

CSCAPE 05

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DST

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SONOBUOY LOG

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CSCAPE 2005

RECORD ACOUSTICS

SONOBUOY
LOG

David Starr Jordan

7)

lyA

CSCAPE 05

Acoustics

(Sondage's + Bow Hydrophone)

8/12.

ST#1049
BM12-August 2005

SBDAT 1, BAD BUOY 88

Start: 1309:49

End: 1332:00

00:00:00

00:22:11

*Tape seems to have been
rewound (?) only ~ 00:03 of
recording for this sighting
+ does not sound good.

1300 - Using Laura's "Raven" program as RTS

1300 - Blue whale sighting: Sonobuoy #001 (77)

Lat 43° 04.61' NLong 129° 54.14' W

BuoyTg: 13:02:41

(Local Date + Time), ch. 88

BAD buoy

- Sighting #1049, Bm (photos) -

Initially sighted @ 12:30, @ position
43° 04.94' N 129° 53.31' W

Animal was resighted (~1250) about 500m
off stern, small boat being launched
before that, waited till boat away.

1309 - DAT had been on pause (whoops!)
Started recording.

DAT Start Rec: 13:09:49

1313 - Moving away from buoy but still tons
of static.1316 - Can hear radio MUCH too clearly.
Sonobuoy only has static, still.

1317 - Blue whale up behind ship ~ 1/2 nmi.

1330 - Going to launch another buoy.
- whale is ~1.5 nmi away

1323 - Stop recording

PY01 #2
MG

SB DAT 1

START 140814 END ~ 1548
~ 00:05.11 ~ 1:40:00

Tape seems to have been
rewound (only 00:03:26 minutes
of recording → does not sound good)

~ 1426: turned down gain
(REC LEVEL) on DAT to ~6 which
registers at about 12 dB on DAT

* Part of SB #002 & mostly SB #003
recorded to hard disc ~~4/11~~

* Recording lost w/ stolen computer
No Backup made

They reviewed recording & did not see any vocals

SH 1049, Bm cont

8/12

12 August 2005

1334 - Sonobuoy #002 (77) thrown at: channel 10
Lat: 43° 03.06' N Long: 129° 33.65' W
DAT not currently recording - both buoys bad
* BAD buoy.!!!

140814 - start recording (for Sonobuoy #003)

1409 - Sonobuoy #003 (77) thrown at: channel 20
Lat: 43° 04.95' N Long: 129° 50.87' W Full bars
May be a working Sonobuoy!! on receiver
(both ones)
- no known vocals

1411 - Last resight for 1049, Bm
Lat: 43° 04.78' N Long: 129° 53.17' W
a 1401

1422 - Hearing ship noise (+ little static) - buoy still
working. Whale down currently.
Sounds like we are still close to buoy.

1430 - Picking up sperm whale clicks, still some
static, but clearly hearing clicks.

1438 - 3 bars strength on SB receiver

1441 - Retrieving JB
Still just getting Pm clicks, static getting louder

S#1049, Bm cont →

12 - August - 2005

1451 - Both receivers fading in + out of two bars,
increased static.
Moving towards course + speed.

1548ish lapel — STOP DAT

1445 -

Just realized I could^{record} should display counter on DAT

3BDAT01: Start End.

1424:23

RW

* S#1060 delayed due to inflation of sonobuoy. (glue was drying as well).
53 sonobuoy was inflated and the sealant that had previous been applied did not work to secure the buoy.

* But did not review in RTS*
3BDAT 1: S#1060, Bm (no known vocals), Pm, shrimp
1449:45 164826
003:38 2:03:12

✓ * Recorded to hard disc Lfm 1/4

8/16
S#1060
BM

16 August - 2005

1345 - Blue whale being observed, initial sighting
S#1060 @ 1319 40°L, 1.5nmi, Bm
(see Win Cruz for location) - no known vocals

(1412) Most recent resight, S#1060 = 10°L, 1nmi
* Please see note to left

1424 Sonobuoy #004, (77), channel 58
(launched at 1424:23), full bars but - BAD Buoy
location 45°32'48.3, 126°17'78.3 - no known vocals

1431 DST heading slowly (7 knot cause of fishing lines).

1446 Sonobuoy #005 (77), channel 65 @ 1449:40
Lat: 45°19.52 Long: 126°12.23
Seems like a good one, full bars (still close)

1455 S#1060 Bm, last resighted ~1445
0°, 1nmi - no known vocals

1459 Small boat coming alongside for pickup

1501 Maybe some Pm clicks? lots of static noise
1504 Definitely several Pm also S#1060
Think there may be some shrimp as well.

Ishmael not displaying intermittent Pm clicks.

090142

MS

SB DAT 1, recording was 3 (since 0:03.35)
would be good to review this to see if
there is anything. May not be, but also
maybe something

* SB DAT 1 seems to have been reviewed over
most of first two recordings - not sure why -
did I do this? Most of recording was bad
background. *

SH 1060, Bm cont

8/16

16 August 2005

1511 - Sonobuoy # 005 still sounding good.
Almost full bar - we are headed back to CS

1512 - Think there's lots of shrimp as well

1525 still hearing TONS of shrimp (not really
hearing Pm anymore)

1536 Ship engine?? Are we near the buoy again?

1540 Definite Pm clicks (not a lot) but slow,
low clicker for a couple minutes.

SB 005 has two bars of reception still

1605 Seems like we are again coming across
the buoy as we have full bar again!
Still shrimp + intermittent static but still
working

1648 EOT, not going to continue with new tape.

SBDAT002, S#1100.00

0912

00:00:00

0952 34

040:04

RW to 0:00:00



8/22
S#1100
00

22-August 2005

0900 - S#1100 Orcaus orca, original info =
@ 0852, 1.81 nmi, bearing 292, 11'
- no vocals on SB006

0905 - Tossed buoy #006 (57)
thrown at ~ 43° 34.81' N, 124° 56.96' W
(check Wincruz for actual location)

0910 - Sounds (though no pilot tones?), ship props
channel 29 (full bars, each receptor)

0919 - Last seen - two groups, 1/4 nmi off bow.
(two groups now)

0922 - We're going 20L

0923 - One animal ~ 100m off bow (recording on
bow)

0925 - Getting a little more static from SB006,
was hearing ship noise, now muffled by
static.

0930 - 4 animals ~ 100m (starboard side)
- nothing heard

0939 - Only have 1 (sometimes 2 bars), buoy not good
(little bit of wave/ship, but mostly static)

0011-112

00

8/22
S#1100, 06 cont

22 August 2005

0949 - turning full right - whale on stern

0952 - stopping recording, B will erase back to beginning - not a good busy, no vocals (09:52:34)

0953 - 4 animals off starboard beam / 1 off port beam.

150R 1/2 min out.

SB DAT #002, Sighting #112, Bb. - vocals

17:07:10

1845(51)

0.00.00

1.38.35

✓ Recorded to hard disc - LJM (Ignore the skipper file they
are low songs for the time the
tape was replaced & recorded to disc.)

8/23-

S# 1112
Bb

23 August - 2005

1707 - Sonobuoy #007⁽⁵⁷⁾ working!! - vocals!
great vocals! Channel 29, Full bars.
Lat: 43.72383 Long: 128.38833
Sighting # 1112, Bb. → initial info = 1635 @
292, 1.8 ret (1.4 nmi), course 0, speed = 6 knots.

1713 - GREAT VOCALS!!
Animals last @ 150R, 1/2 nmi away.

1717 - Buoy a little more noisy - but still
getting vocals

1719 - Sonobuoy #007 ~ 0.2 nmi away, just
off starboard side.
Animals up @ 150m, directly off bow.

1723 - still getting few vocals, we are
headed downwell.

1726 - 150 R, 800m

1727 - Buzzing, Ee, pulsed calls^(?) - have to
check this, this Ishmail is not working
great - will review w/ mine (Ishmail)
Sonobuoy #007 still AWESOME, full bars.

1729 - Animals not so vocal - occasional.

511 42
1115
08

3#1112, Bb cont

8/23

23-August-2005

1734 - Hearing a little more static (+J3?) couple of faint vocals.

1737 SB007 should be downswell ~ 1/2 nmi (can't find)

1737 - 10R, 1/2 nmi out Animals up

1738 - 127R 1/2 nmi off (SB007)

1739 - Animals went down.

1740 - Little ^{ship} more noise, no vocals just now, but still have full bars!!!

1745 - Animals went down ~ 1739, still down.

1747 - Vocals (creaking/buzzing)

1754 - Haven't heard anything in a little while

1755 - Few ^{more} vocals, creaks mostly.

1759 - No vocals just now (stopped), down to ~ 3 bars, but can still hear ok.

1813 - More static, not hearing anything just now down to 2-3 bars, will record to end of tape

1814 - Recovering J3.

1845 - Down to 1 bar, stopped recording.

SBDAT 003, S# 1119, Bm - no known vocs, needs w/son.

1423:46

158657

0.00.00

1:03:32.

Copied

* Recorded to hard disc → Not in realtime! Lh

8/26.
S# 1119
Bm

26 August 2005

1409 - S# 1119 Bm @ 1346, 010, 2.97 nmi, speed 4 knots
- NO KNOWN VOCALS.

1410 - Tossing Sonobuoy #008 (53) channel 58
Lat: 43° 27.53' N, Long: 130° 09.01' W
Looks bad so far - BAD

1417 Sonobuoy #009 (77), channel 64
Lat: 43° 27.19' N Long: 130° 09.05' W
Looks good so far.

1420 - Hearing props.

1423 - 2L, 1.5 nmi, whale up.

1427 - SB 009 Sounds good still

1431 - Pm clicks.

1437 - J3 being picked up, Pm still present but
more faint.

1445 - Coming 10L, full speed to chase em.

1526 - Whale moving away, last position 9L, 2.3 nmi.
Will record for a time longer, as we are leaving.
Buoy dying, stop tape.

P 111 42
M9

SBDAT 003, S# 1121, Bm

14:42:13

01:03:32

- no known/observed VOS
- should review w/ Ish.
Recorder to
hard disc -
LH

~ 15:40

END

SBDAT 004

15:50:51

0:00:00

1737

0:45:13 (RW 1:49:30)

(Tape cassette - could not playback - Maybe repairable)

9/1

* Possible vocal end of tape 003

- tone ~ 12 Hz

- 40-50 dB

8/27
S# 1121
Bm

27-August-2005

11426

Blue whale: S# 1121 Bm @ 1413

40° 42.23

130° 58.77

2.7 nmi, 330

- no known VOS was not properly monitoring

1442

Sonobuoy # 010, 77, channel 75

sounds good so far, little bit

40° 42.60'N, 130° 59.66'W

(began recording)

1443

400m, 20 L, whale up

Ship still close to buoy (loud)

1449

Sperm whales being heard
Buoy 009 working well.

1452

Blue whale 100 m off port.

1503

Sonobuoy at 2.5 netides, 22 L, whale at
8 net, 35 R

1523

We are close to buoy again (hear pop)

1525

Whale up ~ 200 m off bow

1536

Still getting Pm, buoy still good.

1550

Whoops! Was doing oceanography stuff +
noticed tape had stopped. Started new one
(SBDAT 004)

Still have full bars - look sounds
great!

1511-12
MS

3# 1121, Bm cont

27-August-2005

1600 - J3 being picked up.

1738 - Forgot to stop tape. RW to 0:45:13.

9/4

04 - September - 2005

1219 - ~~Blue~~ whales. Fin whales originally thought
~~SH~~ to be blues, SH1156 (Fins)

1230 - Had success inflating the 53 sonobuoy
that Laura fixed with wire + tape.
Going to throw the buoy anyway to
see if its working.

PROBLEM/ (Audio: B-RCVR: B S/N 6063/m)
*(L) receiver is currently not working -
won't even turn on

1232 SE 011 Full bars strength, channel 54
(53) but only getting electric static.
Buoy no good.
Making no recording.

Receiver Power Failure.

Problem:

- Left receiver (Audio B' - RCVR B S/N - 6063/m) is currently without any power (will not even turn on, though seems to try as screen slightly lights up before going dark again)

Tests/Solutions: (Jim A.)

- Checked Fuses + connections
 - ↳ used voltmeter on BNC connections + power input → no problems
- Removed receiver + as soon as it was out of chassy, it turned on!
- changed power source from ship's power to UPS (uninterrupted power source)
- ↳ Jim A. thinks that because 68 volts coming out of each plug, could have overpowered the chassy. With UPS, 120 V coming out of one plug entry and other is empty → that power supply on chassy used. Could be that unit B receiver was just being overpowered by AC power + shorting.
- Now need to program channels with correct frequencies

SONOBUOY INFLATABLE REPAIR DIRECTIONS

- Float is cut, peel off old glue off float + ^{inside} point of attachment
- Double sided tape around plastic rim (point of attachment)
- Put float over plastic rim unless there is some appropriate glue
- Initially used rubber hosing from buoy to wrap around to make seal, but tighter wire seemed to work better (pliable, twisty) have to pull it to make it tight, pull with pliers
- Then more tape around the wire (electrical or other),
- Lastly, put duck tape around that.
- want to remove any chance of air escaping
- When float inflated, pulls up the tape over wire + if not tight enough, that is where you get a leak.

Bypassing battery to inflate float.

- This is done to conserve energy in the battery
- + if a float is repaired
- Use external 12 volt source.
- Find battery on back → Hole cut in casing, find square battery w/ wire running down the battery.
- Use needle tip, cut through sheath, touch ground (black) to ground (Laura used the metal casing) + touch red (power) to internal wire; have to glue the hole in sheath to seal (2 part epoxy suggested by Laura)

14 pin of battery should not be shorted, wiring mechanism.