We present velocity observations from a shipboard acoustic Doppler current profiler (ADCP) on R/V Wecoma during cruise W0105c (23 May to 13 June 2001). The cruise was a component (Survey I) of the Coastal Ocean Advances in Shelf Transport (COAST) experiment. The ADCP was an RD Instruments hull-mounted 153.6-kHz narrowband unit. Data were collected nearly continuously using an ensemble averaging interval of 2.5 min and a vertical bin length of 8 m. This implies an inherent short-term random uncertainty of 2 cm/s for each data point; this uncertainty is reduced with additional space or time averaging. To reference the velocities to earth coordinates, we used GPS navigation in combination with the ship’s gyrocompass and a GPS attitude system. Our processing methods are generally standard ones, primarily making using of the CODAS software package as described at http://ilikai.soest.hawaii.edu/sadcp. Overall ADCP data quality for the cruise was excellent. To produce the vector maps here, we applied 5 km spatial averaging. For the sections, we contoured using a two-pass Barnes method with horizontal (vertical) smoothing of 5 km (24 m) and 2.5 km (12 m) for the first and second passes. An online version of this report is available at http://damp.coas.oregonstate.edu/coast/adcp. In addition, the complete data set and all processing details are available from the NODC Joint Archive for Shipboard ADCP: http://ilikai.soest.hawaii.edu/sadcp. A cruise narrative is included in the companion Seasoar data report (COAS Data Report 191, Ref. 2003-1) available at http://damp.coas.oregonstate.edu/coast/seasoar. This work was funded by National Science Foundation grant OCE-9907854.
# Table of Contents

- NODC ADCP metadata form ................................................................. 1
- Data acquisition system primary (start) configuration file ..................... 4
- Data acquisition system user exit (ue4) configuration file ......................... 8
- Big box 1 ......................................................................................... 10
- Big box 2 ......................................................................................... 22
- Big box 3 ......................................................................................... 34
- Big box 4 ......................................................................................... 43
- Big box 5 ......................................................................................... 56
- Small box north 1 ............................................................................ 68
- Small box north 2 ............................................................................ 75
- Small box north 3 ............................................................................ 82
- Small box south 1 ............................................................................ 88
- Butterfly 1 ...................................................................................... 95
- Butterfly 2 ...................................................................................... 100
- Butterfly 3 ...................................................................................... 105
- Butterfly 4 ...................................................................................... 110
- Butterfly 5 ...................................................................................... 115
- Butterfly 6 ...................................................................................... 120
- Butterfly 7 ...................................................................................... 125
CHIEF SCIENTIST ON SHIP : Jack Barth
INSTITUTE : Oregon State University
COUNTRY : USA
SIGNIFICANT DATA GAPS : none
SPECIAL SHIP TRACK PATTERNS : Seasoar surveys

ADCP INSTRUMENTATION
MANUFACTURER : RD Instruments (RDI)
HARDWARE MODEL : RD-VM150 Narrow band
TRANSMIT FREQUENCY : 153.6 kHz
TRANSDUCER CONFIGURATION : JANUS CONCAVE
TRANSDUCER BEAM ANGLE : 30 deg.

ADCP INSTALLATION
METHOD/DESCRIPTION OF THE ATTACHMENT TO THE HULL : bottom
LOCATION/DEPTH ON HULL : 5 m
REPEATABLE ATTACHMENT : YES
ACOUSTIC WINDOW : NO

ADCP INSTRUMENT CONFIGURATION
DEPTH RANGE : 17 - 457 m (bin centers)
BIN LENGTH : 8 m
NUMBER OF BINS : 64
TRANSMIT PULSE LENGTH : 8
BLANKING INTERVAL : 4
ENSEMBLE AVERAGING INTERVAL : 150 s
SOUND SPEED CALCULATION : function of temp at transducer
BOTTOM TRACKING : YES, some of the time
DIRECT COMMANDS : "FH00001" "E0003020199" "CF99"

ADCP DATA ACQUISITION SYSTEM
SOFTWARE DEVELOPERS : RDI
SOFTWARE VERSIONS : DAS 2.48
DATA LOGGER, MAKE/MODEL : 386
ADCP/LOGGER COMMUNICATION : GPIB
USER BUFFER VERSION : UH user exit "UE4", 1920 buffer version
CLOCK : PC clock; reset if drift > 2 sec from GPS clock

SHIP HEADING
INSTRUMENT MAKE/MODEL : Sperry MK-37 Mod D/E gyrocompass
SYNCHRO OR STEPPER : synchro
SYNCHRO RATIO : 1:1
GPS ATTITUDE SYSTEM : YES: Ashtech
LOCATION OF ANTENNAS : forward
RIGID ATTACHMENT : YES
LOGGING RATE : 1 per sec

ANCILLARY MEASUREMENTS
SURFACE TEMP AND SALINITY : yes
HYDRO CAST MEASUREMENTS : yes
SEASOAR CTD MEASUREMENTS : yes
RAW AGC AND SPECTRAL WIDTH : yes
BIOMASS DETERMINATION : Yes, in process
BEAM-AVERAGED AGC AVAILABLE? : YES
CALIBRATION NET TOWS? : Yes

ADCP DATA PROCESSING/EDITING
PERSONNEL IN CHARGE : Stephen D. Pierce
DATE OF PROCESSING : finalized December 2002

NAVIGATION
GPS : YES
MAKE/MODEL : Trimble
SELECTIVE AVAILABILITY : YES
P-CODE : YES
DIFFERENTIAL : NO
SAMPLE INTERVAL : 1 per sec
TIME OBTAINED RELATIVE TO
START/END OF ENSEMBLE : end
LOGGED WITH ADCP DATA : YES - user exit program

CALIBRATION
GYROCOMPASS CORRECTION : YES, profile-by-profile-rotation based
on the attitude gps HOFS (heading offsets)
BOTTOM TRACK METHOD : YES
WATER TRACK METHOD : NO
FINAL SELECTION : AMPLITUDE= 1.008 PHASE= 3.244
SOUND SPEED CORRECTIONS : NO

NAVIGATION CALCULATION
NAVIGATION USED : gps
REFERENCE LAYER DEPTH RANGE : bins 3 to 5
FILTERING METHOD FOR SMOOTHING REFERENCE LAYER
VELOCITY (FORM/WIDTH) : Blackman window function of width T= 20 min:
\[ w(t) = 0.42 - 0.5 \times \cos(2 * \pi * t / T) + 0.08 \times \cos(4 * \pi * t / T). \]
FINALIZED SHIP VEL/POSITIONS STORED IN DATABASE : YES

GENERAL ASSESSMENT :
ON-STATION VS. UNDERWAY : good
VECTOR, CONTOUR, STICK PLOTS: good
COMMENTS : data quality excellent in general

REFERENCES:

http://damp.coas.oregonstate.edu/coast/adcp
start.cnf, primary configuration file

AD,SI,HUNDREDTHS 150.00 Sampling interval
AD,NB,W O H L E 64 Number of Depth Bins
AD,BL,W O H L E 3 Bin Length
AD,PL,W O H L E 8 Pulse Length
AD,BK,TENTHS 4.0 Blank Beyond Transmit
AD,PE,W O H L E 1 Pings Per Ensemble
AD,PC,HUNDREDTHS 1.00 Pulse Cycle Time
AD,PG,W O H L E 25 Percent Pings Good Threshold
XX,OD2,W O H L E 5 [SYSTEM DEFAULT, OD2]
XX,TE,HUNDREDTHS 0.00 [SYSTEM DEFAULT, TE]
AD,US,BOOLE YES Use Direct Commands on StartUp
DP,TR,BOOLE NO Toggle roll compensation
DP,TP,BOOLE NO Toggle Pitch compensation
DP,TH,BOOLE YES Toggle Heading compensation
DP,VS,BOOLE YES Calculate Sound Velocity from TEMP/Salinity
DP,UR,BOOLE YES Use Reference Layer
DP,FR,W O H L E 3 First Bin for reference Layer
DP,LR,W O H L E 5 Last Bin for reference Layer
DP,BT,BOOLE YES Use Bottom Track
DP,B3,BOOLE NO Use 3 Beam Solutions
DP,EV,BOOLE YES Use Error Velocity as Percent Good Criterion
DP,ME,TENTHS 100.0 Max. Error Velocity for Valid Data (cm/sec)
DR,RO,W O H L E YES Recording on disk
DR,RX,BOOLE YES Record N/S (FORE/AFT) Vel.
DR,RY,BOOLE YES Record E/W (FORT/STBD) Vel.
,RZ,BOOLE YES Record vertical vel.
DR,RE,BOOLE YES Record error Good
DR,RB,BOOLE NO Bytes of user prog. buffer
DR,RP,BOOLE YES Record Percent good
DR,RA,BOOLE YES Record average AGC/Bin
DR,RN,BOOLE YES Record Ancillary data
DR,AP,BOOLE YES Auto-ping on start-up
XX,LDR,TRI 1 [SYSTEM DEFAULT, LDR]
XX,RB2,W O H L E 192 [SYSTEM DEFAULT, RB2]
DR,RC,BOOLE NO Record CTD data
XX,FB,W O H L E 1 [SYSTEM DEFAULT, FB]
XX,PU,BOOLE NO [SYSTEM DEFAULT, PU]
GC,TG,TRI 1 DISPLAY (NO/GRAPH/TAB)
GC,ZV,W O H L E 1 ZERO VELOCITY REFERENCE (S/B/M/L)
GC,VL,W O H L E -100 LOWEST VELOCITY ON GRAPH
CG,VH,W O H L E 100 HIGHEST VELOCITY ON GRAPH
GC,DL,W O H L E 0 LOWEST DEPTHS ON GRAPH
GC,DH,W O H L E 400 HIGHEST DEPTHS ON GRAPH
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GC,SW,BOOLE</td>
<td>NO SET DEPTHS WINDOW TO INCLUDE ALL BINS</td>
</tr>
<tr>
<td>GC,MP,WHOLE</td>
<td>25 MINIMUM PERCENT GOOD TO PLOT</td>
</tr>
<tr>
<td>SG,PNS,BOOLE</td>
<td>YES PLOT NORTH/SOUTH VEL.</td>
</tr>
<tr>
<td>SG,PEW,BOOLE</td>
<td>YES PLOT EAST/WEST VEL.</td>
</tr>
<tr>
<td>SG,PVT,BOOLE</td>
<td>NO PLOT VERTICAL VEL.</td>
</tr>
<tr>
<td>SG,PEV,BOOLE</td>
<td>YES PLOT ERROR VEL.</td>
</tr>
<tr>
<td>SG,PPE,BOOLE</td>
<td>NO PLOT PERCENT ERROR</td>
</tr>
<tr>
<td>SG,PMD,BOOLE</td>
<td>NO PLOT MAG AND DIR</td>
</tr>
<tr>
<td>SG,PSW,BOOLE</td>
<td>NO PLOT AVERAGE SP. W.</td>
</tr>
<tr>
<td>SG,PAV,BOOLE</td>
<td>NO PLOT AVERAGE AGC.</td>
</tr>
<tr>
<td>SG,PPG,BOOLE</td>
<td>YES PLOT PERCENT GOOD</td>
</tr>
<tr>
<td>SG,PD1,BOOLE</td>
<td>NO PLOT DOPPLER 1</td>
</tr>
<tr>
<td>SG,PD2,BOOLE</td>
<td>NO PLOT DOPPLER 2</td>
</tr>
<tr>
<td>SG,PD3,BOOLE</td>
<td>NO PLOT DOPPLER 3</td>
</tr>
<tr>
<td>SG,PD4,BOOLE</td>
<td>NO PLOT DOPPLER 4</td>
</tr>
<tr>
<td>SG,PW1,BOOLE</td>
<td>NO PLOT SP. W. 1</td>
</tr>
<tr>
<td>SG,PW2,BOOLE</td>
<td>NO PLOT SP. W. 2</td>
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<tr>
<td>SG,PW3,BOOLE</td>
<td>NO PLOT SP. W. 3</td>
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<td>SG,PW4,BOOLE</td>
<td>NO PLOT SP. W. 4</td>
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<tr>
<td>SG,PA1,BOOLE</td>
<td>YES PLOT AGC 1</td>
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<tr>
<td>SG,PA2,BOOLE</td>
<td>YES PLOT AGC 2</td>
</tr>
<tr>
<td>SG,PA3,BOOLE</td>
<td>YES PLOT AGC 3</td>
</tr>
<tr>
<td>SG,PA4,BOOLE</td>
<td>YES PLOT AGC 4</td>
</tr>
<tr>
<td>SG,PP3,BOOLE</td>
<td>NO PLOT 3-BEAM SOLUTION</td>
</tr>
<tr>
<td>SS,OD,WHOLE</td>
<td>5 OffSet for Depth</td>
</tr>
<tr>
<td>SS,OH,TENTHS</td>
<td>45.0 OffSet for Heading</td>
</tr>
<tr>
<td>SS,OP,TENTHS</td>
<td>0.0 OffSet for Pitch</td>
</tr>
<tr>
<td>SS,ZR,TENTHS</td>
<td>0.0 OffSet for Roll</td>
</tr>
<tr>
<td>SS,OT,HUNDREDTHS</td>
<td>45.00 OffSet FOR temp</td>
</tr>
<tr>
<td>SS,ST,HUNDREDTHS</td>
<td>50.00 Scale for Temp</td>
</tr>
<tr>
<td>SS,SL,HUNDREDTHS</td>
<td>33.00 Salinity (PPT)</td>
</tr>
<tr>
<td>SS,UD,BOOLE</td>
<td>YES Toggle UP/DOWN</td>
</tr>
<tr>
<td>SS,CV,BOOLE</td>
<td>NO Toggle concave/Convex transducerhead</td>
</tr>
<tr>
<td>SS,MA,TENTHS</td>
<td>30.0 Mounting angle for transducers.</td>
</tr>
<tr>
<td>SS,SS,HUNDREDTHS</td>
<td>1465.00 Speed of Sound (m/sec)</td>
</tr>
<tr>
<td>XX,GP,BOOLE</td>
<td>YES [SYSTEM DEFAULT, GP]</td>
</tr>
<tr>
<td>XX,DD,TENTHS</td>
<td>1.0 [SYSTEM DEFAULT, DD]</td>
</tr>
<tr>
<td>XX,PT,BOOLE</td>
<td>NO [SYSTEM DEFAULT, PT]</td>
</tr>
<tr>
<td>XX,TU,TRI</td>
<td>2 [SYSTEM DEFAULT, TU]</td>
</tr>
<tr>
<td>TB,FP,WHOLE</td>
<td>1 FIRST BINS TO PRINT</td>
</tr>
<tr>
<td>TB,LP,WHOLE</td>
<td>15 LAST BIN TO PRINT</td>
</tr>
<tr>
<td>TB,SK,WHOLE</td>
<td>1 SKIP INTERVAL BETWEEN BINS</td>
</tr>
<tr>
<td>TB,DT,BOOLE</td>
<td>YES DIAGNOSTIC TAB MODE</td>
</tr>
<tr>
<td>DU,TD,BOOLE</td>
<td>NO TOGGLE USE OF DUMMY DATA</td>
</tr>
</tbody>
</table>
XX,PN,WHOLE 0 [SYSTEM DEFAULT, PN]
DR,SD,WHOLE 2 Second recording drive
DR,PD,WHOLE 1 First recording drive (1=A:, 2=B: ...)
DP,PX,BOOLE NO Profiler does XYZE transform
SS,LC,TENTHS 1.0 Limit of Knots change
SS,NW,TENTHS 0.5 Weight of new knots of value
GC,GM,TRI 2 GRAPHICS CONTROL 0=LO RES, 1=HI RES, 2=ENHANCED
AD,PS,BOOLE NO YES=SERIAL/NO=PARALLEL Profiler Link
XX,LNN,BOOLE YES [SYSTEM DEFAULT, LNN]
XX,BM,BOOLE YES [SYSTEM DEFAULT, BM]
XX,RSD,BOOLE NO RECORD STANDARD DEVIATION OF VELOCITIES PER BIN
XX,DRV,WHOLE 0 [SYSTEM DEFAULT, DRV]
XX,PBD,WHOLE 3 [SYSTEM DEFAULT, PBD]
TB,RS,BOOLE NO SHOW RHP STATISTIC
UX,EE,BOOLE YES ENABLE EXIT TO EXTERNAL PROGRAM
SS,VSC,TRI 0 Velocity scale adjustment
AD,DM,BOOLE NO USE DMA
TB,SC,BOOLE NO SHOW CTD DATA
AD,CW,BOOLE YES Collect spectral width
DR,RW,BOOLE YES Record average SP.W./Bin
DR,RRD,BOOLE NO Record last raw dopplers
DR,RRA,BOOLE YES Record last raw AGC
DR,RRW,BOOLE NO Record last SP.W.
DR,R3,BOOLE YES Record average 3-Beam solutions
DR,RBS,BOOLE YES Record beam statistic
XX,STD,BOOLE NO [SYSTEM DEFAULT, STD]
LR,HB,HUNDREDTHS 0.00 Heading Bias
SL,1,ARRAY5 0 1 8 NONE 9600 PROFILER
SL,2,ARRAY5 0 1 8 NONE 1200 LORAN RECEIVER
SL,3,ARRAY5 0 1 8 NONE 1200 REMOTE DISPLAY
SL,4,ARRAY5 0 1 8 NONE 9600 ENSEMBLE OUTPUT
SL,5,ARRAY5 0 1 8 NONE 1200 AUX 1
SL,6,ARRAY5 0 1 8 NONE 1200 AUX 2
DU,1,ARRAY6 100.00 100.00 60.00 0.00 0.00 YES D1
DU,2,ARRAY6 -100.00 -100.00 60.00 0.00 0.00 YES D2
DU,3,ARRAY6 200.00 200.00 60.00 0.00 0.00 YES D3
DU,4,ARRAY6 -200.00 -200.00 60.00 0.00 0.00 YES D4
DU,5,ARRAY6 200.00 19.00 60.00 0.00 0.00 YES AGC
DU,6,ARRAY6 0.00 0.00 60.00 0.00 0.00 NO SP.W.
DU,7,ARRAY6 0.00 0.00 60.00 0.00 0.00 NO ROLL
DU,8,ARRAY6 0.00 0.00 60.00 0.00 0.00 NO PITCH
DU,9,ARRAY6 0.00 0.00 60.00 0.00 0.00 NO HEADING
DU,10,ARRAY6 0.00 0.00 60.00 0.00 0.00 NO TEMPERATURE
DC,1,SPECIAL "FH00001" MACRO 1
DC,2,SPECIAL "E0003020199" MACRO 2
DC,3,SPECIAL "CF99" MACRO 3
CI,1,SPECIAL "W0105C" CRUISE ID GOES HERE
LR,1,SPECIAL " " LORAN FILE NAME GOES HERE
**ue4.cnf**, user exit configuration file

/* UE4.CNF */

configuration: /* This keyword is necessary */

/* Use up to two of the
following: set_com1:, set_com2:, set_com3:, set_com4: */

set_com1: /* Use com1 with following params */

baud= 4800 /* 300, 1200, 2400, 9600, 19200 */

parity: N /* N, O, E */

receive: ashtech_1 /* none, nmea_1, nmea_2, ashtech_1, ashtech_2 */

transmit: none /* none, ensemble, speed */

end /* End of com1 setup */

set_com2: /* Same things for com2 */

baud= 4800

irq= 3 /* This is not really needed for com2, because IRQ 3 is the default and is highly standardized. More typically, the irq= option would be used to override the defaults of 5 and 7 for com3 and com4, respectively */

parity: N

receive: none

transmit: none

end

rdi_style_ensemble /* send ensemble with extra characters */

correct_clock /* Include this and the following only if the automatic clock reset function is desired */

min_correction= 2 /* Reset the clock only if it is x or more seconds off */

max_correction= 32760 /* Don’t make any correction */
larger than this. */
max_dt_difference = 2  /* Make a correction only if
the pc-gps difference at
the start of an ensemble is
at least this close to the
value at the end of the
ensemble */

init_time /* Attempt a time correction
before the first ensemble.
(recommended!) */

max_brms = 0.060  /* Ashtech editing parameters */
max_mrms = 0.005
max_dh_dev = 5 /* Do not accept any gps-gyro
heading difference
exceeding the mean by this
number of degrees. */
max_p_std_dev = 2.5 /* Reject attitudes if the
pitch exceeds the local
mean by this number of
standard deviations. */
max_r_std_dev = 2.5 /* Same for roll. */

/* Raw gc recording parameters: */
/* Keep these for 2000 Globec cruises */
amp_subsample = 1
sw_subsample = 10
amp_sw_nbins = 48
amp_sw_drive_path: c:dcp248
awage minutes_per_file = 60
min_kbytes_free = 2000

end /* This "end" is necessary. */
COAST W0105c: Big box 1
17 m ADCP, 144.107 to 146.352, 24-May-01 02:34 to 26-May-01 08:26
COAST W0105c: Big box 1
50 m ADCP, 144.107 to 146.352, 24-May-01 02:34 to 26-May-01 08:26

Longitude (°W)

Latitude (°N)

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Big box 1
150 m ADCP, 144.107 to 146.352, 24-May-01 02:34 to 26-May-01 08:26

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Big box 1
line1 at 45.25°N (24-May-01 02:33 to 24-May-01 06:54)
(144.106598 to 144.287506)
COAST W0105c: Big box 1
line2 at 45.02°N (24-May-01 08:51 to 24-May-01 13:09)
(144.369095 to 144.548492)
COAST W0105c: Big box 1
line3 at 44.83°N (24-May-01 14:47 to 24-May-01 18:54)
(144.616196 to 144.787598)
COAST W0105c: Big box 1
line 5 at 44.48°N (25-May-01 04:18 to 25-May-01 08:13)
(145.179703 to 145.342407)
COAST W0105c: Big box 1
line6 at 44.25°N (25-May-01 10:18 to 25-May-01 15:22)
(145.429504 to 145.640701)
COAST W0105c: Big box 1
line7 at 44.00°N (25-May-01 17:33 to 25-May-01 23:31)
(145.731796 to 145.979996)
COAST W0105c: Big box 1
line 8 at 43.75°N (26-May-01 01:43 to 26-May-01 08:16)
(146.072006 to 146.344894)
COAST W0105c: Big box 2
17 m ADCP, 149.965 to 152.534, 29-May-01 23:09 to 01-Jun-01 12:48

Newport
Waldport
Cape Perpetua
Heceta Head
COAST W0105c: Big box 2
50 m ADCP, 149.965 to 152.534, 29-May-01 23:09 to 01-Jun-01 12:48

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Big box 2
100 m ADCP, 149.965 to 152.534, 29-May-01 23:09 to 01-Jun-01 12:48

Newport
Waldport
Cape Perpetua
Heceta Head
COAST W0105c: Big box 2
line1 at 45.25°N (29-May-01 23:09 to 30-May-01 03:40)
(149.964798 to 150.153198)
COAST W0105c: Big box 2
line2 at 45.02°N (30-May-01 05:38 to 30-May-01 10:03)
(150.234802 to 150.419098)
COAST W0105c: Big box 2
line3 at 44.83°N (30-May-01 11:36 to 30-May-01 16:10)
(150.483398 to 150.673706)
COAST W0105c: Big box 2
line5 at 44.47°N (30-May-01 23:26 to 31-May-01 03:11)
(150.976700 to 151.132904)
COAST W0105c: Big box 2
line6 at 44.25°N (31-May-01 05:40 to 31-May-01 10:36)
(151.236603 to 151.442307)
COAST W0105c: Big box 2
line 7 at 44.00°N (31-May-01 12:59 to 31-May-01 18:51)
(151.541504 to 151.785797)
COAST W0105c: Big box 3
50 m ADCP, 153.641 to 154.844, 02-Jun-01 15:23 to 03-Jun-01 20:15

Newport
Waldport
Cape Perpetua
Heceta Head
COAST W0105c: Big box 3
150 m ADCP, 153.641 to 154.844, 02-Jun-01 15:23 to 03-Jun-01 20:15

Newport
Waldport
Cape Perpetua
Heceta Head
COAST W0105c: Big box 3
line4 at 44.65°N (02-Jun-01 22:45 to 03-Jun-01 02:33)
(153.948502 to 154.106506)
COAST W0105c: Big box 3
line5 at 44.48°N (02-Jun-01 15:23 to 02-Jun-01 19:53)
(153.641205 to 153.828705)
COAST W0105c: Big box 4
17 m ADCP, 158.591 to 160.870, 07-Jun-01 14:11 to 09-Jun-01 20:52

Newport
Waldport
Cape Perpetua
Heceta Head
COAST W0105c: Big box 4
100 m ADCP, 158.591 to 160.870, 07-Jun-01 14:11 to 09-Jun-01 20:52
COAST W0105c: Big box 4
150 m ADCP, 158.591 to 160.870, 07-Jun-01 14:11 to 09-Jun-01 20:52

Newport
Waldport
Cape Perpetua
Heceta Head
COAST W0105c: Big box 4
line1 at 45.25°N (07-Jun-01 14:10 to 07-Jun-01 18:24)
(158.590607 to 158.766800)
COAST W0105c: Big box 4
line3 at 44.83°N (08-Jun-01 02:19 to 08-Jun-01 06:20)
(159.096695 to 159.264206)
COAST W0105c: Big box 4
line5 at 44.48°N (08-Jun-01 13:23 to 08-Jun-01 17:17)
(159.557907 to 159.720306)
COAST W0105c: Big box 4
line 6 at 44.25°N (08-Jun-01 19:28 to 09-Jun-01 00:24)
(159.811295 to 160.017105)
COAST W0105c: Big box 4
line7 at 44.00°N (09-Jun-01 02:35 to 09-Jun-01 08:28)
(160.108307 to 160.352997)
COAST W0105c: Big box 4
line8.1 at 43.75°N (09-Jun-01 11:04 to 09-Jun-01 17:32)
(160.461395 to 160.731094)

Longitude(°W)

Depth (m)

Depth (m)

Distance (km)

East (cm/s)

North (cm/s)
COAST W0105c: Big box 4
line 8.2 at 43.75°N (09-Jun-01 17:38 to 09-Jun-01 20:40)
(160.735397 to 160.861404)
COAST W0105c: Big box 5
17 m ADCP, 162.164 to 164.270, 11-Jun-01 03:56 to 13-Jun-01 06:28

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
<table>
<thead>
<tr>
<th>Longitude (°W)</th>
<th>Latitude (°N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>43.5</td>
<td>50</td>
</tr>
<tr>
<td>44</td>
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**COAST W0105c: Big box 5**

50 m ADCP, 162.164 to 164.270, 11-Jun-01 03:56 to 13-Jun-01 06:28

Newport, Waldport, Cape Perpetua, Heceta Head

25 cm/s
COAST W0105c: Big box 5
100 m ADCP, 162.164 to 164.270, 11-Jun-01 03:56 to 13-Jun-01 06:28

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Big box 5
150 m ADCP, 162.164 to 164.270, 11-Jun-01 03:56 to 13-Jun-01 06:28

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Big box 5
line2 at 45.02°N (12-Jun-01 23:19 to 13-Jun-01 01:50)
(163.971695 to 164.076797)
COAST W0105c: Big box 5
line3 at 44.83°N (12-Jun-01 16:39 to 12-Jun-01 21:26)
(163.694107 to 163.893494)
COAST W0105c: Big box 5
line4 at 44.65°N (12-Jun-01 11:11 to 12-Jun-01 15:06)
(163.466202 to 163.629807)
COAST W0105c: Big box 5
line7 at 44.00°N (11-Jun-01 13:01 to 11-Jun-01 19:02)
(162.542801 to 162.793396)
COAST W0105c: Big box 5
line8 at 43.75°N (11-Jun-01 03:56 to 11-Jun-01 10:46)
(162.163895 to 162.449097)
COAST W0105c: Small box north 1
17 m ADCP, 146.780 to 147.195, 26-May-01 18:43 to 27-May-01 04:40

Newport
Waldport
Cape Perpetua
Heceta Head
COAST W0105c: Small box north 1
50 m ADCP, 146.780 to 147.195, 26-May-01 18:43 to 27-May-01 04:40
COAST W0105c: Small box north 1
150 m ADCP, 146.780 to 147.195, 26-May-01 18:43 to 27-May-01 04:40

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Small box north 1
lineA at 45.11°N (27-May-01 02:10 to 27-May-01 04:40)
(147.090607 to 147.194794)
COAST W0105c: Small box north 1
lineB at 45.01°N (26-May-01 22:11 to 27-May-01 01:22)
(146.924805 to 147.057602)
COAST W0105c: Small box north 1
lineC at 44.93°N (26-May-01 19:01 to 26-May-01 21:15)
(146.792892 to 146.885696)
COAST W0105c: Small box north 2
17 m ADCP, 147.675 to 148.124, 27-May-01 16:12 to 28-May-01 02:58

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Small box north 2
50 m ADCP, 147.675 to 148.124, 27-May-01 16:12 to 28-May-01 02:58

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Small box north 2
100 m ADCP, 147.675 to 148.124, 27-May-01 16:12 to 28-May-01 02:58
COAST W0105c: Small box north 2
150 m ADCP, 147.675 to 148.124, 27-May-01 16:12 to 28-May-01 02:58

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Small box north 2
lineA at 45.11°N (27-May-01 16:11 to 27-May-01 20:11)
(147.674805 to 147.841507)
COAST W0105c: Small box north 2
lineB at 45.02°N (27-May-01 21:00 to 27-May-01 23:55)
(147.875305 to 147.996902)
COAST W0105c: Small box north 2
lineC at 44.93°N ( 28-May-01 00:42 to 28-May-01 02:59 )
(148.029800 to 148.124496)

Depth (m) vs Longitude(°W)

East (cm/s)

Depth (m) vs Distance (km)

North (cm/s)
COAST W0105c: Small box north 3
17 m ADCP, 149.554 to 149.793, 29-May-01 13:17 to 29-May-01 19:01

Longitude (°W)
43.5
44
44.5
45
45.5

Latitude (°N)
43.5
44
44.5
45

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Small box north 3
100 m ADCP, 149.554 to 149.793, 29-May-01 13:17 to 29-May-01 19:01
COAST W0105c: Small box north 3
150 m ADCP, 149.554 to 149.793, 29-May-01 13:17 to 29-May-01 19:01
COAST W0105c: Small box north 3
lineB at 45.02°N (29-May-01 13:17 to 29-May-01 15:48)
(149.554092 to 149.658401)
COAST W0105c: Small box south 1
17 m ADCP, 148.353 to 149.207, 28-May-01 08:28 to 29-May-01 04:58

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Small box south 1
50 m ADCP, 148.353 to 149.207, 28-May-01 08:28 to 29-May-01 04:58
COAST W0105c: Small box south 1
150 m ADCP, 148.353 to 149.207, 28-May-01 08:28 to 29-May-01 04:58
COAST W0105c: Small box south 1
lineF at 44.11°N (28-May-01 23:35 to 29-May-01 04:57)
(148.982697 to 149.206696)
COAST W0105c: Butterfly 1
17 m ADCP, 154.870 to 155.308, 03-Jun-01 20:52 to 04-Jun-01 07:23
COAST W0105c: Butterfly 1
100 m ADCP, 154.870 to 155.308, 03-Jun-01 20:52 to 04-Jun-01 07:23

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Butterfly 1
150 m ADCP, 154.870 to 155.308, 03-Jun-01 20:52 to 04-Jun-01 07:23

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Butterfly 1
lineW_E at 45.02°N (04-Jun-01 02:31 to 04-Jun-01 04:45)
(155.104904 to 155.198593)

Longitude(°W)

Depth (m)

East (cm/s)

Depth (m)

North (cm/s)

Distance (km)
COAST W0105c: Butterfly 2
50 m ADCP, 155.310 to 155.763, 04-Jun-01 07:26 to 04-Jun-01 18:18
COAST W0105c: Butterfly 2
100 m ADCP, 155.310 to 155.763, 04-Jun-01 07:26 to 04-Jun-01 18:18

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Butterfly 2
150 m ADCP, 155.310 to 155.763, 04-Jun-01 07:26 to 04-Jun-01 18:18

Newport
Waldport
Cape Perpetua
Heceta Head
COAST W0105c: Butterfly 2
lineW_E at 45.02°N (04-Jun-01 12:43 to 04-Jun-01 15:33)
(155.530502 to 155.648499)

Longitude(°W)

Depth (m)

East (cm/s)

North (cm/s)

Distance (km)
COAST W0105c: Butterfly 3
17 m ADCP, 155.765 to 156.327, 04-Jun-01 18:21 to 05-Jun-01 07:50

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Butterfly 3
150 m ADCP, 155.765 to 156.327, 04-Jun-01 18:21 to 05-Jun-01 07:50

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Butterfly 3
lineE_W at 45.02°N (05-Jun-01 03:25 to 05-Jun-01 05:40)
(156.142807 to 156.236496)
COAST W0105c: Butterfly 4
17 m ADCP, 156.329 to 156.789, 05-Jun-01 07:53 to 05-Jun-01 18:56

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Butterfly 4
50 m ADCP, 156.329 to 156.789, 05-Jun-01 07:53 to 05-Jun-01 18:56
COAST W0105c: Butterfly 4
100 m ADCP, 156.329 to 156.789, 05-Jun-01 07:53 to 05-Jun-01 18:56

Newport
Waldport
Cape Perpetua
Heceta Head
COAST W0105c: Butterfly 4
lineE_W at 45.02°N ( 05-Jun-01 14:25 to 05-Jun-01 16:43 )
(156.601196 to 156.696899)
COAST W0105c: Butterfly 5
17 m ADCP, 156.791 to 157.233, 05-Jun-01 18:59 to 06-Jun-01 05:35
COAST W0105c: Butterfly 5
50 m ADCP, 156.791 to 157.233, 05-Jun-01 18:59 to 06-Jun-01 05:35
COAST W0105c: Butterfly 5
100 m ADCP, 156.791 to 157.233, 05-Jun-01 18:59 to 06-Jun-01 05:35

Newport
Waldport
Cape Perpetua
Heceta Head
COAST W0105c: Butterfly 5
150 m ADCP, 156.791 to 157.233, 05-Jun-01 18:59 to 06-Jun-01 05:35

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Butterfly 5
lineE_W at 45.02°N (06-Jun-01 01:16 to 06-Jun-01 03:28)
(157.052795 to 157.144806)
COAST W0105c: Butterfly 6
50 m ADCP, 157.235 to 157.607, 06-Jun-01 05:38 to 06-Jun-01 14:34
COAST W0105c: Butterfly 6
100 m ADCP, 157.235 to 157.607, 06-Jun-01 05:38 to 06-Jun-01 14:34

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Butterfly 6
150 m ADCP, 157.235 to 157.607, 06-Jun-01 05:38 to 06-Jun-01 14:34

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Butterfly 6
lineE_W at 45.02°N (06-Jun-01 11:51 to 06-Jun-01 14:21)
(157.493805 to 157.598007)

Longitude(°W)

Depth (m)

East (cm/s)

Distance (km)

North (cm/s)
COAST W0105c: Butterfly 7
17 m ADCP, 158.227 to 158.559, 07-Jun-01 05:26 to 07-Jun-01 13:24
COAST W0105c: Butterfly 7
50 m ADCP, 158.227 to 158.559, 07-Jun-01 05:26 to 07-Jun-01 13:24

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s
COAST W0105c: Butterfly 7
150 m ADCP, 158.227 to 158.559, 07-Jun-01 05:26 to 07-Jun-01 13:24

Newport
Waldport
Cape Perpetua
Heceta Head

25 cm/s