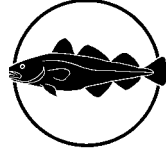# The Faroese Fisheries Laboratory

Fiskirannsóknarstovan

Nordic WOCE ADCP Deployments
in Faroese Waters
2001 - 2002

By

Karin Margretha H. Larsen, Bogi Hansen,
Regin Kristiansen and Svein Østerhus

Technical Report No.: 03-03

Tórshavn   **September 2003**

Introduction

This report documents 8 ADCP deployments in Faroese waters in 2001 – 2002. An Aanderaa Current Meter record is included in one of the deployments and SeaBird Microcat records are included in three of the ADCP deployments. The deployments are listed in Table 1. Each deployment is identified by an 8-character label where the first four characters indicate the site (Fig. 1) while the last characters show year and month of deployment. The moorings were located at standard (Nordic WOCE) sites.
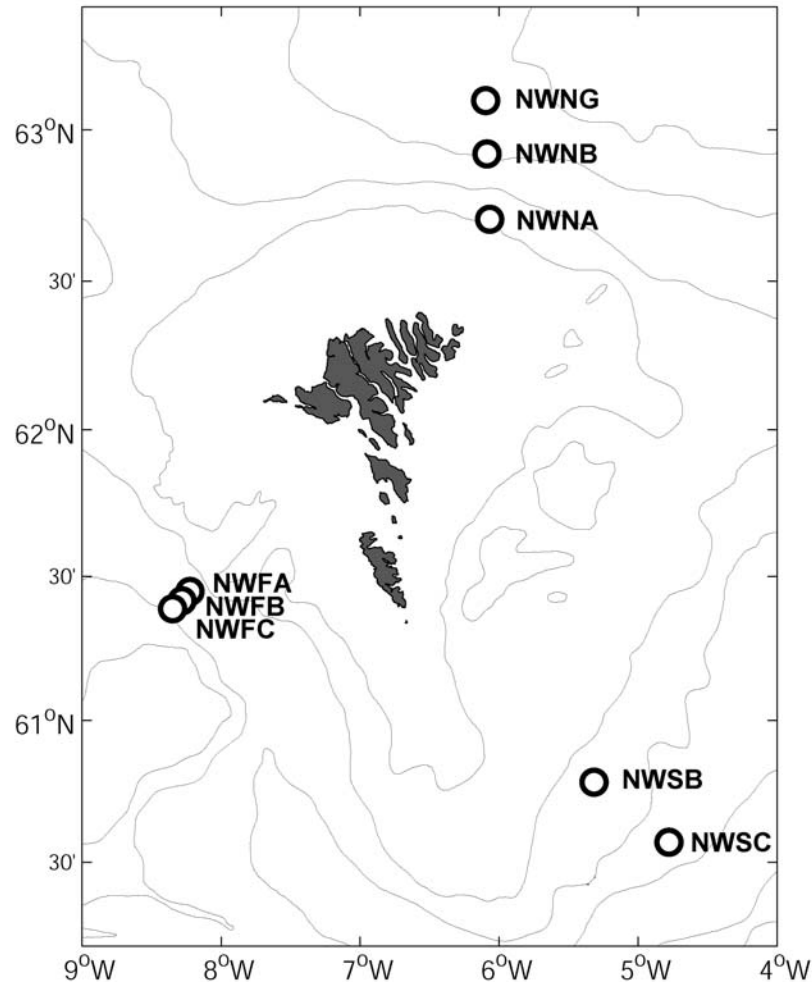

Figure 1. ADCP, Aanderaa and Microcat mooring sites in Faroese waters 2001-2002 superposed on a map with the bottom topography. Each site is indicated by a four-letter label.

At site NWFB, NWNB, NWNG, NWSB, and NWSC, 75 kHz RDI Broadband ADCP's were placed in the top of single-point moorings. At site NWNA, a "shallow-water" rig was used where a 150 kHz RDI Broadband ADCP was placed on the bottom inside a protective aluminium frame. At site NWFA a 75 kHz RDI Work Horse Long Ranger was used and at site NWFC a 150 kHz RDI Narrowband ADCP was used, both placed in the top of single-point moorings. For each deployment, the ADCP measures the velocity averaged over a number (20 – 25) of depth layers ("bins") which were 25m for all rigs except for the deployments NWNA and NWFC where the depth layers were 10 and 16 m, respectively. At 20 minutes intervals (10 minutes at NWFC) the ADCP records the data from all bins into "ensembles". In these deployments, each ensemble is based only upon one ping. At site NWNG and NWSC, an Aanderaa current meter was on the mooring line below the ADCP. The Aanderaa current meter at NWSC recorded speed, direction, temperature and conductivity at 60 minute's interval. The Aanderaa current meter at NWNG did unfortunately not record any data.

Table 1. List of deployments with information on duration and range of valid data. All depths are in meters. The last column indicates for one deployment that one of the ADCP beams has been faulty and 3-beam computations have been used. It also indicates whether an Aanderaa or a Microcat instrument was on the mooring.

```
================================================================================
          |Bottom|Int.|                      | Dur.| No |         |
Deployment| depth|min.|   Valid data period  | days|bins|Depthrange| Comments
================================================================================
          |      |    |                      |     |    |         |
NWFA0107  |  709 | 20 | 2001 07 08-2001 09 10|  63 | 24 |  93- 668| Microcat
          |      |    |                      |     |    |         |
NWFB0107  |  814 | 20 | 2001 07 08-2002 06 16| 342 | 25 | 172- 772| Microcat
          |      |    |                      |     |    |         |
NWFC0107  |  834 | 10 | 2001 07 09-2001 09 10|  62 | 20 | 494- 798| Microcat
          |      |    |                      |     |    |         |
NWNA0107  |  298 | 20 | 2001 07 06-2002 06 14| 342 | 23 |  61- 281|
          |      |    |                      |     |    |         |
NWNB0107  |  980 | 20 | 2001 07 06-2002 06 15| 344 | 25 | 102- 702|
          |      |    |                      |     |    |         |
NWNG0107  | 1811 | 20 | 2001 07 06-2002 06 14| 343 | 22 |  77- 602| Aanderaa
          |      |    |                      |     |    |         |
NWSB0107  |  775 | 20 | 2001 07 08-2002 06 15| 342 | 22 | 106- 631|
          |      |    |                      |     |    |         |
NWSC0107  | 1073 | 20 | 2001 07 07-2002 06 16| 343 | 23 |  73- 623| 3-beam
          |      |    |                      |     |    |         | Aanderaa
```

Quality control and calibration

The ADCP data have been quality controlled by a standard procedure based upon consideration of ADCP performance (error velocity etc.) and data variation with time in relation to neighbouring bins (spikes). The editing has been done manually using an interactive graphical software package developed by the Faroese Fisheries Laboratory (FFL), based upon MATLAB. Generally, the series have been edited up to the level where about 50% of the observations were found to be valid. Bins above this level have not been included. The velocity direction has been corrected for magnetic deviation, by adding a constant as indicated in the header of the data file. The instrument depth is found from the echo sounding depth (corrected for change in sound velocity) and the length of the mooring line, but at sites NWNG, NWSB and NWSC the instrument depth is corrected using the data from the surface echo.

The Aanderaa data have been calibrated using calibration data from the manufacturer. In the Aanderaa current meter, several speed and compass readings are taken during a sampling interval, while the temperature and conductivity readings are taken once at the end of the interval only. At the end of the interval, the instrument stores a vector average of the velocity for the whole sampling interval, as well as the temperature and conductivity readings. In the data file, the time of each record is the middle of the speed-averaging interval. In the calibration procedure the velocity direction has been corrected for magnetic deviation, by adding a constant. The actual correction for each deployment is stored in the header of the data file. The data have been quality controlled by a standard procedure based upon data variation with time in relation to neighbouring values (spikes). The editing has been done manually using an interactive graphical software package developed by the Faroese Fisheries Laboratory (FFL), based upon MATLAB. Salinity is not calibrated.

The Microcat data have been quality controlled by a similar procedure as have the ADCP and Aanderaa data. No errors were found in the Microcat data.

Report format

For each deployment, the report contains several pages, beginning with a page that has a drawing of the mooring and details of the deployment. After that, there are some pages describing the ADCP data beginning with a page with detailed error statistics for the deployment which indicates also how many "long" (i.e. several consecutive ensembles) error gaps are for each bin. On the next page there is for each bin listed the average speed (scalar average) and velocity magnitude and direction (vectorial average) as well as the fraction of "good" ensembles (in parts per thousand). This is followed by a frequency distribution of speeds for each bin which lists the frequency (in parts per thousand) of speeds (scalar) exceeding specified values. Finally, for the ADCP deployments, there are three pages listing tidal constituents. These pages contain five tables with data for the constituents M2, S2, N2, O1, and K1. Each table lists for each bin the amplitude and Greenwich phase lag for the east and north velocity components

and lists also major and minor axes of the tidal ellipse for the constituent as well as its inclination (Fig. 2) and sense of rotation (cyclonic = C, anticyclonic = A). The tidal constants were computed by an adapted version of the Foreman FORTRAN package.

The description of the Aanderaa current meter data includes first a text page listing metadata information in the header and showing the list of parameters in the data file with a tally of the number of records flagged and not flagged for error in each parameter. Any comments to the data are then listed. The rest of the text page describes features of the velocity observations in the series. First is shown the residual current, defined as the vectorial average of all non-flagged records. Next are shown the results of tidal analysis on the series. The number of records interpolated before the analysis is listed as well the number that could not be interpolated (too large gap). Since all the deployments have 60 minutes intervals, all analyses are performed on unfiltered data. 15 of the dominant constituents are listed and for each constituent, amplitude and Greenwich phase lag are shown for the east (E-ampl and E-gpl) and the north (N-ampl and N-gpl) velocity components respectively, followed by the characteristics of the tidal ellipse, its major and minor semi-axes, the inclination (Incl) of the ellipse, its Greenwich phase lag (Grphl), and whether it rotates cyclonically (C) or anticyclonically (A). The definitions of the tidal ellipse parameters are shown in Figure 2. The tidal constants were computed by an adapted version of the Foreman FORTRAN package.

Finally, on the text page, is a table listing the directional current distribution as relative numbers of observations in parts per thousand. The table also lists for each direction interval, the relative flux, the average speed and the maximum speed. Then 1-2 pages show plots of the listed parameters as a function of time and one page shows the progressive vector diagram.

The Microcat data all include temperature, salinity, pressure and depth. The data are presented on two pages, the first page showing the plots of the temperature, salinity and depth time series, while the second is a T-S diagram of the recorded data.

On the following pages, the data descriptions from each deployment are presented in the same sequence as Table 1. For each deployment the ADCP data are presented first followed by possible Aanderaa or Microcat data.
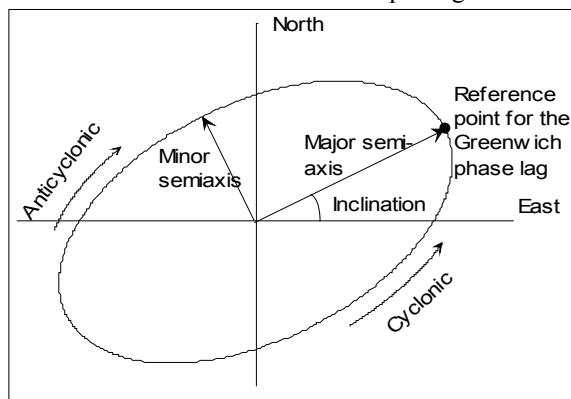
Figure 2. Parameters of the tidal ellipse for a given constituent. The reference point for the Greenwich phase lag is always chosen to be above the east-west axis.

Deployment Id: NWFA0107

Latitude: 61°26.527´N

Longitude: 008°14.434´W

Echo sounding depth: 718m

Bottom depth corr.: 709m

Time of deployment: 08/07 -2001 2210UTC

Time of recovery: 10/09 - 2001 1602UTC

ADCP:

Instrument no.: RDI ADCP Work Horse Long Ranger

Instrument frequency: 75kHz

Height above bottom: 7m

Depth: 702m (corr.)

Time of first data: 08/07 - 2001   2240UTC

Time of last data: 10/09 - 2001   1540UTC

Sample interval: 20 min

No. of ensembles: 4588

Pings per ens.: 1

Binlength: 25m

Depth of first bin: 668m (corr.)

No. of bins: 32
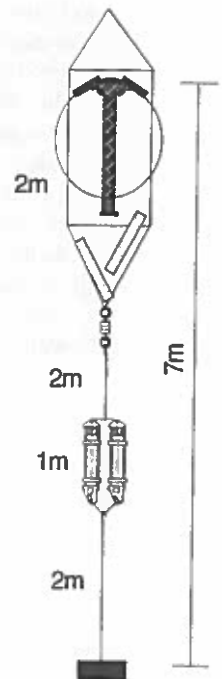
Micro Cat:

Instrument no.: 0981

Height above bottom: 6m

Depth: 703m (corr.)

Time of first data: 08/07 – 2001   2240 UTC

Time of last data: 10/09 – 2002   1600 UTC

Sample interval: 20 min

No. of records: 4589

2m

2m

7m

1m

2m

NWFA0107 ADCP WHLR

Error statistics for deployment: NWFA0107 updated 2002/11/19

Surface distance invalid due to range limitation
Heading, pitch and roll not edited
Temperature edited by KMHL in Jan 2002
Velocity edited up to and including bin 24 by GEJ in Dec 2001
Intensity edited up to and including bin 25 by KMHL in Jan 2002

```
Total number of  ensembles:         4588
Interval between ensembles:      20 min
Original number of bins:            32
Number of acceptable velocity bins:  24
Number of acceptable intensity bins: 24
```

Flagged values have been replaced by error codes: -999.99 for temperature, -999
for velocity and intensity. For observations where velocity is flagged, error
codes have been inserted into speed, direction and vertical velocity files

Number of temperature ens. flagged: 0

Below are for each bin listed ensembles flagged for intensity in number and for
velocity in number and % of total ens.number. For velocity is also shown the num-
ber of gaps of various lengths (gap length = number of consecutive flagged ens.)

Bin	Int. ens. flgd	Velocity ens. flgd	% flgd	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	0	864	19	464	122	35	6	3	2	0	0	0	0
2	0	227	5	172	19	3	2	0	0	0	0	0	0
3	0	163	4	146	7	1	0	0	0	0	0	0	0
4	0	129	3	114	6	1	0	0	0	0	0	0	0
5	0	91	2	80	4	1	0	0	0	0	0	0	0
6	0	109	2	87	11	0	0	0	0	0	0	0	0
7	0	162	4	144	7	0	1	0	0	0	0	0	0
8	0	213	5	175	15	0	2	0	0	0	0	0	0
9	0	311	7	237	32	2	1	0	0	0	0	0	0
10	0	229	5	189	14	4	0	0	0	0	0	0	0
11	0	271	6	203	26	4	1	0	0	0	0	0	0
12	0	253	6	207	18	2	1	0	0	0	0	0	0
13	0	224	5	187	13	1	2	0	0	0	0	0	0
14	0	210	5	170	16	1	0	1	0	0	0	0	0
15	0	245	5	197	18	1	1	1	0	0	0	0	0
16	0	308	7	257	24	1	0	0	0	0	0	0	0
17	0	286	6	227	25	3	0	0	0	0	0	0	0
18	0	228	5	188	16	1	0	1	0	0	0	0	0
19	0	329	7	243	23	4	4	0	2	0	0	0	0
20	0	286	6	230	19	3	1	1	0	0	0	0	0
21	0	372	8	273	29	4	2	3	1	0	0	0	0
22	0	458	10	303	46	8	1	3	3	0	0	0	0
23	0	1148	25	494	130	53	21	7	14	1	0	0	0
24	0	2720	59	338	174	99	82	59	76	30	6	0	0

NWFA0107 ADCP WHLR

```
Deployment: NWFA0107 updated 2002/11/19
Instrument no.:      0
Instrument freq.:   75
Latitude: 61 26.527 N
Longitude:08 14.434 W
Bottom depth:  709
Instrument depth:  702
Center depth of first bin:  668
Bin length:  25
Number of bins:  24
Number of first ensemble:    381
Time of first ensemble: 2001 07 08 22 40
Number of last ensemble:    4968
Time of last ensemble:  2001 09 10 15 40
Time between ensembles (min.):    20
All directions have been corrected by adding: -12.0
```

Below is listed for each bin the average speed (scalar average) and
the average velocity magnitude and direction formed as a vectorial
average of non-flagged (Good) observations. The last column shows the
number of good values used in parts per thousand

Bin no.	Depth m	Height m	Speed mm/s	Vel mm/s	Dir deg	Good ppt
1	668	41	585	575	310	812
2	643	66	857	851	311	951
3	618	91	907	902	313	964
4	593	116	904	898	314	972
5	568	141	871	864	316	980
6	543	166	799	787	319	976
7	518	191	675	657	323	965
8	493	216	531	506	326	954
9	468	241	410	376	327	932
10	443	266	328	280	327	950
11	418	291	278	216	326	941
12	393	316	247	176	325	945
13	368	341	232	152	324	951
14	343	366	224	137	324	954
15	318	391	218	126	323	947
16	293	416	211	116	324	933
17	268	441	208	108	323	938
18	243	466	205	100	324	950
19	218	491	205	97	323	928
20	193	516	202	90	323	938
21	168	541	197	83	320	919
22	143	566	191	71	319	900
23	118	591	186	59	312	750
24	93	616	189	56	302	407

NWFA0107 ADCP WHLR

Deployment: NWFA0107

Frequency of high speeds.
============================

Frequency (in parts per thousand) of speeds equal to or exceeding specified vales.

Bin no.	Depth m	Speed (cm/s)																	
		10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	668	808	786	727	628	508	391	266	149	61	19	4	.44	.22	0	0	0	0	0
2	643	951	951	951	947	928	881	788	642	399	173	51	12	1	.22	0	0	0	0
3	618	964	964	964	961	951	922	869	768	538	263	85	21	3	0	0	0	0	0
4	593	972	972	971	967	955	924	873	757	526	259	91	25	5	1	0	0	0	0
5	568	980	980	979	972	955	919	846	674	434	211	71	23	5	.22	0	0	0	0
6	543	976	976	972	958	913	833	691	499	296	134	45	16	2	0	0	0	0	0
7	518	963	953	922	862	757	614	434	270	153	76	27	9	.44	0	0	0	0	0
8	493	946	895	790	657	487	326	211	142	82	39	14	3	.22	0	0	0	0	0
9	468	899	777	598	418	268	172	109	68	36	15	5	1	0	0	0	0	0	0
10	443	872	679	451	285	163	93	49	29	15	6	1	.22	0	0	0	0	0	0
11	418	835	588	358	190	97	45	22	11	5	1	.44	0	0	0	0	0	0	0
12	393	812	535	283	135	64	26	12	5	1	.22	0	0	0	0	0	0	0	0
13	368	807	500	247	111	48	17	3	1	0	0	0	0	0	0	0	0	0	0
14	343	804	489	226	99	44	12	2	0	0	0	0	0	0	0	0	0	0	0
15	318	782	456	219	94	39	12	1	0	0	0	0	0	0	0	0	0	0	0
16	293	753	423	194	86	36	12	3	0	0	0	0	0	0	0	0	0	0	0
17	268	751	419	185	83	33	11	3	.22	0	0	0	0	0	0	0	0	0	0
18	243	759	412	188	78	28	10	2	.44	0	0	0	0	0	0	0	0	0	0
19	218	733	404	184	73	27	10	4	.44	.22	0	0	0	0	0	0	0	0	0
20	193	739	404	175	70	23	8	2	1	0	0	0	0	0	0	0	0	0	0
21	168	719	393	163	61	19	6	2	0	0	0	0	0	0	0	0	0	0	0
22	143	712	365	135	45	15	4	.44	0	0	0	0	0	0	0	0	0	0	0
23	118	577	286	100	36	13	3	.44	0	0	0	0	0	0	0	0	0	0	0
24	93	314	162	63	21	5	1	.22	0	0	0	0	0	0	0	0	0	0	0

NWFA0107 ADCP WHLR

Harmonic constants for constituent M2 for deployment NWFA0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	668	52	49	44	270	64	24	141	246	A
02	643	35	52	46	303	49	31	115	286	A
03	618	40	75	38	316	47	28	138	282	A
04	593	40	101	25	319	46	14	151	290	A
05	568	44	127	14	304	46	1	162	306	C
06	543	53	154	11	271	53	10	174	333	C
07	518	65	180	15	236	65	13	8	182	C
08	493	62	203	30	195	68	4	25	202	A
09	468	70	228	59	185	86	33	39	211	A
10	443	80	241	82	183	100	56	46	211	A
11	418	79	247	100	185	111	63	58	204	A
12	393	79	248	105	186	115	64	61	203	A
13	368	77	250	102	187	111	63	61	205	A
14	343	74	257	102	191	109	63	64	207	A
15	318	69	263	101	193	106	63	70	205	A
16	293	69	269	104	195	106	65	73	205	A
17	268	69	274	106	194	107	67	79	201	A
18	243	67	280	107	197	107	67	83	201	A
19	218	67	287	109	200	109	67	88	201	A
20	193	70	289	109	201	109	70	88	203	A
21	168	73	291	112	204	112	73	87	205	A
22	143	80	293	114	205	114	80	88	206	A
23	118	83	295	112	208	112	83	85	212	A
24	93	79	293	113	214	115	76	76	224	A

Harmonic constants for constituent S2 for deployment NWFA0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	668	13	118	13	331	18	5	134	315	A
02	643	8	88	9	12	10	7	64	32	A
03	618	14	81	4	41	14	3	14	79	A
04	593	16	81	5	105	16	2	16	83	C
05	568	14	130	4	151	15	1	14	131	C
06	543	19	193	6	144	19	4	12	191	A
07	518	18	216	4	29	18	1	166	36	C
08	493	10	256	5	175	10	5	6	254	A
09	468	11	316	18	244	19	10	74	253	A
10	443	27	341	29	235	31	24	128	205	A
11	418	30	336	33	230	36	26	128	199	A
12	393	30	328	35	232	35	29	106	219	A
13	368	33	322	39	235	39	33	82	242	A
14	343	37	319	44	233	44	37	77	244	A
15	318	35	315	45	235	46	34	73	247	A
16	293	33	309	44	227	44	33	77	236	A
17	268	34	305	43	224	44	33	72	238	A
18	243	37	304	44	221	45	36	73	235	A
19	218	36	303	43	221	44	35	73	234	A
20	193	30	298	41	219	41	29	74	230	A
21	168	29	299	35	218	36	28	71	233	A
22	143	24	293	33	219	34	22	69	233	A
23	118	22	296	27	216	28	21	69	233	A
24	93	21	311	22	203	24	17	130	172	A

NWFA0107 ADCP WHLR

Harmonic constants for constituent N2 for deployment NWFA0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	668	17	50	24	266	28	9	124	255	A
02	643	13	62	19	289	21	8	121	275	A
03	618	17	76	11	326	18	10	160	268	A
04	593	20	100	8	352	21	7	173	283	A
05	568	18	129	1	87	18	1	2	129	A
06	543	19	170	3	148	19	1	9	169	A
07	518	24	208	10	135	24	9	8	205	A
08	493	17	216	14	146	19	12	32	193	A
09	468	14	240	20	165	20	14	71	178	A
10	443	18	234	16	164	20	14	38	206	A
11	418	17	236	13	191	20	8	35	220	A
12	393	13	222	18	201	22	4	55	208	A
13	368	13	252	21	200	23	9	66	210	A
14	343	14	274	28	200	28	13	80	205	A
15	318	18	277	34	202	34	17	79	208	A
16	293	22	270	30	196	31	20	71	208	A
17	268	25	262	31	189	33	23	62	210	A
18	243	26	265	31	186	32	24	67	204	A
19	218	28	261	36	181	37	27	73	194	A
20	193	28	257	35	178	36	27	69	194	A
21	168	29	248	35	171	37	28	66	190	A
22	143	27	242	32	156	33	27	78	166	A
23	118	25	225	35	155	37	22	68	169	A
24	93	30	217	28	125	30	28	171	45	A

Harmonic constants for constituent O1 for deployment NWFA0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	668	8	106	6	338	9	4	145	305	A
02	643	15	305	18	97	23	6	130	109	C
03	618	25	303	20	111	32	3	142	119	C
04	593	26	315	22	115	33	6	140	127	C
05	568	26	329	19	116	31	9	146	138	C
06	543	25	337	20	142	32	4	142	151	C
07	518	21	344	22	158	30	2	133	161	C
08	493	15	0	18	150	23	6	128	162	C
09	468	16	14	12	169	19	4	145	186	C
10	443	12	8	8	198	14	1	145	191	A
11	418	12	14	11	188	17	1	139	191	C
12	393	10	15	11	200	14	1	131	198	A
13	368	7	39	11	200	13	2	122	206	C
14	343	13	32	13	218	18	1	136	215	A
15	318	15	32	11	217	18	1	143	213	A
16	293	16	14	10	212	19	3	150	199	A
17	268	16	19	9	225	18	4	150	206	A
18	243	15	13	9	227	17	4	152	201	A
19	218	12	10	12	221	16	4	136	205	A
20	193	13	19	9	212	16	2	144	203	A
21	168	12	13	8	233	13	4	149	205	A
22	143	8	32	7	248	10	3	139	227	A
23	118	8	28	6	282	9	6	159	222	A
24	93	4	132	4	194	5	3	52	169	C

NWFA0107 ADCP WHLR

Harmonic constants for constituent K1 for deployment NWFA0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	668	19	255	18	64	26	2	137	70	C
02	643	18	226	19	32	26	3	133	38	C
03	618	22	221	16	15	27	6	145	32	C
04	593	20	215	16	23	26	3	142	31	C
05	568	18	209	19	17	26	3	134	23	C
06	543	20	213	23	24	30	3	131	28	C
07	518	19	227	24	24	30	6	127	32	C
08	493	14	241	21	42	25	4	123	48	C
09	468	12	245	19	41	22	4	121	47	C
10	443	11	242	14	40	18	3	127	48	C
11	418	12	244	12	41	17	3	135	53	C
12	393	9	225	13	18	15	3	123	26	C
13	368	10	208	10	29	15	0	135	29	A
14	343	8	204	11	37	14	1	125	33	A
15	318	6	214	12	36	13	0	118	36	A
16	293	5	239	15	40	16	2	109	42	C
17	268	6	283	14	48	14	5	105	53	C
18	243	7	290	11	57	12	5	114	67	C
19	218	6	299	13	47	13	5	100	52	C
20	193	8	298	13	57	14	7	111	67	C
21	168	6	294	9	67	10	4	119	79	C
22	143	8	300	10	82	12	4	124	95	C
23	118	8	305	6	88	9	3	148	114	C
24	93	13	274	1	271	14	0	6	274	A

NWFA0107
MicroCat 0981
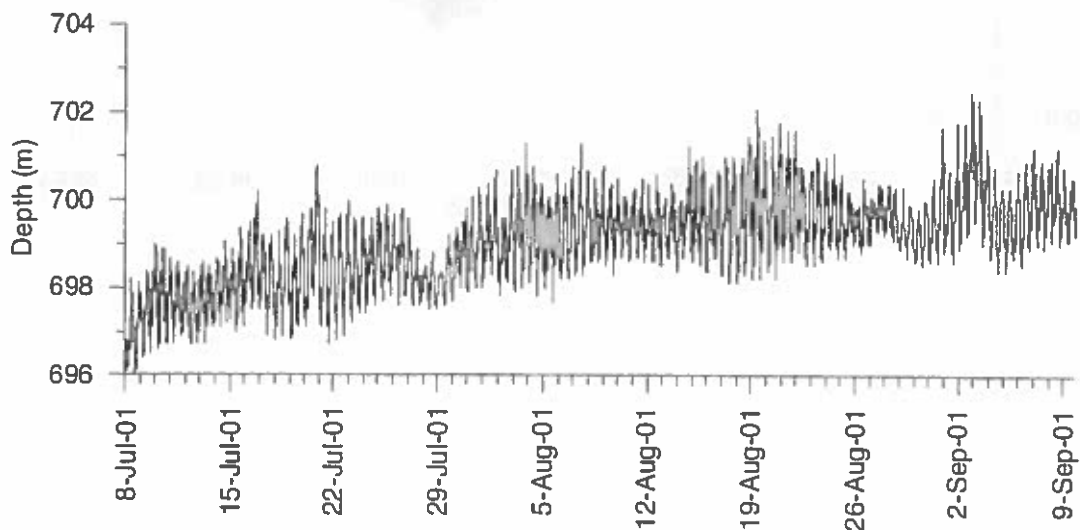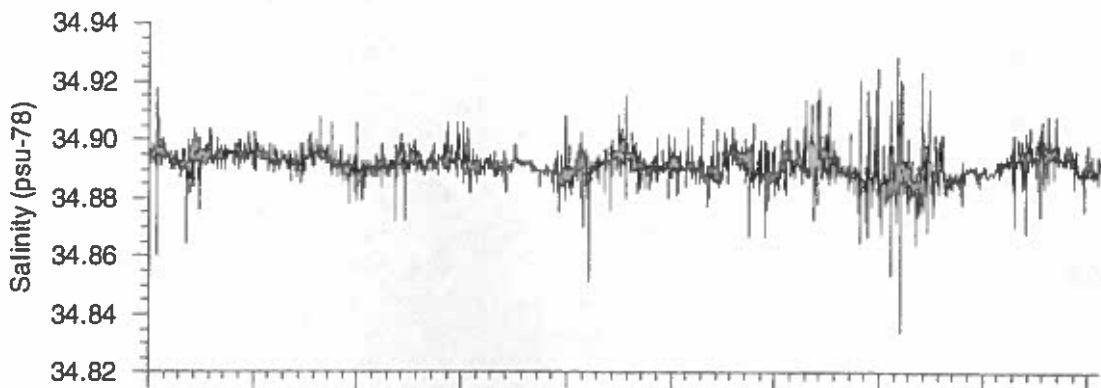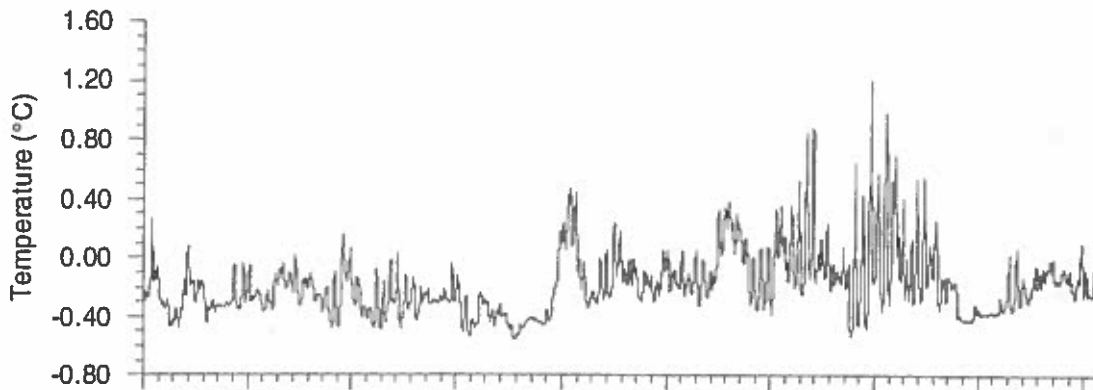
NWFA0107
MicroCat 0981
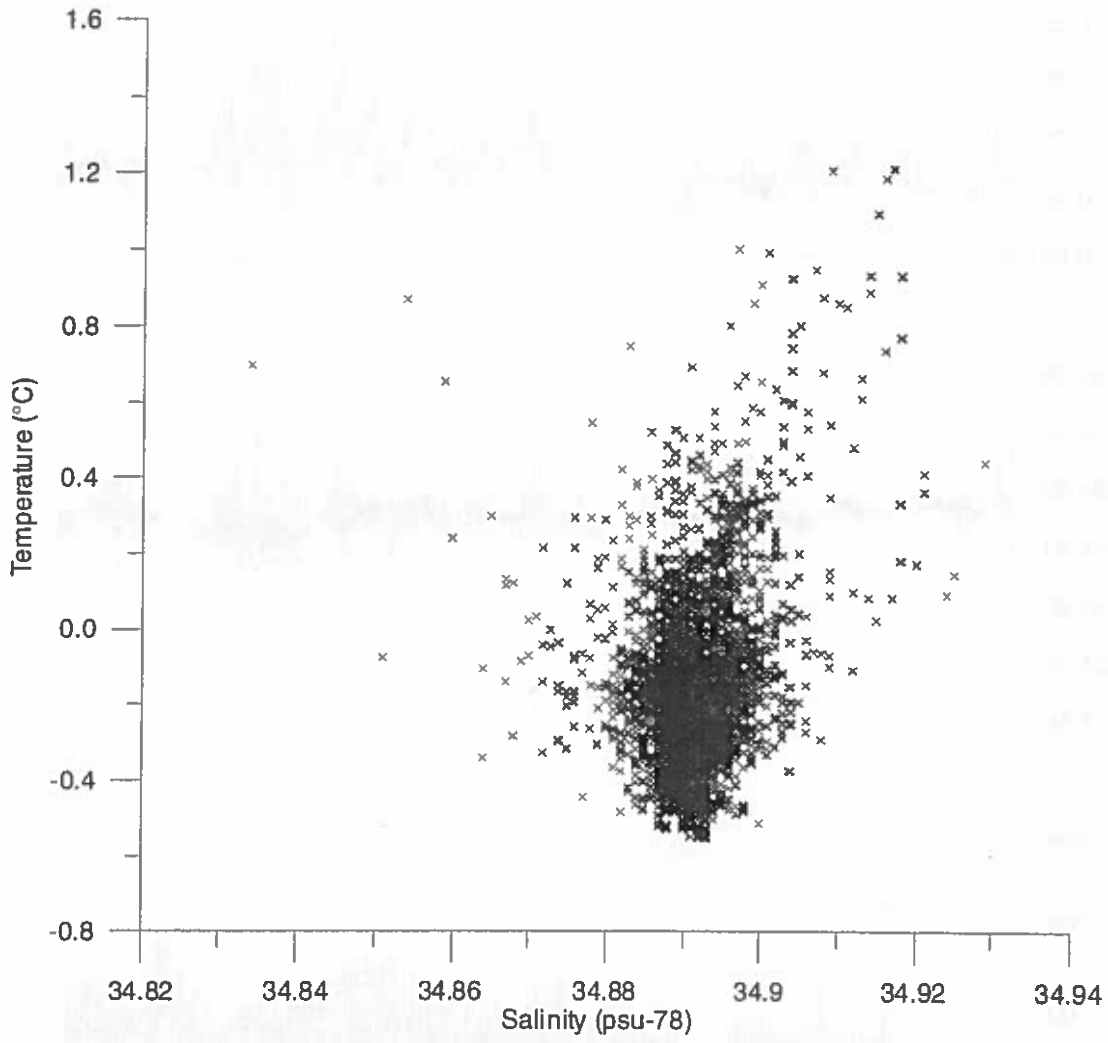
Deployment Id: NWFB0107

Latitude: 61°24.923´N

Longitude: 008°16.965´W

Echo sounding depth: 823m

Bottom depth corr.: 814m

Time of deployment: 08/07 -2001 2115UTC

Time of recovery: 16/06 - 2002 1643UTC

ADCP:

Instrument no.: RDI ADCP 1642

Instrument frequency: 75kHz

Height above bottom: 6m

Depth: 808m (corr.)

Time of first data: 08/07 - 2001   2200UTC

Time of last data: 16/06 - 2002   1620UTC

Sample interval: 20 min

No. of ensembles: 24680

Pings per ens.: 1

Binlength: 25m

Depth of first bin: 772m (corr.)

No. of bins: 28
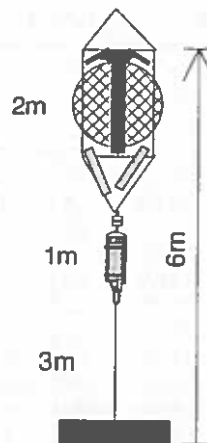
Micro Cat:

Instrument no.: 0982

Height above bottom: 5m

Depth: 809m (corr.)

Time of first data: 08/07 – 2001   2140 UTC

Time of last data: 16/06 – 2002   1640 UTC

Sample interval: 20 min

No. of records: 24682

NWFB0107 ADCP 1642

Error statistics for deployment: NWFB0107 updated 2002/11/12
_____

Surface distance invalid due to range limitation
Heading, pitch and roll not edited
Temperature edited by MCN in Nov 2002
Velocity edited up to and including bin 25 by MCN in August 2002
Intensity edited up to and including bin 28 by MCN in Nov 2002

Total number of ensembles: 24680
Interval between ensembles: 20 min
Original number of bins: 28
Number of acceptable velocity bins: 25
Number of acceptable intensity bins: 25

Flagged values have been replaced by error codes: -999.99 for temperature, -999
for velocity and intensity. For observations where velocity is flagged, error
codes have been inserted into speed, direction and vertical velocity files

Number of temperature ens. flagged: 0

Below are for each bin listed ensembles flagged for intensity in number and for
velocity in number and % of total ens.number. For velocity is also shown the
num-
ber of gaps of various lengths (gap length = number of consecutive flagged ens.)

Bin	Int. ens. flgd	Velocity ens. flgd	% flgd	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	0	5149	21	2685	564	194	87	29	37	1	0	0	0
2	0	3530	14	2316	382	82	32	11	3	0	0	0	0
3	0	3391	14	2353	334	90	17	4	2	0	0	0	0
4	2	3131	13	2080	338	80	16	10	3	0	0	0	0
5	1	3306	13	2138	363	91	23	4	9	0	0	0	0
6	1	2978	12	1897	308	84	28	11	6	0	0	0	0
7	0	2719	11	1725	264	73	27	13	9	1	0	0	0
8	0	3101	13	1884	309	84	37	10	18	2	0	0	0
9	0	3773	15	1957	410	139	67	26	22	2	0	0	0
10	0	4614	19	1960	459	189	79	47	68	9	1	0	0
11	0	3960	16	1813	355	129	71	40	58	8	1	0	0
12	0	2627	11	1473	240	79	36	18	14	7	0	0	0
13	0	2301	9	1388	215	59	23	12	10	3	2	0	0
14	0	2191	9	1338	202	53	16	15	11	4	1	0	0
15	0	2350	10	1288	216	52	35	19	23	6	0	0	0
16	0	3032	12	1422	254	101	37	24	31	14	2	1	0
17	0	5359	22	1629	332	145	79	40	86	46	19	8	1
18	0	7507	30	1559	431	166	92	38	114	80	22	26	7
19	0	11283	46	1286	392	155	65	53	97	62	45	41	34
20	0	14682	59	1015	285	120	77	49	96	78	31	45	60
21	0	16116	65	844	255	100	55	32	69	67	36	30	65
22	0	15915	64	902	219	104	68	34	64	61	34	20	55
23	0	16269	66	764	211	99	45	32	66	48	30	19	61
24	0	16395	66	726	213	98	47	30	69	35	22	17	63
25	0	17558	71	725	211	113	80	18	70	58	16	16	59

NWFB0107 ADCP 1642

```
Deployment: NWFB0107 updated 2002/11/12
Instrument no.:  1642
Instrument freq.:  75
Latitude: 61 24.923 N
Longitude:08 16.965 W
Bottom depth:  814
Instrument depth:  808
Center depth of first bin:  772
Bin length:  25
Number of bins:  25
Number of first ensemble:    385
Time of first ensemble: 2001 07 08 22 00
Number of last ensemble:   25064
Time of last ensemble:  2002 06 16 16 20
Time between ensembles (min.):    20
All directions have been corrected by adding: -12.0
```

Below is listed for each bin the average speed (scalar average) and
the average velocity magnitude and direction formed as a vectorial
average of non-flagged (Good) observations. The last column shows the
number of good values used in parts per thousand

Bin no.	Depth m	Height m	Speed mm/s	Vel mm/s	Dir deg	Good ppt
1	772	42	954	950	300	791
2	747	67	1013	1009	302	857
3	722	92	1035	1032	304	863
4	697	117	1040	1037	306	873
5	672	142	1035	1032	306	866
6	647	167	1015	1011	307	879
7	622	192	961	956	308	890
8	597	217	849	838	311	874
9	572	242	678	656	313	847
10	547	267	495	449	316	813
11	522	292	354	280	318	840
12	497	317	274	171	320	894
13	472	342	232	110	321	907
14	447	367	209	79	322	911
15	422	392	197	66	320	905
16	397	417	191	68	315	877
17	372	442	191	82	310	783
18	347	467	198	106	306	696
19	322	492	213	146	305	543
20	297	517	227	177	303	405
21	272	542	238	203	301	347
22	247	567	240	216	299	355
23	222	592	240	221	298	341
24	197	617	238	222	298	336
25	172	642	231	215	297	289

NWFB0107 ADCP 1642

Deployment: NWFB0107

Frequency of high speeds.
==========================

Frequency (in parts per thousand) of speeds equal to or exceeding specified vales.

Bin no.	Depth m	Speed (cm/s) 10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	772	791	791	791	791	791	788	767	694	545	296	91	17	2	.24	.04	0	0	0
2	747	857	857	857	857	857	855	847	801	699	492	216	51	8	1	.08	.04	0	0
3	722	863	863	863	863	863	862	853	818	730	555	279	77	13	2	.24	.04	0	0
4	697	873	873	873	873	873	872	864	827	742	575	298	85	14	3	.20	0	0	0
5	672	866	866	866	866	866	864	853	814	728	562	285	78	13	2	.41	0	0	0
6	647	879	879	879	879	876	871	854	804	710	523	252	66	12	2	.32	0	0	0
7	622	890	889	886	882	874	859	822	740	613	409	187	49	9	2	.12	0	0	0
8	597	873	865	852	830	801	756	673	553	407	240	102	28	5	1	0	0	0	0
9	572	836	804	755	690	615	523	423	312	205	108	40	10	2	.24	0	0	0	0
10	547	780	697	580	465	363	281	201	130	74	34	11	3	1	0	0	0	0	0
11	522	772	609	429	287	192	124	73	41	20	9	4	1	0	0	0	0	0	0
12	497	787	549	321	170	87	46	23	12	5	1	.36	.16	0	0	0	0	0	0
13	472	767	478	236	98	41	17	7	3	1	.24	.04	0	0	0	0	0	0	0
14	447	741	426	187	65	21	7	3	1	.16	0	0	0	0	0	0	0	0	0
15	422	715	392	158	48	12	3	1	.08	.04	0	0	0	0	0	0	0	0	0
16	397	685	366	140	37	7	2	.04	0	0	0	0	0	0	0	0	0	0	0
17	372	613	329	128	30	4	1	0	0	0	0	0	0	0	0	0	0	0	0
18	347	565	314	125	28	3	.45	0	0	0	0	0	0	0	0	0	0	0	0
19	322	465	283	115	23	2	.32	0	0	0	0	0	0	0	0	0	0	0	0
20	297	367	239	94	16	2	.20	0	0	0	0	0	0	0	0	0	0	0	0
21	272	326	225	87	15	1	.08	0	0	0	0	0	0	0	0	0	0	0	0
22	247	337	234	86	16	1	.04	0	0	0	0	0	0	0	0	0	0	0	0
23	222	325	224	84	14	1	.04	0	0	0	0	0	0	0	0	0	0	0	0
24	197	319	219	84	13	.49	0	0	0	0	0	0	0	0	0	0	0	0	0
25	172	272	180	62	9	.45	0	0	0	0	0	0	0	0	0	0	0	0	0

NWFB0107 ADCP 1642

Harmonic constants for constituent M2 for deployment NWFB0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	772	31	66	23	349	31	22	19	53	A
02	747	35	70	23	349	35	22	9	64	A
03	722	34	76	19	349	34	19	2	74	A
04	697	32	80	17	346	32	17	177	262	A
05	672	29	84	15	333	30	13	167	270	A
06	647	22	96	15	291	27	3	146	281	A
07	622	22	136	19	258	25	14	142	293	C
08	597	33	167	21	243	34	20	14	175	C
09	572	46	195	26	219	52	10	28	200	C
10	547	57	222	45	190	70	19	37	210	A
11	522	68	245	73	177	82	56	50	206	A
12	497	75	255	89	173	91	73	70	189	A
13	472	76	260	96	173	96	75	84	178	A
14	447	70	264	97	175	97	70	88	176	A
15	422	65	268	95	179	95	65	89	180	A
16	397	60	274	92	182	92	60	92	181	A
17	372	57	279	89	185	89	57	94	182	A
18	347	52	282	78	188	78	52	95	184	A
19	322	43	283	68	189	68	43	94	187	A
20	297	36	283	53	192	53	36	91	191	A
21	272	24	277	39	198	39	23	79	204	A
22	247	19	286	33	208	34	18	81	213	A
23	222	16	295	28	217	28	15	80	223	A
24	197	12	297	27	226	27	11	80	230	A
25	172	10	299	28	235	29	9	80	239	A

Harmonic constants for constituent S2 for deployment NWFB0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	772	13	111	8	30	13	7	8	106	A
02	747	12	109	7	36	13	7	14	101	A
03	722	13	108	7	36	13	6	13	102	A
04	697	11	106	5	17	11	5	1	106	A
05	672	7	108	4	355	8	4	165	295	A
06	647	5	123	4	323	6	1	143	310	A
07	622	4	198	6	320	6	3	116	333	C
08	597	11	251	8	279	13	3	35	260	C
09	572	20	264	11	248	22	3	29	260	A
10	547	25	281	20	227	29	14	34	263	A
11	522	29	304	31	220	32	28	63	244	A
12	497	30	306	35	220	35	30	78	230	A
13	472	30	305	37	222	37	29	75	233	A
14	447	28	300	36	223	37	26	71	237	A
15	422	27	292	35	223	37	23	64	240	A
16	397	24	291	34	223	36	21	67	237	A
17	372	22	287	31	225	34	18	64	240	A
18	347	19	286	29	222	31	17	67	235	A
19	322	16	286	26	222	28	14	69	233	A
20	297	14	285	22	229	23	11	64	242	A
21	272	13	281	19	225	21	10	62	239	A
22	247	12	273	14	213	16	9	54	235	A
23	222	11	259	11	212	15	6	44	236	A
24	197	9	256	8	237	12	2	43	247	A
25	172	6	273	8	242	10	3	56	252	A

NWFB0107 ADCP 1642

Harmonic constants for constituent N2 for deployment NWFB0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	772	6	16	5	235	8	3	139	213	A
02	747	7	18	6	254	8	4	143	219	A
03	722	8	23	5	253	8	3	153	215	A
04	697	7	38	5	282	8	4	158	230	A
05	672	10	43	6	295	10	6	164	232	A
06	647	9	52	5	290	9	4	159	241	A
07	622	10	98	2	268	11	0	167	278	C
08	597	14	123	3	324	14	1	171	304	A
09	572	12	117	3	193	12	3	4	118	C
10	547	9	133	8	190	11	6	36	154	C
11	522	4	143	7	213	7	4	74	204	C
12	497	3	218	5	159	6	2	71	167	A
13	472	6	262	8	162	8	6	104	153	A
14	447	10	269	14	171	14	10	101	163	A
15	422	11	269	16	170	16	11	102	162	A
16	397	10	278	18	173	18	10	102	166	A
17	372	10	276	19	176	19	9	97	172	A
18	347	9	262	19	172	19	9	90	172	A
19	322	10	263	18	175	18	10	89	175	A
20	297	11	245	12	180	14	9	55	203	A
21	272	7	251	11	170	11	7	82	175	A
22	247	7	231	7	152	7	6	37	200	A
23	222	5	230	8	174	9	4	62	188	A
24	197	9	224	11	167	12	6	57	186	A
25	172	9	250	13	165	13	8	84	169	A

Harmonic constants for constituent O1 for deployment NWFB0107.

| Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	772	22	327	9	134	24	2	157	145	C
02	747	23	325	11	132	25	2	155	143	C
03	722	23	326	12	139	26	1	152	144	C
04	697	24	325	13	141	27	1	151	144	C
05	672	24	330	13	139	27	2	151	148	C
06	647	26	337	14	140	29	4	153	153	C
07	622	31	344	18	148	35	5	150	160	C
08	597	35	348	23	158	42	3	147	165	C
09	572	40	352	30	167	50	2	143	170	C
10	547	35	359	31	175	46	2	138	177	C
11	522	26	7	26	171	36	5	134	179	C
12	497	19	13	18	175	26	4	137	185	C
13	472	18	12	17	183	25	2	137	188	C
14	447	17	12	16	190	23	0	135	191	C
15	422	15	14	15	194	21	0	133	194	A
16	397	13	21	13	201	19	0	135	201	C
17	372	11	25	12	202	16	0	135	203	C
18	347	9	2	7	186	11	0	140	184	A
19	322	6	330	10	185	11	3	121	176	A
20	297	10	280	7	164	11	6	159	111	A
21	272	10	296	9	146	13	3	138	129	A
22	247	4	301	5	131	6	1	132	127	A
23	222	3	33	5	192	6	1	126	199	C
24	197	6	40	2	222	7	0	163	220	A
25	172	7	34	3	205	7	0	159	213	C

NWFB0107 ADCP 1642

Harmonic constants for constituent K1 for deployment NWFB0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	772	21	218	9	23	22	2	158	36	C
02	747	23	219	10	37	25	0	157	39	C
03	722	23	218	11	40	25	0	155	39	A
04	697	23	223	12	39	26	1	152	42	C
05	672	24	227	12	40	27	1	153	46	C
06	647	25	234	13	44	28	2	153	52	C
07	622	29	240	14	51	32	2	154	59	C
08	597	37	241	19	62	41	0	153	61	A
09	572	39	243	30	64	49	0	143	63	A
10	547	32	247	34	65	46	1	133	66	C
11	522	20	249	25	73	32	1	129	72	A
12	497	14	259	21	63	25	3	123	68	C
13	472	11	273	19	73	22	3	120	78	C
14	447	10	295	17	80	19	5	117	88	C
15	422	6	324	15	76	15	6	100	80	C
16	397	7	17	11	68	12	5	64	57	C
17	372	9	71	6	52	11	2	32	66	A
18	347	16	88	5	354	16	5	179	268	A
19	322	16	71	4	344	16	4	1	70	A
20	297	12	85	5	338	12	5	171	269	A
21	272	15	95	9	336	16	7	161	284	A
22	247	9	116	10	356	12	7	129	331	A
23	222	7	111	6	349	8	4	144	313	A
24	197	5	100	5	332	6	3	137	305	A
25	172	8	116	7	326	10	3	143	307	A

NWFB0107
MicroCat 0982
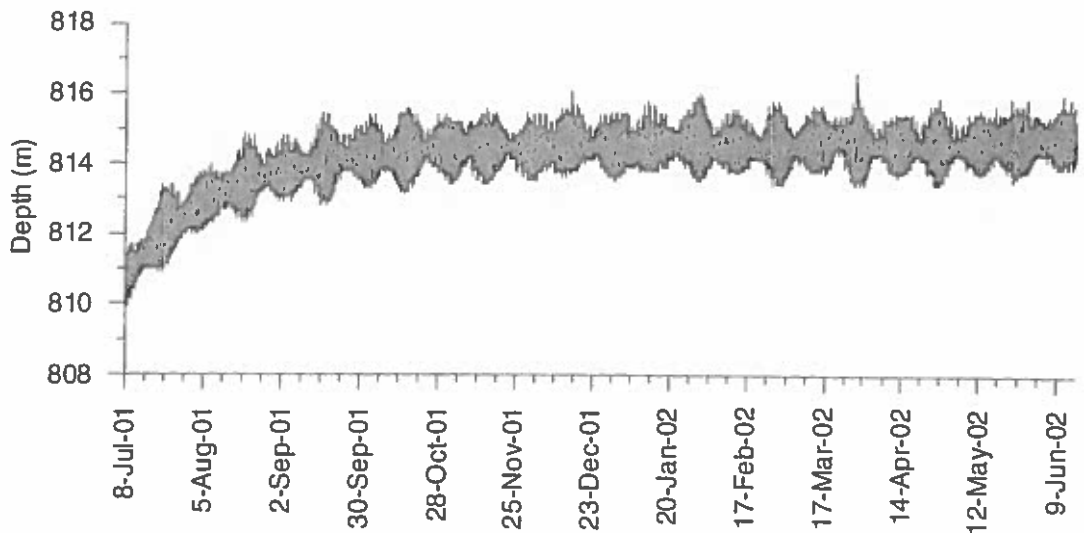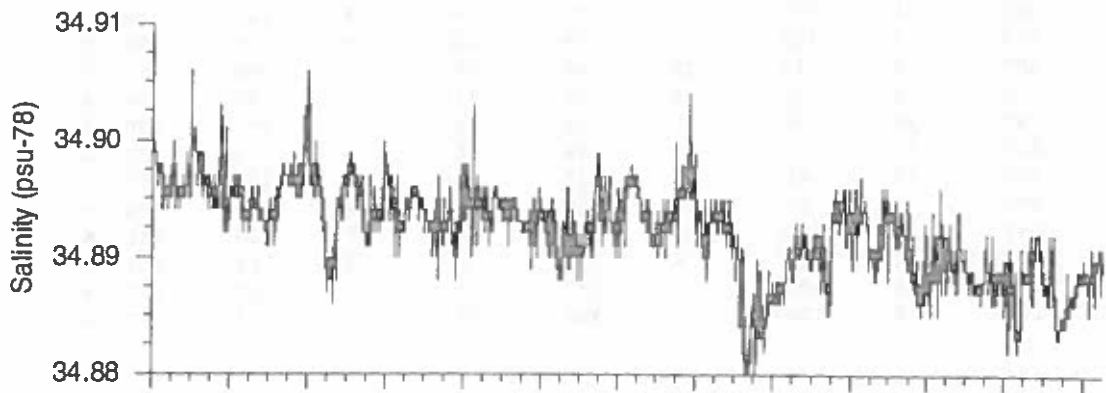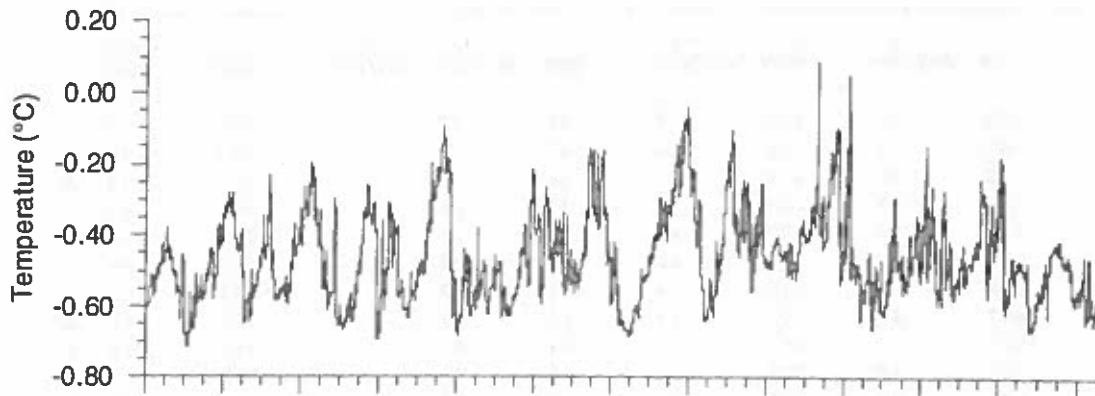
NWFB0107
MicroCat 0982
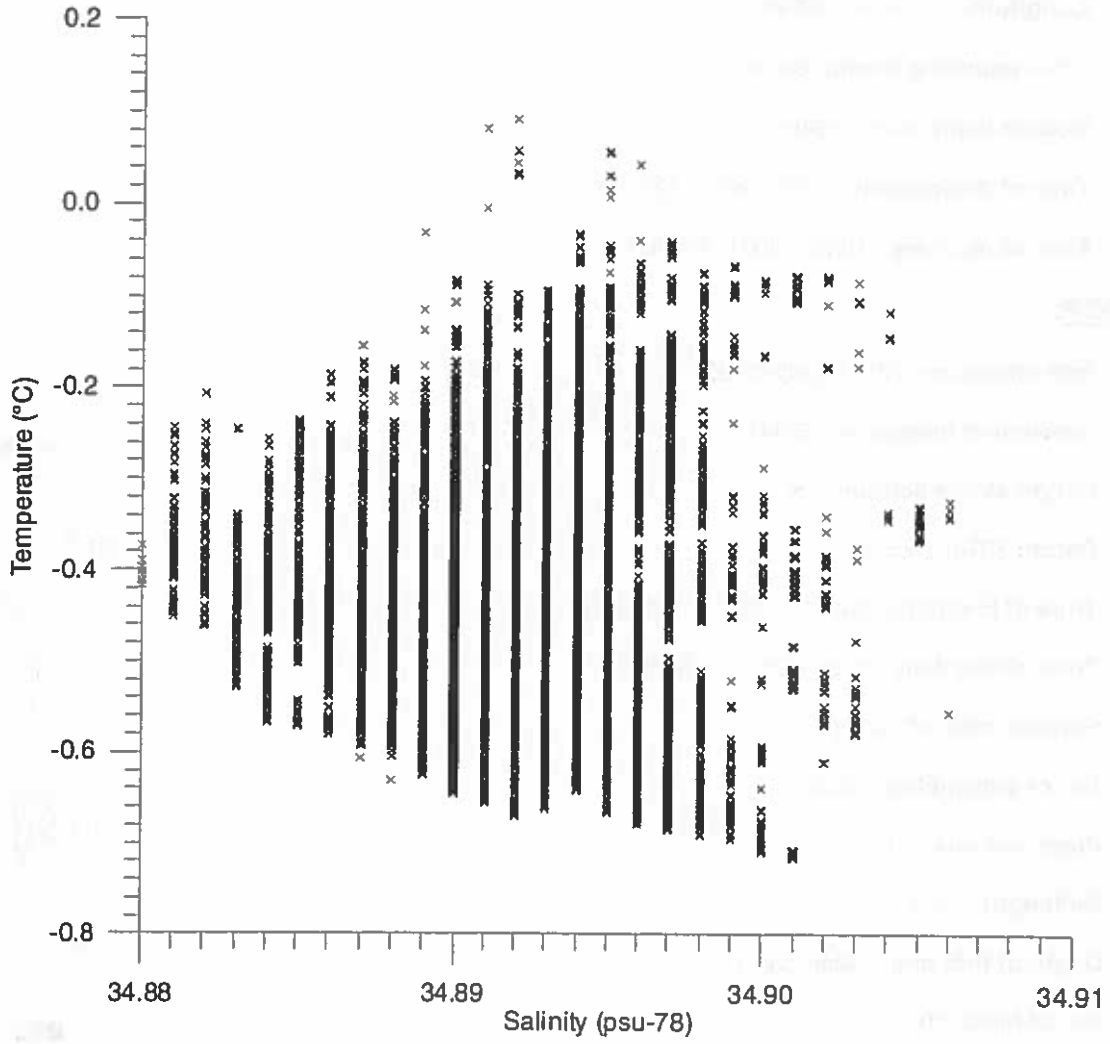
Deployment Id: NWFC0107

Latitude: 61°23.698´N

Longitude: 008°19.187´W

Echo sounding depth: 843m

Bottom depth corr.: 834m

Time of deployment: 09/07 -2001 2230UTC

Time of recovery: 10/09 - 2001 1645UTC

ADCP:

Instrument no.: RDI NBADCP 603

Instrument frequency: 150kHz

Height above bottom: 7m

Depth: 827m (corr.)

Time of first data: 09/07 - 2001   2250UTC

Time of last data: 10/09 - 2001   1640UTC

Sample interval: 10 min

No. of ensembles: 9036

Pings per ens.: 1

Binlength: 16m

Depth of first bin: 798m (corr.)

No. of bins: 20
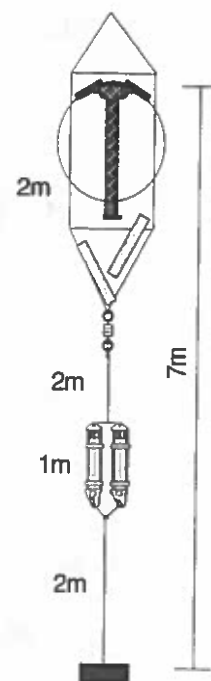
Micro Cat:

Instrument no.: 0980

Height above bottom: 6m

Depth: 828m (corr.)

Time of first data: 09/07 – 2001   2300 UTC

Time of last data: 10/09 – 2002   1640 UTC

Sample interval: 20 min

No. of records: 4518

NWFC0107 ADCP 603

Error statistics for deployment: NWFC0107 updated 2002/11/12

Surface distance invalid due to range limitation
Heading, pitch and roll not edited
Temperature edited by KMHL in Jan 2002
Velocity edited up to and including bin 20 by GEJ in Dec 2001
Intensity is not existing in ASCII format

Total number of ensembles: 9036
Interval between ensembles: 10 min
Original number of bins: 20
Number of acceptable velocity bins: 20
Number of acceptable intensity bins: 0

Flagged values have been replaced by error codes: -999.99 for temperature, -999
for velocity and intensity. For observations where velocity is flagged, error
codes have been inserted into speed, direction and vertical velocity files

Number of temperature ens. flagged: 7

Below are for each bin listed ensembles flagged for intensity in number and for
velocity in number and % of total ens.number. For velocity is also shown the num-
ber of gaps of various lengths (gap length = number of consecutive flagged ens.)

Bin	Int. ens. flgd	Velocity ens. flgd	% flgd	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1		160	2	150	5	0	0	0	0	0	0	0	0
2		137	2	125	6	0	0	0	0	0	0	0	0
3		180	2	162	9	0	0	0	0	0	0	0	0
4		230	3	222	4	0	0	0	0	0	0	0	0
5		200	2	177	10	1	0	0	0	0	0	0	0
6		280	3	252	10	1	0	1	0	0	0	0	0
7		399	4	336	15	9	0	0	1	0	0	0	0
8		499	6	385	38	10	2	0	0	0	0	0	0
9		456	5	366	30	6	3	0	0	0	0	0	0
10		323	4	274	18	3	1	0	0	0	0	0	0
11		286	3	229	15	9	0	0	0	0	0	0	0
12		357	4	284	32	3	0	0	0	0	0	0	0
13		369	4	304	23	5	1	0	0	0	0	0	0
14		353	4	292	26	3	0	0	0	0	0	0	0
15		313	3	273	14	2	0	0	1	0	0	0	0
16		314	3	291	10	1	0	0	0	0	0	0	0
17		386	4	319	26	5	0	0	0	0	0	0	0
18		428	5	351	31	5	0	0	0	0	0	0	0
19		689	8	528	53	10	2	2	1	0	0	0	0
20		3465	38	1106	390	169	92	54	49	7	0	0	0

NWFC0107 ADCP 603

Deployment: NWFC0107 updated 2002/11/12
Instrument no.:   603
Instrument freq.: 150
Latitude: 61 23.698 N
Longitude:08 19.187 W
Bottom depth: 834
Instrument depth: 827
Center depth of first bin: 798
Bin length: 16
Number of bins: 20
Number of first ensemble: 54
Time of first ensemble: 2001 07 09 22 50
Number of last ensemble: 9089
Time of last ensemble: 2001 09 10 16 40
Time between ensembles (min.):   10
All directions have been corrected by adding: -12.0

Below is listed for each bin the average speed (scalar average) and
the average velocity magnitude and direction formed as a vectorial
average of non-flagged (Good) observations. The last column shows the
number of good values used in parts per thousand

Bin no.	Depth m	Height m	Speed mm/s	Vel mm/s	Dir deg	Good ppt
1	798	36	1125	1096	288	982
2	782	52	1174	1146	290	985
3	766	68	1197	1169	291	980
4	750	84	1201	1175	293	975
5	734	100	1203	1176	294	978
6	718	116	1197	1171	294	969
7	702	132	1181	1154	295	956
8	686	148	1140	1112	295	945
9	670	164	1047	1017	296	950
10	654	180	888	851	298	964
11	638	196	716	659	300	968
12	622	212	553	456	303	960
13	606	228	446	285	307	959
14	590	244	382	157	313	961
15	574	260	349	83	324	965
16	558	276	325	44	352	965
17	542	292	311	28	31	957
18	526	308	300	36	71	953
19	510	324	296	47	83	924
20	494	340	302	57	79	617

NWFC0107 ADCP 603

Deployment: NWFC0107

Frequency of high speeds.
============================

Frequency (in parts per thousand) of speeds equal to or exceeding specified vales.

Bin no.	Depth m	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
											Speed (cm/s)								
1	798	982	982	982	982	982	980	973	949	874	737	549	336	166	62	17	5	.22	.11
2	782	985	985	985	985	985	984	981	965	924	829	661	440	235	96	31	6	1	.22
3	766	980	980	980	980	980	980	977	967	932	854	705	493	273	115	38	10	1	.11
4	750	975	975	975	974	974	974	971	963	931	857	709	498	276	122	42	9	2	.11
5	734	978	978	978	978	978	977	974	964	936	860	713	506	280	125	42	13	2	.44
6	718	969	969	969	969	968	967	963	954	924	852	702	490	271	110	34	9	2	.11
7	702	956	956	956	955	954	952	948	936	903	818	656	441	240	98	35	10	3	1
8	686	945	944	944	943	940	936	929	909	851	737	565	365	188	80	23	6	1	.22
9	670	949	948	946	942	934	920	890	827	723	576	400	239	118	44	13	3	1	.33
10	654	963	959	944	919	878	808	713	613	493	356	234	125	54	19	5	1	.44	0
11	638	958	932	870	791	692	592	496	394	298	209	126	61	22	7	2	1	.22	.11
12	622	931	843	719	595	481	386	307	234	165	101	49	18	6	2	.33	0	0	0
13	606	907	775	618	469	341	253	183	122	74	36	14	5	1	.22	.11	.11	.11	.11
14	590	908	757	564	372	237	149	91	56	33	15	7	2	1	0	0	0	0	0
15	574	907	750	530	325	177	94	51	29	16	8	3	1	1	.11	0	0	0	0
16	558	901	723	493	279	140	67	32	15	7	3	1	.11	0	0	0	0	0	0
17	542	889	705	465	250	113	48	19	7	3	1	1	.11	0	0	0	0	0	0
18	526	881	691	447	234	97	30	8	2	.44	.11	0	0	0	0	0	0	0	0
19	510	856	665	429	213	84	23	5	.44	.11	0	0	0	0	0	0	0	0	0
20	494	567	447	293	157	65	22	5	1	0	0	0	0	0	0	0	0	0	0

NWFC0107 ADCP 603

Harmonic constants for constituent M2 for deployment NWFC0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	798	21	100	13	342	22	11	158	291	A
02	782	25	102	13	345	25	11	163	290	A
03	766	23	97	10	343	24	9	169	281	A
04	750	21	100	10	318	23	6	157	286	A
05	734	20	95	14	307	24	6	146	285	A
06	718	16	99	14	314	20	6	142	293	A
07	702	24	113	17	315	29	6	144	300	A
08	686	32	131	16	328	35	4	153	314	A
09	670	55	139	23	329	60	4	157	321	A
10	654	73	140	34	338	79	10	156	323	A
11	638	76	143	30	334	81	5	159	324	A
12	622	68	151	18	322	70	3	165	331	C
13	606	44	164	15	189	46	6	17	167	C
14	590	38	204	31	172	47	13	38	192	A
15	574	39	230	49	170	55	30	56	190	A
16	558	47	257	60	170	60	47	83	175	A
17	542	53	266	64	168	65	51	110	152	A
18	526	56	269	69	173	70	55	104	162	A
19	510	60	271	72	177	72	60	102	167	A
20	494	62	273	81	177	82	61	100	170	A

Harmonic constants for constituent S2 for deployment NWFC0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	798	4	120	11	359	11	3	102	355	A
02	782	5	115	9	358	9	4	107	351	A
03	766	6	86	8	3	8	6	76	14	A
04	750	6	63	11	12	12	5	66	22	A
05	734	2	39	12	346	12	2	84	347	A
06	718	3	56	6	328	6	3	88	330	A
07	702	1	326	4	347	4	0	84	347	C
08	686	2	126	9	26	9	2	93	25	A
09	670	9	194	14	50	16	5	119	41	A
10	654	20	189	22	49	28	10	132	31	A
11	638	31	191	22	50	36	12	147	23	A
12	622	27	202	19	46	32	6	147	30	A
13	606	12	219	5	352	13	3	165	35	C
14	590	10	293	17	258	19	5	62	266	A
15	574	21	319	30	246	31	20	70	259	A
16	558	25	313	35	240	36	23	70	253	A
17	542	28	312	32	246	36	23	54	271	A
18	526	28	313	32	236	33	26	61	259	A
19	510	27	313	29	233	31	25	59	260	A
20	494	26	322	29	223	30	25	119	199	A

NWFC0107 ADCP 603

Harmonic constants for constituent N2 for deployment NWFC0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	798	7	75	1	37	7	1	8	74	A
02	782	14	55	3	187	14	2	171	234	C
03	766	11	49	4	182	11	3	165	225	C
04	750	12	59	3	173	12	2	175	238	C
05	734	11	59	2	246	11	0	168	239	A
06	718	10	59	2	65	10	0	13	59	C
07	702	6	81	4	112	7	2	33	90	C
08	686	12	151	5	109	13	3	19	146	A
09	670	19	145	8	69	19	8	7	142	A
10	654	17	162	6	76	17	6	2	161	A
11	638	17	191	12	111	17	11	12	183	A
12	622	13	205	12	164	16	6	42	187	A
13	606	9	255	22	189	22	8	79	193	A
14	590	5	332	25	191	25	3	99	190	A
15	574	9	324	26	188	27	6	105	184	A
16	558	10	294	21	179	22	9	103	174	A
17	542	12	266	23	173	23	12	92	172	A
18	526	18	259	22	167	22	18	97	161	A
19	510	17	253	27	168	27	17	85	172	A
20	494	17	252	20	176	21	16	64	196	A

Harmonic constants for constituent O1 for deployment NWFC0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	798	13	330	10	88	14	8	153	134	C
02	782	17	324	10	83	18	8	160	135	C
03	766	17	324	12	92	19	9	149	129	C
04	750	16	321	10	89	17	7	155	130	C
05	734	17	320	9	98	18	6	155	132	C
06	718	18	326	11	121	21	4	149	139	C
07	702	16	330	13	119	20	5	142	138	C
08	686	20	359	14	135	23	9	147	165	C
09	670	26	358	13	158	29	4	154	174	C
10	654	36	7	22	152	41	11	150	178	C
11	638	47	2	20	146	50	11	159	177	C
12	622	49	356	25	157	54	7	154	172	C
13	606	44	355	28	157	51	7	148	170	C
14	590	36	357	23	152	42	8	149	170	C
15	574	29	357	24	147	36	10	141	165	C
16	558	26	352	20	147	32	7	144	163	C
17	542	24	355	19	152	30	6	142	166	C
18	526	22	356	16	152	27	5	145	168	C
19	510	14	1	13	152	18	5	137	167	C
20	494	19	355	10	136	21	6	155	167	C

NWFC0107 ADCP 603

Harmonic constants for constituent K1 for deployment NWFC0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	798	20	233	5	99	21	3	171	54	A
02	782	19	219	2	162	19	2	3	218	A
03	766	19	223	2	311	19	2	0	223	C
04	750	21	217	3	353	21	2	175	36	C
05	734	22	218	5	30	23	1	167	38	C
06	718	21	214	9	38	23	1	158	35	A
07	702	24	213	7	20	25	1	164	32	C
08	686	30	224	6	51	31	1	168	44	A
09	670	38	233	12	26	40	5	164	51	C
10	654	46	228	12	49	47	0	165	48	A
11	638	42	232	14	46	44	1	162	51	C
12	622	44	228	18	49	48	0	158	48	A
13	606	34	241	21	57	41	1	148	60	C
14	590	32	252	15	65	36	2	155	71	C
15	574	25	258	18	86	31	2	145	81	A
16	558	25	266	15	84	29	0	149	86	C
17	542	21	255	11	82	24	1	153	77	A
18	526	22	255	8	60	24	2	161	73	C
19	510	24	253	9	76	25	0	159	73	A
20	494	19	246	11	72	22	1	149	68	A

NWFC0107
MicroCat 0980
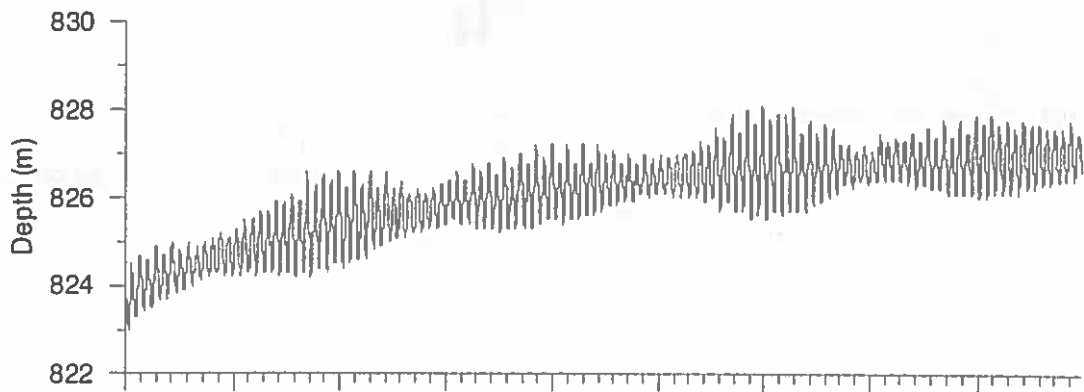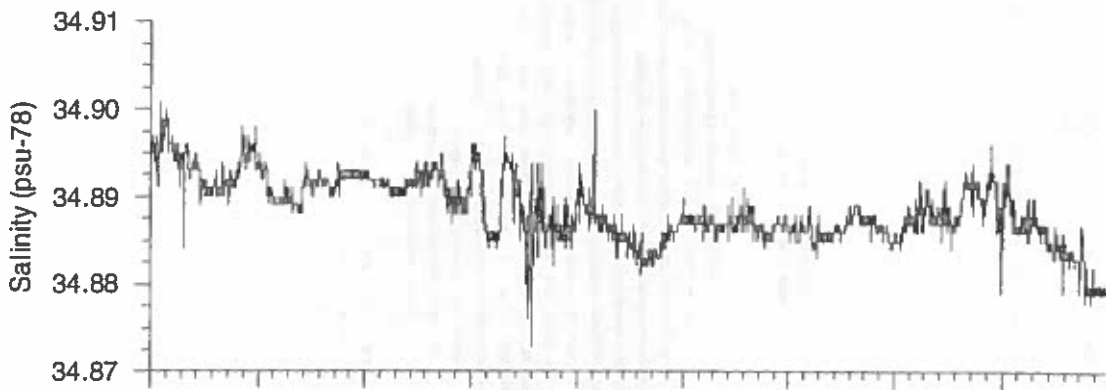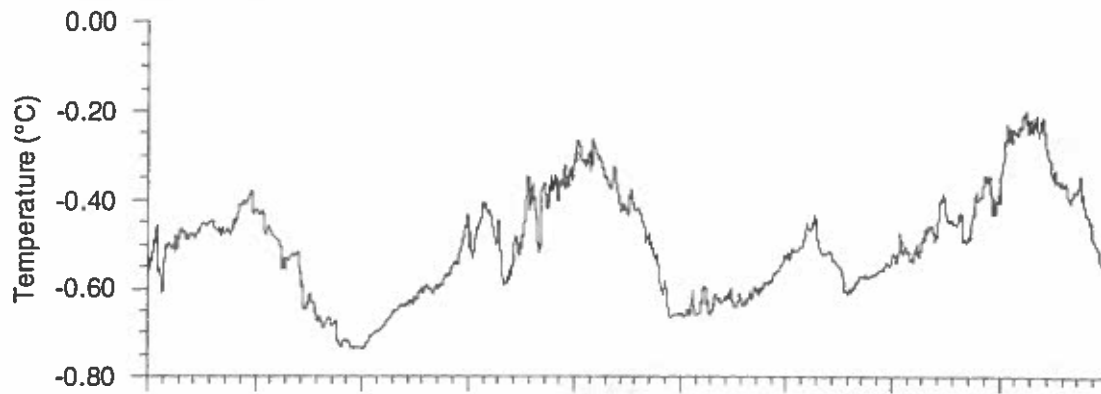
NWFC0107
MicroCat 0980
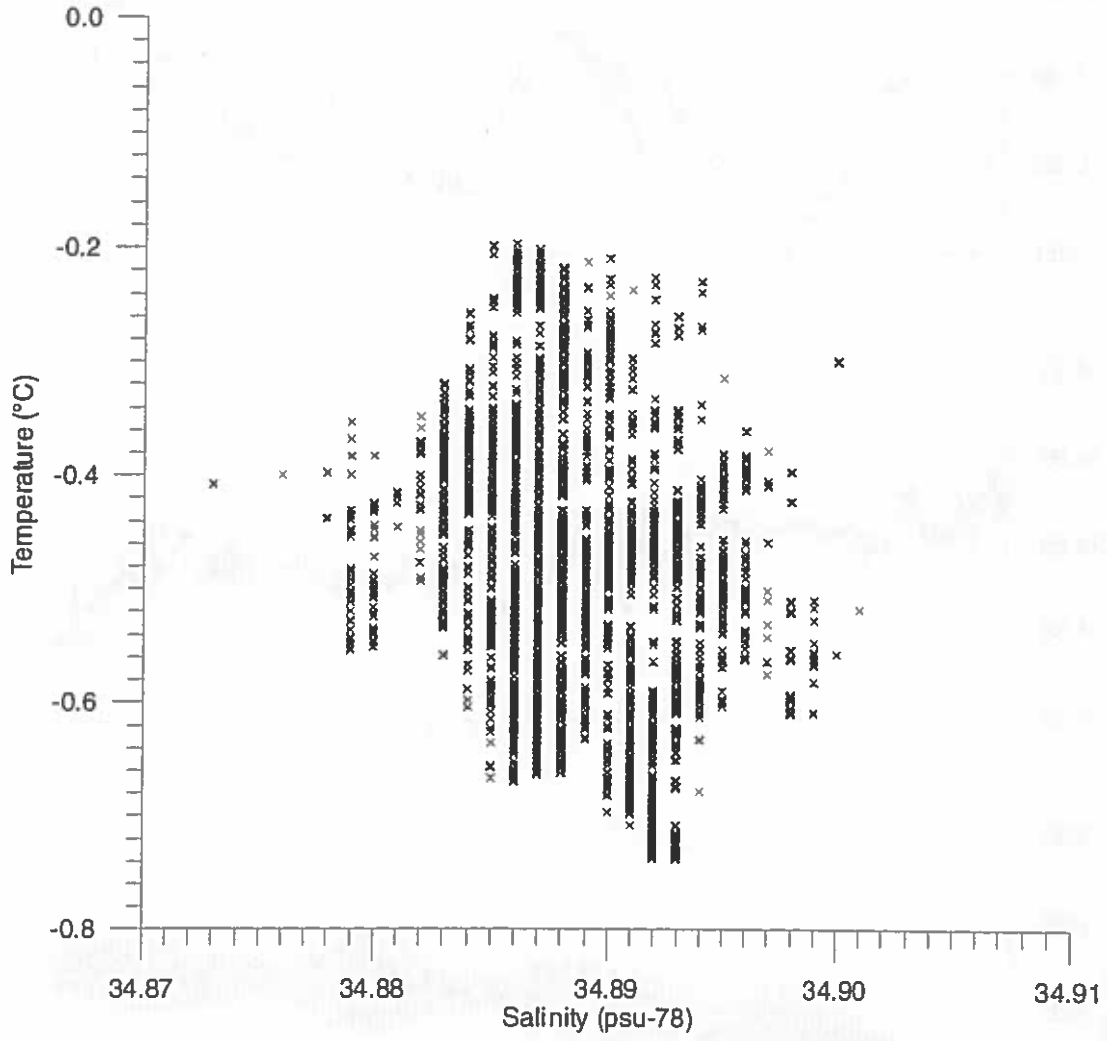
Deployment Id: NWNA0107

    Latitude: 62°42.100´N

    Longitude: 006°04.100´W

    Echo sound depth: 299m

    Bottom depth corr.: 298m

    Time of deployment: 06/07 -2001 0110UTC

    Time of recovery: 14/06 - 2002 0136UTC

ADCP:

    Instrument no.: RDI ADCP 1279

    Instrument frequency: 150kHz

    Height above bottom: 1m

    Depth: 297m   (corr.)

    Time of first data: 06/07 – 2001   0140UTC

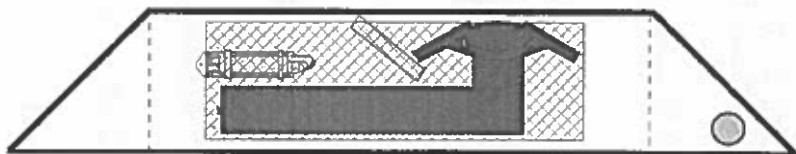   **Time of last data:** 14/06 – 2002 0100UTC

    Sample interval: 20 min

    No. of ensembles: 24695

    Pings per ens.: 1

    Binlength: 10 m

    Depth of first bin: 281m (corr.)

    No. of bins: 30

NWNA0107 ADCP 1279

Error statistics for deployment: NWNA0107 updated 2002/11/12

Surface distance invalid due to range limitation
Heading, pitch and roll not edited
Temperature edited by MCN in Oct 2002
Velocity edited up to and including bin 23 by MCN in Oct 2002
Intensity edited up to and including bin 28 by MCN in Oct 2002

Total number of ensembles: 24695
Interval between ensembles: 20 min
Original number of bins: 30
Number of acceptable velocity bins: 23
Number of acceptable intensity bins: 23

Flagged values have been replaced by error codes: -999.99 for temperature, -999 for velocity and intensity. For observations where velocity is flagged, error codes have been inserted into speed, direction and vertical velocity files

Number of temperature ens. flagged: 0

Below are for each bin listed ensembles flagged for intensity in number and for velocity in number and % of total ens.number. For velocity is also shown the number of gaps of various lengths (gap length = number of consecutive flagged ens.)

Bin	Int. ens. flgd	Velocity ens. flgd	% flgd	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	23	3371	14	2055	364	100	39	15	9	0	0	0	0
2	16	3841	16	1953	430	146	51	30	31	2	0	0	0
3	7	3635	15	1748	403	149	54	24	31	4	1	0	0
4	4	3134	13	1649	313	128	47	16	19	4	1	0	0
5	1	2436	10	1458	247	76	28	15	10	0	0	0	0
6	0	2093	8	1306	221	55	20	8	7	1	0	0	0
7	0	1866	8	1228	179	57	10	7	5	0	0	0	0
8	3	1780	7	1174	167	35	23	4	6	1	0	0	0
9	4	1814	7	1209	190	42	12	4	5	0	0	0	0
10	0	1743	7	1116	189	34	21	5	5	0	0	0	0
11	3	1906	8	1179	175	54	20	12	7	2	0	0	0
12	17	1908	8	1119	192	53	24	8	13	1	0	0	0
13	6	2198	9	1186	202	60	27	11	21	8	0	0	0
14	3	2651	11	1210	252	79	39	16	31	18	1	0	0
15	6	3989	16	1423	359	121	56	35	58	34	4	2	0
16	8	4837	20	1467	317	146	62	33	71	45	14	7	2
17	9	5450	22	1304	288	136	46	31	65	49	22	20	5
18	5	6783	27	1147	290	115	68	38	79	60	30	32	10
19	2	8582	35	1127	305	121	63	41	88	50	34	38	29
20	2	9880	40	1061	284	129	56	27	62	60	24	47	34
21	0	11147	45	968	263	125	51	25	60	53	32	47	39
22	0	12741	52	873	224	100	56	43	75	40	29	37	53
23	3	14985	61	906	252	122	60	30	85	48	27	28	55

NWNA0107 ADCP 1279

Deployment: NWNA0107 updated 2002/11/12
Instrument no.: 1279
Instrument freq.: 150
Latitude: 62 42.100 N
Longitude:06 04.100 W
Bottom depth: 298
Instrument depth: 297
Center depth of first bin: 281
Bin length: 10
Number of bins: 23
Number of first ensemble: 180
Time of first ensemble: 2001 07 06 01 40
Number of last ensemble: 24874
Time of last ensemble: 2002 06 14 01 00
Time between ensembles (min.):   20
All directions have been corrected by adding: -12.0

Below is listed for each bin the average speed (scalar average) and
the average velocity magnitude and direction formed as a vectorial
average of non-flagged (Good) observations. The last column shows the
number of good values used in parts per thousand

Bin no.	Depth m	Height m	Speed mm/s	Vel mm/s	Dir deg	Good ppt
1	281	17	203	135	93	863
2	271	27	215	141	96	844
3	261	37	225	145	98	853
4	251	47	232	152	100	873
5	241	57	238	158	101	901
6	231	67	241	162	102	915
7	221	77	244	166	102	924
8	211	87	245	170	103	928
9	201	97	246	172	103	927
10	191	107	247	176	103	929
11	181	117	247	177	102	923
12	171	127	248	179	102	923
13	161	137	249	181	102	911
14	151	147	250	183	102	893
15	141	157	251	185	102	838
16	131	167	253	187	102	804
17	121	177	254	189	102	779
18	111	187	256	194	103	725
19	101	197	260	201	103	652
20	91	207	266	209	103	600
21	81	217	271	215	103	549
22	71	227	277	226	103	484
23	61	237	283	234	103	393

NWNA0107 ADCP 1279

Deployment: NWNA0107

Frequency of high speeds.
===========================

Frequency (in parts per thousand) of speeds equal to or exceeding specified vales.

Bin no.	Depth m	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	281	684	378	173	67	20	4	.32	.04	0	0	0	0	0	0	0	0	0	0
2	271	684	397	193	85	31	8	1	0	0	0	0	0	0	0	0	0	0	0
3	261	706	421	214	98	40	11	2	.28	0	0	0	0	0	0	0	0	0	0
4	251	733	449	236	110	46	15	3	.40	.08	0	0	0	0	0	0	0	0	0
5	241	760	478	257	125	52	19	5	1	.04	0	0	0	0	0	0	0	0	0
6	231	774	492	270	131	56	21	6	1	.12	0	0	0	0	0	0	0	0	0
7	221	786	499	279	138	61	23	7	1	.08	0	0	0	0	0	0	0	0	0
8	211	790	507	283	140	63	25	8	2	.24	0	0	0	0	0	0	0	0	0
9	201	789	510	285	141	65	26	8	2	.28	0	0	0	0	0	0	0	0	0
10	191	790	511	289	142	66	28	9	2	.36	0	0	0	0	0	0	0	0	0
11	181	782	506	288	142	64	27	9	3	1	.04	0	0	0	0	0	0	0	0
12	171	782	511	290	142	65	27	10	3	1	.08	0	0	0	0	0	0	0	0
13	161	771	509	289	141	65	27	9	3	1	.16	0	0	0	0	0	0	0	0
14	151	757	499	285	142	64	27	10	3	.45	.08	0	0	0	0	0	0	0	0
15	141	713	473	270	133	62	26	10	3	1	.12	0	0	0	0	0	0	0	0
16	131	685	457	262	130	62	26	9	3	1	.08	0	0	0	0	0	0	0	0
17	121	664	446	257	127	60	26	9	3	.49	.08	0	0	0	0	0	0	0	0
18	111	621	418	243	121	57	25	9	3	1	.04	0	0	0	0	0	0	0	0
19	101	562	384	227	113	53	23	9	2	1	.04	0	0	0	0	0	0	0	0
20	91	520	360	215	111	54	25	9	3	1	.16	0	0	0	0	0	0	0	0
21	81	478	339	205	106	51	23	9	3	1	.12	0	0	0	0	0	0	0	0
22	71	426	306	189	98	48	21	8	3	1	.28	0	0	0	0	0	0	0	0
23	61	348	253	158	86	43	20	8	3	1	.28	0	0	0	0	0	0	0	0

NWNA0107 ADCP 1279

Harmonic constants for constituent M2 for deployment NWNA0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	281	135	299	88	184	143	76	158	131	A
02	271	147	299	102	185	156	87	156	133	A
03	261	158	299	112	186	168	97	155	134	A
04	251	165	299	119	187	175	104	156	134	A
05	241	170	300	123	189	179	109	156	135	A
06	231	171	301	126	191	181	112	156	137	A
07	221	173	302	125	193	181	113	157	137	A
08	211	173	304	124	196	180	113	158	138	A
09	201	173	305	123	198	179	113	160	138	A
10	191	172	306	120	199	178	111	161	139	A
11	181	170	308	117	201	176	109	162	139	A
12	171	169	309	114	203	173	107	163	140	A
13	161	168	310	113	205	172	106	163	141	A
14	151	166	312	110	206	170	103	164	142	A
15	141	167	314	108	208	171	102	165	143	A
16	131	169	315	106	210	172	101	166	143	A
17	121	169	317	103	212	172	98	167	144	A
18	111	168	319	100	215	171	95	168	145	A
19	101	168	322	97	219	170	93	170	147	A
20	91	169	323	94	223	170	92	172	148	A
21	81	166	327	92	227	167	90	172	151	A
22	71	163	329	90	232	164	89	174	153	A
23	61	160	333	94	238	161	93	176	155	A

Harmonic constants for constituent S2 for deployment NWNA0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	281	47	343	30	231	49	27	160	174	A
02	271	50	341	34	231	52	31	159	174	A
03	261	52	341	38	231	54	33	157	176	A
04	251	55	342	40	232	58	36	157	177	A
05	241	59	343	43	233	62	38	157	177	A
06	231	62	343	44	234	65	40	159	176	A
07	221	64	343	45	236	66	42	161	175	A
08	211	64	343	45	237	66	42	161	175	A
09	201	64	344	44	236	66	41	161	176	A
10	191	66	345	45	237	68	41	161	177	A
11	181	66	347	43	238	68	39	163	177	A
12	171	67	347	42	240	69	39	164	176	A
13	161	67	349	40	240	69	37	164	177	A
14	151	68	351	39	240	70	36	164	179	A
15	141	68	350	37	244	69	35	168	177	A
16	131	66	354	36	245	68	33	167	181	A
17	121	64	354	33	248	65	32	169	179	A
18	111	65	355	33	251	65	31	170	180	A
19	101	60	357	32	255	61	31	172	181	A
20	91	58	359	31	257	58	30	171	184	A
21	81	54	359	30	261	55	30	174	182	A
22	71	53	2	28	268	53	28	177	183	A
23	61	48	3	27	274	48	27	1	2	A

NWNA0107 ADCP 1279

Harmonic constants for constituent N2 for deployment NWNA0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	281	24	257	17	129	26	12	149	92	A
02	271	26	255	18	131	29	14	152	89	A
03	261	28	260	18	137	30	14	155	93	A
04	251	29	261	19	137	31	15	153	94	A
05	241	28	265	18	149	30	15	158	97	A
06	231	28	272	18	157	30	15	159	103	A
07	221	28	278	17	160	30	14	159	108	A
08	211	29	281	17	168	30	16	162	110	A
09	201	29	282	17	172	30	16	164	110	A
10	191	30	282	18	173	31	17	163	112	A
11	181	31	285	18	180	31	17	168	111	A
12	171	32	286	19	184	33	19	170	112	A
13	161	33	287	20	186	34	20	170	113	A
14	151	33	289	22	188	33	21	169	116	A
15	141	36	290	21	188	36	21	170	116	A
16	131	35	289	23	192	35	22	172	115	A
17	121	36	292	24	189	37	23	166	121	A
18	111	36	294	26	192	37	24	164	125	A
19	101	37	295	26	193	38	25	166	125	A
20	91	37	295	25	196	38	25	170	122	A
21	81	39	302	27	201	40	26	167	130	A
22	71	44	299	25	207	44	25	178	121	A
23	61	41	303	26	208	41	26	174	127	A

Harmonic constants for constituent O1 for deployment NWNA0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	281	21	35	11	291	22	10	171	219	A
02	271	22	33	12	286	23	11	168	219	A
03	261	24	30	14	282	25	13	166	217	A
04	251	27	34	16	280	28	14	162	223	A
05	241	27	34	16	283	28	14	163	223	A
06	231	27	35	17	282	28	15	161	225	A
07	221	27	36	17	284	28	15	162	226	A
08	211	28	34	17	284	29	16	163	223	A
09	201	28	32	17	282	29	16	163	222	A
10	191	29	33	18	281	30	16	161	224	A
11	181	28	34	17	279	29	15	161	223	A
12	171	28	32	17	281	29	15	163	221	A
13	161	27	32	19	283	28	17	159	225	A
14	151	27	31	18	282	28	17	161	223	A
15	141	29	34	19	283	30	17	160	225	A
16	131	26	33	20	286	28	18	156	229	A
17	121	29	34	21	283	31	18	157	228	A
18	111	30	33	21	280	32	18	157	227	A
19	101	32	33	21	282	33	18	160	224	A
20	91	33	31	20	287	33	19	168	218	A
21	81	34	27	17	289	34	17	174	210	A
22	71	35	27	16	291	35	16	176	208	A
23	61	39	29	18	294	39	17	177	211	A

NWNA0107 ADCP 1279

Harmonic constants for constituent K1 for deployment NWNA0107.
===

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	281	31	273	19	198	31	18	14	265	A
02	271	36	276	20	188	36	20	1	275	A
03	261	39	277	22	182	39	22	176	99	A
04	251	40	276	22	180	40	21	176	98	A
05	241	38	276	21	180	38	21	175	98	A
06	231	36	275	22	181	36	21	176	98	A
07	221	35	276	22	179	35	22	173	100	A
08	211	35	275	21	180	36	21	175	98	A
09	201	35	275	21	180	35	21	175	98	A
10	191	35	275	21	181	35	21	177	97	A
11	181	36	274	21	179	36	21	175	97	A
12	171	36	274	21	181	36	21	177	95	A
13	161	37	270	22	180	37	22	180	91	A
14	151	38	266	21	179	38	21	3	264	A
15	141	40	262	21	180	40	21	6	259	A
16	131	41	260	22	178	41	21	6	257	A
17	121	39	259	23	181	39	22	10	254	A
18	111	41	258	23	177	41	22	7	254	A
19	101	36	263	21	180	36	21	6	260	A
20	91	37	266	21	175	37	21	179	86	A
21	81	34	269	22	177	34	22	178	91	A
22	71	36	273	22	177	36	21	175	96	A
23	61	36	277	26	177	36	25	166	107	A

Deployment Id: NWNB0107

Latitude: 62°55.260´N

Longitude: 006°05.115´W

Echo sounding depth: 1001

Bottom depth corr.: 980m

Time of deployment: 06/07 -2001 0250UTC

Time of recovery: 15/06 - 2002 0244UTC

ADCP:

Instrument no.: RDI ADCP 1577

Instrument frequency: 75kHz

Height above bottom: 242m (corr.)

Depth: 738m (corr.)

Time of first data: 06/07 - 2001 0320UTC

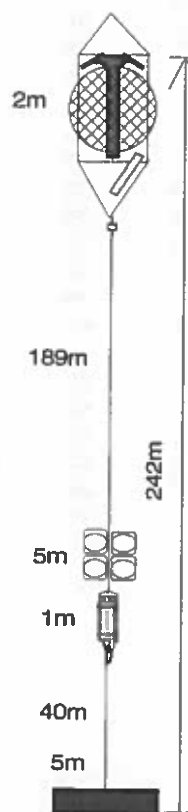**Time of last data:** 15/06 - 2002 0300UTC

Sample interval: 20 min

No. of ensembles: 24768

Pings per ens.: 1

Binlength: 25m

Depth of first bin: 702m (corr.)

No. of bins: 28

NWNB0107 ADCP 1577

Error statistics for deployment: NWNB0107 updated 2002/11/12

Surface distance invalid due to range limitation
Heading, pitch and roll not edited
Temperature edited by MCN in Oct 2002
Velocity edited up to and including bin 25 by MCN in August 2002
Intensity edited up to and including bin 28 by MCN in Oct 2002

Total number of ensembles: 24768
Interval between ensembles: 20 min
Original number of bins: 28
Number of acceptable velocity bins: 25
Number of acceptable intensity bins: 25

Flagged values have been replaced by error codes: -999.99 for temperature, -999
for velocity and intensity. For observations where velocity is flagged, error
codes have been inserted into speed, direction and vertical velocity files

Number of temperature ens. flagged: 0

Below are for each bin listed ensembles flagged for intensity in number and for
velocity in number and % of total ens.number. For velocity is also shown the num-
ber of gaps of various lengths (gap length = number of consecutive flagged ens.)

Bin	Int. ens. flgd	Velocity ens. flgd	% flgd	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	1	451	2	401	25	0	0	0	0	0	0	0	0
2	0	482	2	422	23	2	2	0	0	0	0	0	0
3	0	448	2	378	30	2	1	0	0	0	0	0	0
4	0	500	2	431	33	1	0	0	0	0	0	0	0
5	0	395	2	340	24	1	1	0	0	0	0	0	0
6	0	362	1	324	12	3	0	1	0	0	0	0	0
7	0	385	2	314	23	5	1	1	0	0	0	0	0
8	0	339	1	290	20	3	0	0	0	0	0	0	0
9	0	336	1	303	13	1	1	0	0	0	0	0	0
10	0	357	1	324	15	1	0	0	0	0	0	0	0
11	0	482	2	404	28	6	1	0	0	0	0	0	0
12	0	520	2	414	37	5	3	1	0	0	0	0	0
13	0	433	2	338	34	4	1	1	1	0	0	0	0
14	0	508	2	400	36	6	2	2	0	0	0	0	0
15	0	658	3	481	49	16	5	1	1	0	0	0	0
16	0	691	3	462	61	15	4	2	2	1	0	0	0
17	0	824	3	473	60	12	4	8	5	1	2	1	0
18	0	1398	6	614	86	31	14	6	9	12	2	4	0
19	0	2531	10	666	127	35	22	14	35	19	13	11	1
20	0	4169	17	624	139	62	33	15	56	40	18	32	2
21	1	6130	25	638	145	71	47	24	62	37	23	49	18
22	0	7812	32	619	133	64	40	32	66	39	27	58	31
23	0	9832	40	569	145	60	60	23	69	61	38	48	49
24	0	12118	49	608	118	69	43	26	50	43	40	60	58
25	0	14540	59	472	135	53	37	29	39	30	25	49	57

NWNB0107 ADCP 1577

```
Deployment: NWNB0107 updated 2002/11/12
Instrument no.:  1577
Instrument freq.:  75
Latitude: 62 55.260 N
Longitude:06 05.115 W
Bottom depth:  980
Instrument depth:  738
Center depth of first bin:  702
Bin length:  25
Number of bins:  25
Number of first ensemble:    185
Time of first ensemble: 2001 07 06 03 20
Number of last ensemble:   24952
Time of last ensemble:  2002 06 15 03 00
Time between ensembles (min.):    20
All directions have been corrected by adding: -12.0
```

Below is listed for each bin the average speed (scalar average) and
the average velocity magnitude and direction formed as a vectorial
average of non-flagged (Good) observations. The last column shows the
number of good values used in parts per thousand

Bin no.	Depth m	Height m	Speed mm/s	Vel mm/s	Dir deg	Good ppt
1	702	278	135	38	102	982
2	677	303	134	35	101	981
3	652	328	132	32	101	982
4	627	353	131	29	102	980
5	602	378	131	26	103	984
6	577	403	132	25	104	985
7	552	428	132	23	106	984
8	527	453	132	23	108	986
9	502	478	132	26	109	986
10	477	503	135	31	110	986
11	452	528	140	37	111	981
12	427	553	146	45	111	979
13	402	578	155	58	110	983
14	377	603	167	76	109	979
15	352	628	186	99	109	973
16	327	653	208	125	109	972
17	302	678	233	152	109	967
18	277	703	257	178	109	944
19	252	728	279	200	108	898
20	227	753	297	216	109	832
21	202	778	316	233	109	753
22	177	803	334	249	111	685
23	152	828	347	261	112	603
24	127	853	354	265	114	511
25	102	878	355	265	116	413

NWNB0107 ADCP 1577

Deployment: NWNB0107

Frequency of high speeds.
============================

Frequency (in parts per thousand) of speeds equal to or exceeding specified vales.

Bin no.	Depth m	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	702	588	202	43	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	677	584	195	40	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3	652	582	187	40	7	.36	0	0	0	0	0	0	0	0	0	0	0	0	0
4	627	584	181	38	6	.40	0	0	0	0	0	0	0	0	0	0	0	0	0
5	602	586	183	36	5	.32	0	0	0	0	0	0	0	0	0	0	0	0	0
6	577	591	182	36	6	.16	0	0	0	0	0	0	0	0	0	0	0	0	0
7	552	594	178	34	5	.04	0	0	0	0	0	0	0	0	0	0	0	0	0
8	527	599	176	31	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	502	601	177	32	5	.16	0	0	0	0	0	0	0	0	0	0	0	0	0
10	477	619	188	36	5	.28	0	0	0	0	0	0	0	0	0	0	0	0	0
11	452	634	207	43	6	.44	0	0	0	0	0	0	0	0	0	0	0	0	0
12	427	647	232	57	11	.36	0	0	0	0	0	0	0	0	0	0	0	0	0
13	402	668	266	76	19	3	.08	0	0	0	0	0	0	0	0	0	0	0	0
14	377	698	312	109	31	5	.32	0	0	0	0	0	0	0	0	0	0	0	0
15	352	740	377	151	49	10	1	0	0	0	0	0	0	0	0	0	0	0	0
16	327	779	453	213	78	19	3	.20	0	0	0	0	0	0	0	0	0	0	0
17	302	814	521	278	123	34	7	1	.04	0	0	0	0	0	0	0	0	0	0
18	277	814	570	333	166	59	13	2	.16	0	0	0	0	0	0	0	0	0	0
19	252	789	584	378	197	83	24	3	.24	.04	0	0	0	0	0	0	0	0	0
20	227	743	570	392	218	98	34	8	1	.04	0	0	0	0	0	0	0	0	0
21	202	687	542	385	226	111	41	12	3	.28	0	0	0	0	0	0	0	0	0
22	177	636	512	375	231	120	49	16	5	1	.12	0	0	0	0	0	0	0	0
23	152	564	464	348	217	118	53	20	7	2	.28	0	0	0	0	0	0	0	0
24	127	479	398	303	193	105	48	20	8	2	.28	0	0	0	0	0	0	0	0
25	102	388	321	244	159	84	39	16	7	2	.12	0	0	0	0	0	0	0	0

NWNB0107 ADCP 1577

Harmonic constants for constituent M2 for deployment NWNB0107.
===

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	702	75	266	39	128	81	25	157	93	A
02	677	76	267	39	130	82	25	157	94	A
03	652	77	268	38	132	82	25	158	95	A
04	627	79	269	39	135	84	26	159	96	A
05	602	80	271	38	139	85	27	160	97	A
06	577	82	273	38	146	86	29	162	99	A
07	552	85	275	37	153	87	30	165	100	A
08	527	87	278	34	161	88	30	169	102	A
09	502	89	281	33	171	89	31	172	104	A
10	477	93	285	34	183	93	34	175	107	A
11	452	98	289	37	195	98	37	178	109	A
12	427	102	293	40	209	102	40	3	292	A
13	402	102	298	42	223	103	40	7	296	A
14	377	105	305	48	237	107	44	12	300	A
15	352	109	312	55	244	112	49	14	305	A
16	327	112	316	61	251	116	54	16	308	A
17	302	114	319	67	256	119	57	19	310	A
18	277	117	323	73	261	124	61	22	312	A
19	252	121	326	79	264	129	65	23	314	A
20	227	127	327	85	268	137	68	25	314	A
21	202	130	329	91	271	142	70	28	314	A
22	177	132	330	99	272	147	75	31	313	A
23	152	136	330	105	273	153	79	32	312	A
24	127	133	331	105	272	149	80	33	312	A
25	102	129	331	100	272	144	76	32	313	A

Harmonic constants for constituent S2 for deployment NWNB0107.
===

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	702	27	315	10	200	27	9	170	138	A
02	677	28	315	11	205	29	10	172	138	A
03	652	29	317	11	212	30	11	173	139	A
04	627	30	319	12	218	30	12	174	142	A
05	602	31	323	12	225	31	12	177	144	A
06	577	32	325	13	231	32	13	178	146	A
07	552	33	326	14	233	33	14	179	146	A
08	527	33	326	14	235	33	14	179	147	A
09	502	32	326	13	234	32	13	179	146	A
10	477	31	325	12	235	31	12	0	325	A
11	452	31	324	10	242	31	10	3	323	A
12	427	28	325	7	249	28	7	4	324	A
13	402	28	331	6	276	28	5	8	330	A
14	377	32	340	10	280	32	8	9	338	A
15	352	39	347	15	281	40	14	10	344	A
16	327	41	351	20	284	42	18	13	345	A
17	302	39	355	22	288	41	20	17	346	A
18	277	41	356	23	288	43	21	16	348	A
19	252	43	357	24	286	44	23	14	350	A
20	227	44	354	26	284	45	24	16	346	A
21	202	41	355	25	292	43	21	20	345	A
22	177	37	2	27	302	40	21	29	346	A
23	152	36	357	25	308	40	17	31	343	A
24	127	35	357	27	305	41	19	34	340	A
25	102	30	4	32	307	39	21	48	333	A

NWNB0107 ADCP 1577

Harmonic constants for constituent N2 for deployment NWNB0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	702	15	249	6	114	16	4	162	73	A
02	677	16	252	6	118	16	4	165	76	A
03	652	16	256	6	123	17	4	165	80	A
04	627	18	258	6	131	18	5	167	81	A
05	602	18	263	7	149	19	6	171	86	A
06	577	19	269	7	168	20	7	176	90	A
07	552	19	275	6	187	19	6	1	274	A
08	527	17	276	5	200	17	5	4	275	A
09	502	16	276	3	203	16	3	4	275	A
10	477	15	273	2	178	15	2	179	93	A
11	452	14	266	1	122	14	1	175	86	A
12	427	13	266	3	123	13	2	170	87	A
13	402	15	266	4	144	15	3	171	88	A
14	377	17	256	6	139	17	6	170	79	A
15	352	18	259	7	154	18	7	173	82	A
16	327	18	278	7	198	18	7	5	276	A
17	302	19	290	9	214	19	9	9	286	A
18	277	22	293	9	209	22	9	3	292	A
19	252	23	292	12	216	23	11	10	287	A
20	227	24	294	14	220	25	14	13	287	A
21	202	27	298	19	216	27	19	11	291	A
22	177	27	299	20	219	27	20	16	287	A
23	152	26	301	20	240	29	16	31	282	A
24	127	29	309	23	247	32	18	32	290	A
25	102	24	309	24	243	28	18	43	278	A

Harmonic constants for constituent O1 for deployment NWNB0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	702	4	57	3	258	5	1	144	244	A
02	677	4	50	3	254	5	1	147	237	A
03	652	5	50	4	253	6	1	144	239	A
04	627	5	43	4	261	6	2	141	238	A
05	602	4	42	4	264	6	2	132	244	A
06	577	4	33	4	263	5	2	130	242	A
07	552	4	32	4	257	5	2	140	231	A
08	527	5	31	3	260	5	2	149	225	A
09	502	6	36	3	247	6	1	154	222	A
10	477	8	38	3	269	8	2	164	223	A
11	452	8	41	4	279	8	3	163	227	A
12	427	7	39	4	283	8	3	163	227	A
13	402	8	40	6	279	9	5	151	236	A
14	377	11	49	7	287	12	5	158	239	A
15	352	11	50	6	288	12	5	161	238	A
16	327	13	51	7	286	13	5	160	239	A
17	302	16	39	8	287	16	8	165	226	A
18	277	16	36	9	292	17	8	170	221	A
19	252	18	43	10	296	18	10	167	230	A
20	227	18	54	9	285	19	7	160	241	A
21	202	19	45	9	277	20	7	162	232	A
22	177	21	35	6	279	21	6	172	217	A
23	152	20	44	10	281	21	8	162	231	A
24	127	19	37	9	255	21	5	158	223	A
25	102	17	40	12	240	20	3	144	227	A

NWNB0107 ADCP 1577

Harmonic constants for constituent K1 for deployment NWNB0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	702	7	256	7	143	8	5	136	108	A
02	677	7	255	7	146	8	6	139	107	A
03	652	7	255	7	148	8	6	140	107	A
04	627	7	255	7	146	8	6	135	110	A
05	602	6	248	6	136	7	5	139	98	A
06	577	6	249	6	130	7	4	136	99	A
07	552	6	248	6	133	7	4	130	104	A
08	527	6	250	6	137	7	5	141	97	A
09	502	8	250	6	149	8	6	157	88	A
10	477	10	257	7	148	11	7	157	91	A
11	452	11	262	8	156	11	8	157	98	A
12	427	12	265	7	164	12	7	170	90	A
13	402	11	267	6	182	11	6	4	264	A
14	377	10	262	7	172	10	7	0	262	A
15	352	11	255	9	172	11	9	18	240	A
16	327	13	259	9	175	13	8	6	255	A
17	302	15	255	9	179	16	9	12	249	A
18	277	18	259	11	176	18	11	6	255	A
19	252	18	260	10	184	19	10	11	254	A
20	227	14	268	10	157	15	9	157	102	A
21	202	15	285	15	167	18	11	137	134	A
22	177	19	298	16	174	22	11	145	138	A
23	152	19	301	14	170	22	9	148	136	A
24	127	26	325	14	179	28	7	154	152	A
25	102	41	321	13	191	42	10	168	144	A

Deployment Id: NWNG0107

Latitude: 63°06.340′N

Longitude: 006°04.900′W

Echo sounding depth: 1840 m

Bottom depth corr.: 1811m

Time of deployment: 06/07 -2001 0420UTC

Time of recovery: 14/06 - 2002 2110UTC

ADCP:

Instrument no.: RDI ADCP 1292

Instrument frequence: 75kHz

Height above bottom: 1173 m

Depth: 638m   (corr.)

Time of first data: 06/07 – 2001 0500UTC

Time of last data: 14/06 – 2002 2100UTC

Sample interval: 20 min

No. of ensembles: 24745

Pings per ens.: 1

Binlength: 25 m

Depth of first bin: 602 m   (corr.)
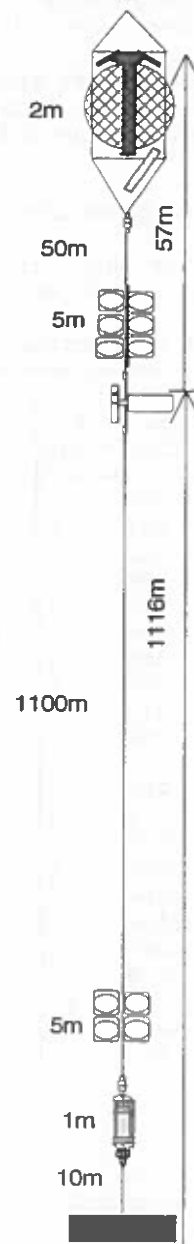
No. of bins: 28

Aanderaa:

Instrument no.: RCM9 634

Height above bottom: 1116 m

Depth: 695m   (corr.)

The Aanderaa had no data

NWNG0107 ADCP 1292

Error statistics for deployment: NWNG0107 updated 2002/11/12

Surface distance not edited
Heading, pitch and roll not edited
Temperature edited by MCN in Nov 2002
Velocity edited up to and including bin 22 by MCN in Oct 2002
Intensity edited up to and including bin 28 by MCN in Nov 2002

```
Total number of  ensembles:          24745
Interval between ensembles:         20 min
Original number of bins:                28
Number of acceptable velocity bins:  22
Number of acceptable intensity bins: 22
```

Flagged values have been replaced by error codes: -999.99 for temperature, -999 for velocity and intensity. For observations where velocity is flagged, error codes have been inserted into speed, direction and vertical velocity files

Number of temperature ens. flagged: 0

Below are for each bin listed ensembles flagged for intensity in number and for velocity in number and % of total ens.number. For velocity is also shown the num-
ber of gaps of various lengths (gap length = number of consecutive flagged ens.)

Bin	Int. ens. flgd	Velocity ens. flgd	% flgd	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	0	790	3	711	38	1	0	0	0	0	0	0	0
2	0	610	2	557	22	3	0	0	0	0	0	0	0
3	0	441	2	399	18	2	0	0	0	0	0	0	0
4	0	388	2	354	14	2	0	0	0	0	0	0	0
5	0	231	1	199	13	2	0	0	0	0	0	0	0
6	0	224	1	214	5	0	0	0	0	0	0	0	0
7	0	182	1	164	9	0	0	0	0	0	0	0	0
8	1	202	1	182	10	0	0	0	0	0	0	0	0
9	1	243	1	214	12	0	0	1	0	0	0	0	0
10	1	244	1	209	16	1	0	0	0	0	0	0	0
11	0	337	1	300	13	2	0	1	0	0	0	0	0
12	1	462	2	349	39	7	1	0	1	0	0	0	0
13	3	677	3	505	63	9	2	1	1	0	0	0	0
14	4	776	3	527	65	19	9	4	1	0	0	0	0
15	2	1075	4	664	94	24	7	5	9	0	1	0	0
16	4	1688	7	740	144	32	17	11	17	9	4	3	0
17	1	2486	10	824	142	47	23	15	25	7	7	15	0
18	0	3565	14	794	178	62	30	18	42	22	12	23	2
19	0	5280	21	857	223	80	47	30	66	35	29	30	6
20	0	7753	31	861	213	92	53	25	67	59	34	55	24
21	0	9991	40	758	192	98	45	28	61	47	46	61	50
22	0	12719	51	795	220	102	50	38	74	45	39	52	73

NWNG0107 ADCP 1292

Deployment: NWNG0107 updated 2002/11/12
Instrument no.: 1292
Instrument freq.: 75
Latitude: 63 06.340 N
Longitude:06 04.900 W
Bottom depth: 1811
Instrument depth: 638
Center depth of first bin: 602
Bin length: 25
Number of bins: 22
Number of first ensemble: 190
Time of first ensemble: 2001 07 06 05 00
Number of last ensemble: 24934
Time of last ensemble: 2002 06 14 21 00
Time between ensembles (min.): 20
All directions have been corrected by adding: -12.0

Below is listed for each bin the average speed (scalar average) and
the average velocity magnitude and direction formed as a vectorial
average of non-flagged (Good) observations. The last column shows the
number of good values used in parts per thousand

```
=============================================================================
   Bin no.     Depth      Height      Speed       Vel       Dir      Good
                 m          m          mm/s       mm/s       deg      ppt
-----------------------------------------------------------------------------
         1       602       1209          91        18        126       968
         2       577       1234          93        18        127       975
         3       552       1259          95        19        128       982
         4       527       1284          97        21        132       984
         5       502       1309          99        23        133       991
         6       477       1334         103        25        133       991
         7       452       1359         107        27        131       993
         8       427       1384         111        29        128       992
         9       402       1409         116        32        128       990
        10       377       1434         123        36        127       990
        11       352       1459         131        40        127       986
        12       327       1484         142        46        126       981
        13       302       1509         154        54        126       973
        14       277       1534         171        63        124       969
        15       252       1559         191        71        125       957
        16       227       1584         210        79        126       932
        17       202       1609         229        87        127       900
        18       177       1634         249        97        129       856
        19       152       1659         270       110        129       787
        20       127       1684         292       123        129       687
        21       102       1709         317       138        130       596
        22        77       1734         344       153        131       486
```

NWNG0107 ADCP 1292

Deployment: NWNG0107

Frequency of high speeds.
=========================

Frequency (in parts per thousand) of speeds equal to or exceeding specified vales.

Bin no.	Depth m	Speed (cm/s)																	
		10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	602	375	25	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	577	394	28	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	552	412	33	.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	527	428	38	.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	502	450	45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	477	473	54	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	452	499	70	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	427	523	82	5	.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	402	548	105	8	.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	377	570	136	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	352	604	172	27	1	.04	0	0	0	0	0	0	0	0	0	0	0	0	0
12	327	639	213	48	5	.40	.08	0	0	0	0	0	0	0	0	0	0	0	0
13	302	670	262	75	12	1	.28	0	0	0	0	0	0	0	0	0	0	0	0
14	277	708	326	113	25	3	.44	.08	0	0	0	0	0	0	0	0	0	0	0
15	252	747	391	161	47	9	1	.20	0	0	0	0	0	0	0	0	0	0	0
16	227	758	443	205	73	19	3	1	.04	0	0	0	0	0	0	0	0	0	0
17	202	748	473	249	98	32	7	2	.40	.20	0	0	0	0	0	0	0	0	0
18	177	731	491	284	132	51	15	4	1	.48	.12	0	0	0	0	0	0	0	0
19	152	688	485	301	156	67	24	8	2	.48	.12	0	0	0	0	0	0	0	0
20	127	612	455	298	171	78	32	12	4	1	1	.08	0	0	0	0	0	0	0
21	102	542	423	293	177	90	40	18	7	3	1	.32	.08	0	0	0	0	0	0
22	77	454	371	269	171	92	41	19	9	3	1	.12	.04	0	0	0	0	0	0

NWNG0107 ADCP 1292

Harmonic constants for constituent M2 for deployment NWNG0107.
```
===============================================================================
```

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	602	69	294	34	255	74	20	22	288	A
02	577	70	296	35	256	75	21	23	289	A
03	552	70	296	35	257	75	21	23	290	A
04	527	69	297	35	259	75	20	24	290	A
05	502	68	297	35	261	74	19	24	290	A
06	477	68	297	35	261	74	19	24	291	A
07	452	68	298	36	261	74	20	24	291	A
08	427	66	300	37	266	74	19	27	293	A
09	402	65	304	40	273	74	19	30	296	A
10	377	63	311	45	281	76	19	34	302	A
11	352	61	319	52	289	78	21	40	306	A
12	327	60	325	56	293	79	22	43	310	A
13	302	59	331	62	298	82	25	47	313	A
14	277	59	341	71	301	87	31	52	317	A
15	252	64	348	81	303	96	39	54	319	A
16	227	69	354	89	305	103	45	56	321	A
17	202	73	358	96	307	109	50	57	323	A
18	177	78	2	106	309	119	55	59	325	A
19	152	83	8	114	310	126	63	60	326	A
20	127	89	14	127	311	136	74	64	326	A
21	102	95	14	133	312	144	77	63	327	A
22	77	104	12	143	311	156	83	62	327	A

Harmonic constants for constituent S2 for deployment NWNG0107.
```
===============================================================================
```

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	602	19	323	7	311	20	1	21	321	A
02	577	19	322	7	313	21	1	21	321	A
03	552	19	321	7	307	20	2	20	319	A
04	527	19	321	7	305	20	2	19	319	A
05	502	19	319	6	305	20	1	18	318	A
06	477	20	319	6	313	20	1	17	319	A
07	452	20	316	5	320	20	0	15	316	C
08	427	21	316	5	310	22	1	14	315	A
09	402	21	318	6	306	22	1	15	318	A
10	377	22	323	7	311	23	1	18	321	A
11	352	22	326	8	312	24	2	19	324	A
12	327	21	331	10	316	23	2	25	328	A
13	302	19	330	10	324	21	1	29	329	A
14	277	18	334	11	331	21	0	31	333	A
15	252	16	342	12	333	20	1	37	339	A
16	227	17	345	14	339	22	1	39	343	A
17	202	17	354	16	341	24	3	42	348	A
18	177	17	4	18	341	24	5	47	352	A
19	152	22	14	19	343	29	8	40	1	A
20	127	31	14	21	347	36	8	33	6	A
21	102	31	21	22	344	36	11	33	10	A
22	77	25	31	21	352	31	11	39	15	A

NWNG0107 ADCP 1292

Harmonic constants for constituent N2 for deployment NWNG0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	602	12	250	1	205	12	1	4	249	A
02	577	12	251	1	184	12	1	2	251	A
03	552	11	249	1	206	11	1	4	249	A
04	527	10	250	1	273	10	0	6	250	C
05	502	9	252	1	279	10	1	8	253	C
06	477	10	258	2	279	10	1	12	259	C
07	452	10	261	3	268	11	0	17	262	C
08	427	11	268	4	256	11	1	23	266	A
09	402	11	276	5	252	12	2	23	272	A
10	377	12	292	9	260	14	4	35	282	A
11	352	12	307	12	270	16	5	43	290	A
12	327	12	312	13	276	17	6	47	293	A
13	302	13	314	14	275	17	6	48	293	A
14	277	14	314	15	268	19	8	48	289	A
15	252	19	313	18	261	24	12	42	290	A
16	227	21	311	21	253	26	14	44	283	A
17	202	22	312	20	250	26	15	41	284	A
18	177	20	316	21	252	25	15	47	282	A
19	152	21	314	21	255	25	14	46	284	A
20	127	23	316	21	258	27	15	40	292	A
21	102	30	301	19	248	33	14	27	289	A
22	77	34	295	22	242	37	16	28	282	A

Harmonic constants for constituent O1 for deployment NWNG0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	602	5	67	1	334	5	1	179	247	A
02	577	5	67	2	333	5	2	178	248	A
03	552	5	62	1	345	6	1	4	61	A
04	527	5	61	1	313	5	1	177	242	A
05	502	5	62	0	294	5	0	177	242	A
06	477	5	56	2	293	5	1	169	239	A
07	452	6	67	2	296	6	1	167	250	A
08	427	6	69	1	294	6	1	173	250	A
09	402	6	69	1	334	6	1	179	249	A
10	377	6	61	1	335	6	1	1	61	A
11	352	6	64	2	310	6	2	173	245	A
12	327	6	63	1	315	6	1	178	243	A
13	302	7	64	2	353	7	2	6	62	A
14	277	6	73	1	350	6	1	2	72	A
15	252	8	73	2	36	8	1	14	71	A
16	227	8	72	3	33	9	2	17	68	A
17	202	7	53	2	67	7	0	12	54	C
18	177	7	55	1	194	7	1	174	234	C
19	152	5	47	3	186	6	2	149	216	C
20	127	3	41	3	184	4	1	142	207	C
21	102	6	40	3	209	7	0	154	218	C
22	77	17	44	3	96	17	3	7	45	C

NWNG0107 ADCP 1292

Harmonic constants for constituent K1 for deployment NWNG0107.
```
================================================================================
```

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	602	4	298	2	209	4	2	0	298	A
02	577	4	295	2	189	4	2	170	120	A
03	552	5	293	3	180	5	2	164	121	A
04	527	4	298	2	163	5	1	160	124	A
05	502	4	295	3	165	5	2	153	127	A
06	477	4	297	3	168	5	2	151	130	A
07	452	4	296	2	160	4	1	159	122	A
08	427	5	286	2	165	5	2	166	111	A
09	402	6	288	3	182	6	3	169	113	A
10	377	7	293	3	178	7	3	168	117	A
11	352	7	299	2	199	7	2	178	119	A
12	327	6	297	2	221	6	2	4	296	A
13	302	7	291	3	168	7	2	166	115	A
14	277	7	280	3	174	7	3	174	102	A
15	252	8	277	3	159	8	2	170	100	A
16	227	7	263	3	193	7	3	10	258	A
17	202	4	218	3	233	5	1	33	222	C
18	177	2	137	2	135	3	0	40	136	A
19	152	2	201	2	71	2	1	124	54	A
20	127	8	231	8	73	11	2	137	61	A
21	102	18	235	11	65	21	2	147	58	A
22	77	17	250	8	60	19	1	156	68	C

Deployment Id: NWSB0107

    Latitude: 60°47.100´N

    Longitude: 005°18.800´W

    Echo sounding depth: 789m

    Bottom depth corr.: 775m

    Time of deployment: 07/07 -2001 2339UTC

    Time of recovery: 15/06 - 2002 2215UTC

ADCP:

    Instrument no.: RDI ADCP 1644

    Instrument frequency: 75kHz

    Height above bottom: 108m

    Depth: 667m (corr.)

    Time of first data: 08/07 - 2001 0040UTC

    Time of last data: 15/06 - 2002 2140UTC

    Sample interval: 20 min

    No. of ensembles: 24688

    Pings per ens.: 1

    Binlength: 25m

    Depth of first bin: 631 (corr.)

    No. of bins: 28

2m

1m

108m

100m

5m
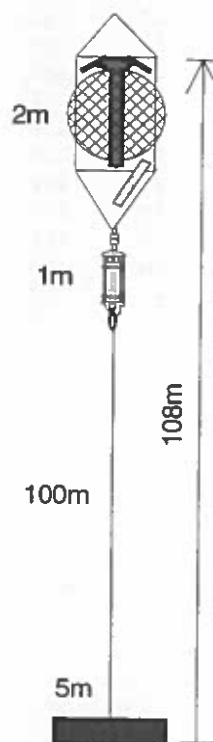
NWSB0107 ADCP 1644

Error statistics for deployment: NWSB0107 updated 2002/10/22

Surface distance not edited
Heading, pitch and roll not edited
Temperature edited by MCN in Oct 2002
Velocity edited up to and including bin 22 by MCN in Oct 2002
Intensity edited up to and including bin 28 by MCN in Oct 2002

Total number of ensembles: 24688
Interval between ensembles: 20 min
Original number of bins: 28
Number of acceptable velocity bins: 22
Number of acceptable intensity bins: 22

Flagged values have been replaced by error codes: -999.99 for temperature, -999
for velocity and intensity. For observations where velocity is flagged, error
codes have been inserted into speed, direction and vertical velocity files

Number of temperature ens. flagged: 0

Below are for each bin listed ensembles flagged for intensity in number and for
velocity in number and % of total ens.number. For velocity is also shown the num-
ber of gaps of various lengths (gap length = number of consecutive flagged ens.)

Bin	Int. ens. flgd	Velocity ens. flgd	% flgd	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	2	204	1	177	12	1	0	0	0	0	0	0	0
2	1	159	1	149	5	0	0	0	0	0	0	0	0
3	1	148	1	140	4	0	0	0	0	0	0	0	0
4	1	150	1	136	4	2	0	0	0	0	0	0	0
5	1	137	1	127	5	0	0	0	0	0	0	0	0
6	0	165	1	153	3	2	0	0	0	0	0	0	0
7	0	229	1	187	14	2	2	0	0	0	0	0	0
8	1	257	1	221	16	0	1	0	0	0	0	0	0
9	3	294	1	265	11	1	1	0	0	0	0	0	0
10	0	361	1	316	18	3	0	0	0	0	0	0	0
11	0	379	2	316	26	2	0	1	0	0	0	0	0
12	0	375	2	306	25	5	1	0	0	0	0	0	0
13	0	368	1	293	28	5	1	0	0	0	0	0	0
14	0	638	3	339	47	10	3	2	8	6	0	0	0
15	1	1178	5	482	71	22	8	3	12	13	7	0	0
16	1	1749	7	597	102	33	28	9	22	21	8	1	0
17	0	2314	9	741	160	53	31	26	37	16	12	1	0
18	3	3932	16	820	231	79	48	35	65	53	21	4	1
19	1	6014	24	807	197	96	52	41	75	69	60	25	1
20	0	8622	35	687	217	104	72	57	96	86	52	74	7
21	0	11118	45	584	180	92	49	36	91	94	43	108	30
22	0	14077	57	528	160	64	38	36	68	65	47	81	75

NWSB0107 ADCP 1644

Deployment: NWSB0107 updated 2002/10/22
Instrument no.: 1644
Instrument freq.: 75
Latitude: 60 47.100 N
Longitude:05 18.800 W
Bottom depth: 775
Instrument depth: 667
Center depth of first bin: 631
Bin length: 25
Number of bins: 22
Number of first ensemble: 321
Time of first ensemble: 2001 07 08 00 40
Number of last ensemble: 25008
Time of last ensemble: 2002 06 15 21 40
Time between ensembles (min.): 20
All directions have been corrected by adding: -11.0

Below is listed for each bin the average speed (scalar average) and
the average velocity magnitude and direction formed as a vectorial
average of non-flagged (Good) observations. The last column shows the
number of good values used in parts per thousand

Bin no.	Depth m	Height m	Speed mm/s	Vel mm/s	Dir deg	Good ppt
1	631	144	213	32	187	992
2	606	169	209	29	186	994
3	581	194	206	26	184	994
4	556	219	203	23	182	994
5	531	244	200	19	175	994
6	506	269	199	15	166	993
7	481	294	197	12	153	991
8	456	319	197	11	130	990
9	431	344	195	13	129	988
10	406	369	198	15	133	985
11	381	394	203	18	126	985
12	356	419	207	18	121	985
13	331	444	211	18	117	985
14	306	469	214	18	122	974
15	281	494	219	20	134	952
16	256	519	227	22	132	929
17	231	544	238	24	127	906
18	206	569	247	23	119	841
19	181	594	255	23	114	756
20	156	619	262	22	113	651
21	131	644	271	23	103	550
22	106	669	281	29	94	430

NWSB0107 ADCP 1644

Deployment: NWSB0107

Frequency of high speeds.
==========================

Frequency (in parts per thousand) of speeds equal to or exceeding specified vales.

Bin no.	Depth m	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
									Speed (cm/s)										
1	631	829	495	216	66	13	3	.45	0	0	0	0	0	0	0	0	0	0	0
2	606	828	479	207	61	13	3	.36	.04	0	0	0	0	0	0	0	0	0	0
3	581	820	469	195	55	10	2	.36	.04	0	0	0	0	0	0	0	0	0	0
4	556	812	457	189	51	9	2	1	.12	0	0	0	0	0	0	0	0	0	0
5	531	806	449	186	49	9	2	1	.04	0	0	0	0	0	0	0	0	0	0
6	506	797	439	181	53	10	2	1	.04	0	0	0	0	0	0	0	0	0	0
7	481	797	429	172	52	12	2	.32	0	0	0	0	0	0	0	0	0	0	0
8	456	794	429	171	50	11	2	.12	0	0	0	0	0	0	0	0	0	0	0
9	431	785	421	172	49	13	2	.24	.04	0	0	0	0	0	0	0	0	0	0
10	406	782	423	176	57	15	3	1	0	0	0	0	0	0	0	0	0	0	0
11	381	790	442	190	63	19	4	1	0	0	0	0	0	0	0	0	0	0	0
12	356	790	455	204	73	22	6	1	.16	0	0	0	0	0	0	0	0	0	0
13	331	789	461	217	84	27	7	2	.32	0	0	0	0	0	0	0	0	0	0
14	306	785	462	222	90	31	9	3	1	0	0	0	0	0	0	0	0	0	0
15	281	773	465	229	98	35	11	3	.49	.04	0	0	0	0	0	0	0	0	0
16	256	767	467	242	111	45	15	3	1	.08	0	0	0	0	0	0	0	0	0
17	231	760	478	259	125	58	22	7	2	.36	0	0	0	0	0	0	0	0	0
18	206	711	459	260	130	62	27	9	3	1	0	0	0	0	0	0	0	0	0
19	181	644	427	246	128	65	31	11	4	1	.36	0	0	0	0	0	0	0	0
20	156	558	375	222	116	64	30	12	4	2	.49	0	0	0	0	0	0	0	0
21	131	476	328	197	108	59	29	13	5	2	1	.04	0	0	0	0	0	0	0
22	106	377	264	163	93	51	27	13	5	2	.49	.12	0	0	0	0	0	0	0

NWSB0107 ADCP 1644

Harmonic constants for constituent M2 for deployment NWSB0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	631	238	250	123	205	255	82	22	243	A
02	606	231	252	124	210	251	76	24	244	A
03	581	224	254	124	215	246	70	26	246	A
04	556	216	255	126	220	241	66	28	247	A
05	531	208	257	128	225	237	59	30	249	A
06	506	198	259	131	231	232	51	32	251	A
07	481	188	259	132	236	226	43	34	252	A
08	456	176	259	131	241	217	33	36	253	A
09	431	162	259	130	247	207	22	39	255	A
10	406	148	261	131	254	197	12	41	258	A
11	381	140	262	135	258	195	7	44	260	A
12	356	135	262	138	259	193	5	46	261	A
13	331	132	262	140	260	192	3	47	261	A
14	306	127	263	143	262	191	1	48	262	A
15	281	124	264	147	263	192	1	50	264	A
16	256	126	265	150	263	196	4	50	264	A
17	231	130	266	156	262	203	6	50	264	A
18	206	133	267	160	263	208	8	50	264	A
19	181	138	266	168	263	217	5	50	264	A
20	156	139	266	169	264	219	3	51	265	A
21	131	142	269	165	263	217	10	49	265	A
22	106	149	272	178	263	232	17	50	267	A

Harmonic constants for constituent S2 for deployment NWSB0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	631	87	287	46	243	94	30	23	279	A
02	606	85	289	47	248	93	28	25	281	A
03	581	82	290	47	252	91	26	27	282	A
04	556	78	292	47	257	88	24	29	284	A
05	531	75	295	48	263	86	22	31	286	A
06	506	71	297	48	268	83	19	33	288	A
07	481	66	296	47	275	80	14	35	289	A
08	456	59	294	44	283	73	7	36	291	A
09	431	54	292	43	290	69	1	39	291	A
10	406	51	292	45	295	68	2	41	293	C
11	381	49	293	47	298	68	3	44	295	C
12	356	47	294	50	297	69	2	47	295	C
13	331	45	293	53	297	70	2	50	295	C
14	306	42	290	54	296	68	3	52	294	C
15	281	42	292	56	297	70	3	53	295	C
16	256	43	300	58	300	72	0	54	300	C
17	231	47	306	62	303	77	2	53	304	A
18	206	50	307	65	307	82	0	52	307	A
19	181	51	309	67	306	85	2	53	307	A
20	156	50	311	66	307	83	3	53	308	A
21	131	55	315	74	310	93	3	53	312	A
22	106	62	319	81	312	102	6	53	314	A

NWSB0107 ADCP 1644

Harmonic constants for constituent N2 for deployment NWSB0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	631	57	212	22	147	58	20	10	209	A
02	606	55	216	22	158	56	18	13	211	A
03	581	52	219	23	169	54	17	17	213	A
04	556	51	222	23	175	53	16	19	216	A
05	531	51	227	25	181	54	17	21	220	A
06	506	52	231	28	190	56	17	24	224	A
07	481	48	235	29	198	54	15	28	226	A
08	456	40	234	26	213	47	8	32	228	A
09	431	32	235	26	231	41	1	38	233	A
10	406	29	237	25	235	38	1	41	236	A
11	381	28	242	27	240	39	1	44	241	A
12	356	28	248	30	241	41	3	48	244	A
13	331	26	249	30	242	40	2	50	245	A
14	306	24	250	32	246	40	1	53	248	A
15	281	23	251	36	247	43	1	57	248	A
16	256	23	259	38	248	44	4	59	251	A
17	231	26	270	41	249	48	8	58	255	A
18	206	27	273	44	248	51	10	59	254	A
19	181	27	270	42	240	48	11	59	248	A
20	156	30	272	48	244	55	12	59	252	A
21	131	32	269	46	239	54	13	57	248	A
22	106	34	272	47	240	56	15	55	250	A

Harmonic constants for constituent O1 for deployment NWSB0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	631	30	350	17	40	33	12	23	359	C
02	606	30	348	16	39	32	12	22	357	C
03	581	29	347	15	37	31	11	22	355	C
04	556	30	347	16	37	32	11	22	355	C
05	531	29	346	16	38	31	12	21	355	C
06	506	27	345	15	40	28	12	22	354	C
07	481	26	345	15	37	28	11	24	355	C
08	456	25	342	14	36	26	11	22	351	C
09	431	25	339	12	43	26	11	15	346	C
10	406	25	337	10	47	25	10	9	340	C
11	381	25	334	10	47	25	9	8	337	C
12	356	23	335	10	53	24	10	7	338	C
13	331	23	334	9	56	23	9	4	335	C
14	306	22	329	6	53	22	6	2	330	C
15	281	22	323	5	63	22	5	178	143	C
16	256	22	320	6	72	23	6	174	138	C
17	231	21	326	7	76	21	7	172	143	C
18	206	19	322	9	70	19	9	169	137	C
19	181	22	323	12	45	22	12	6	326	C
20	156	24	317	11	41	24	11	4	319	C
21	131	21	315	8	50	21	8	178	134	C
22	106	20	328	11	64	20	11	175	145	C

NWSB0107 ADCP 1644

Harmonic constants for constituent K1 for deployment NWSB0107.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	631	17	209	7	273	18	6	11	213	C
02	606	17	209	6	276	17	6	10	213	C
03	581	16	209	6	275	17	6	10	213	C
04	556	17	206	6	279	17	6	8	209	C
05	531	16	207	7	280	16	7	9	211	C
06	506	15	205	8	276	15	7	12	210	C
07	481	14	202	7	275	14	6	10	206	C
08	456	14	194	5	278	14	5	3	195	C
09	431	15	189	4	285	15	4	178	8	C
10	406	14	188	4	265	14	4	4	189	C
11	381	13	183	4	287	13	4	176	1	C
12	356	11	166	2	350	11	0	169	347	A
13	331	10	151	3	55	10	3	178	332	A
14	306	9	136	6	81	10	4	28	123	A
15	281	9	132	8	81	11	5	38	111	A
16	256	11	140	10	79	13	7	39	115	A
17	231	13	147	10	82	14	8	27	131	A
18	206	14	153	7	68	14	7	3	152	A
19	181	16	163	1	103	16	1	2	163	A
20	156	19	165	8	166	21	0	23	165	C
21	131	24	162	18	160	31	0	37	161	A
22	106	26	176	21	163	33	4	38	171	A

Deployment Id: NWSC0107

Latitude: 60°34.150′N

Longitude: 004°46.772′W

Echo sounding depth: 1083m

Bottom depth corr.: 1073m

Time of deployment: 07/07 -2001 1820UTC

Time of recovery: 16/06 - 2002 0501UTC

ADCP:

Instrument no.: RDI ADCP 1245

Instrument frequency: 75kHz

Height above bottom: 414m (corr.)

Depth: 659m (corr.)

Time of first data: 07/07 - 2001 1900UTC

Time of last data: 16/06 - 2002 0440UTC

Sample interval: 20 min

No. of ensembles: 24726

Pings per ens.: 1

Binlength: 25m

Depth of first bin: 623 m (corr.)

No. of bins: 28

Aanderaa:

Instrument no.: RCM8 9912

Height above bottom: 308m

Depth: 765m (corr.)

Time of first data: 07/07 – 2001 1930 UTC

Time of last data: 16/06 – 2002 0330 UTC

Sample interval: 60 min

No. of records: 8241

2m

100m

4m

1m

300m

1m

1m

5m

106m

308m
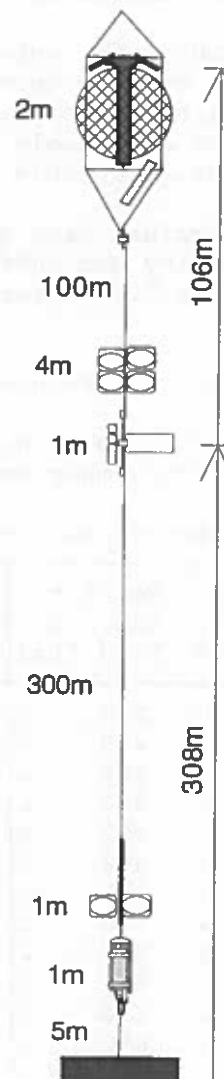
NWSC0107 ADCP 1245

Error statistics for deployment: NWSC0107 updated 2002/10/22

Surface distance not edited
Heading, pitch and roll not edited
Temperature edited by MCN in Oct 2002
Velocity edited up to and including bin 23 by MCN in Oct 2002
Intensity edited up to and including bin 27 by MCN in Oct 2002

Total number of ensembles: 24726
Interval between ensembles: 20 min
Original number of bins: 28
Number of acceptable velocity bins: 23
Number of acceptable intensity bins: 23

Flagged values have been replaced by error codes: -999.99 for temperature, -999
for velocity and intensity. For observations where velocity is flagged, error
codes have been inserted into speed, direction and vertical velocity files

Number of temperature ens. flagged: 0

Below are for each bin listed ensembles flagged for intensity in number and for
velocity in number and % of total ens.number. For velocity is also shown the
num-
ber of gaps of various lengths (gap length = number of consecutive flagged ens.)

Bin	Int. ens. flgd	Velocity ens. flgd	% flgd	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	0	554	2	483	29	3	1	0	0	0	0	0	0
2	1	459	2	410	23	1	0	0	0	0	0	0	0
3	0	440	2	386	24	2	0	0	0	0	0	0	0
4	0	396	2	344	23	2	0	0	0	0	0	0	0
5	0	397	2	333	29	2	0	0	0	0	0	0	0
6	0	403	2	331	30	4	0	0	0	0	0	0	0
7	0	413	2	342	28	2	1	1	0	0	0	0	0
8	3	500	2	420	37	2	0	0	0	0	0	0	0
9	0	562	2	443	42	9	2	0	0	0	0	0	0
10	0	680	3	549	48	9	2	0	0	0	0	0	0
11	0	636	3	539	41	5	0	0	0	0	0	0	0
12	0	697	3	548	53	10	2	1	0	0	0	0	0
13	1	633	3	517	42	9	0	1	0	0	0	0	0
14	2	750	3	513	60	8	1	4	7	2	0	0	0
15	1	1067	4	549	76	20	5	3	12	11	1	0	0
16	0	1346	5	697	89	20	11	7	18	5	5	0	0
17	0	1719	7	762	113	37	32	7	21	10	6	0	0
18	0	2777	11	915	213	53	31	31	41	17	14	3	0
19	1	3908	16	783	182	70	47	25	40	43	28	15	0
20	6	5766	23	893	186	62	46	28	54	55	47	41	1
21	2	7299	30	863	214	78	46	35	43	48	36	81	5
22	4	9258	37	822	229	83	43	36	67	51	39	98	16
23	3	13496	55	848	286	133	94	58	112	46	20	87	60

NWSC0107 ADCP 1245

```
Deployment: NWSC0107 updated 2002/10/22
Instrument no.:  1245
Instrument freq.:  75
Latitude: 60 34.150 N
Longitude:04 46.772 W
Bottom depth: 1073
Instrument depth:  659
Center depth of first bin:  623
Bin length:  25
Number of bins:  23
Number of first ensemble:     304
Time of first ensemble: 2001 07 07 19 00
Number of last ensemble:    25029
Time of last ensemble:  2002 06 16 04 40
Time between ensembles (min.):    20
All directions have been corrected by adding: -11.0
```

Below is listed for each bin the average speed (scalar average) and
the average velocity magnitude and direction formed as a vectorial
average of non-flagged (Good) observations. The last column shows the
number of good values used in parts per thousand

Bin no.	Depth m	Height m	Speed mm/s	Vel mm/s	Dir deg	Good ppt
1	623	450	193	63	226	978
2	598	475	195	58	225	981
3	573	500	197	53	225	982
4	548	525	198	48	225	984
5	523	550	200	43	224	984
6	498	575	203	37	220	984
7	473	600	208	28	217	983
8	448	625	214	20	214	980
9	423	650	220	11	204	977
10	398	675	228	8	151	972
11	373	700	236	10	106	974
12	348	725	243	14	76	972
13	323	750	250	18	64	974
14	298	775	257	21	57	970
15	273	800	264	25	53	957
16	248	825	272	29	54	946
17	223	850	278	31	57	930
18	198	875	285	31	57	888
19	173	900	294	32	56	842
20	148	925	303	37	57	767
21	123	950	311	44	56	705
22	98	975	319	54	58	626
23	73	1000	319	76	64	454

NWSC0107 ADCP 1245

Deployment: NWSC0107

Frequency of high speeds.
=========================

Frequency (in parts per thousand) of speeds equal to or exceeding specified vales.

Bin no.	Depth m	\(10\)	20	30	40	50	60	Speed (cm/s) 70	80	90	100	110	120	130	140	150	160	170	180
1	623	757	396	166	59	19	5	1	0	0	0	0	0	0	0	0	0	0	0
2	598	771	403	171	63	18	5	1	0	0	0	0	0	0	0	0	0	0	0
3	573	771	409	175	64	21	6	1	.04	0	0	0	0	0	0	0	0	0	0
4	548	778	415	176	67	23	5	.36	.04	0	0	0	0	0	0	0	0	0	0
5	523	782	429	178	67	21	6	.28	.04	.04	0	0	0	0	0	0	0	0	0
6	498	794	441	183	70	22	5	.20	0	0	0	0	0	0	0	0	0	0	0
7	473	808	458	195	72	23	5	.49	0	0	0	0	0	0	0	0	0	0	0
8	448	814	474	212	78	26	6	1	.08	0	0	0	0	0	0	0	0	0	0
9	423	820	486	231	90	30	8	2	.28	0	0	0	0	0	0	0	0	0	0
10	398	827	505	252	104	35	10	3	1	.04	0	0	0	0	0	0	0	0	0
11	373	839	532	269	117	41	12	3	1	.08	0	0	0	0	0	0	0	0	0
12	348	844	548	292	128	46	14	4	1	.16	0	0	0	0	0	0	0	0	0
13	323	847	567	317	145	54	16	5	1	.12	0	0	0	0	0	0	0	0	0
14	298	853	580	334	160	60	19	6	2	.20	.04	0	0	0	0	0	0	0	0
15	273	845	589	348	175	68	22	7	2	1	.20	0	0	0	0	0	0	0	0
16	248	843	598	360	187	78	26	8	3	1	.12	0	0	0	0	0	0	0	0
17	223	835	599	368	196	87	31	11	3	2	.40	0	0	0	0	0	0	0	0
18	198	803	583	364	199	88	36	12	3	1	.28	0	0	0	0	0	0	0	0
19	173	764	570	365	202	96	39	15	5	2	1	.12	0	0	0	0	0	0	0
20	148	698	530	347	200	98	43	18	7	3	1	.32	0	0	0	0	0	0	0
21	123	645	495	329	193	102	46	20	7	3	2	1	.20	0	0	0	0	0	0
22	98	575	449	302	181	99	46	20	8	4	2	1	.32	.08	.04	0	0	0	0
23	73	417	322	219	133	72	33	14	6	3	2	1	.44	.24	.08	.04	.04	0	0

NWSC0107 ADCP 1245

Harmonic constants for constituent M2 for deployment NWSC0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	623	145	255	118	251	187	7	39	253	A
02	598	143	255	120	252	187	5	40	254	A
03	573	140	256	122	254	186	3	41	255	A
04	548	138	256	125	255	186	1	42	256	A
05	523	135	256	126	257	185	1	43	257	C
06	498	132	257	129	258	184	2	44	258	C
07	473	127	258	130	259	182	2	46	258	C
08	448	124	257	129	261	179	6	46	259	C
09	423	121	256	130	263	178	11	47	260	C
10	398	117	255	132	266	176	16	48	261	C
11	373	113	254	129	268	170	21	49	262	C
12	348	108	253	129	271	167	26	50	263	C
13	323	102	254	134	272	167	26	53	266	C
14	298	98	256	139	274	168	24	55	268	C
15	273	96	258	143	275	171	24	57	270	C
16	248	95	260	146	276	173	22	57	271	C
17	223	95	262	149	275	175	18	58	272	C
18	198	95	263	151	276	178	18	58	272	C
19	173	96	262	151	276	177	21	58	272	C
20	148	97	263	156	276	182	19	58	273	C
21	123	97	264	156	277	183	18	59	274	C
22	98	97	266	158	277	184	16	59	274	C
23	73	95	265	159	276	185	17	59	273	C

Harmonic constants for constituent S2 for deployment NWSC0107.
==

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	623	45	293	46	298	64	3	46	295	C
02	598	46	294	47	297	65	2	46	295	C
03	573	45	293	47	297	65	2	47	295	C
04	548	45	293	46	296	64	2	46	295	C
05	523	46	291	45	295	64	2	44	293	C
06	498	46	292	46	295	65	2	45	294	C
07	473	45	295	48	298	66	2	47	297	C
08	448	47	297	50	298	69	1	47	297	C
09	423	47	295	49	298	68	2	46	296	C
10	398	47	295	48	295	67	0	46	295	A
11	373	47	294	48	294	67	0	45	294	C
12	348	47	291	48	294	67	2	45	292	C
13	323	48	290	48	293	68	1	45	291	C
14	298	49	291	47	292	68	1	43	291	C
15	273	50	292	46	292	68	0	43	292	A
16	248	51	296	45	293	68	2	41	294	A
17	223	51	297	46	294	68	2	42	296	A
18	198	51	298	45	297	68	1	41	298	A
19	173	53	303	48	299	72	2	42	301	A
20	148	58	308	47	296	74	7	39	303	A
21	123	55	311	50	297	74	9	43	305	A
22	98	56	311	48	297	73	9	41	305	A
23	73	57	305	49	291	74	9	41	299	A

NWSC0107 ADCP 1245

Harmonic constants for constituent N2 for deployment NWSC0107.
===

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	623	35	219	19	217	40	0	29	218	A
02	598	34	220	21	218	40	1	32	220	A
03	573	34	223	23	224	41	0	34	223	C
04	548	30	227	25	228	39	0	39	228	C
05	523	28	227	27	235	39	3	44	231	C
06	498	26	229	27	240	37	4	46	235	C
07	473	27	236	29	241	40	2	47	239	C
08	448	28	240	33	236	44	2	50	238	A
09	423	27	244	37	242	46	1	54	243	A
10	398	25	248	38	244	45	1	57	246	A
11	373	24	249	36	245	44	2	57	246	A
12	348	27	251	39	242	47	3	56	245	A
13	323	28	253	40	241	49	5	55	245	A
14	298	27	255	42	242	50	5	57	246	A
15	273	25	262	45	244	51	7	61	248	A
16	248	26	265	46	246	52	8	61	250	A
17	223	26	270	45	248	52	9	61	253	A
18	198	24	275	46	250	51	9	64	255	A
19	173	25	279	47	252	52	10	63	258	A
20	148	31	282	52	255	59	12	60	262	A
21	123	32	283	52	251	59	15	60	259	A
22	98	25	279	51	251	56	11	66	256	A
23	73	20	287	50	259	53	9	70	263	A

Harmonic constants for constituent O1 for deployment NWSC0107.
===

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	623	11	10	10	32	14	3	42	20	C
02	598	11	13	9	36	14	3	39	22	C
03	573	10	15	11	38	14	3	48	27	C
04	548	9	10	10	42	13	4	50	29	C
05	523	9	1	10	42	13	5	49	24	C
06	498	9	359	10	31	13	4	49	17	C
07	473	7	3	10	35	12	3	58	26	C
08	448	8	13	9	48	12	4	50	33	C
09	423	8	5	10	48	12	4	55	33	C
10	398	7	352	8	51	9	5	56	31	C
11	373	7	358	9	51	10	5	52	30	C
12	348	8	5	11	48	13	5	55	33	C
13	323	9	4	9	52	12	5	47	29	C
14	298	10	351	9	62	11	8	35	17	C
15	273	10	351	10	68	11	9	45	30	C
16	248	10	353	10	70	12	9	44	31	C
17	223	11	1	11	77	12	10	42	36	C
18	198	11	348	10	72	12	10	26	11	C
19	173	11	334	8	68	11	8	175	151	C
20	148	12	320	7	85	12	5	157	130	C
21	123	12	313	9	109	15	3	143	125	C
22	98	10	336	10	95	12	7	134	125	C
23	73	14	332	4	26	14	3	9	334	C

NWSC0107 ADCP 1245

```
Harmonic constants for constituent K1 for deployment NWSC0107.
===============================================================================
Bin   Depth  E-ampl   E-gpl  N-ampl  N-gpl   Major   Minor    Incl  Grphl  R
        m    mm/sec     deg  mm/sec    deg  mm/sec  mm/sec     deg    deg
-------------------------------------------------------------------------------
01     623        5     232       3    273       5       2      25    240   C
02     598        5     235       3    244       5       0      27    237   C
03     573        5     234       2    236       5       0      23    235   C
04     548        5     227       1    273       5       1      10    228   C
05     523        5     223       1    293       5       1       6    224   C
06     498        6     227       1    254       6       1      13    228   C
07     473        6     236       2    252       6       1      19    238   C
08     448        6     226       3    242       7       1      24    229   C
09     423        7     213       2    273       7       2      11    216   C
10     398        7     205       2    250       7       2      13    208   C
11     373        6     197       3    159       6       2      22    191   A
12     348        3     179       4    141       5       2      47    159   A
13     323        2     153       3    127       3       1      54    136   A
14     298        3     152       5    142       6       0      59    145   A
15     273        4     150       6    167       8       1      56    162   C
16     248        7     149       7    159      10       1      43    154   C
17     223        8     156       6    149      10       1      38    153   A
18     198        9     161       4    127      10       2      23    156   A
19     173       11     161       3    164      11       0      17    161   C
20     148       14     178       4    233      14       4      11    181   C
21     123       17     195      10    262      17       8      17    204   C
22      98       19     201       7    256      19       6      14    205   C
23      73       10     198       7    247      12       5      30    211   C
```

NWSC0107 Aanderaa 9912

Deployment: NWSC0107   analyzed from beginning to end
Instrument no.: 9912
Instrument type: Aanderaa
Latitude: 60 34.150 N
Longitude:04 46.772 W
Bottom depth: 1073
Instrument depth: 765
Number of records: 8241
Time of first record: 2001 07 07 19 30
Time of last record : 2002 06 16 03 30
Time between records (min.): 60.000

Parameters		Records OK	Records flagged
Column 1	: Recno		
Column 2- 4:	Date		
Column 5- 6:	Time		
Column 7	: Temp	8241	0
Column 8	: Speed	8241	0
Column 9	: Direct	8241	0
Column 10	: Salt	0	8241
Column 11	: N-temp	8241	0

Comments: The Salinity data were erroneous through out the deployment.

Residual current: 70 mm/sec towards: 216 degrees

TIDAL ANALYSIS

Error flagged records interpolated for velocity: 0, records not int.:   0
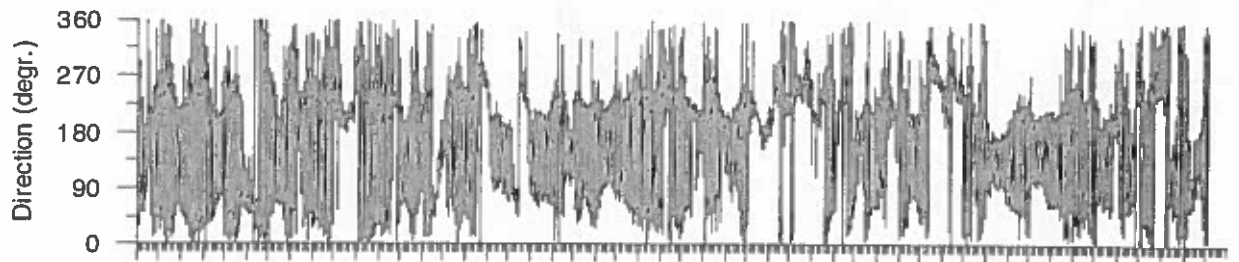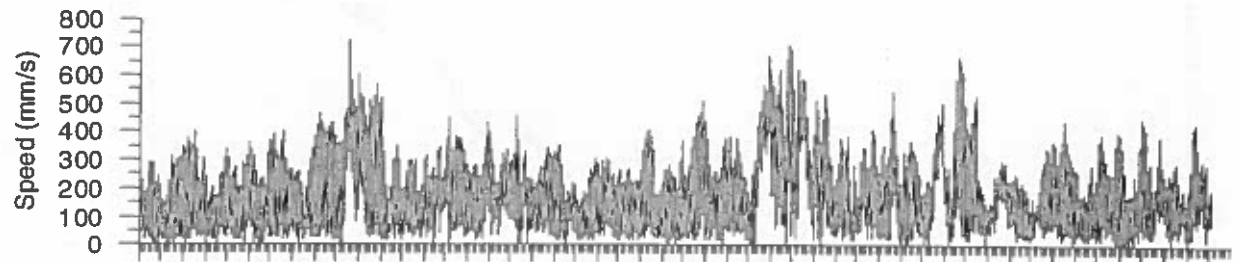Tidal analysis performed on unfiltered data
==

Const	Freq c/hr	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
MM	.00151215	30	241	11	204	31	6	17	238	A
MSF	.00282193	16	17	13	129	17	11	150	177	C
Q1	.03721850	4	310	4	353	6	2	49	334	C
O1	.03873065	9	2	9	33	12	3	48	19	C
NO1	.04026859	1	77	1	128	1	0	15	82	C
P1	.04155259	2	245	1	204	2	1	32	233	A
K1	.04178075	5	238	3	274	6	2	28	247	C
N2	.07899925	34	211	14	214	36	1	23	211	C
M2	.08051140	137	254	112	247	177	11	39	251	A
L2	.08202355	7	309	10	238	10	6	70	251	A
S2	.08333334	37	290	43	299	57	5	49	295	C
K2	.08356149	14	292	12	287	19	1	41	290	A
MK3	.12229210	0	170	1	295	1	0	131	319	C
M4	.16102280	1	310	4	288	4	1	72	290	A
MS4	.16384470	1	287	2	360	2	1	85	358	C

DIRECTIONAL CURRENT DISTRIBUTION (for all nonflagged observations in series)

Relative number of observations in parts per thousand (ppt) grouped into speed and
direction intervals (of 30 degree width centred around the directions shown)
==

Speed intervals (mm/s)	Direction intervals												All dir.	
	15	45	75	105	135	165	195	225	255	285	315	345	Tot	Acc
0 - 50	11	11	10	6	7	7	7	9	8	10	4	7	103	103
50 - 100	15	26	23	20	15	15	17	19	15	13	6	7	197	300
100 - 150	9	22	28	13	8	10	22	31	17	10	6	4	187	488
150 - 200	5	23	24	7	4	5	22	38	22	5	2	2	163	651
200 - 300	1	18	32	5	1	6	30	68	34	5	1	0	206	858
300 - 400	0	4	6	0	0	2	14	40	16	3	0	0	88	946
400 - 500	0	0	0	0	0	1	5	16	10	0	0	0	36	983
500 - 600	0	0	0	0	0	0	3	5	3	0	0	0	13	996
600 - 700	0	0	0	0	0	0	0	1	0	0	0	0	3	999
700 - 800	0	0	0	0	0	0	0	0	0	0	0	0	0	1000
Total (ppt)	43	107	126	54	36	49	125	232	130	49	20	22		
Rel.flux (ppt)	23	87	115	34	19	38	146	312	164	35	11	10		
Avg.spd (mm/s)	92	142	160	112	92	137	204	236	222	127	102	83		
Max.spd (mm/s)	327	438	456	304	228	571	729	708	661	417	262	304		

NWSC0107
Instrument: Aanderaa 9912
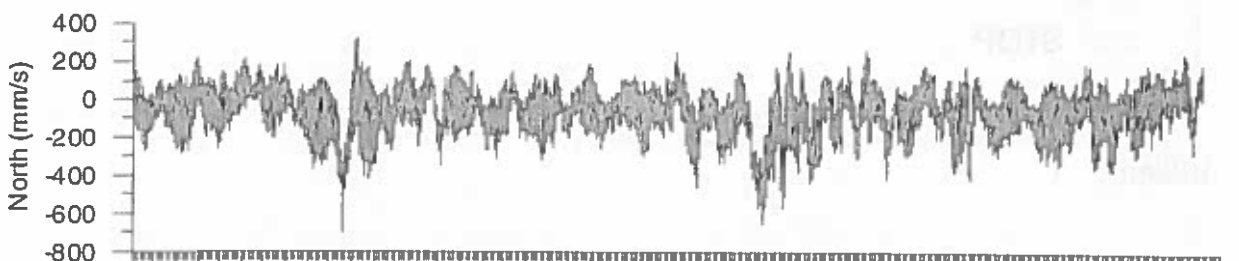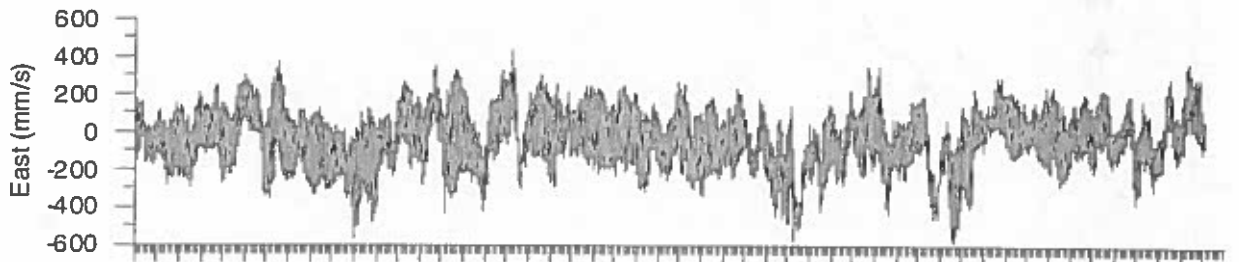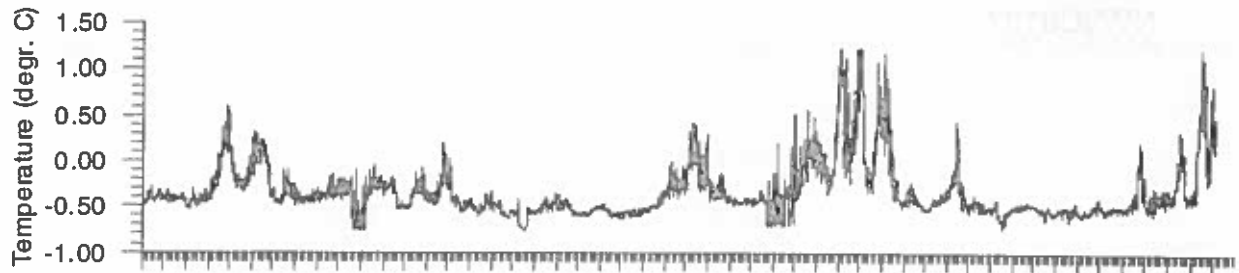
Aanderaa 9912

Progressive vector diagram
NWSC0107

START

N

STOP

100km