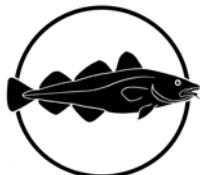


# **The Faroese Fisheries Laboratory**

**Fiskirannsóknarstovan**



## **Nordic WOCE ADCP Deployments in Faroese Waters 2007 - 2008**

**By**

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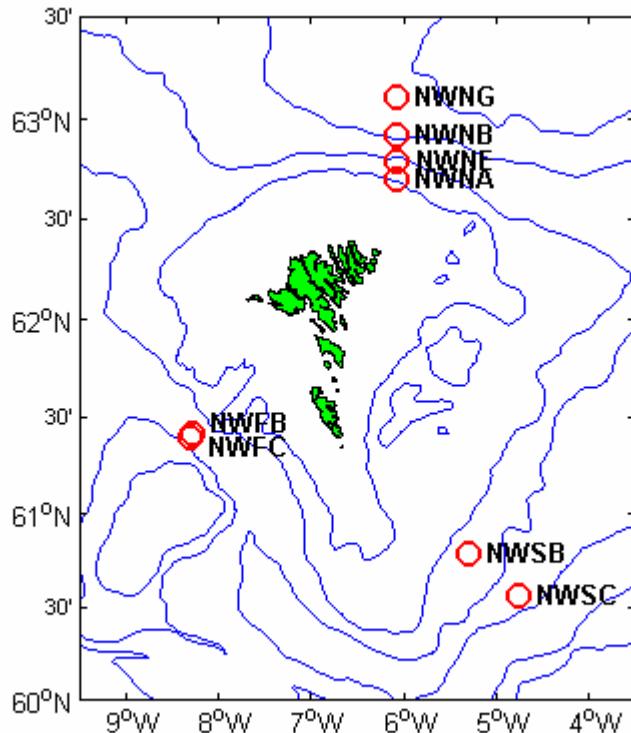
**November 2008**

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## Introduction

This report documents eight ADCP deployments in Faroese waters in 2007 – 2008. Aanderaa Current Meters are included in two, and a Microcat in one of the 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 mooring sites in Faroese waters 2007-2008 superposed on a map with the bottom topography. Each site is indicated by a four-letter label.

At site NWFB, NWFC, NWNB, NWNG, NWSB, and NWSC, 75 kHz RDI Broadband ADCP's were placed in the top of single-point moorings. At site NWNA and NWNE, "shallow-water" rigs were used, where a 150 kHz RDI Broadband ADCP was placed on the bottom inside a protective aluminium frame. For each deployment, the ADCP measures the velocity averaged over a number (14 – 26) of depth layers ("bins") which were 25m for all rigs except for the deployment NWNA where the depth layers were 10m. At 20 minute intervals, the ADCP records the data from all bins into "ensembles". In these deployments, each ensemble is based only upon one ping. At sites NWNG and NWSC, an Aanderaa current meter was on the mooring line below the ADCP. The Aanderaa current meters recorded speed, direction and temperature at 60 minute intervals. At deployment NWFB, a Microcat was attached to the ADCP. The Microcat recorded temperature, salinity and pressure every 10 minutes.

**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 Aanderaa or Microcat instruments were on the mooring.

Deployment	Bottom depth	Int. min.	Valid data period					Dur. days	No bins	Depth range	Comments
NWFB0706	812	20	2007 06 09-2008 05 16					342	26	146- 771	Microcat
NWFC0706	847	20	2007 06 09-2008 05 17					342	25	206- 806	
NWNA0706	303	20	2007 06 08-2008 05 18					345	24	56- 286	
NWNB0706	955	20	2007 06 08-2008 05 18					345	23	116- 666	
NWNE0706	450	20	2007 06 08-2008 05 18					345	14	93- 418	
NWNG0706	1804	20	2007 06 08-2008 05 18					345	22	76- 601	Aanderaa
NWSB0706	787	20	2007 06 10-2008 05 16					341	23	94- 644	
NWSC0706	1067	20	2007 06 10-2008 05 16					341	23	63- 613	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. The editing has been done with a philosophy of minimal interference. Thus, only observations which were considered clearly erroneous were flagged. 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 depths are found using the data from the surface echo, except for the sites NWFB, NWFC, and NWNA. The instrument depth at sites NWFC and NWNA are found from the echo sounding depth (corrected for change in sound velocity) and the length of the mooring line. The instrument depth at site NWFB is found from the Microcat pressure measurement.

The Aanderaa data have been calibrated using calibration coefficients 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 FFL, based upon MATLAB.

Data from the Microcat instrument 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 FFL, based upon MATLAB. Data were calibrated using calibration coefficients from the factory some months before deployment, but the data indicate a possible drift in salinity.

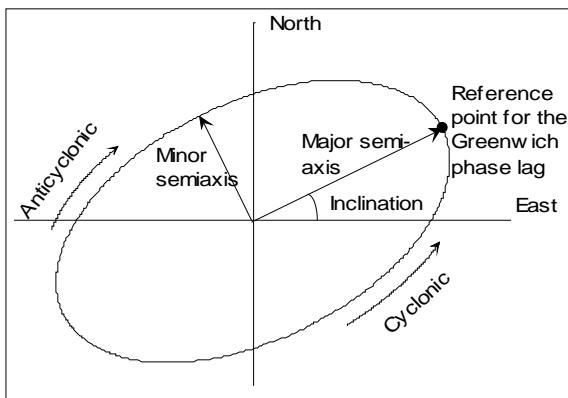
## Report format

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. Then there are some 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 semi-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 as the number that could not be interpolated (too large gap). Since both the deployments have 60 minutes intervals, both 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 Aanderaa 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 include temperature, salinity, pressure and depth. The data are presented on two pages, the first page showing plots of 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: NWFB0706

**Latitude:** 61°25.038'N

**Longitude:** 008°16.983'W

**Echo sounding depth:** 825 m

**Bottom depth corr.:** 812 m

**Time of deployment:** 9/6 -2007 0540 UTC

**Time of recovery:** 16/5 - 2008 2011 UTC

### ADCP:

**Instrument no.:** RDI ADCP 1642

**Instrument frequency:** 75 kHz

**Height above bottom:** 6 m

**Depth:** 806 m (corr.)

**Time of first data:** 9/6 - 2007 0600 UTC

**Time of last data:** 16/05 - 2008 1940 UTC

**Sample interval:** 20 min

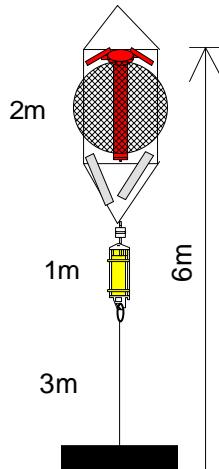
**No. of ensembles:** 24666

**Pings per ens.:** 1

**Binlength:** 25 m

**Depth of first bin:** 771m (corr.)

**No. of bins:** 26



### Micro Cat:

**Instrument no.:** 5184

**Height above bottom:** 5 m

**Time of first data:** 09/06 - 2007 0600 UTC

**Time of last data:** 16/05 - 2008 2010 UTC

**Sample interval:** 10 min

**No. of ensembles:** 49334

**Instrument depth:** 807 m

**Data:** The temperature measurements from the ADCP could not be used.

The salinity from the MicroCat may have a drift.

## **NWFB0706 ADCP 1642**

Error statistics for deployment: NWFB0706 updated 2008/10/10

Surface distance invalid due to range limitation

Heading, pitch and roll not edited

Temperature data invalid due to instrument failure

Velocity edited up to and including bin 26 by EJ in Jul 2008

Intensity edited up to and including bin 26 by EJ in Sep 2008

Total number of ensembles: 24666

Interval between ensembles: 20 min

Original number of bins: 32

Number of acceptable velocity bins: 26

Number of acceptable intensity bins: 26

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: 24666

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	%	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	12	139	1	117	9	0	1	0	0	0	0	0	0
2	3	36	0	34	1	0	0	0	0	0	0	0	0
3	3	33	0	33	0	0	0	0	0	0	0	0	0
4	3	32	0	32	0	0	0	0	0	0	0	0	0
5	5	23	0	23	0	0	0	0	0	0	0	0	0
6	7	28	0	28	0	0	0	0	0	0	0	0	0
7	2	67	0	61	1	0	1	0	0	0	0	0	0
8	4	167	1	140	9	3	0	0	0	0	0	0	0
9	4	487	2	376	42	6	1	1	0	0	0	0	0
10	1	644	3	468	69	10	2	0	0	0	0	0	0
11	1	568	2	423	42	13	3	2	0	0	0	0	0
12	2	331	1	257	24	3	3	1	0	0	0	0	0
13	0	229	1	188	17	1	1	0	0	0	0	0	0
14	0	135	1	113	8	2	0	0	0	0	0	0	0
15	1	126	1	100	13	0	0	0	0	0	0	0	0
16	5	179	1	137	13	4	1	0	0	0	0	0	0
17	8	245	1	196	15	1	1	0	2	0	0	0	0
18	6	339	1	247	31	6	3	0	0	0	0	0	0
19	10	516	2	350	45	16	5	0	1	0	0	0	0
20	11	763	3	518	73	24	4	1	1	0	0	0	0
21	10	941	4	600	102	26	9	3	1	0	0	0	0
22	8	1100	4	722	118	28	6	1	3	1	0	0	0
23	19	1370	6	926	151	24	8	5	2	0	0	0	0
24	11	2138	9	1387	246	49	15	5	4	0	0	0	0
25	14	4387	18	2241	512	159	63	31	36	0	0	0	0
26	15	8807	36	2657	1018	417	246	89	161	17	3	0	0

## **NWFB0706 ADCP 1642**

Deployment: NWFB0706 updated 2008/10/10  
Instrument no.: 1642  
Instrument freq.: 75  
Latitude: 61 25.038 N  
Longitude: 08 16.983 W  
Bottom depth: 812  
Instrument depth: 806  
Center depth of first bin: 771  
Bin length: 25  
Number of bins: 26  
Number of first ensemble: 469  
Time of first ensemble: 2007 06 09 06 00  
Number of last ensemble: 25134  
Time of last ensemble: 2008 05 16 19 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	771	41	1004	1000	299	994
2	746	66	1077	1073	302	999
3	721	91	1107	1103	304	999
4	696	116	1115	1112	305	999
5	671	141	1110	1107	306	999
6	646	166	1084	1080	307	999
7	621	191	1021	1015	308	997
8	596	216	905	893	311	993
9	571	241	738	716	314	980
10	546	266	555	515	317	974
11	521	291	405	338	319	977
12	496	316	307	210	321	987
13	471	341	250	131	323	991
14	446	366	220	87	325	995
15	421	391	201	63	326	995
16	396	416	187	53	324	993
17	371	441	176	52	320	990
18	346	466	167	59	316	986
19	321	491	160	70	311	979
20	296	516	157	83	309	969
21	271	541	154	94	308	962
22	246	566	148	99	307	955
23	221	591	141	101	307	944
24	196	616	134	101	307	913
25	171	641	128	95	307	822
26	146	666	123	86	306	643

## **NWFB0706 ADCP 1642**

Deployment: NWFB0706

Frequency of high speeds.

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

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	771	994	994	994	992	989	982	959	893	764	543	271	92	22	4	1	0	0	0
2	746	999	999	998	996	994	990	979	941	860	721	480	221	63	11	2	0	0	0
3	721	999	999	999	997	995	991	982	950	883	768	577	302	95	18	2	0	0	0
4	696	999	999	999	999	997	995	992	982	951	887	782	595	329	110	21	2	0	0
5	671	999	999	999	999	997	996	992	979	946	880	768	581	322	110	21	2	0	0
6	646	999	999	999	999	996	993	984	965	918	838	711	524	290	98	19	2	0	0
7	621	997	996	992	986	972	950	911	842	739	594	413	212	70	13	2	1	0	0
8	596	989	981	968	944	907	859	789	691	556	399	246	119	36	6	1	0	0	0
9	571	971	943	898	832	755	665	563	439	314	203	112	45	12	2	1	0	0	0
10	546	946	868	755	632	516	410	310	221	141	77	33	11	2	0	0	0	0	0
11	521	912	749	572	421	303	212	142	86	45	21	8	2	1	0	0	0	0	0
12	496	876	639	415	261	154	93	53	27	12	5	2	1	0	0	0	0	0	0
13	471	839	544	307	157	76	35	16	8	3	1	0	0	0	0	0	0	0	0
14	446	815	478	239	100	36	14	5	2	1	0	0	0	0	0	0	0	0	0
15	421	790	431	189	69	21	5	1	0	0	0	0	0	0	0	0	0	0	0
16	396	762	388	151	51	13	2	0	0	0	0	0	0	0	0	0	0	0	0
17	371	738	345	124	37	8	1	0	0	0	0	0	0	0	0	0	0	0	0
18	346	732	299	95	28	6	1	0	0	0	0	0	0	0	0	0	0	0	0
19	321	724	259	74	22	5	1	0	0	0	0	0	0	0	0	0	0	0	0
20	296	731	233	63	18	4	0	0	0	0	0	0	0	0	0	0	0	0	0
21	271	728	210	53	15	3	0	0	0	0	0	0	0	0	0	0	0	0	0
22	246	699	181	44	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0
23	221	649	164	35	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0
24	196	578	146	27	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
25	171	473	128	23	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
26	146	337	101	21	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0

## **NWFB0706 ADCP 1642**

Harmonic constants for constituent M2 for deployment NWFB0706.

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	771	29	70	21	340	29	21	179	251	A
02	746	33	72	20	338	33	20	176	255	A
03	721	32	79	17	336	32	17	170	264	A
04	696	31	87	14	333	31	12	167	272	A
05	671	31	94	14	320	32	9	161	280	A
06	646	29	101	16	295	33	3	151	284	A
07	621	29	125	21	272	35	10	147	295	C
08	596	35	151	23	265	37	20	159	319	C
09	571	36	183	24	247	38	21	24	197	C
10	546	46	226	41	208	61	10	41	218	A
11	521	67	247	70	187	84	49	48	214	A
12	496	75	259	91	180	94	72	68	197	A
13	471	75	265	101	179	101	75	83	184	A
14	446	74	268	102	179	102	74	88	180	A
15	421	70	271	99	182	99	70	90	182	A
16	396	65	276	92	185	92	65	91	184	A
17	371	59	278	84	189	84	59	89	189	A
18	346	51	280	75	192	75	51	87	194	A
19	321	42	282	66	197	66	42	84	201	A
20	296	35	286	57	203	57	35	83	207	A
21	271	30	287	47	204	48	29	83	209	A
22	246	25	286	41	208	41	25	79	214	A
23	221	22	282	35	214	36	19	71	225	A
24	196	19	275	29	218	32	15	64	231	A
25	171	19	277	25	219	28	15	59	237	A
26	146	20	280	26	222	29	15	59	239	A

Harmonic constants for constituent S2 for deployment NWFB0706.

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	771	10	107	8	35	10	7	27	88	A
02	746	11	109	8	33	11	8	19	96	A
03	721	11	113	7	30	11	7	6	109	A
04	696	9	117	5	18	9	5	173	301	A
05	671	8	131	4	343	8	2	156	316	A
06	646	8	157	3	306	9	2	161	333	C
07	621	9	171	4	307	10	3	159	345	C
08	596	6	173	8	313	10	3	125	327	C
09	571	3	220	14	293	14	2	87	293	C
10	546	10	289	19	259	21	4	65	265	A
11	521	21	295	25	227	28	18	59	248	A
12	496	26	298	33	215	33	25	76	226	A
13	471	25	295	36	217	36	23	75	227	A
14	446	22	296	35	221	36	21	75	230	A
15	421	22	302	35	222	35	21	80	229	A
16	396	23	310	34	222	34	23	88	223	A
17	371	22	316	32	225	32	22	91	224	A
18	346	19	318	28	230	28	19	87	232	A
19	321	15	321	24	237	24	15	84	240	A
20	296	11	312	21	241	21	11	76	248	A
21	271	10	308	18	245	19	8	73	253	A
22	246	10	322	15	237	15	10	84	241	A
23	221	10	326	13	240	13	10	80	248	A
24	196	9	334	12	243	12	9	93	240	A
25	171	10	345	10	241	11	9	130	208	A
26	146	9	346	11	245	11	9	116	224	A

## **NWFB0706 ADCP 1642**

Harmonic constants for constituent N2 for deployment NWFB0706.

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	771	9	59	4	278	10	2	160	244	A
02	746	10	65	4	282	11	2	161	249	A
03	721	10	67	4	283	11	2	161	251	A
04	696	11	68	5	271	12	2	158	252	A
05	671	9	74	6	267	11	1	150	258	A
06	646	8	98	6	248	10	3	146	268	C
07	621	12	109	4	251	13	3	163	285	C
08	596	15	115	4	282	15	1	164	294	C
09	571	13	142	2	321	13	0	169	322	C
10	546	13	163	4	96	13	4	8	161	A
11	521	12	170	6	111	12	5	20	160	A
12	496	6	209	10	153	11	5	67	163	A
13	471	8	247	17	166	17	8	84	169	A
14	446	14	260	21	168	21	14	92	167	A
15	421	16	265	25	166	25	16	100	160	A
16	396	16	266	25	165	25	16	101	158	A
17	371	16	269	23	167	24	15	103	159	A
18	346	14	269	22	170	22	13	99	164	A
19	321	11	274	19	175	19	11	97	171	A
20	296	8	274	18	178	18	8	93	176	A
21	271	7	276	16	181	16	6	92	180	A
22	246	6	267	14	193	14	6	82	197	A
23	221	5	272	11	198	11	5	79	203	A
24	196	5	262	8	200	8	4	67	212	A
25	171	4	258	7	213	7	3	64	222	A
26	146	3	264	9	222	9	2	74	226	A

Harmonic constants for constituent O1 for deployment NWFB0706.

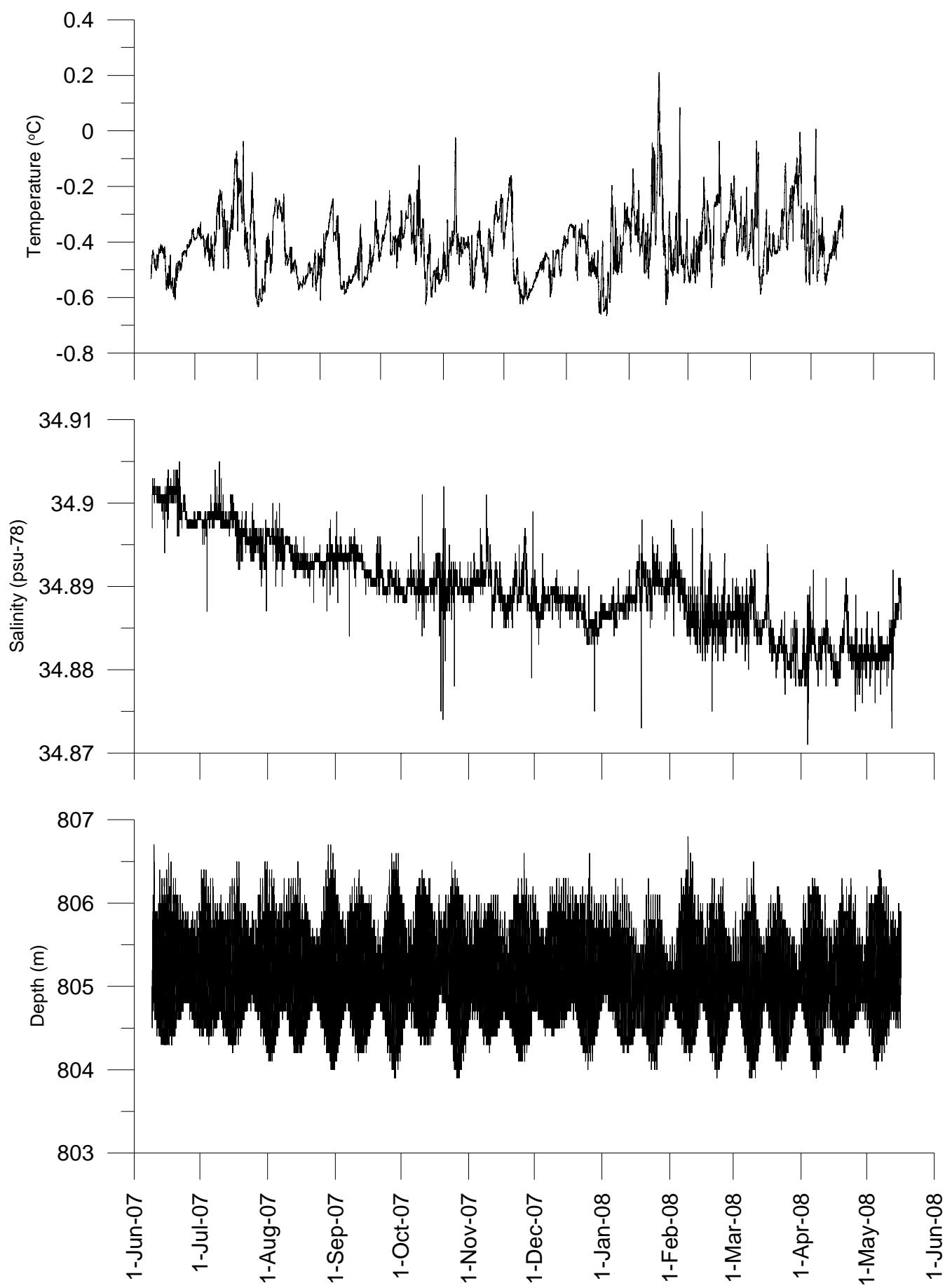
Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	771	15	323	6	128	16	1	158	141	C
02	746	17	323	7	139	18	0	157	142	C
03	721	18	322	9	144	20	0	153	142	A
04	696	18	324	10	141	21	0	151	143	C
05	671	19	328	10	138	21	2	151	145	C
06	646	22	336	10	139	24	3	155	153	C
07	621	27	340	12	146	30	3	156	158	C
08	596	32	343	19	159	37	1	150	162	C
09	571	34	347	25	168	42	0	144	168	A
10	546	32	356	26	170	41	2	141	174	C
11	521	27	2	23	181	36	1	140	182	C
12	496	22	8	21	190	31	1	137	189	A
13	471	19	12	18	193	26	0	137	193	A
14	446	17	15	16	201	23	1	136	198	A
15	421	14	20	14	203	20	1	135	202	A
16	396	12	31	13	206	17	1	133	208	C
17	371	11	40	10	211	15	1	136	215	C
18	346	10	35	10	209	14	1	135	212	C
19	321	10	24	9	204	13	0	139	204	C
20	296	9	15	8	196	12	0	139	196	A
21	271	8	10	8	197	11	1	134	194	A
22	246	5	7	7	202	8	1	128	196	A
23	221	3	23	3	203	4	0	134	203	A
24	196	1	328	2	170	2	0	117	165	A
25	171	3	306	3	178	4	2	141	148	A
26	146	4	339	6	162	7	0	124	161	A

## **NWFB0706 ADCP 1642**

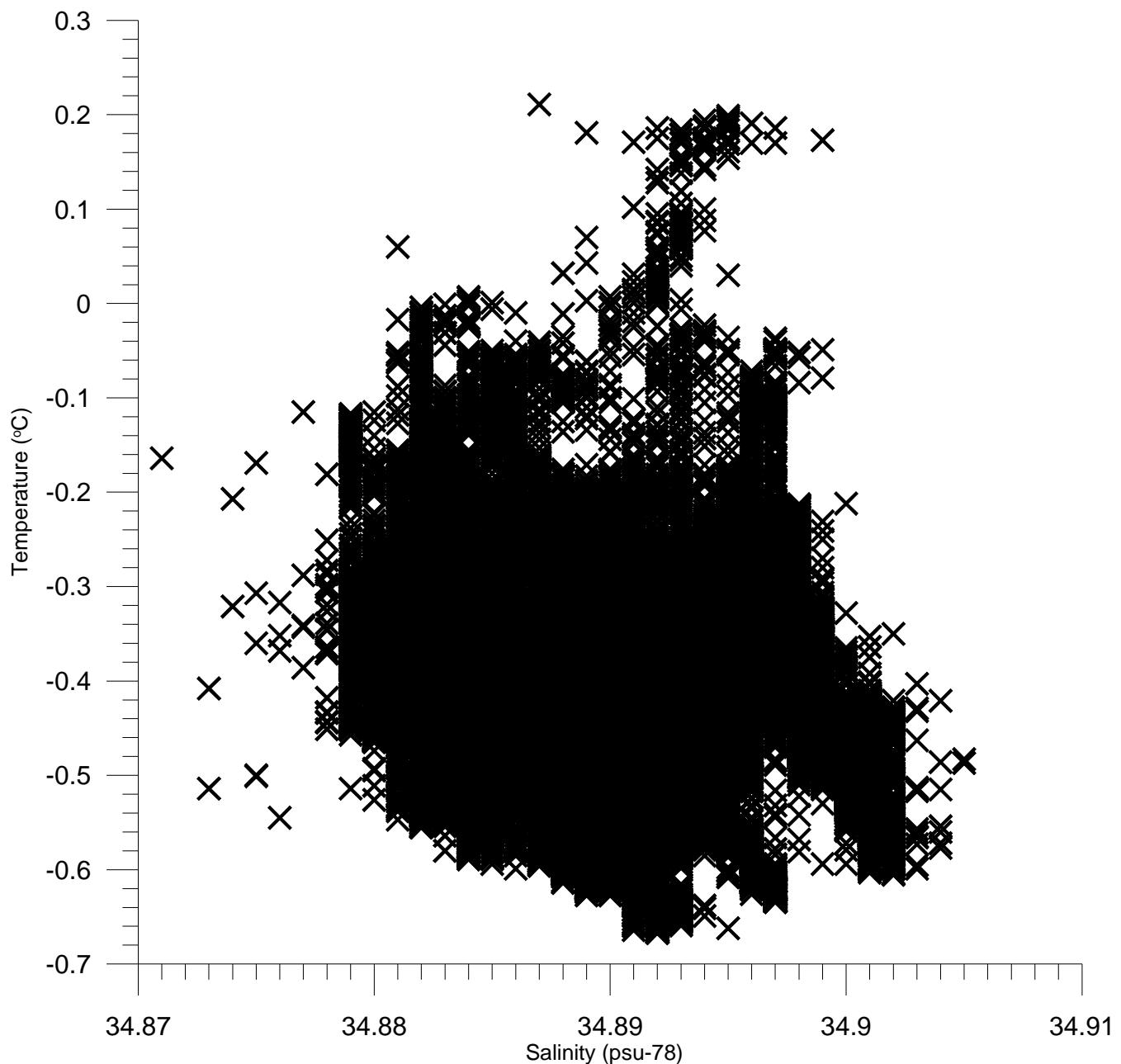
Harmonic constants for constituent K1 for deployment NWFB0706.

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	771	15	227	9	77	17	4	153	54	A
02	746	19	225	9	64	21	3	155	49	A
03	721	19	231	10	55	22	1	152	52	A
04	696	19	235	11	53	22	0	150	54	C
05	671	18	238	13	58	22	0	146	58	C
06	646	22	238	13	60	25	0	150	59	A
07	621	28	237	15	58	32	0	152	57	A
08	596	34	238	21	59	40	0	148	58	A
09	571	36	241	25	58	43	1	145	60	C
10	546	32	243	26	64	41	0	140	64	A
11	521	25	249	26	69	36	0	134	69	A
12	496	21	259	24	73	31	2	131	76	C
13	471	16	267	21	76	26	2	128	80	C
14	446	13	272	19	80	23	2	124	84	C
15	421	9	278	19	80	20	3	115	83	C
16	396	5	285	17	77	17	2	105	79	C
17	371	0	240	14	73	14	0	91	73	A
18	346	2	119	12	71	12	1	84	72	A
19	321	1	216	11	73	11	1	95	72	A
20	296	3	282	10	79	11	1	106	81	C
21	271	5	273	9	84	10	1	117	86	C
22	246	6	260	9	79	11	0	122	79	C
23	221	6	260	9	70	11	1	125	73	C
24	196	5	258	8	59	9	1	124	65	C
25	171	5	256	7	53	8	2	122	59	C
26	146	4	211	5	37	7	0	126	35	A

**NWFB0706 MicroCat 5184**



**NWFB0706 MicroCat 5184**



## Deployment Id: NWFC0706

**Latitude:** 61°23.489'N

**Longitude:** 008°18.973'W

**Echo sounding depth:** 856 m

**Bottom depth corr.:** 847 m

**Time of deployment:** 9/6 -2007 0603 UTC

**Time of recovery:** 17/5 - 2008 0440 UTC

### ADCP:

**Instrument no.:** RDI ADCP 1285

**Instrument frequency:** 75 kHz

**Height above bottom:** 6 m

**Depth:** 841 m (corr.)

**Time of first data:** 9/6 - 2007 0620 UTC

**Time of last data:** 17/5 - 2008 0340 UTC

**Sample interval:** 20 min

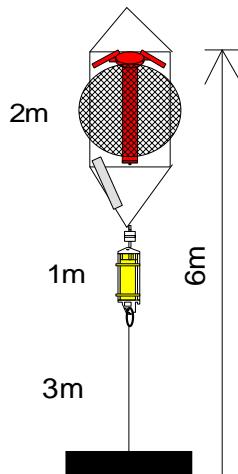
**No. of ensembles:** 24689

**Pings per ens.:** 1

**Binlength:** 25 m

**Depth of first bin:** 806 m (corr.)

**No. of bins:** 25



**Data:** All data ok.

## **NWFC0706 ADCP 1285**

Error statistics for deployment: NWFC0706 updated 2008/10/10

Surface distance invalid due to range limitation

Heading, pitch and roll not edited

Temperature edited by EJ in Jul 2008

Velocity edited up to and including bin 25 by EJ in Jun 2008

Intensity edited up to and including bin 25 by EJ in Sep 2008

Total number of ensembles: 24689

Interval between ensembles: 20 min

Original number of bins: 32

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: 21

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	%	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	8	108	0	104	2	0	0	0	0	0	0	0	0
2	11	63	0	61	1	0	0	0	0	0	0	0	0
3	12	135	1	98	12	3	1	0	0	0	0	0	0
4	5	518	2	337	57	14	3	1	1	0	0	0	0
5	3	1078	4	670	136	24	8	4	2	0	0	0	0
6	0	1554	6	950	174	44	12	6	6	0	0	0	0
7	1	2696	11	1469	347	99	30	12	8	0	0	0	0
8	1	3362	14	1774	436	133	49	14	8	0	0	0	0
9	4	2646	11	1520	323	93	26	14	4	0	0	0	0
10	5	1843	7	1076	213	64	25	6	3	0	0	0	0
11	4	1158	5	721	122	41	9	5	1	0	0	0	0
12	6	652	3	489	55	12	3	1	0	0	0	0	0
13	8	377	2	301	27	6	1	0	0	0	0	0	0
14	7	309	1	206	27	7	4	1	1	0	0	0	0
15	4	299	1	210	28	7	3	0	0	0	0	0	0
16	7	244	1	164	24	4	2	1	1	0	0	0	0
17	3	184	1	131	20	3	1	0	0	0	0	0	0
18	4	177	1	122	15	4	2	1	0	0	0	0	0
19	4	335	1	191	34	10	3	0	3	1	0	0	0
20	5	681	3	292	53	17	8	8	15	3	0	0	0
21	3	1337	5	463	112	40	23	11	26	11	1	0	0
22	8	3025	12	791	210	72	45	41	59	44	3	2	0
23	5	5640	23	901	288	132	73	47	98	81	44	5	0
24	5	8011	32	1032	279	133	69	59	155	96	87	21	0
25	6	10056	41	1197	348	160	97	61	195	123	68	52	2

## **NWFC0706 ADCP 1285**

Deployment: NWFC0706 updated 2008/10/10

Instrument no.: 1285

Instrument freq.: 75

Latitude: 61 23.489 N

Longitude: 08 18.973 W

Bottom depth: 847

Instrument depth: 841

Center depth of first bin: 806

Bin length: 25

Number of bins: 25

Number of first ensemble: 491

Time of first ensemble: 2007 06 09 06 20

Number of last ensemble: 25179

Time of last ensemble: 2008 05 17 03 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	806	41	1028	1022	306	996
2	781	66	1118	1113	309	997
3	756	91	1133	1129	312	995
4	731	116	1118	1114	313	979
5	706	141	1090	1085	313	956
6	681	166	1017	1010	313	937
7	656	191	853	840	315	891
8	631	216	639	596	317	864
9	606	241	439	335	322	893
10	581	266	311	146	332	925
11	556	291	244	47	16	953
12	531	316	214	49	88	974
13	506	341	202	69	109	985
14	481	366	197	83	116	987
15	456	391	195	90	120	988
16	431	416	196	93	122	990
17	406	441	198	96	125	993
18	381	466	200	98	127	993
19	356	491	201	100	129	986
20	331	516	202	100	129	972
21	306	541	204	103	129	946
22	281	566	208	103	129	877
23	256	591	209	102	130	772
24	231	616	210	99	130	676
25	206	641	210	96	131	593

## **NWFC0706 ADCP 1285**

Deployment: NWFC0706

Frequency of high speeds.

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

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	806	996	996	996	994	991	985	966	910	783	587	345	145	42	7	1	0	0	0
2	781	997	997	997	994	991	983	961	903	784	578	327	117	25	3	0	0	0	0
3	756	995	995	995	993	991	989	982	964	918	815	621	358	129	27	3	0	0	0
4	731	979	979	979	978	976	973	965	945	893	775	572	314	110	21	3	0	0	0
5	706	956	956	956	955	952	946	931	901	826	688	492	268	94	19	3	1	0	0
6	681	937	935	933	925	911	890	851	788	687	539	370	203	74	15	3	0	0	0
7	656	883	861	837	805	763	706	633	543	437	315	203	113	45	10	2	0	0	0
8	631	831	756	678	603	530	456	381	308	228	152	93	50	19	5	1	0	0	0
9	606	819	660	507	398	314	248	193	138	91	56	33	15	5	1	0	0	0	0
10	581	817	589	368	235	152	105	68	42	25	14	7	3	0	0	0	0	0	0
11	556	816	521	262	125	64	34	17	9	5	2	0	0	0	0	0	0	0	0
12	531	812	470	206	77	26	9	3	1	1	0	0	0	0	0	0	0	0	0
13	506	806	443	172	55	15	3	1	0	0	0	0	0	0	0	0	0	0	0
14	481	802	428	161	50	12	2	0	0	0	0	0	0	0	0	0	0	0	0
15	456	795	417	160	48	13	2	0	0	0	0	0	0	0	0	0	0	0	0
16	431	794	419	165	51	13	3	0	0	0	0	0	0	0	0	0	0	0	0
17	406	797	429	177	57	14	3	1	0	0	0	0	0	0	0	0	0	0	0
18	381	799	434	178	61	15	4	1	0	0	0	0	0	0	0	0	0	0	0
19	356	793	434	177	64	16	4	1	0	0	0	0	0	0	0	0	0	0	0
20	331	780	428	180	65	18	5	1	0	0	0	0	0	0	0	0	0	0	0
21	306	764	425	182	66	21	7	2	0	0	0	0	0	0	0	0	0	0	0
22	281	712	399	175	68	22	8	2	0	0	0	0	0	0	0	0	0	0	0
23	256	626	356	158	63	21	7	2	0	0	0	0	0	0	0	0	0	0	0
24	231	546	311	141	57	19	6	2	0	0	0	0	0	0	0	0	0	0	0
25	206	482	272	123	48	16	6	2	0	0	0	0	0	0	0	0	0	0	0

## **NWFC0706 ADCP 1285**

Harmonic constants for constituent M2 for deployment NWFC0706.

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	806	10	92	10	298	14	3	138	284	A
02	781	14	87	11	301	17	5	143	280	A
03	756	15	80	15	291	20	6	136	275	A
04	731	14	75	18	291	21	7	126	278	A
05	706	13	87	23	297	26	6	118	290	A
06	681	24	114	35	313	42	7	124	307	A
07	656	50	125	48	321	69	9	136	313	A
08	631	68	135	47	325	82	7	145	318	A
09	606	59	156	16	329	61	2	165	336	C
10	581	44	196	30	153	50	18	31	183	A
11	556	51	231	63	153	65	48	69	169	A
12	531	58	243	78	156	78	58	85	160	A
13	506	61	250	86	161	86	61	89	162	A
14	481	61	257	89	167	89	61	90	167	A
15	456	62	265	90	173	90	62	92	172	A
16	431	64	271	92	179	92	64	92	177	A
17	406	66	275	94	183	94	65	93	181	A
18	381	65	278	94	186	94	65	93	184	A
19	356	66	282	94	188	94	66	95	184	A
20	331	67	284	95	190	96	67	96	186	A
21	306	69	287	97	191	97	69	98	186	A
22	281	72	290	100	192	101	71	101	184	A
23	256	74	292	103	194	104	73	102	185	A
24	231	75	290	101	196	101	74	98	190	A
25	206	76	290	101	198	101	76	94	195	A

Harmonic constants for constituent S2 for deployment NWFC0706.

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	806	5	145	5	341	7	1	136	333	A
02	781	5	131	5	334	7	1	136	322	A
03	756	5	118	6	333	7	2	126	320	A
04	731	5	112	7	335	8	3	123	322	A
05	706	6	127	8	347	10	3	122	335	A
06	681	9	152	12	354	15	3	128	345	A
07	656	15	168	16	355	22	1	133	352	A
08	631	18	174	15	347	24	1	140	351	C
09	606	18	189	8	340	19	4	159	5	C
10	581	15	230	7	193	16	4	23	224	A
11	556	18	269	19	190	20	17	51	224	A
12	531	20	278	25	194	26	20	78	204	A
13	506	22	282	28	200	29	21	77	210	A
14	481	22	290	30	206	31	22	82	211	A
15	456	22	296	32	211	32	22	84	215	A
16	431	22	303	34	217	34	22	86	219	A
17	406	23	310	34	221	34	23	89	222	A
18	381	23	314	34	225	34	23	89	226	A
19	356	23	317	32	229	32	23	87	231	A
20	331	23	322	31	233	31	23	88	234	A
21	306	24	326	30	236	30	24	91	235	A
22	281	24	324	30	239	30	23	80	246	A
23	256	24	323	30	242	30	23	74	254	A
24	231	25	322	30	239	30	24	72	253	A
25	206	25	323	27	247	29	23	53	277	A

## **NWFC0706 ADCP 1285**

Harmonic constants for constituent N2 for deployment NWFC0706.

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	806	3	71	4	279	5	1	122	271	A
02	781	3	49	3	274	4	2	128	257	A
03	756	4	58	4	264	6	1	140	249	A
04	731	5	61	5	275	7	2	138	257	A
05	706	5	80	6	297	8	3	132	280	A
06	681	10	106	10	307	13	3	134	297	A
07	656	16	109	14	310	21	4	138	298	A
08	631	20	107	15	319	24	7	146	297	A
09	606	20	113	12	326	22	6	152	301	A
10	581	16	125	8	4	17	7	163	312	A
11	556	12	140	7	65	12	6	12	133	A
12	531	8	174	10	109	11	6	61	127	A
13	506	9	210	13	132	14	9	75	142	A
14	481	12	225	17	140	17	12	83	145	A
15	456	12	230	19	142	19	12	87	144	A
16	431	14	237	20	145	21	14	93	143	A
17	406	15	245	21	152	21	15	95	148	A
18	381	16	250	22	157	22	16	95	153	A
19	356	17	253	23	162	23	17	91	161	A
20	331	17	256	23	165	23	17	92	164	A
21	306	17	261	23	166	24	17	97	161	A
22	281	17	263	24	167	24	17	98	162	A
23	256	19	263	21	171	21	19	94	168	A
24	231	17	270	20	172	20	16	110	156	A
25	206	16	266	17	174	17	16	106	159	A

Harmonic constants for constituent O1 for deployment NWFC0706.

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	806	9	339	10	151	13	1	132	154	C
02	781	8	333	11	153	14	0	127	153	A
03	756	9	332	13	151	16	0	126	151	C
04	731	9	340	14	160	17	0	122	160	C
05	706	12	356	17	168	21	1	127	171	C
06	681	21	354	23	174	31	0	132	174	C
07	656	30	356	31	180	43	2	134	178	A
08	631	35	360	35	185	50	2	135	182	A
09	606	34	359	35	186	49	3	134	183	A
10	581	28	3	30	186	41	1	133	185	A
11	556	22	4	25	191	34	2	132	188	A
12	531	17	5	20	196	26	3	131	191	A
13	506	14	8	16	202	21	2	130	196	A
14	481	13	11	16	205	20	2	128	199	A
15	456	13	14	15	207	20	2	132	202	A
16	431	12	20	14	211	18	2	131	206	A
17	406	11	24	13	211	17	1	131	208	A
18	381	11	23	12	207	16	1	134	205	A
19	356	11	23	13	207	17	1	132	205	A
20	331	11	23	13	211	17	1	130	208	A
21	306	11	24	13	208	17	1	130	206	A
22	281	11	28	12	209	16	0	131	209	A
23	256	11	16	13	213	16	3	129	206	A
24	231	11	14	14	228	17	5	128	215	A
25	206	12	15	12	222	17	4	134	209	A

## **NWFC0706 ADCP 1285**

Harmonic constants for constituent K1 for deployment NWFC0706.

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	806	12	245	13	61	18	1	134	63	C
02	781	11	240	14	61	18	0	128	60	A
03	756	11	242	15	61	19	0	126	61	C
04	731	10	241	16	59	19	0	122	59	C
05	706	12	243	18	63	22	0	123	63	A
06	681	18	248	25	71	31	1	127	70	A
07	656	29	250	32	74	43	2	132	72	A
08	631	34	254	35	74	49	0	134	74	A
09	606	32	255	35	81	47	3	132	78	A
10	581	27	260	31	86	41	2	131	83	A
11	556	22	260	27	84	35	1	129	83	A
12	531	18	266	25	88	31	1	126	87	A
13	506	14	271	23	86	27	1	121	88	C
14	481	11	280	21	89	24	2	118	91	C
15	456	10	288	21	88	22	3	114	91	C
16	431	9	290	22	87	23	3	112	91	C
17	406	8	289	23	87	24	3	109	89	C
18	381	8	281	24	87	25	2	109	89	C
19	356	8	280	23	89	25	1	109	90	C
20	331	9	277	22	87	24	2	111	88	C
21	306	10	272	21	84	23	1	115	86	C
22	281	11	276	21	83	23	2	117	86	C
23	256	9	253	18	76	20	0	116	76	A
24	231	6	241	17	59	18	0	108	60	C
25	206	3	217	12	58	13	1	101	57	A

## Deployment Id: NWNA0706

**Latitude:** 62°42.207'N

**Longitude:** 006°04.712'W

**Echo sound depth:** 304 m

**Bottom depth corr.:** 303 m

**Time of deployment:** 8/6 -2007 0600 UTC

**Time of recovery:** 18/5 - 2008 0843 UTC

### ADCP:

**Instrument no.:** RDI ADCP 1279

**Instrument frequency:** 150 kHz

**Height above bottom:** 1m

**Depth:** 302 m (corr.)

**Time of first data:** 8/6 – 2007 0620 UTC

**Time of last data:** 18/5 – 2008 0820 UTC

**Sample interval:** 20 min

**No. of ensembles:** 24847

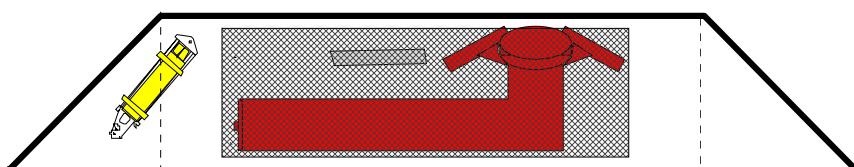
**Pings per ens.:** 1

**Binlength:** 10 m

**Depth of first bin:** 286 m (corr.)

**No. of bins:** 24

**Data:** All data ok.



## **NWNA0706 ADCP 1279**

Error statistics for deployment: NWNA0706 updated 2008/10/10

Surface distance invalid due to range limitation

Heading, pitch and roll not edited

Temperature edited by EJ in Aug 2008

Velocity edited up to and including bin 24 by EJ in Jul 2008

Intensity edited up to and including bin 24 by EJ in Sep 2008

Total number of ensembles: 24847

Interval between ensembles: 20 min

Original number of bins: 30

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: 11

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	%	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	24	1528	6	1209	124	17	5	0	0	0	0	0	0
2	14	1445	6	1114	136	11	4	2	0	0	0	0	0
3	8	1207	5	968	102	10	0	1	0	0	0	0	0
4	4	1050	4	849	90	7	0	0	0	0	0	0	0
5	4	958	4	814	58	5	1	0	1	0	0	0	0
6	4	828	3	699	54	4	1	1	0	0	0	0	0
7	4	802	3	663	54	9	1	0	0	0	0	0	0
8	9	795	3	681	46	6	1	0	0	0	0	0	0
9	6	829	3	639	66	5	2	1	4	0	0	0	0
10	3	926	4	646	70	16	3	2	8	1	0	0	0
11	4	1135	5	630	85	25	10	6	14	7	0	0	0
12	1	1432	6	673	85	33	13	13	20	14	1	0	0
13	4	1649	7	651	105	29	15	14	35	18	2	0	0
14	4	2004	8	647	126	33	29	13	51	20	6	0	0
15	2	2325	9	613	111	54	29	23	51	33	9	1	0
16	7	2728	11	634	111	48	23	23	50	49	14	3	0
17	4	3364	14	695	126	62	31	29	52	42	27	8	0
18	4	4085	16	742	138	71	49	23	59	49	31	18	0
19	6	5033	20	867	164	76	39	31	71	58	36	25	1
20	6	6295	25	916	210	88	53	25	70	72	44	36	5
21	5	7677	31	1010	262	112	40	32	77	82	54	48	8
22	5	9266	37	1174	315	110	71	37	79	63	74	55	17
23	4	10858	44	1248	335	160	77	44	96	60	82	59	28
24	4	12305	50	1209	380	167	94	48	111	50	75	61	45

## **NWNA0706 ADCP 1279**

Deployment: NWNA0706 updated 2008/10/10  
Instrument no.: 1279  
Instrument freq.: 150  
Latitude: 62 42.207 N  
Longitude: 06 04.712 W  
Bottom depth: 303  
Instrument depth: 302  
Center depth of first bin: 286  
Bin length: 10  
Number of bins: 24  
Number of first ensemble: 422  
Time of first ensemble: 2007 06 08 06 20  
Number of last ensemble: 25268  
Time of last ensemble: 2008 05 18 08 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	286	17	187	111	100	939
2	276	27	202	118	104	942
3	266	37	213	121	106	951
4	256	47	222	126	108	958
5	246	57	227	131	109	961
6	236	67	231	137	110	967
7	226	77	233	142	111	968
8	216	87	235	146	111	968
9	206	97	235	150	111	967
10	196	107	236	153	111	963
11	186	117	236	156	111	954
12	176	127	237	158	111	942
13	166	137	238	159	110	934
14	156	147	239	161	110	919
15	146	157	240	162	110	906
16	136	167	241	163	110	890
17	126	177	243	166	111	865
18	116	187	246	168	111	836
19	106	197	250	171	111	797
20	96	207	254	175	111	747
21	86	217	260	179	111	691
22	76	227	267	183	111	627
23	66	237	276	187	111	563
24	56	247	289	192	110	505

## **NWNA0706 ADCP 1279**

Deployment: NWNA0706

Frequency of high speeds.

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

Bin no. 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	286	717	363	142	48	15	3	1	0	0	0	0	0	0	0	0	0	0	0
2	276	745	407	179	69	27	8	2	0	0	0	0	0	0	0	0	0	0	0
3	266	772	442	205	87	36	13	3	0	0	0	0	0	0	0	0	0	0	0
4	256	792	467	227	100	41	15	5	1	0	0	0	0	0	0	0	0	0	0
5	246	802	483	242	111	45	18	6	2	0	0	0	0	0	0	0	0	0	0
6	236	812	494	252	118	49	19	7	2	0	0	0	0	0	0	0	0	0	0
7	226	813	500	261	122	52	20	8	2	0	0	0	0	0	0	0	0	0	0
8	216	814	500	265	126	54	22	8	2	0	0	0	0	0	0	0	0	0	0
9	206	811	504	266	129	54	22	9	3	1	0	0	0	0	0	0	0	0	0
10	196	803	498	270	130	55	22	9	3	1	0	0	0	0	0	0	0	0	0
11	186	798	495	268	131	57	23	9	3	1	0	0	0	0	0	0	0	0	0
12	176	788	493	266	130	55	22	9	3	1	0	0	0	0	0	0	0	0	0
13	166	783	493	267	128	56	22	8	3	1	0	0	0	0	0	0	0	0	0
14	156	770	487	267	126	58	23	8	3	1	0	0	0	0	0	0	0	0	0
15	146	762	483	265	127	58	22	8	3	1	0	0	0	0	0	0	0	0	0
16	136	749	478	263	128	58	23	9	3	1	0	0	0	0	0	0	0	0	0
17	126	731	465	258	127	58	25	9	3	1	0	0	0	0	0	0	0	0	0
18	116	704	458	258	127	57	25	9	3	1	0	0	0	0	0	0	0	0	0
19	106	675	446	251	127	57	25	9	4	1	0	0	0	0	0	0	0	0	0
20	96	634	425	246	126	57	24	9	4	2	0	0	0	0	0	0	0	0	0
21	86	590	399	237	124	57	25	10	4	2	1	0	0	0	0	0	0	0	0
22	76	541	375	225	121	57	26	11	5	2	1	0	0	0	0	0	0	0	0
23	66	491	348	211	117	58	27	12	6	3	1	1	1	0	0	0	0	0	0
24	56	445	323	205	115	59	29	14	7	4	2	1	1	0	0	0	0	0	0

## **NWNA0706 ADCP 1279**

Harmonic constants for constituent M2 for deployment NWNA0706.

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	286	129	296	88	176	140	70	154	130	A
02	276	145	295	104	175	158	83	152	131	A
03	266	156	295	114	177	170	93	152	131	A
04	256	164	295	124	179	179	102	151	132	A
05	246	170	296	128	181	183	108	152	133	A
06	236	174	297	130	184	186	111	154	134	A
07	226	175	299	130	187	186	112	154	135	A
08	216	176	301	127	189	186	112	156	136	A
09	206	175	302	125	191	184	111	157	137	A
10	196	175	304	122	193	183	109	158	137	A
11	186	173	305	120	195	181	108	159	138	A
12	176	172	307	117	197	180	106	159	139	A
13	166	171	308	116	199	178	105	160	140	A
14	156	171	309	114	201	177	104	161	140	A
15	146	167	310	111	202	173	102	162	142	A
16	136	167	312	109	203	172	100	162	142	A
17	126	165	312	107	205	170	99	163	143	A
18	116	164	313	102	206	167	96	165	142	A
19	106	163	314	99	206	167	91	164	143	A
20	96	164	316	97	208	168	91	165	144	A
21	86	161	318	95	212	164	89	166	145	A
22	76	161	320	93	215	163	89	168	146	A
23	66	164	321	91	219	166	88	170	147	A
24	56	161	322	92	222	163	90	171	147	A

Harmonic constants for constituent S2 for deployment NWNA0706.

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	286	44	334	33	217	48	27	151	171	A
02	276	46	328	38	219	49	34	150	170	A
03	266	46	324	41	222	49	38	149	169	A
04	256	50	325	44	222	53	41	148	171	A
05	246	55	329	47	222	59	42	150	172	A
06	236	58	332	48	223	62	42	151	173	A
07	226	60	335	47	225	64	41	153	173	A
08	216	61	338	45	226	65	40	155	174	A
09	206	62	340	45	228	66	39	155	176	A
10	196	63	342	44	229	66	38	157	176	A
11	186	64	345	42	231	67	37	158	177	A
12	176	64	346	43	230	68	36	157	179	A
13	166	65	347	41	232	68	35	158	179	A
14	156	66	349	41	232	69	34	159	180	A
15	146	67	352	39	235	70	33	161	182	A
16	136	67	355	38	238	70	32	161	184	A
17	126	68	359	36	240	71	30	162	186	A
18	116	68	359	36	244	70	31	164	186	A
19	106	67	359	33	244	69	29	165	186	A
20	96	66	0	32	245	68	28	166	186	A
21	86	63	2	32	244	65	27	164	189	A
22	76	61	2	32	246	63	28	164	190	A
23	66	61	1	30	244	63	25	165	187	A
24	56	59	2	30	251	60	27	166	189	A

## **NWNA0706 ADCP 1279**

Harmonic constants for constituent N2 for deployment NWNA0706.

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	286	28	269	20	148	30	15	152	104	A
02	276	30	267	24	147	33	18	148	107	A
03	266	31	264	25	148	35	20	148	105	A
04	256	34	268	26	151	37	21	151	105	A
05	246	33	267	25	153	36	21	152	105	A
06	236	34	270	25	155	36	21	154	106	A
07	226	33	270	24	154	36	20	152	107	A
08	216	33	271	25	156	35	21	153	107	A
09	206	34	273	24	155	36	20	153	109	A
10	196	34	277	24	155	37	19	152	111	A
11	186	34	278	23	157	37	18	154	112	A
12	176	34	282	23	160	37	18	153	116	A
13	166	33	284	22	165	36	18	155	117	A
14	156	33	286	21	170	34	18	157	118	A
15	146	34	287	21	171	35	18	159	119	A
16	136	34	289	21	173	36	18	159	121	A
17	126	34	293	21	175	36	18	158	125	A
18	116	36	295	20	177	38	17	161	124	A
19	106	38	294	20	182	39	18	165	122	A
20	96	34	295	19	184	35	17	165	123	A
21	86	32	295	19	186	33	17	164	124	A
22	76	30	297	17	193	30	16	169	123	A
23	66	31	301	16	192	31	15	167	127	A
24	56	32	311	18	200	32	16	165	139	A

Harmonic constants for constituent O1 for deployment NWNA0706.

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	286	23	31	13	291	23	13	172	215	A
02	276	25	27	13	292	25	13	177	209	A
03	266	26	24	13	292	26	13	178	205	A
04	256	27	25	14	292	27	14	178	206	A
05	246	27	23	13	285	27	13	175	205	A
06	236	27	23	14	287	27	14	176	205	A
07	226	28	22	15	285	28	14	175	205	A
08	216	29	23	15	283	29	15	173	207	A
09	206	28	24	16	282	28	15	170	209	A
10	196	29	25	16	283	29	15	171	209	A
11	186	29	25	16	284	29	16	172	210	A
12	176	28	25	17	283	29	16	170	211	A
13	166	30	27	17	280	30	16	168	213	A
14	156	30	30	18	278	31	16	162	220	A
15	146	30	28	17	281	30	16	167	215	A
16	136	30	31	18	282	31	17	164	219	A
17	126	30	31	18	280	31	16	162	221	A
18	116	31	31	19	282	32	17	163	221	A
19	106	29	32	18	283	30	16	164	221	A
20	96	29	32	18	283	29	16	164	221	A
21	86	27	31	18	282	28	16	162	222	A
22	76	27	30	16	285	28	15	167	218	A
23	66	27	27	17	295	27	17	178	208	A
24	56	29	25	14	282	29	14	172	208	A

## **NWNA0706 ADCP 1279**

Harmonic constants for constituent K1 for deployment NWNA0706.

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	286	31	280	16	189	31	16	179	100	A
02	276	36	287	21	184	37	20	169	113	A
03	266	43	292	23	173	44	19	162	119	A
04	256	45	289	22	169	47	18	164	115	A
05	246	43	288	21	166	45	17	163	115	A
06	236	42	285	20	165	43	16	164	112	A
07	226	40	285	20	165	41	17	164	112	A
08	216	39	283	20	166	40	17	164	110	A
09	206	40	280	20	167	41	18	167	106	A
10	196	39	280	20	166	40	18	165	107	A
11	186	39	279	21	165	41	19	165	106	A
12	176	38	276	20	163	39	18	166	103	A
13	166	38	273	20	162	39	19	166	99	A
14	156	39	270	20	159	40	18	167	96	A
15	146	40	268	19	160	41	18	170	92	A
16	136	41	265	18	156	41	17	170	89	A
17	126	42	262	17	151	43	16	170	86	A
18	116	43	260	19	155	43	18	172	84	A
19	106	44	255	17	147	44	16	172	78	A
20	96	45	255	16	155	45	16	176	77	A
21	86	43	256	17	158	44	16	176	78	A
22	76	44	254	18	162	44	18	179	74	A
23	66	42	254	18	163	42	18	179	74	A
24	56	42	253	18	163	42	18	180	73	A

## Deployment Id: NWNB0706

**Latitude:** 62°54.995'N

**Longitude:** 006°04.967'W

**Echo sounding depth:** 980 m

**Bottom depth corr.:** 955 m

**Time of deployment:** 8/6 -2007 0839 UTC

**Time of recovery:** 18/5 - 2008 1128 UTC

### ADCP:

**Instrument no.:** RDI ADCP 1577

**Instrument frequency:** 75 kHz

**Height above bottom:** 254 m (corr.)

**Depth:** 701 m (corr.)

**Time of first data:** 8/6 - 2007 0900 UTC

**Time of last data:** 18/5 - 2008 1100 UTC

**Sample interval:** 20 min

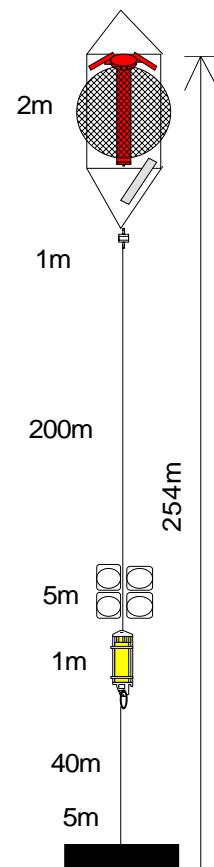
**No. of ensembles:** 24847

**Pings per ens.:** 1

**Binlength:** 25 m

**Depth of first bin:** 666 m (corr.)

**No. of bins:** 23



**Data:** All data ok.

## **NWNB0706 ADCP 1577**

Error statistics for deployment: NWNB0706 updated 2008/10/10

Surface distance not edited

Heading, pitch and roll not edited

Temperature edited by EJ in Aug 2008

Velocity edited up to and including bin 23 by EJ in Jul 2008

Intensity edited up to and including bin 23 by EJ in Sep 2008

Total number of ensembles: 24847

Interval between ensembles: 20 min

Original number of bins: 32

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: 6

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	%	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	6	27	0	25	1	0	0	0	0	0	0	0	0
2	4	30	0	30	0	0	0	0	0	0	0	0	0
3	5	31	0	31	0	0	0	0	0	0	0	0	0
4	3	26	0	26	0	0	0	0	0	0	0	0	0
5	2	19	0	17	1	0	0	0	0	0	0	0	0
6	5	18	0	18	0	0	0	0	0	0	0	0	0
7	3	12	0	9	0	1	0	0	0	0	0	0	0
8	4	26	0	19	1	0	0	1	0	0	0	0	0
9	4	31	0	31	0	0	0	0	0	0	0	0	0
10	4	21	0	17	2	0	0	0	0	0	0	0	0
11	5	26	0	26	0	0	0	0	0	0	0	0	0
12	1	41	0	35	1	0	1	0	0	0	0	0	0
13	3	41	0	33	4	0	0	0	0	0	0	0	0
14	8	133	1	79	6	3	2	1	3	0	0	0	0
15	5	346	1	95	12	2	3	2	6	3	4	0	0
16	4	644	3	138	18	18	6	4	10	9	6	0	0
17	4	980	4	201	55	19	6	7	28	16	2	2	0
18	6	1600	6	279	74	31	28	15	45	26	6	1	0
19	4	3015	12	405	106	60	45	27	75	32	14	15	0
20	2	5005	20	515	149	79	44	43	78	72	27	30	0
21	8	7136	29	608	184	114	60	48	123	82	44	41	6
22	6	9144	37	622	215	125	94	60	146	88	57	48	20
23	6	11516	46	667	217	127	88	71	134	87	61	76	40

## **NWNB0706 ADCP 1577**

Deployment: NWNB0706 updated 2008/10/10  
Instrument no.: 1577  
Instrument freq.: 75  
Latitude: 62 54.995 N  
Longitude: 06 04.967 W  
Bottom depth: 955  
Instrument depth: 701  
Center depth of first bin: 666  
Bin length: 25  
Number of bins: 23  
Number of first ensemble: 406  
Time of first ensemble: 2007 06 08 09 00  
Number of last ensemble: 25252  
Time of last ensemble: 2008 05 18 11 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	666	289	126	4	289	999
2	641	314	125	8	284	999
3	616	339	124	12	283	999
4	591	364	124	14	279	999
5	566	389	125	16	280	999
6	541	414	128	16	278	999
7	516	439	130	15	274	1000
8	491	464	135	12	270	999
9	466	489	139	6	252	999
10	441	514	140	6	153	999
11	416	539	144	17	124	999
12	391	564	153	32	117	998
13	366	589	162	48	114	998
14	341	614	172	67	113	995
15	316	639	184	87	113	986
16	291	664	199	107	112	974
17	266	689	217	129	113	961
18	241	714	231	147	112	936
19	216	739	244	160	112	879
20	191	764	254	167	113	799
21	166	789	265	174	113	713
22	141	814	275	182	113	632
23	116	839	282	184	113	537

## **NWNB0706 ADCP 1577**

Deployment: NWNB0706

Frequency of high speeds.

=====

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

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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	666	587	154	22	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	641	585	147	20	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	616	583	144	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	591	582	143	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	566	592	146	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	541	607	153	18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	516	622	164	20	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	491	643	186	24	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	466	655	202	31	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	441	656	210	36	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	416	666	227	48	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	391	693	262	66	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0
13	366	720	299	88	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0
14	341	732	338	113	28	5	0	0	0	0	0	0	0	0	0	0	0	0	0
15	316	745	379	148	43	9	1	0	0	0	0	0	0	0	0	0	0	0	0
16	291	773	422	184	60	14	2	0	0	0	0	0	0	0	0	0	0	0	0
17	266	789	475	228	85	22	4	0	0	0	0	0	0	0	0	0	0	0	0
18	241	781	502	263	111	32	7	1	0	0	0	0	0	0	0	0	0	0	0
19	216	750	500	278	127	44	9	1	0	0	0	0	0	0	0	0	0	0	0
20	191	689	471	274	134	52	12	2	0	0	0	0	0	0	0	0	0	0	0
21	166	622	434	265	137	58	16	2	0	0	0	0	0	0	0	0	0	0	0
22	141	558	395	250	135	61	21	4	1	0	0	0	0	0	0	0	0	0	0
23	116	474	343	220	124	58	23	7	1	0	0	0	0	0	0	0	0	0	0

## NWNB0706 ADCP 1577

Harmonic constants for constituent M2 for deployment NWNB0706.

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	666	79	265	45	136	85	32	157	95	A
02	641	80	268	43	139	86	32	158	96	A
03	616	82	270	42	145	86	32	161	98	A
04	591	84	273	41	150	87	33	163	99	A
05	566	87	274	41	157	89	35	166	100	A
06	541	91	277	42	165	93	38	168	102	A
07	516	97	280	43	174	97	42	172	103	A
08	491	103	284	47	188	103	47	176	106	A
09	466	108	289	51	201	108	51	1	289	A
10	441	108	294	51	212	108	50	5	292	A
11	416	105	300	49	227	107	46	10	295	A
12	391	105	306	53	238	107	48	14	300	A
13	366	109	310	59	244	112	52	16	302	A
14	341	111	315	65	252	116	55	20	305	A
15	316	110	319	68	258	117	56	22	308	A
16	291	111	322	73	262	119	59	24	310	A
17	266	113	326	77	265	121	62	26	312	A
18	241	109	329	80	270	119	63	29	313	A
19	216	110	334	85	275	123	64	32	316	A
20	191	110	336	88	275	123	68	33	316	A
21	166	111	336	91	276	126	69	34	316	A
22	141	112	339	92	278	126	72	34	318	A
23	116	117	339	88	279	129	69	30	322	A

Harmonic constants for constituent S2 for deployment NWNB0706.

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	666	29	304	15	192	30	13	166	131	A
02	641	29	306	14	196	30	13	169	131	A
03	616	30	307	14	200	30	13	170	132	A
04	591	31	310	14	208	31	14	173	133	A
05	566	34	314	17	217	34	17	176	136	A
06	541	36	318	19	226	36	19	179	139	A
07	516	39	322	19	232	39	19	180	142	A
08	491	41	325	19	239	41	19	2	324	A
09	466	40	331	19	250	40	19	6	328	A
10	441	38	336	19	263	38	18	10	331	A
11	416	36	340	17	269	36	16	12	334	A
12	391	35	339	15	269	35	14	10	335	A
13	366	34	343	15	273	34	14	10	339	A
14	341	34	347	17	278	35	15	12	342	A
15	316	36	350	18	290	38	15	17	343	A
16	291	35	353	19	297	37	15	21	344	A
17	266	34	357	21	305	37	15	25	346	A
18	241	34	359	21	311	37	14	27	348	A
19	216	34	1	22	317	38	13	29	349	A
20	191	28	7	23	315	33	15	35	349	A
21	166	32	7	24	316	37	16	31	352	A
22	141	37	5	25	306	40	19	25	352	A
23	116	42	1	24	298	44	21	19	352	A

## NWNB0706 ADCP 1577

Harmonic constants for constituent N2 for deployment NWNB0706.

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	666	17	252	6	116	17	4	166	75	A
02	641	17	254	6	117	18	4	166	77	A
03	616	18	254	5	116	18	3	167	76	A
04	591	18	252	5	119	18	3	169	75	A
05	566	19	255	5	132	20	5	171	77	A
06	541	21	253	8	137	22	7	170	76	A
07	516	23	252	10	140	24	9	170	76	A
08	491	25	254	11	151	25	11	173	77	A
09	466	26	260	13	159	26	13	173	83	A
10	441	25	269	13	172	25	13	175	91	A
11	416	25	277	14	187	25	14	180	97	A
12	391	25	279	13	195	25	12	4	277	A
13	366	22	279	9	205	22	9	8	276	A
14	341	21	287	11	218	21	10	14	281	A
15	316	24	301	17	227	25	16	20	288	A
16	291	28	304	21	229	29	19	19	291	A
17	266	27	303	20	234	29	18	24	288	A
18	241	25	301	18	235	27	16	26	285	A
19	216	27	301	16	243	28	13	22	291	A
20	191	25	300	17	255	28	11	31	288	A
21	166	24	318	22	271	30	13	40	298	A
22	141	27	318	21	273	32	13	36	302	A
23	116	26	317	18	279	30	9	32	306	A

Harmonic constants for constituent O1 for deployment NWNB0706.

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	666	6	59	3	295	6	3	157	249	A
02	641	6	55	3	282	6	2	155	244	A
03	616	6	54	3	274	6	2	157	240	A
04	591	6	57	3	274	6	2	157	243	A
05	566	6	52	3	275	6	2	154	241	A
06	541	7	50	3	271	7	2	159	236	A
07	516	7	46	3	275	8	2	162	232	A
08	491	8	42	4	282	8	3	163	229	A
09	466	8	38	5	281	8	4	159	229	A
10	441	7	40	4	262	8	3	154	229	A
11	416	8	30	4	259	8	3	161	216	A
12	391	9	29	4	281	9	4	171	212	A
13	366	9	39	5	289	9	5	163	228	A
14	341	8	43	6	296	8	6	155	240	A
15	316	9	38	7	300	9	6	168	227	A
16	291	10	38	7	303	10	7	174	222	A
17	266	11	44	6	306	11	6	175	226	A
18	241	13	47	6	321	13	6	2	46	A
19	216	14	55	8	331	14	8	4	53	A
20	191	14	58	9	334	14	9	6	55	A
21	166	14	66	8	339	14	8	3	64	A
22	141	17	66	7	334	17	7	179	246	A
23	116	17	56	5	351	17	4	7	54	A

## **NWNB0706 ADCP 1577**

Harmonic constants for constituent K1 for deployment NWNB0706.

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	666	4	286	3	146	4	1	150	116	A
02	641	5	289	3	152	5	2	153	119	A
03	616	5	287	3	140	5	1	148	117	A
04	591	5	275	4	142	5	2	145	111	A
05	566	5	272	4	143	6	3	148	108	A
06	541	6	265	5	143	7	4	148	103	A
07	516	7	269	5	142	8	4	150	103	A
08	491	8	273	5	150	9	4	153	107	A
09	466	9	276	5	158	9	4	161	105	A
10	441	9	284	7	161	10	5	152	118	A
11	416	11	279	8	160	12	6	154	113	A
12	391	13	277	8	154	14	6	155	109	A
13	366	13	270	8	144	14	6	157	100	A
14	341	13	268	8	148	14	6	159	98	A
15	316	13	273	8	148	14	6	156	104	A
16	291	11	284	8	160	12	6	150	120	A
17	266	11	289	9	159	12	6	145	126	A
18	241	9	278	8	158	11	6	142	122	A
19	216	8	265	9	166	9	8	122	138	A
20	191	6	245	10	156	10	6	89	157	A
21	166	7	200	11	152	12	5	60	165	A
22	141	7	164	11	160	13	0	59	161	A
23	116	8	125	12	158	14	4	59	149	C

## Deployment Id: NWNE0706

**Latitude:** 62°47.421 'N

**Longitude:** 006°05.059 'W

**Echo sounding depth:** 450 m

**Bottom depth corr.:** 450 m

**Time of deployment:** 8/6 -2007 0725 UTC

**Time of recovery:** 18/5 – 2008 2124 UTC

### ADCP:

**Instrument no.:** RDI ADCP 1244

**Instrument frequency:** 150 kHz

**Height above bottom:** 1 m

**Depth:** 449 m (corr.)

**Time of first data:** 8/6 – 2007 0740 UTC

**Time of last data:** 18/5 – 2008 2100 UTC

**Sample interval:** 20 min

**No. of ensembles:** 24881

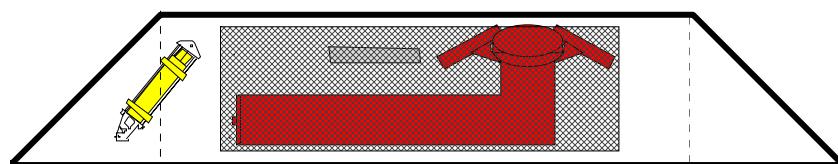
**Pings per ens.:** 1

**Binlength:** 25 m

**Depth of first bin:** 418 m (corr.)

**No. of bins:** 14

**Data:** All data ok.



## **NWNE0706 ADCP 1244**

Error statistics for deployment: NWNE0706 updated 2008/10/10

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Surface distance not edited

Heading, pitch and roll not edited

Temperature edited by EJ in Aug 2008

Velocity edited up to and including bin 14 by EJ in Aug 2008

Intensity edited up to and including bin 14 by EJ in Sep 2008

Total number of ensembles: 24881

Interval between ensembles: 20 min

Original number of bins: 20

Number of acceptable velocity bins: 14

Number of acceptable intensity bins: 14

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: 18

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	%	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	7	1132	5	974	68	6	1	0	0	0	0	0	0
2	4	1157	5	994	69	7	1	0	0	0	0	0	0
3	3	1328	5	1129	85	7	2	0	0	0	0	0	0
4	2	1304	5	1112	86	5	0	1	0	0	0	0	0
5	4	1251	5	1096	68	5	1	0	0	0	0	0	0
6	2	1236	5	1058	78	6	1	0	0	0	0	0	0
7	3	1195	5	1052	62	5	1	0	0	0	0	0	0
8	3	1296	5	1101	73	8	4	0	1	0	0	0	0
9	6	1766	7	1193	108	23	16	4	18	5	0	0	0
10	5	2706	11	1155	112	35	17	16	40	35	12	0	0
11	8	3715	15	1130	110	36	19	14	36	46	41	3	0
12	5	5021	20	1175	164	51	21	12	45	55	45	25	0
13	6	7055	28	1242	272	72	46	26	61	81	40	53	2
14	6	9902	40	1283	372	147	76	42	82	91	55	85	3

## **NWNE0706 ADCP 1244**

Deployment: NWNE0706 updated 2008/10/10  
Instrument no.: 1244  
Instrument freq.: 150  
Latitude: 62 47.421 N  
Longitude: 06 05.059 W  
Bottom depth: 450  
Instrument depth: 449  
Center depth of first bin: 418  
Bin length: 25  
Number of bins: 14  
Number of first ensemble: 426  
Time of first ensemble: 2007 06 08 07 40  
Number of last ensemble: 25306  
Time of last ensemble: 2008 05 18 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 m	Height m	Speed mm/s	Vel mm/s	Dir deg	Good ppt
1	418	32	216	84	95	955
2	393	57	221	96	108	953
3	368	82	220	110	112	947
4	343	107	220	123	112	948
5	318	132	223	136	113	950
6	293	157	230	152	113	950
7	268	182	239	170	113	952
8	243	207	249	185	114	948
9	218	232	257	194	114	929
10	193	257	262	200	114	891
11	168	282	268	207	114	851
12	143	307	275	212	115	798
13	118	332	285	218	115	716
14	93	357	300	228	115	602

## **NWNE0706 ADCP 1244**

Deployment: NWNE0706

Frequency of high speeds.

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

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Bin no. 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	418	793	483	223	72	16	3	1	0	0	0	0	0	0	0	0	0	0	0
2	393	788	491	238	86	24	5	1	0	0	0	0	0	0	0	0	0	0	0
3	368	784	471	228	90	28	7	2	0	0	0	0	0	0	0	0	0	0	0
4	343	778	457	234	101	34	9	3	1	0	0	0	0	0	0	0	0	0	0
5	318	779	464	245	108	39	12	4	1	0	0	0	0	0	0	0	0	0	0
6	293	784	477	259	124	46	13	5	2	1	0	0	0	0	0	0	0	0	0
7	268	788	502	286	144	59	19	7	2	1	0	0	0	0	0	0	0	0	0
8	243	792	517	306	162	70	24	9	3	1	1	0	0	0	0	0	0	0	0
9	218	781	520	321	176	81	30	11	4	1	1	0	0	0	0	0	0	0	0
10	193	751	505	319	177	85	35	12	5	2	1	0	0	0	0	0	0	0	0
11	168	719	494	314	179	90	39	15	6	2	1	0	0	0	0	0	0	0	0
12	143	681	477	306	178	92	42	17	7	2	1	0	0	0	0	0	0	0	0
13	118	622	441	288	172	90	43	18	8	3	1	0	0	0	0	0	0	0	0
14	93	533	389	261	161	85	45	20	9	4	2	1	0	0	0	0	0	0	0

## **NWNE0706 ADCP 1244**

Harmonic constants for constituent M2 for deployment NWNE0706.

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	418	147	257	125	143	162	104	146	100	A
02	393	156	264	128	152	170	109	149	105	A
03	368	155	275	118	163	165	102	153	112	A
04	343	152	286	104	176	159	93	159	119	A
05	318	148	296	92	189	151	86	165	125	A
06	293	144	303	86	200	146	83	169	129	A
07	268	141	307	81	208	142	80	172	132	A
08	243	139	310	79	214	139	78	175	133	A
09	218	136	313	76	219	136	76	177	134	A
10	193	132	313	72	224	132	72	0	313	A
11	168	128	315	69	227	128	69	1	315	A
12	143	130	316	65	228	130	65	1	315	A
13	118	128	316	62	231	128	61	3	314	A
14	93	123	321	63	236	124	63	4	320	A

Harmonic constants for constituent S2 for deployment NWNE0706.

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	418	50	299	40	188	54	35	152	137	A
02	393	56	304	42	196	59	38	158	139	A
03	368	58	320	40	212	60	36	161	152	A
04	343	60	336	37	226	62	34	162	166	A
05	318	57	344	34	235	58	31	165	172	A
06	293	52	346	29	241	53	27	168	172	A
07	268	48	345	26	243	48	25	172	169	A
08	243	46	346	23	247	46	23	174	169	A
09	218	46	348	23	254	46	23	178	169	A
10	193	46	351	22	258	46	22	178	172	A
11	168	47	353	20	253	47	20	175	175	A
12	143	49	353	22	250	49	21	173	177	A
13	118	57	356	21	249	57	20	173	178	A
14	93	62	357	21	242	63	19	171	180	A

## **NWNE0706 ADCP 1244**

Harmonic constants for constituent N2 for deployment NWNE0706.

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
<hr/>										
01	418	31	238	29	124	35	23	140	86	A
02	393	35	243	31	133	39	27	145	89	A
03	368	33	255	25	140	35	21	152	92	A
04	343	30	268	19	152	32	16	158	100	A
05	318	28	277	16	156	30	13	160	106	A
06	293	26	284	14	168	27	12	164	111	A
07	268	26	288	13	180	27	12	169	113	A
08	243	28	290	11	187	28	11	174	112	A
09	218	28	290	11	188	28	11	175	112	A
10	193	28	286	12	184	28	12	174	109	A
11	168	26	291	13	198	26	13	178	112	A
12	143	26	294	13	210	26	12	4	292	A
13	118	27	296	12	214	27	12	4	295	A
14	93	27	296	11	212	27	11	3	295	A

Harmonic constants for constituent O1 for deployment NWNE0706.

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
<hr/>										
01	418	20	29	12	296	20	12	177	211	A
02	393	20	27	12	287	20	12	170	213	A
03	368	19	31	11	283	20	11	166	219	A
04	343	18	36	12	277	19	10	156	228	A
05	318	20	28	13	277	20	12	159	221	A
06	293	20	29	16	277	22	14	152	227	A
07	268	20	32	15	276	22	13	151	230	A
08	243	19	30	15	280	20	13	152	229	A
09	218	18	28	14	280	19	13	151	228	A
10	193	17	21	12	279	17	12	163	213	A
11	168	16	20	11	284	16	11	172	205	A
12	143	15	26	12	285	16	11	161	220	A
13	118	15	23	11	288	15	11	171	210	A
14	93	10	4	9	295	11	7	34	340	A

## **NWNE0706 ADCP 1244**

Harmonic constants for constituent K1 for deployment NWNE0706.

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	418	19	270	12	167	19	12	167	98	A
02	393	21	274	17	165	22	15	150	115	A
03	368	25	270	18	157	27	16	155	105	A
04	343	27	264	17	151	28	15	161	95	A
05	318	27	254	15	143	28	13	166	81	A
06	293	26	253	14	146	27	13	168	79	A
07	268	25	259	16	149	26	14	162	89	A
08	243	24	264	17	150	26	15	155	99	A
09	218	23	262	17	154	24	16	157	98	A
10	193	23	263	16	159	23	15	161	96	A
11	168	24	259	14	155	25	14	168	86	A
12	143	26	247	11	156	26	11	179	67	A
13	118	27	233	8	158	27	8	5	232	A
14	93	27	217	6	188	27	3	12	215	A

## Deployment Id: NWNG0706

**Latitude:** 63°05.971 'N

**Longitude:** 006°05.025 'W

**Echo sounding depth:** 1856 m

**Bottom depth corr.:** 1804 m

**Time of deployment:** 8/6 -2007 1007 UTC

**Time of recovery:** 18/5 - 2008 1337 UTC

### ADCP:

**Instrument no.:** RDI ADCP 1292

**Instrument frequence:** 75 kHz

**Height above bottom:** 1168 m

**Depth:** 636 m (corr.)

**Time of first data:** 8/6 – 2007 1040 UTC

**Time of last data:** 18/5 – 2008 1320 UTC

**Sample interval:** 20 min

**No. of ensembles:** 24849

**Pings per ens.:** 1

**Binlength:** 25 m

**Depth of first bin:** 601 m (corr.)

**No. of bins:** 22

### Aanderaa:

**Instrument no.:** RCM9 721

**Height above bottom:** 1111 m

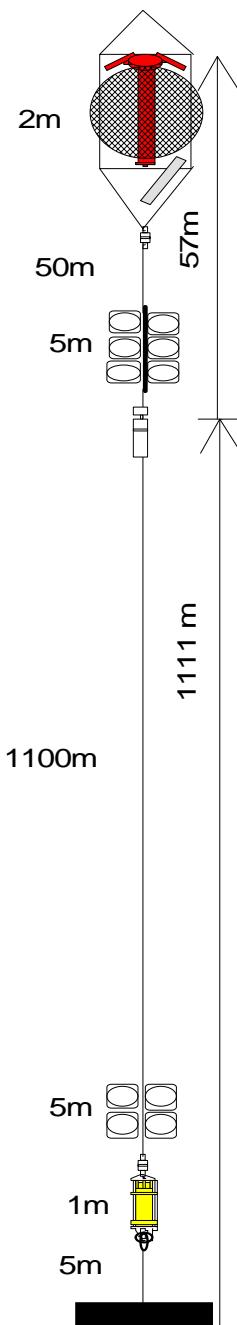
**Depth:** 693 m (corr.)

**Time of first data:** 8/6 – 2007 1030 UTC

**Time of last data:** 18/5 – 2008 1230 UTC

**Sample interval:** 60 min

**No. of ensembles:** 8283



**Data:** All data ok.

## **NWNG0706 ADCP 1292**

Error statistics for deployment: NWNG0706 updated 2008/10/10

Surface distance not edited

Heading, pitch and roll not edited

Temperature edited by EJ in Aug 2008

Velocity edited up to and including bin 22 by EJ in Aug 2008

Intensity edited up to and including bin 22 by EJ in Sep 2008

Total number of ensembles: 24849

Interval between ensembles: 20 min

Original number of bins: 32

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: 2

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	%	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	4	39	0	39	0	0	0	0	0	0	0	0	0
2	2	43	0	43	0	0	0	0	0	0	0	0	0
3	3	49	0	47	1	0	0	0	0	0	0	0	0
4	1	41	0	39	1	0	0	0	0	0	0	0	0
5	4	37	0	34	0	1	0	0	0	0	0	0	0
6	2	33	0	33	0	0	0	0	0	0	0	0	0
7	2	34	0	23	2	0	0	0	1	0	0	0	0
8	2	34	0	23	1	1	0	0	1	0	0	0	0
9	9	34	0	29	1	1	0	0	0	0	0	0	0
10	2	74	0	56	4	2	1	0	0	0	0	0	0
11	5	73	0	49	3	3	0	0	1	0	0	0	0
12	4	113	0	87	7	1	1	1	0	0	0	0	0
13	7	150	1	120	13	0	1	0	0	0	0	0	0
14	5	171	1	136	9	0	1	1	1	0	0	0	0
15	3	251	1	204	13	4	1	1	0	0	0	0	0
16	4	480	2	274	34	11	3	2	6	2	0	0	0
17	5	1004	4	368	41	14	10	5	21	8	4	2	0
18	4	2046	8	427	74	35	24	14	38	24	10	8	0
19	6	3283	13	501	103	48	32	10	48	38	16	23	0
20	5	4865	20	620	148	54	41	24	58	66	37	26	1
21	5	7114	29	838	236	85	51	38	85	77	61	39	4
22	1	10307	41	1127	302	130	75	36	114	133	70	68	9

## **NWNG0706 ADCP 1292**

Deployment: NWNG0706 updated 2008/10/10  
Instrument no.: 1292  
Instrument freq.: 75  
Latitude: 63 05.971 N  
Longitude: 06 05.025 W  
Bottom depth: 1804  
Instrument depth: 636  
Center depth of first bin: 601  
Bin length: 25  
Number of bins: 22  
Number of first ensemble: 432  
Time of first ensemble: 2007 06 08 10 40  
Number of last ensemble: 25280  
Time of last ensemble: 2008 05 18 13 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	601	1203	93	22	138	998
2	576	1228	94	23	137	998
3	551	1253	96	25	139	998
4	526	1278	98	27	137	998
5	501	1303	101	29	136	999
6	476	1328	105	33	134	999
7	451	1353	111	37	132	999
8	426	1378	118	42	131	999
9	401	1403	125	48	130	999
10	376	1428	132	55	130	997
11	351	1453	143	67	129	997
12	326	1478	158	79	127	995
13	301	1503	175	92	126	994
14	276	1528	193	106	126	993
15	251	1553	213	120	125	990
16	226	1578	233	134	126	981
17	201	1603	251	146	127	960
18	176	1628	270	158	127	918
19	151	1653	288	171	127	868
20	126	1678	307	183	127	804
21	101	1703	326	192	128	714
22	76	1728	356	205	128	585

## **NWNG0706 ADCP 1292**

Deployment: NWNG0706

Frequency of high speeds.

=====

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

=====

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	601	403	29	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	576	412	33	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	551	426	37	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	526	439	44	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	501	461	53	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	476	480	66	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	451	512	86	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	426	546	115	19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	401	574	144	28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	376	601	173	43	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	351	645	218	58	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12	326	686	276	89	23	4	0	0	0	0	0	0	0	0	0	0	0	0	0
13	301	737	340	125	36	10	2	0	0	0	0	0	0	0	0	0	0	0	0
14	276	781	409	169	51	14	3	0	0	0	0	0	0	0	0	0	0	0	0
15	251	817	480	223	77	20	5	1	0	0	0	0	0	0	0	0	0	0	0
16	226	833	533	275	111	32	7	1	0	0	0	0	0	0	0	0	0	0	0
17	201	833	569	321	148	51	13	3	0	0	0	0	0	0	0	0	0	0	0
18	176	809	589	350	177	72	21	5	1	0	0	0	0	0	0	0	0	0	0
19	151	778	588	371	198	94	32	9	2	0	0	0	0	0	0	0	0	0	0
20	126	734	568	379	213	111	46	15	3	1	0	0	0	0	0	0	0	0	0
21	101	662	526	362	218	120	57	22	7	1	0	0	0	0	0	0	0	0	0
22	76	554	458	330	211	122	68	32	12	5	2	0	0	0	0	0	0	0	0

## **NWNG0706 ADCP 1292**

Harmonic constants for constituent M2 for deployment NWNG0706.

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	601	76	295	39	242	80	29	20	287	A
02	576	75	296	40	245	80	29	21	288	A
03	551	74	297	40	246	79	29	22	288	A
04	526	74	297	39	248	79	27	22	289	A
05	501	72	298	38	251	78	26	23	290	A
06	476	72	300	40	255	78	26	24	292	A
07	451	72	304	43	261	80	26	27	294	A
08	426	73	308	46	266	81	28	29	298	A
09	401	69	315	50	275	81	27	34	302	A
10	376	63	321	52	285	78	25	39	306	A
11	351	60	326	56	293	78	24	43	311	A
12	326	59	334	62	298	81	26	46	315	A
13	301	59	340	70	302	86	29	51	317	A
14	276	60	344	75	304	91	32	53	319	A
15	251	61	348	82	306	96	35	56	320	A
16	226	66	356	90	308	103	42	57	323	A
17	201	70	2	100	310	111	50	60	324	A
18	176	73	9	108	312	118	57	63	325	A
19	151	78	14	118	314	127	63	65	327	A
20	126	86	18	127	315	135	72	66	328	A
21	101	92	21	134	314	141	80	67	327	A
22	76	91	19	134	317	144	75	65	330	A

Harmonic constants for constituent S2 for deployment NWNG0706.

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	601	16	328	8	328	18	0	25	328	C
02	576	15	328	8	332	17	0	27	329	C
03	551	15	331	8	334	17	0	28	331	C
04	526	15	329	8	332	17	0	29	330	C
05	501	16	331	8	333	18	0	28	332	C
06	476	14	335	9	340	17	1	33	337	C
07	451	14	344	12	345	18	0	40	345	C
08	426	13	351	13	347	19	1	45	349	A
09	401	12	356	14	349	19	1	49	352	A
10	376	12	6	17	351	21	3	56	356	A
11	351	14	6	16	347	21	3	49	355	A
12	326	15	5	16	349	21	3	47	357	A
13	301	15	10	17	353	22	3	49	360	A
14	276	14	3	17	354	22	2	52	358	A
15	251	12	4	17	4	21	0	56	4	C
16	226	9	15	21	9	23	1	66	10	A
17	201	12	26	24	7	27	4	65	10	A
18	176	14	38	25	8	28	6	62	15	A
19	151	15	39	27	7	30	7	63	14	A
20	126	13	48	29	2	30	9	71	8	A
21	101	13	81	35	1	35	13	86	2	A
22	76	17	105	47	6	47	17	94	5	A

## **NWNG0706 ADCP 1292**

Harmonic constants for constituent N2 for deployment NWNG0706.

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	601	10	285	6	272	12	1	30	282	A
02	576	10	286	6	278	12	1	30	284	A
03	551	11	285	6	265	12	2	31	280	A
04	526	12	287	7	262	13	2	28	281	A
05	501	13	292	8	257	15	4	30	283	A
06	476	14	292	10	249	17	6	32	279	A
07	451	16	291	11	250	18	6	32	278	A
08	426	15	299	13	260	19	7	39	283	A
09	401	14	305	14	270	19	6	45	288	A
10	376	14	310	14	271	19	7	43	291	A
11	351	14	313	14	277	19	6	44	295	A
12	326	15	309	15	272	20	7	44	291	A
13	301	18	298	14	263	22	7	38	285	A
14	276	16	293	13	263	20	5	37	282	A
15	251	15	297	12	264	18	5	38	284	A
16	226	14	303	14	268	19	6	44	286	A
17	201	15	312	16	271	21	8	47	290	A
18	176	19	321	20	269	25	12	47	294	A
19	151	23	326	23	267	28	16	46	295	A
20	126	23	334	27	268	30	19	54	292	A
21	101	30	348	29	267	31	27	39	314	A
22	76	33	353	27	257	34	26	167	183	A

Harmonic constants for constituent O1 for deployment NWNG0706.

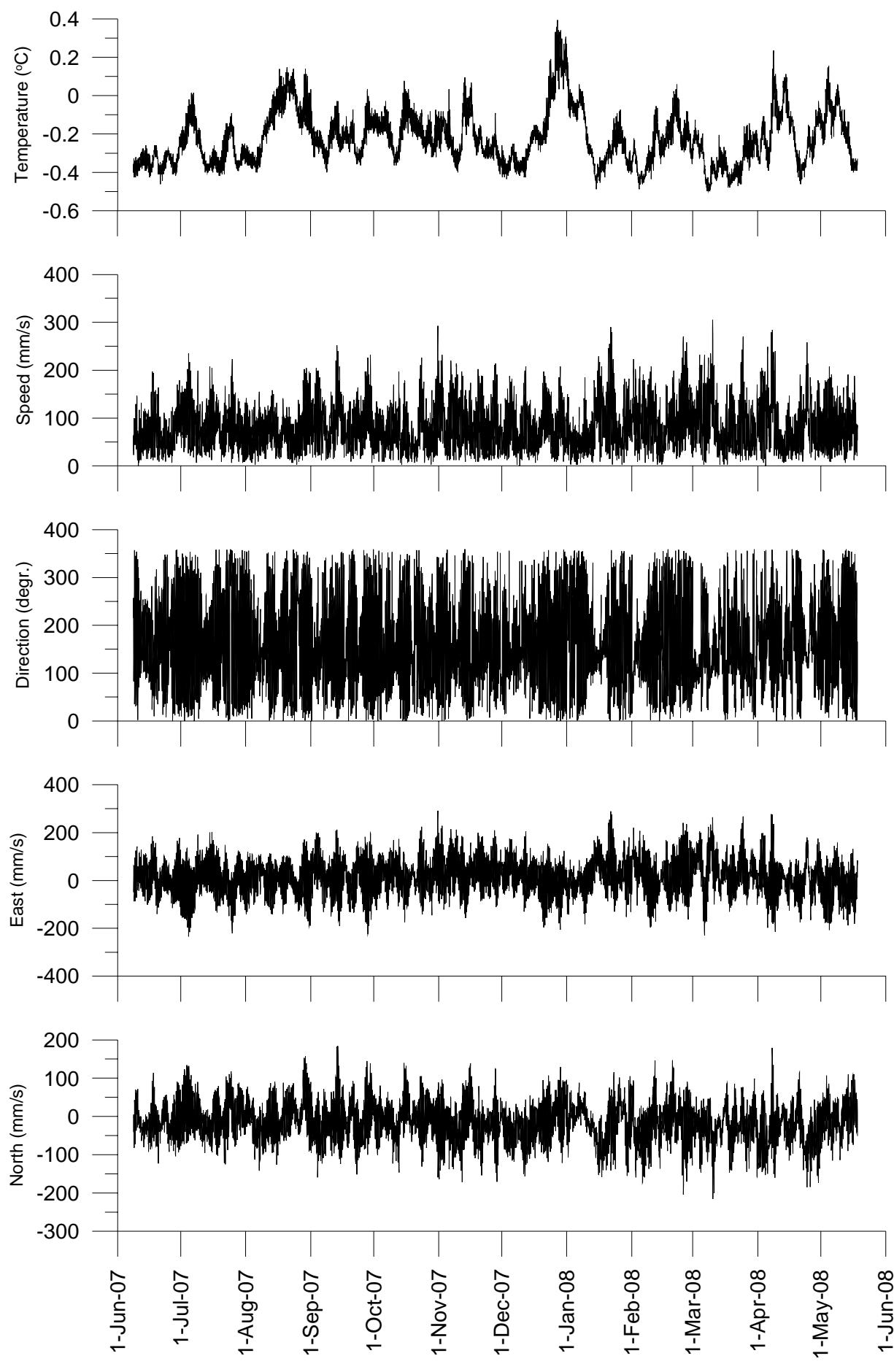
Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	601	6	63	1	333	6	1	180	243	A
02	576	5	63	1	324	5	1	178	244	A
03	551	5	59	1	275	5	0	173	240	A
04	526	4	68	0	216	4	0	175	248	C
05	501	5	64	1	346	5	1	1	64	A
06	476	6	58	1	298	6	1	173	239	A
07	451	6	52	1	281	6	1	171	234	A
08	426	5	43	2	270	6	1	165	227	A
09	401	6	58	1	324	6	1	179	238	A
10	376	6	61	1	331	6	1	180	241	A
11	351	6	46	3	307	6	3	174	229	A
12	326	4	60	2	330	4	2	1	60	A
13	301	4	69	2	337	4	2	179	249	A
14	276	6	40	2	306	6	2	178	221	A
15	251	6	43	3	322	6	3	7	39	A
16	226	7	46	3	313	7	3	179	227	A
17	201	6	38	4	332	7	4	21	26	A
18	176	4	36	4	349	5	2	41	15	A
19	151	3	54	3	5	4	2	52	25	A
20	126	2	128	2	19	2	2	142	337	A
21	101	5	141	2	359	6	1	159	326	A
22	76	12	95	6	304	13	3	154	281	A

## **NWNG0706 ADCP 1292**

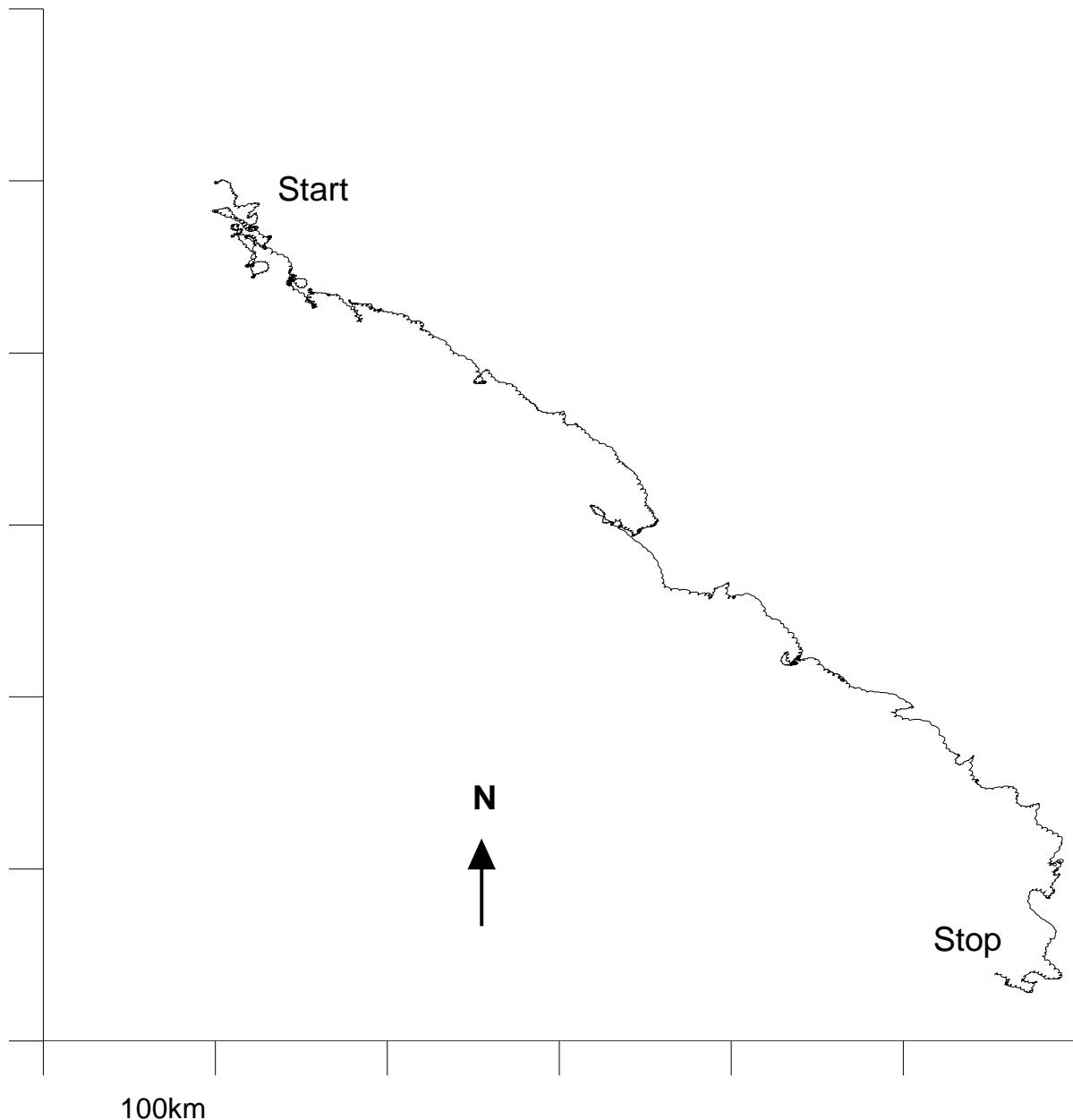
Harmonic constants for constituent K1 for deployment NWNG0706.

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	601	5	288	3	173	5	2	160	119	A
02	576	4	286	3	176	5	3	159	119	A
03	551	4	291	3	172	5	3	147	131	A
04	526	4	292	3	173	4	2	148	131	A
05	501	4	293	3	148	5	1	147	124	A
06	476	4	291	3	159	5	2	151	123	A
07	451	5	293	3	178	5	2	164	121	A
08	426	6	291	3	196	6	3	177	112	A
09	401	7	295	3	173	7	3	164	121	A
10	376	7	294	3	180	8	3	170	117	A
11	351	7	290	3	160	7	2	159	117	A
12	326	6	280	3	143	6	2	159	106	A
13	301	6	292	3	143	6	2	152	119	A
14	276	8	298	5	154	9	3	151	127	A
15	251	9	315	6	143	11	1	148	137	A
16	226	8	320	7	137	10	0	139	139	C
17	201	7	318	6	119	10	2	139	130	C
18	176	11	322	8	110	13	3	148	132	C
19	151	16	323	10	101	17	6	152	133	C
20	126	20	327	12	111	22	6	152	138	C
21	101	29	329	12	124	31	5	159	145	C
22	76	47	340	20	146	50	5	157	158	C

**NWNG0706 Aanderaa 721**



**NWNG0706 Aanderaa 721**



## Deployment Id: NWSB0706

**Latitude:** 60°47.033'N

**Longitude:** 005°17.957'W

**Echo sounding depth:** 805 m

**Bottom depth corr.:** 787 m

**Time of deployment:** 10/06 -2007 0747 UTC

**Time of recovery:** 16/5 - 2008 0937 UTC

### ADCP:

**Instrument no.:** RDI ADCP 1644

**Instrument frequency:** 75 kHz

**Height above bottom:** 108 m

**Depth:** 679 m (corr.)

**Time of first data:** 10/6 - 2007 0820 UTC

**Time of last data:** 16/5 - 2008 0920 UTC

**Sample interval:** 20 min

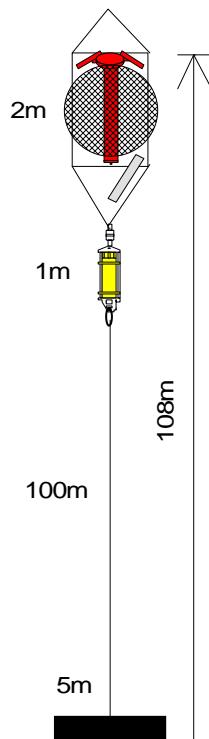
**No. of ensembles:** 24556

**Pings per ens.:** 1

**Binlength:** 25 m

**Depth of first bin:** 644 m (corr.)

**No. of bins:** 23



**Data:** All data ok.

## **NWSB0706 ADCP 1644**

Error statistics for deployment: NWSB0706 updated 2008/10/10

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Surface distance not edited

Heading, pitch and roll not edited

Temperature edited by EJ in Aug 2008

Velocity edited up to and including bin 23 by EJ in Aug 2008

Intensity edited up to and including bin 23 by EJ in Sep 2008

Total number of ensembles: 24556

Interval between ensembles: 20 min

Original number of bins: 32

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: 8

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	%	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	5	25	0	23	1	0	0	0	0	0	0	0	0
2	0	23	0	20	0	1	0	0	0	0	0	0	0
3	2	26	0	23	0	1	0	0	0	0	0	0	0
4	1	13	0	11	1	0	0	0	0	0	0	0	0
5	2	10	0	10	0	0	0	0	0	0	0	0	0
6	4	18	0	11	0	0	0	0	1	0	0	0	0
7	1	19	0	15	2	0	0	0	0	0	0	0	0
8	3	18	0	16	1	0	0	0	0	0	0	0	0
9	3	21	0	17	2	0	0	0	0	0	0	0	0
10	2	30	0	26	2	0	0	0	0	0	0	0	0
11	4	27	0	27	0	0	0	0	0	0	0	0	0
12	2	35	0	30	1	1	0	0	0	0	0	0	0
13	3	57	0	51	3	0	0	0	0	0	0	0	0
14	3	67	0	51	4	1	0	1	0	0	0	0	0
15	2	110	0	91	5	0	1	1	0	0	0	0	0
16	3	242	1	157	12	7	2	1	1	1	0	0	0
17	5	584	2	234	36	12	7	4	12	4	2	0	0
18	4	2090	9	376	75	34	17	16	28	49	15	0	0
19	5	4569	19	594	134	61	46	23	56	56	50	22	0
20	2	7295	30	697	208	110	79	35	117	80	58	53	0
21	5	9207	37	716	261	136	80	56	112	133	63	68	1
22	6	10241	42	752	262	143	72	62	128	119	66	81	3
23	5	11305	46	895	301	159	75	45	115	99	60	100	11

## **NWSB0706 ADCP 1644**

Deployment: NWSB0706 updated 2008/10/10  
Instrument no.: 1644  
Instrument freq.: 75  
Latitude: 60 47.033 N  
Longitude: 05 17.957 W  
Bottom depth: 787  
Instrument depth: 679  
Center depth of first bin: 644  
Bin length: 25  
Number of bins: 23  
Number of first ensemble: 548  
Time of first ensemble: 2007 06 10 08 20  
Number of last ensemble: 25103  
Time of last ensemble: 2008 05 16 09 20  
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	644	143	200	32	202	999
2	619	168	196	30	203	999
3	594	193	193	28	204	999
4	569	218	189	26	204	999
5	544	243	187	25	204	1000
6	519	268	184	24	206	999
7	494	293	181	22	206	999
8	469	318	179	21	204	999
9	444	343	180	21	202	999
10	419	368	182	22	203	999
11	394	393	187	24	203	999
12	369	418	191	26	206	999
13	344	443	194	30	206	998
14	319	468	198	34	205	997
15	294	493	202	34	205	996
16	269	518	206	33	204	990
17	244	543	211	33	204	976
18	219	568	214	33	201	915
19	194	593	218	33	197	814
20	169	618	226	32	194	703
21	144	643	232	33	195	625
22	119	668	238	35	194	583
23	94	693	250	31	184	540

## **NWSB0706 ADCP 1644**

Deployment: NWSB0706

Frequency of high speeds.

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

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	644	817	454	174	48	7	0	0	0	0	0	0	0	0	0	0	0	0	0
2	619	807	443	167	43	5	0	0	0	0	0	0	0	0	0	0	0	0	0
3	594	801	430	156	38	5	0	0	0	0	0	0	0	0	0	0	0	0	0
4	569	794	417	148	32	4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	544	791	410	140	30	2	0	0	0	0	0	0	0	0	0	0	0	0	0
6	519	781	400	137	27	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7	494	771	391	130	25	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8	469	758	382	126	26	2	0	0	0	0	0	0	0	0	0	0	0	0	0
9	444	765	381	125	25	2	0	0	0	0	0	0	0	0	0	0	0	0	0
10	419	774	390	130	25	3	0	0	0	0	0	0	0	0	0	0	0	0	0
11	394	787	410	140	29	4	0	0	0	0	0	0	0	0	0	0	0	0	0
12	369	798	422	148	35	5	1	0	0	0	0	0	0	0	0	0	0	0	0
13	344	796	433	162	43	8	1	0	0	0	0	0	0	0	0	0	0	0	0
14	319	799	448	176	53	12	2	0	0	0	0	0	0	0	0	0	0	0	0
15	294	804	459	182	58	14	2	0	0	0	0	0	0	0	0	0	0	0	0
16	269	805	469	190	63	15	3	0	0	0	0	0	0	0	0	0	0	0	0
17	244	808	474	200	68	18	4	0	0	0	0	0	0	0	0	0	0	0	0
18	219	764	454	198	69	21	4	1	0	0	0	0	0	0	0	0	0	0	0
19	194	678	410	192	68	21	5	0	0	0	0	0	0	0	0	0	0	0	0
20	169	586	363	183	70	23	7	2	1	0	0	0	0	0	0	0	0	0	0
21	144	529	332	173	74	25	7	3	1	0	0	0	0	0	0	0	0	0	0
22	119	497	317	167	75	28	9	4	2	1	0	0	0	0	0	0	0	0	0
23	94	461	311	169	81	34	13	6	3	2	1	0	0	0	0	0	0	0	0

## **NWSB0706 ADCP 1644**

Harmonic constants for constituent M2 for deployment NWSB0706.

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	644	231	247	115	204	247	72	22	240	A
02	619	227	248	115	208	245	68	23	241	A
03	594	222	249	114	211	241	64	24	242	A
04	569	215	250	115	215	237	60	25	243	A
05	544	210	251	117	219	234	56	27	244	A
06	519	204	252	119	223	231	52	28	245	A
07	494	197	254	121	227	227	47	30	247	A
08	469	190	255	123	231	222	42	32	248	A
09	444	181	256	125	235	217	37	34	250	A
10	419	172	258	130	240	213	32	37	252	A
11	394	165	259	136	244	212	28	39	253	A
12	369	157	260	138	247	208	23	41	255	A
13	344	146	261	137	252	200	15	43	256	A
14	319	135	262	138	257	193	9	46	260	A
15	294	129	265	143	260	192	8	48	262	A
16	269	123	267	146	261	191	8	50	264	A
17	244	121	268	148	263	191	7	51	265	A
18	219	120	268	148	265	190	5	51	266	A
19	194	116	269	147	267	187	3	52	268	A
20	169	118	269	149	269	189	1	52	269	C
21	144	120	268	150	271	192	4	51	270	C
22	119	118	269	152	272	193	4	52	271	C
23	94	114	272	156	274	193	3	54	273	C

Harmonic constants for constituent S2 for deployment NWSB0706.

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	644	85	285	44	242	92	28	23	278	A
02	619	83	286	44	246	90	26	24	279	A
03	594	81	287	44	250	89	24	26	280	A
04	569	78	288	44	255	87	22	27	281	A
05	544	74	289	43	260	84	19	28	282	A
06	519	71	290	41	264	81	16	29	284	A
07	494	69	292	43	268	80	15	31	285	A
08	469	67	293	45	272	79	14	33	287	A
09	444	62	295	47	277	77	12	37	288	A
10	419	58	298	51	282	77	11	41	291	A
11	394	56	302	56	288	78	10	45	295	A
12	369	55	305	59	290	80	10	47	297	A
13	344	55	305	62	290	82	11	49	297	A
14	319	56	302	61	290	82	9	48	295	A
15	294	53	300	58	292	79	5	48	296	A
16	269	50	300	56	294	75	4	48	297	A
17	244	47	301	53	297	70	3	49	299	A
18	219	45	303	51	300	67	2	49	301	A
19	194	44	303	48	303	65	0	48	303	A
20	169	43	301	52	307	67	4	51	305	C
21	144	42	304	56	316	70	7	53	312	C
22	119	47	311	60	311	76	0	52	311	C
23	94	44	314	59	314	74	0	53	314	C

## **NWSB0706 ADCP 1644**

Harmonic constants for constituent N2 for deployment NWSB0706.

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	644	57	214	24	150	58	21	12	210	A
02	619	55	218	25	163	57	20	17	212	A
03	594	54	222	26	170	56	19	19	215	A
04	569	52	225	27	177	55	19	22	217	A
05	544	50	226	27	184	54	17	24	218	A
06	519	47	227	26	193	52	13	27	220	A
07	494	44	230	26	201	49	11	29	223	A
08	469	41	230	24	205	47	9	29	224	A
09	444	40	228	23	209	46	7	30	223	A
10	419	35	226	22	220	41	2	32	225	A
11	394	28	227	22	237	36	3	38	231	C
12	369	26	231	21	239	34	2	39	234	C
13	344	26	240	25	240	37	0	44	240	C
14	319	26	249	32	242	41	2	51	245	A
15	294	26	256	35	243	43	5	53	248	A
16	269	28	262	37	242	46	8	54	249	A
17	244	30	265	41	242	50	10	55	250	A
18	219	32	273	44	241	53	14	56	252	A
19	194	33	279	46	245	55	16	56	256	A
20	169	34	278	45	242	54	17	55	254	A
21	144	31	277	42	243	50	14	55	255	A
22	119	29	286	42	253	49	13	57	263	A
23	94	26	282	44	255	50	10	61	262	A

Harmonic constants for constituent O1 for deployment NWSB0706.

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	644	29	342	15	33	30	11	22	350	C
02	619	29	342	16	32	31	11	23	351	C
03	594	28	341	16	32	30	11	22	350	C
04	569	28	340	15	30	30	11	23	349	C
05	544	28	339	15	31	30	11	22	348	C
06	519	27	338	15	32	29	11	21	346	C
07	494	26	338	14	34	28	11	21	347	C
08	469	26	339	13	35	27	11	20	347	C
09	444	25	337	13	36	27	11	18	344	C
10	419	24	335	12	40	24	10	14	341	C
11	394	24	334	11	40	24	10	13	339	C
12	369	23	332	11	35	24	9	15	338	C
13	344	23	331	10	35	24	9	12	335	C
14	319	23	326	8	35	23	8	8	328	C
15	294	21	326	7	36	22	7	7	328	C
16	269	20	322	5	57	20	5	178	141	C
17	244	21	320	4	68	21	3	177	140	C
18	219	25	323	5	68	25	5	177	143	C
19	194	25	327	6	88	25	5	172	145	C
20	169	28	329	7	136	29	2	167	148	C
21	144	29	328	10	125	30	4	162	145	C
22	119	29	326	12	137	32	2	159	145	C
23	94	33	324	10	135	34	1	164	143	C

## **NWSB0706 ADCP 1644**

Harmonic constants for constituent K1 for deployment NWSB0706.

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	644	19	202	10	247	20	7	22	209	C
02	619	19	200	10	249	20	7	23	208	C
03	594	18	199	10	249	20	7	22	208	C
04	569	18	198	9	249	19	7	20	205	C
05	544	18	196	9	251	19	7	19	203	C
06	519	18	197	10	249	19	7	22	205	C
07	494	17	196	9	251	18	7	21	205	C
08	469	16	197	10	253	17	7	24	208	C
09	444	15	192	9	262	15	8	17	201	C
10	419	14	187	7	276	14	7	1	188	C
11	394	13	184	6	275	13	6	180	4	C
12	369	14	172	7	255	14	6	4	174	C
13	344	15	154	6	240	15	6	2	155	C
14	319	16	146	6	220	16	6	7	148	C
15	294	15	150	7	215	15	6	14	156	C
16	269	16	163	7	206	17	5	21	169	C
17	244	19	172	6	199	20	3	15	174	C
18	219	21	170	5	169	22	0	13	169	A
19	194	21	166	4	152	21	1	12	166	A
20	169	23	165	12	138	26	5	25	160	A
21	144	24	161	17	139	29	5	35	154	A
22	119	29	160	23	147	37	4	38	155	A
23	94	32	156	27	142	42	5	40	150	A

## Deployment Id: NWSC0706

**Latitude:** 60°34.010'N

**Longitude:** 004°46.544'W

**Echo sounding depth:** 1091 m

**Bottom depth corr.:** 1067 m

**Time of deployment:** 10/6 -2007 0545 UTC

**Time of recovery:** 16/5 - 2008 0642 UTC

### ADCP:

**Instrument no.:** RDI ADCP 1245

**Instrument frequency:** 75 kHz

**Height above bottom:** 419 m (corr.)

**Depth:** 648 m (corr.)

**Time of first data:** 10/6 - 2007 0600 UTC

**Time of last data:** 16/5 - 2008 0620 UTC

**Sample interval:** 20 min

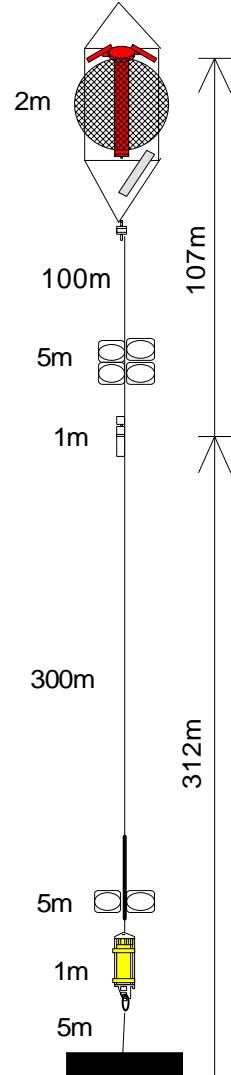
**No. of ensembles:** 24554

**Pings per ens.:** 1

**Binlength:** 25 m

**Depth of first bin:** 613 m (corr.)

**No. of bins:** 23



### Aanderaa:

**Instrument no.:** RCM9 718

**Height above bottom:** 312 m

**Depth:** 755 m (corr.)

**Time of first data:** 10/6 – 2007 0630 UTC

**Time of last data:** 16/5 – 2008 0530 UTC

**Sample interval:** 60 min

**No. of records:** 8184

**Data:** All data ok, but ADCP velocity is based on 3 beams, only.

## **NWSC0706 ADCP 1245**

Error statistics for deployment: NWSC0706 updated 2008/10/10

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Surface distance not edited

Heading, pitch and roll not edited

Temperature edited by EJ in Aug 2008

Velocity edited up to and including bin 23 by EJ in Aug 2008

Intensity edited up to and including bin 23 by EJ in Sep 2008

Total number of ensembles: 24554

Interval between ensembles: 20 min

Original number of bins: 32

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: 6

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	%	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	3	37	0	27	0	0	1	0	1	0	0	0	0
2	2	35	0	27	0	1	0	1	0	0	0	0	0
3	3	32	0	24	1	0	0	0	1	0	0	0	0
4	2	31	0	24	1	0	0	1	0	0	0	0	0
5	4	46	0	36	2	0	0	0	1	0	0	0	0
6	2	39	0	30	2	0	0	1	0	0	0	0	0
7	3	46	0	39	1	0	0	1	0	0	0	0	0
8	2	42	0	33	2	0	0	1	0	0	0	0	0
9	2	42	0	30	2	1	0	1	0	0	0	0	0
10	2	74	0	58	4	1	0	1	0	0	0	0	0
11	2	51	0	40	3	0	0	1	0	0	0	0	0
12	3	56	0	42	3	1	0	1	0	0	0	0	0
13	1	60	0	47	4	0	0	1	0	0	0	0	0
14	5	97	0	74	6	2	0	1	0	0	0	0	0
15	1	208	1	90	10	9	1	2	1	2	1	0	0
16	4	773	3	132	29	10	6	5	21	13	4	1	0
17	3	1859	8	149	40	25	10	12	17	37	26	4	0
18	5	3028	12	168	34	12	7	7	19	33	47	24	0
19	4	3881	16	183	31	16	12	5	22	22	46	50	0
20	4	4877	20	203	63	29	13	6	36	34	47	61	1
21	3	5914	24	239	67	16	18	16	28	62	34	77	2
22	1	6738	27	258	93	43	21	15	46	55	39	86	5
23	1	9383	38	307	84	49	33	24	58	50	47	86	36

## **NWSC0706 ADCP 1245**

Deployment: NWSC0706 updated 2008/10/10  
Instrument no.: 1245  
Instrument freq.: 75  
Latitude: 60 34.010 N  
Longitude: 04 46.544 W  
Bottom depth: 1067  
Instrument depth: 648  
Center depth of first bin: 613  
Bin length: 25  
Number of bins: 23  
Number of first ensemble: 562  
Time of first ensemble: 2007 06 10 06 00  
Number of last ensemble: 25115  
Time of last ensemble: 2008 05 16 06 20  
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	613	454	166	37	214	998
2	588	479	167	36	210	999
3	563	504	170	36	203	999
4	538	529	174	36	194	999
5	513	554	177	37	182	998
6	488	579	182	38	173	998
7	463	604	188	43	166	998
8	438	629	196	50	160	998
9	413	654	207	59	156	998
10	388	679	218	70	153	997
11	363	704	231	78	150	998
12	338	729	240	83	146	998
13	313	754	245	83	140	998
14	288	779	251	84	134	996
15	263	804	258	87	130	992
16	238	829	264	91	128	969
17	213	854	271	94	127	924
18	188	879	279	98	126	877
19	163	904	287	103	126	842
20	138	929	296	107	125	801
21	113	954	310	112	125	759
22	88	979	334	117	124	726
23	63	1004	351	115	128	618

## **NWSC0706 ADCP 1245**

Deployment: NWSC0706

Frequency of high speeds.

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

Bin no. 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	613	712	326	98	24	7	2	0	0	0	0	0	0	0	0	0	0	0	0
2	588	717	325	96	25	8	2	0	0	0	0	0	0	0	0	0	0	0	0
3	563	725	340	101	27	7	2	0	0	0	0	0	0	0	0	0	0	0	0
4	538	739	349	110	30	8	2	0	0	0	0	0	0	0	0	0	0	0	0
5	513	746	361	122	35	10	2	0	0	0	0	0	0	0	0	0	0	0	0
6	488	760	376	134	39	11	3	0	0	0	0	0	0	0	0	0	0	0	0
7	463	774	401	149	48	13	3	0	0	0	0	0	0	0	0	0	0	0	0
8	438	790	426	170	58	17	5	0	0	0	0	0	0	0	0	0	0	0	0
9	413	812	457	202	70	23	6	1	0	0	0	0	0	0	0	0	0	0	0
10	388	828	490	233	89	29	8	2	0	0	0	0	0	0	0	0	0	0	0
11	363	845	536	266	108	34	11	3	0	0	0	0	0	0	0	0	0	0	0
12	338	856	567	293	123	42	13	3	1	0	0	0	0	0	0	0	0	0	0
13	313	856	579	311	137	49	17	5	1	0	0	0	0	0	0	0	0	0	0
14	288	859	581	325	152	58	21	6	1	0	0	0	0	0	0	0	0	0	0
15	263	859	596	345	167	69	24	7	2	0	0	0	0	0	0	0	0	0	0
16	238	847	592	356	175	77	27	8	2	0	0	0	0	0	0	0	0	0	0
17	213	808	575	356	184	82	30	9	2	0	0	0	0	0	0	0	0	0	0
18	188	772	556	353	189	88	33	11	3	1	0	0	0	0	0	0	0	0	0
19	163	745	547	354	199	97	39	13	4	1	0	0	0	0	0	0	0	0	0
20	138	717	533	352	202	106	45	16	6	2	1	0	0	0	0	0	0	0	0
21	113	687	526	353	207	113	54	21	9	4	2	1	1	0	0	0	0	0	0
22	88	668	531	371	232	130	65	30	15	7	5	3	2	1	1	0	0	0	0
23	63	573	466	332	212	123	65	34	19	11	8	5	3	2	2	1	1	1	0

## **NWSC0706 ADCP 1245**

Harmonic constants for constituent M2 for deployment NWSC0706.

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	613	152	254	110	246	187	13	36	252	A
02	588	151	255	111	247	187	12	36	252	A
03	563	153	255	113	247	189	13	36	253	A
04	538	152	256	115	248	190	12	37	253	A
05	513	147	255	115	250	186	8	38	253	A
06	488	144	254	114	252	183	4	38	253	A
07	463	140	255	116	254	182	2	39	254	A
08	438	134	257	120	256	180	0	42	257	A
09	413	129	258	125	260	180	3	44	259	C
10	388	122	258	129	264	177	8	47	261	C
11	363	112	259	133	267	174	12	50	264	C
12	338	102	260	135	271	169	15	53	267	C
13	313	94	262	142	274	170	17	57	270	C
14	288	86	265	149	276	172	14	60	274	C
15	263	82	270	156	277	176	9	62	276	C
16	238	79	273	161	278	179	6	64	277	C
17	213	76	276	166	279	182	4	65	278	C
18	188	74	282	169	279	184	4	66	280	A
19	163	74	286	174	278	188	9	67	279	A
20	138	74	288	180	278	194	12	68	279	A
21	113	75	292	187	279	200	16	68	281	A
22	88	74	293	196	280	209	15	70	282	A
23	63	74	290	188	278	201	14	69	280	A

Harmonic constants for constituent S2 for deployment NWSC0706.

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	613	46	298	48	296	66	1	46	297	A
02	588	46	298	48	294	67	2	46	296	A
03	563	47	299	50	292	68	4	47	295	A
04	538	48	300	50	292	69	5	46	296	A
05	513	48	301	51	292	70	6	47	296	A
06	488	48	302	52	291	71	7	47	296	A
07	463	48	299	49	292	69	4	46	295	A
08	438	46	293	47	292	66	0	45	293	A
09	413	44	291	45	296	63	3	46	294	C
10	388	44	289	43	298	62	5	45	293	C
11	363	46	288	44	297	64	5	43	292	C
12	338	47	289	47	298	66	5	45	293	C
13	313	44	289	46	302	63	7	46	296	C
14	288	41	287	45	307	60	11	48	298	C
15	263	40	289	45	306	60	9	48	298	C
16	238	39	287	45	305	59	9	49	298	C
17	213	38	286	46	304	59	9	50	297	C
18	188	40	292	44	302	60	5	48	297	C
19	163	40	300	44	300	60	0	48	300	C
20	138	45	309	45	299	63	5	46	304	A
21	113	48	314	45	298	65	9	43	306	A
22	88	50	318	44	297	66	12	41	309	A
23	63	48	314	43	295	64	11	42	306	A

## **NWSC0706 ADCP 1245**

Harmonic constants for constituent N2 for deployment NWSC0706.

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	613	36	223	19	214	41	3	28	221	A
02	588	36	224	21	215	41	3	30	222	A
03	563	36	227	22	218	42	3	32	225	A
04	538	35	230	24	221	42	3	34	227	A
05	513	33	231	25	224	42	2	36	229	A
06	488	31	235	26	230	41	2	40	233	A
07	463	29	236	26	233	39	1	42	235	A
08	438	27	235	25	238	37	1	43	236	C
09	413	25	234	25	244	36	3	45	239	C
10	388	24	235	27	245	36	3	48	241	C
11	363	25	244	31	247	40	1	52	246	C
12	338	26	256	36	245	44	4	54	249	A
13	313	26	266	36	251	44	6	55	256	A
14	288	24	272	40	252	46	7	60	257	A
15	263	22	280	41	256	46	8	63	261	A
16	238	22	288	43	257	47	10	66	263	A
17	213	22	291	44	256	48	11	66	262	A
18	188	23	295	45	255	49	14	66	262	A
19	163	23	291	46	257	50	12	66	263	A
20	138	20	291	48	261	51	10	69	265	A
21	113	19	291	50	264	53	8	71	267	A
22	88	21	296	48	262	52	11	69	267	A
23	63	20	308	53	265	55	13	73	269	A

Harmonic constants for constituent O1 for deployment NWSC0706.

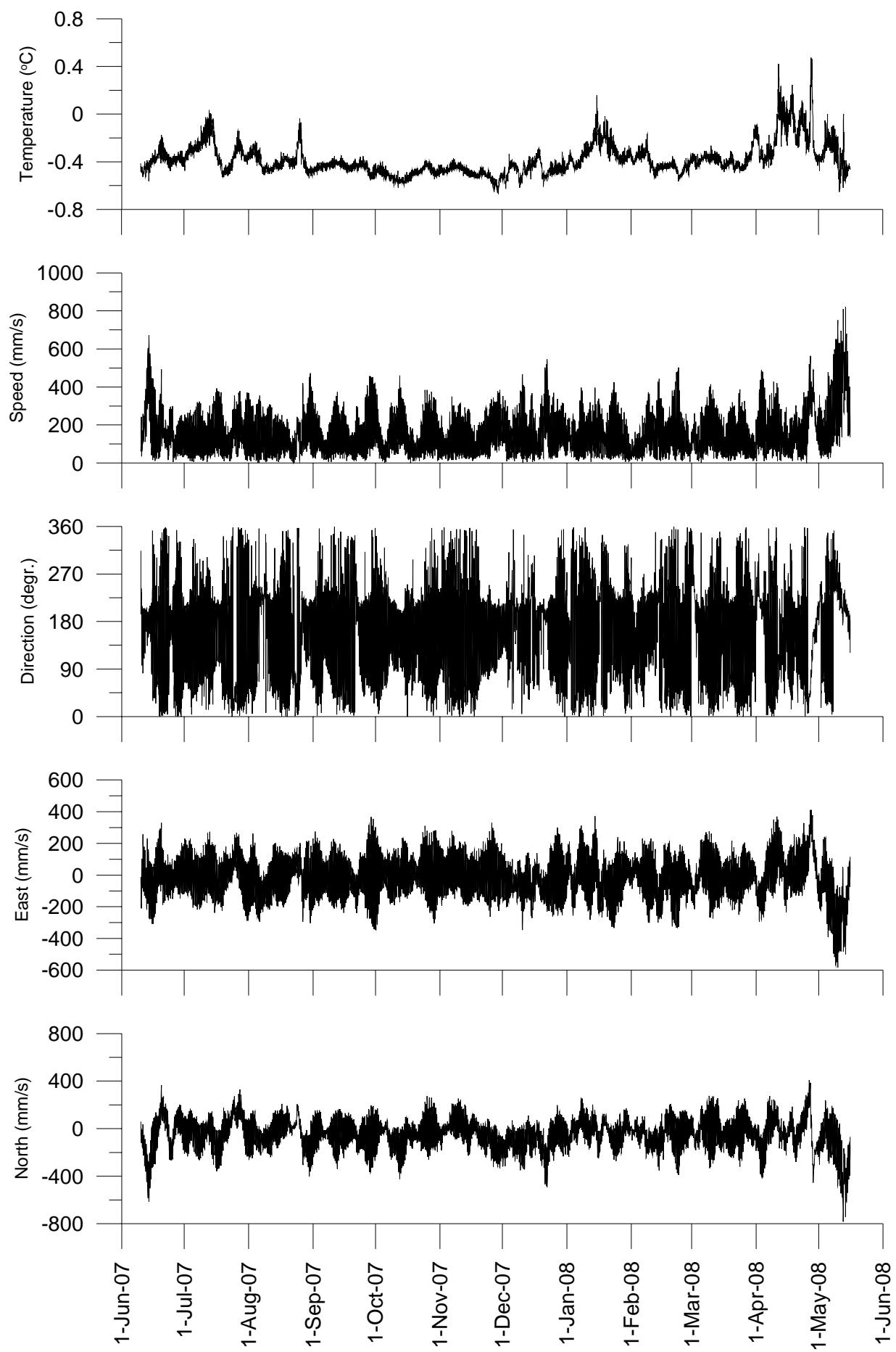
Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	613	11	6	9	41	13	4	40	21	C
02	588	10	5	9	35	13	3	39	17	C
03	563	10	8	8	36	12	3	40	20	C
04	538	9	12	8	37	12	3	42	23	C
05	513	8	11	8	40	11	3	44	25	C
06	488	9	7	8	42	12	4	43	23	C
07	463	9	7	9	47	12	4	43	26	C
08	438	10	11	9	37	14	3	42	23	C
09	413	10	14	9	34	13	2	41	23	C
10	388	9	19	9	34	13	2	43	26	C
11	363	9	12	7	35	12	2	38	21	C
12	338	9	9	6	38	11	3	34	18	C
13	313	7	13	7	40	10	2	43	26	C
14	288	8	8	7	28	11	2	43	18	C
15	263	9	8	8	32	12	2	39	17	C
16	238	9	10	12	35	14	3	53	26	C
17	213	8	9	15	29	17	2	64	25	C
18	188	8	41	16	29	18	1	63	31	A
19	163	10	58	15	28	17	4	59	36	A
20	138	12	62	15	35	19	4	51	46	A
21	113	9	57	12	47	15	1	52	51	A
22	88	9	49	10	46	13	0	47	47	A
23	63	13	49	13	45	19	1	45	47	A

## **NWSC0706 ADCP 1245**

Harmonic constants for constituent K1 for deployment NWSC0706.

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	613	6	232	4	248	7	1	31	236	C
02	588	6	230	4	252	7	1	30	235	C
03	563	7	223	4	235	8	1	28	226	C
04	538	7	220	3	240	7	1	21	223	C
05	513	7	221	3	242	8	1	25	225	C
06	488	6	227	3	246	7	1	29	232	C
07	463	6	233	4	253	7	1	31	239	C
08	438	5	231	2	236	6	0	23	232	C
09	413	4	236	2	213	5	1	21	233	A
10	388	3	183	1	213	3	0	16	186	C
11	363	4	141	7	205	7	4	67	192	C
12	338	5	129	11	193	11	5	76	187	C
13	313	5	138	9	189	9	3	69	182	C
14	288	1	174	7	192	7	0	82	191	C
15	263	3	236	6	184	6	3	66	194	A
16	238	7	179	3	209	7	1	22	184	C
17	213	14	146	2	287	14	1	173	325	C
18	188	16	149	5	318	17	1	162	328	C
19	163	18	155	8	316	20	2	158	332	C
20	138	23	167	6	299	24	5	169	345	C
21	113	28	176	10	290	29	9	171	354	C
22	88	29	185	11	271	30	11	2	185	C
23	63	27	180	14	286	27	13	170	355	C

## **NWSC0706 Aanderaa 718**



**NWSC0706 Aanderaa 718**

