.3	23.2	20.8	25
We've just arrived at site 7E and are about to try pinging the instrument there (DOBS 26) once more.						

---

2005+036:05:00:08	21.516893	-89.659632	33.0	1.3	3494.91	18.51
	Tamara		978746.2	23.2	22.2	28
continuing to ping DOBS 26, near site 7E (100m)						

---

2005+036:05:30:27	21.516301	-89.657039	37.0	1.6	3495.53	17.51
	Tamara		978742.1	23.2	18.5	50
In transit to site 7E						

---

2005+036:05:33:11	21.517537	-89.656514	19.8	1.7	3495.68	18.41
	Anusha		978745.5	23.3	21.8	28
ATTEMPT TO RECOVER DOBS #26. We have just sailed right over the top of site 7E pinging to it. We hung another transducer over the side of the ship to try and ping to it as well but with no success. Now we are circling the site at 1.5 knots at a distance of 250m pinging to it from all directions.						

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2005+036:05:56:09	21.515411	-89.657826	6.3	0.6	3496.37	17.41
	Anusha		978745.4	23.2	21.3	82
We have finished circling the instrument, pinging it with no success. We are about to do another line above the top of it except this time the line will be SE to NW over it, which is						



orthogonal to our original line which was SW to NE.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+036:07:00:14 21.45889 -89.723401 170.1 10. 3503.03 15.21  
 Peggy 978737.0 23.2 19.8 27  
 Boat transfer scheduled for 07.20. Water depth = 16.5 m.

2005+036:07:30:09 21.37131 -89.708237 169.7 6.3 3507.7 20.01  
 Peggy 978723.7 23.1 14.6 36  
 Transfer expected in 10 min.

2005+036:07:51:25 21.351055 -89.704984 109.3 0.6 3508.46 18.81  
 Peggy 978731.8 23.1 14.5 31  
 Boat is alongside. Transfer of 3 people + 2 OBSs.

2005+036:08:00:08 21.35437 -89.705529 351.3 5.5 3508.7 21.71  
 Peggy 978732.1 23.1 21.9 24  
 Boat transfer finished.

2005+036:08:30:05 21.428809 -89.747658 327.8 10. 3512.78 22.21  
 keren, platypus 978780.4 23.2 18.7 41  
 waiting to get the streamer ready

2005+036:09:00:04 21.497004 -89.801351 316.5 10. 3517.83 16.81  
 keren, platypus 978805.9 23.1 15.6 32  
 waiting to start deploying the streamer

2005+036:09:18:03 21.523122 -89.828315 25.7 2.6 3520.07 20.11  
 keren, platypus 978761.2 23.2 15.6 35  
 On site for the streamer deployment

2005+036:09:30:04 21.530327 -89.82528 22.0 2.3 3520.52 19.81  
 keren, platypus 978757.7 23.2 13.6 31  
 about to begin with the streamer deployment

2005+036:09:31:07 21.530987 -89.825051 21.0 2.4 21.11  
 keren, platypus 978758.3 23.2 15.4 27  
 radio signal of the tailbouy is OK

2005+036:09:42:03 21.537808 -89.822264 24.3 3.2 3520.99 20.91  
 keren, platypus 978756.3 23.2 18.0 26  
 tailbouy on water, beginig with the streamer deployment

2005+036:10:00:05 21.55735 -89.812099 29.3 3.5 3522.21 22.61  
 keren, platypus 978749.9 23.2 15.2 31  
 four birds on water working still out of range

2005+036:10:30:11 21.588344 -89.795978 28.3 3.9 3524.14 20.71  
 keren, platypus 978757.3 23.2 16.6 50  
 12 birds on the water working good

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

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2005+036:11:00:11 21.619637 -89.780016 27.8 3.5 3526.09 24.01  
 keren, platypus 978758.9 23.2 16.3 50  
 launching of the birds stop for making some corrections on the  
 streamer. deployment continue on bird 14

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2005+036:11:30:12 21.652307 -89.763495 26.8 3.6 3528.03 26.51  
 keren, platypus 978757.7 23.1 14.0 37  
 continue with the streamer deployment, there are 18 birds on the  
 water

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2005+036:12:00:10 21.685904 -89.754429 334.5 4.2 3530.01 27.41  
 keren, platypus 978779.6 23.2 15.3 51  
 stop streamer deployment because the vessel is turning now

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2005+036:12:30:07 21.69338 -89.79456 275.0 4.2 3532.25 25.51  
 keren, platypus 978811.7 23.1 14.7 41  
 turn is completed, proceeding with streamer deployment on bird 23

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2005+036:13:00:32 21.695356 -89.837898 276.8 5.1 3534.59 30.01  
 keren, platypus 978808.0 23.2 14.0 57  
 Bird 28 in to the water

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2005+036:13:30:08 21.697362 -89.875612 277.3 5.2 3536.9 30.51  
 n/a n/a n/a TJS 978804.2 23.2 16.4 59  
 Planning to start guns at 8am. Waiting on Sean for line  
 information.

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2005+036:13:53:34 21.699623 -89.909615 277.8 4.9 3538.69 31.91  
 n/a n/a n/a Sears et al. 978808.4 23.3 11.4 66  
 New line chix25 created, shooting as we head west towards the  
 start of chix15. Ramp-up to start at 8am.

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2005+036:14:00:05 21.700192 -89.918989 278.8 5.0 3539.22 30.91  
 43 392 6 Sears et al. 978807.8 23.3 13.3 57  
 Ramp-up started. 1 gun firing at 14:01:08. First proper shot:  
 FSP: 43, FFID: 6, tape: 392

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2005+036:14:07:23 21.70115 -89.929475 278.7 4.8 3539.91 29.71  
 Anusha 978810.7 23.2 12.7 59  
 2 guns firing

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2005+036:14:11:51 21.7017 -89.935913 278.5 4.9 3540.3 30.11  
 17 34 Anusha 978810.9 23.2 15.2 63  
 4 guns now on

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2005+036:14:17:12 21.70232 -89.943774 278.1 4.8 29.91  
 88 49 51 Anusha 978813.6 23.2 11.3 61

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8 guns now on

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Area: Mexico Survey: Chicxulub Line: chicx25  
 Shot Rate: 2 Sample Rate: 50m Channels: n/a Aux. Channels: 0  
 Source: Airguns Guns: 8 Pressure: 1400 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+036:14:18:21	21.702444	-89.945447	277.0	4.5	3540.98	31.11
89 393 52	Anusha		978813.2	23.2	12.2	65
Tape change. EOT 392 (SP 88, FFID 51). BOT 393 (SP 89, FFID 52). The first 5 shots of the first tape (tape # 392) when we started the line are to be discarded						

2005+036:14:22:27	21.702867	-89.951368	278.1	5.2		30.91
106 393 69	Anusha		978811.4	23.2	12.1	57
16 guns are firing						

2005+036:14:27:02	21.703343	-89.958099	277.3	5.0	3541.52	32.51
117 393 80	Anusha		978813.5	23.2	11.9	61
All 20 guns firing - ramp up complete						

2005+036:14:30:03	21.703694	-89.96256	277.1	5.2	3541.8	32.81
393	Anusha		978813.4	23.2	11.6	59
We are currently shooting line 25 - on our way to join line 15. All the guns are firing and the streamer is looking balanced.						

2005+036:14:34:31	21.704178	-89.969126	277.0	4.8	3542.17	33.21
140 394 103	Anusha		978813.2	23.2	11.0	58
Tape change. EOT 393 (SP 139, FFID 102) BOT 394 (SP 140, FFID 103)						

2005+036:14:50:48	21.705987	-89.993387	277.1	5.4		33.31
191 395 154	Anusha		978816.8	23.2	12.5	76
Tape change. EOT 394 (SP 190, FFID 153) BOT 395 (SP 191, FFID 154)						

2005+036:15:00:18	21.707039	-90.007514	277.5	5.1	3544.33	33.11
	Anusha		978814.3	23.2	12.5	63
Shooting line 25. Everything fine. tension = 3545						

2005+036:15:07:21	21.707779	-90.017684	278.7	5.0		32.31
242 396 205	Anusha		978815.1	23.2	13.3	65
Tape change. EOT 395 (SP 241, FFID 204) BOT 396 (SP 242, FFID 205)						

2005+036:15:25:04	21.709713	-90.043115	278.3	5.1		33.01
293 397 256	Anusha		978813.9	23.2	12.2	59
Tape change. EOT 396 (SP 292, FFID 255) BOT 397 (SP 293, FFID 256)						

2005+036:15:30:08	21.710243	-90.050383	278.8	4.7	3546.84	34.11
	Anusha		978814.9	23.2	10.9	69
Shooting line chicx 25 on route to line 15. Everything excellent						

Area: Mexico Survey: Chicxulub Line: chicx25  
 Shot Rate: 2 Sample Rate: 50m Channels: n/a Aux. Channels: 0  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+036:15:42:08	21.711563	-90.067366	279.3	5.1	3548.13	32.71
344 398 307	Anusha		978814.3	23.2	14.6	54
Tape change. EOT 397 (EOT SP 343, FFID 306). BOT 398 (SP 344, FFID 307)						

2005+036:15:59:36	21.713389	-90.092375	279.0	5.3	3549.68	34.81
395 399 358	Anusha		978814.1	23.3	15.3	47
Taper change. EOT 398 (SP 394, FFID 357) BOT 399 (SP 395, FFID 358)						

2005+036:16:09:06	21.714464	-90.10605	279.3	5.0	3550.1	34.61
	Anusha		978811.3	23.3	14.2	55
In 20 min we will begin our turn to port to start line 15						

2005+036:16:16:20	21.71524	-90.116244	278.3	4.9	3550.85	34.21
446 400 409	Anusha		978812.1	23.3	13.9	63
Tape change. EOT 399 ( SP 445. FFID 408) BOT 399 (SP 446, FFID 409)						

2005+036:16:29:08	21.716522	-90.134471	275.3	5.0	3551.9	32.61
	Anusha		978811.7	23.4	10.8	55
end of line 25. Starting an OBS line.						

2005+036:16:33:06	21.71571	-90.140105	255.0	5.0	3552.17	34.91
484 400 447	Anusha		978815.2	23.4	13.7	62
End of tape 400 (corresponding to the end of the line.) FFID 447, SP 484						

2005+036:16:34:54	21.714714	-90.142493	244.7	5.1		35.11
	Anusha		978811.2	23.4	12.8	62
We are now shooting an OBS line.						

2005+036:16:52:31	21.693251	-90.152632	171.5	5.1	3553.8	35.31
	Anusha		978777.7	23.4	13.4	54
we are done turning - we are still on the OBS line but will will start the new line 15 in a couple of nautical miles						

2005+036:16:54:33	21.69035	-90.152053	170.0	5.1		33.71
	Anusha		978772.5	23.4	14.7	50
gun No 11 has been turned off.						

2005+036:16:56:21	21.687766	-90.151541	169.7	5.1		33.71
	Anusha		978770.2	23.4	12.9	49
gun 11 was turned off as it was tangled during the turn						

2005+036:16:59:54	21.682711	-90.150745	172.0	4.9	3554.38	33.31
	Anusha		978769.8	23.4	12.9	50

gun 11 is back on

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Area: Mexico Survey: Chicxulub Line: OBS  
Shot Rate: 2 Sample Rate: 50m Channels: n/a Aux. Channels: 0  
Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+036:17:17:18	21.659052	-90.146995	169.8	5.0	3555.96	32.21
177 401 4	Anusha		978766.1	23.5	15.5	50
Ended OBS line and started line 15. The first real shot is file 4, Shot 177 tape 401 The first 3 shots need to be deleted as the guns did not fire.						

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2005+036:17:26:27	21.646752	-90.144292	168.7	4.8		31.61
200 401 27	Anusha		978762.9	23.5	12.5	44
start of actual line 15 coordinates (the run in has ended)						

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2005+036:17:34:45	21.635547	-90.141848	169.3	5.0	3557.39	32.11
225 402 52	Anusha		978762.8	23.5	11.9	51
Tape change. EOT 401 (SP 224, FFID 51) BOT 402 (SP 225, FFID 52)						

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2005+036:17:51:25	21.612757	-90.137114	168.3	4.4	3558.58	28.11
276 403 103	Anusha		978761.0	23.5	14.9	51
Tape change. EOT 402 (SP 102, FFID 275) BOT 403 (SP 276, FFID 103)						

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2005+036:17:53:38	21.609699	-90.136472	168.3	3.5		28.41
	Anusha		978761.7	23.5	11.8	48
Due to tape cycle tests done whilst deploying the OBSs, we have skipped tape numbers from 330 (the last tape of R7 on the 1st deployment) to 392 (the 1st tape of line 25 on the 2nd deployment of OBSs). Therefore no tapes with numbers 331-391 exist.						

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2005+036:18:00:09	21.60076	-90.134589	169.1	4.0	2559.09	27.81
305 403 132	Peggy		978759.1	23.5	12.8	55

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2005+036:18:07:10	21.591143	-90.132564	168.1	4.0	3559.52	26.41
327 404 154	Peggy		978757.4	23.4	11.5	60
EOT 403: 326/153. SOT 404: 327/154. Wind speed 1.5h average = 13.5. ST = 3300.						

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2005+036:18:24:19	21.567657	-90.127615	169.0	4.4	3560.69	26.11
378 405 205	Peggy		978752.5	23.4	12.4	58
EOT 404: 377/204. SOT 405: 378/205. Label computer was stuck.						

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2005+036:18:40:49	21.545046	-90.122869	168.8	4.2	3561.8	24.51
429 406 256	Peggy		978748.8	23.4	13.6	59
EOT 405: 428/255. SOT 406: 429/256.						

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2005+036:18:57:20	21.522482	-90.118158	167.7	3.9	3562.99	24.41
480 407 307	Peggy		978744.8	23.4	13.4	55
EOT 406: 479/306. SOT 407: 480/307. ST = 3300. Streamer well balanced at 7m depth, apart from birds 27-28. Wind speed 1.5h						

average = 13.0.

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Area: Mexico Survey: Chicxulub Line: Chix15  
 Shot Rate: 2 Sample Rate: 50m Channels: 480 Aux. Channels: 0  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 1800

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+036:19:13:41	21.500583	-90.11354	167.3	4.0	3563.99	22.01
531 408 358	Peggy		978741.0	23.3	13.1	65
EOT 407: 530/357. SOT 408: 531/358.						

2005+036:19:30:17	21.478127	-90.108826	166.7	4.7	3565.14	21.01
582 408 409	Peggy		978739.8	23.4	13.4	56
EOT 408: 581/408. SOT 409: 582/409. ST = 3200. Streamer well balanced at 7m. Wind speed 1.5h average = 13.3.						

2005+036:19:47:08	21.455253	-90.104	167.1	4.5	3566.43	20.91
633 410 460	Peggy		978735.5	23.3	14.4	66
EOT 409: 632/459. SOT 410: 633/460.						

2005+036:20:00:23	21.437209	-90.100202	167.0	5.0	3567.42	19.51
674 410 501	keren		978731.5	23.4	14.7	58
streamer tension 3300-3500, birds # 27 and 28 out of the 7m depth range						

2005+036:20:04:06	21.432164	-90.099152	166.3	4.9	3567.73	17.61
684 411 511	keren		978731.4	23.4	14.2	59
EOT 410: 683/510 SOT 411: 684/ 511						

2005+036:20:20:18	21.41022	-90.094575	165.7	4.8	3569.1	18.11
735 412 562	Peggy		978727.8	23.3	18.7	61
EOT 411: 734/561. SOT 412: 735/562. ST = 3300. Streamer well balanced at 7m depth.						

2005+036:20:30:07	21.396954	-90.09174	165.3	4.6	3569.97	17.41
765 412 592	eliza		978725.6	23.3	16.5	59
streamer tension 3200 to 3400, bird 28 out of depth range						

2005+036:20:37:31	21.386926	-90.089639	165.1	4.7	3570.52	17.11
786 413 613	keren		978724.7	23.3	17.8	59
EOT 412:785/612 SOT 413:786/613						

2005+036:20:54:16	21.364147	-90.084872	165.3	4.9	3571.95	15.11
837 414 664	eliza		978721.9	23.3	17.5	50
EOT 413: 836/663. SOT 414: 837/664. wind speed 1.5hr average = 16.0. Streamer tension = 3300. Streamer well balanced at 7m depth.						

2005+036:21:10:19	21.342334	-90.080287	164.7	4.9		23.91
888 415 715	eliza		978720.2	23.3	17.0	58
3 guns being pulled in for the turn. EOT 414: 887/714.						

2005+036:21:12:21	21.339571	-90.079709	165.5	4.9	3573.44	24.61
893 415 720	Peggy		978720.1	23.3	16.9	57
End of line Chix15. Start of OBS line. Streamer set to go to 4m						

because depth is very shallow. Guns 11-12-13 taken out due to  
turning to port. Last shot = 893.

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Area: Mexico	Survey: Chicxulub	Line: OBS
Shot Rate: 20s	Sample Rate:	Channels:
Source: Airguns	Guns: 17	Pressure: 5647
		Aux. Channels:
		Volume: 1800

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+036:21:30:02	21.322676	-90.06324	89.8	4.1	3574.76	20.61
253	Peggy		978691.2	23.2	17.7	72
Turning onto line 26. Streamer bubbling. Wind speed 1.5h average = 16.8.						

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2005+036:21:32:31	21.322884	-90.059417	78.3	4.6	3574.96	24.01
258	Peggy		978688.3	23.2	16.9	62
Switched to shot rate of 60 seconds. Depth = 15.5m.						

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2005+036:21:36:10	21.324749	-90.054034	60.1	4.7	3575.25	23.71
204	Peggy		978689.7	23.2	19.3	62
Shutdown due to weather: wind speed 1.5h average = 7.0. Depth = 15.6. Line OBS60 has shots 201-204.						

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2005+036:21:41:17	21.33012	-90.048082	36.1	4.7	3575.61	24.21
	Peggy		978694.9	23.2	18.6	62
Finished turning. Streamer very bubbly, with end nearly at the surface. Depth = 15.5m.						

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2005+036:21:44:13	21.333763	-90.04552	37.5	4.4		22.71
	Peggy		978703.0	23.2	16.0	59
Line OBS has shot numbers 1 to 258.						

---

2005+036:21:46:14	21.33605	-90.043805	38.5	4.3		21.91
	Peggy		978705.0	23.2	19.3	58
We are speeding up the ship and setting the birds back to 7m depth in order to get the streamer down.						

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2005+036:21:56:02	21.347891	-90.034442	39.8	5.2	3576.83	24.21
	Peggy		978703.3	23.2	19.8	59
Speed = 5.4. We are slowing down the ship again to survey speed.						

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2005+036:22:00:02	21.352559	-90.030846	39.3	4.8	3577.15	17.41
	Peggy		978705.5	23.2	15.6	67
Streamer slowly coming back to 7 m. Still a bubble towards the end. ST = 3800. Depth = 15.6m. Wind speed 1.5h average = 17.6 and still increasing.						

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2005+036:22:06:24	21.359901	-90.025138	39.3	5.0	3577	16.41
	Penny		978706.5	23.2	18.7	62
Centre point depth running ok again`n now - was on multiple at end of line 15 (depth should have been around 15m, not 28						

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2005+036:22:30:14	21.387259	-90.004108	39.0	4.9	3579.69	16.81
	Gabrielle		978707.3	23.2	19.5	67
streamer tension is 3590, wind speed is 18						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+036:22:56:03	21.416433	-89.981549	38.7	5.0	3581.82	15.81
	Gabrielle		978710.8	23.2	19.0	71
turning to port and heading N. no more shooting today.						

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2005+036:23:00:30	21.4221	-89.978943	17.0	4.8	3582.18	17.21
	Tamara		978715.4	23.2	17.8	88
avg wind 18.5, streamer tension ~3300, streamer looks fine						

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2005+036:23:30:19	21.462413	-89.987398	355.5	5.0	3584.64	17.81
	Gabrielle		978750.0	23.2	18.2	62
avg wind speed is 18.2, tension is 3646, turning to 348 dg, streamer looks fine						

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2005+037:00:00:59	21.505222	-89.996271	355.3	4.9	3587.17	20.21
	Tamara				23.2	17.2 76
streamer tension ~3600, average wind speed 18.2						

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2005+037:00:19:44	21.531292	-90.00137	355.3	4.4	3588.58	24.21
	Tamara		978761.4	23.2	18.4	69
we are about to start a "test turn" to observe how the streamer behaves. Birds at 7m						

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2005+037:00:30:22	21.542967	-90.009786	304.0	4.8	3589.35	25.11
	Tamara		978779.6	23.2	14.5	73
we are still in test turn, streamer tension is 3023, depth is 26 and w. speed is around 15 knots						

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2005+037:01:00:11	21.521248	-90.035714	160.3	4.3	3591.56	22.81
	Gabrielle		978748.0	23.3	17.5	71
we finished the turn test and the streamer looks fine.						

---

2005+037:01:06:39	21.512538	-90.032994	159.8	4.6	3592.06	23.71
	Gabrielle		978740.3	23.2	19.4	76
Have just completed a 180 degree turn in last 40 minutes, in order to test streamer behaviour. Earlier in day streamer dipped alarmingly when we turned and there was concern it might hit bottom at south end of NS lines. Earlier tried steaming turn at 4m streamer depth but seemed quite unstable. This time kept it at 7m and it behaved perfectly, staying in the green throughout. This was with wind behind next trying again turning into wind.						

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2005+037:01:30:08	21.480495	-90.025857	164.5	4.6	3593.88	21.51
	Gabrielle		978738.7	23.2	15.1	75
tension ~ 3476, w speed average 16.9, streamer looks fine						

---

2005+037:02:00:06	21.439352	-90.017361	165.1	4.9	3596.34	18.61
	Manuel		978732.6	23.2	19.4	63

---

streamer tension ~3400, average wind speed 17 knots

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+037:02:02:07	21.436658	-90.01658	154.3	4.7		17.51
	Manuel		978731.5	23.2	19.7	72
Starting second experimental turn, this time to east.						

---

2005+037:02:30:22	21.438627	-89.986153	14.5	5.3	3598.88	18.11
	Manuel		978721.0	23.2	18.0	71
We are still in test run, streamer tension ~2800, average wind speed 18.4						

---

2005+037:03:00:09	21.479797	-89.997	358.7	5.1	3601.29	19.31
	Matthew		978753.6	23.2	20.3	67
Tension = 3266. Streamer looks pretty good. The birds close to the ship are above the target depth of 8.0 m.						

---

2005+037:03:30:11	21.520774	-90.006154	355.3	4.9	3603.69	22.11
	Matthew		978758.6	23.2	21.3	64
Tension = 3199. Streamer good.						

---

2005+037:04:00:16	21.561861	-90.015769	354.8	4.5	3605.97	23.41
	Matthew		978766.6	23.2	19.8	70
tension = 3364, streamer looks good.						

---

2005+037:04:30:33	21.602867	-90.025378	354.1	4.6	3608.3	26.61
	Matthew		978772.2	23.2	21.0	79
streamer tension ~3300, average wind speed 20.8, streamer line is good						

---

2005+037:05:00:59	21.644312	-90.035183	353.5	4.4	3610.64	27.61
	Matt		978779.5	23.3	17.2	88
tension = 3479, streamer good.						

---

2005+037:05:30:07	21.684321	-90.044355	356.7	4.9		29.01
	Anusha		978783.1	23.3	17.0	80
streamer tension = 3371. Streamer looks fine. No shooting as it's night time						

---

2005+037:06:00:02	21.725598	-90.051602	356.0	4.9	3615.41	34.21
	Peggy		978788.2	23.3	18.6	76
ST = 3200. Streamer well balanced at 7m depth. Wind speed 1.5h average = 18.8.						

---

2005+037:06:30:11	21.758536	-90.07203	275.0	5.4	3617.91	35.71
	Peggy		978817.6	23.4	20.0	79
ST = 3400. Streamer well balanced at 7m depth. Wind speed 1.5h average = 18.3.						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+037:07:00:12 21.751677 -90.116463 255.1 4.9 3620.56 36.41  
Peggy 978814.9 23.4 17.1 88  
ST = 3400. Streamer is well balanced at 7m depth. Wind speed 1.5h  
average = 18.3.

---

2005+037:07:30:16 21.715619 -90.124714 165.1 5.2 3623.09 35.01  
Peggy 978769.9 23.4 17.9 70  
ST = 3600. Streamer slightly shallow close to the ship Wind speed  
1.5h average = 17.8.

---

2005+037:08:00:53 21.673047 -90.115082 166.0 5.1 3625.76 30.01  
keren 978767.1 23.5 16.7 76  
streamer tension 3800-3900. Birds # 28, 27, 25 out of 7m depth  
range, wind speed average: 17.3

---

2005+037:08:30:14 21.632267 -90.105909 165.8 5.1 3628.24 29.01  
Peggy 978764.5 23.4 14.8 83  
ST = 3700. Streamer well balanced at 7m. Wind speed 1.5h average =  
16.7.

---

2005+037:09:00:07 21.590421 -90.096555 166.0 4.4 3630.64 25.51  
Peggy 978756.2 23.3 14.1 87  
ST = 3600. Streamer well balanced at 7m depth. Wind speed 1.5h  
average = 15.2.

---

2005+037:09:30:09 21.548421 -90.087068 165.0 4.9 3632.93 24.31  
Peggy 978748.3 23.3 13.5 96  
ST = 3600. Streamer well at 7m depth. Wind speed 1.5h average =  
15.6.

---

2005+037:10:00:08 21.506716 -90.077751 164.3 4.6 3635.18 21.11  
Peggy 978742.0 23.2 15.4 104  
ST = 3500. Streamer well balanced at 7m depth. Wind speed 1.5h  
average = 14.2. Watch standers change.

---

2005+037:10:30:10 21.465812 -90.068551 164.3 5.0 3637.61 19.01  
Gabrielle 978735.6 23.2 14.4 95  
ST 3500. w a. 15, streamer well balanced at 7 m d.

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2005+037:11:05:19 21.41816 -90.057863 162.3 5.1 3640.48 16.91  
Tamara 978726.8 23.1 14.6 91  
streamer tensoin 3400, streamer ok, average wind speed 14.6

---

2005+037:11:30:08 21.384788 -90.050323 162.1 4.8 3642.49 15.61  
Tamara 978722.9 23.0 16.0 98  
streamer tension 3200, average wind 15.5

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+037:12:00:20	21.343655	-90.041184	161.0	4.4	3644.95	26.91
	Gabrielle		978718.5	23.0	19.8	87
Streamer tension is 3281, average wind is 16.3						

---

2005+037:12:03:57	21.338685	-90.040043	159.1	4.2	3645.21	20.91
	Gabrielle		978717.8	23.0	15.9	88
starting turn...						

---

2005+037:12:29:01	21.332659	-90.010493	45.3	4.2	3646.86	22.21
	Tamara		978694.3	22.9	21.3	101
average wind speed currently too high. beauford 5. keeping an eye out....						

---

2005+037:13:00:16	21.374864	-90.010724	357.7	4.7	3649.15	15.31
	Tamara		978734.1	23.0	18.5	107
streamer tension ~3400, streamer ok. waiting on wind to begin shooting. average wind speed 17.4, but dropping						

---

2005+037:13:23:01	21.404728	-90.017048	357.7	4.7	3650.97	15.71
219 416 1	Tamara		978738.1	23.0	13.6	106
start of ramp-up. 1 gun firing. SOT 416. Problem with files not showing a shot number. We may have missed shot 224 (because we disabled and reenabled to try to fix the problem)... trying to fix problem						

---

2005+037:13:28:00	21.41116	-90.018382	358.5	4.6	3651.35	16.61
	Tamara		978739.7	23.0	15.0	100
the problem is none of these shots have a NAV HEADER						

---

2005+037:13:29:09	21.412663	-90.018669	357.8	4.9	3651.46	16.81
237 416 18	Tamara		978738.7	23.0	16.2	89
2 guns firing. SHot 237/FFID 18 has a nearly complete nav header. Starting at shot 238/FFID 19 all shots have complete nav header.						

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2005+037:13:33:33	21.418476	-90.019889	356.8	4.8	3651.8	16.51
252 416 33	Tamara		978739.7	23.0	14.4	113

---

2005+037:13:38:23	21.425193	-90.021254	356.0	5.0	3652.21	16.81
267 416 48	Tamara		978756.3	23.0	13.1	112
8 guns firing						

---

2005+037:13:39:54	21.427291	-90.021709	355.7	5.2	3652.32	16.51
271 417 52	Tamara		978741.4	23.0	13.6	101
EOT 416: 270/51 SOT 417: 271/52 note: 19 is first file with complete nav header						

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Area: Mexico Survey: Chicxulub Line: chicx16  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 8 Pressure: 1400 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+037:13:43:28	21.432115	-90.022792	356.7	5.0	3652.63	15.81
283 417 64	Tamara		978743.1	23.0	14.2	102
16 guns firing.						

2005+037:13:48:49	21.439411	-90.024332	356.1	4.9	3653.08	17.51
299 417 80	Tamara		978744.0	23.0	14.6	86
20 guns firing. end of ramp-up.						

2005+037:13:56:45	21.450129	-90.026548	356.5	4.9	3653.72	18.81
291 418 321	Tamara		978743.5	23.0	15.1	112
EOT 417: 290/320 SOT 418: 291/321						

2005+037:14:00:04	21.454577	-90.027494	357.0	4.7	2653.99	17.71
334 418	Tamara		978746.0	23.1	13.6	105
streamer tension ~3300, streamer ok, average wind speed 14.9. change of watch.						

2005+037:14:13:36	21.471953	-90.031183	357.3	4.5	3655.44	20.41
373 419 154	Anusha		978749.1	23.1	12.1	97
Tape change. EOT 418 (SP 372, FFID 153) BOT 419 (SP 373, FFID 154)						

2005+037:14:30:11	21.493508	-90.035678	356.3	4.5	3656.25	19.51
205 420 424	Manuel		978753.3	23.1	13.8	99
streamer ~3200. Tape change. EOT 419 (sp 204, FFID 423) BOT 420 (SP 205, FFID 424)						

2005+037:14:48:39	21.517908	-90.040779	356.3	4.2	3657.7	21.81
256 421 475	Anusha		978756.8	23.1	15.3	105
Tape change. EOT 420 (SP 255, FFID 474). BOT 421 (SP 256, FFID 475)						

2005+037:15:00:13	21.532867	-90.043925	355.3	3.7	3658.38	24.01
	Anusha		978759.0	23.2	15.9	100
streamer tension ~3300, average wind speed 15.2 knots						

2005+037:15:06:12	21.540719	-90.045546	355.0	4.2	3658.88	23.81
526 422 307	Anusha		978759.6	23.2	16.2	101
Tape change. EOT 421 (SP 525, FFID 306) BOT 422 (SP 526, FFID 307)						

2005+037:15:22:53	21.562387	-90.050174	355.5	3.7	3659.79	24.41
	Matt		978764.0	23.2	12.4	106
end tape: 422 shots: 526-576 files: 307-357						

2005+037:15:30:06	21.571937	-90.052101	355.0	4.0	3660.34	24.21
	Manuel		978765.0	23.2	17.4	99

Streamer tension ~3300, average wind speed 14.7, average depht  
25.7

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Area: Mexico Survey: Chicxulub Line: chicx16  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+037:15:40:01	21.584969	-90.054905	356.0	4.0	3660.94	24.91
	Matt		978767.2	23.3	13.2	100
End tape: 423 Shots: 577-627 Files: 358-408						

---

2005+037:15:57:22	21.60756	-90.059616	355.1	4.0	3662.13	25.91
	Matt		978772.7	23.3	15.6	100
End tape 424. Shots: 628-678 Files: 409-459						

---

2005+037:16:00:03	21.611076	-90.060356	355.1	3.8	3662.3	28.11
	Matt		978772.5	23.3	16.8	103
Tension = 3265. Streamer looks good.						

---

2005+037:16:14:59	21.630715	-90.064485	354.5	3.8	3663.39	26.51
	Matt		978775.5	23.4	16.5	99
End tape 425. Shots: 679-729 Files: 460-510						

---

2005+037:16:30:03	21.650164	-90.068623	355.5	4.6	3664.52	29.51
	Matt		978778.5	23.4	14.5	102
tension = 3142. Streamer good.						

---

2005+037:16:32:35	21.653371	-90.069285	355.7	4.7	3664.73	30.01
	Matt		978779.0	23.4	16.8	106
End tape 426. Shots: 730-780 Files: 511-561						

---

2005+037:16:36:59	21.659114	-90.070406	355.5	4.8	3665.1	5.51
	Matt		978778.2	23.4	15.2	105
Guns 9 and 10 off for turn. Line Chicx 16 done. Starting obs line.						

---

2005+037:16:39:22	21.662203	-90.071005	355.5	4.8	3665.4	29.01
202	Matt		978778.6	23.4	13.2	84
Started the OBS line as we're turning. 1st shot no. on the OBS line is 202.						

---

2005+037:16:43:52	21.668098	-90.071289	14.7	4.6		30.11
	Matt		978778.7	23.4	16.8	87
We're now missing guns 8, 9 and 10 on the turn. The 17 guns remaining have a volume of 5747 cu in						

---

2005+037:17:00:05	21.687053	-90.059411	38.8	5.1	3667.19	31.91
	Anusha		978757.7	23.4	17.9	102
We're currently shooting an OBS line as we're turning so the streamer is not recording. The streamer is bubbling a fair bit - we're contemplating asking the bridge to slow down as parts are quite high.						

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2005+037:17:27:38	21.717954	-90.036238	47.8	4.6	3669.45	34.11
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347                      Anusha                      978761.2 23.3 18.7 90  
Shut down due to weather. Last shot = obs 347

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Area: Mexico Survey: Chicxulub Line: chicx16  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 17 Pressure: 5747 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+037:17:30:07	21.720033	-90.033507	60.1	4.6	3669.52	33.81
	Matt		978759.7	23.3	19.1	82
tension =3160. streamer good.						

---

2005+037:17:54:57	21.706408	-90.005629	164.7	4.8	3671.65	32.91
	Anusha		978768.6	23.3	18.4	77
We have completed our turn to starboard						

---

2005+037:18:00:04	21.699172	-90.004092	164.0	5.0	3672.12	32.91
	Anusha		978772.8	23.3	17.7	82
Not shooting due to a weather shutdown. Have reached the run in fr our next line but for no avail....						

---

2005+037:18:30:02	21.657706	-89.994834	162.5	3.4	3674.37	26.01
	Peggy		978768.5	23.3	16.0	76
ST = 2900. Streamer well balanced at 7m depth, except for part close to ship. Wind speed 1.5h average = 17.5.						

---

2005+037:18:54:18	21.626016	-89.987694	163.5	3.9	3675.92	26.11
	Peggy		978764.0	23.3	16.8	74
We were going to start becayuse the weather was ok, but a turtle was sighted, so we have to wait 25 min to ramp up.						

---

2005+037:19:00:08	21.618129	-89.986096	162.3	3.9	3676.3	24.81
	Peggy		978763.2	23.3	16.6	69
ST = 3100. Streamer well balanced at 7m depth. Guns at pressure 2000 ready for ramp up. 22 min to ramp up instead of 25 because we are going at 5 knots instead of 4.5. Wind speed 1.5h average = 16.9.						

---

2005+037:19:16:25	21.595716	-89.981391	162.8	3.7	3677.45	24.91
390 428 4	Peggy		978759.2	23.3	16.7	68
1 gun firing. first 3 shuts are bad. First real shot = 390						

---

2005+037:19:21:39	21.588628	-89.979914	162.3	4.0	3677.71	25.61
402 428 16	Peggy		978759.2	23.2	16.4	63
2 guns firing						

---

2005+037:19:26:33	21.58201	-89.978491	162.5	4.1	3678.05	24.51
418 428 32	Peggy		978758.0	23.2	13.9	64
4 guns firing						

---

2005+037:19:31:59	21.574689	-89.976943	162.1	4.0	3678.4	24.41
433 428 47	Peggy		978756.3	23.2	17.4	64
ST = 3000. Streamer well balanced at 7m depth. Wind speed 1.5h average = 16.5.						

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Area: Mexico Survey: Chicxulub Line: Chicx17  
 Shot Rate: 2 Sample Rate: 50m Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 8 Pressure: 1400 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+037:19:33:36	21.572513	-89.976483	162.0	4.0	3678.49	24.21
438 429 52	Peggy		978756.7	23.2	16.5	63
EOT 428: 437/51. SOT 429: 438/52.						

2005+037:19:36:34	21.568522	-89.975646	161.5	3.8	3678.72	24.71
448 429 62	Peggy		978755.6	23.2	16.9	63
16 guns firing						

2005+037:19:41:57	21.561196	-89.974079	162.3	4.4	3679.12	23.91
463 429 77	Peggy		978754.1	23.2	16.9	61
20 guns on. 2 guns did not fire for first 1-2 shots						

2005+037:19:50:42	21.549254	-89.971582	162.8	4.2	3679.65	25.21
489 430 103	keren		978736.9	23.2	15.3	53
EOT 429:488/102 SOT 430:489/103						

2005+037:20:00:13	21.536307	-89.968872	162.3	3.9	3680.27	25.81
522 430 136	eliza		978750.8	23.2	15.0	48
streamer tension =3200. streamer well balanced at 7m depth. Wind speed = 16.4						

2005+037:20:07:22	21.526516	-89.966804	162.1	4.1	3680.8	22.01
540 431 154	Peggy		978748.0	23.2	16.7	56
EOT 430: 539/153. SOT 431: 540/154.						

2005+037:20:23:52	21.504016	-89.962137	161.7	5.0	3682.09	19.41
591 432 205	keren		978745.4	23.2	16.5	43
EOT 431: 590/204 SOT 432:591/205						

2005+037:20:30:07	21.495642	-89.960366	161.7	4.9	3682.58	17.21
612 432 226	keren		978742.7	23.2	14.0	56
Streamer tension 3000-3100, bird #28 out of 7m depth range.						

2005+037:20:40:39	21.48105	-89.957232	162.1	4.8	3683.48	17.71
642 433 256	keren		978739.0	23.2	18.1	48
EOT 432:641/255 SOT 433:642/256						

2005+037:20:52:07	21.465704	-89.95409	161.1	4.8	3684.45	17.91
680 433 294	keren		978735.4	23.2	19.8	54
Shut down due to the weather						

2005+037:21:00:05	21.455021	-89.951787	161.8	4.9	3685.02	18.61
	keren		978732.2	23.1	19.8	49
waiting for the wind speed to slow down						

2005+037:21:17:28	21.43114	-89.946713	157.7	5.0	3686.5	15.91
	keren		978723.6	23.1	17.1	53



starting a turn

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+037:21:30:03	21.419583	-89.934006	95.0	5.1	3687.52	17.01
	Peggy		978696.4	23.1	20.3	67
ST = 3300. Streamer a bit shallower close to the ship. Wind speed 1.5h average = 18.4.						

---

2005+037:22:00:14	21.425521	-89.889895	74.8	4.9	3690.0	15.91
	Peggy		978689.9	23.1	22.6	61
ST = 3700. Streamer well balanced at 7m depth. Wind speed 1.5h average = 19.6. Depth = 17.3m. Watch standers change.						

---

2005+037:22:30:09	21.459165	-89.876268	3.5	5.0	3692.49	16.61
	Tamara		978736.6	23.1	22.9	54
streamer tension 3200, wind speed 20.7. shutdown on both seismic and bbq fronts. boohoo.						

---

2005+037:23:00:05	21.499745	-89.884546	2.0	4.6	3694.95	18.81
	Tamara		978754.3	23.2	18.7	64
streamer tension ~3300, wind 21.7. we've finished turning and streamer looks fine.						

---

2005+037:23:30:19	21.539901	-89.892902	1.3	3.9	3697.18	23.41
	Gabrielle		978765.8	23.2	21.7	69
s.t. 3242, wind speed is around 23 knots and the streamer looks fine.						

---

2005+038:00:00:12	21.580871	-89.901506	0.5	4.4	3699.25	23.31
	Gabrielle				23.2	27.6 76
s.t. is 3363. w speed is ~23, streamer looks fine						

---

2005+038:00:30:11	21.620156	-89.900956	60.7	4.8	3701.43	22.01
	Gabrielle		978751.1	23.2	29.7	67
streamer tension 3700. The ship is turning, first half of the streamer is riding shallow.						

---

2005+038:01:00:12	21.629475	-89.857392	79.1	5.0	3703.77	25.31
	Gabrielle		978737.5	23.2	22.3	55
streamer tension ~4000. we've finished turning and streamer is improving. Birds 3-7 too deep.						

---

2005+038:01:30:07	21.636859	-89.81368	77.7	4.4	3706.13	25.51
	Tamara		978740.5	23.2	25.2	66
streamer tension ~3600. streamer looking fine! half-time at the superbowl...						

---

2005+038:02:00:10	21.644914	-89.771045	79.1	4.1	3708.38	27.41
	Tamara		978739.2	23.2	24.0	72
streamer tension ~3300. change of watch.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+038:02:30:10	21.652299	-89.731996	78.5	4.6	3710.53	26.21
	Anusha		978735.1	23.1	25.9	73
Streamer is looking fine. All shut down for the night. tension is 3298.						

---

2005+038:03:00:10	21.659916	-89.691885	80.1	4.4	3712.79	26.31
	Anusha		978728.8	23.2	23.6	82
streamer tension = 3634.						

---

2005+038:03:30:17	21.667611	-89.650774	79.7	4.7	3715.06	24.81
	Anusha		978727.3	23.2	25.2	85
The streamer is well balanced and tension = 3758						

---

2005+038:04:00:16	21.67522	-89.610602	80.0	3.6	3717.23	23.91
	Anusha		978726.5	23.3	22.0	97
streamer is looking fine - tension is 2984						

---

2005+038:04:30:12	21.682684	-89.571184	80.7	3.9	3719.27	27.41
	matt		978724.9	23.3	25.4	98
Tension = 3513, streamer satisfactory						

---

2005+038:04:31:00	21.682892	-89.570098	80.7	4.5	3721.46	26.11
	matt		978725.4	23.3	24.6	93
Streamer generally balanced. tension = 3080						

---

2005+038:05:30:07	21.696873	-89.495703	83.3	4.1	3723.54	24.01
	matt		978725.9	23.2	26.3	107
streamer is fine. Tension = 3335						

---

2005+038:05:44:13	21.700434	-89.476884	84.7	4.2	3724.56	26.51
	Anusha		978727.3	23.2	26.8	108
We will be turning to port in 4 minutes						

---

2005+038:06:00:06	21.711812	-89.460424	37.3	4.6	3725.68	24.61
	Peggy		978739.6	23.2	25.8	116
ST = 4000. Streamer well balanced at 7m depth. Wind speed 1.5h average = 25.7. Still turning to port. Watch standers change.						

---

2005+038:06:30:08	21.741883	-89.484522	260.5	4.7	3728.06	25.51
	Peggy		978798.3	23.2	22.9	128
ST = 3000. Streamer well balanced at 7m depth. Wind speed 1.5h average = 24.8.						

---

2005+038:07:00:26	21.729256	-89.531879	250.3	4.2	3730.38	26.11
	Peggy		978795.3	23.2	23.9	110
ST = 3700. Streamer well balanced at 7m depth. Wind speed 1.5h average = 23.4.						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+038:07:30:09 21.719477 -89.577966 253.1 4.3 3732.57 26.51  
Peggy 978797.7 23.3 23.1 113  
ST = 3400. Streamer well balanced at 7m depth. Wind speed 1.5h  
average = 22.5.

---

2005+038:08:00:09 21.710545 -89.624861 256.3 4.9 3734.92 27.21  
Peggy 978798.1 23.3 20.6 110  
wind speed average: 22, birds # 26-28 out of depth range,  
streamer tension 3400-3500

---

2005+038:09:01:13 21.692818 -89.719741 254.8 4.3 3739.73 26.51  
keren 978800.8 23.1 17.7 119  
streamer tension 3400-3500, birds #27 & 28 out of depth range,  
wind speed average 20.1

---

2005+038:09:30:10 21.68412 -89.766322 256.0 4.7 3741.98 28.21  
keren 978808.8 23.1 16.3 118  
wind speed average:19 knots, birds #27 and 28 out of depth range,  
streamer tension 3600-3650

---

2005+038:10:00:02 21.675094 -89.813597 256.0 4.8 3744.46 29.91  
keren 978811.0 23.1 19.8 112  
wind speed average:18.3 , streamer tension 3800-3900.

---

2005+038:10:30:14 21.666253 -89.860991 255.8 4.4 3746.88 25.91  
keren 978810.3 23.1 18.8 107  
wind speed average is 18, streamer tension is ~3500

---

2005+038:11:00:17 21.657739 -89.906321 255.8 4.7 3749.16 27.31  
Gabrielle 978807.3 23.1 18.5 111  
Streamer tension is ~3100, win speed av. is 19

---

2005+038:11:30:14 21.649547 -89.950221 255.7 4.4 3751.32 26.31  
Gabrielle 978807.8 23.1 17.8 118  
Streamer tension ~3000, wind speed average 17

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2005+038:11:43:24 21.645911 -89.969426 259.3 4.3 3752.25 26.21  
Tamara 978807.7 23.1 18.5 109  
starting turn to the left

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2005+038:12:00:11 21.633221 -89.988508 194.5 4.4 3753.53 21.61  
Tamara 978791.9 23.1 16.6 106  
streamer tension ~2600, average wind 18.0. Still turning  
(streamer looks ok).

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+038:12:30:11	21.592888	-89.980702	162.3	4.0	3755.69	23.71
	Gabrielle		978758.5	23.0	16.8	112
We finished turning in to line 17, streamer tension is ~3500, and looks fine, wind average is 18.6, so we hope it will improve to start shooting						

---

2005+038:13:00:17	21.555642	-89.972962	159.1	3.6	3757.56	24.21
	Gabrielle		978755.2	23.1	17.8	107
we still waiting...streamer tension is ~2600 w. speed average is 17						

---

2005+038:13:30:10	21.520243	-89.965531	159.7	4.0	3759.44	21.11
	Tamara		978750.0	23.1	16.1	96
streamer tension ~2500, average wind 17.3. waiting on wind... if we can't shoot in the next 15 minutes, we'll miss the drill site...						

---

2005+038:13:50:52	21.496263	-89.960511	159.0	4.2	3760.9	16.41
611 434 2	Tamara		978745.0	23.0	18.6	107
Ramp-up started. First shot at 13:51:05, 1 gun firing. 90min average at 16.9						

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2005+038:13:53:43	21.493002	-89.959851	159.3	4.2	3761.13	15.41
620 434 11	Tamara		978743.4	23.0	19.3	100
Gun stopped firing. Sean investigating // Re-started, first good SP at 620, FFID 11.						

---

2005+038:13:58:33	21.487478	-89.958665	159.0	4.2	3761.44	16.81
629 434 20	Tamara		978742.1	23.0	16.2	102
2 guns firing. guns 1, 5. Ramp-up gun order will be different than normal because not all guns in teh water yet. Average wind 16.9.						

---

2005+038:14:02:21	21.483145	-89.957708	159.3	4.0	3761.73	16.61
	Anusha		978741.8	23.0	15.5	103
The captain says we can sail right to the end of the line.						

---

2005+038:14:04:07	21.481125	-89.957283	159.7	4.3	3761.83	16.51
644 35	Anusha		978740.4	23.0	16.4	104
4 guns firing						

---

2005+038:14:11:06	21.473129	-89.955668	158.8	4.0	3762.47	17.91
661 435 52	Anusha		978739.0	23.0	19.4	104
Tape change. EOT 434 (SP 660, FFID 51) BOT 435 (SP 661, FFID 52). 14 guns are now firing (missing 6, 8,9,10,13,15)						

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Area: Mexico Survey: Chicxulub Line: 2000  
Shot Rate: 50m Sample Rate: 2 Channels: 480 Aux. Channels: ch  
Source: Airguns Guns: 14 Pressure: 225 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+038:14:22:18	21.459974	-89.952775	159.8	5.1		17.11
	Anusha		978733.8	23.0	20.5	103
All but the 3 starboard guns are now firing (they are out for the turn. We are coming up to 5 knots now. Th wind is borderline 16.9-17.0.....						

---

2005+038:14:25:47	21.455276	-89.951778	160.5	4.9		17.61
	Anusha		978731.4	23.0	19.3	106
shut down due to wind going above 17.0 knots						

---

2005+038:14:28:56	21.450984	-89.950898	161.0	4.9	3763.72	17.41
	Anusha		978730.2	23.0	15.6	104
we have at least 1 blank shot on tape tape 435. we are currently right above the drill site.						

---

2005+038:14:34:02	21.444012	-89.94951	160.7	5.0	3764.21	17.31
708 435 93	Anusha		978728.4	23.0	16.2	105
We have ended line 17 and will turn to port onto line 18 which we will attempt to start shooting. Tape 435 (SP 708, FFID 93)						

---

2005+038:14:36:12	21.441062	-89.948902	160.7	4.9		16.61
	Anusha		978727.0	23.0	15.5	107
we are just waiting for the gunners to pull in the portside guns for the turn (they currently have the starboard guns out)						

---

2005+038:14:40:32	21.435109	-89.947657	161.1	5.1	3764.54	16.01
	matt		978724.7	23.0	19.3	107
Turning to port.						

---

2005+038:15:00:11	21.424115	-89.925713	75.1	5.0	3766.25	15.41
	Anusha		978692.3	23.0	20.7	108
we are currently turning to port. Not shooting as the the wind is too high						

---

2005+038:15:31:14	21.434322	-89.88146	55.0	5.1	3768.68	15.01
	Matt		978693.3	23.0	17.5	127
tension = 3713, streamer good						

---

2005+038:15:50:01	21.459237	-89.876593	351.7	4.4	3770.38	5.51
	Anusha		978739.0	23.1	15.9	123
we have finished the turn. wind speed still too high to shoot. streamer looking very well balanced.						

---

2005+038:16:00:09	21.471617	-89.879331	1.7	4.3	3771.09	17.21
	Anusha		978742.5	23.1	13.9	114
streamer tension ~2800, average wind speed 17.6 knots, average depht 18 meters						

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Area: Mexico Survey: Chicxulub Line: 2000  
 Shot Rate: 50m Sample Rate: 2 Channels: 480 Aux. Channels: ch  
 Source: Airguns Guns: 1 Pressure: 80 Volume: 2000

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+038:16:16:14 21.490708 -89.88276 358.7 4.3 3772.38 18.31  
 347 347 4 Anusha 978750.0 23.1 14.7 114  
 ramping up - 1 gun firing. 1st actual shot SP 347, FFID 4. there  
 are 3 blank shots at the start of the tape (FFID 1-3 and SP 344-  
 346 are dud).

2005+038:16:22:27 21.49794 -89.884358 359.0 4.2 18.31  
 362 436 19 Anusha 978753.1 23.1 14.2 107  
 2 guns firing

2005+038:16:27:02 21.503124 -89.885466 359.7 4.0 3773.03 19.51  
 Anusha 978755.1 23.1 13.3 105  
 4 guns firing

2005+038:16:31:46 21.50837 -89.886561 359.3 3.8 20.51  
 Anusha 978756.4 23.1 13.3 105  
 8 guns on

2005+038:16:36:06 21.513278 -89.887563 0.1 4.3 20.01  
 Anusha 978757.6 23.1 10.6 108  
 Tape change. EOT 436 (SP 394, FFID 51) \*\*\*\*\*Missed 5 shots at  
 the end of tape 436 we think. missed 395-399.\*\*\*\*\* tape 437  
 has not been used - it was rejected by the recording machine.  
 Moved straight onto tape 437. 16 guns now on...

2005+038:16:41:58 21.520037 -89.889608 353.3 4.0 3774.07 21.01  
 412 65 Anusha 978763.0 23.1 9.2 106  
 20 guns on now.

2005+038:16:55:07 21.537036 -89.894129 359.8 4.0 3774 22.21  
 451 439 104 Anusha 978766.1 23.1 10.2 101  
 Tape change. EOT 438 (SP 450, FFID 103) BOT 439 (SP 451, FFID  
 104)

2005+038:17:00:12 21.543527 -89.895235 2.3 3.6 3775.31 22.51  
 Anusha 978765.2 23.1 11.4 88  
 Shooting line chix18. streamer tension = 2985

2005+038:17:12:57 21.560006 -89.897465 1.7 3.6 3776.13 22.91  
 502 440 155 Anusha 978766.5 23.1 12.5 89  
 Tape change.. EOT 439 (SP 501, FFID 154) BOT 440 (SP 502, FFID  
 155)

2005+038:17:30:07 21.582393 -89.901561 357.5 3.9 23.61  
 Anusha 978772.4 23.1 11.3 84

Area: Mexico Survey: Chicxulub Line: Chicx  
 Shot Rate: 50m Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 18

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				

2005+038:17:30:48	21.583275	-89.901766	358.1	4.0	3777.37	23.51
206	441	553	Anusha		978771.7	23.1
tape change EOT 440 (SP 552, FFID 205)			BOT 441 (SP 553, FFID 206)		11.3	84

2005+038:17:47:26	21.605072	-89.906337	358.7	4.2	3778.45	22.61
	Matt		978774.9	23.1	9.8	68
End tape: 441 shots: 553-603 files: 206-256						

2005+038:18:00:06	21.621841	-89.910092	356.0	4.2	3779.32	21.41
	Matt		978778.0	23.2	10.9	67
Tension = 3208. Streamer good. Change of watch.						

2005+038:18:04:28	21.627578	-89.911504	358.5	4.0		22.51
	Peggy		978778.7	23.2	12.8	71
turn coming up in 17 min						

2005+038:18:05:08	21.628466	-89.911687	358.3	4.3	3779.76	22.61
655	443	308	Peggy		978779.0	23.2
EOT 442: 654/307. SOT 443: 655/308.						

2005+038:18:15:26	21.64203	-89.914353	359.1	4.1	3780.52	27.41
689	443	342	Peggy		978775.3	23.2
guns 11-12 turned off for turn. (they said that they would turn off 13 as well, but it still shows on the gun computer)						

2005+038:18:20:37	21.648986	-89.915706	359.3	4.6	3780.91	27.51
703	443	356	Peggy		978776.8	23.2
Gun 13 also turned off.						

2005+038:18:22:05	21.650946	-89.916104	359.1	4.5		28.11
706	444	359	Peggy		978778.3	23.2
EOT 443: 705/358						

2005+038:18:24:45	21.654522	-89.916972	350.7	4.6	3781.44	28.21
202		Peggy	978778.1	23.2	12.2	69
EOT 444 and end of line chicx18: 715/368. first shot of OBS line: 202. ST = 2700. Streamer well balanced at 7m depth. Wind speed 1.5h average = 11.3.						

2005+038:19:00:05	21.656746	-89.96289	250.5	3.9	3783.86	26.31
305		eliza	978807.6	23.3	12.4	61
Turning to left to join 17.						

2005+038:19:30:04	21.629074	-89.989148	152.8	3.7	3785.92	25.41
	eliza		978768.0	23.2	11.5	68
ST = 3000. Streamer well balanced at 7m depth. Finished turning onto line 17b, but waiting to enable Spectra until the streamer is						

straight.

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Area: Mexico Survey: Chicxulub Line: Chicx17b  
Shot Rate: 20s Sample Rate: 50m Channels: 480 Aux. Channels: 0  
Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+038:19:53:21	21.597852	-89.981702	160.3	4.5	3787.49	24.71
381 445 4	Peggy		978757.4	23.3	11.2	52

First 3 files are bad, first good shot number = 381 and file = 4.  
20 guns are on since a while. ST = 3200. Streamer well balanced at  
7m depth. Half of the streamer is straight. Wind speed 1.5h  
average = 12.1.

---

2005+038:20:06:35	21.57958	-89.978056	160.7	4.5	3788.38	24.21
422 455 45	Peggy		978757.7	23.3	14.1	48

The streaner is now clean and straight.

---

2005+038:20:09:46	21.575193	-89.977147	160.8	4.2	3788.65	25.01
429 446 52	Peggy		978756.8	23.3	15.2	57

EOT 445: 428/51. Physical connection to label computer was bad  
again, and the label didn't print nor did the tape eject until  
that connection was restored.

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2005+038:20:25:47	21.55321	-89.972455	161.3	3.9	3789.72	24.31
480 447 103	Peggy		978752.9	23.3	14.3	54

EOT 446: 479/102. ST = 3200. Streamer well balanced at 7m depth.  
Wind speed 1.h average = 12.8.

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2005+038:20:41:45	21.531271	-89.967853	160.5	4.2	3790.72	20.91
531 448 154	elizabeth		978749.5	23.3	15.5	47

EOT 447:530/153 SOT 448:531/154

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2005+038:20:59:57	21.506602	-89.962646	161.3	4.7	3792.09	20.41
582 449 205	Peggy		978745.2	23.3	15.0	44

EOT 448: 581/204

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2005+038:21:16:29	21.484227	-89.957985	163.0	4.8	3793.43	17.91
633 450 255	Peggy		978740.6	23.2	18.6	40

EOT 449: 632/255. SOT 450: 633/256. Turning to the right to avoid  
fishing vessel.

---

2005+038:21:30:06	21.465711	-89.955061	155.3	5.1	3794.56	18.01
679 450 302	Peggy		978733.3	23.2	16.3	44

streamer tension 3000. 3 birds out of 7m depth range

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2005+038:21:32:30	21.462516	-89.954114	158.5	5.0	3794.75	18.01
684 451 307	eliza		978731.4	23.2	16.7	42

EOT 450: 683/306. SOT 451: 684/307.

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2005+038:21:44:27	21.446403	-89.950203	158.3	5.0	3795.75	17.91
722 451 345	Peggy		978726.7	23.2	20.1	50

Guns 11-12 off. Starting turning in 10 min.

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Area: Mexico Survey: Chicxulub Line: Chicx17b  
 Shot Rate: 20s Sample Rate: 50m Channels: 480 Aux. Channels: 0  
 Source: Airguns Guns: 18 Pressure: 6497 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+038:21:48:42	21.440616	-89.948775	160.5	4.9	3796.09	17.21
735 452 358	Peggy		978725.6	23.2	21.8	47
EOT 451: 734/357. SOT 452: 735/358.						

2005+038:21:50:41	21.437876	-89.948168	160.8	5.2	3796.28	17.11
741 452 364	Peggy		978724.5	23.2	19.4	48
gun 13 off						

2005+038:21:52:19	21.435621	-89.947677	161.3	5.0		17.31
	Peggy		978724.3	23.2	18.8	50
We are extending the line a half a mile.						

2005+038:21:58:48	21.426557	-89.945802	162.1	5.0	3797.13	16.31
767 452 390	Peggy		978722.2	23.2	20.5	44
Shutdown due to weather. EOT 452 and end of line Chix17b: 767/390. Watch standers change. Depth = 17.8. Streamer shallow close to the ship. ST = 3100.						

2005+038:22:30:10	21.425108	-89.91264	40.5	4.8	3799.53	16.21
n/a n/a n/a	Sears et al.		978702.8	23.2	17.7	47
We are continuing to suffer from bad wind. Current 90min average is 18.6, with the 15min average increasing. Streamer tension ~3300 and good depth.						

2005+038:23:00:05	21.456461	-89.884155	34.3	5.0	3801.98	17.51
	Sears et al.		978709.6	23.2	20.4	61
streamer ok, tension ~3500, average wind 19.7. we are headed on a diagonal across the grid...but, alas, not shooting						

2005+038:23:30:35	21.494283	-89.866977	44.8	4.8	3804.44	18.81
	Sears et al.		978725.8	23.2	24.6	55
streamer tension 3400, average wind 20.6						

2005+039:00:00:24	21.52508	-89.839159	45.0	4.8	3806.81	20.81
n/a n/a n/a	Sears et al.			23.2	19.4	54
No more shooting today for sure as it has gone 6pm. Note the trend of the wind speed 90min average since ~4pm, continuing to increase to current value of 21.1. Nasty El Nortes... Continue course along diagonal line 27.						

2005+039:00:30:36	21.557355	-89.810458	45.0	4.5	3809.09	22.21
	Sears et al.		978741.8	23.2	21.9	61
Streamer looks fine tension is ~3748, wind from the north with a speed of ~21						

2005+039:01:00:20	21.58953	-89.782188	45.7	4.3	3811.39	23.51
	Sears et al.		978746.2	23.2	24.0	71

S. t. ~ 3642, w. speed is around 22. Streamer are in the righth  
dept

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Area: Mexico Survey: Chicxulub Line: chicx27  
Shot Rate: n/a Sample Rate: n/a Channels: n/a Aux. Channels: n/  
Source: n/a Guns: n/a Pressure: n/a Volume: n/a

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+039:01:30:17	21.612407	-89.748733	80.3	4.3	3813.65	24.41
	Sears et al.		978734.5	23.2	25.0	70
s.t. ~3589, w. av. speed 23, streamer behave is good.						

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2005+039:02:00:06	21.620422	-89.705107	77.8	4.6	3815.99	25.31
	Sears et al.		978728.8	23.3	24.3	69
change of watch, s. t. is 4045. wind av. is 22.4						

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2005+039:02:30:31	21.629139	-89.660728	79.0	4.7	3818.4	26.11
	Manuel		978720.4	23.2	25.2	82
streamer tension ~4100, average wind speed 23.1 knots, streamer looks good						

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2005+039:03:00:31	21.636447	-89.616637	82.1	4.8	3820.73	25.11
	Manuel		978716.8	23.2	23.5	70
streamer tension ~4000, average wind speed 23.5 knots						

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2005+039:03:30:15	21.637077	-89.572172	85.5	4.8	3823.13	23.51
	Manuel		978715.2	23.1	21.5	82
streamer tension ~4200, average wind speed 23.6 knots, streamer behave is good						

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2005+039:04:00:04	21.647185	-89.528372	76.7	4.9	3825.51	21.11
	Manuel		978712.5	23.1	24.9	77
streamer tension ~4400, average wind speed 23.2 knots, streamer is good						

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2005+039:04:30:05	21.658987	-89.483365	76.1	4.9	3827.99	24.31
	Manuel		978714.5	23.1	20.9	80
streamer tension ~4300, average wind speed 22.5 knots, streamer is good						

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2005+039:05:09:59	21.671942	-89.423809	77.0	4.5	3831.18	23.11
	Matt		978718.3	23.1	19.1	85
Tension=4192. Streamer good.						

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2005+039:05:30:08	21.678568	-89.393828	78.0	4.8	3832.86	23.51
	Anusha		978723.3	23.0	21.9	84
Streamer tension = 4110, Streamer is well balanced. Not shooting - it is night time.						

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2005+039:06:01:13	21.691067	-89.348212	49.7	4.7	3835.45	23.11
	Anusha		978728.9	22.9	19.3	88
streamer tension ~4000, streamer is well balanced, averaged wind speed 21.3 knots,						

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Area: Mexico Survey: Chicxulub Line: n/a  
 Shot Rate: n/a Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: n/a Guns: n/a Pressure: n/a Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+039:06:30:12	21.731507	-89.346387	7.1	5.1	3837.63	25.01
	Peggy		978762.4	22.9	17.7	89
ST = 3500. Streamer well balanced at 7m depth. Wind speed 1.5h average = 27.0. Picking velocities.						

2005+039:07:00:22	21.773181	-89.351583	5.1	3.9	3839.98	26.31
	Peggy		978766.2	22.9	17.7	93
ST = 3100. Streamer well balanced at 7m depth. Wind speed 1.5h average = 19.8.						

2005+039:07:30:30	21.814319	-89.356524	4.8	4.9	3842.22	29.31
	Peggy		978732.1	22.9	17.2	99
ST = 3300. Streamer well balanced at 7m depth. Wind speed 1.5h average = 18.7.						

2005+039:08:00:06	21.854889	-89.361829	353.1	4.9	3834.73	34.01
	eliza		978770.5	22.9	18.6	113
ST=3000. streamer well balanced at 7m depth. wind speed 1.5hr average=17.4						

2005+039:08:30:13	21.876827	-89.398848	297.1	4.7	3847.13	35.71
	eliza		978800.1	23.0	18.6	98
ST=2900. streamer well balanced at 7m depth. Wind speed 1.5hr average=17.2						

2005+039:09:00:10	21.892045	-89.439466	282.3	4.6	3849.45	37.41
	eliza		978798.5	23.1	15.5	108
ST=2500 streamer well balanced at 7m depth. Wind speed 1.5hr. average=16.8						

2005+039:09:30:17	21.885415	-89.483209	257.3	4.5	3851.77	36.61
	eliza		978802.9	23.1	17.1	94
ST=2700. streamer well dalanced at 7m depth. Wind speed 1.5hr averaged=16.9						

2005+039:10:00:12	21.876986	-89.526234	256.7	4.5	3854.06	37.11
	eliza		978803.4	23.1	16.1	100
ST=2700. streamer well balanced at 7m depth. Wind speed 1.5hr average=16.4						

2005+039:10:30:16	21.868633	-89.569399	257.8	4.6	3856.37	36.71
	Gabriella		978802.9	23.2	16.4	93
ST= 2620, wind speed in 1.5h =16, streamer looks fine						

2005+039:11:00:04	21.860251	-89.612533	256.7	4.5	3858.67	36.81
	Tamara		978801.4	23.2	16.1	91
ST=2700, wind=16.2						

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Area: Mexico Survey: Chicxulub Line: n/a  
 Shot Rate: n/a Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: n/a Guns: n/a Pressure: n/a Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+039:11:30:41 21.851655 -89.656466 257.0 4.7 3861.03 38.51  
 Tamara 978802.3 23.2 16.2 94  
 streamer tension 2700, wind 16.1

2005+039:12:00:04 21.843474 -89.698726 256.5 4.7 3863.25 36.91  
 Tamara 978804.2 23.2 14.1 98  
 ST=2700, wind=15.7

2005+039:12:08:06 21.841068 -89.710232 250.0 4.6 3863.23 37.91  
 Tamara 978804.2 23.2 13.8 103  
 wind 15.7, ST=2600

2005+039:12:30:14 21.817311 -89.723124 159.1 5.1 3865.56 35.61  
 n/a n/a n/a Tamara 978766.8 23.2 12.3 104  
 Approaching line 27. Streamer tension (~3000) and depth good.  
 Wind speed 90min average ~ 14.7. Aim to start ramp-up at 6.45am  
 as an OBS line, and start streamer recording when cable is  
 straight.

2005+039:12:34:44 21.81109 -89.72145 160.0 5.2 34.91  
 Tamara 978763.3 23.2 11.5 99  
 Correction: appraoching line 21.

2005+039:12:47:38 21.79365 -89.717506 161.7 4.7 3867.05 34.51  
 201? Tamara 978763.4 23.2 12.2 99  
 start of ramp-up. 1 gun firing. 1st shot=201?. OBS only during  
 ramp-up as the streamer is not straight and we are not yet to the  
 start of line chicx21.

2005+039:12:53:23 21.786076 -89.715955 161.7 4.9 3867.51 33.51  
 219 Tamara 978763.2 23.2 11.2 92  
 2 guns firing. OBS only.

2005+039:12:57:58 21.779986 -89.71466 161.7 4.9 3867.88 35.21  
 233 Tamara 978764.0 23.2 12.4 100  
 4 guns firing. OBS only.

2005+039:13:02:58 21.7733 -89.713264 162.1 4.8 3868.29 33.01  
 248 Tamara 978765.9 23.2 12.4 87  
 8 guns firing. OBS only.

2005+039:13:07:57 21.766631 -89.711858 161.5 5.1 3868.71 33.61  
 263 Tamara 978763.6 23.2 11.5 96  
 16 guns firing. OBS only.

2005+039:13:10:10 21.763655 -89.711202 161.7 4.9 3868.91 33.41  
 145 453 1 Tamara 978762.2 23.2 11.9 90

SOL chicx21, first shot 145/FFID 1. end of OBS only line.

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Area: Mexico Survey: Chicxulub Line: chicx21  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+039:13:12:57	21.759902	-89.710424	161.8	5.1	3869.11	32.51
154 453 10	Tamara		978763.1	23.2	10.3	88
20 guns firing. End of ramp-up.						

2005+039:13:19:35	21.750979	-89.708579	161.5	4.9	3869.66	34.01
174 453 30	Tamara		978762.6	23.2	10.8	84
swerving to port to avoid fishing boat						

2005+039:13:21:22	21.748624	-89.707916	159.5	4.8	3869.81	33.41
	Tamara		978762.0	23.2	11.0	86
nevermind... the fishing boat is not engaged in fishing so we are staying coarse on chicx21						

2005+039:13:26:41	21.741168	-89.707019	164.1	5.5	3870.28	34.31
196 454 52	Tamara		978765.6	23.2	10.1	85
EOT 453: 195/51 SOT 454: 196/52						

2005+039:13:43:15	21.718521	-89.701689	161.3	5.2	3871.67	30.11
247 455 103	Tamara		978759.2	23.2	8.8	83
EOT: 454 LSP: 246 FFID: 102 // BOT: 455 FSP: 247 FFID: 103 //						

2005+039:13:59:43	21.696072	-89.697025	162.3	4.0	3872.96	28.41
298 456 154	Tamara		978757.3	23.2	10.6	93
EOT 455: 297/153 SOT 456: 298/154 ST=3200, wind 10.9. change of watch.						

2005+039:14:16:09	21.673431	-89.692286	161.8	3.9	3874.81	27.41
	Matt		978756.0	23.1	9.3	86
end tape: 456. shots: 298-348 files: 154-204						

2005+039:14:30:13	21.654174	-89.688261	162.3	3.7	3874.98	27.11
	Manuel		978755.2	23.1	9.2	88
streamer tension ~3100, average wind speed 10.2.						

2005+039:14:33:07	21.650212	-89.687434	161.8	3.8	3875.11	23.11
	Matt		978754.8	23.1	8.4	87
End tape: 457. Shots: 349-399. files: 205-255.						

2005+039:14:49:18	21.628134	-89.682798	161.3	3.9	3876.21	24.51
	Matt		978753.0	23.1	12.2	89
end tape: 458. shots: 400-450 tapes: 256-306						

2005+039:15:00:04	21.613453	-89.67965	162.1	4.5	3876.97	23.91
	Matt		978753.7	23.1	10.9	85
tension=3091. streamer good. wind = 10.0						

2005+039:15:05:55	21.60542	-89.67797	162.8	4.4	3877.37	22.81
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Matt                                  978753.8 23.1 11.1 86  
End tape: 459. Shots: 451-501. files: 307-357.

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Area: Mexico Survey: Chicxulub Line: chicx21  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+039:15:22:28	21.583064	-89.673311	161.3	4.3	3878.65	21.41
553 461 409	Anusha		978752.5	23.0	11.1	92
Tape change. EOT 460 (SP 552, FFID 408) Bot 461 (SP 553, FFID 409).						

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2005+039:15:30:30	21.572246	-89.670967	161.0	4.9	3879.25	19.01
	Anusha		978750.6	23.0	11.2	93
streamer tension ~ 2900, average wind speed 10.4 knots						

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2005+039:15:39:12	21.560448	-89.668409	162.5	4.7	3880.08	19.51
604 462 460	Anusha		978751.6	23.0	11.4	90
Tape change. EOT 461 (SP 603, FFID 459) BOT 462 (SP 604, FFID 460)						

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2005+039:15:55:57	21.537589	-89.663587	161.0	4.8	3881.5	18.81
655 463 511	Anusha		978750.6	23.0	10.9	85
Tape change. EOT 462 (SP 654, FFID 510) BOT 463 (SP 655, FFID 511) We will be starting our turn to port in 20 min.						

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2005+039:16:00:09	21.531835	-89.662343	161.8	4.8	3881.68	19.61
	Manuel		978749.2	23.0	10.8	84
streamer tension ~3000, average wind speed 10.7 knots, streamer is look good						

---

2005+039:16:12:35	21.514749	-89.65867	163.0	5.2	3882.62	18.01
	Matt		978746.5	23.1	11.2	93
end tape: 463. shots: 655-705. Files: 511-561. Two guns off to prepare for turn in about 1 minute.						

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2005+039:16:14:13	21.512457	-89.658182	162.0	5.0	3882.76	17.51
	Matt		978746.7	23.1	10.6	74
End of line Chicx21. Three guns pulled in for turn to port. Next line is Chicx22.						

---

2005+039:16:15:35	21.510554	-89.657686	157.3	4.9	3882.89	18.01
	Matt		978746.5	23.1	10.3	85
end tape: 464. shots: 706-712. files: 562-568.						

---

2005+039:16:16:47	21.508952	-89.6571	151.5	4.8	3883.08	16.81
	Matt		978746.0	23.1	10.4	85
OBS line started. First shot was 201. 17 guns firing- 5647 in3. Guns 11,12,13 pulled in.						

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2005+039:16:31:39	21.499512	-89.639965	85.3	4.8	3884.17	15.91
	Matt		978718.0	23.1	13.5	90
Wind 10.9. Streamer looks good. Still turning. Tenion = 2866.						

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Area: Mexico Survey: Chicxulub Line: OBS line  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH	STANDER	GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+039:16:44:54	21.499994	-89.620767	90.1	4.7	3885.36	17.21
	Matt		978713.1	23.2	13.1	84

Shut down of the OBS line due to fishing boats.

---

2005+039:17:00:11	21.501371	-89.598597	80.7	4.7	3886.69	15.81
	Matt		978710.2	23.2	12.6	83

We are currently in the middle of a shutdown of our OBS line due to a fishing boat. We are heading onto line 22 (we are in the midst of a turn at the moment).

---

2005+039:17:03:40	21.502533	-89.593685	67.3	4.7		16.31
201	Matt		978710.2	23.2	13.5	87

Starting the ramp up of guns (1 gun firing now) - we are recommencing our OBS line on the turn between line 21 and 22.

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2005+039:17:11:10	21.509485	-89.58626	30.1	4.8		16.11
	Matt		978721.3	23.2	15.4	91

2 guns on.

---

2005+039:17:14:59	21.514603	-89.584908	15.0	5.2		17.11
	Matt		978730.8	23.2	13.4	98

4 guns on

---

2005+039:17:20:00	21.521704	-89.584587	3.0	5.1		18.91
	Anusha		978739.4	23.2	13.2	86

7 guns now firing

---

2005+039:17:22:37	21.525403	-89.585359	355.8	5.2		18.41
	Anusha		978717.7	23.2	12.4	94

ended the turn to port. Now on the original line 22 but we are still shooting the OBS line until the streamer straightens out.

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2005+039:17:25:28	21.529447	-89.586202	358.1	5.2		18.31
	Anusha		978747.5	23.2	13.4	81

14 guns now firing.

---

2005+039:17:29:09	21.534612	-89.58714	0.1	4.9		17.71
	Anusha		978750.1	23.2	12.5	74

gun 12 back in the water after the turn (11 and 13 still out)

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2005+039:17:30:21	21.536262	-89.587414	359.3	4.9	3889.12	18.01
	Anusha		978749.4	23.1	11.0	79

All guns are now on - ramp up ended...

---

2005+039:17:34:49	21.542402	-89.588439	359.0	5.0		18.51
	Anusha		978748.4	23.1	10.7	72

The OBS line has a shot missing around 17.30 due to the line being



disabled then enabled again causing Spectra not to fire the guns  
for one or perhaps 2 shots

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Area: Mexico Survey: Chicxulub Line: Chicx22  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: line

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+039:17:43:52	21.55476	-89.590955	357.1	4.9	3890.27	18.81
269 465 1	Anusha		978769.4	23.1	12.5	76
Ended OBS line and started line 22. Ist shot = 269. FFID = 1						

2005+039:18:00:37	21.577801	-89.595847	358.7	4.7	3891.64	20.41
320 466 52	Anusha		978752.4	23.2	10.9	73
Tape change. EOT 465 (SP 319, FFID 51) BOT 466 (SP 320, FFID 52)						

2005+039:18:17:14	21.600566	-89.600658	358.3	5.0	3892.81	22.41
371 467 103	Peggy		978755.2	23.2	12.4	73
EOT 466: 370/102. SOT 467: 371/103.						

2005+039:18:30:10	21.618338	-89.604371	359.1	4.3	3893.73	22.31
411 467 143	Peggy		978755.2	23.2	12.2	76
ST = 3200. Streamer well balanced at 7m depth. Wind speed 1.5h average = 12.5.						

2005+039:18:33:38	21.623049	-89.605368	358.5	4.2	3893.96	23.31
422 468 154	Peggy		978708.7	23.2	12.6	79
EOT 467: 421/153.						

2005+039:18:50:59	21.646717	-89.610344	359.1	4.3	3895.23	20.61
473 469 205	eliza		978760.0	23.3	13.6	69
EOT 468:472/204 SOT 469:473/205						

2005+039:19:00:11	21.659211	-89.612951	359.0	4.2	3895.91	23.01
504 469 236	eliza		978761.8	23.3	13.2	83
Streamer well balanced, wind speed average: 12.4knots , streamer tension 3100-3200.						

2005+039:19:07:07	21.668541	-89.614885	359.1	4.1	3896.36	23.31
524 470 256	eliza		978756.0	23.3	11.5	63
EOT 469: 523/255 SOT 470: 524/256						

2005+039:19:24:05	21.691294	-89.619764	359.3	4.1	3897.52	28.11
575 471 307	eliza		978766.1	23.4	12.4	65
EOT 470:574/306 SOT 471:575/307						

2005+039:19:30:06	21.699108	-89.621364	0.7	3.8	3897.9	28.21
594 471 326	eliza		978767.8	23.4	12.0	63
streamear tension 3000. birds #28 out of 7m depth range. wind speed 12.6						

2005+039:19:41:18	21.713818	-89.624438	359.7	4.4	3898.64	28.51
626 472 358	Peggy		978768.9	23.4	11.9	64
EOT 471: 625/357.						

Area: Mexico Survey: Chicxulub Line: Chicx22  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+039:19:57:50	21.735587	-89.628992	359.7	5.0	3900.05	30.51
677 473 409	eliza		978769.8	23.4	13.3	65
EOT 472: 676/408 SOT 473: 677/409						

2005+039:20:16:23	21.760398	-89.634554	357.3	4.9	3901.5	31.21
728 474 460	eliza		978770.0	23.4	13.7	64
EOT 473: 727/459 SOT 474: 728/460						

2005+039:20:30:08	21.778793	-89.638682	0.1	5.2	3902.67	33.11
	eliza		978769.7	23.4	13.3	70
ST.3000. birds #28 out of 7m, wind speed 12.8, 11 gun off						

2005+039:20:35:05	21.785461	-89.640022	1.0	5.0	3903.09	30.91
788 475 520	keren		978769.7	23.4	14.6	64
End of line Chicx22, start of turn EOT475: 788/520						

2005+039:20:38:57	21.790685	-89.640565	15.3	5.2	3903.45	31.11
210	Peggy		978770.2	23.4	14.6	66

2005+039:20:40:41	21.792948	-89.640202	25.0	4.8	3903.56	31.11
	keren		978766.1	23.4	13.8	57
3 guns off						

2005+039:21:00:07	21.808136	-89.618995	75.8	5.2	3905.24	35.01
272	eliza		978731.9	23.4	14.2	63
ST=3600. birds #27 and 28 out of 7m depth range. Wind speed 13.05						

2005+039:21:30:08	21.81385	-89.576209	109.7	5.0	3907.87	35.11
362	keren		978732.9	23.4	15.4	58
wind speed average: 14.1 knots.						

2005+039:21:41:19	21.801781	-89.566622	163.3	4.2	3908.8	33.91
396	keren		978751.3	23.3	14.6	55
finish of the turn						

2005+039:21:53:02	21.785815	-89.563836	158.3	4.6	3909.78	32.81
431	keren		978757.3	23.3	17.0	58
all guns on						

2005+039:22:08:02	21.766043	-89.559105	160.5	4.7	3910.93	29.31
209 476 1	Tamara		978757.0	23.3	16.8	50
SOL chicx23/SOT 476. 1st shot 209/FFID 1. end of OBS only line.						

2005+039:22:24:51	21.74281	-89.554389	159.5	4.1	3912.09	25.91
260 477 52	Tamara		978756.2	23.2	16.9	54
EOT 476: 259/51 SOT 477: 260/52						

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Area: Mexico Survey: Chicxulub Line: chicx23  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+039:22:30:13	21.735478	-89.552825	159.7	3.9	3912.49	25.41
278 477 70	Tamara		978755.0	23.2	18.6	60
steamer tension 3200, streamer ok, wind 15.6 and increasing.						

2005+039:22:41:25	21.720173	-89.549557	160.8	3.9	3913.18	26.81
311 478 103	Tamara		978754.0	23.2	15.9	56
EOT 477: 310/102 SOT 478: 311/103						

2005+039:22:57:51	21.697807	-89.54494	159.8	4.0	3914.4	27.01
362 479 154	Tamara		978752.3	23.2	19.1	66
EOT: 478 LSP: 361 FFID: 153 // BOT: 479 FSP: 362 FFID: 154 // Wind speed 90min average = 16.5...						

2005+039:23:15:00	21.67465	-89.539963	161.1	3.9	3915.56	25.01
413 480 205	Tamara		978747.6	23.2	17.2	58
eot: 479 LSP: 412 FFID: 204 // bot: 480 FSP: 413 FFID: 205. We stop shooting now because the weather						

2005+039:23:19:06	21.669109	-89.538841	161.5	4.1	3915.7	24.61
	Tamara		978746.1	23.2	17.5	66
EOT 480. LSP. 420. FFID 212.						

2005+039:23:30:04	21.654317	-89.535806	160.5	4.6	3916.47	21.01
	Tamara		978743.0	23.2	17.4	62
ST 3150, wind average 1.5h = 17, streamer well balanced at 7 m depth						

2005+040:00:00:13	21.618935	-89.518066	94.5	4.3	398.74	22.11
	Tamara				23.2	21.4
ST=2600, streamer fine, wind 18.2. turning.						

2005+040:00:30:22	21.626017	-89.473449	78.3	4.4	3921.09	21.01
	Tamara		978709.0	23.1	20.9	66
ST 3800, streamer ok, wind 19.0						

2005+040:01:00:16	21.633758	-89.429511	79.7	4.2	3923.38	22.01
	Tamara		978713.0	23.0	22.1	58
ST. is 3384. wind speed over 19, streamer looks good at 7 m. depth.						

2005+040:01:30:11	21.641606	-89.385383	78.3	4.1	3925.61	22.41
	Tamara		978713.9	23.0	19.8	71
St. 3601, w s ~20, streamer looks fine						

2005+040:02:00:57	21.649801	-89.340338	78.5	4.7	3928.0	22.11
	Anusha		978721.8	22.9	18.7	71
st = 3510. ws = 20.8 streamer looks fine...						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+040:02:30:11 21.657384 -89.297681 79.3 4.7 3930.2 21.31  
 Anusha 978717.9 22.9 21.8 74  
 Streamer looks fine. tension = 3445.

2005+040:03:00:39 21.665323 -89.253294 80.1 4.4 21.51  
 Anusha 978722.3 22.8 16.4 73  
 streamer tension = 3480. Streamer looks fine

2005+040:03:30:08 21.672948 -89.210281 80.5 4.5 3934.63 21.61  
 matt 978724.6 22.8 19.5 85  
 tension = 3500. streamer looks good. viento = 20.0.

2005+040:04:00:14 21.679979 -89.166235 80.8 4.4 21.91  
 anusha 978721.6 22.8 20.1 95  
 streamer looks fine, tension=3460

2005+040:04:30:07 21.688607 -89.12168 79.0 4.8 3939.3 21.31  
 anusha 978720.5 22.8 19.1 97  
 streamer tension = 3632, streamer looks fine

2005+040:05:00:22 21.696308 -89.07918 80.3 4.1 22.51  
 anusha 978723.0 22.7 18.0 104  
 streamer looks balanced. Tension = 3089

2005+040:05:30:09 21.703597 -89.039069 82.0 4.5 22.01  
 anusha 978723.6 22.7 18.4 107  
 streamer looking just fine. tension = 3022

2005+040:06:00:08 21.71113 -88.997503 80.0 4.8 22.41  
 anusha 978721.4 22.7 16.6 120

2005+040:06:02:02 21.712051 -88.994707 70.3 4.8 22.61  
 anusha 978721.5 22.7 21.3 122  
 streamer tension = 3455, streamer is balanced...

2005+040:06:30:10 21.743717 -88.997976 295.0 4.7 3948.13 22.11  
 Peggy 978789.2 22.7 16.6 125  
 ST = 2100. Streamer well balanced at 7m depth. Wind speed 1.5h  
 average = 18.2.

2005+040:07:00:16 21.759607 -89.040067 295.3 4.3 3950.34 24.11  
 keren 978794.9 22.8 12.9 124  
 streamer tension 2900-3000, wind speed average: 17.2, Birds 3 28  
 and 27 out of range

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+040:07:30:06	21.774847	-89.081385	295.5	4.3	3952.48	25.31
	eliza		978793.8	22.7	13.0	124
ST=2700. streamer well balanced at 7m depth. Wind speed 1.7 h average=15.7 Birds # 28 out of depth range						

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2005+040:08:00:02	21.790227	-89.122633	295.5	3.9	3954.48	26.41
	eliza		978795.0	22.7	15.6	125
ST=2600-2700, Wind speed 1.5h average=15.0, Birds # 28 out of 7m depth range						

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2005+040:08:30:09	21.805649	-89.164243	293.8	3.9	3956.52	26.01
	eliza		978795.7	22.7	12.9	127
ST=2500-2600, Birds #28 out of depth range. Wind speed 1.5h average=14.3						

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2005+040:09:00:12	21.82121	-89.206146	294.3	4.6	3958.68	29.31
	eliza		978797.8	22.7	14.8	118
ST=2600, Birds #28 out of 7m depth range. Wind speed 1.5h average=14.3						

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2005+040:09:30:10	21.836915	-89.248292	294.3	4.9	3961.01	31.21
	eliza		978799.0	22.9	14.7	121
ST=2600, Birds #28 out of 7m depth range. Wind speed 1.5h average=14.2						

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2005+040:10:00:02	21.852091	-89.289382	295.0	4.8	3963.33	33.31
	eliza		978803.2	23.0	15.6	115
ST=2500, Birds #28 out of 7m depth range, Wind speed 1.5h average=14.2						

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2005+040:10:30:21	21.867679	-89.331239	295.7	4.8	3965.69	35.21
	Tamara		978802.7	23.0	12.2	116
streamer 2800, streamer ok						

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2005+040:11:00:11	21.883621	-89.374146	295.5	4.8	3968.11	35.81
	Tamara		978802.0	23.0	13.1	116
st=2800, wind 14.0						

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2005+040:11:30:11	21.900075	-89.418436	294.3	4.9	3970.74	37.31
n/a	n/a	n/a	Tamara		978804.9	23.0
Streamer tension ~ 2850, depth good // Wind speed 90min average = 13.2. On approach to chicx24.						

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2005+040:12:00:06	21.90873	-89.463139	236.7	5.0	3973.18	38.51
n/a	n/a	n/a	Tamara		978806.8	22.9
Streamer tension ~ 2500, depth good // Wind speed 90min average ~ 13.0 //						



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Area: Mexico Survey: Chicxulub Line: chicx24  
 Shot Rate: n/a Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: n/a Guns: n/a Pressure: n/a Volume: n/a

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				

2005+040:12:30:17	21.869178	-89.468222	162.0	5.0	3975.69	35.31
	Tamara		978759.8	22.8	11.6	107
ST. 3465, w.speed ~12, streamer looks fine at 7m. depth						

2005+040:12:47:42	21.844261	-89.462996	163.3	5.2	3977.25	33.21
84	481	9	Tamara		978760.5	22.8
					11.3	111
Startof ramp-up. SOL chicx24/ SOT 481: 84/9. 1 gun firing.						
Several blank shots were recorded (76/1 to 83/8).						

2005+040:12:52:34	21.837541	-89.461564	163.0	4.8	3977.67	33.71
99	481	24	Tamara		978760.2	22.8
					12.3	115
2 guns firing						

2005+040:12:58:13	21.829868	-89.459958	162.7	5.1	3978.18	34.41
116	481	41	Tamara		978760.5	22.8
					11.9	116
4 guns firing. streamer not straight yet.						

2005+040:13:00:32	21.826725	-89.459295	162.1	5.0	3978.36	34.11
124	481	50	Tamara		978760.7	22.8
					11.8	111
streamer appears straight, wind 12.2						

2005+040:13:01:56	21.824816	-89.458894	163.0	5.2	3978.46	33.51
127	482	52	Tamara		978760.3	22.8
					10.9	109
EOT 481: 126/51 SOT 482: 127/52						

2005+040:13:04:53	21.820796	-89.458025	163.7	5.2	3978.72	33.41
135?	482	60	Tamara		978759.9	22.8
					10.9	105
8 guns firing (not sure exactly which shot because of tape change)						

2005+040:13:07:51	21.816753	-89.45718	163.0	4.8	3978.96	33.31
146	482	71	Tamara		978759.9	22.8
					9.7	112
16 guns firing						

2005+040:13:12:52	21.809927	-89.455746	162.5	4.9	3979.4	32.91
161	482	90	Tamara		978760.1	22.8
					12.0	120
19 guns firing. gun 11 not firing						

2005+040:13:15:01	21.806994	-89.455137	163.3	5.1	3979.59	33.21
165	482	90	Tamara		978768.2	22.8
					11.1	116
20 guns firing. end of ramp-up.						

2005+040:13:18:32	21.802172	-89.454124	163.3	5.0	3979.88	33.21
178	483	103	Tamara		978760.3	22.8
					10.6	111
EOT 482: 177/102 SOT 483: 178/103						

2005+040:13:35:01	21.77997	-89.449442	163.5	4.6	3981.17	27.71
229	484	154	Tamara		978758.0	22.8
					10.3	116

EOT 483: 228/153 SOT 484: 229/154

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Area: Mexico Survey: Chicxulub Line: chicx24  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH	STANDER	GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+040:13:51:35	21.757318	-89.444738	164.0	3.8	3982.28	24.71
280 485 205	Tamara		978755.9	22.8	11.4	125

EOT 484: 279/204 SOT 485: 280/205

---

2005+040:13:59:44	21.746086	-89.442394	162.8	3.9	3982.84	26.51
306 485 231	Tamara		978754.2	22.8	11.4	127

wind 11.3, streamer 2900, streamer ok. change of watch.

---

2005+040:14:08:31	21.734765	-89.439961	162.5	3.7	3983.32	24.31
	Matt		978753.0	22.8	9.2	119

End tape: 485. shots: 280-330. files: 205-255.

---

2005+040:14:25:23	21.712191	-89.43521	163.8	4.3	3984.42	24.41
	Matt		978752.2	22.8	9.7	126

End tape 486. shots: 331-381. files: 256-306.

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2005+040:14:30:06	21.705918	-89.433916	162.8	3.8	3984.72	24.21
	Matt		978752.0	22.8	8.5	117

tension = 2888. streamer good.

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2005+040:14:42:47	21.688884	-89.430335	163.1	4.1	3985.57	23.51
	Matt		978750.7	22.8	10.1	119

end tape: 487. shots: 382-432. files: 307-357.

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2005+040:14:46:50	21.683472	-89.429207	162.7	3.9	3985.94	23.11
	Anusha		978750.4	22.8	10.3	120

The MMOs may have spotted a dead turtle from the flying bridge.  
Sean going up there to investigate....

---

2005+040:14:59:53	21.66622	-89.425603	162.5	4.2	3986.73	22.61
	Matt		978746.4	22.8	9.9	110

end tape: 488. shots: 433-483. files: 358-408. tension= 2775.  
Streamer good.

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2005+040:15:16:14	21.644357	-89.420966	162.7	4.3	3987.97	21.31
535 490 460	Anusha		978742.2	22.8	9.6	114

Tape change. EOT 489 (SP 534, FFID 459) BOT 490 (SP 535, FFID 460 ). Sean has resolved the dead turtle issue - there was a dead turtle but it was completely wrapped up in fishing gear - cause of death pretty obvious....

---

2005+040:15:30:09	21.625481	-89.417053	162.1	4.5	3988.99	21.01
	Anusha		978747.6	22.8	10.2	114

SHooting line chicx 24 (N\_S line). Streamer is well balanced. we have about 1 mile runout at the end of the line

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Area: Mexico Survey: Chicxulub Line: chicx24  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+040:15:33:32	21.620887	-89.416062	162.7	4.4	3989.3	20.41
586 491 511	Anusha		978737.2	22.8	10.1	111
Tape change. EOT 490 (SP 585, FFID 510) BOT 491 (SP 586, FFID 511)						

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2005+040:15:50:26	21.598296	-89.411351	161.8	4.7	3990.55	20.01
637 492 562	Anusha		978732.7	22.9	11.3	110
Tape change. EOT 491 (SP 636, FFID 561). BOT 492, (SP 637, FFID 562)						

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2005+040:16:00:17	21.585121	-89.408553	162.0	4.8	3991.32	19.51
	Anusha		978731.1	22.9	10.2	117
streamer tension ~2800. average wind speed 10.4 knots. streamer is well balanced.						

---

2005+040:16:07:14	21.575807	-89.406583	163.0	4.7	3991.79	18.71
	Matt		978730.6	23.0	9.7	108
end tape 492. shots: 637-687. tape: 562-612.						

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2005+040:16:23:57	21.553215	-89.401865	162.7	4.9	3993.17	17.11
	Matt		978728.0	23.1	10.1	104
end tape: 493. shots: 688-738. files: 613-663.						

---

2005+040:16:30:05	21.544826	-89.400073	163.1	4.9	3993.68	16.41
	Matt		978727.1	23.2	9.5	102
tension =2920. Streamer good.						

---

2005+040:16:30:58	21.543614	-89.399819	162.5	4.9	3993.74	16.11
	Matt		978726.9	23.2	9.5	102
Power down due to a dolphin. Although, all guns were off for a bit. Now gun 5 is on- 80 in3.						

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2005+040:16:35:45	21.537039	-89.398447	163.3	5.0	3994.18	16.81
	Matt		978725.8	23.2	8.5	92
The dolphin sighting was at 16:28. We can start back up at 16:43.						

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2005+040:16:37:53	21.534103	-89.397839	162.7	5.0		15.61
783 494 708	Anusha		978726.0	23.2	8.7	85
Line 24 has been ended due to the powerdown and we're starting an OBS line and are about to turn (slightly earlier than planned). It is not worth continuing to the end with just the one gun. 1st shot of the OBS line is 201. **TURN IS STARTING NOW**						

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Area: Mexico Survey: Chicxulub Line: chicx24  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+040:16:42:02	21.528433	-89.396671	163.3	4.8		15.11
	Anusha		978725.3	23.2	9.0	71
Clarification - when the powerdown call came, due to some confusion with the gun shop, there was a complete shutdown for about 2-3 minutes so no shots were recorded just after 16:28. The gunshop then rectified this and turned on the 80 cu in gun and we shot with just this 1 gun for a few more minutes then ended line24 and switched to an OBS line to turn still using just the 1 gun. We will hopefully ramp up from the 1 gun at 16.43 (15 min after the dolphin sighting)						

2005+040:16:49:40	21.518009	-89.394521	163.8	4.9		15.11
235	Anusha		978724.6	23.2	9.3	68
2 guns firing - ramp up has begun about shot 235 (though time of this log is accurate)						

2005+040:16:54:46	21.510743	-89.39351	179.7	5.2	3995.72	15.31
	Matt		978723.9	23.2	9.4	50
Starting turn to starboard.						

2005+040:16:55:15	21.510025	-89.393573	181.0	5.2	3995.75	14.71
	Matt		978724.8	23.2	8.8	52
3 guns on =370 in3, then 4 guns = 570 in3.						

2005+040:16:59:36	21.504153	-89.395384	203.0	4.8	3996.38	5.51
	Matt		978737.7	23.2	9.3	57
5 guns on, then 7= 1050 in3, then 8 guns=1400 in3.						

2005+040:17:05:45	21.497808	-89.401295	235.0	5.0	3996.64	23.11
	Matt		978752.3	23.2	10.7	59
14 guns on= 4082-345= 3737 in3.						

2005+040:17:13:14	21.494322	-89.411834	260.7	4.9		22.81
	Matt		978763.9	23.2	10.5	55
15 guns on, then 16 guns = 6947 - 875 - 145 - 200 - 850 = 4877						

2005+040:17:18:02	21.492932	-89.418746	256.1	5.0	3997.65	16.11
	Matt		978763.9	23.2	11.3	57
17 guns on = 5747 in3.						

2005+040:17:19:42	21.492344	-89.421135	256.3	5.0	3997.81	15.11
	Matt		978764.1	23.2	10.3	53
18 guns on = 6947 - 200 - 850 = 5897.						

2005+040:17:21:16	21.491778	-89.423343	255.8	4.9	3997.92	15.01
	Matt		978764.1	23.2	11.2	46
19 guns on = 6947 - 850 = 6097 in3, now 20 guns on = 6947 in3.						

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Area: Mexico Survey: Chicxulub Line: chicx24  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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2005+040:17:30:05	21.488885	-89.435751	258.0	4.7	3998.63	26.71
	Matt		978771.4	23.2	10.8	46

tension = 2434. Streamer ok. Water depth = 15.5 m.

---

2005+040:17:51:41	21.481561	-89.466834	258.1	5.3		14.71
	Matt		978769.9	23.3	11.6	40

3 of the guns (11,12&13) are about to be brought in for the turn onto line 23.

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2005+040:17:54:02	21.480789	-89.470266	258.3	4.9		5.51
	Matt		978769.8	23.3	12.0	42

gun 10 is now off. CORRECTION - it is guns 8, 9 and 10 which are being brought in, not 11,12 and 13.

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2005+040:18:00:34	21.478605	-89.479744	260.7	4.8	4001.38	20.51
445	Peggy		978769.4	23.3	12.1	36

We are turning onto line Chix23. ST = 2700. Streamer well balanced at 7m depth, but streamer not straight due to turning. Depth = 15.5.

---

2005+040:18:30:13	21.506284	-89.505425	357.7	5.0	4003.72	15.31
535	Peggy		978743.8	23.3	13.0	35

We have finished turning and are settling on teh line. Waiting for the streamer to be straight to enable Spectra. ST = 3000. Streamer well balanced at 7m depth. Wind speed 1.5h average = 11.6. Gun 8 turned back on.

---

2005+040:18:40:52	21.520802	-89.507684	358.0	5.0	4004.58	16.51
160 495 1	Peggy		978739.6	23.3	12.9	41

Last shot on OBS line = 567. All guns back on. Start of line Chicx23a, first shot = 160.

---

2005+040:18:59:04	21.544957	-89.512739	357.5	4.8	4006.35	17.51
216 496 51	Peggy		978743.4	23.3	11.8	35

Shutdown due to fishing vessel at 19:00. EOT 495: 210/51. SOT 496: 211/52.

---

2005+040:19:05:35	21.553718	-89.514554	356.7	5.0		18.21
	Peggy		978744.0	23.3	13.2	39

correction: last file number was 57 (not 51)

---

2005+040:19:06:30	21.554954	-89.514809	356.7	4.6	4006.72	19.01
235 497 58	Peggy		978744.3	23.3	11.5	39

All guns on again.

---

2005+040:19:23:45	21.578287	-89.519725	357.3	4.8	4008.09	20.51
286 498 109	Peggy		978744.9	23.2	13.1	40

---



EOT 497: 285/108.

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Area: Mexico Survey: Chicxulub Line: Chicx23a  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+040:19:29:59	21.586702	-89.52147	357.3	4.6		20.61
308 498 131	Peggy		978746.0	23.2	12.7	40
ST = 2900. Streamer well balanced at 7m depth. Wind speed 1.5h average = 12.5. Bathy 2000 is being rebooted.						

2005+040:19:40:34	21.600934	-89.524457	356.8	4.6	4009.35	22.51
337 499 160	Peggy		978747.8	23.2	12.9	36
EOT 498: 336/159.						

2005+040:19:43:52	21.605376	-89.525432	354.0	4.6	4009.57	19.91
349 499 172	Peggy		978749.1	23.2	12.6	39
We are coming off the line to avoid fishing gear.						

2005+040:19:57:23	21.622669	-89.533904	342.5	4.0	4010	22.21
390 500 213	Peggy		978761.3	23.2	13.9	33
Shutdown due to fishing boat. Last shot = 390. 391 is a missed shot. EOT 499 = 387/210.						

2005+040:20:01:38	21.62816	-89.536291	352.0	4.1	4010.88	22.71
	Peggy		978761.7	23.2	13.5	29
ST = 3000. Streamer well balanced at 7m depth. Wind speed 1.5h average = 12.6.						

2005+040:20:07:57	21.63659	-89.538009	2.0	4.1	4011.35	21.51
420 500 214	Peggy		978753.8	23.2	14.2	34
Guns back on.						

2005+040:20:23:44	21.657738	-89.5404	1.8	4.0	4012.45	21.81
468 501 262	Peggy		978752.8	23.1	14.2	42
EOT 500: 467/261.						

2005+040:20:30:03	21.666223	-89.541402	2.0	4.5	4012.88	24.01
	Peggy		978754.4	23.2	15.4	43
ST=2900. Bird #28 out of 7m depth range. Wind speed 1.5h average=13.1						

2005+040:20:34:23	21.672047	-89.54209	2.0	4.2		24.71
	Peggy		978755.1	23.2	15.3	41
Giving up line 23 and pulling in 3 port guns to turn onto line 4D.						

2005+040:20:36:57	21.675503	-89.542507	2.3	3.6	4013.38	24.81
506 501 300	Peggy		978761.0	23.2	15.1	42
guns 11-12 turned off						

2005+040:20:41:08	21.681169	-89.54318	2.5	3.4	4013.66	24.81
519 502 313	Peggy		978757.4	23.2	15.6	43
EOT 501: 518/312.						

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Area: Mexico Survey: Chicxulub Line: OBS  
 Shot Rate: 50 Sample Rate: Channels: Aux. Channels:  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

COMMENTS

---

2005+040:20:43:04	21.683724	-89.543495	2.0	3.8	4013.95	25.41
527 502 321	Peggy		978758.0	23.2	14.0	41

end of line Chicx23a. Last shot = 527. Now on OBS line. First shot of OBS line at time 20:44:44

---

2005+040:20:49:59	21.692186	-89.547973	320.7	4.0	4014.21	28.21
216	Peggy		978772.1	23.2	15.6	46

Shutdown due to fishing boats (at 20:49:26 according to MMOs).  
 Last shot on OBS line = 216.

---

2005+040:21:00:04	21.695001	-89.562562	260.0	3.7	4014.8	26.81
	Peggy		978793.7	23.2	13.4	46

ST = 2000. Streamer well balanced at 7m depth. Wind speed 1.5h average = 13.7.

---

2005+040:21:05:12	21.692049	-89.569708	235.0	4.0	4015.13	26.41
201	Peggy		978791.5	23.2	13.2	50

start of ramp up. 1 gun firing

---

2005+040:21:09:59	21.688261	-89.575582	235.3	3.5	4015.41	26.81
215	Peggy		978786.7	23.2	14.5	42

2 guns firing

---

2005+040:21:14:53	21.684422	-89.581584	235.3	3.6	4015.72	26.61
230	Peggy		978786.2	23.2	13.3	36

4 guns firing. Done turning to port, will turn to starboard in ~20 min.

---

2005+040:21:20:24	21.680128	-89.588256	234.8	3.1	4016.08	25.81
246	Peggy		978785.3	23.2	13.5	33

8 guns firing

---

2005+040:21:26:16	21.675653	-89.595267	235.0	3.7	4016.4	24.31
264	Peggy		978784.2	23.2	14.4	27

16 guns firing

---

2005+040:21:30:14	21.672655	-89.59996	235.3	3.7	4016.67	24.11
276	Peggy		978783.6	23.2	14.6	31

20 guns on. ramp up completed. ST = 2400. Streamer well balanced at 7m depth. Wind speed 1.5h average = 13.8.

---

2005+040:21:47:57	21.661598	-89.62211	260.7	3.7	4017.81	22.91
777 503 1	Peggy		978788.8	23.3	13.0	33

Start of line Chicx4d

---

2005+040:22:00:01	21.658292	-89.639051	259.8	3.9	4018.58	25.11
814 503 38	Peggy		978789.9	23.3	15.5	39

---

ST = 2500. Streamer well balanced at 7m depth. Wind speed 1.5h  
average = 14.0. First shot(s) of line Chicx4d may be blank.

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Area: Mexico Survey: Chicxulub Line: Chicx4d  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+040:22:04:34	21.656926	-89.645531	259.3	3.5	4018.81	26.01
828 504 52	Sears et al.		978790.9	23.3	15.4	36
EOT: 503 LSP: 827 FFID: 51 // BOT: 504 FSP: 828 FFID: 52 // Wind speed 90min average ~ 14.0						

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2005+040:22:21:37	21.651764	-89.669727	259.8	3.7	4019.95	23.51
879 505 103	Sears et al.		978792.1	23.3	15.1	35
EOT: 504 FSP: 828 FFID: 52 LSP: 878 FFID: 102 // BOT: 505 FSP: 879 FFID: 103 //						

---

2005+040:22:30:12	21.64923	-89.682041	259.7	3.9	4020.47	23.61
905 505 129	Sears et al.		978793.7	23.4	14.0	39
st. 2519, w.a. 15						

---

2005+040:22:38:14	21.646758	-89.693695	259.8	3.9	4021.01	25.91
930 506 154	tamara		978794.9	23.3	15.2	39
EOT 505: 929/153 SOT 506: 930/154						

---

2005+040:22:55:15	21.641552	-89.718538	259.5	3.6	4022.07	26.21
981 507 205	Goldin et al.		978798.2	23.4	14.5	41
EOT: 506 LSP: 980 FFID: 204 // BOT: 507 FSP: 981 FFID: 205 //						

---

2005+040:23:00:10	21.64005	-89.725755	259.7	3.7	4022.41	26.31
997 507 221	Goldin et al.		978799.5	23.4	14.3	35
ST=2500, wind 14.4						

---

2005+040:23:10:12	21.636923	-89.740503	259.3	4.1	4023.19	26.61
1032 508 256	Goldin et al.		978801.2	23.4	15.1	44
EOT 507 LSP 1031 FFID 255// BOT 508 FSP 1032 FFID 256 // w s 14.4						

---

2005+040:23:27:59	21.631408	-89.766617	259.8	4.1	4024.28	24.91
307 509 1083	Goldin et al.		978804.2	23.4	16.4	40
EOT 508 LSP 1082 FFID 306//BOT 509 FSP 307 FFID 1083// w.s. ~14.5						

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2005+040:23:44:22	21.626309	-89.790671	259.7	3.7	4025.29	25.51
1134 510 358	Goldin et al.		978805.6	23.3	14.0	44
EOT 509: 1133/357 SOT 510: 1134/358						

---

2005+041:00:00:00	21.621511	-89.813576	260.0	3.9	4026.37	25.31
1184 510 408	Goldin et al.			23.3	14.3	43
EOL chicx4D. EOT 510: 1184/408 . last shot for today. streamer tension 2500, streamer ok, wind 14.9						

---

2005+041:00:30:13	21.612356	-89.85813	261.0	4.4	4028.56	22.51
n/a n/a n/a	TJS		978806.5	23.3	14.5	40
Streamer tension ~ 2600, depth good. Wind around ~15.3.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+041:01:00:15 21.603502 -89.902171 259.7 4.2 4030.66 24.71  
 n/a n/a n/a TJS 978803.0 23.3 14.7 45  
 Streamer tension ~ 2300, depth fine and dandy. Wind speed 90min  
 average ~ 15.6

2005+041:01:30:15 21.594632 -89.945914 259.5 4.1 4032.7 25.01  
 TJS 23.3 14.4 43  
 st=2400, streamer ok

2005+041:02:00:36 21.585696 -89.989817 259.0 3.8 4034.74 24.71  
 TJS 978798.2 23.3 17.8 42  
 Streamer tension ~2400, average wind speed 16.0 knots, average  
 depht 25.8 meter

2005+041:03:00:10 21.571254 -90.076607 256.5 4.0 4038.7 25.51  
 matt 978792.7 23.3 16.7 47  
 tension = 2470. Streamer good.

2005+041:03:30:31 21.559623 -90.120534 255.3 3.8 4040.84 25.91  
 Manuel 978790.3 23.3 16.7 40  
 streamer tension ~2400, streamer is good.

2005+041:04:30:08 21.541185 -90.20845 263.7 3.9 4044.73 26.11  
 matt 978789.7 23.2 17.8 37  
 tension=2525. streamer is good.

2005+041:05:00:08 21.531978 -90.254009 260.3 4.2 4046.7 27.01  
 matt 978785.7 23.2 15.9 46  
 Tension = 2724. Streamer good.

2005+041:05:30:13 21.521862 -90.300726 251.0 4.7 4048.9 22.81  
 Manuel 978784.6 23.2 13.9 49  
 streamer tension ~2600, streamer is good.

2005+041:06:00:19 21.511482 -90.344967 266.1 4.4 4051.06 22.71  
 Matt 978781.1 23.2 15.2 48  
 Tension =2544. Streamer good. Change of watch.

2005+041:06:30:02 21.505735 -90.3893 266.7 4.3 4053.29 23.51  
 Peggy 978780.9 23.2 16.4 47  
 ST = 2400. Streamer well balanced at 7m depth. Wind speed 1.5h  
 average = 15.1.

2005+041:07:00:11 21.499872 -90.434449 266.7 3.4 4055.41 26.81  
 Peggy 978779.2 23.3 15.7 47  
 ST = 2500. Streamer ok. Wind = 17.7.



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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

---

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+041:07:31:14	21.493127	-90.48082	264.5	4.2	4057.55	28.01
	eliza		978776.5	23.4	13.6	42
ST=2300-2400. Bird #28 out of 7m depth range. Wind speed 1.5h						
average=15.7						

---

2005+041:08:00:02	21.486842	-90.522822	264.3	4.1	4059.51	26.01
	eliza		978778.0	23.4	15.1	52
ST=2400 Bird #28 out of 7m depth range Wind speed 1.5h						
average=15.8						

---

2005+041:08:30:11	21.470341	-90.560994	190.3	3.7	4061.53	26.51
	eliza		978762.3	23.5	13.1	61
ST=1900 Bird #28 out of 7m depth range. Wind speed 1.5h						
average=15.6						

---

2005+041:09:00:11	21.450791	-90.532636	75.5	5.0	4063.7	24.21
	eliza		978708.7	23.4	16.0	56
ST=3800, Birds #27 and 28 out of 7m depth range. Wind speed 1.5h						
average=15.7						

---

2005+041:09:30:03	21.460411	-90.486875	76.8	4.7	4066.04	24.21
	eliza		978707.4	23.4	17.5	62
ST=3600, Bird #28 out of 7m depth range. Wind speed 1.5h						
average=16.0						

---

2005+041:10:00:05	21.46927	-90.440765	79.7	4.7	4068.42	23.71
	eliza		978709.3	23.2	14.9	53
ST=3400, Bird #28 out of 7m depth range Wind speed 1.5h						
average=16.2						

---

2005+041:11:00:14	21.487417	-90.351441	76.7	4.3	4072.9	24.71
	tamara		978710.8	23.1	15.1	38
st=3400, wind 15.5						

---

2005+041:11:30:18	21.496834	-90.306582	77.5	4.5	4075.09	24.21
	tamara		978710.2	23.2	14.8	45
st=3500, wind 15.4						

---

2005+041:12:00:20	21.506217	-90.261898	77.1	4.6	4077.37	21.71
	tamara		978711.6	23.2	13.4	47
st=3300, wind=15.0						

---

2005+041:12:30:45	21.515806	-90.216457	78.5	4.1	4079.6	24.91
	tamara		978715.6	23.2	11.9	47
st=3200, wind=14.2, streamer fine						

---

Area: Mexico Survey: Chicxulub Line: chicx5  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 1 Pressure: 80 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+041:12:45:43	21.520409	-90.194564	77.5	4.0	4080.67	25.21
107 511 1	tamara		978718.6	23.2	12.0	54
ramp-up start. 1 gun firing. SOT 511: 107/1. SOL chicx5. transversing line from W to E.						

2005+041:12:50:52	21.52197	-90.187339	78.7	4.2	4081.02	25.11
122 511 16	tamara		978719.5	23.2	11.6	55
2 guns firing.						

2005+041:12:55:55	21.523412	-90.180384	77.5	3.7	4081.34	25.51
137 511 31	tamara		978695.4	23.2	11.2	46
4 guns firing						

2005+041:13:00:58	21.524913	-90.173249	77.8	4.4	4081.68	24.11
152	tamara		978718.4	23.2	11.7	47
8 guns firing						

2005+041:13:03:18	21.525643	-90.169821	78.7	4.7	4081.84	24.11
158 512 52	tamara		978717.7	23.2	11.3	56
EOT 511: 157/51 SOT 512: 158/52						

2005+041:13:06:12	21.526545	-90.165561	78.5	4.5	4082.08	23.41
168 512 62	tamara		978717.4	23.2	11.0	52
16 guns firing						

2005+041:13:11:07	21.528042	-90.158353	78.5	4.5	4082.42	22.11
184 512 78	tamara		978717.9	23.2	10.6	47
20 guns firing. end of ramp-up.						

2005+041:13:19:19	21.530552	-90.146341	78.1	3.9	4083.01	24.71
209 513 103	tamara		978719.2	23.2	10.9	43
EOT 512: 208/102 SOT 513: 209/103						

2005+041:13:30:05	21.533847	-90.130802	78.5	4.1	4083.77	24.41
243 412 137	tamara		978719.7	23.2	9.5	42
ST=3100, WIND=11.7						

2005+041:13:35:50	21.535587	-90.122444	78.1	4.3	4084.17	24.31
260 514 154	tamara		978718.9	23.2	9.1	51
EOT 513: 259/153 SOT 514: 260/154						

2005+041:13:52:54	21.540763	-90.097784	77.8	4.4	4085.35	22.21
311 515 205	tamara		978720.7	23.2	8.6	44
EOT 514: 310/204 SOT 515: 311/205						

2005+041:14:00:02	21.542916	-90.087699	78.5	4.1	4085.84	23.51
334 515	tamara		978721.4	23.2	8.1	50

ST=3000, WIND=10.4. change of watch.

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Area: Mexico Survey: Chicxulub Line: chicx5  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 4082 Volume: 6947

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+041:14:10:11	21.545897	-90.073358	77.5	4.2	4086.64	23.71
362 516 256	tamara		978722.2	23.2	9.9	46
Tape change. EOT 515, (SP 361, FFID 255) BOT 516, (SP 362, FFID 257). Kevin - can you check tape 515 please as the drives did something funny - it took a long time to recognise the new tape in the drive...						

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2005+041:14:26:32	21.550742	-90.050294	77.7	4.5	4087.81	23.41
413 517 307	Anusha		978722.8	23.2	9.2	27
Tape Change - EOT 516 (SP 412, FFID 306). BOT 517 (SP 413, FFID 307)						

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2005+041:14:30:04	21.551784	-90.045295	77.1	4.2	4087.99	23.21
	Anusha		978723.3	23.2	10.7	44
Currently shooting the start of line 5. Streamer tension is 3018 and wind speed is 9.5 - very promising.....						

---

2005+041:14:43:24	21.555809	-90.026392	77.3	4.2	4088.9	23.01
464 518 358	Anusha		978724.3	23.2	9.7	39
Tape Change. EOT 517 (SP 463, FFID 357) BOT 518 (SP 464, FFID 358)						

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2005+041:15:00:06	21.560678	-90.002982	77.5	4.1	4090.03	23.21
515 519 409	Anusha		978726.0	23.2	9.6	29
Tape CHange. EOT 518. (SP 514 FFID 408) BOT 519 (SP 515, FFID 409)						

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2005+041:15:17:44	21.565765	-89.978642	77.3	4.1	4091.22	23.41
566 520 460	Anusha		978729.0	23.2	9.5	31
Tape change. EOT 519. (SP 465 FFID 459) BOT 520 (FSP 566, FFID 460)						

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2005+041:15:30:14	21.569456	-89.961455	77.0	4.1	4092.0	24.41
	Anusha		978730.7	23.2	8.6	44
shooting line chicx5. Everything fine - streamer is balanced						

---

2005+041:15:35:22	21.570916	-89.954378	78.0	3.7	4092.35	24.21
617 520 511	Anusha		978731.5	23.2	7.6	43
Tape change. EOT 519 (SP 616, FFID 510) BOT 521 (SP 617, FFID 511)						

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2005+041:15:53:00	21.575985	-89.930188	76.7	4.1	4093.51	21.71
668 522 562	Anusha		978733.0	23.2	7.5	41
Tape change. EOT 521 (SP 667, FFID 561) BOT (SP 668, FFID 562)						

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2005+041:16:00:01	21.578043	-89.920553	77.5	3.9	4093.96	24.01
	Manuel		978733.8	23.2	7.8	45

Shooting line chicx 5. Everything fine. streamer tension ~ 3000.  
streamer is balanced.

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Area: Mexico Survey: Chicxulub Line: chicx5  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 4082 Volume: 6947

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+041:16:10:59	21.581155	-89.905439	77.1	4.3	4094.7	23.51
719 523 613	Manuel		978734.4	23.2	7.8	36
Tape change. EOT 522 (sp 718 ffid 612) BOT 523 (sp 719 ffid 613)						

2005+041:16:28:25	21.586195	-89.881544	76.0	4.0	4095.88	22.11
770 524 664	Manuel		978737.2	23.2	8.6	32
Tape change. EOT 523 (SP 769 FFID 663) BOT 524 (SP 770 FFID 664)						

2005+041:16:30:36	21.58683	-89.878557	76.8	4.3	4096.02	22.51
	Manuel		978743.2	23.2	9.7	30
shooting line chicx5. Everything fine. streamer tension ~2900. streamer is balanced						

2005+041:16:45:50	21.5912	-89.857733	76.3	3.7	4097.09	23.21
821 525 715	Manuel		978736.6	23.2	8.7	23
TAPE CHANGE. EOT 524 (SP 820 FFID 714). BOT 525 (SP 821 FFID 715)						

2005+041:17:00:05	21.595348	-89.838219	76.1	4.4	4097.99	21.71
	Matt		978737.8	23.2	11.9	16
Tension = 4098.01. Streamer good.						

2005+041:17:02:57	21.596137	-89.834292	76.3	4.0	4098.18	22.61
	Matt				23.3	11.9 20
End Tape: 525. Shots: 821-871. Files: 715-765.						

2005+041:17:20:52	21.601181	-89.810205	74.7	4.3	4099.47	20.91
	Matt		978739.3	23.3	12.7	7
End Tape: 526. Shots: 872-922. Files: 766-816.						

2005+041:17:30:01	21.60388	-89.797556	75.3	4.3	410.12	23.61
	Matt		978737.1	23.3	12.8	17
Tension = 2854. Streamer good.						

2005+041:17:38:49	21.606382	-89.785495	74.7	4.2	4100.73	23.21
	Matt		978737.7	23.3	10.6	16
End tape: 527. Shots: 923-973. Files: 817-867.						

2005+041:17:56:00	21.611315	-89.762026	75.7	3.6	4101.89	23.81
	Matt		978736.9	23.3	9.2	22
End tape: 528. shots: 974-1024. files: 868-918.						

2005+041:18:00:03	21.612499	-89.756384	75.3	4.3	4102.16	24.41
	Matt		978736.3	23.3	10.1	22
Tension = 2961. Streamer good.						

2005+041:18:13:47	21.616554	-89.737216	75.7	4.1	4103.18	24.21
1076 530 970	eliza		978733.8	23.3	10.5	17

EOT 529=1075/969 SOT 530=1076/970

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Area: Mexico Survey: Chicxulub Line: chicx5  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 4082 Volume: 6947

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+041:18:30:06	21.621283	-89.714473	75.1	4.2	4104.33	24.51
1127	eliza		978731.5	23.2	9.2	13

ST=3000 Bird #28 out of 7m depth range. Wind speed 11.1

---

2005+041:18:32:04	21.621874	-89.711721	75.0	4.4	4104.44	25.01
1127 531 1021	eliza		978731.0	23.2	9.5	22

EOT 530: 1126/1020 SOT 531: 1127/1021

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2005+041:18:48:19	21.626689	-89.689082	75.0	3.9	4105.53	24.21
1178 532 1072	eliza		978729.0	23.2	10.4	15

EOT 531:1177/1071 SOT 532:1178/1072

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2005+041:19:00:04	21.630079	-89.672623	75.5	4.1	4106.34	23.51
1216 532 1110	eliza		978726.7	23.2	10.1	17

ST=3000, Wind speed 1.5h average=10.2

---

2005+041:19:05:22	21.631647	-89.665187	75.5	3.9	4106.66	23.41
1229 533 1123	eliza		978725.9	23.2	9.0	18

EOT 532:1228/1122 SOT 533:1229/1123

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2005+041:19:17:43	21.635271	-89.647878	75.3	3.8	4107.52	25.01
1270 533 1164	Peggy		978723.9	23.2	8.3	21

3 starboard guns being turned off for the turn.

---

2005+041:19:21:55	21.636524	-89.641965	76.0	4.1	4107.77	25.21
1280 534 1174	Peggy		978723.3	23.2	8.9	10

EOT 533: 1279/1173.

---

2005+041:19:25:08	21.637469	-89.637391	76.3	4.0	4108.15	23.11
1288 534 1182	Peggy		978721.9	23.2	10.1	13

End of line Chicx5. We are now on an OBS line, turning starboard onto line Chicx6b. First shot on OBS line = 201 (most probably, need to verify!).

---

2005+041:19:30:18	21.637107	-89.630213	103.3	4.0	4108.32	24.01
214	Peggy		978722.1	23.2	10.0	4

ST = 3100. Streamer ok. Wind = 9.7.

---

2005+041:20:00:07	21.604709	-89.630887	251.3	4.0	4110.34	23.11
304	Peggy		978780.8	23.2	8.6	356

ST = 2500. Streamer ok. Wind = 9.5.

---

2005+041:20:05:24	21.603524	-89.638848	274.1	4.0	4110.79	23.01
320	Peggy		978787.4	23.3	11.6	350

We finished turning to starboard. We will go straight for ~2.5 miles, and then turn onto line Chicx6b at the intersection.

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Area: Mexico Survey: Chicxulub Line: OBS  
 Shot Rate: 50 Sample Rate: Channels: Aux. Channels:  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+041:20:16:32	21.60345	-89.655572	274.0	3.8	4111.47	23.11
354	Peggy		978790.1	23.3	11.3	352
all guns back on						

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2005+041:20:30:37	21.602609	-89.676385	261.5	4.4	4112.43	22.61
920 535 2	Peggy		978794.0	23.3	10.5	4
ST = 2400. Wind speed 1.5h average = 9.9. Start of line Chicx6b: one wrong shot number 201, first good shot = 920. Intersection of line 6 and 21. Streamer is half straight, but streamer NOT yet along line 6.						

---

2005+041:20:42:54	21.598919	-89.694374	261.8	3.8		22.91
	Peggy		978795.7	23.3	12.4	12
Problem with seisnet. It was stuck on the last FFID of the last line, and then again stuck on FFID 20. Restarted at FFID 31.						

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2005+041:20:46:17	21.597924	-89.699337	261.7	4.2	4113.51	22.11
941 535 43	Peggy		978796.2	23.3	8.5	7
Seisnet is working again.						

---

2005+041:20:47:22	21.597608	-89.700924	261.8	3.9		22.61
	Peggy		978796.4	23.3	9.4	4
Seisnet computer missed shot 963, FFID 45.						

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2005+041:20:48:19	21.597333	-89.702321	262.5	4.1		22.41
	Peggy		978796.5	23.3	9.0	353
CORRECTION: shot number at 20.47 = 961 (not 941)						

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2005+041:20:49:01	21.597124	-89.703351	262.3	4.0	4113.78	22.41
970 536 52	Peggy		978796.7	23.3	9.7	10
EOT 535: 969/51.						

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2005+041:20:51:10	21.596477	-89.706532	262.1	4.0		22.81
	Peggy		978797.0	23.3	9.4	12
ADDITION: streamer on line Chicx6b from shot number 961, FFID 43.						

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2005+041:21:00:10	21.593625	-89.719831	261.3	4.3	4114.51	22.41
1006 536 88	Peggy		978798.2	23.3	12.0	12
ST = 2550. Streamer well balanced at 7m depth. Streamer straight. Wind speed 1.5h average = 10.2.						

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2005+041:21:04:42	21.592209	-89.726562	261.8	4.3	4114.8	22.81
1021 537 103	Peggy		978798.8	23.3	11.7	8
EOT 536: 1020/102.						

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2005+041:21:21:43	21.587045	-89.75147	261.0	4.2	4116.04	21.91
1072 538 154	Peggy		978799.5	23.4	10.5	357

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EOT 537: 1071/153.

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Area: Mexico Survey: Chicxulub Line: Chicx6b  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+041:21:30:31	21.584299	-89.764304	260.7	4.1	4116.66	21.91
1101 538 183	Peggy		978800.3	23.4	8.0	9
ST = 2400. Streamer ok. Wind = 10.6.						

2005+041:21:38:17	21.581921	-89.77567	262.0	4.8	4117.31	20.01
1123 539 205	Peggy		978801.4	23.4	10.2	14
EOT 538: 1122/204.						

2005+041:21:54:41	21.576965	-89.799646	261.3	4.7	4118.55	20.51
1174 540 256	Peggy		978801.9	23.4	9.2	359
EOT 539:1173/255 SOT 540:1174/256						

2005+041:22:00:22	21.575211	-89.807927	261.1	4.1	4118.87	23.01
1193 540 275	Peggy		978802.2	23.4	9.1	357
ST=4118.93 Wind speedd 1.5h average=10.1						

2005+041:22:11:07	21.57195	-89.823582	260.7	4.1	4119.6	20.71
1225 541 307	Sears et al		978800.1	23.4	11.6	22
EOT 540 1224/306 SOT 541 1225/307 W. A. 10 ST 2480						

2005+041:22:27:28	21.566912	-89.847536	261.0	4.2	4120.81	21.91
1276 542 358	Sears et al.		978802.2	23.4	9.4	17
EOT: 541 LSP: 1275 FFID: 357 // BOT: 542 FSP: 1276 FFID: 358 //						

2005+041:22:43:52	21.561853	-89.871624	261.5	4.1	4121.96	23.51
1327 543 409	Sears et al.		978814.2	23.5	8.7	9
EOT 542 LSP 1326 FFID 408 SOT 543 FSO 1327 FFID 409 W> speed 1.5h 10.4 ST 2471						

2005+041:23:00:04	21.556906	-89.895439	261.1	4.0	4123.05	23.21
1378 544 460	Sears et al.		978797.8	23.4	10.8	12
EOT 543: 1377/459 SOT 544: 1378/460						

2005+041:23:17:47	21.551412	-89.921464	260.1	3.8	4124.25	23.81
1429 545 511	Sears et al.		978796.5	23.4	8.8	15
EOT 544 LSP 1428 FFID 510 SOT 545 FSP 1429 FFID 511 W S ~11 ST 2450						

2005+041:23:30:08	21.547669	-89.939594	260.5	4.2	4125	24.41
1473 545 555	Sears et al.		978796.1	23.4	14.0	14
wind 11.4, st=2500						

2005+041:23:32:24	21.546979	-89.942933	261.0	4.0	4125.25	23.71
1480 546 562	Sears et al.		978795.9	23.4	10.3	11
EOT 545: 1479/561 SOT 546: 1480/562						

2005+041:23:49:13	21.541716	-89.967666	260.1	4.3	4126.39	24.11
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1531	547	613	Sears et al.	978792.9	23.4	14.7	21
EOT 546: 1530/612 SOT 547: 1531/613							

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Area: Mexico Survey: Chicxulub Line: Chicx6b  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+042:00:00:00	21.538485	-89.983337	261.0	3.8	4127.15	23.81
1567 547 649	Sears et al.				23.4 12.3	10
EOL Chicx6b. EOT 547: 1567/649 . last shot of day. st=2400, wind=12.9.						

2005+042:00:30:10	21.52912	-90.027878	260.3	4.8	4129.23	23.01
	Sears et al.		978788.8	23.4	14.4	26
st=2500, wind=13.1 , streamer ok.						

2005+042:01:00:15	21.520954	-90.072917	286.7	4.2	4131.45	23.41
	Sears et al.		978785.2	23.4	14.6	8
st=2400						

2005+042:01:30:06	21.538037	-90.112854	315.7	4.2	4133.47	24.31
	Sears et al.		978788.8	23.4	20.3	27
S.T. 2611. Wind ~21. Streamer looks fine						

2005+042:02:00:09	21.562102	-90.149228	317.3	4.3	4135.54	26.31
	Sears et al.		978786.3	23.4	20.0	38
st=2800, streamer fine. wind picking up.... change of watch.						

2005+042:02:30:19	21.578076	-90.191549	296.5	3.8	4137.68	27.21
	Sears et al.		978795.5	23.4	19.6	27
streamer tension ~2800. streamer is balanced. wind velocity ~20.2 knots.						

2005+042:03:00:12	21.589293	-90.234531	296.7	4.6	4139.83	29.11
	Sears et al.		978782.4	23.3	16.8	20
streamer tension ~ 2700. streamer is balanced. average depth 30.3 meter						

2005+042:03:30:16	21.602265	-90.277911	299.1	4.8	4142.18	29.31
	Manuel		978793.6	23.3	19.8	25
streamer tension ~ 2650. win speed is 20.7 knots. streamer is balanced						

2005+042:04:00:24	21.647841	-90.356881	305.8	4.2	4144.55	32.21
	Manuel		978791.5	23.3	18.7	28
streamer tension ~2700. streamer has a large lump in it at the front. However it appears to be coming back down... We are keeping an eye on it. wind speed 18.4						

2005+042:04:30:58	21.633937	-90.362702	318.0	4.6	4147.08	32.91
	Anusha		978797.3	23.3	17.7	22
streamer bubble has passed down the streamer and the streamer now looks fine - but the front may be starting to rise up once more. Tension = 2989.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR

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COMMENTS

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2005+042:04:46:45 21.653387 -90.370182 5.7 3.5 4148.36 34.81  
 Anusha 23.3 16.1 25  
 front half of the streamer has now risen up to the surface. We  
 are slowing down to try to get it back down again - makes the  
 streamer negatively buoyant.

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2005+042:05:00:12 21.664672 -90.371862 8.5 2.8 4149.13 35.31  
 Anusha 978770.3 23.4 16.2 32  
 The whole streamer was almost at the surface but the front has now  
 started to come down to about 5m - we are going to start speeding  
 up very slowly. We will be turning again in 1hr - we must make  
 sure the streamer is fully balanced before we start turning again  
 and keep a close eye on it!

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2005+042:05:30:21 21.703964 -90.375233 3.3 5.5 4151.53 38.01  
 Anusha 978787.5 23.3 16.9 19  
 streamer is behaving itself perfectly now! everything excellent!

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2005+042:06:00:13 21.745345 -90.370189 60.1 5.7 4154.23 40.61  
 Anusha 978753.0 23.3 19.3 5  
 streamer tension ~4200. average depth 40.3 meter. wind speed 16.6  
 knots

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2005+042:06:30:08 21.755423 -90.326393 75.1 5.6 4157.03 38.91  
 Peggy 978742.7 23.3 16.9 18  
 ST = 4300. Streamer balanced ok, birds 9-14 slightly too deep.  
 birds 27-28 too shallow. Wind speed 1.5hr average = 17.8.

---

2005+042:07:00:11 21.760787 -90.279986 79.1 5.6 4159.95 38.31  
 Peggy 978734.8 23.4 16.2 15  
 ST = 4000. Streamer well balanced at 7m depth. Wind = 17.5.

---

2005+042:07:30:13 21.764037 -90.234904 81.0 5.5 4162.67 36.51  
 Peggy 978740.7 23.3 20.1 18  
 ST = 4000. Streamer ok. Wind = 17.4.

---

2005+042:08:00:01 21.761427 -90.190531 86.8 5.4 4165.42 39.01  
 Peggy 978740.8 23.3 17.2 12  
 ST = 4000. Streamer ok. Wind = 17.7.

---

2005+042:08:30:05 21.758702 -90.145681 86.5 5.1 4168.36 38.31  
 Peggy 978741.2 23.3 17.5 22  
 ST = 3800. Streamer ok. Wind = 17.7.

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2005+042:09:00:08 21.747657 -90.103537 99.7 5.4 4170.81 35.51  
 eliza 978749.7 23.3 18.1 17  
 ST=3900-4000, Wind speed 1.5h average=17.7

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+042:09:30:11	21.736189	-90.061609	97.8	5.2	4173.46	34.21
	eliza		978752.9	23.3	18.1	18
ST=3500-3600, Wind speed 1.5h average=17.5						

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2005+042:09:59:23	21.736041	-90.020496	73.8	4.9	4176.15	34.61
	Peggy		978768.2	23.2	19.4	18
Streamer at the surface from birds 9 to 28. We are slowing down to 4 knots through the water. ST = 3400. Wind = 17.6						

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2005+042:10:30:12	21.742653	-89.982166	74.7	5.6	4178.46	34.31
	tamara		978749.0	23.2	16.5	26
st=3700, wind=18.0. streamer starting to come down. First 2/3 of streamer is down, end is still up at surface.						

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2005+042:11:00:18	21.751326	-89.941285	71.5	5.1	4181.04	34.51
	tamara		978752.8	23.2	18.2	31
st=3500, wind=18.7. streamer fine!						

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2005+042:11:30:03	21.761527	-89.901169	72.3	5.1	4184.03	34.11
	Sears et al.		978747.4	23.2	19.3	26
Streamer tension ~ 3600. Streamer depth is now satisfactory, with only the first bird (or two) sitting above the green band. The wind speed 90min average has increased to 19.3. Therefore, in the manner of Surendra (2004; 2005), we say "Damn this wind".						

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2005+042:12:00:20	21.766236	-89.859161	90.5	5.5	4186.21	34.21
	Sears et al.		978744.8	23.1	19.7	21
ST. 3781, wind over 18 and increasing, streamer is fine now						

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2005+042:12:30:07	21.761817	-89.817314	90.3	4.9	4188.76	34.31
	Sears et al.		978746.3	23.1	20.3	23
ST. 3340, W S 1.5h 19.7, we can't shot because the weather						

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2005+042:12:41:47	21.759902	-89.801217	95.7	5.4	4189.81	33.21
	Sears et al.		978744.9	23.0	20.5	20
Start of turn "to right", to head south on to line chicx20... We hope...						

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2005+042:13:03:53	21.736672	-89.78278	157.3	5.0	4191.66	33.51
	Sears et al.		978765.6	23.0	17.8	30
Aiming for chicx20 but weather threatening start. Streamer ~ 3500, depth good.... Nice.						

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2005+042:14:00:13	21.662033	-89.766171	161.0	3.7	4195.78	26.11
	Sears et al.		978765.9	22.9	17.7	33
Streamer tension ~ 3200, depth good // Wind speed 18.5 //						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+042:14:30:13	21.623053	-89.757936	160.5	3.6	4197.68	24.31
	Manuel		978764.6	23.0	18.6	35
streamer tension ~2900. average depht 25.8 meter. wind speed 20.4 knots						

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2005+042:15:00:17	21.58537	-89.74999	161.5	4.4	4199.6	21.61
	Manuel		978761.5	23.0	16.8	31
streamer tension ~2900. average depht 22.7 meter. average wind speed 17.6 knots						

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2005+042:15:30:14	21.54797	-89.742206	159.8	4.3	4201.81	5.51
	Manuel		978755.2	23.0	17.8	40
We will be starting the turn to starboard in 20 minutes.						

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2005+042:15:49:40	21.522019	-89.7366	164.3	5.0		19.21
	Manuel		978751.0	23.1	16.5	46
starting turn to starboard						

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2005+042:16:00:06	21.507469	-89.740777	217.0	5.6	4204.26	18.11
	Manuel		978771.2	23.2	17.3	38
streamer tension ~3400. average win d speed 17.4 knots						

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2005+042:16:18:14	21.498048	-89.766885	261.7	4.8		18.01
	Manuel		978790.7	23.2	16.2	52
weather dropped to 17.0 - preparing to shoot						

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2005+042:16:20:28	21.497498	-89.770194	263.7	5.1	4206.25	18.01
205	Anusha		978788.7	23.2	16.8	40
1st shot of ramp up on OBS line - shot no 205. 1 gun firing. We are currently on a turn onto line 19 (having sailed down line 20 but failed to shoot any of it due to high winds....) The streamer is looking pretty noisy but we are on a turn and the streamer is not recording at the moment.						

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2005+042:16:25:41	21.496261	-89.777921	264.7	5.0	4206.53	17.71
	Anusha		978788.9	23.2	18.8	43
2 guns firing						

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2005+042:16:30:11	21.495269	-89.784461	266.3	5.1		17.11
	Anusha		978789.8	23.2	16.0	44
currently in the middle of a ramp up on an OBS turning line. We are turning onto line 19.						

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2005+042:16:30:57	21.495116	-89.785582	267.1	4.7	4206.94	16.61
235	Anusha		978788.2	23.2	16.0	44
4 guns now on						

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Area: Mexico Survey: Chicxulub Line: OBS  
 Shot Rate: 2000 Sample Rate: OBS Channels: 2000 Aux. Channels: OB  
 Source: airguns Guns: 8 Pressure: 1400 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+042:16:36:22	21.494567	-89.793563	281.3	4.8		17.71
252	Anusha		978789.6	23.2	17.2	30
8 guns now on						

2005+042:16:40:46	21.496107	-89.799955	300.0	5.1		18.41
	Anusha		978790.2	23.2	14.6	38
14 guns now on ( guns 6,8,9,10,13,15 are off)						

2005+042:16:43:53	21.498144	-89.804027	315.0	5.3		17.71
	Anusha		978786.6	23.2	15.0	50
we will still be turning for another 10 min						

2005+042:16:45:47	21.499797	-89.806241	324.0	4.8	5208.18	18.61
	Anusha		978785.6	23.2	15.5	56
17 guns now on - we'll stick on 17 guns till the turn is over (guns 8, 9 and 10 are out...)						

2005+042:16:54:09	21.509593	-89.811326	0.0	4.8	4208.85	17.21
305	Anusha		978770.0	23.2	16.6	46
we are finished with the turn. there are still 3 guns out of the water though...						

2005+042:16:59:51	21.516895	-89.812439	2.3	4.7		18.31
	Anusha		978800.6	23.1	15.1	51
gun 8 back in - shot 320? total og 18 guns in now						

2005+042:17:01:38	21.519057	-89.81275	2.5	4.2		19.21
327	Anusha		978761.4	23.1	17.0	52
All the guns are out.						

2005+042:17:12:44	21.532541	-89.815169	0.1	4.5	4210.38	19.71
319 540 1	Anusha		978767.3	23.1	15.6	58
End of OBS line - last shot was 360 on OBS. 1st shot on Chicx 19 is 319. The streamer is only half straight - the back half will have to be edited.						

2005+042:17:30:12	21.55348	-89.819656	1.7	4.4	4211.38	20.71
	Anusha		978771.6	23.1	14.9	58
Streamer is almost straight now but still looking pretty noisy - prob due to the hhigh swells. Weather is 16.6 hr average but ship is rocking a fair bit.`. We are shooting line 19 at the moment						

2005+042:17:32:47	21.556709	-89.82029	2.1	4.0	4211.57	20.81
370 549 52	Manuel		978771.9	23.1	15.8	48
TAPE CHANGE. EOT 548 (SP 369 FFID 51) BOT 549 (SP 370 FFID 52)						

2005+042:17:51:15	21.578992	-89.824894	1.7	3.8	4212.82	24.71
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421 550 103 Manuel 978772.3 23.1 19.6 52  
TAPE CHANGE. EOT 549 (SP 420 FFID 102). BOT 550 (SP 421 FFID 103).

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Area: Mexico Survey: Chicxulub Line: 19  
 Shot Rate: 2000 Sample Rate: 2000 Channels: OBS Aux. Channels: Ch  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 19

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+042:18:00:06	21.589601	-89.827173	1.8	3.8	4213.36	21.71
	Manuel		978775.1	23.1	16.7	52
SHOOTING LINE CHICX19. EVERYTHING FINE. STREAMER TENSION ~2700. STREAMER IS BALANCED						

2005+042:18:10:21	21.601826	-89.829742	2.1	4.0	4214.06	20.11
472 551 154	Manuel		978776.5	23.1	17.5	64
EOT 550:471/153 SOT 551: 472/154						

2005+042:18:13:57	21.606049	-89.830621	2.0	3.6	4214.34	21.71
483 551 165	keren		978776.4	23.1	20.0	60
shut down due to the wearher EOT 551: 551/165. All guns off						

2005+042:18:30:14	21.625475	-89.834778	3.1	3.6	4215.3	25.31
	Peggy		978779.6	23.0	17.2	57
ST = 2600. Streamer ok. Wind = 17.3.						

2005+042:19:00:17	21.661043	-89.842167	0.7	3.6	4212.01	26.91
	keren		978779.7	23.0	16.1	61
Wind speed average: 17.8, streamer tension 2900-300						

2005+042:19:30:06	21.697383	-89.849756	0.8	4.4	4219.19	31.41
	keren		978779.6	23.0	17.3	58
waiting for a slower wind speed. WS average: 17.5, streamer tension 2900-3100. Streamer well ballanced						

2005+042:20:00:06	21.733749	-89.857449	0.5	4.4	4221.5	32.51
	eliza		978784.0	23.1	15.6	67
Waiting for a slower wind speed. WS average=17.1 ST=3100						

2005+042:20:13:27	21.750819	-89.856882	30.0	5.2	4222.63	31.71
208	Peggy		978768.6	23.1	18.4	62
start of ramp up. 1 gun firing						

2005+042:20:19:48	21.758125	-89.853061	44.1	5.0	4223.16	32.91
226	Peggy		978763.7	23.1	16.5	50
air pressure at 2000 psi						

2005+042:20:24:28	21.761945	-89.847789	65.7	5.2	4223.55	34.21
240	Peggy		978751.3	23.1	18.5	45
2 guns firing						

2005+042:20:29:27	21.763642	-89.841208	74.8	4.5	4223.96	33.81
256	Peggy		978744.9	23.0	13.6	41
4 guns firing						

2005+042:20:30:09	21.763823	-89.840334	76.3	4.9	4224.04	32.01
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Peggy 978745.2 23.0 13.4 53  
ST = 2700. Streamer ok. Wind = 16.6.

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Area: Mexico Survey: Chicxulub Line: OBS  
 Shot Rate: 50 Sample Rate: Channels: Aux. Channels:  
 Source: airguns Guns: 4 Pressure: 570 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+042:20:34:47	21.765135	-89.834556	74.8	4.9	4224.39	33.81
272	Peggy		978747.6	23.0	16.2	62
8 guns firing						

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2005+042:20:46:38	21.768268	-89.819376	77.0	4.9	4225.46	33.51
307	Peggy		978747.1	23.0	15.2	56
ramp up completed. guns 8-9-10 not on because of turn. Ship slower because streamer was coming up in the turn. ST = 3600.						

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2005+042:21:00:02	21.769925	-89.801617	100.3	5.1	4226.48	34.11
348	Peggy		978745.3	23.0	13.3	60
ST = 3600. Streamer well balanced at 7m depth. Wind speed 1.5hr average = 16.3.						

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2005+042:21:16:20	21.754444	-89.785787	161.8	5.2	4227.92	32.11
396	Peggy		978761.1	23.0	17.1	45
done with the turn, and starting the run in on line Chicx20.						

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2005+042:21:29:04	21.737304	-89.78223	156.8	4.7	4228.93	31.71
434	Peggy		978768.2	23.0	16.0	51
20 guns on. ST = 2900. Streamer ok. Wind = 15.8.						

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2005+042:21:45:24	21.71567	-89.77737	159.8	3.9	4230.17	26.51
219	552 1 Peggy		978766.8	23.0	15.9	47
Start of line Chicx 20						

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2005+042:22:00:02	21.696063	-89.773285	160.7	4.6	4231.2	29.21
264	552 46 Peggy		978766.7	23.0	15.9	46
ST = 3000. Streamer well balanced at 7m depth. Streamer nearly completely straight, but slightly off and parallel to line 20 on Spectra. Wind speed 1.5hr average = 15.7. Watch standers change.						

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2005+042:22:02:16	21.693076	-89.772636	161.0	4.7	4231.32	28.41
270	553 52 Tamara		978766.3	23.0	14.1	45
EOT 552: 269/51 SOT 553: 270/52						

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2005+042:22:19:09	21.670502	-89.767926	159.7	3.7	4232.46	28.21
321	554 103 Tamara		978765.8	23.0	17.6	49
EOT 553: 320/102 SOT 554: 321/103						

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2005+042:22:30:03	21.655966	-89.764888	159.0	3.6	4233.15	26.21
	Tamara		978765.6	23.0	15.6	50
Wind speed 90min average ~ 16.1 // Streamer tension ~ 3100, depth good // Swell like noise on streamer data for no obvious reason.						

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2005+042:22:36:37	21.647248	-89.763055	160.7	3.1	4233.57	26.71
372	555 154 Tamara		978764.2	23.0	16.4	42

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EOT: 554 LSP: 371 FFID: 153 // BOT: 555 FSP: 372 FFID: 154 //  
Other comments: Continued swell noise on streamer data

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Area: Mexico Survey: Chicxulub Line: chicx20  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+042:22:53:42	21.62454	-89.758263	160.7	4.1	4234.66	24.21
423 556 205	Tamara		978762.5	23.0	16.2	46
EOT 555: 422/204 SOT 556: 423/205						

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2005+042:23:00:05	21.615992	-89.75647	161.8	4.1	4235.22	24.51
	Tamara		978765.0	23.0	15.1	46
Streamer looking just grand. Tension ~ 3400, depth good.						
However, swell noise continues. Wind speed 90min average ~ 16.2						

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2005+042:23:10:33	21.601995	-89.753559	161.3	3.9	4235.77	23.11
474 557 256	Tamara		978761.7	23.0	17.1	55
EOT: 556 LSP: 473 FFID: 255 // BOT: 557 FSP: 474 FFID: 256 //						

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2005+042:23:27:05	21.579857	-89.748881	160.1	4.1	4236.94	22.21
525 558 307	TJS		978760.8	23.0	16.9	52
EOT: 557 LSP: 524 FFID: 306 // BOT: 558 FSP: 525 FFID: 307 //						
Other comments: Streamer fine, tension ~3100 and depth good.						
Swell noise continues. Wind speed 90min average ~ 16.1						

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2005+042:23:43:56	21.557294	-89.744177	160.7	4.8	4238.31	19.31
576 559 358	Tamara		978756.0	23.1	16.3	42
EOT 558: 575/357 SOT 559: 576/358						

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2005+043:00:00:04	21.535759	-89.739605	161.1	4.8	4239.56	19.11
625 559 407	Tamara				23.1	18.4 47
EOL chicx20. EOT 559: 625/407 . Last shot of day. st=3100,						
streamer ok, wind=16.0. bringing in the guns quickly so we can						
turn away from the "forbidden zone"						

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2005+043:00:10:18	21.521952	-89.736686	158.3	4.7	4240.39	18.91
n/a n/a n/a	TJS		978750.7	23.1	16.0	48
Start of turn to left (to head east).						

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2005+043:01:00:14	21.528485	-89.672731	68.5	5.1	4244.43	19.01
n/a n/a n/a	TJS		978723.2	23.1	17.1	60
Streamer part-surfaced but is now looking good (related to						
turn...). Tension ~ 3800, depth now OK, but occasionally uneven						
and deep in the last half. Wind speed 16.6						

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2005+043:01:30:08	21.544035	-89.631283	68.5	4.8	4246.92	19.41
	TJS		978720.9	23.1	16.7	58
Streamer is sitting well, tension around 3700. Wind speed 90min						
average is ~17.0. So there.						

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2005+043:02:00:49	21.559882	-89.588809	67.5	5.1	4249.5	19.41
	Anusha		978713.0	23.0	17.0	60
Streamer is well balanced. Tension is 3722						

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Area: Mexico Survey: Chicxulub Line: turn  
 Shot Rate: n/a Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: n/a Guns: n/a Pressure: n/a Volume: n/a

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+043:02:30:12 21.575283 -89.548275 67.3 5.0 4251.84 22.21  
 Manuel 978709.0 22.9 17.0 53  
 streamer tension ~3800. average depth 22.3 meter. streamer is  
 balanced

2005+043:03:00:22 21.591239 -89.506256 68.3 4.3 4254.2 22.41  
 Manuel 978707.5 22.9 18.4 50  
 streamer tension ~3800. average depth 23.2 meter. streamer is  
 balanced.

2005+043:03:30:18 21.607022 -89.464636 67.5 4.4 4253.56 22.71  
 Manuel 978708.5 22.9 16.8 47  
 streamer tension ~3700. average depth 22.7 meter. streamer is  
 balanced.

2005+043:04:00:29 21.624261 -89.42377 69.1 4.5 4258.88 21.51  
 Manuel 978671.7 22.9 16.7 58  
 streamer tension ~ 3700. average depth 22.8 meter. streamer is  
 balanced

2005+043:04:30:10 21.63891 -89.382026 69.3 3.9 4261.13 22.71  
 Manuel 978713.9 22.8 18.5 54  
 streamer tension ~3800. streamer is balanced.

2005+043:05:00:06 21.653825 -89.340051 73.5 4.9 4263.44 21.01  
 Manuel 978722.5 22.8 13.2 39  
 streamer tension ~3900. average depth 22.9. wind speed 14.7 knots.  
 streamer is balanced

2005+043:05:30:14 21.665811 -89.296775 72.3 4.4 4265.84 20.21  
 Manuel 978734.8 22.8 16.5 63  
 streamer tension ~3800. streamer is balanced

2005+043:06:00:12 21.681329 -89.255128 66.8 4.3 4268.2 22.01  
 Manuel 978730.4 22.7 16.0 60  
 streamer tension ~3600. streamer is balanced.

2005+043:07:00:06 21.716584 -89.175806 66.7 4.1 4272.82 21.71  
 eliza 978727.7 22.6 13.2 60  
 ST=3500, Wind speed 1.5h average=14.4

2005+043:07:30:07 21.732082 -89.13481 66.7 4.6 4275.02 21.71  
 eliza 978725.1 22.6 13.9 57  
 ST=3600, Wind speed 1.5h average=13.8

2005+043:08:00:25 21.747648 -89.093556 67.7 4.4 4277.36 22.21  
 sean 978716.1 22.6 10.9 70

night time wandering...streamer great weather great tension=3562

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Area: Mexico Survey: Chicxulub Line: turn  
 Shot Rate: n/a Sample Rate: n/a Channels: n/a Aux. Channels: n/  
 Source: n/a Guns: n/a Pressure: n/a Volume: n/a

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+043:08:30:09	21.762945	-89.053456	66.7	4.2	4279.56	23.31
	eliza		978730.4	22.5	14.9	59
ST=3500-3600, Wind speed 1.5h average=13.2						

2005+043:09:00:01	21.787936	-89.025212	349.3	4.1	4281.74	23.31
	eliza		978764.3	22.5	13.7	79
ST=2500-2900 Wind speed 1.5h average=13.1						

2005+043:09:03:44	21.792726	-89.027669	339.0	4.8	4282.02	23.61
	keren		978777.1	22.5	12.3	49
streamer tension changes abruptly from 2500-3000, birds# 16-28 out of 7m depth range						

2005+043:09:30:18	21.825403	-89.043977	348.5	4.5	4284.02	22.41
	keren		978775.8	22.5	16.0	73
streamer tension 3800-4000, birds # 1-7 and 17-26 within the 7m depth range, wind speed average: 12.6 knots						

2005+043:10:00:03	21.845199	-89.077785	269.1	4.3	4286.22	26.91
	eliza		978803.2	22.5	11.0	70
ST=2800-2900, Wind speed average=12.4 Bird #27 out of 7m depth range						

2005+043:10:30:21	21.838589	-89.122618	257.0	4.2	4288.39	28.11
	tamara		978803.4	22.5	10.5	62
st=2900, streamer fine						

2005+043:11:00:16	21.829259	-89.166344	260.1	4.0	4290.45	27.31
	tamara		978800.9	22.5	9.3	53
st=2900, streamer fine, wind=12.0						

2005+043:11:30:59	21.819867	-89.211069	259.7	4.5	4292.67	29.71
	tamara		978831.2	22.6	12.8	57
st=2800, streamer fine, wind=11.0						

2005+043:12:00:22	21.810926	-89.253976	257.7	4.6	4294.9	31.31
	tamara		978798.3	22.6	14.6	67
st=3000, streamer fine, wind=11.4						

2005+043:12:30:13	21.801773	-89.297417	258.5	4.0	4297.14	29.01
	tamara		978798.1	22.6	14.9	54
st=3100, streamer ok, wind=11.6						

2005+043:12:46:24	21.796851	-89.3208	258.8	4.6	4298.23	29.61
115 560 1	tamara		978798.2	22.6	12.8	71
start of ramp-up. first shot. SOL chicx1. SOT: 115/1						

Area: Mexico Survey: Chicxulub Line: chicxl  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 48  
 Source: airguns Guns: 2 Pressure: 225 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+043:12:52:06	21.795229	-89.328839	258.1	3.8	4298.64	28.71
131 560 17	tamara		978797.3	22.6	13.9	76
2 guns firing.						

2005+043:12:56:45	21.793827	-89.335452	258.7	3.5	4298.98	25.91
146 560 32	tamara		978797.7	22.6	13.3	72
4 guns firing						

2005+043:13:01:37	21.792321	-89.342496	258.7	4.8	4299.32	28.91
161 560 47	tamara		978799.0	22.6	13.3	69
8 guns firing. st=2900, streamer ok, wind=12.8						

2005+043:13:03:58	21.791579	-89.345927	257.8	4.2	4299.49	29.31
166 561 52	tamara		978799.1	22.6	16.6	62
EOT 560: 165/51 SOT 561: 166/52						

2005+043:13:06:31	21.790786	-89.349631	258.5	3.4	4299.67	28.01
176 561 62	tamara		978798.6	22.6	15.3	66
16 guns firing						

2005+043:13:11:44	21.789175	-89.357171	259.7	4.4	4300.06	29.81
192 561 78	tamara		978798.9	22.6	14.7	67
20 guns firing. end of ramp-up.						

2005+043:13:19:46	21.786791	-89.368913	258.5	4.2	4300.6	27.51
217 562 103	tamara		978797.5	22.6	15.1	65
EOT 561: 216/102 SOT 562: 217/103						

2005+043:13:30:06	21.783656	-89.383902	257.7	4.1	4301.3	27.01
249 562 137	tamara		978793.1	22.6	13.2	70
st=3000, streamer fine, wind=3.5						

2005+043:13:36:22	21.781681	-89.392952	259.0	4.5	4301.77	28.21
268 563 154	tamara		978796.9	22.6	16.3	73
EOT 562: 267/153 SOT 563: 268/154						

2005+043:13:53:02	21.776673	-89.417061	258.1	4.3	4302.96	27.91
319 564 205	tamara		978809.0	22.6	10.8	92
EOT 563: 318/204 SOT 564: 319/205						

2005+043:14:00:05	21.774463	-89.42736	258.0	4.4	4303.43	27.21
341 564 227	tamara		978798.8	22.6	11.9	73
st=2900, streamer fine, wind=13.8						

2005+043:14:09:36	21.771531	-89.441314	258.8	3.9	4303.99	27.01
	Matt		978797.9	22.7	15.3	82
End tape: 564. shots: 319-369. file: 205-255.						

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Area: Mexico Survey: Chicxulub Line: chicx1  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 48  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+043:14:26:16	21.766422	-89.465773	258.3	3.8	4305.25	26.91
421 566 307	Manuel		978797.7	22.7	11.2	93
TAPE CHANGE. EOT 565 (SP 420 FFID 306). BOT 566 (SP 421 FFID 307).						

2005+043:14:30:11	21.765239	-89.471507	258.1	4.2	4305.52	28.41
	Manuel		978772.8	22.7	8.0	75
shooting line chicx1. streamer tension ~2800. streamer is balanced.						

2005+043:14:42:47	21.761309	-89.490105	258.3	4.4	4306.47	29.81
472 567 358	Manuel		978798.7	22.7	7.5	75
TAPE CHANGE. EOT 566 (SP 471 FFID 357). BOT (SP 472 FFID 358)						

2005+043:14:59:00	21.756301	-89.513938	257.7	4.7	4307.75	31.11
523 568 409	Manuel		978796.3	22.7	11.6	83
TAPE CHANGE. EOT 567 (SP 522 FFID 408). BOT 568 (SP 523 FFID 409). streamer tension ~ 2800. streamer is balanced.						

2005+043:15:15:37	21.751244	-89.538105	258.5	3.8	4308.89	26.71
574 569 460	Manuel		978797.0	22.7	10.9	80
TAPE CHANGE. EOT 568 (SP 573 FFID 459). BOT 569 (SP 574 FFID 460).						

2005+043:15:30:16	21.74676	-89.559371	258.0	3.4	4309.83	24.61
	Manuel		978796.2	22.7	12.4	73
SHOOTING IN LINE CHICX1. STREAMER TENSION ~2800. STREAMER IS BALANCED.						

2005+043:15:31:59	21.746261	-89.561866	258.3	3.6	4309.94	25.21
625 570 511	Manuel		978796.6	22.7	11.3	76
TAPE CHANGE. EOT 569 (SP 624 FFID 510). BOT 570 (SP 625 FFID 511).						

2005+043:15:48:48	21.741137	-89.586315	258.1	3.4	4311.01	28.11
676 571 562	Manuel		978797.7	22.7	12.3	80
TAPE CHANGE. EOT 570 (SP 675 FFID 561). BOT 571 (SP 676 FFID 562).						

2005+043:16:05:07	21.736133	-89.610092	258.0	4.8	4312.18	30.41
727 572 613	Manuel		978797.0	22.8	12.3	81
TAPE CHANGE. EOT 571 (SP 726 FFID 612). BOT 572 (SP 727 FFID 613).						

2005+043:16:17:25	21.732285	-89.627999	258.8	4.8	4313.09	29.71
761 573 647	Manuel		978791.4	22.8	14.2	72
TAPE CHANGE. EOT 572 (SP 760 FFID 646) BOT 573 (SP 761 FFID 647).						

2005+043:16:30:00	21.728565	-89.646363	257.7	5.0	4314.07	30.31
	Manuel		978796.6	22.8	12.3	65
shooting in line chicx1. streamer tension ~2800. streamer is balanced.						



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Area: Mexico Survey: Chicxulub Line: chicx1  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 48  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				

2005+043:16:32:40 21.727762 -89.650269 258.3 4.4 4314.28 31.41  
 812 574 698 Manuel 22.8 13.3 74  
 TAPE CHANGE. EOT 573 (SP 811 FFID 697). BOT 574 (SP 812 FFID 698)

2005+043:16:48:55 21.72268 -89.67413 258.7 4.8 4315.56 30.61  
 863 575 749 Manuel 978799.2 22.8 15.0 76  
 TAPE CHANGE. EOT 574 (SP 862 FFID 748) BOT 575 (SP 863 FFID 749).

2005+043:17:00:08 21.71923 -89.690719 258.1 4.6 4316.45 29.91  
 Manuel 978799.2 22.9 12.3 83  
 streamer tension ~2700. streamer is balanced.

2005+043:17:05:16 21.717615 -89.698291 257.8 4.5 4316.85 30.41  
 914 576 800 Manuel 978802.9 22.9 12.9 91  
 TAPE CHANGE. EOT 575 (SP 913 FFID 799). BOT 576 (SP 914 FFID 800).

2005+043:17:21:39 21.71249 -89.722515 259.7 4.6 4318.15 29.91  
 965 577 851 Manuel 978803.7 22.9 14.9 77  
 TAPE CHANGE. EOT 576 (SP 964 FFID 850) BOT 577 (SP 965 FFID 851).

2005+043:17:30:09 21.709928 -89.734961 258.1 4.1 4318.79 28.91  
 Manuel 978803.2 22.9 15.1 80  
 shooting in line chicx1. streamer tension ~2700. streamer is balanced.

2005+043:17:37:52 21.70757 -89.746275 257.8 4.4 4319.38 28.81  
 1016 578 902 Manuel 978804.8 22.9 13.3 79  
 TAPE CHANGE. EOT 577 (SP 1015 FFID 901). BOT 578 (SP 1016 FFID 902).

2005+043:17:54:27 21.70247 -89.770532 258.7 3.7 4320.43 26.41  
 1067 579 953 Manuel 978805.1 22.9 14.5 81  
 TAPE CHANGE. EOT 578 (SP 1066 FFID 952). BOT 579 (SP 1067 FFID 953)

2005+043:18:00:05 21.700733 -89.778774 258.0 4.1 4320.8 27.81  
 Manuel 978807.6 22.9 11.6 89  
 shooting in line chicx1. streamer tension ~2700. streamer is balanced.

2005+043:18:10:26 21.697569 -89.793913 257.3 4.8 4321.62 29.51  
 1118 580 1004 eliza 978807.9 22.9 14.5 88  
 EOT 579:1117/1003 SOT 580:1118/1004

2005+043:18:27:18 21.692335 -89.818644 257.8 4.4 4322.83 30.11  
 1169 581 1055 eliza & keren 978809.2 22.9 15.1 88  
 EOT 580:1168/1054 SOT 581:1169/1055 Wind speed average: 13.4,

Sreamer tension 2700-2800, All birds within the depth range  
(except #28)

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Area: Mexico Survey: Chicxulub Line: chicx1  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 48  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+043:18:44:31	21.686967	-89.843961	257.3	4.8	4324.2	30.51
1220 582 1106	eliza & keren		978807.9	22.9	16.6	94
EOT 581:1219/1105 SOT 582:1220/1106						

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2005+043:18:59:30	21.682407	-89.865964	257.1	4.7	4325.38	28.81
1271 583 1157	eliza & keren		978807.7	22.9	14.7	91
EOT 582:1270/1156 SOT 583:1271/1157 Wind speed average; 12.5						
Knots/hr, streamer tension 2600-2700, Bird # 28 out of depth range						

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2005+043:19:16:05	21.677298	-89.890038	257.5	3.6	4326.57	27.81
1322 584 1208	eliza		978806.5	22.9	12.2	77
EOT 583:1321/1207 SOT 584:1322/1208						

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2005+043:19:30:05	21.672999	-89.910563	257.7	4.6	4327.65	29.31
1365 584 1251	eliza		978806.6	22.9	11.2	76
ST=2500-2700 Wund speed 1.5h average=13.6 Bird #27 out of 7m depth						
range EOT 584:1372/1258 SOT 585:1373/1259						

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2005+043:19:49:43	21.666941	-89.939365	257.7	4.4	4329.08	29.31
1424 586 1310	eliza		978809.1	22.9	13.4	81
EOT 585:1423/1309 SOT 586:1424/1310						

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2005+043:20:00:11	21.663733	-89.954721	258.0	4.5	4329.88	28.21
1459 586 1345	eliza		978808.7	23.0	13.6	80
ST=2600-2700 Wind speed 1.5h average=13.9 Bird #28 out of 7m depth						
range						

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2005+043:20:05:41	21.662007	-89.962833	257.0	4.1	4330.26	27.61
1475 587 1361	eliza		978805.4	23.0	16.7	71
EOT 586:1474/1360 SOT 587:1475/1361						

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2005+043:20:21:47	21.657163	-89.986273	257.1	4.1	4331.31	25.91
1526 588 1412	eliza		978809.2	23.0	14.3	62
EOT 587:1525/1411 SOT 588:1526/1412						

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2005+043:20:30:06	21.654532	-89.998435	258.7	3.5	4331.9	26.41
1552 588 1438	eliza		978809.2	23.0	15.9	65
ST=2600 Wind speed 1.5h average=14.2 Bird #28 out of 7m depth						
range						

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2005+043:20:38:22	21.651988	-90.010453	258.3	3.9	4332.3	27.01
1577 589 1463	eliza		978808.1	23.0	16.8	65
EOT 588:1576/1462 SOT 589:1577/1463						

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2005+043:20:54:52	21.647038	-90.034403	258.0	3.8	4333.38	26.51
1628 590 1514	eliza		978804.0	23.1	13.3	59
EOT 589:1627/1513 SOT 590:1628/1514						

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Area: Mexico Survey: Chicxulub Line: chicx1  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 48  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+043:21:00:10	21.645376	-90.042096	257.8	4.0	4333.77	27.71
1645 590 1531	eliza		978806.3	23.1	15.6	70
ST=2600 Wind speed 1.5h averga=14.9 Birds #27 and 28 out of 7m depth range						

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2005+043:21:11:16	21.641968	-90.058183	259.3	4.1	4334.51	27.71
1679 591 1565	eliza		978804.5	23.1	17.9	59
EOT 590:1678/1564 SOT 591:1679/1565						

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2005+043:21:27:57	21.63689	-90.08245	259.7	3.6	4335.7	26.01
1730 592 1616	eliza		978803.5	23.1	18.3	60
EOT 591:1729/1615 SOT 592:1730/1616						

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2005+043:21:44:22	21.631903	-90.106276	259.0	4.5	4336.83	29.41
1781 593 1667	eliza		978803.2	23.1	16.8	53
EOT 592:1780/1666 SOT 593:1781/1667						

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2005+043:22:01:02	21.626797	-90.130434	258.3	4.8	4338.13	29.31
1832 594 1718	eliza		978803.1	23.1	20.4	63
EOT 593:1831/1717 SOT 594:1832/1718 Shut down due to the weather						

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2005+043:22:06:58	21.624974	-90.139048	258.7	3.8	4338.56	27.71
	TJS		978803.1	23.2	20.6	54
EOT: 594 LSP: 1837 FFID 1723. Note file 1724 created but given SP number 0, so probably bad. Only 6 shots on here due to weather shut down.						

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2005+043:22:30:20	21.617884	-90.17297	260.0	4.3	3402.27	28.91
	Gabrielle		978801.8	23.2	21.2	58
ST 2646 w. speed 1.5h 18, streamer looks fine at 7m depth						

---

2005+043:23:00:11	21.608721	-90.216374	259.0	4.5	4342.4	29.11
	Gabrielle		978795.9	23.2	20.1	78
streamer tension ~2700. streamer is balanced.						

---

2005+043:23:30:10	21.599839	-90.259575	258.7	4.8	4344.72	29.91
	Gabrielle		978794.2	23.2	21.2	68
streamer tension ~2800. streamer is balanced.						

---

2005+044:00:00:41	21.590653	-90.303201	259.7	4.6	4347.13	30.31
	tamara				23.2	21.3
streamer ok, st=2800						

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2005+044:00:30:38	21.581253	-90.345877	259.0	4.6	4349.53	28.81
	tamara		978786.9	23.2	20.8	73
st=2800, streamer ok						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+044:01:00:19	21.571737	-90.389926	257.3	4.5	4351.8	28.91
	tamara		978788.2	23.2	22.0	71
st=2600, streamer fine...						

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2005+044:01:30:12	21.562529	-90.432792	257.7	4.9	4354.19	30.11
	tamara		978785.6	23.2	20.6	80
st=2900, streamer ok						

---

2005+044:02:00:12	21.553155	-90.476135	257.0	4.6	4356.64	30.71
	Manuel		978778.6	23.2	22.1	70
streamer tension ~2900. streamer is balanced.						

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2005+044:02:30:12	21.543713	-90.519886	256.0	4.9	4359.07	28.31
	Manuel		978780.9	23.2	19.0	77
streamer tension ~3100. streamer is balanced. average depth 30 meters						

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2005+044:03:00:10	21.513534	-90.542497	150.0	5.2	4361.67	28.81
	Manuel		978740.6	23.2	19.2	87
streamer tension ~3400. streamer is balanced.						

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2005+044:03:25:02	21.504877	-90.507309	88.8	4.7	4364.3	28.51
	Manuel		978707.3	23.2	19.0	89
streamer has a huge bubble in it and the centre is at the surface - we are in the middle of a turn however and the streamer tension ~3900.						

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2005+044:04:00:04	21.504829	-90.452151	90.8	5.2	4366.71	26.51
	Manuel		978705.4	23.2	21.7	91
Now the streamer looks fine. streamer tension ~4000.						

---

2005+044:04:30:07	21.508466	-90.40501	78.3	4.9	4369.21	25.51
	Manuel		978710.3	23.2	26.0	93
streamer tension ~3800. streamer looks fine.						

---

2005+044:05:00:08	21.519147	-90.358764	92.0	5.5	4371.72	24.21
	Manuel		978709.4	23.2	21.9	98
streamer tension ~4300. streamer is balanced						

---

2005+044:05:30:08	21.515386	-90.310185	95.5	5.4	4374.31	23.11
	Manuel		978711.3	23.2	23.7	108
streamer looks fine - well balanced...						

---

2005+044:06:00:43	21.511091	-90.260457	95.0	5.7	4376.94	20.21
	Manuel		978707.6	23.2	26.2	121
streamer tension ~4600. streamer is balanced.						

---

Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+044:06:30:17 21.507712 -90.213822 94.8 4.5 4379.39 25.01  
 eliza 978712.4 23.1 25.0 117  
 ST=4000. Wind speed 1.5h average=25.6 Birds #27 and 28 out of 7m  
 depth range

2005+044:07:00:09 21.504949 -90.166748 92.7 4.9 4381.71 24.01  
 eliza 978709.3 23.1 22.4 122  
 ST=3800-3900 Wind speed 1.5h average=25.2

2005+044:07:30:09 21.504706 -90.1213 89.5 4.5 4384.05 22.51  
 eliza 978711.6 23.0 18.5 123  
 ST=3800 Wind speed 1.5h average=24.4

2005+044:08:00:08 21.504843 -90.076611 91.0 4.5 4386.41 21.71  
 eliza 978713.8 23.0 17.6 125  
 ST=3600 Wind speed 1.5h average=23.7 Birds #27 and 28 out of 7m  
 depth range

2005+044:08:30:21 21.50472 -90.031105 91.5 4.9 4388.85 21.31  
 eliza 978712.8 22.9 22.0 127  
 ST=3600 Wind speed 1.5h average=22.6

2005+044:09:00:02 21.504841 -89.986113 91.8 4.8 4391 20.51  
 eliza 978713.8 22.9 23.0 126  
 ST=3700 Wind speed 1.5h average=22.0 Birds #27 and 28 out of 7m  
 depth range

2005+044:09:30:12 21.504788 -89.941053 90.7 4.9 4393.76 17.71  
 eliza 978715.9 22.9 23.0 131  
 ST=3500 Wind speed 1.5h average=21.5

2005+044:10:00:02 21.504897 -89.896413 91.1 4.8 4396.23 18.61  
 eliza 978715.4 22.9 21.1 137  
 ST=3600 Wind speed 1.5h average=21.2

2005+044:10:30:13 21.504791 -89.851203 91.7 5.0 4398.73 18.41  
 Gabrielle 978720.8 22.8 19.9 135  
 ST 3595, wind speed 22, streamer looks good

2005+044:11:00:15 21.504867 -89.807194 92.0 5.0 4401.17 18.01  
 Gabrielle 978721.9 22.8 17.3 133  
 ST 3512 Wind Speed av. 1.5h 19.2

2005+044:11:30:07 21.504764 -89.763049 91.8 4.7 4403.63 18.21  
 Gabrielle 978721.3 22.8 18.9 126  
 ST 3415 w. s. average 1.5h = 19.4



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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+044:12:00:07	21.504829	-89.718734	91.7	5.1	4406.1	17.91
	Gabrielle		978718.5	22.8	18.8	127
ST. 3485, wind average 1.5h=18.7, streamer good at 7m depth						

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2005+044:12:30:07	21.504815	-89.674336	92.5	4.9	4408.55	17.71
	Gabrielle		978717.5	22.7	21.0	127
ST. 3090. win speed av. 1.5h=18.7						

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2005+044:13:00:06	21.504849	-89.629768	92.3	5.0	4411.02	17.61
	Gabrielle		978714.5	22.7	19.3	118
ST. 3327, wind speed average 1.5h =18.8						

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2005+044:13:30:41	21.509104	-89.585053	80.7	4.8	4413.53	16.91
	tamara		978709.3	22.7	20.8	126
wind=19.3, st=3400... wind too high						

---

2005+044:14:00:26	21.518223	-89.542295	81.1	5.0	4415.95	17.81
	Manuel		978704.1	22.6	19.0	131
streamer tension ~3350. streamer loks fine.						

---

2005+044:14:30:25	21.526524	-89.50263	82.5	4.2	4418.2	17.61
	Manuel		978704.6	22.6	19.9	132
streamer tension ~2800. streamer is balanced. wind speed is more stronger of 17 knots. not shooting.						

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2005+044:15:00:09	21.534647	-89.46388	81.3	4.5	4420.38	16.91
	Manuel		978702.8	22.6	15.5	131
streamer tension ~2900. streamer loks fine.						

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2005+044:15:30:46	21.543124	-89.423468	80.0	4.4	4422.68	16.61
	Manuel		978702.0	22.6	11.8	126
streamer tension ~2800. streamer is balanced. wind speed is down						

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2005+044:15:42:18	21.546336	-89.408651	81.1	4.3	4423.6	17.01
1	Manuel		978703.3	22.6	16.8	136
START OF LINE CHICX 11b. Starting ramp up - 1 gun on...						

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2005+044:15:44:40	21.547003	-89.405632	81.1	4.4		16.81
	Manuel		978703.3	22.6	17.1	141
We are having trouble getting the tapes to record - get a 'can't find free buffer' error. Anthony has tried ending the line and restarting again...						

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2005+044:15:48:12	21.547957	-89.400985	82.0	4.4		17.21
	Manuel		978702.6	22.6	13.7	133
2 guns firing. We are still not managing to record any data on the tapes as yet due to a problem with Syntrack... Still working						

on it...

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Area: Mexico Survey: Chicxulub Line: Chicx 11  
 Shot Rate: 480 Sample Rate: 50m Channels: 480 Aux. Channels: 11  
 Source: airguns Guns: 2 Pressure: 225 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+044:15:49:37	21.548317	-89.399141	81.5	4.4	4424.13	16.81
	Manuel		978695.1	22.6	15.5	135

We started shooting Chicx 11b having sailed almost to the end of the line (the eastern end) due to the high winds we have been having prohibiting us from starting up earlier

2005+044:15:52:18	21.549026	-89.395647	81.3	4.5		17.51
	Manuel		978699.7	22.6	13.6	133

streamer still not recording...

2005+044:15:52:53	21.549189	-89.394883	81.0	4.3		18.31
	Anusha		978702.7	22.6	13.6	133

4 guns now on... Streamer still not recording as yet. Dietmar is on the case...

2005+044:15:55:30	21.549914	-89.391493	81.1	4.2		5.51
656 595 2	Anusha		978703.8	22.6	19.2	143

The streamer has just recorded the first shot of the line. SHOT NO. 656, FFID got recorded onto tape BUT it did not get recorded onto seisnet. The 1st shot to hget recorded onto seisnet was shot no 657, FFID 2.

2005+044:15:58:25	21.550687	-89.3877	81.5	4.4	4424.77	5.51
665	Anusha		978703.8	22.6	15.7	135

8 guns now on...

2005+044:16:03:06	21.551931	-89.381608	81.5	4.4	4425.13	17.51
	Anusha		978703.7	22.6	17.3	132

16 guns now on...

2005+044:16:07:58	21.553249	-89.375193	81.5	4.4	4425.39	18.21
690 595 35	Anusha		978703.3	22.6	14.0	133

20 guns now on! All systems go....

2005+044:16:13:48	21.554994	-89.366964	80.5	5.0	4426.21	17.91
707 596 52	Anusha		978701.2	22.6	13.5	127

Tape change. Tape 595 (SP 656-706, FFID 1-51) BOT 596 (SP 707, FFID 52)

2005+044:16:30:25	21.5599	-89.343668	81.3	4.7	4427.3	18.61
103 597 103	Anusha		978675.6	22.6	12.3	121

Tape change. EOT 596 (SP 757, FFID 102) BOT 597 (SP 758, FFID 103)

2005+044:16:33:21	21.560743	-89.339626	80.1	4.7	4427.51	18.01
	Anusha		978694.3	22.6	12.5	136

We are 20 min from the end of the line but we are going to

continue for 1hr past the end of the line before we turn...

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Area: Mexico Survey: Chicxulub Line: Chicx  
Shot Rate: 480 Sample Rate: 50m Channels: 480 Aux. Channels: n/  
Source: airguns Guns: 20 Pressure: 6947 Volume: 11b

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+044:16:48:07	21.565111	-89.319135	79.3	4.7	4428.53	18.21
	Matt		978705.6	22.6	12.6	120
End tape: 597. shot: 758-808. file: 103-153.						

---

2005+044:17:00:11	21.563177	-89.302942	96.1	4.7	4429.55	17.81
	Manuel		978712.6	22.6	12.0	131
streamer tension ~2700. streamer loks fine.						

---

2005+044:17:02:26	21.563394	-89.299703	79.8	4.7	4429.65	18.11
	Matt		978708.7	22.6	10.8	134
Ship moved slightly more starboard due to a wind gust.						

---

2005+044:17:06:35	21.565012	-89.293834	77.7	4.8	4430.17	18.31
860 599 205	Anusha		978708.0	22.6	10.2	116
Tape CHange. EOT 598 (SP 859, FFID 204) BOT 599 (SP 860, FFID 205)						

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2005+044:17:24:13	21.573728	-89.270352	71.1	4.8	4431.46	18.61
911 600 256	Manuel		978700.5	22.6	11.1	101
TAPE CHANGE. EOT 599 (SP 910 FFID 255). BOT 600 (SP 911 FFID 256)						

---

2005+044:17:28:42	21.575988	-89.264369	70.7	4.6		18.41
925 270	Anusha		978717.1	22.6	10.7	104
end of line 11b. EOT 600 (SP 925, FFID 270). The Start of OBS line. 1st OBS shot = 201. We have just started turning and 3 guns have been brought in for the turn to starboard (- guns 8, 9 and 10 are now off...)						

---

2005+044:18:00:10	21.547707	-89.239204	180.0	5.1	4434.45	16.81
	Anusha		978741.2	22.7	11.1	79
streamer tension ~3100. streamer looks line.						

---

2005+044:18:15:56	21.532164	-89.253681	260.8	4.6	4435.8	15.31
341	Peggy		978773.4	22.7	10.5	69
Done with the turn. We are now heading to line Chicx13b.						

---

2005+044:18:38:53	21.525561	-89.286738	255.8	5.1	4437.88	15.81
297 601 1	Peggy		978772.8	22.8	10.7	61
Grampus was down for a while. 18:28 all guns back on. 18:38 start of line chicx13b, first shot = 297, first FFID = 1. Editing back half of the streamer will be required.						

---

2005+044:18:54:53	21.520613	-89.310165	257.7	4.8	4438.98	16.01
348 602 52	Peggy		978767.4	22.8	12.5	55
EOT 601: 347/51. ST = 2700. Streamer beautifully balanced at 7m depth. Wind speed 1.5hr average = 11.0.						

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Area: Mexico Survey: Chicxulub Line: Chicx13b  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+044:20:00:06	21.500733	-89.405111	258.5	5.1	4444.39	14.81
552 606 256	Peggy		978764.1	23.1	16.8	42
ST = 2500. Streamer ok. Wind = 13.5. EOT 605: 551/255.						

2005+044:20:16:59	21.495517	-89.429895	258.0	5.0	4445.78	14.61
603 607 307	Peggy		978765.2	23.2	18.3	40
EOT 606: 602/306.						

2005+044:20:30:10	21.491536	-89.448838	259.0	4.8	4446.86	14.71
643 607 347	Peggy			23.3	16.9	43
ST = 2500/ Streamer ok. Wind = 15.4.						

2005+044:20:33:41	21.490498	-89.45385	258.7	4.8	4447.19	5.51
654 608 358	Peggy		978766.3	23.3	18.1	39
EOT 607: 653/357.						

2005+044:20:50:10	21.485438	-89.477971	258.8	4.9	4448.52	14.81
705 609 409	Peggy		978769.8	23.3	19.3	48
EOT 608: 704/408.						

2005+044:21:02:12	21.48175	-89.495478	258.8	4.9	4449.54	14.81
742 609 446	keren		978769.6	23.2	18.3	45
shut down due to the weather						

2005+044:21:30:05	21.473297	-89.535788	257.7	5.1	4451.84	15.31
	Peggy		978770.2	23.1	21.0	52
ST = 2600. Streamer ok. Wind = 18.3.						

2005+044:22:00:11	21.464603	-89.577102	258.7	4.7	4454.16	14.81
	eliza		978770.4	23.1	20.6	58
ST=2300 Wind speed 1.5h average=19.8						

2005+044:22:06:25	21.462821	-89.585657	259.8	4.9	4454.64	15.01
	t a m a r a		978771.6	23.1	22.5	56
starting turn						

2005+044:22:30:05	21.481859	-89.608161	4.1	4.8	4457.26	15.71
	t a m a r a		978749.9	23.0	19.7	52
st=2900, streamer fine. still turning. wind=21.3						

2005+044:23:00:26	21.509392	-89.584553	78.8	4.7	4459.06	16.81
	t a m a r a		978709.8	22.9	23.6	68
st=2900, streamer fine, wind=21.6						

2005+044:23:30:22	21.51808	-89.542713	76.5	4.7	4461.44	17.11
	Gabrielle		978706.2	22.8	20.0	68
ST. 3040, wind speed av. 1.5h =21.7						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+045:00:00:12	21.526881	-89.501022	78.3	4.7	4463.83	17.91
	TJS				22.8	21.9 65
Streamer tension ~ 3100; depth most satisfactory. Wind speed 90min average is 22.0						

---

2005+045:00:30:19	21.535689	-89.457412	79.7	5.1	4466.29	17.31
	TJS		978699.2	22.8	20.4	69
Good news: the wind speed is coming down - now 21.8. Bad news: it's past 6pm, and it's still over 17.0. Damn! Streamer tension is ~3200, depth is good.						

---

2005+045:01:06:59	21.546947	-89.402629	78.1	5.1	4469.41	17.01
	aramat		978698.9	22.8	18.2	80
st=3200, streamer okey dokey						

---

2005+045:01:39:32	21.557067	-89.354096	80.7	5.0	4472.15	18.31
	aramat		978700.1	22.7	19.4	106
st=3200, streamer ok						

---

2005+045:02:00:02	21.563357	-89.323634	82.3	5.1	4478.88	17.91
	aramat		978703.0	22.7	23.1	128
st=3300, streamer purrrr-fect						

---

2005+045:02:30:09	21.572557	-89.278525	82.7	5.0	4476.38	18.61
	matt		978710.3	22.6	26.0	135
Tension = 3348. Streamer = good.						

---

2005+045:03:00:09	21.581911	-89.233354	83.1	5.2	4478.99	18.11
	matt		978718.1	22.6	24.5	134
streamer tension ~3400. streamer looks fine.						

---

2005+045:03:30:15	21.591349	-89.187719	83.5	5.0	4481.58	17.61
	matt		978717.7	22.5	21.1	134
streamer tension ~3400. streamer is balanced.						

---

2005+045:04:00:10	21.600744	-89.142134	83.5	5.2	4484.15	17.71
	matt		978717.9	22.5	20.5	138
streamer tension ~3500. streamer looks fine.						

---

2005+045:04:30:24	21.607981	-89.097842	89.3	5.0	4486.66	17.11
	matt		978718.2	22.5	16.9	138
streamer tension ~3300. streamer is balanced.						

---

2005+045:05:00:16	21.617454	-89.0542	78.8	5.0	4489.13	17.21
	matt		978718.5	22.5	20.2	143
streamer tension ~3100. streamer is balanced.						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+045:05:30:25	21.631731	-89.011977	73.1	4.9	4491.63	17.31
	matt		978720.0	22.4	18.2	146
streamer btension ~3400. streamer looks fine.						

---

2005+045:06:00:46	21.641286	-88.967869	84.8	5.1	4494.15	16.61
	keren		978719.0	22.3	14.9	148
watch taken by Peggy Sean, Elizabeth and keren. Wind speed average:18.4						

---

2005+045:06:30:07	21.648651	-88.924406	83.7	4.9	4496.61	16.61
	eliza		978721.6	22.3	17.0	147
ST=3200-3300 Wind speed 1.5h average=17.1						

---

2005+045:07:00:07	21.655846	-88.879415	84.1	4.8	4499.12	15.71
	eliza		978725.6	22.3	17.3	145
ST=3300 Wind speed 1.5h average=16.5 Bird #28 out of 7m depth range						

---

2005+045:07:30:07	21.684166	-88.859347	343.3	4.8	4501.64	16.41
	eliza		978781.3	22.2	11.0	141
ST= 2600-2700 Wind speed 1.5h average=15.5 Bird #28 out of 7m depth range						

---

2005+045:08:00:07	21.700467	-88.894936	264.5	5.0	4504.16	19.21
	eliza		978800.8	22.2	14.1	143
ST=2700 Wind speed 1.5h average=14.9						

---

2005+045:08:30:08	21.69124	-88.938951	257.1	5.0	4506.64	19.81
	eliza		978793.3	22.2	12.0	144
ST=2700-2800 Wind speed 1.5h average=14.3						

---

2005+045:09:00:09	21.682251	-88.982033	256.7	4.7	4509.07	19.91
	eliza		978788.0	22.2	18.2	135
ST=2500 Wind speed average=14.5						

---

2005+045:09:30:11	21.67326	-89.024815	257.3	4.9	4511.48	19.71
	eliza		978785.8	22.2	14.2	141
ST=2500 Wind speed 1.5h average=15.2						

---

2005+045:10:00:11	21.664328	-89.06746	257.0	4.8	4513.89	5.51
	eliza		978787.8	22.3	16.5	141
ST=2500-2600 Wind speed 1.5h average=15.0						

---

2005+045:11:04:57	21.645559	-89.157389	255.3	4.1	4518.97	19.11
	T A M A R A		978786.3	22.4	19.2	139
st=2000, streamer ok, wind=17.3 ... awaiting senator						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

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2005+045:11:30:04 21.639179 -89.187568 255.8 3.8 4520.66 20.21  
 T A M A R A 978782.1 22.4 17.1 140  
 st=1700, streamer fine, wind= . awaiting boat transfer...  
 everything getting more complicated as usual!

---

2005+045:12:00:42 21.631584 -89.223877 254.8 3.9 4522.59 21.11  
 T A M A R A 978777.1 22.4 22.0 146  
 ST. 1818, Wind speed 1.5 is 16.5, we still waiting for transfers

---

2005+045:12:36:47 21.618466 -89.264507 229.0 3.6 4524.84 21.61  
 TJS 978779.4 22.4 16.3 141  
 First boat with inspectors is along side now. It is a white boat.

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2005+045:12:40:50 21.615636 -89.26837 229.3 3.7 20.11  
 TJS 978778.6 22.4 16.0 144  
 1 person... 2 person... 3...4...5...

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2005+045:12:46:45 21.611538 -89.273955 228.7 3.8 4525.52 20.61  
 TJS 978778.0 22.5 15.7 145  
 Second boat... 1 person on... 2 persons... 3...

---

2005+045:12:56:52 21.607551 -89.285533 274.3 4.3 4526.07 20.51  
 TJS 978784.8 22.5 12.6 133  
 PAM in water

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2005+045:13:00:20 21.607857 -89.290357 274.5 4.5 4526.41 21.01  
 TJS 978790.7 22.5 11.6 148  
 Claudio now listening on PAM (started at 13:00GMT). Wind speed  
 average ~16.9. Str. Ten. ~2500, depth good.

---

2005+045:13:30:11 21.609485 -89.328303 263.0 3.8 4528.24 21.11  
 TJS 978783.2 22.5 9.4 140  
 st=2300, streamer fine. wind=14.4 waiting to begin shooting on  
 line chicx6...

---

2005+045:13:59:46 21.601019 -89.369282 257.3 4.4 4530.2 20.81  
 TJS 978775.5 22.5 8.7 145  
 We start shooting now. Wind speed av 1.5h =11.6

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2005+045:14:02:41 21.600185 -89.373438 257.0 4.2 4530.64 21.01  
 355 610 1 TJS 978774.8 22.5 9.9 149  
 Ramp up started on line Chicx 9 - 1 gun firing... The first 6  
 shots will be blank - shots number 349-354 will be blank.

---

2005+045:14:07:00 21.598893 -89.379589 256.3 4.5 21.11  
 Anusha 978773.8 22.5 8.1 144  
 1st real shot at the start of the tape is SP 355 and FFID 355.

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Area: Mexico Survey: Chicxulub Line: chicx 9  
 Shot Rate: 50 Sample Rate: Chic Channels: 9 Aux. Channels: 20  
 Source: airguns Guns: 1 Pressure: 80 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+045:14:08:07	21.598553	-89.38118	256.7	4.4		21.11
370 610 22	Anusha		978773.8	22.5	8.2	143
2 guns firing....						

2005+045:14:13:04	21.597051	-89.388224	256.3	4.3	4531.18	20.91
	Matt		978773.2	22.5	7.1	135
4 guns on.						

2005+045:14:17:37	21.595689	-89.394711	256.1	4.2	4531.49	20.61
	Matt		978772.6	22.5	7.8	153
End tape: 610 shots: 349 -399 files: 1-51 8 guns on.						

2005+045:14:22:57	21.594085	-89.402311	257.3	4.4	4531.91	20.51
	Matt		978772.2	22.6	5.9	149
14 guns on. 16 guns on.						

2005+045:14:28:11	21.592528	-89.40977	257.0	4.6	4532.42	19.61
432 611 84	Anusha			22.6	5.7	143
20 guns firing.... Ramp up complete!						

2005+045:14:30:06	21.591941	-89.412552	256.7	4.9	4532.59	20.81
	Anusha		978771.7	22.6	6.0	150
We are currently firing on line chicx 9. The senator and her friends are here looking around.						

2005+045:14:35:00	21.590447	-89.419685	256.5	4.3	4532.94	20.61
451 612 103	Anusha		978772.2	22.6	7.5	140
Tape change. EOT 611, (SP 450, FFID 102) BOT 612, (SP 451, FFID 103)						

2005+045:14:51:24	21.585431	-89.443557	256.1	4.9	4534.32	20.21
502 613 154	Anusha		978772.3	22.6	6.5	131
TAPE CHANGE. EOT 612, (SP 501, FFID 153) BOT 613 (SP 502, FFID 154)						

2005+045:15:00:03	21.582771	-89.45611	257.0	4.8	4534.89	20.41
	Anusha		978774.4	22.6	4.2	119
Shooting line chicx 9. Streamer is well balanced.						

2005+045:15:07:55	21.580378	-89.467534	258.1	4.5	4535.53	20.21
553 614 205	Anusha		978770.9	22.6	3.7	118
Tape change. EOT 613 (SP 552, FFID 204,) BOT 614 (SP 553, FFID 205)						

2005+045:15:24:32	21.575344	-89.491603	257.0	4.6	4536.83	20.31
604 615 256	Anusha		978770.9	22.6	3.5	117
Tape change EOT 614 (SP 603, SP 255) BOT 615 (SP 604, FFID 256)						

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Area: Mexico Survey: Chicxulub Line: chicx9  
 Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: n/  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+045:15:32:00	21.57307	-89.502415	257.3	4.8	4537.34	20.31
	Manuel		978774.8	22.6	4.3	130
streamer tension ~2600. streamer looks fine.						

2005+045:15:40:58	21.570375	-89.515419	256.8	4.4	4538.13	20.61
655 616 307	Anusha		978771.6	22.6	4.0	132
Tape Change. EOT 615 (SP 654, FFID 306) BOT 616 (SP 655, FFID 307)						

2005+045:15:57:33	21.565311	-89.53957	257.5	4.9	4539.35	19.71
706 617 358	Anusha		978774.0	22.6	4.0	116
TAPE CHANGE. EOT 616 (SP 705 FFID 357). BOT 617 (SP 706 FFID 358). Streamer tension ~2750. streamer looks fine.						

2005+045:16:14:00	21.560261	-89.563509	258.0	4.9	4540.7	19.61
757 618 409	Manuel		978776.0	22.7	3.7	89
TAPE CHANGE. EOT 617 (SP 756 FFID 408). BOT 618 (SP 757 FFID 409).						

2005+045:16:30:03	21.555407	-89.586774	257.1	4.9	4542.01	19.81
808 619 460	Manuel		978777.8	22.7	2.5	64
TAPE CHANGE. EOT 618 (SP 807 FFID 459). BOT 619 (SP 808 FFID 460). Streamer tension ~2700. streamer is balanced.						

2005+045:16:47:27	21.550119	-89.611906	257.7	5.0	4543.45	19.51
859 620 511	Manuel		978778.3	22.7	3.4	76
TAPE CHANGE. EOT 619 (SP 858 FFID 510). BOT 620 (SP 859 FFID 511).						

2005+045:17:00:04	21.54627	-89.630162	257.5	4.9	4544.48	19.61
	Manuel		978784.5	22.7	3.8	76
Streamer tension ~2700. Streamer is balanced.						

2005+045:17:03:49	21.545104	-89.635575	257.3	4.8	4544.79	19.11
910 621 562	Manuel		978785.7	22.7	3.8	69
TAPE CHANGE. EOT 620 (SP 909 FFID 561). BOT 621 (SP 910 FFID 562).						

2005+045:17:20:26	21.540101	-89.659557	257.8	5.1	4546.15	19.61
961 622 613	Manuel		978790.0	22.8	3.8	42
TAPE CHANGE. EOT 621 (SP 960 FFID 612). BOT 622 (SP 961 FFID 613).						

2005+045:17:30:25	21.537027	-89.674231	258.5	5.1	4546.98	19.61
	Manuel		978791.7	22.8	5.4	37
Shooting in line chicx9. Streamer tension ~2700. streamer looks fine.						

2005+045:17:36:39	21.535132	-89.683404	258.0	5.2	4547.51	19.31
1012 623 664	Manuel		978791.4	22.8	5.7	39
TAPE CHANGE. EOT 622 (SP 1011 FFID 663). BOT 623 (SP 1012 FFID						

664).

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Area: Mexico Survey: Chicxulub Line: chicx9  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: n/  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+045:17:53:28	21.530015	-89.707741	258.0	4.9	4548.88	19.71
1063 624 715	Manuel		978789.2	22.8	5.6	17
TAPE CHANGE. EOT 623 (SP 1062 FFID 714). BOT 624 (SP 1063 FFID 715).						

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2005+045:18:00:04	21.527994	-89.717265	257.8	4.9	4549.53	19.51
	Manuel		978788.8	22.8	6.2	33
Shooting in line chicx9. Streamer tension ~2700. Streamer looks fine.						

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2005+045:18:10:04	21.524966	-89.731707	257.5	4.8	4550.33	19.71
1114 625 766	Peggy		978773.8	22.8	6.3	16
EOT 624: 1113/765.						

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2005+045:18:26:43	21.520016	-89.755347	258.3	4.9	4551.64	19.51
1165 626 817	Peggy		978789.4	22.9	8.7	23
EOT 625:1164/816. SOT 626:1165/817. ST = 2600. Streamer well balanced at 7m depth. Wind speed 1.5hr average = 5.5.						

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2005+045:18:43:48	21.514806	-89.779821	258.5	4.9	4553.07	19.21
1216 627 868	eliza		978790.7	22.9	8.8	26
EOT 626:1215/867 SOT 627:1216/868						

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2005+045:18:59:42	21.509995	-89.802961	258.1	5.0	4554.31	18.81
1267 628 919	eliza		978788.5	22.9	11.4	26
EOT 627:1266/918. SOT 628:1267/919. ST=2600. Wind speed 1.5h average=7.3. Bird #28 out of 7m depth range.						

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2005+045:19:16:14	21.504925	-89.827007	259.3	5.1	4555.69	19.31
1318 629 970	eliza		978791.4	23.0	12.2	23
EOT 628:1317/969 SOT 629:1318/970						

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2005+045:19:30:13	21.500672	-89.847402	259.0	4.9	4556.88	19.51
1361 629 1013	eliza		978789.7	23.0	12.1	29
ST=2768 Wind speed 1.5h average=9.3. Bird #28 out of 7m depth range						

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2005+045:19:32:43	21.499898	-89.851044	258.1	4.9	4557.05	18.61
1369 630 1021	eliza		978789.1	23.0	8.3	17
EOT 629:1368/1020 SOT 630:1369/1021						

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2005+045:19:49:12	21.494853	-89.875076	259.3	4.9	4558.42	19.21
1072 631 1420	eliza		978783.4	23.1	9.3	16
EOT 630:1071/1419 SOT 631:1072/1420						

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2005+045:20:00:01	21.491549	-89.890876	259.1	4.7	4559.35	18.41
1454 631 1106	eliza		978779.9	23.1	12.4	17



ST=2600 Wind speed 1.5h average=10.7. Bird #28 out of 7m depth  
range

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Area: Mexico Survey: Chicxulub Line: chicx9  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+045:20:05:41	21.489812	-89.899077	259.7	5.0	4559.8	17.71
1471 632 1123	eliza		978778.4	23.1	12.0	14
EOT 631:1470/1122 SOT 632:1471/1123						

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2005+045:20:22:16	21.4847	-89.923057	259.1	4.9	4561.15	17.81
1522 633 1174	eliza		978776.7	23.1	9.2	14
EOT 632:1521/1173 SOT 633:1522/1174						

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2005+045:20:30:01	21.482376	-89.934238	260.1	4.9	4561.78	17.51
1546 633 1197	eliza		978776.7	23.2	9.2	13
ST=2500-2600 Wind speed 1.5h average=11.8. Bird #28 out of 7m depth range						

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2005+045:20:38:54	21.479786	-89.947095	260.0	4.8	4562.51	17.51
1573 634 1225	eliza		978777.3	23.2	12.2	16
EOT 633:1572/1224 SOT 634:1573/1225						

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2005+045:20:44:15	21.478112	-89.954846	259.7	5.0	4562.99	17.81
1587 634 1239	Peggy		978778.0	23.2	13.7	12
We didn't get a navigation header for shot 1587/FFID 1239, but the shot was recorded.						

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2005+045:20:55:25	21.474656	-89.971062	260.5	5.0	4563.88	17.91
1624 635 1276	eliza		978779.1	23.2	13.0	13
EOT 634:1623/1275 SOT 635:1624/1276						

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2005+045:21:00:03	21.473275	-89.977816	260.0	5.0	4564.27	18.01
1639 635 1291	Peggy		978781.5	23.2	10.0	21
ST = 2600. Streamer perfectly well balanced at 7m depth, except for bird 28. Wind speed 1.5hr average = 11.6.						

---

2005+045:21:11:54	21.469626	-89.9951	260.1	4.8	4565.24	17.31
1675 636 1327	Peggy		978778.5	23.3	12.4	16
EOT 635: 1674/1326.						

---

2005+045:21:28:25	21.464585	-90.019181	261.0	5.0	4566.6	19.31
1726 637 1378	Peggy		978777.1	23.3	14.5	20
EOT 636: 1725/1377. ST = 2600. Streamer ok. Wind = 12.3.						

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2005+045:21:45:28	21.45938	-90.043928	260.5	5.0	4568.02	19.01
1777 638 1429	Peggy		978774.9	23.3	13.1	12
EOT 637: 1776/1428.						

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2005+045:22:00:03	21.454898	-90.065193	260.5	4.9	4569.1	20.21
1824 638 1476	keren		978774.1	23.3	15.0	15
wind speed 12.6, atreamer well ballanced. EOT 638:1827/1479 SOT 639:1828/1480						

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Area: Mexico Survey: Chicxulub Line: chicx9  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						
2005+045:22:18:19	21.449281	-90.091904	260.8	4.9	4570.68	20.41
1879 640 1531	Tamara		978774.4	23.3	14.7	19
EOT 639: 1878/1530 SOT 640: 1879/1531						
2005+045:22:30:07	21.445671	-90.109154	260.3	4.9	4571.63	19.81
1918 640 1570	Tamara		978773.3	23.3	16.0	13
st=2700, wind=13.3						
2005+045:22:34:48	21.44425	-90.11599	260.3	5.0	4572.04	20.01
1930 641 1582	Tamara		978773.1	23.3	16.5	17
EOT 640:1929/1581 SOT 641:1930/1582						
2005+045:22:50:35	21.439366	-90.139033	259.7	4.9	4573.33	18.71
1981 642 1633	TJS		978772.7	23.3	14.3	16
EOT: 641 LSP: 1980 FFID: 1632 // BOT: 642 FSP: 1981 FFID: 1633 //						
Wind speed 90min average ~ 13.8						
2005+045:23:00:28	21.43628	-90.153432	260.5	5.1	4574.2	18.71
2013 642 1665	TJS		978771.9	23.3	14.9	13
wind=13.9, st=2700						
2005+045:23:07:37	21.434045	-90.163826	260.0	4.8	4574.81	19.81
2032 643 1684	TJS		978772.6	23.3	15.9	13
EOT: 642 LSP: 2031 FFID: 1683 // BOT: 643 FSP: 2032 FFID: 1684 //						
2005+045:23:24:06	21.428883	-90.187834	260.0	4.9	4576.1	19.61
2083 644 1735	TJS		978773.5	23.3	13.9	18
EOT: 643 LSP: 2082 FFID: 1734 // BOT: 644 FSP: 2083 FFID: 1735 //						
2005+045:23:30:08	21.427007	-90.196596	260.7	5.0	4576.59	19.51
2104 644	TJS		978772.6	23.3	14.3	20
st=2700, wind=15.2						
2005+045:23:40:49	21.423721	-90.212003	259.8	5.0	4577.47	19.71
2134 645 1786	tamara		978774.4	23.3	15.8	24
EOT 644: 2133/1785 SOT 645: 2134/1786						
2005+045:23:56:59	21.419074	-90.235397	261.1	4.7	4578.77	20.01
2185 646 1837	tamara		978778.4	23.3	16.4	19
EOT 645: 2184/1836 SOT 646: 2185/1837						
2005+045:23:59:43	21.418337	-90.239353	260.8	4.8	4578.99	978774.1
2194 646 1846	tamara			23.3	11.8	25
Last Shot of Day. EOL chicx9. EOT: 2194/1846. st=2700, streamer						
ok, wind=15.9						

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Area: Mexico Survey: Chicxulub Line: chicx9  
Shot Rate: 50 Sample Rate: 2 Channels: 480 Aux. Channels: 0  
Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH	STANDER	GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+046:00:15:57	21.413243	-90.263055	257.8	5.0	4580.38	5.51
	TJS		978773.2	23.2	15.0	34
Streamer is being brought in a little. Monitoring streamer depth...						

---

2005+046:00:30:15	21.408113	-90.284111	258.0	5.0	4581.55	17.21
	tAmArA		978773.7	23.2	12.2	31
bringing streamer in a little... streamer disconnected so no tension. birds look fine. Turning soon to prepare too transfer visitors back to Hamlet.						

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2005+046:00:53:00	21.399288	-90.317623	256.3	4.9	4583.49	19.11
	tAmArA		978773.5	23.2	13.8	35
starting to turn. streamer still disconnected, but gun has been untangled						

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2005+046:01:00:22	21.399064	-90.328641	288.3	4.8	4584.09	19.61
	tAmArA				23.2	16.0 35
turning. streamer still disconnected.						

---

2005+046:01:30:06	21.431303	-90.331468	58.1	4.9	4586.69	20.41
	tAmArA		978717.5	23.2	15.8	40
Streamer looks OK, back out again and tension ~ 2650, depth good. Wind speed 90min average ~ 14.8.						

---

2005+046:01:49:26	21.43385	-90.304149	88.5	5.0	4578.93	19.51
	tAmArA		978707.8	23.2	16.7	53
first attempt at boat transfer failed. Going around reef so we can get boat at better angle to wind.						

---

2005+046:02:00:11	21.437093	-90.288106	73.3	5.1	4588.84	16.91
	tAmArA		978705.4	23.1	13.4	54
st=3400, streamer ok. going around reef..... change of watch						

---

2005+046:02:08:23	21.438239	-90.278289	92.7	0.4		5.51
	tAmArA		978711.3	23.2	12.6	51
boat just scraped the bottom of the reef - we are going to bring the streamer in now...						

---

2005+046:02:24:33	21.43824	-90.278289	88.5	0.4		5.51
	tAmArA		978740.6	23.1	12.2	48
Gun 20 may be on the bottom. The birds are predominantly showing depths of 20m - the streamer has sunk to the bottom we think.... The guns are mostly in.						

---

2005+046:02:27:07	21.438242	-90.278289	88.5	0.5		5.51
	tAmArA		978740.6	23.1	13.5	48

Tim is currently taking photos of the situation - not sure if this counts as hindering or aiding the situation we are now in....

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+046:02:35:31 21.438245 -90.278291 87.8 0.3 5.51  
 Anusha 978740.6 23.2 12.6 56  
 We are not on the reef - we are about a mile off the reef and are  
 thought to have hit an uncharted sandbar. The priority now is to  
 get all the equipment in so the ship can maneuver. They are  
 debating whether to pull the streamer in fast or slow to get it in  
 - we do not think it is currently hung up on anything...

2005+046:02:51:25 21.438246 -90.278291 88.1 0.0 4589.55 5.51  
 Matt 978740.6 23.2 14.4 58  
 Bird 27 on board.

2005+046:03:00:14 21.438248 -90.278292 88.1 0.2 4589.6 5.51  
 Tamara 978740.6 23.2 13.2 61  
 About to transfer PROFEPA inspectors and senator (8 visitors) plus  
 Gabriella and Manuel to chase boat. They will leave the ship and  
 the Hamlet will remain with us. We are still stuck. Initial  
 reports indicate we are stuck on something rocky. continuing to  
 bring streamer in and monitor birds. We have stopped bringing in  
 the streamer momentarily at the captain's request.

2005+046:03:06:20 21.438246 -90.278292 88.0 0.0 4598.63 5.51  
 Tamara 978740.7 23.1 13.5 60  
 visitors and manuel/Gaby have left the ship.

2005+046:03:12:43 21.438246 -90.278291 88.7 0.2 4589.65 5.51  
 Matt 978740.7 23.1 12.9 61  
 The captain wants to wait to bring the streamer in so it doesn't  
 drag on the seafloor.

2005+046:03:18:15 21.438244 -90.278291 89.7 0.3 4589.67 5.51  
 Matt 978740.7 23.1 11.6 60  
 Call from the bridge, the hull requires inspection in port.

2005+046:03:28:02 21.43824 -90.27829 94.0 0.3 4589.72 5.51  
 tamara 978740.7 23.1 13.3 50  
 bird 25 on board. we've resumed bringing in the streamer as the  
 ship backs up ( We are mainly pivoting).

2005+046:03:32:30 21.438237 -90.278291 95.8 0.5 4589.74 5.51  
 Tamara 978740.6 23.1 13.5 62  
 full stop. pivoting is putting tension on stuck gun. Hamlet has  
 been sent to try to unstuck the gun. streamer operations halted.

2005+046:03:38:05 21.438237 -90.278292 95.8 0.0 4589.77 5.51  
 Tamara 978740.7 23.1 13.5 57  
 fired manual shot to loosen stuck gun. 1370 psi. Gun 13

(volume=700). Gun is coming back in. Ship about to begin backing  
up again.

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

---

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				

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2005+046:03:46:15	21.438248	-90.278297	82.7	0.1	4589.8	5.51
	Tamara		978740.5	23.1	14.2	64
streamer coming in again as we have started backing. We are still pivoting (meanwhile, sweeties have arrived in the lab... spirits have been lifted). Port boom have just been brought in (both booms are now in).						

---

2005+046:03:55:07	21.438234	-90.278294	95.8	0.3	4589.84	5.51
	Tamara		978740.5	23.1	12.6	46
bird 24 onboard. emergency crew has been summoned in preparation for the possibility on an oil spill.						

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2005+046:04:04:54	21.438176	-90.278324	115.5	0.2	4589.9	5.51
	Tamara		978740.2	23.1	12.9	55
continuing to back up, stop, and reassess situation. no streamer retrieval at the moment.						

---

2005+046:04:14:15	21.43792	-90.278544	133.0	0.6	4589.95	5.51
	Tamara		978740.7	23.1	11.1	37
bringing in streamer slack. continuing to assess bottom depth behind the stern. starting to pull in streamer slowly						

---

2005+046:04:17:20	21.437623	-90.278999	161.7	0.7	4589.99	978743.2
	Tamara				23.1	10.9
						34
hydrosweep has been powered down. continuing to pull streamer in.						

---

2005+046:04:20:51	21.437344	-90.27954	169.7	0.8	4590.03	978743.9
	Tamara				23.1	11.6
						52
bird 23 on board.						

---

2005+046:04:21:34	21.437281	-90.279662	171.1	0.6	4590.03	978743.2
	Tamara				23.1	11.9
						50
we appear to be floating. we'll be proceeding slowly as we continue bringing in the streamer.						

---

2005+046:04:25:24	21.436305	-90.280873	266.3	1.6	4590.13	978745.1
	Tamara				23.1	12.9
						12
heading due W at slow speed. pulling in streamer.						

---

2005+046:04:29:00	21.436147	-90.283271	271.3	2.6	4590.26	978752.8
	Tamara				23.1	14.0
						56
bird 22 on board. sending hamlet over to deal with a fishing boat.						

---

2005+046:04:32:31	21.436031	-90.28611	272.0	2.6	4590.42	978759.0
	Tamara				23.1	12.7
						55
bird 21 on board						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						
2005+046:04:40:13	21.435629	-90.292162	269.0	2.6	4590.75	978758.7
	Tamara				23.1 13.2	59
bird 20 on board.						
2005+046:04:41:21	21.435582	-90.293056	268.7	2.5	4590.8	978758.6
	Tamara				23.1 14.8	58
bird 13 might be stuck. no indication of damage, but birds 12,13,14 appear to be dragging.						
2005+046:04:54:53	21.435042	-90.303542	268.1	2.4	4591.4	978758.8
	Tamara				23.1 13.3	58
bird 18 on board.						
2005+046:04:59:02	21.434891	-90.306719	268.1	2.3	4591.55	978758.8
	Tamara				23.1 12.9	56
birds set to 2m. we'll see if this helps with bird 13.						
2005+046:05:00:34	21.434857	-90.307754	267.1	2.3	4591.61	978758.6
	Tamara				23.1 15.5	56
bird 17 on board						
2005+046:05:05:20	21.434805	-90.311079	276.7	1.6	4591.79	978758.4
	Tamara				23.1 12.5	55
stopping streamer operations while we steer the boat to the port so we don't run over the streamer.						
2005+046:05:11:26	21.433116	-90.314004	230.0	2.5	4591.98	978750.7
	Tamara				23.1 12.9	58
Birds being set to 10m to avoid running over streamer						
2005+046:05:17:59	21.430042	-90.318239	230.1	2.4	4592.22	978755.7
	Matt				23.2 13.6	57
Bird 16 in.						
2005+046:05:24:39	21.426977	-90.322458	230.3	2.4	4592.49	978755.2
	Matt				23.2 12.5	57
Bird 15 in.						
2005+046:05:29:52	21.424684	-90.325571	230.0	2.4	4592.7	978754.6
	Matt				23.1 13.5	48
Bird 14 on.						
2005+046:05:42:18	21.419273	-90.333031	229.5	2.4	4593.21	978755.0
	Matt				23.1 12.7	53
Bird 12 on board.						
2005+046:05:48:47	21.416384	-90.336991	230.5	2.6	4593.47	978755.2

Bird 11 on board.

Matt

23.1 11.3 52

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+046:05:56:37	21.412811	-90.341927	230.7	2.6	4593.81	978755.7
	Matt				23.1	11.4 56
Bird 10 is in.						

---

2005+046:06:00:03	21.41124	-90.344091	230.0	2.6	4593.95	978755.6
	Matt				23.1	13.5 51
Streamer being pulled in.						

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2005+046:06:02:28	21.410115	-90.345632	230.3	2.8	4594.05	978755.2
	Matt				23.1	11.7 47
Bird 9 is on board.						

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2005+046:06:07:47	21.407619	-90.349041	230.1	2.7	4594.28	978755.2
	Matt				23.1	10.3 47
Bird 8 is on.						

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2005+046:06:10:29	21.406321	-90.350794	230.5	2.7	4594.46	978755.5
	keren				23.1	11.5 54
bird # 7 on board						

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2005+046:06:13:35	21.404824	-90.352807	230.5	2.8	4594.59	978755.6
	keren				23.1	13.0 49
bird # 6 off						

---

2005+046:06:15:47	21.403765	-90.354248	230.3	2.7	4594.7	978755.4
	keren				23.1	11.3 46
bird #5 off						

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2005+046:06:18:14	21.402565	-90.355867	230.0	2.7	4594.8	978755.7
	eliza				23.1	10.7 52
bird # 4 off						

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2005+046:06:21:55	21.40073	-90.358321	229.8	2.9	4594.97	978755.6
	eliza				23.1	11.3 55
bird # 3 off						

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2005+046:06:24:54	21.399218	-90.360354	229.8	2.7	4596.1	978755.9
	eliza				23.1	12.4 51
bird # 2 off						

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2005+046:06:27:56	21.39764	-90.36246	229.8	2.7	4595.24	978755.9
	eliza				23.1	11.9 54
bird # 1 off						

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2005+046:06:40:41	21.390788	-90.37149	230.3	3.0	4595.86	978756.9
	eliza				23.1	13.2 49
tail bouy on board						

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				
2005+046:06:58:04	21.386674	-90.380015	45.7	2.4		978745.0
Peggy	23.1	12.4	55			
ankering the ship: 4 shots						
2005+046:07:01:38	21.387424	-90.379569	49.3	1.1		978732.6
Peggy	23.1	11.1	57			
anker on the ground						
2005+046:20:33:40	21.510743	-90.172385	80.3	0.4		978748.7
Peggy	23.5	13.0	38			
anchored in place, waiting on divers						
2005+046:21:52:59	21.510539	-90.172126	59.0	0.2	4615.01	978746.9
Matt	23.5	13.3	35			
Divers just entered water.						
2005+046:22:22:59	21.510688	-90.172367	41.5	0.2	4615.16	978749.8
Matt	23.5	13.1	42			
divers on board						
2005+046:23:24:19	21.51076	-90.172407	46.5	0.4	4615.51	978750.4
TJS	23.4	17.5	26			
3 divers and Ernesto have now left the ship...						
2005+047:04:30:26	21.510846	-90.172483	96.0	0.7		978749.6
ANusha	23.2	16.7	47			
It's evening time, the divers have gone and we're anchored here till tomorrow when we're going into anchorage by Progreso to get a naval diver to come and inspect the ship. Till then we're processing.....						
2005+047:13:00:15	21.496572	-90.114475	103.7	5.2	4623.83	978705.7
Sean	23.1	14.6	137			
Transiting to anchorage to meet the ABS diver for an inspection.						
2005+048:00:00:03	21.418074	-89.742437	15.7	5.0	4647.83	
Tamara	23.3	23.1	60			
restarting watches. restarting ship too. boat-accident drama appears to be over. we'll be putting out the streamer tonight and shooting tomorrow.						
2005+048:00:30:25	21.486375	-89.731173	14.5	9.4	4651.94	978739.0
TJS	23.1	20.5	60			
Cruising to some handy spot to start streamer deployment, planned for around 1930 local time...						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						
2005+048:01:00:14	21.565114	-89.718208	15.3	9.0	4656.53	978748.2
TJS					23.0	24.5 68
nothing to log/ at this moment at sea/ awaiting streamer activities/ feeling bored as a flea/ deep thought: do fleas feel boredom? what about knees?						
2005+048:01:30:10	21.642558	-89.702639	61.0	7.7	4660.74	978751.6
tamara					23.1	22.9 37
about to start streamer operations						
2005+048:01:39:53	21.650644	-89.689586	61.0	3.2	4661	978737.5
tamara					23.1	19.1 58
Coming down to 1 knot to get tail buoy deployed. Deployed buoy at 0142.						
2005+048:01:56:43	21.660315	-89.675221	60.3	3.6	4662	
penny					23.1	0.0 0
Logging machine hung up for a while. 0151 Bird 1 deployed 0153 Bird 2 0156 Bird 3 0159 Bird 4 All set to 7 m						
2005+048:02:01:32	21.663505	-89.670221	60.3	3.6	4663	978727.9
penny					23.1	0.0 0
Bird 5						
2005+048:02:04:13	21.665301	-89.667402	60.3	3.6		978734.6
penny					23.0	0.0 0
Bird 6						
2005+048:02:06:31	21.667039	-89.664604	0.0	0.0	4663	
penny					23.0	0.0 0
Bird 7						
2005+048:02:08:42	21.668881	-89.661575	61.0	5.1		
penny					23.0	20.7 19
Bird 8						
2005+048:02:13:53	21.673017	-89.654838	61.0	4.2	4663	
penny					23.0	20.7 71
Bird 9						
2005+048:02:17:24	21.675574	-89.65068	60.7	4.3		
penny					23.0	18.5 66
Bird 10						
2005+048:02:21:00	21.678165	-89.646504	60.5	4.4	4664	978733.0
penny					23.0	20.7 66
Bird 11						



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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						
2005+048:02:28:44	21.683776	-89.637516	60.7	4.6		978732.9
penny				23.0	20.0	68
Bird 13. Centre beam depth is not on so take no notice of readings of 5.51m.						
2005+048:02:33:56	21.687907	-89.630903	60.8	4.6		978730.3
penny				23.0	22.2	68
Bird 14						
2005+048:02:38:40	21.691498	-89.625173	60.5	4.5		978721.7
penny				23.0	20.6	71
Bird 15						
2005+048:02:43:10	21.694932	-89.619719	61.3	4.3		978732.2
penny				23.0	22.6	70
Bird 16						
2005+048:02:47:10	21.698016	-89.614881	60.8	4.4		978732.0
penny				23.0	21.1	67
Bird 17						
2005+048:02:52:11	21.701873	-89.608927	61.0	4.0		978732.8
penny				23.0	21.6	66
Bird 18						
2005+048:03:13:25	21.716957	-89.58486	64.5	4.2	4668	978736.1
penny				22.9	24.1	69
Logger has been out of action ofr a short while 0257 Bird 19 0301 Bird 20 0306 Bird 21 0308 Bird 22 0311 Bird 23 0312 Starting to change out bad section						
2005+048:03:28:10	21.725108	-89.571336	64.3	3.5		978740.1
penny				22.9	22.1	71
A new section has now been put in to try to improve channels 422-428, which were noisy because of water in the streamer.						
2005+048:03:30:35	21.726504	-89.569003	64.0	3.4		978739.4
penny				22.9	20.6	69
Bird 24						
2005+048:03:35:11	21.729199	-89.564384	64.3	3.9		978739.1
penny				22.9	21.4	67
Bird 25						
2005+048:03:43:18	21.733854	-89.556411	63.8	3.2		978740.4
penny				22.8	22.8	70
Oil leak spotted on reel. They are going to try to patch it.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						
2005+048:03:48:18	21.736382	-89.552248	64.3	3.8		978743.3
penny				22.9	22.1	67
Bird 27. Leak is patched						
2005+048:03:50:58	21.738103	-89.549215	64.0	4.0		978739.2
penny				22.9	18.8	72
Bird 28						
2005+048:03:51:23	21.738372	-89.548737	64.7	4.1		978737.8
penny				22.9	18.8	72
Bird 28						
2005+048:04:03:37	21.746004	-89.535596	64.7	3.5		978738.1
penny				22.9	21.8	71
Streamer now fully deployed. Bird 15 was a bit flakey but has been reset. Depth stabilising.						
2005+048:04:30:10	21.768733	-89.506747	53.8	4.6		978738.6
Anusha				22.9	19.9	79
Streamer is looking pretty balanced except for bird 12 which is at 5 m. Streamer tension is 3792. The guns will be deployed later on tonight around 2-3am local time and we should be ready to start shooting first thing in the morning - weather permitting. We are also allowed to start shooting 7 minutes earlier due to the days getting longer - that's 21 extra shots!!!!!!						
2005+048:05:00:16	21.783101	-89.466227	83.0	4.2		978731.9
Anusha				22.8	20.5	76
Streamer is looking very balanced now. We are eagerly anticipating the start of the morrow's shooting here...						
2005+048:05:30:36	21.789995	-89.42927	79.0	4.5	4677.02	978736.9
Matt				22.8	17.3	80
Steamer good. Tension = 2688.						
2005+048:06:00:05	21.79722	-89.395111	80.3	4.2	4679.94	978736.9
Peggy				22.8	17.0	87
ST = 2500. Streamer ok. Wind = 18.2.						
2005+048:06:30:02	21.806078	-89.353058	79.3	5.1	4682.43	30.41
eliza				978730.3	22.8	15.2
ST=3500 Wind Speed=17.1						91
2005+048:07:00:03	21.815024	-89.311237	79.7	4.6	4684.81	30.51
eliza				978755.7	22.8	14.1
ST=3000 Wind speed 15.8						104

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+048:07:30:03	21.823183	-89.272322	79.7	4.8	4687.17	29.51
	eliza		978736.0	22.8	12.5	106
ST=2800 Wind speed 14.5						

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2005+048:08:00:09	21.831738	-89.23268	80.1	4.5	4689.6	28.61
	eliza		978735.2	22.8	11.4	106
ST=3200 Wind speed						

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2005+048:08:30:15	21.840061	-89.192926	79.8	4.5	4691.86	29.71
	eliza		978736.1	22.8	10.7	101
ST=2700 Wind speed 12.1						

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2005+048:09:00:09	21.848533	-89.15332	79.8	4.4	4694.06	28.51
	eliza		978737.2	22.8	9.8	89
ST=2800 Wind speed=11.1						

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2005+048:09:30:11	21.856625	-89.1141	85.8	4.2	4696.38	28.41
	eliza		978739.4	22.8	10.5	71
ST=2700 Wind speed 10.3						

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2005+048:10:00:10	21.826143	-89.094998	163.7	3.9	4698.56	24.01
	eliza		978760.0	22.8	9.7	81
ST=2800 Wind speed= 9.8						

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2005+048:10:30:16	21.794793	-89.110752	253.3	3.5	4700.71	26.61
	TJS		978794.6	22.7	8.5	92
Streamer looks fine; tension ~ 2200, depth within spec. Aiming for start of line chicx3						

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2005+048:11:00:15	21.786395	-89.149273	257.5	3.3	4072.36	25.91
	tamara		978791.8	22.7	7.9	95
st=2000, wind=9.2						

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2005+048:11:30:13	21.778523	-89.186721	258.7	3.4	4704.08	26.31
	tamara		978790.8	22.7	8.4	94
st=2000, wind=8.6						

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2005+048:12:00:13	21.769575	-89.229634	258.7	4.4	4706.22	23.51
	tamara		978797.2	22.7	7.2	89
st=2700, wind=8.2						

---

2005+048:12:30:22	21.759815	-89.27623	258.3	3.5	4708.34	25.31
	tamara		978797.0	22.8	7.6	105
st= 2700, wind=7.9						

---

2005+048:12:43:03	21.755805	-89.295559	258.1	4.1	4709.26	24.41
181 647 1	TJS		978797.5	22.8	7.4	114

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Ramp-up start. First shot 181, 1 airgun firing.

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Area: Mexico Survey: Chicxulub Line: 2000  
Shot Rate: 20se Sample Rate: 2 Channels: 480 Aux. Channels: ch  
Source: Airguns Guns: 2 Pressure: 225 Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+048:12:48:31	21.754054	-89.303601	258.0	3.8	4709.57	24.11
198 647 18	TJS		978796.6	22.8	8.2	108
2 guns firing.						

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2005+048:12:53:15	21.752565	-89.310478	258.3	3.8	4709.93	24.21
213 647 33	TJS		978796.2	22.8	7.5	105
4 guns firing...						

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2005+048:12:58:21	21.751044	-89.317893	259.0	3.8	4710.26	23.81
229 647 49	TJS		978796.6	22.8	7.6	105
8 guns firing...						

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2005+048:12:59:50	21.750595	-89.320051	259.0	4.0	4710.31	23.71
232 648 52	TJS		978796.7	22.8	8.2	101
EOT: 647 LSP: 231 FFID: 51 // BOT: 648 FSP: 232 FFID: 52 // Wind speed 90min average ~ 7.9 // Streamer tension ~2600, depth good.						

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2005+048:13:03:24	21.749522	-89.325243	259.0	4.0	4710.57	24.71
244 648 64	TJS		978796.8	22.8	8.5	105
16 guns firing...						

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2005+048:13:08:13	21.748058	-89.33225	258.5	3.7	4710.91	24.61
259 648 79	TJS		978796.9	22.8	8.3	109
All guns firing... Nice one.						

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2005+048:13:15:55	21.745654	-89.343545	258.3	3.9	4711.38	24.91
283 649 103	Tamara		978796.9	22.8	9.5	110
EOT 648: 282/102 SOT 649: 283/103						

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2005+048:13:32:49	21.740436	-89.368498	258.3	4.0	4712.46	24.21
650 334 154	Tamara		978795.7	22.8	9.2	111
EOT: 649 LSP: 333 FFID: 153 // BOT: 650 FSP: 334 FFID: 154 // Wind speed average ~ 8.1 // Streamer tension ~ 2500, depth good.						

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2005+048:13:49:23	21.735393	-89.39259	257.8	3.9	4713.47	25.81
385 651 205	TJS		978794.0	22.7	7.9	123
EOT: 650 LSP: 384 FFID: 204 // BOT: 651 FSP: 385 FFID: 205 //						

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2005+048:14:00:20	21.732063	-89.408475	257.5	3.9	4714.14	25.51
421 651	Tamara		978794.9	22.7	8.8	118
st=2500, wind=8.4, all is swell. change of watch.						

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2005+048:14:06:06	21.730283	-89.416806	258.1	3.9	4714.46	24.81
	Matt		978792.8	22.7	9.5	125
End tape: 651 Shots: 385-435 file: 205-255						

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Area: Mexico Survey: Chicxulub Line: chix3  
 Shot Rate: 20se Sample Rate: 2 Channels: 480 Aux. Channels: n/  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+048:14:22:26	21.72535	-89.440306	257.8	3.5	4715.7	24.81
487 653 307	Anusha		978792.4	22.8	10.6	124
Tape change. EOT 652 (SP 486, FFID 306) BOT 653, (SP 487, FFID 307)						

2005+048:14:39:13	21.720216	-89.46485	258.3	4.0	4716.76	24.41
538 654 358	Anusha		978792.3	22.8	7.9	134
Tape Change. EOT 653, (SP 537, FFID 357) BOT 654 (SP 538, FFID 358)						

2005+048:14:55:18	21.715249	-89.488443	258.3	3.9	4717.75	24.91
589 655 409	Anusha		978792.3	22.8	7.3	131
Tape change. EOT 654 (SP 588, FFID 408) EOT 655 (SP 589, FFID 409)						

2005+048:15:00:07	21.713755	-89.495512	258.0	4.0	4718.08	25.91
	Anusha		978792.1	22.8	7.2	121
Streamer tension is 2560. Streamer is well balanced and wind speed is low - everything excellent...						

2005+048:15:12:30	21.710034	-89.513328	257.8	3.5	4718.74	26.41
	Matt		978791.8	22.8	7.0	119
End tape: 655. Shots: 589-639. Files: 409-459.						

2005+048:15:28:44	21.705115	-89.536835	258.1	3.7	4719.75	27.11
	Matt		978792.4	22.9	7.7	123
End tape 656. Shots: 640-690. Files: 460-510. Streamer good. Tension = 2607.						

2005+048:15:45:13	21.700064	-89.560777	257.3	3.7	4720.77	27.61
	Matt		978792.8	22.9	7.9	115
End tape 657. Shots: 691-741. Files: 511-561.						

2005+048:16:00:11	21.695483	-89.582662	257.7	3.8	4721.63	27.51
	Matt		978793.4	22.8	6.7	98
Streamer good. Tension = 2620.						

2005+048:16:01:09	21.695188	-89.584082	258.1	3.8	4721.67	27.71
	Matt		978793.2	22.9	6.9	98
End tape 658. Shots: 742-792. Files: 562-612.						

2005+048:16:14:50	21.690936	-89.604186	257.3	3.5	4722.66	27.71
	Anusha		978793.9	22.9	6.4	100
SHUTDOWN. At 16:12 there was a shutdown for a dolphin sighting... We don't know exactly when the last shot was fired. there are 8 to 10 blank shots. The last shot is 649 FFID, 829 SP. - Kevin - can you spin the tape to check?						



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Area: Mexico Survey: Chicxulub Line: chix3a  
 Shot Rate: 20se Sample Rate: 2 Channels: 480 Aux. Channels: n/  
 Source: Airguns Guns: 1 Pressure: 80 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT	TAPE	FILE	WATCH	STANDER	GRAVITY	TEMP
COMMENTS	WSPD	WDIR				

2005+048:16:27:15	21.687307	-89.621713	258.1	3.5	4723.38	26.81
873	660	1	Anusha		978790.2	22.9
1st shot of the ramp up. Tape 660, sp 873, FFID 1						

2005+048:16:32:29	21.685698	-89.629387	257.7	3.6	4723.63	27.01
888	660	16	Anusha		978794.2	22.9
2 guns now on...						

2005+048:16:37:33	21.684096	-89.636843	257.7	3.8		26.21
904	660	32	Anusha		978794.5	22.9
4 guns now on....						

2005+048:16:43:04	21.682366	-89.644953	257.8	4.2		26.71
922		50	Anusha		978795.0	22.9
8 guns now on						

2005+048:16:43:53	21.682112	-89.64615	257.8	3.6		25.41
924	661	52	Anusha		978795.1	22.9
Tape change. EOT 661 (SP 923, FFID 51) BOT 661 (SP 924, FFID 52)						

2005+048:16:49:19	21.68043	-89.654121	258.0	3.7		26.41
	Anusha				978795.5	22.9
16 guns now on						

2005+048:16:52:21	21.679518	-89.658579	257.7	3.4	4724.92	26.71
951	661	79	Anusha		978795.5	22.9
All 20 guns firing... We're on our way!						

2005+048:17:00:52	21.67692	-89.671101	257.8	3.5	4725.35	26.31
	Matt				978796.1	23.0
End Tape 661. Shots: 924-974. Files: 52-102.						

2005+048:17:16:52	21.671933	-89.69463	258.0	4.0	4726.36	24.91
	Matt				978796.8	23.0
End tape: 662. Shots: 975-1025. Files: 103-153.						

2005+048:17:30:07	21.667894	-89.71415	258.3	3.5	4727.12	27.11
	Matt				978798.3	23.0
Streamer good. Tension = 2575.						

2005+048:17:32:41	21.667095	-89.717924	258.1	4.0	4727.28	25.41
	Matt				978798.8	23.1
End tape: 663. Shots: 1026-1076. Files: 154-204.						

2005+048:17:40:31	21.664646	-89.729475	257.5	3.9	4727.82	25.61
	Matt				978800.1	23.1
Power down to 1 gun. --dolphin. 1103 = fist 1 gun shot. 1102						

might be blank.

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Area: Mexico Survey: Chicxulub Line: chix3a  
 Shot Rate: 20se Sample Rate: 2 Channels: 480 Aux. Channels: n/  
 Source: Airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+048:17:49:35	21.661795	-89.742829	258.0	3.6	4728.35	26.71
	Matt		978801.9	23.1	9.5	53
End tape: 665. Files: 205-255. Shots: 1077-1127.						

2005+048:17:53:58	21.660457	-89.749253	258.3	3.5	4728.63	26.51
	Matt		978802.7	23.1	9.6	54
Group of dolphins off the bow. Staying with just gun on.						

2005+048:18:00:10	21.658628	-89.758262	257.8	3.8	4729.07	28.11
1164 665 292	Peggy		978803.2	23.1	10.3	52
ST = 2500. Streamer well balanced at 7m depth. Wind speed 1.5hr average = 8.1. Sonar pod ok.						

2005+048:18:05:30	21.656996	-89.765987	257.8	3.7	4729.51	27.31
1179 666 307	eliza		978804.3	23.1	9.8	45
EOT 665=1178/306 SOT 666=1179/307						

2005+048:18:13:01	21.654705	-89.776899	257.3	3.9		27.11
	Peggy		978804.0	23.1	9.3	50
dolphins still close, we have to postpone ramp up						

2005+048:18:22:21	21.651826	-89.790476	257.3	3.6	4730.46	25.81
1230 667 358	Peggy		978807.0	23.1	9.6	44
EOT 666: 1229/357.						

2005+048:18:27:15	21.650328	-89.797614	257.8	3.8	4730.79	26.61
1246 667 374	Peggy		978807.6	23.2	10.8	45
2 guns firing						

2005+048:18:30:01	21.64949	-89.801653	258.3	3.7	4730.96	26.71
1255 667 383	Peggy		978808.0	23.2	11.5	48
ST = 2500. Streamer ok. Wind = 9.1.						

2005+048:18:32:39	21.648685	-89.805503	258.0	3.9	4731.16	26.91
1263 667 391	Peggy		978818.3	23.2	9.8	48
4 guns firing						

2005+048:18:37:41	21.647127	-89.81289	257.8	3.6	4731.46	25.21
1278 667 406	keren		978808.4	23.2	12.0	45
8 guns on						

2005+048:18:39:03	21.646702	-89.814901	257.8	3.8	4731.59	25.91
1284 668 412	Peggy		978808.7	23.2	12.2	47
Powerdown for turtle. Last shot with full array = 1284. EOT 667: 1280/408.						

2005+048:18:55:12	21.64168	-89.838695	258.1	3.4	4732.57	26.11
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1332 669 460 eliza

978808.6 23.2 13.5 46

EOT 668=1331/459 SOT 669=1332/460

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Area: Mexico Survey: Chicxulub Line: chix3a  
 Shot Rate: 50m Sample Rate: 2 Channels: 480 Aux. Channels: n/  
 Source: Airguns Guns: 4 Pressure: 570 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+048:19:00:03	21.640225	-89.84574	258.8	3.8		26.81
1349 669 477	keren		978808.0	23.3	12.6	44
waiting to start the ramp up in 4 minutes						

2005+048:19:04:33	21.638891	-89.852151	258.3	4.1	4733.2	26.41
1362 669 490	keren		978806.6	23.3	14.0	44
2 guns on						

2005+048:19:09:52	21.637272	-89.859715	259.0	3.8	4733.51	24.71
1378 669 506	keren		978806.0	23.3	12.9	43
4 guns on						

2005+048:19:11:44	21.636712	-89.862371	259.0	3.7	4733.62	25.51
1383 670 511	eliza		978805.8	23.3	13.5	41
EOT 669=1382/510 SOT 670=1383/511						

2005+048:19:14:23	21.635927	-89.866145	258.5	3.5	4733.79	27.41
1392 670 520	keren		978805.8	23.3	14.3	39
8 guns on						

2005+048:19:19:36	21.634371	-89.873564	258.3	3.6	4734.13	26.91
1408 670 536	keren		978805.7	23.3	14.2	42
16 guns on						

2005+048:19:24:49	21.632819	-89.880965	258.1	3.9	4734.49	27.21
1423 670 551	Peggy		978805.6	23.3	15.3	39
full gun array firing						

2005+048:19:28:05	21.631823	-89.885673	258.7	4.1	4734.84	25.51
1434 671 562	Peggy		978805.8	23.3	16.0	40
Shutdown due to diving boat at 1 mile. EOT 670: 1433/561. Last shot 1434 might be a blank shot. ST = 2400. Streamer ok. Wind = 12.3.						

2005+048:19:44:34	21.626895	-89.909356	259.7	4.7	4735.8	23.41
	Peggy		978805.1	23.3	16.1	38
We will speed up to get away from the diving boat faster. ETA = 20:10.						

2005+048:19:56:14	21.62278	-89.929035	258.5	4.1	4736.83	22.61
1525 672 563	Peggy		978810.6	23.3	15.8	41
Start of ramp up. 1 gun firing. Shot 1525 (and possibly 1526) is blank.						

2005+048:20:00:06	21.621654	-89.934079	258.5	4.0	4737.06	22.61
1536 672 573	eliza		978802.2	23.3	16.2	36
ST=2349 Wind speed 1.5h average= 14.1						

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Area: Mexico Survey: Chicxulub Line: Chicx3b  
 Shot Rate: 50m Sample Rate: 2 Channels: 480 Aux. Channels: n/  
 Source: airguns Guns: 4 Pressure: 570 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+048:20:06:55	21.619639	-89.943651	259.0	3.8	4737.5	22.91
1557 672 694	Peggy		978803.3	23.3	15.3	37
4 guns firing						

2005+048:20:11:58	21.618171	-89.950867	258.8	4.1	4737.85	23.71
1571 672 608	Peggy		978803.3	23.3	17.6	37
8 guns firing						

2005+048:20:13:47	21.617641	-89.953472	259.3	4.2	4737.94	23.91
1577 673 614	eliza		978803.2	23.3	15.5	36
EOT 672=1576/613 SOT 673=1577/614						

2005+048:20:17:10	21.616643	-89.958319	259.1	4.3	4738.21	23.41
1587 673 624	Peggy		978803.1	23.3	15.3	39
16 guns firing						

2005+048:20:22:03	21.615189	-89.965343	258.8	3.9	4738.55	25.51
1602 673 639	Peggy		978802.5	23.3	16.0	44
full gun array on.						

2005+048:20:30:04	21.612705	-89.976896	258.1	4.0	4739	27.11
1628 674 665	eliza		978801.9	23.3	14.5	39
EOT 673=1627/664 SOT 674=1628/665 ST=2468 Wind speed 1.5h average=12.1						

2005+048:20:47:09	21.607501	-90.001583	258.7	4.1	4740.28	25.41
1679 675 516	Peggy		978800.7	23.4	16.0	40
EOT 674: 1678/515.						

2005+048:21:00:02	21.60358	-90.020082	258.3	3.9	4741.06	25.41
1719 675 756	Peggy		978799.5	23.4	16.8	42
ST = 2500. Streamer ok. Wind = 15.8. Still not sinking.						

2005+048:21:03:51	21.602425	-90.025611	259.0	3.9	4741.29	26.01
1730 676 767	Peggy		978799.1	23.4	14.7	38
EOT 675: 1729/766.						

2005+048:21:20:25	21.597381	-90.049639	259.1	4.1	4742.36	26.41
1781 677 818	Peggy		978798.3	23.4	15.8	38
EOT 676: 1780/817.						

2005+048:21:30:03	21.594452	-90.063609	259.0	3.9	4743.02	26.21
1811 677 848	eliza		978797.4	23.4	18.1	37
ST=2514 Wind speed 1.5h average=16.3						

2005+048:21:37:02	21.592338	-90.073723	258.7	3.9	4743.47	26.51
1832 678 869	Peggy		978796.5	23.4	18.0	44



EOT 677: 1831/868.

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Area: Mexico Survey: Chicxulub Line: Chicx3b  
 Shot Rate: 50m Sample Rate: 2 Channels: 480 Aux. Channels: n/  
 Source: airguns Guns: 20 Pressure: 6947 Volume: 2000

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

2005+048:21:53:34	21.587258	-90.097737	258.5	3.7	4744.57	26.51
1883 679 920	eliza		978796.4	23.4	15.2	36
EOT 678=1882/919 SOT 679=1883/920						

2005+048:22:00:03	21.585286	-90.107133	258.8	4.1	4744.97	26.31
1904 679 941	eliza		978796.5	23.4	18.5	36
ST=2492 Wind speed 1.5h average=16.7						

2005+048:22:10:10	21.582207	-90.121746	259.1	3.9	4745.55	27.01
1934 680 971	Tamara		978795.2	23.4	15.7	34
EOT 379: 1933/970 SOT 380: 1934/971 wind=16.8						

2005+048:22:27:01	21.577149	-90.145983	259.5	3.7	4746.62	5.51
1985 681 1022	Tamara		978794.1	23.4	16.0	35
EOT 680: 1984/1021 SOT 681: 1985/1022 wind= 16.9, st=2500						

2005+048:22:36:40	21.574217	-90.15986	259.1	4.3	4747	27.31
2015 681 1052	Tamara		978792.9	23.4	14.5	32
pulling in 3 starboard guns for the turn. gun 10 off. waiting on other 2 guns.						

2005+048:22:39:59	21.573193	-90.164632	259.5	3.6	4747.47	26.81
2025 681 1062	Tamara		978792.8	23.4	17.9	35
gun 11 off.						

2005+048:22:42:51	21.572302	-90.168798	259.7	3.8	4747.64	27.01
2034 681 1071	Tamara		978792.8	23.4	17.3	34
gun 9 off.						

2005+048:22:44:08	21.571898	-90.170676	259.0	3.7	4747.72	27.01
2036 682 1073	Tamara		978793.2	23.4	16.9	31
EOT 681: 2035/1072 SOT 682: 2036/1073						

2005+048:22:47:21	21.570937	-90.175431	265.1	3.7	4747.94	27.61
2053 682 1090	Tamara		978794.1	23.4	18.4	30
Shutdown due to weather. EOT 682: 2053/1090. EOL Chicx3b. wind=17.0. we're finished with the line anyhow so shutdown is ok. This is likely the last shot of day. starting turn.						

2005+048:23:00:13	21.576595	-90.192694	329.8	4.0	4748.78	27.41
	Tamara		978788.4	23.4	18.9	34
st=2100, streamer beautiful, wind=17.0. turning...						

2005+048:23:30:28	21.601558	-90.173823	70.7	4.1	4750.84	27.31
	TJS		978734.2	23.3	20.2	47
End of the day. Wind speed 90min average ~ 17.8. Streamer looks just super, tension ~ 2800, depth looks great. The news from the						

sonar pod shaft thing is excellent, as we appear not to be  
sinking. Touch wood...

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+049:00:00:57	21.611857	-90.133379	75.7	4.3	4752.85	28.71
	Tamara				23.3	21.1 39
st=3100						

---

2005+049:00:30:16	21.620422	-90.093084	75.3	4.7	4755.13	29.41
	Tamara		978736.3	23.3	24.1	36
ted has his head in the hole. st=3000.						

---

2005+049:00:40:12	21.62319	-90.079766	75.8	4.5	4755.92	28.61
	Tamara		978736.8	23.3	20.9	33
Ted has returned from the depths of "the hole". He reports a salt water seep. Tim, 25, said "Oh God, we're all going to die!!!" On hearing that we are not all going to die, at least not yet, Tim replied, "oh, good" and returned to playing solitaire.						

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2005+049:01:00:39	21.628729	-90.052232	75.1	4.6	4757.45	27.71
	Tamara		978737.3	23.2	22.3	39
st=3100, streamer fine.						

---

2005+049:01:30:15	21.643971	-90.015213	66.1	4.0	4759.66	26.11
	Tamara		978744.0	23.2	18.9	47
st=3000						

---

2005+049:01:44:50	21.65137	-89.997113	66.3	4.3	4760.69	27.11
	Tamara		978743.9	23.2	19.2	46
heading north due to some traffic in the way						

---

2005+049:02:00:02	21.669082	-89.990259	350.5	5.0	4761.82	29.91
	Tamara		978778.5	23.2	21.1	60
st=3000, streamer purrrrr-fecto, change of watch						

---

2005+049:02:39:29	21.715633	-90.017634	21.5	4.7		34.11
	Tamara		978784.1	23.2	22.8	39
We have had to end the experiment today due to trouble over hitting what may have been a coral reef... We are going to pull in the streamer immediately and geget the OBSs in directly afterwards (starting about midnight...)						

---

2005+049:03:00:14	21.735898	-90.001095	51.7	4.5	4766.56	33.81
	Tamara		978760.7	23.2	19.4	45
st=2700... but we'll be bringing in the streamer for the final time soon. meanwhile we'll continue trying to process the recent developments to the ever twisting tale of EW0501.						

---

2005+049:03:34:23	21.764632	-89.970439	52.7	3.7	4769	35.01
	Penny		978763.6	23.3	20.1	40
Commencing bringing in guns and streamer. Dietmar has completed						

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some electrical checks.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+049:03:49:57	21.773762	-89.960979	51.7	3.3		36.41
	Penny		978767.9	23.3	19.3	45

---

Bird 28 in

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2005+049:03:57:44	21.778202	-89.956384	52.0	2.5		35.01
	Penny		978768.0	23.2	19.6	44

---

Port boom being brought in

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2005+049:05:00:21	21.764288	-89.947228	51.8	2.6	4773	36.41
	Penny		978768.0	23.2	17.6	54

---

Bird 20 now in

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2005+049:05:25:15	21.821	-89.913346	51.8	2.7		36.91
	Penny		978768.8	23.2	19.4	60

---

Bird 16 now on board

---

2005+049:05:49:16	21.83354	-89.900758	56.7	2.7		36.91
	Penny		978769.3	23.2	15.3	65

---

Bird 12 now in

---

2005+049:06:00:10	21.838145	-89.893356	63.5	3.1	4775	37.41
	Penny		978764.8	23.2	14.4	75

---

Bringing in streamer

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2005+049:06:10:32	21.841679	-89.885773	69.0	2.9	4776.37	37.61
	eliza		978764.5	23.1	15.1	80

---

Bird 8 in

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2005+049:06:13:23	21.842642	-89.883648	68.7	3.0	4776.51	37.61
	eliza		978764.7	23.1	15.4	81

---

bird 7 in

---

2005+049:06:16:34	21.843721	-89.881266	68.8	3.2	4776.68	37.91
	eliza		978764.4	23.1	16.0	77

---

bird 6 in

---

2005+049:06:21:50	21.845546	-89.877204	68.3	3.3	4776.95	37.61
	eliza		978764.7	23.1	14.2	78

---

bird 5 in

---

2005+049:06:24:47	21.846594	-89.874892	68.5	3.2	4777.1	37.51
	eliza		978764.5	23.1	13.5	87

---

bird 4 in

---

2005+049:06:28:31	21.84789	-89.871974	68.5	3.2	4777.32	37.51
	eliza		978764.1	23.1	12.7	75

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bird # 3 on board

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+049:06:31:30	21.848951	-89.8696	69.1	3.4	4777.45	37.61
	eliza		978764.4	23.1	14.2	75
bird # 2 on board						

---

2005+049:06:35:00	21.850153	-89.866791	68.3	3.0	4777.64	37.61
	keren		978764.0	23.1	12.9	78
bird 3 1 on board						

---

2005+049:06:44:44	21.852336	-89.86193	68.0	1.8	4777.95	37.11
	keren		978772.1	23.1	14.5	73
tailbouy on board						

---

2005+049:06:46:42	21.852713	-89.861091	68.8	1.9	4778.04	37.91
	keren		978772.5	23.1	15.1	74
on transit to recover the first OBS						

---

2005+049:07:00:05	21.826059	-89.847273	151.0	10.	4779.96	35.81
	eliza		978747.5	23.1	14.2	76
in transit to recover the first OBS						

---

2005+049:07:30:05	21.750733	-89.806886	151.3	10.	4785.04	32.31
	eliza		978744.8	23.1	12.9	91
on transit to recover the first OBS						

---

2005+049:08:00:00	21.681588	-89.777394	164.7	2.4	4789.19	26.11
	eliza		978767.9	23.0	10.9	84
close to site 6A						

---

2005+049:08:12:47	21.679586	-89.772149	72.7	0.7	4789.62	26.81
	keren		978762.8	23.0	11.1	93
released L cheapo #2 on site 6A						

---

2005+049:08:16:52	21.679568	-89.771461	77.1	0.3	4789.66	26.71
	keren		978768.8	23.0	12.7	89
on the surface LC#2						

---

2005+049:08:24:37	21.679472	-89.770101	153.8	0.4	4789.8	26.01
	keren		978769.0	23.0	11.2	32
LC#2 hooked and on board						

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2005+049:08:25:58	21.679254	-89.77038	162.0	0.2	4789.82	26.51
	keren		978773.8	23.0	11.5	49
in transit to next recovery site 7B						

---

2005+049:09:08:14	21.65125	-89.690325	88.0	1.5	4794.17	23.91
	keren		978750.5	22.9	12.7	69
LC # 10 has been released						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+049:09:12:28	21.650919	-89.689042	86.8	0.6	4794.25	23.41
	keren		978753.6	22.9	11.6	66
LC #10 on the surface						

---

2005+049:09:18:38	21.650773	-89.687522	82.5	0.4	4794.35	22.81
	keren		978755.4	22.9	11.3	69
LC # 10 hooked and on board						

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2005+049:09:19:12	21.650744	-89.687478	82.1	0.4	4794.36	23.11
	keren		978755.8	22.9	12.2	60
ready to go to next recovery site 8C						

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2005+049:09:30:14	21.643863	-89.667618	108.8	8.5	4795.45	25.11
	keren		978695.3	22.9	14.7	68
we are not sinking ...yet.						

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2005+049:10:01:27	21.620565	-89.60638	92.5	0.6	4798.59	22.81
	keren		978731.6	22.9	8.6	65
DOBS # 20 has been released						

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2005+049:10:02:34	21.620472	-89.606272	85.5	0.4	4798.6	23.11
	keren		978739.5	22.9	8.8	76
DOBS # 20 on the surface						

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2005+049:10:08:59	21.621838	-89.605032	80.0	0.4	4798.7	24.21
	keren		978744.3	22.9	8.6	63
DOBS # 20 has been hooked						

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2005+049:10:11:04	21.621585	-89.605001	121.8	0.9	4798.72	23.41
	keren		978745.4	22.9	8.1	39
DoBS # 20 on board						

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2005+049:10:31:56	21.633623	-89.568534	69.8	9.4	4800.74	20.41
	Tamara		978684.0	22.9	10.8	54
in transit to site 9B						

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2005+049:11:11:06	21.682672	-89.542935	100.0	0.8	4804.75	24.41
	Tamara		978740.6	22.9	9.5	67
LC-1 released, 250m from site 9B						

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2005+049:11:14:56	21.682081	-89.54328	108.7	0.8	4804.8	25.01
	Tamara		978755.8	22.9	11.7	46
LC 1 on surface, site 9B						

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2005+049:11:21:03	21.681271	-89.5414	94.0	1.1	4804.93	24.51
	Tamara		978745.2	22.9	10.5	53
LC 1 hooked, site 9B						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						
2005+049:11:22:11	21.681126	-89.541223	93.7	0.5	4804.95	25.21
	Tamara		978745.8	22.9	10.1	54
LC 1 on board, site 9B. proceeding to site 9D.						
2005+049:11:30:23	21.671755	-89.543494	195.8	9.2	4805.5	24.01
	Tamara		978765.7	22.9	10.4	63
in transit to site 9D						
2005+049:12:12:20	21.593824	-89.524407	84.7	0.4	4811.03	20.91
	Tamara		978717.2	22.9	9.7	80
DOBS 27 released, 270m from site 9D						
2005+049:12:13:41	21.593701	-89.524277	87.1	0.6	481.04	21.31
	Tamara		978726.4	22.9	9.8	75
DOBS 27 on surface, site 9D						
2005+049:12:18:15	21.592517	-89.52263	111.1	0.9	4811.15	21.31
	Tamara		978732.5	22.9	9.5	66
DOBS 27 hooked, site 9D						
2005+049:12:19:42	21.592213	-89.522501	108.0	0.6	4811.17	21.11
	Tamara		978731.8	22.9	8.7	62
DOBS 27 on board, site 9D. Proceeding to site 10E.						
2005+049:12:30:27	21.586048	-89.508654	109.7	9.2	4811.98	22.01
	Tamara		978683.4	22.9	12.1	65
transit to site 10E						
2005+049:13:00:38	21.564805	-89.44258	98.7	2.0	4815.8	18.31
	Tamara		978711.7	22.9	10.3	55
LC-14 released, <400m from site 10E						
2005+049:13:05:09	21.564196	-89.44245	105.7	0.6	4815.87	18.61
	Tamara		978734.8	22.9	8.5	62
LC 14 on surface, site 10E						
2005+049:13:12:36	21.563104	-89.44025	113.3	0.8	4816.01	18.71
	Tamara		978725.8	22.9	9.0	49
LC 14 hooked, site 10E						
2005+049:13:12:59	21.563033	-89.440238	116.1	0.6	4816.02	18.61
	Tamara		978725.7	22.9	9.0	49
LC 14 on board, site 10E. proceeding to site 10F (the possible site of missing DOBS)						
2005+049:13:30:24	21.526961	-89.433646	168.0	3.9	4818.24	15.81
	Tamara		978724.9	23.0	9.7	50

in transit to site 10F

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+049:13:34:24	21.522223	-89.433003	169.0	3.7	4818.47	15.71
	Tamara		978727.9	23.0	10.8	52
pinging missing DOBS, 400m and closing on site 10F. We'll see if it's here...						

---

2005+049:13:45:31	21.51944	-89.429668	89.8	0.9	4818.78	16.01
	Tamara		978720.0	23.0	9.1	64
no response from missing DOBS... proceeding to site 9F. oh where, oh where has my little DOBS gone? oh where, oh where can it be?						

---

2005+049:14:00:19	21.510394	-89.445345	254.0	6.4	4819.91	15.81
	Tamara		978774.3	23.0	9.6	59
in transit to 9F						

---

2005+049:14:27:13	21.506221	-89.505596	137.8	1.0		17.51
	Tamara		978744.5	23.1	9.0	73
Pinging OBS 9F (LC 09) and it has responded and been released.						

---

2005+049:14:34:33	21.504363	-89.505096	108.8	1.1		15.81
	Tamara		978734.3	23.1	9.7	83
On surface						

---

2005+049:14:39:26	21.503258	-89.503906	102.0	0.8		15.71
	Tamara		978728.9	23.1	10.6	70
LC09 hooked						

---

2005+049:14:40:29	21.503072	-89.503839	101.1	0.6		16.91
	Tamara		978729.5	23.1	11.9	70
LC9 on board						

---

2005+049:14:41:57	21.502664	-89.503619	142.8	1.6		15.71
	Tamara		978732.2	23.1	10.4	74
On our way to site 8G						

---

2005+049:15:55:49	21.44456	-89.566524	88.5	0.4	4829	25.31
	Penny		978734.0	23.4	13.8	83
On site 8G, LC 8. Have been here around 45 minutes so far pinging, but no response. Original approach from NW so have now gone very close and are trying from the east and south because of possible blind spot. Have tried 2 different release units and the overside transducer but no response at all. 1602 going to 100m and trying release codes. 1603 sent release code Water depth 15.5m 1617 Giving up and proceeding to next station						

---

2005+049:16:30:46	21.472798	-89.592426	326.1	10.	4831.6	5.51
	Penny		978785.8	23.3	15.1	83
Proceeding to Site 7D. Detouring to meet Fever for personnel						

transfer.

---

Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+049:17:04:21 21.496348 -89.608912 336.7 5.1 4834.29 16.51  
 Penny 978734.3 23.2 14.7 173  
 Personnel transfer completed. Proceeding to Site 7D.

2005+049:17:30:21 21.552814 -89.660106 310.7 10. 4838.67 19.31  
 Penny 978803.7 23.1 12.9 103  
 Still transiting to Site 7D.

2005+049:17:38:03 21.561931 -89.672579 64.7 1.7 4839.64 18.41  
 Penny 978801.0 23.1 10.0 349  
 LC15 @ Site 7D responded to ping and released.

2005+049:17:48:13 21.561444 -89.66897 131.1 0.9 4839 19.41  
 Penny 978753.3 23.1 11.6 59  
 LC15 hooked and on board. Moving on to next site.

2005+049:18:00:13 21.549248 -89.682059 226.7 10. 19.51  
 Penny 978806.7 23.1 12.6 77  
 En route to next station, due 12.31

2005+049:18:30:07 21.503095 -89.735615 114.7 2.2 4844.98 17.91  
 keren 978766.2 23.3 9.3 130  
 we are not sinking yet.....in transit to site 6E

2005+049:18:32:27 21.502623 -89.735019 89.5 1.1 4845.01 17.91  
 keren 978755.3 23.3 11.4 79  
 LC # 07 has been released

2005+049:18:37:00 21.502063 -89.734112 92.7 0.6 4845.08 18.01  
 keren 978748.5 23.3 11.8 65  
 LC # 7 in sight

2005+049:18:47:32 21.501217 -89.733568 156.3 0.9 4845.22 18.81  
 keren 978754.5 23.3 11.1 30  
 LC # 7 hooked

2005+049:18:48:04 21.501157 -89.73371 162.0 1.0 4845.23 17.91  
 keren 978755.7 23.3 11.1 38  
 LC # 07 on board and ready to go to next recovery site 5F

2005+049:19:00:25 21.480265 -89.74435 203.0 10. 4846.63 16.61  
 keren 978780.7 23.3 12.0 54  
 in transit to site 5F to recover LC #18

2005+049:19:54:34 21.441916 -89.797851 88.7 1.1 4852.82 15.71  
 keren 978731.0 23.5 14.8 44  
 LC # 18 has been released



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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+049:19:58:24	21.441742	-89.796972	71.0	0.4	4852.87	15.91
	keren		978733.0	23.5	11.6	48
LC # 18 on surface						

---

2005+049:20:07:20	21.441538	-89.796767	124.3	0.9	4853.0	15.81
	keren		978744.1	23.5	11.4	23
LC # 18 hooked						

---

2005+049:20:08:54	21.441164	-89.796902	123.7	1.0	4853.03	16.51
	keren		978742.6	23.5	14.1	34
LC # 18 on board						

---

2005+049:20:11:08	21.440668	-89.79716	121.7	1.1	4853.07	15.91
	keren		978741.5	23.5	12.4	41
getting PROFEPA visitors on board						

---

2005+049:22:31:35	21.531596	-89.818236	47.0	2.8	4861.78	20.61
	tamara		978752.0	23.3	20.2	27
500m from site 5D. pinging OBS.						

---

2005+049:22:33:34	21.532411	-89.817264	50.0	1.3	4861.85	20.41
	tamara		978751.0	23.3	17.7	17
DOBS 24 released, site 5D.						

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2005+049:22:36:10	21.532833	-89.816856	44.5	0.2	4861.88	20.51
	tamara		978753.9	23.3	20.0	28
DOBS 24 on surface, site 5D.						

---

2005+049:22:43:44	21.530297	-89.816809	162.8	1.4	4862.11	20.91
	tamara		978765.6	23.3	21.5	6
DOBS 24 hooked, site 5D.						

---

2005+049:22:44:49	21.529904	-89.817061	158.0	1.4	4862.14	20.81
	tamara		978770.7	23.3	18.5	34
DOBS 24 on board, site 5D. Not proceeding to next site as captain needs to make some phone calls...						

---

2005+049:23:00:13	21.526319	-89.813846	89.0	3.2	4862.61	20.11
	tamara		978740.9	23.3	19.8	29
still waiting to resume OBS operations.						

---

2005+049:23:30:19	21.535139	-89.807114	32.7	1.4	4863.33	20.71
	tamara		978759.9	23.2	21.1	34
still waiting... our "friendly visitors" are still on board						

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2005+050:00:00:22	21.538656	-89.808451	143.8	1.2	4863.97	20.81
	tamara			23.2	18.7	12

still waiting... visitors are about to leave and then we will  
proceed to next site (LC 12).

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

TIME [GMT] LATITUDE LONGITUDE CSE SPD PITLOG DEPTH  
 SHOT TAPE FILE WATCH STANDER GRAVITY TEMP WSPD WDIR  
 COMMENTS

2005+050:01:00:11 21.573226 -89.772401 48.5 9.1 4868.09 19.81  
 tamara 978719.6 23.1 24.2 30  
 in transit to site 6C.

2005+050:01:14:10 21.589785 -89.753948 50.7 1.8 4869.41 22.61  
 Tamara 978751.2 23.1 21.9 35  
 LC-12 released, site 6C.

2005+050:01:18:43 21.590381 -89.753053 49.8 0.6 4869.48 22.91  
 Tamara 978760.8 23.1 21.2 32  
 LC 12 on surface, site 6C.

2005+050:01:25:19 21.590503 -89.751402 63.1 0.5 4869.58 23.21  
 Tamara 978758.5 23.1 19.7 36  
 LC 12 hooked, site 6C

2005+050:01:26:17 21.590357 -89.751363 72.8 0.5 4869.59 22.81  
 Tamara 978759.6 23.1 21.6 26  
 LC 12 on board, site 6C. proceeding to site 5B.

2005+050:01:30:40 21.590534 -89.752305 289.5 3.6 4869.71 23.01  
 Tamara 978749.0 23.1 22.9 151  
 in transit to site 5B.

2005+050:02:00:15 21.616574 -89.83547 292.0 4.1 4873.91 24.21  
 Tamara 978834.1 23.1 21.5 56  
 in transit to site 5B

2005+050:02:10:23 21.61953 -89.836091 60.1 2.3 4874.19 23.41  
 Tamara 978767.0 23.1 19.8 27  
 LC-3 released, site 5B.

2005+050:02:13:42 21.620341 -89.834595 58.1 0.9 4874.28 25.21  
 Tamara 978759.2 23.1 18.2 42  
 LC3 Site 5B on surface.

2005+050:02:20:32 21.619562 -89.833847 103.7 1.1 4874.38 23.71  
 Kevin 978771.5 23.1 20.2 20  
 LC-3 (5B) on board. Proceeding to 4C.

2005+050:03:01:23 21.559646 -89.898572 46.0 0.9 4879.04 23.51  
 Kevin 978757.8 23.1 20.3 45  
 On station 4C. Waiting for D-21 to surface.

2005+050:03:07:39 21.559794 -89.898086 129.7 1.0 4879.15 23.31  
 Kevin 978759.3 23.1 17.2 4  
 D-21 (4C) on board.

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+050:03:11:05	21.558918	-89.899046	145.0	1.2	4879.2	23.81
	Kevin		978768.5	23.1	17.1	40
Proceeding to next site, 3D.						

---

2005+050:03:52:52	21.499922	-89.962458	50.7	0.9	4884.01	18.91
	Kevin		978751.0	23.2	20.3	56
LC-4 (3D) pinged, responded and released.						

---

2005+050:04:04:00	21.500428	-89.961269	132.3	1.2	4884.19	18.31
	Kevin		978742.2	23.2	14.4	8
LC-4 (3D) on board.						

---

2005+050:04:05:25	21.500067	-89.961631	142.3	1.4	4884.2	19.71
	Kevin		978747.1	23.2	17.5	35
Proceeding to Site 3E.						

---

2005+050:04:38:25	21.451441	-89.951679	45.8	0.5	4887.38	19.01
	Kevin		978734.2	23.3	18.0	63
D-23 (3E) pinged, responded, and released.						

---

2005+050:04:49:52	21.451139	-89.951936	99.8	1.0	4887.5	17.61
	Kevin		978733.7	23.3	19.8	45
D-23 (3E) on board.						

---

2005+050:04:51:47	21.450641	-89.952172	121.3	1.3	4887.54	17.71
	Kevin		978733.6	23.3	17.1	34
Proceeding to Site 3F.						

---

2005+050:05:18:03	21.410872	-89.943901	53.3	1.1	4890.05	16.51
	Kevin		978719.8	23.6	18.2	42
LC-11 (3F) pinged, responded and released.						

---

2005+050:05:29:32	21.411675	-89.942832	137.3	1.2	4890.23	14.71
	Kevin		978724.6	23.6	18.3	28
LC-11 (3F) on board.						

---

2005+050:05:39:07	21.403972	-89.956811	239.8	10.	4891.13	14.71
	Kevin		978777.9	23.6	18.1	53
Proceeding to Site 1G.						

---

2005+050:06:50:30	21.336617	-90.080058	69.7	0.8	4899.32	26.91
	keren		978726.9	23.5	19.5	54
LC #13 has been released						

---

2005+050:06:54:32	21.336289	-90.080492	79.0	0.4	4899.36	24.51
	keren		978726.7	23.5	17.1	62
LC # 13 on the surface						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+050:07:05:04	21.336633	-90.079555	94.5	0.6	4899.46	24.71
	keren		978724.0	23.5	16.5	59
LC #11 has been hooked and on board						

---

2005+050:07:06:14	21.336394	-90.079612	107.0	0.9	4899.47	25.91
	keren		978723.8	23.5	15.1	51
in transit to site 2E to recover LC # 10						

---

2005+050:07:30:07	21.38287	-90.054776	30.3	9.6	4902.57	16.11
	keren		978697.6	23.4	18.6	74
transit to site 2E						

---

2005+050:08:00:26	21.439745	-90.028871	71.7	1.7	4906.24	17.01
	keren		978730.7	23.2	15.4	66
500m to the site 2E						

---

2005+050:08:01:50	21.439947	-90.028293	70.7	1.4	4906.28	16.11
	keren		978726.7	23.2	16.0	76
LC #10 has been released						

---

2005+050:08:06:26	21.440617	-90.026651	71.5	1.0	4906.36	17.71
	keren		978729.0	23.2	12.6	75
LC #10 on the surface						

---

2005+050:08:15:36	21.44055	-90.025479	98.8	0.6	4906.45	5.51
	keren		978736.3	23.2	14.3	74
LC # 10 On board ready to go to next site 1D						

---

2005+050:09:15:05	21.470037	-90.108657	61.5	0.6	4911.68	19.41
	keren		978741.1	23.2	15.0	121
DOBS # 25 on the surface						

---

2005+050:09:25:09	21.46949	-90.107486	128.1	0.9	4911.81	19.91
	keren		978740.7	23.2	14.6	103
DOBS # 25 on board						

---

2005+050:09:28:00	21.469057	-90.108107	155.0	1.1	4911.88	20.21
	keren		978746.7	23.2	13.3	88
ready to go to next site 1B						

---

2005+050:10:02:44	21.543194	-90.123375	336.8	8.6		24.61
	keren		978784.2	23.2	10.5	84
transit to site 1B						

---

2005+050:10:27:11	21.559351	-90.127458	70.3	0.0	4917.46	26.91
	Tamara		978756.3	23.2	10.0	94
DOBS 22 released, site 1B.						

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Area: Mexico Survey: Chicxulub Line:  
 Shot Rate: Sample Rate: Channels: Aux. Channels:  
 Source: Guns: Pressure: Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+050:10:31:39	21.559621	-90.126987	77.5	0.2	4917.52	25.61
	Tamara		978754.3	23.2	9.6	94
DOBS 22 on surface, site 1B						

---

2005+050:10:36:48	21.558446	-90.12651	126.5	0.8	4917.59	25.81
	Tamara		978755.2	23.1	9.1	103
DOBS 22 hooked, site 1B. OBS does not have a light.						

---

2005+050:10:38:39	21.558062	-90.126615	119.3	0.5	4917.61	25.41
	Tamara		978753.7	23.1	9.1	99
DOBS 22 on board, site 1B. Proceeding to site 2C.						

---

2005+050:11:10:55	21.532875	-90.052356	106.8	7.4	4921.59	25.91
	Tamara		978692.0	23.1	14.0	99
in transit to site 2C						

---

2005+050:11:21:10	21.530281	-90.045378	86.0	0.5	4922.0	24.11
	Tamara		978741.7	23.1	12.3	80
LC 6 released, site 2C						

---

2005+050:11:25:18	21.530124	-90.045081	49.7	0.3	4922.03	23.41
	Tamara		978751.3	23.1	11.6	112
LC 6 on surface, site 2C						

---

2005+050:11:33:31	21.529204	-90.044223	171.5	0.6	4922.16	22.61
	Tamara		978751.2	23.1	9.8	59
LC 6 on board, moving on to site 3B.						

---

2005+050:12:00:14	21.572106	-90.001078	47.3	8.7	4925.33	23.91
	Tamara		978713.7	23.1	11.5	71
in transit to site 3B						

---

2005+050:12:13:49	21.589191	-89.982614	62.8	2.3	4926.61	24.71
	Tamara		978747.9	23.1	11.7	86
LC-5 released, <500m from site 3B						

---

2005+050:12:17:22	21.590029	-89.981263	80.8	1.2	4926.7	23.51
	Tamara		978752.7	23.1	9.5	64
LC 5 on surface, site 3B						

---

2005+050:12:22:17	21.589176	-89.979714	135.5	1.1	4926.8	24.41
	Tamara		978755.7	23.1	9.5	63
LC 5 hooked, site 3B						

---

2005+050:12:22:48	21.58902	-89.979712	135.3	1.0	4926.81	23.71
	Tamara		978755.9	23.1	9.5	63
LC 5 on board, site 3B. proceeding to site 4A (the final site) for						

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DOBS 19, which has no light. fortunately sun has just risen  
(cockledoodledoooooooo!)

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Area: Mexico	Survey: Chicxulub	Line:
Shot Rate:	Sample Rate:	Channels:
Source:	Guns:	Pressure:
		Volume:

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TIME [GMT]	LATITUDE	LONGITUDE	CSE	SPD	PITLOG	DEPTH
SHOT TAPE FILE	WATCH STANDER		GRAVITY	TEMP	WSPD	WDIR
COMMENTS						

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2005+050:13:00:11	21.648282	-89.920942	70.8	1.8	4931.05	26.61
	Tamara		978753.5	23.0	11.6	50
in transit to site 4A						

---

2005+050:13:10:34	21.650126	-89.917119	79.7	1.1	4931.3	28.11
	Tamara		978770.9	23.0	14.2	58
DOBS 19 released, <250m from site 4A						

---

2005+050:13:12:19	21.650203	-89.916579	85.3	1.1	4931.36	5.51
	Tamara		978769.0	23.0	12.3	80
DOBS 19 on surface, site 4A.						

---

2005+050:13:17:30	21.649075	-89.915716	107.5	0.6	4931.41	27.91
	Tamara		978766.8	23.0	12.6	86
DOBS 19 hooked, site 4A						

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2005+050:13:19:18	21.648756	-89.915741	113.5	0.6	4931.43	27.51
	Tamara		978770.2	23.0	10.0	70
DOBS 19 on board, site 4A. This concludes another exciting edition of "OBS retrieval", starring Jamie and Alan, OBS masters of the universe! Stay tuned for extended coverage of "the hunt for the missing OBSs"						

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2005+050:14:00:12	21.619687	-89.887298	114.3	4.3	4933.65	21.61
	Tamara		978745.3	23.0	12.6	92
heading towards OBS site 8G to look for missing instrument... change of watch.						

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## **EW0501: What we know now**

‘Had I known what was involved, I never would have started’ – *Motto, Cambridge Marine Geophysics Group 1960-1990*

1. Earlier understanding of Article 13 clearance procedure would have saved a lot of time
2. Active local PR needed
3. Fast Spanish translation of incoming documents
4. Bilingual (English/Spanish) speakers for Bridge communication – need to be built in, not ad hoc
5. Pitfalls of relying on Mexican government fulfilling their side of the conditions (provision of MMOs)
6. Clearer instructions to joining scientists/MMOs about expectation for them to stay on board for specific duration
7. Interpretation of conditions (Beaufort restriction, shutdown for fishing boats)
8. Access to Mexican environmental legal advice re Article 13, clearance procedures, Profepa inspections, grounding
9. Taking firmer initiatives to control boat transfers, inspections etc
10. Chase boats were reasonably useful, overflights less so
11. Keep copies of all paperwork on board the vessel
12. It was serendipitous that we had Mexicans on board the vessel who were able and willing to help with many of the above, but we could have been a lot less lucky