

PICEAS '05

RECORD

SONO BUOYS

MAC II

S#  
Species

Date

SB DAT #

Lat / Long

(Time) (Comments)

TIME

SB#1

Sonobuoy Type (53D, 77B)

Channel

Depth

Hours to Suttle

bb/C2 sh CC

Good Buoy? BAD Buoy?

TIME

START RECORD SBOATxx

Test Sonobuoy  
170nm NE of Hawaii

7/5/05

SB1 53D Ch 54 90ft 8hrs

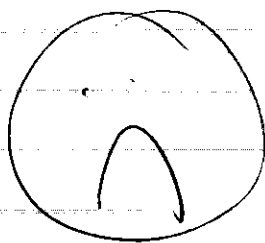
2048 Buoy tossed - bad buoy - ugly noise

SB2 77B Ch 56 Shallow 8hrs

2051 SB2 tossed - bad buoy, no signal

SB3 53D Ch 64 90ft 8hrs

2103 SB3 tossed - float popped up  
→ no signal



Bad Test

Bad Buoy

Ch 2 Doesn't work!  
Receiver is Bad

SBI

S#68

8° 59.19' N  
164° 49.90' W

S#68

8/15/05

SB DAT 1

1634 Buoy 1 53-D Ch 54 → Screamer!  
90ft, 8ms Bad Buoy

1637 Buoy 2 53-D Ch 54 → Good Buoy!!  
90ft, 8ms

1642 120m stbd beam - bad buoy?

400m - behind us a bit? - good buoy?

1649 we should now be heading straight for the  
good buoy & will soon pass the bad buoy off  
our port beam

1658 Some faint tones @ 20Hz - but not  
much else

1702 SB 500m directly behind us  
were in 1/4 mi of where the animal  
was last seen

1705 coming back to course + speed

715 were ~1.1mi from the buoy now  
- 2-3 bars on radio

1720 Buoy is ~2mi behind us - 2 bars,  
sounds good

Buoy is totally dead @ 4mi

(SB2)

S#104 Brydes Whale

8/22/05

3° 39.53' ~~W~~ N

SB Dat 2

163° 29.48' ~~E~~ W

1150 SB #1 Screamer (Ch 54)

1156 SB #2 Screamer (Ch 56)

1158 SB #3 ~~SOS~~ (Ch 52)

1159 whale is 100m ahead of us

1203 SB #3 just went bad → Screamer (delayed)

1209 SB #4 Bad Buoy (Ch 64)

1226 Buoy seems to be working now

Ships heading is 038° T

Buoy is ~2nm behind us

Whale should be very close to buoy

~~SB#107~~  
SB#107

~~SB#3~~

8/22/05

3° 51.776 N  
163° 13.524 W

1515 SB#1 CH54, 90ft <sup>SB-17</sup> w/in 300m of whale  
(whale 200m off bow at this point)

1516 Start Recording  
Buoy Quiet now... Bad?

1519 SB#2 CH56 SB-17 90ft/8hrs

1521 whale 100m off bow - no sound on  
SB#7

1527 SB#3 T1A C2 Sh Ch64 8hrs

1528 no resights lately, whale should  
be behind us  
→ Bad Buoy

All Bad Buoy

No Recording

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S# 109

(SB3)

3° 52.369N  
163° 10.946W

8/22/05  
SBDA13

~~SB4A~~

1553 77A ChSD Sh 4 hrs C2  
Good Buoy ?!?!?!?

1554 Start Recording

1555 Whale is feeding - 200m off stbd bow

1557 20R, 300m whale up  
maybe > 1 animal

lots of fish or backscatter  
fish seen @ surface

1559 Ships course now 128°T

1600 Whale up 15R, 300m

1603 whale up 5L, 300m

more whales in area

1605 animal is 50m off port beam

1606 Another animal blowing 800m ahead  
Buoy is 0.8nm behind us

1608 Min 3 Animals

20L  
ahead  
15R } ~ 500m  
or so

1612 whales 100m off bow

1617 Following whale 100m ahead

another @ port beam - 200m

8/22/05

1704 Changing left Ch to 54 to try  
another sonobuoy

1706 SB#5 77A Ch 54 Skrs shallow 66  
LEFT CH → CH 1  
→ BAD BUOY

1712 SB#6 53-D, Ch 56, 70ft, Skrs

1719 SB#7 53-D Ch 64, 90ft, Skrs  
→ I think it's a Screamer??  
→ BAD BUOY

1725 - Both Channels now on Ch 50  
But reception is 99% gone

1756 END OF TAPE  
(reception has been gone for  
a while

~~1756~~ 1938 heading back towards buoy for more ops  
→ never regained  
reception in the sonobuoy  
(n) end of story



SB#4

8/23/05

SB#121

Brydes Whales

SBDAT 4

4° 55.916N  
161° 57.331W

1812 SB#1 Ch 54 77B 8hrs 8h bb  
→ looks like it didn't pop up?!?

1815 SB#2 Ch 50 53D 8 90ft orange float  
→ looks good? But maybe no float

1816 Start Recording

→ There was a whale a few hundred meters around it

Scattered Brydes in the area

1820 Sonobuoy is ~ 172L, 0.3nm

several whales there

- 158L 0.8nm whale

- 115L 0.5nm whale

1822 91L 0.5nm - whale behind

1829 176L, 1.0nm buoy location

1834 180° turn to go back to whales  
we are going to go near ARI  
to help 'em out

1836 FS

1839

16L, 3 net ARI

5L, 1.3nm Sonobuoy

SB5  
S#121 Brydes

8/23/05

1942 Possible 30 Hz sounds?

1852 Ship is now heading  $280^{\circ}T$  @ 7.5 knots  
The buoy (original location) is 1.5nm  $-275^{\circ}T$

1959 We are on station now

$4^{\circ} 55.88'N$

$161^{\circ} 56.100'W$

Very close to buoy - too much ship noise  
Our bow thrusters (??) are really noisy  
(periodically)

2019 Begin Recording SB DAT5

2024 Noise (?) @ 50-40 Hz?

2027 Ship is now @  $4^{\circ} 56.5'N$   $161^{\circ} 56.01'W$  Course =  $005^{\circ}T$  @ 1.4 knots

2032 50 Hz sound

2040 noise from ship is real bad now

2059 ship maybe close - lots o' noise

2113 Ship noise better - doing net tow now  
Ship heading  $345^{\circ}T$ , 2.2 knots

2018 40-50 Hz sound w/ bottom bounce

2125 LF Call/Noise

2137 Ship's course  $344^{\circ}T$ , 2.8 knots

2142 LF sounds at 40-50 Hz

2148 LF 40 Hz DMS sweep

2158 I think They are done w/ net tons  
ships course  $348^{\circ}T$ , 5 knots and increasing  
5 bars reception

2206 Ships course  $348^{\circ}T$  7.8 kts 4-5 Bars

2213 Ships course  $347^{\circ}T$  6.9 kts 4 bars

~~2222~~ END SBDATS

~~2222~~ Begin SBDAT6

Lat  $05^{\circ}02.430N$

Long  $161^{\circ}57.170W$

Ships Course  $346^{\circ}T$  Speed 6.7 knots  
3 Bars Reception

\*No More Monitoring \*

\*Will Record to EOT \*

SB5

9/2/05

SH167

SB DAT7

1646 SB1 Ch 54 shrs 90ft S3-D w/ orange float

1646 Start recording

buoy noisy (LF noise), but seems to work - loud LF tonal noise

1652 NO! DIFAR works, but only loud LF tonal noise

no water noise, no boat noise

→ I've seen these "kick in" later, I'll give it some time before I move on!!

1700 SB2 77B Ch 56 sh. bb

looks like a good buoy!!

whale ~~calls~~ Scattered around buoys

→ Hearing ~~those~~ frog-like calls

1720 40 Hz Sound

Buoy ~ 3nm behind us - 4-5 bars reception  
sounds good

1727 40 Hz Call

1733 Losing reception, buoy 4.2nm behind us (3-4 bars, still)

1736 40 Hz Call

1739 Buoy now (5.1nm)

3-4 bars reception

hearing back to CS

1743 Buoy is dying bad

9/2/05

1744 Heading back to Snobvay

Booy is noisy now - too far away

1750 Booy is back (j)

1754 40Hz

1801 "Fray-like" sounds ~ 900 Hz or so

1809 40 Hz DN?

1812 40 Hz

1822 8R, 1 ret - Blow (first seen in a while)

25 ret - Bird flock

1825 4L, 1 ret - Blow

1827 loud 40 Hz dn

1834 35 Hz?

1835 More faint 40 Hz

1847 - Going to bring in the Array

1849 EOT SB7

1849 BOT SB8



and Then the buoy died

TRAINING  
BUOY  
FOR  
JEN

53

Sh 4th

02

77

Ne  
Winter

11/13/05

~~SBP~~  
SB DAT 9

CH 56 10N 57E 8000 BOOY

~~SB# 153D Ch 56 4hrs, 90ft~~

~~SBP~~

1510 SB 1 53D Ch 56 4hrs 90ft  
BAD

1813 77B Ch 58 8hrs 66 SH  
--> BAD

1815 77B Ch 53 4hrs 62 SH

1818 Start Recording

1850 Booy still Good -> 0.5nm from ship

1910 Good booy still; booy still  
half a mile away

1942 Booy is 1nm behind us, still  
sounds great

2003 Booy is 1.3nm away, still  
at low, we will be making more  
loud ship noise

2007 EOT -> no more recording

OPPORTUNISTIC NITE  
BUOY

11/14/05

SB DAT 10

19.6718/-158.4194

1858 TTB Ch 56, 8hrs, bb, Sh

Good Buoy

✓ Difar

✓ Ship Noise

1900 Started recording

1912 Still Recording, no monitor  
buoy @ 0.15 mi

→ buoy is dying  
or interference

May have run over buoy

2048 Stopped Recording



BOUYS

7/5 Test  
8/15 568  
8/22 5104  
8/22 5109  
8/23 5121

BAD

53D 53D 77B, 77B  
53D 53D  
3(?)  
77A 53D 53D  
77B, 53D

GOOD

53D  
~~53D~~ 53D  
77A  
53D