

Sonobouy #2

Sighting # 1345

9/24/91

15:43 (DST)

Globicephala macrorhynchus

Pilot whale were approaching us head on,
passed w/in 50m of ship when buoy was
deployed from stern. Animals were fast traveling
the entire time.

No vocalizations heard by buoy receiver.
It's good.

Recorded on both channels (A, B, both C (?)

red - 3:53 - dropped to 2 bars

3:57 - discount to 0 bars

4:06 - reception back at 1 (transmitter)

black - 3:52 - 1 bars (+)

3:57 - 3 bars

4:00 - 2 bars (-)

4:05 - 3 bars (+) 4:08.56 reception
out/intact

4:07 - reception off in a short time (less than 1 min) (-)
enough time has elapsed so that you can't catch up, I would do
20000 rpm instead of 10000 rpm

*WE CHANGED TIMES USED NINE, THAT IS CORRECT

10:15 → THREE SITES 11:12 + 16:43

11:15 → 12:12 + 16:43

1 hr
difference
(approx)

STOP RECORDING: 4:09:35

SONOBOY

#10

Sighting # 1358 *Balaenoptera musculus*
9-26-99 07:59

Reception

Sonoboy #10

8:11	red=3 bars	black= all bars (6)
8:14	2 bars	5 bars
8:17	1 bar	4+ bars
8:20	0-1 bar	4 bars
8:25	0	3+ bars
8:30	0	3 bars
8:36	0	2+ bars
8:40	0	2+ bars
8:50	0	3 bars

* I think I have consistently
been receiving better signals/
reception from the left/black
channel

- dropped buoy at $\langle 09^{\circ} 56.08' N$, $09^{\circ} 26.92' W \rangle$; whale is now at
2.3 nm, 35° left from ship (ship turned to approach)

- I don't hear whale voices, but due to overload from ship noise?

- Currently recording on both channels, but I may put in another
buoy closer to animals & monitor both

* Observers are putting in resights of animals for locations, whale
is traveling. Poor conditions, they'll biopsy from bow then

08:09 - possible lf pulse? Seen, not heard \rightarrow not a whale

08:16 - ship to half speed \rightarrow 08:19 back to full speed
(good reception, no whales)

08:30 - Stopped recording, we are now 1/2 nm from whale
(still monitoring just in case...)

08:24 \rightarrow Appears to be 1-2 blue whales feeding (with change
in direction of travel). They will biopsy, then will pull
out another buoy out after biopsy.

\rightarrow They are feeding, stay at surface for a few
minutes, then dive (w/a large arc) for
8-10 minutes

9:08 Stop monitoring & back to course & speed

SONOBON #10

Sighting # 1358 *Balaenoptera musculus*
9-26-99 07:59

028E. 074308 092699 N09:54.60 W091:27.49
 029* 074400 092699 N09:54.73 W091:27.42
 030* 074900 092699 N09:55.09 W091:27.25
 031* 075400 092699 N09:55.37 W091:27.15
 032* 075900 092699 N09:55.73 W091:27.07
 033* 080400 092699 N09:56.05 W091:26.98
 034C 080422 092699 N09:56.08 W091:26.98 sonobuoy thrown over //
 035B 080502 092699 N09:56.13 W091:26.96 1358 328 0.7 2.4 023 } Resights
 036* 080900 092699 N09:56.43 W091:26.98
 037* 081400 092699 N09:57.00 W091:27.37
 038S 081858 092699 N09:57.56 W091:27.70 1358 008 3.0 1.0 330
 039* 081900 092699 N09:57.56 W091:27.71
 040C 082152 092699 N09:57.74 W091:27.77 possible pair, 2 blows seen after an arc
 last series
 041* 082400 092699 N09:57.99 W091:27.85
 042* 082900 092699 N09:58.31 W091:27.91
 043C 083244 092699 N09:58.44 W091:27.91 whale is blowing about 45 L and 0.5 rm,
 044* 083400 092699 N09:58.47 W091:27.93
 045# 083508 092699 N09:58.44 W091:27.99
 046** 083528 092699 N09:58.43 W091:28.01 1358 000 5.0 0.7 244
 047* 083900 092699 N09:58.29 W091:28.19
 048C 084213 092699 N09:58.29 W091:28.24 last resight estimated, whale not at sur
 049C 084227 092699 N09:58.29 W091:28.24 new whale 63 right, 0.3 reticless
 050* 084400 092699 N09:58.28 W091:28.25
 051C 084506 092699 N09:58.28 W091:28.26 whale up at about 115 L and 7 ret. at th
 052S 084541 092699 N09:58.28 W091:28.27 1358 115 7.0 0.5 255
 053S 084729 092699 N09:58.23 W091:28.22 1358 346 6.5 0.6 114
 054C 084800 092699 N09:58.20 W091:28.18 arch last resight
 055* 084900 092699 N09:58.16 W091:28.11
 056* 085400 092699 N09:58.09 W091:27.82
 057* 085900 092699 N09:58.04 W091:27.61
 058* 090400 092699 N09:57.99 W091:27.40
 059C 090450 092699 N09:57.98 W091:27.36 whale up at this time, -133, 7 ret
 060S 090521 092699 N09:57.98 W091:27.34 1358 227 7.0 0.5 093
 061C 090747 092699 N09:58.09 W091:27.25 fluke
 062* 090900 092699 N09:58.02 W091:27.25

063* 091400	092699	N09:58.84	W091:27.03
064AC 091421	092699	N09:58.88	W091:27.01
065P 091749	092699	N09:59.40	W091:26.75
066V 091749	092699	N09:59.40	W091:26.75
067N 091749	092699	N09:59.40	W091:26.75
068W 091749	092699	N09:59.40	W091:26.75
069R 091802	092699	N09:59.43	W091:26.74
070P 091802	092699	N09:59.43	W091:26.74
071V 091802	092699	N09:59.43	W091:26.74
072N 091802	092699	N09:59.43	W091:26.74
073W 091802	092699	N09:59.43	W091:26.74

- dropped buoy at < 09° 56.08 N 091° 26.98 W >; whale is now at 2.3 nm, 35° left from ship (Ship turned to approach)
- I don't hear whale noise, but due to acc load from ship noise?
- Currently recording on both channels, but I may put in another buoy closer to animals & monitor both

* Observers are putting in readings of animals for locations, while it's traveling. Poor conditions, they'll biopsy from here then.

08:09 - possible 1st pulse? Seen, not heard > not a whale

08:16 - ship to half speed → 08:19 back to full speed
(good reception, no whales)

08:30 - Stopped recording, we are now 1/2 nm from whale
(still monitoring just in case...)

08:24 → Appears to be 1-2 baleen whales feeding (with changes in direction of travel). They will biopsy, then it'll put out another buoy out after biopsy.

→ They are feeding, stay at surface for a few minutes, then dive (w/a large arc) for 8-10 minutes.

9:08 Stop monitoring, back to course & speed

SONOBOUY
#11

Sighting # B58 B. musculus

9.26.99 09:09

- Buoy dropped at: $9^{\circ}58.91'$, $91^{\circ}26.99'$

Whales last sighted at: $9^{\circ}58.38$, $91^{\circ}27.67$

- Gave up chase on these animals (long dive times, feeding, short surface intervals, bad scan stats) I tossed in another buoy (#11) near last sighting of whales and ship returned to course & speed.

- Not sure if this buoy is working

- No reception bars \Rightarrow think this is a lead buoy

We are now 15-2 nm from last resight - this distance is approximately equivalent to the distance from sonobuoy #1 & the whales. Since that buoy had good reception & no vocalizations, I decided not to toss any more buoys on these guys.

Stopped recording at 09:23

Reception

Sonobuoy #11

right/red

9:10

left/black
0

No reception! Bad buoy!

Blue Whale

205 5.0

205 24.28 2051.21.65

Blue whale

(TAPES)

#12

channel 19

10/1/99

#143 Stenobredens

002° 12.7' N

• Reducer soft. Both channels recorded.

088° 09.2' N

• Sonar deployed with sonobuoy system
animal.

Track 1 is recording! The DATE & TIME are both
inverted for the entire recording * I have
written local ship time for start & end of recording
* with no time to make notes on whether

1325C 'sonobuoy deployed' - hear ship - sounds good

ATime 02:47 - high frequency

04:18 - whistles

05:08 - high frequency

08:30 - whistle - low & click sequence. (technobrain)

13:19 - bad whistle

16:02 - lots of static (this has been recorded - but not in our
not heard straight)

The right channel is very distorting the left channel still
sounds good. (Technobrain is still in there which
which I didn't notice till after we made some notes
the problem)

30:00 stopped recording haven't heard anything
for while

#1353L

(TAPES)

10/1/2001 99

#143 Physeter macrocephalus

• Animal likely white whale

8° 26.9' S

• This animal was lost usually is unidentified.
we have a way to save it with a sonar whale.

Deployed 6.9 off

Sea State: Good (D)

(Deployed a LF buoy because it have limited HF's)

1325L - Deployed buoy

ATime 30:00 -

3:32:00 - hearing loud clicks - not sure on duration. thought
of Notothenia fish.

clicks sound bump - but sound like food clicks.

Body comment: The red (right) channel is receiving less strongly than
the left channel (so recording is recorded 1bar or 3bar)

Would I have received better if I had new cables?

1343L - stopped recording

ATime 48:00

B - No track # recorded

Tape #3

H19
Storm 19

10/21/99 0915 ± M40 Shallow length: long.

11° 06.4 S Diver - 60ft

082° 07.3 W Normal fin fluke but reverse had outer fin
flip.

0816 - Buoy over

Altitude 10m. Started taping

heaving about a tenth down

52:0 - Pod still louder than last night

53:00 good bubble

54:52 - good whistles - but not as loud (some in middle down)

(501016)

57:15 - good bubble

58 - whistle up in front

58:53 - quiet, 10ft

59:50 - good whistles

100:11

1:04:50 - good bubble

1:03:01 - good bubble

* right oblique - 100m, 10° down, left 645 fm *

1:06:40 - strong cries

1:18:00 - ended recording. Vocab very full

* low frequency, clear freq. Signal overkill, not sure if
is biological (clear 100-200 Hz?)

Tape #3

10/21/99 0915 ± M41 Beden

01P 22.1 S

08P 19.4 E

depth 45' soft

1:48L - Diver at base

Altitude 1:12:02 - started recording

At first I only recorded left channel because the channel freq
was not programmed in & I had to do that

(c) 1:13:06 - interesting Lowfreq "rumble" likely crops but not clear

1:19:02 - Began recording on both channels -

1:44:55ish - "pulsed" sounds?

1:48:00 stopped recording -
(1225L)

No likely vocal but check 1:13:06 - 1:44:56

Tape #35

10/23/99

Zedek 4 1993

012° 23.8S Animal with 6 miles
089° 29.1W Buoy 6 90ft
Recording both channels

0811C : Buoy deployed

Atm 1:48:00 Buoy recording - lots of noise

1:50:59 Noise recording - possible rumble - Lowfreq?

1:51:37 : Lowfreq sound again -可能是沉没的船?

1:54:00 Right channel 360s, left channel 360s

1:56:58 . morphable? Sounds similar to something heard yesterday.

0849C : End recording - end of tape

(Right channel motors, left channel thud)

#16 53
(10-32)
Channel 40

Tanatty
Program 1

10/23/99

B. eden 4/99

- Buoy deployed (90ft)

- Recording both channels

0820 13° 07.1S

- Buoy deployed from small boat without anchor
Bis ship Milwaukee

1752C: Buoy deployed

Atm 00:00 Program 1 S

01:30ish - vocal? } upon playback this does not sound
0843 - vocal?

13:00 Ship is getting louder, sound becomes clearer 0810C

1855 : Computer has bug - (Jester cannot break
visually 3.19 miles ahead of whale. Lots of ship noise
is it time to mask Buoy noise?)

(1856) 31:00 - paused recording - END Recording -

Buoy 6 1/2 miles away; whale about 1 mile ahead
(ie Buoy 3 miles from whale.)

monitored another 8 hours nothing heard

Task #1
Task #2

10/24/99

B. edeni #1450

14° 00'.2S

88° 41'.8W

- Deployed 90ft, both channel recorded
- Animal not seen for several minutes but 1Km away & ~1 mile

1650Z: Buoy deployed

Air 4:00 - start recording (Task #2)

Inconclusive to listen until time to record to

After 1:07:00 is record later.

Upon review, nothing was heard on the recording. I saved the first 15 minutes per review in the lab.

End Task 2 (6 45:52) (1705 Z)

4:18:53

Channel 34

(lot 55)

TAPE 64

TRAIL #3

10/24/99

B. edeni #1450

14° 00'.2S

88° 41'.8W

- Deployed 90ft, both channel recorded
- whale within 1/2 mile of ship

:1307Z : deployed buoy

Air 45:52 - sounds normal. Ship clearly moving can

con make out ship noise, but not clear.

53:10 - Buoy going in. Sounds in right - South end?

1807Z Air 1:00:00 - ended recording

This sounds like a bad buoy - will save for listening for further review. No vocals heard.

<p>10/25/99 Bedini + 145s</p> <p><i>Ded</i></p> <p><i>Deployed in auto</i></p>	<p>11:20 53 (lat) channel 10.</p> <p>Total 4 Truly 4 / not real 14</p> <p>10/25/99 Bedini #145s?</p> <p>14° 03.6 S 690ft</p> <p>080° 47.3 W bathymetry recorded about 1/2 mile</p> <p>1700(+) Buoy deployed After 100.su recording started</p> <p>MOC: still via offshore mooring of buoy, waiting for small boat to get on site.</p> <p>More going back to west instead of going from buoy. (1130s) whole 1/2 mile from buoy still.</p> <p>1:14:10 - Sonar, about 100ft - is it the sonar?!</p> <p>1:17:00 - ship nose downwind - In fact "swimming" sound had not is not making anything.</p> <p>1:33:18 - hear first whale - I don't believe this is the original one</p> <p>1:36:59 footstep</p> <p>1:40:00 end of recording</p> <p>1:47:41L</p> <p>* Det buoys supply known waypoints with enough track file for all buoys. Det/fit at the time of day. Then can be used to track numbers on tags.</p>
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THPEY
(Not track #)

10/26/99

B. edeni #1466

14° 14.4S

Deployed 90ft

080° 27.3W

Recording both channels

whole 30m. limit

1434L (over)

Atm 1:40:00 - only left channel

1:41:32 - both channels recording

1:46:02 - faint cry (300-500 Hz) - Don't believe it's whale!

1:46:15 - "

1:47:32 - more upcurrent & 30m. (to ~100 meters) (Bryde's?/File)

1:50:20 - " "

1:51:51 - "cry"

1:52:20 - phone calls ~100Hz

Ends (5) 1452L Atm 2:20:09 - end tape

*T did monitor this recording & review it for later - I was sick.
Therefore could not make notes on radio reception.

#02
53 (1452)
Channel 86

TAPE #5
TRACK #1

10/26/99

B. musculus #1473

14° 16.5S

Deployed (5) 90ft (deployed from small boat)

79° 55.97W

whole within 1/4 mile of buoy 3 miles from ship

1918L : Buoy deployed, begin recording (Track #1)

Atm 00:00 - recording only left channel at 1st

00:07 - Both channels - upsway shared 1/2 those of Buoy #22

Atm 0940 : ship getting load - actually I think this is the small boat

25:40 : faint "caw" (Dolphin?)

30:53 : more "caws"

32:24 : End Track #1 & dual channel recording of Buoy #3
See next page for further recordings from this Buoy

*I don't believe I recorded any whale while sick, nothing obvious showed up on gram -

TADe #3
Track 2 → 8

10/26/99

B. musculus #1473

14° 18.1S Deployed 690ft from small boat

39° 55.6W Buoy via Kite of whale, buoy ½ mile from ship

1951L Deployed buoy

Atm 32:25 Start Track #2, recording on left channel Buoy #211

34: - Some upswings like what we heard in last 2 buoys

35:27 Started recording Buoy #23 (channel 90) on right channel
Not certain how far buoys are apart (Km to 1 mile)

Lots of noise on left channel, #23 Jordon is closer to
this buoy (#24).

37:00 - hearing faint upswings on left channel

41:40: - heavy, more upswings (about 1 hr 20 min), hearing on left channel

44:50: Lots of noise, ship must be near buoy.
Both buoys sound bad!!

49:00 shark found better

52:32 Hearing faint calls

55:12 End Track 2 - Pause

56:12 Beg 3 about seconds later

2017L: Atm 58:00 Pause - end 3

2017L " Beg Track #4 - hearing whoops

#24:

534 (at 32)

Channel 6

59:55 - hearing lots of upswings, mostly left channel

There seems to be a pattern in "whoops/upswings"

2029L (Atm 1:05:00) Pause - end Track 4

20:26L! Begin Track 5

1:05: - more whoops calls etc

1:06:03ish very interesting "trilling" like song [whoops/calls
2s (2350-5500Hz)]

2031L (Atm 1:08:00) pause - end track 5

2031L Begin track 6 - great sounds!!

2037L (1:11:13) Pause end 6

2041L Beg track 7 - great calls !!, 6 ± 1,000 Hz

1:12:29 - trilling

2045L End track 7 (1:15:00)

2046L Beg track 8

2048L End track 8 - end recording
(Now 1:19:00)

Great series of sounds, no idea what species though!

1627

T W S I O P S

574
part 2B

三

Bryde whale

53
(at 35)

Tape #6
Track 1

11/2 Buoy 1492

10° 52.8S

83° 31.0W

deployd 9ft

whale 1/2 mile ahead, beginning song

Recorded 10 min

#27

53.1.03

Ches. 181

Tape #6

Track 1/2

11/3

Buoy 1492

10° 53.2S

83° 31.7W

deployd 15 ft

contacted - 1 min away

Tape #6

end track 1

1/3

1230L - Buoy went into left channel (no noise)
shallow think... I did see another group or buoys

1236 - stopped recording

11:00

* Further recordings of this Buoy or Track #2, see
Buoy 128 for details.

53.1.03

Ches. 181

1236L Buoy over *recording 90 on both channels
At time:

11:00

- getting strange interference sound - buoy problem I think

10:42 - * put Buoy #27 on right channel (on buoy after)

11:52! * put Buoy #27 on both left & right channel

1232 : * put Buoy #28 on west channel, left position left down.
Cpl. & above with channel nine - is clear & worked on
record buoys on the west channel (buoy #27) still hearing
interference sound of Buoy #28, but can hear whale

10:40 - right channel sound lost

10:00 - Right channel sound still after

10:00 - left sound: whale still now - left channel sound fine

30:00 - end track 2. nothing heard

* Inevitable to listen to buoy fine between the 2 sounds
varies with the reception strength

Tape 6
track 3

115/99 Glittering. 8:00 AM, #1502

6° 11.4' S

88° 49.4' W

Deployed 9:01

Animal down, from which we heard 10 minutes
on boat.

11:30 : Buoy deployed

Now 3 hrs start

3P:00 - 26:00, ship back, ship had 3 hrs to pick up
small mat

4:30 am - 50:13 - at 5:00 AM right channel - radio

99:00 am - 102:00 - left channel - no hits were found

102:00 - 103:00 - right channel - no hits were found

103:00 - left channel - no hits - right channel - no hits

5:00 - don't hear anything - don't hear anything
5:20 minutes - 104:00 - no effort - I did not
receive any information

Mixed Tracks (S 50:13 - No vocals heard
#1503)

09
Chorus 54

Tape 6
track 4

117/99

Jug Jang whale #1518

whale seen & from ship

(1st identified humpback, 100' changed that name)

#30 OMOL

Buoy deployed (cir 90 90ft) from small boat. Only 1 hour. Bob

5° 05.7' S

81° 57.9' W

#31 OMOL

50:44 AM Jug Jang soft choral etc

5° 05.7' S

81° 58.3' W

whale seen

50:55 - Put channel 90 or left (according to the monitor
but you want)

5:25 - Put back 103 both. 86 sounds better

5:30 - Hearing Sperm whale clicks

* 52:31 - heard "trump" - Lasting 30-100 Hz, flat saw, fine notes

52:32 - 52:33 -

* 53:33 - Loud clicks - through a animal

53:34 - 53:35 -

53:36 - more rapid sound like chips - same time 53:37-53:38

53:39 - and a small vocalization that you hear great
clicks - multiple ones!

1:00:27 - Lots more noise on right channel

1:07:00 - still hearing lots of clicking - no transcription 100:1

1:08:00 - right channel is singing, 100:1 now

* 1:08:30 - hearing "Sperm" - faint

* 1:13:00 - very but not clearly, 20-80 Hz low note - didn't catch it
the click?

1:15:15 - faint "Sperm"

* 1:16:46 - new "Sperm" can see it singing a low frequency tone like

1:16:46 Paul G. Morris down to 100:1

43:55
8:00
58:35

706

Continued Buoy #3

Printed

1:17:40 : call signs of 1st chick, and our new chick.
Chicks we have seen & conserved since deployment.
They're moving steadily away (& 100's).

1:18:30ish now very faint 'Dad'.

1:22:00 : Bill heard 'Dad' - but regular calling soon - will
5/26 end track here

1117

Fusilop

1706:1 Dad

Dad

This recording later verified later, probably chick seen offshore.

Interesting notes:

- 1) Sporadic clicks (?) (Unidentified - males?)
- 2) Low frequency song? (seen (earlier for Marshall))
- 3) Four Screeches Seen in short series, with short silence (115.16)
- 4) Upwards seen not heard (1:17:00, 300-500 ft) (115.16)

Sonk

-No obvious singing heard -

Tape #6

#33
- 53
Channel 90

#34
- 53
Chnl 40

11/8 B. musculus # 1534

Buoy deployed 9:45 AM + 302.5 miles
- midcall. 2000' 26 mile away.

3° 11.9 S

083° 18.0 W

1:23:00 : Buoy deployed

1:22:00 start recording - on both channels (Begin Track #5)

1:24:00 - first whoop - upsway & 302.5 miles

1:30:00 - ship getting close to buoy - (small boat's Beta - north)
initial noise from buoys internal devices (to know)

1:39:26 : End track 5 - will pause till we're farther from
buoy

1:57:27 : Begin Tape 6

(307L) Buoy to midcourse - midcourse turn about small boat in
foreground

1:39:08 - cheery whoops (faint)

1:45:05 - "cries" heard (maybe 212)

1:50:42 - chirping

* Note: There is another blue whale from behind that I can't
identify with certainty.

1:52:51 : Whoop -

1:56:20 - whoops ...

- Recorded till end of Tape 6

Tape #7 - continuation of B. musculus Tape # 33

1340L start recording (Track 1)

08:00 - Ship sounds c (at), cannot find buoy myself but it should be
within ½ mile. Whales (unknow) are ½ mile ahead - ship.

0345 : faint "whoops"

0500 : more whoops - patterned & upsway, a long pause - other whoops

10:45 : Small bird (21) comes forward

11:28 : Hearing faint cries - ends it? L?

16:00 - more "cries"

17:18 - Whoops - along series (is it a wave - for ref?)

22:26 : End Track 1

(3140L)

1403L - Deploy Buoy #34 Channel 40 (a53)

(from ship)
3° 10.3 S - deployed & left, when 1/2 mile of moor off rear, other buoys

083° 17.6 W - should be continuous about late.

1403L 22:27 : Start Track 2 : Channel 90 on left

Channel 40 on right

23:26 - Hearing chirping on right channel

24:00 : from "cries" in right channel like left

26:00 down to 2 barks on right channel already

1411L (30m) end track 2, ship gets closer to Buoy #34

1411L (30m) start track 3, channel 40 (Buoy 34) on both channels

* 30:41 : put right channel on 90

heaving whoop in left then right (ie animals change Buoy #34)

1431L 32:00 end 3. turned ship noise on channel 90

#35

S3

Channel 86

W8

W8 B.muscles cont'd.

(4446) (After 32:00) Begin track 4

Channel 40 on left channel only (Channel 40 is noisy right now)
Tacks to 90 forward?

- whoops

1420L Buoy #33 is right next to ship, on which is a 24m manta trawl

36:52 : heavily deflected echolocation - School of *Delphinus delphis* passing
by somehow - they are a calibration when they come

end of right tacks, just

(4426) 39:30 End track 4 (Pause)

(4426) 39:31 Start track 5

Channel 40, Buoy is Only Focus

more whoops

(4426) 41:00 : Pause end track 5

(4426) 41:01 Begin track 6

channel 40 on left

Channel 40 on right

41:30 : End track 6

B.muscles cont'd

X Buoy #35 - as channel 86 (~400ft)

38 18.75

Deployed from S1 on axis of single blue whale

0830 18.6W

Hut not done. Another animal is ~1/3 further out

. . . (not yet deployed contact + scope)

1500L : 40:31 AM - Deploy buoy - start track 6

Recording Channel 86 on both sides

47:00 nice faint "whoop". This was his first "normal" just before
the sound of S1 is heard. I think the other was S1 as well.

48:30 - more whoops

50:00 one bar or right vocalization

4 bars on left

**51:23 - nice whoop, plus been frag woop (no 250 Hz)

50:29 - Song by steaming fin (D. delphis) because it's been

(4511L) Meeting is in hearing whoop

55:00 : noisy or right channel

1:00 - don't hear anything from whale

1:01 or - End Track 7 - end of recording for sightly

L(519L)

Summary:

Whoops similar to those heard on 1026199, 300-500Hz up sweeps.

Also heard whistles, frequency sweep. Several blue whales in the

area (spread out 6 miles) Other species sighted in the area were:
Ziphias cuneatus, *Delphinus delphis*, *Globicephala macrorhynchus*, *B. edeni* (breacher)

TAPE #7

Track 48

1/10

B. edeni #1567

0° 36.6 N

Deployed 60ft, whab w/ 1/2 mile

87° 44.2 W

15min 10sec after

1024L - B wing over : start track 8

(1:01:00 AT 100)

1:06:00 - 2/3 bars on right

5/6 on left

1:12:00 1bar right

4bars left

1:12:30 - turned off right radio - lots of noise -

1045L 1:30:00 2/3 bars on left channel

1:24:00 - starting to get staticky - end recording track 8

No vocalizations.

TAPE #7

53 - 10:35

chart 40

TAPE #7

11:00

02° 37.1 N

08° 26.7 W

S. affinis. #1575

chart 49

#37

57-

deployed 60ft.

School very scattered - only scattered seen

School of long tailed birds, one bird ranges far away as well.

Rising droppings after 1/2 mile (some of them small)

0749L Deployed 100ft. 10:30:00

AT 100

1:30:56 fast whistl

1:33:30 - Stopping for 10 minutes so T car stopped

Right channel - 1 bar

Left channel 3/4 bars

1:35:30 - soft whistl

1:36:58 - fast whistl

1:40:00 - faint high whistle

1:45:30 - Song down to coarse & spud

Recorded 1/2 of tape -

* Faint vocalizations

THURSDAY

11/11

B. edeni #577

02° 59.8N deployed 6.9 of 1.

08° 26.6W where in Kamik

11/12 Preying on both channels

02° 59.8N Not seeing any prey patches or CD 20

0835L: Buoy deployed

0836L: Started recording. Tape W8, track 1
Saw 5 bars on left channel speed

0941L: Right channel, 1 bar

1041L: ? 3/4 bars

0945L: Turned off right channel to meet noise

0851L: Paused - end track 3 - not hearing anything.
2/3 bars on left channel

Nothing heard.

A time signal recording for some reason.

#38

53,6435

Channel 40

Tape 1589

No buoys
No at least not yet

11/12

M. novaezelandiae # 1589

05° 49.9N

83° 11.7W

Deployed 6.9 of 1.

where in Kamik
of moat par

39

53 (lat 30)

Channel 40

1004L: Deployed buoy, within 1/4 mile of moat par, gamback to country
speed

1041L: 2 bars on right

4 bars on left

1044L: turn off right channel - too much noise

1048L: 2 bars on left channel

1050L: 2 bars on left channel

1053L: End recording, turned off radio recorded a few bars

After some time the track is & return is not yet. Inter-

Tape #8

11/2

05° 52.6' N

83° 49.0' W

Twice weekly #1590

deployed left

do this at least, small group

#40

Channel 17

64

Wly

07° 12.0' N

07° 27.8' W

S. off coast #1608

hang (left), deployed from small boat

#41

Channel 17

64

Wet buoy deployed

1628: Buoy deployed

1630: start viewing

1636: ship stopping so I can record for 10 minutes

1640: Not hearing anything so I had the ship go back to normal speed

1641: 100'

left: 4 hrs

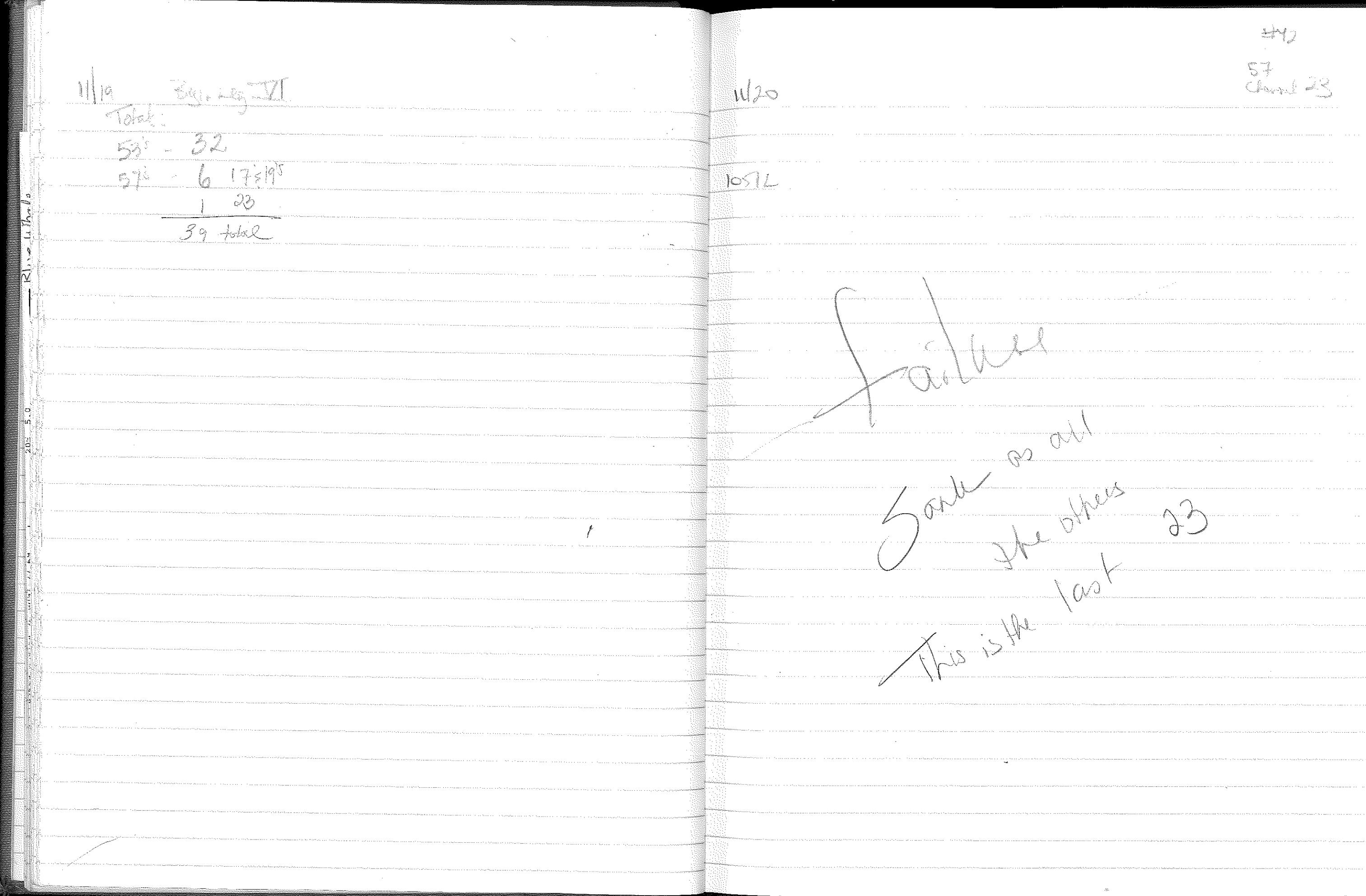
1645: turned off and started listening again

(left channel on)

1648: stopped viewing - who see spear

failure

→ No vocalizations



R1100-14 Rev 0

ul22

Satellite

12-13
57
David F

TAPE #9

#44 tape

Chart 46 1:40

1001 Gray deployed

Saw balloon but did not receive any signal.

Dup

1122

07° 39.6' N

089° 28.4' W

Blue whale #1661, *Bopseyk

© 1991

main from b.f. whale in 1.5

One timer & switch

1823 - Box deployed - recording in on both chart

Above 00:00 Good!

06:45 : End Track.

18:36 local : start track 2

07° 38.6' N

089° 28.2' W

Deployed Buoy H2 ^{channel 10} east

Channel 40 on left → with X marks whale

Channel 40 on right

18:45 : Found whale at distance of about (#1680)

18:45 : Hearing what sounds like clicks, faint - maybe just dispersive?

18:45 : Saw 3-4 clicks to be very brief (clicks?)

18:45 : call 600 on channel 40, Bopseyk around 400 Hz

20:13 : Left (40) - full bars

Right (96) - 4 bars

38:47 (19:08) ship stopping for evens CTD - Both buoys
in good receiving range

45:00ish ???

55:15 - 50^{H1} → 30 downsweps

55:49 - more downsweps

56:00ish - 90Hz something

56:14 - same 90Hz something! Can't hear it

1:02:55ish: Downsweps 30 → 30

? * Notes Not complete - downsway & upth signal mixed
mixing throughout ! ! ! *

TRAPOLO
Tracks 1-3

#46 \rightarrow #47

Channel 40 \rightarrow Channel 90

Blue whale cont.

1:04:21 - 90Hz signal followed by downsway

1:06:15 : 90Hz signal - 15 seconds long -

1:07:35 - downsway - 3 seconds

1:07:49 - downsway

1:16:25 - 90Hz signal

1:19:02 : heard some echolocation - and delphinids likely

Blue whale

1:19:49 90Hz signal

1:21:58 - 90Hz signal - close to right channel (90), has been close to 40 before
this.

1:24:33 : whistles heard on right channel

1:31:05 : 90Hz signal - faint on LEFT channel - not clear on right

1:33:35 - downsway -

* Research Log II - Obj Report

Note

* 90Hz signal looks like the Delphinids 90Hz tonal signal for E. N Pacific

Animals

TRAPOLO

Tracks 1-3

1/23 41663 * Blue whale - Biopsied *

07° 55.1' N 040°

091° 17.3' W whale in 15m water

69441 (Blue whale) - from ship

End Track 2 (Track 1 is nothing)

138.4 Atm - end track 2

0957L : 2nd Buoy in (channel 90 (90ft) (while from 1:07))
(within 4 miles of whale - Ja nearby) - Buoy deployed/buoyed

DISPL: start track 3

channel 90 on left

channel 40 on right

2328 : whale within 4 miles 2nd Buoy - animal Biopsied soon after

1:47:25 : Right around 200m 1 bar lots of noise

5: : left & 4 bars

50:00 : End Track 3 - more whales up ahead on track 4

Note:

Did not view in real time. I was on flying bridge most of the time.

On review I did not see or hear anything obvious

Tape #W

#48

Chord 86

11/23 Blue whale #1664 Biopsied Laysan Island, 10° 2' N, 162° 2' E
07° 53' N Buoy deployed (90ft), which molt of whale of (Natal)
09° 00' 20.9 W Small boat (52)
2 or 3 whales in area see data for results of analysis

1049L Buoy deployed -

49:54 Atom Start work 4 1.1 1

53:15 - heard helo fly over

1:02:15 - heard helo pass overhead

1:11:11 11 11

1113L: 1st whale biopsied (large) male

1125L: smaller whale "spooked"

Note:

I did not listen in realtime - had fobie on flying body ...
Nothing obvious heard or seen in review of tape

TAPE II

#49

Channel 17

560ft

11/23 Steno breaching # 1666

07° 55'.2 N - within 1/2 mile of steno

09° 27'.1 W

1302: Busy dredge - don't sound into

1304L: start track 2 - Is this interface now?

(Track 1 - nothing)

13250L: Put bridge radar on standby to self check the problem - Hint

0520: Pause - end track 2 - sounds like a DUD!!
(1310L)DUD

TAPE II

Track #3

11/23

07° 58'N

09° 10'.5W

B. musculus # 1670 * Biased *

• dep by J & soft within 1/2 mile from sm. boat

Seabird possible early October < 280m

Thermocline (> 20m)

Recording on both channels

1553L: Busy dredge

Start Track 3

1533L: Aim 46:00 - Stop track 3 - end recording - (Getting sticky)

1bar on right channel

3/4 bar on left "

1557L: Biopsy failure

Note:

I tried to review tape later but the scratch was very light & I could not see much on the screen - I was unable to listen to tape in real time. Do not know if anything was recorded.

#50

Channel 34

Tape H11

Track 4

11/23

CTD Drop

8° 00.2 N

depth 6.9 ft

92° 15.3 W

Per Jay's suggestion to drop the buoy near
CTD station - since we had Bobs today -

1934L: Sonobuoy away

Start Track 4 heavy water & ship

Atm 45:00 -

1:08:54 - vocal? (seen not heard)

(Something prior to this seen in the 100 to 300 Hz range - maybe
from ship)

1:11:22 (00ish) - Something lowfreq?

1:33:14 - 55Hz measured - like mechanical (maybe CTD closing bottles?)
seen again ± 35 seconds later

1:36:00 - 50Hz signal again

} Harmonic noise

Some more of these

1:39:20 " "

seen harmonics?

1:54:00ish - 50Hz signal

seen harmonics?

2:00:10 - 50Hz signal of harmonics?

Notes

Recorded to end of TAPE

• Nothing heard

* 50 Hz signal some w/ harmonics? Seen - I'm guessing this
is ship/mechanical noise of some sort

H51

Channel 34

Tape E12

Tracks H2

H50

channel 40

11/24

B. muscularis 1684 *Reopened*

08:06:00N

whale mix up whale.

09:30:49.5W

reopened 90ft from ship

*Forest to west & rock! This 1hr ahead on DAT!

809L Buoy deployed

09:31:00N - probably deployed on buoys per
local time

Observation: Slight increase in local sound

09:36:00L Start lower pitched in local sound

we are steadily rising (on my WOS) - local sound is up in Cr
bump of ship etc

10:00:00L Saw 100+ high pitch & brief sounding like hand - small boat (not much)

1535: Small boat noise (J2)

1930: Bluelake = 1 1/2 miles beyond buoy

2202: a 50Hz 7sec signal

2537: Something faint "bong" sound - maybe from small boat

3300: certain small boat approach - noisy little ship

34:55: 2, 70 → 40 Hz down sweep son - mechanism? , now seen after this

(08:57) 44:00 end Track 2 - end recording

Note: ^{on DAT}

① Time is ahead 1hr of local

② 50Hz 8sec signal @ 2202 Atm

③ faint "bong" @ 2537

④ 70 → 40 Hz down sweep @ 34:55 - mechanism?

Tape #12

Track 3

11/24

S. musculus #1690

08° 20.3' N

* Standard level *

from small boat, water within 200 meters

09° 56.6' W

(150 fms., Smita Fumship) 2 whales swimming together

Note: Buoy deployed

(Tape timeshift ahead by about 1 hr)

1102: Start track 3

Atmos: 14.00

1:25:00 Stop recording - end Track 3

* Nothing obvious sonar heard *

Note: Tension ship in ahead of boat

53

53 - about 400

ft abv

Tape #2

atmospheric

11/25

T. truncatus No sightings. Resonant Chorus P.

100 22.8' N

3.9 nm from Chepulu

109° 17.8' W

Resonant wave riding along line

* Local line thrashed DAT tape line

I didn't switch back sorry!

18:37 L 1000 depth

(Goddard
1300) 1400 depth

18:41 1000 depth

18:42 Good whistles

18:43 Good whistles

18:47

18:48 1000 depth with periodically varying tones, low frequency

18:49 calm day

18:50 1000 depth

18:51 1000 depth for Koenig to record more good whistles

out of range -

Right channel - too

Left channel - okay

18:54 1000 depth good whistles - but no good ones

18:55 1000 depth good whistles

18:56 going back underway

(109.5' W) stopped recording Tommel (flat)

18:57 left channel - okay

18:58 right channel - okay

18:59 right channel - okay

Track B

Track A

11/30

B. edeni / sei # 1750

55

a53

Channel 4U

12° 54.6' N

Whale 24 miles away. (around 40ft)

12/1

Steno bradensis

55

57

Channel 17

110° 21.6' W

Likely Brydes - Not confirmed (bridge was not sunk)

Deployed @ 90ft

1405L deploy buoy

1405L Started recording

230A(L): stopped recording end Track E1
(1439L)

Right - 1 bar

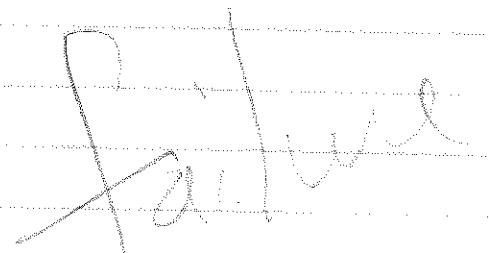
Left - 2 bars

Nothing obvious heard

Notes:

I did not review in real time, I was on watch

1540: Deployed - Buoy not working



TAPE 13

Leads

143

S. Shallow 177 fm

19° 20.6 N

Deployment test

11° 03.4 W

In the scattered group

Very little group - looks spread out and no barrele activity. Large bird flock in area, but overall

1703C - Busy deploy

32:56 Atm Great Whales!

35:28 - Heavy Spurred chicks

* 37:41:00 - quiet stuff!! - vocal like 13c in Julie's report

116:18:00 - new vocalization which is like 13c ??

55:13 - 1/2 chicks - Spurred chicks

59:51 - barrele - 1/2 chicks

1:08:18 - More loud chicks

1:09:22 - faint chick?

1:10:16 - Bloodchicks (loud) see how big difference from 1:08:18

(1:12:38 Left channel 2 bars Still have chicks + seabirds)

Ran in 1 bar

1:13:12 - Last signal with chicks (no bloodchicks)

1:30:00 End recording - getting time and date

#57

Chart 19

Tape 13

12

D. Shallow

#1789

28° 23.2 N

Deployment test

11° 57.4 W

Scattered group, low barrele

1205L Deployment test

1:30:00 Atm start

1:30:00 heavy whistles

1:45:00 - heard whistled anything seems like it had been heard
animal may move up & down

Note: after brief whistles early on = Hots it!

Buoys Left

22 - Low Frequency
1 - High Frequency