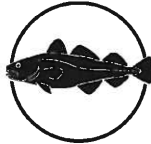


The Faroese Fisheries Laboratory

Fiskirannsóknarstovan



Nordic WOCE ADCP Deployments in Faroese Waters 1999 - 2000

By

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Introduction

This report documents 8 ADCP deployments in Faroese waters in 1999 - 2000. The measurements were acquired at 7 standard mooring sites, all shown in Figure 1. 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.

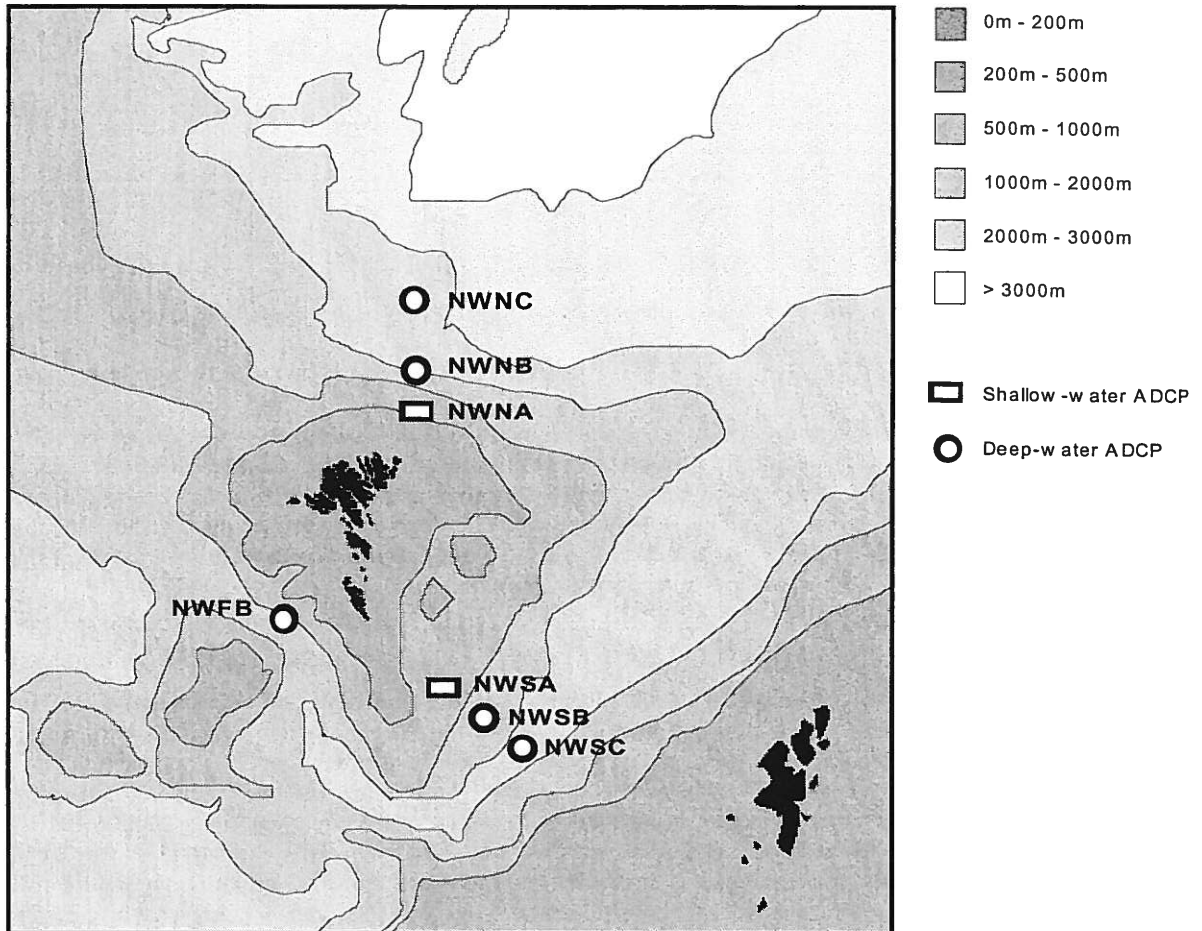


Figure 1. Standard ADCP mooring sites in Faroese waters superposed on a map with the bottom topography. Each site is indicated by a four-letter label.

As indicated in Figure 1, two types of moorings have been used. At site NWNA and NWSA, “shallow-water” rigs were used where 150 kHz RDI Broadband ADCP’s were placed on the bottom inside protective aluminium frames. At the other sites, 75 kHz RDI Broadband ADCP’s were placed in the top of single-point moorings (“deep-water” rigs). For each deployment the ADCP measures the velocity averaged over a number (12 – 25) of depth layers (“bins”) which were 25m for the deep-water rigs and 10m for the shallow-water rigs. At 20 minutes intervals the ADCP records the data from all bins into “ensembles”. In these deployments, each ensemble is based only upon one ping. One of the ADCP’s (at site NWNB) surfaced after 5 days, because of a malfunction in the releaser. It was redeployed in august, and when the ADCP was recovered, the data where split into two different deployments – NWNB9907 and NWNB9908.

Table 1. List of ADCP deployments in 1999 with information on duration and range of valid data. The last column indicates for two deployments that one of the ADCP beams has been faulty and 3-beam computations have been used. The comment "Surfaced" means, that the ADCP surfaced before planned recovery.

Deployment	Bottom depth	Int. min.	Valid data period	Dur. days	No bins	Depthrange	Comments
NWFB9907	812	20	1999 07 04-2000 06 19	351	25	170- 770	
NWNA9907	295	20	1999 07 02-2000 06 16	349	24	48- 278	
NWNB9907	947	20	1999 07 02-1999 07 07	4	24	94- 669	Surfaced
NWNB9908	957	20	1999 08 20-2000 06 16	301	25	79- 679	
NWNC9907	1740	20	1999 07 02-2000 06 16	349	23	81- 631	
NWSA9907	293	20	1999 07 06-2000 06 20	349	22	66- 276	
NWSB9907	786	20	1999 07 04-2000 06 20	351	24	67- 642	3-beam
NWSC9907	1071	20	1999 07 04-2000 06 20	351	12	346- 621	3-beam

Quality control and calibration

The data have been quality controlled by a standard procedure based upon consideration of ADCP performance (error velocity etc.) and data variation with time in relation to neighbouring bins (spikes). The editing has been done manually using an interactive graphical software package developed by the Faroese Fisheries Laboratory (FFL), based upon MATLAB. Generally, the series have been edited up to the level where about 50% of the observations were found to be valid. Bins above this level have not been included.

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 is a page which for each bin lists the average speed (scalar average) and velocity magnitude and direction (vectorial average) as well as the fraction of "good" ensembles (in parts per thousand). On the next page there is a more detailed error statistics for the deployment which indicates also how many "long" (i.e. several consecutive ensembles) error gaps are for each bin. This is followed by a frequency distribution of speeds for each bin which lists the frequency (in parts per thousand) of speeds (scalar) exceeding specified values. Finally, for deployments exceeding 2 months, there are 2-3 pages listing tidal constituents. These pages contain 5 tables with data for the constituents M2, S2, N2, O1, and K1. Each table lists for each bin the amplitude and Greenwich phase lag for the east and north velocity components and lists also major and minor axes of the tidal ellipse for the constituent as well as its inclination (Fig. 2) and sense of rotation (cyclonic = C, anticyclonic = A). The tidal constants were computed by an adapted version of the Foreman FORTRAN package.

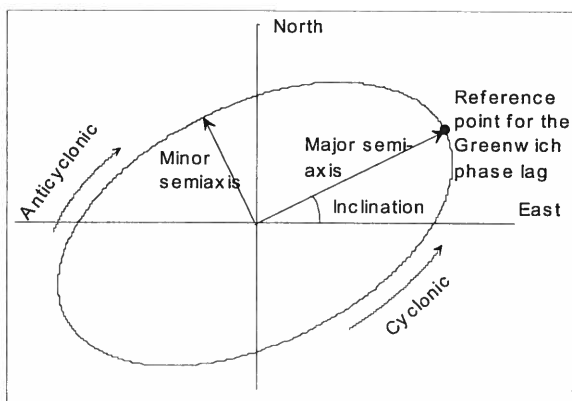


Figure 2. Parameters of the tidal ellipse for a given constituent. The reference point for the Greenwich phase lag is always chosen to be above the east-west axis.

Deployment Id: NWFB9907

Latitude: 61°24.975'N

Longitude: 008°16.860'W

Echo sounding depth: 821m

Bottom depth corr.: 812m

Time of deployment: 04/07 -1999 0940UTC

Time of recovery: 19/06 - 2000 1624UTC

ADCP:

Instrument no.: RDI ADCP 1285

Instrument frequency: 75kHz

Height above bottom: 6m

Depth: 806m (corr.)

Time of first data: 04/07 - 1999 1020UTC

Time of last data: 19/06 - 2000 1600UTC

Sample interval: 20 min

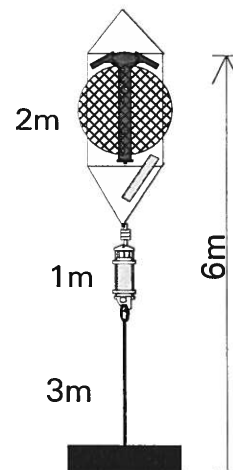
No. of ensembles: 25290

Pings per ens.: 1

Binlength: 25m

Depth of first bin: 770m (corr.)

No. of bins: 25



Deployment: NWFB9907 updated 2000/08/07
 Instrument no.: 1285
 Instrument freq.: 75
 Latitude: 61 24.975 N
 Longitude: 08 16.860 W
 Bottom depth: 812
 Instrument depth: 806
 Center depth of first bin: 770
 Bin length: 25
 Number of bins: 25
 Number of first ensemble: 263
 Time of first ensemble: 1999 07 04 10 20
 Number of last ensemble: 25552
 Time of last ensemble: 2000 06 19 16 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	770	42	923	919	299	910
2	745	67	981	977	301	942
3	720	92	1001	998	303	962
4	695	117	1004	1001	304	968
5	670	142	994	991	305	971
6	645	167	957	953	306	971
7	620	192	872	863	309	957
8	595	217	728	707	311	943
9	570	242	553	508	315	950
10	545	267	405	326	317	955
11	520	292	306	196	319	968
12	495	317	256	118	320	976
13	470	342	230	74	321	978
14	445	367	215	44	322	979
15	420	392	207	23	326	980
16	395	417	201	9	340	975
17	370	442	198	5	60	966
18	345	467	197	10	95	948
19	320	492	196	13	101	913
20	295	517	194	16	95	867
21	270	542	193	18	94	795
22	245	567	192	20	92	706
23	220	592	191	21	91	623
24	195	617	189	21	90	546
25	170	642	184	20	98	454

Error statistics for deployment: NWFB9907 updated 2000/08/07

Surface distance not edited
 Heading, pitch and roll not edited
 Temperature edited by MCP in Aug 2000
 Velocity edited up to and including bin 25 by MCP in July 2000
 Intensity edited up to and including bin 28 by MCP in Aug 2000

Total number of ensembles: 25290
 Interval between ensembles: 20 min
 Original number of bins: 28
 Number of acceptable velocity bins: 25
 Number of acceptable intensity bins: 25

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

Number of temperature ens. flagged: 0

Below are for each bin listed ensembles flagged for intensity in number and for velocity in number and % of total ens.number. For velocity is also shown the 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	2274	9	1710	180	47	10	2	2	0	0	0	0
2	0	1467	6	1178	108	17	3	2	0	0	0	0	0
3	0	973	4	821	59	10	1	0	0	0	0	0	0
4	0	804	3	709	40	5	0	0	0	0	0	0	0
5	0	743	3	643	37	7	0	1	0	0	0	0	0
6	0	722	3	565	55	11	2	0	1	0	0	0	0
7	1	1099	4	756	76	18	14	4	7	1	0	0	0
8	0	1435	6	911	140	36	10	7	5	2	0	0	0
9	0	1272	5	856	108	34	10	8	2	0	0	0	0
10	2	1128	4	713	89	32	9	4	9	2	0	0	0
11	1	820	3	566	72	21	5	2	1	1	0	0	0
12	0	597	2	473	43	8	0	0	2	0	0	0	0
13	1	555	2	455	31	7	3	1	0	0	0	0	0
14	0	535	2	394	39	12	2	1	2	0	0	0	0
15	1	507	2	383	35	6	4	0	1	1	0	0	0
16	0	633	3	463	43	9	5	0	5	0	0	0	0
17	0	870	3	533	54	15	7	3	6	5	1	0	0
18	1	1317	5	532	52	19	10	9	18	14	7	0	0
19	0	2190	9	526	96	30	20	9	33	21	17	7	0
20	0	3361	13	634	103	41	21	15	48	41	19	19	1
21	0	5181	20	749	143	76	39	28	65	50	31	22	8
22	2	7427	29	748	164	83	44	26	62	69	41	45	17
23	0	9541	38	780	164	65	40	33	51	54	46	68	32
24	1	11486	45	827	167	58	40	24	50	50	34	67	48
25	1	13801	55	1076	239	104	65	34	61	46	40	57	60

Harmonic constants for constituent M2 for deployment NWFB9907.

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	770	34	68	23	343	34	23	7	63	A
02	745	37	70	23	341	37	23	1	69	A
03	720	36	75	21	342	36	21	177	257	A
04	695	33	82	18	339	33	17	171	267	A
05	670	30	91	13	326	31	10	164	277	A
06	645	26	109	11	290	28	0	158	289	A
07	620	28	144	15	252	29	14	168	318	C
08	595	36	186	17	224	39	10	22	192	C
09	570	44	218	30	193	53	11	33	210	A
10	545	58	241	54	180	68	40	41	214	A
11	520	69	254	77	177	82	63	57	204	A
12	495	75	261	92	177	93	74	75	189	A
13	470	76	265	99	178	99	76	84	183	A
14	445	76	269	100	180	100	76	89	181	A
15	420	73	273	101	182	101	73	92	180	A
16	395	70	278	100	184	100	70	95	181	A
17	370	69	282	99	187	100	69	97	182	A
18	345	70	286	100	189	101	69	99	183	A
19	320	71	290	100	191	101	69	103	182	A
20	295	72	294	101	193	103	69	103	184	A
21	270	73	298	103	196	105	70	105	186	A
22	245	74	303	103	198	107	69	109	185	A
23	220	77	308	105	199	110	69	113	184	A
24	195	78	311	106	203	111	71	113	187	A
25	170	81	311	108	206	112	75	111	191	A

Harmonic constants for constituent S2 for deployment NWFB9907.

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	770	11	100	7	6	11	7	175	283	A
02	745	13	100	8	6	13	8	177	281	A
03	720	14	99	8	4	14	8	174	283	A
04	695	13	98	9	4	13	9	175	281	A
05	670	11	107	8	352	12	7	152	305	A
06	645	10	133	6	348	11	3	149	323	A
07	620	12	161	3	335	13	0	165	341	C
08	595	10	198	5	270	10	5	11	203	C
09	570	14	253	10	236	17	2	35	247	A
10	545	21	283	19	225	25	14	38	260	A
11	520	25	299	29	221	30	24	62	243	A
12	495	26	307	33	223	33	25	78	233	A
13	470	25	311	34	224	34	25	85	228	A
14	445	26	316	35	226	35	26	91	225	A
15	420	26	319	36	226	37	26	94	223	A
16	395	27	321	37	226	37	27	99	219	A
17	370	27	323	35	229	35	27	98	223	A
18	345	28	326	33	231	33	27	104	219	A
19	320	26	327	29	231	29	26	115	209	A
20	295	25	327	27	236	27	25	99	227	A
21	270	26	327	29	239	29	26	82	246	A
22	245	25	326	28	243	29	25	65	264	A
23	220	21	327	26	249	27	20	68	265	A
24	195	21	321	26	247	27	19	63	267	A
25	170	18	319	24	242	25	17	71	256	A

Harmonic constants for constituent N2 for deployment NWFB9907.

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	770	4	47	3	272	4	2	147	241	A
02	745	4	47	3	256	5	1	148	235	A
03	720	6	59	3	252	6	1	152	242	A
04	695	7	65	4	258	8	1	153	248	A
05	670	8	49	5	269	9	3	150	239	A
06	645	8	53	7	246	10	1	139	239	A
07	620	10	82	4	227	10	2	160	257	C
08	595	15	113	1	357	15	1	178	293	A
09	570	11	141	6	73	11	5	14	135	A
10	545	7	184	9	122	10	6	61	139	A
11	520	9	236	16	144	16	9	91	144	A
12	495	10	249	20	151	20	10	96	148	A
13	470	11	251	20	155	20	11	95	153	A
14	445	12	257	20	160	20	12	97	156	A
15	420	12	260	21	162	21	12	97	158	A
16	395	13	265	22	166	22	13	99	160	A
17	370	13	271	23	167	23	13	101	161	A
18	345	12	277	22	174	23	12	100	169	A
19	320	13	280	24	174	25	12	101	169	A
20	295	14	280	24	175	25	13	101	169	A
21	270	14	276	26	176	26	14	98	171	A
22	245	15	281	25	176	25	14	103	169	A
23	220	16	285	23	184	23	15	104	174	A
24	195	17	294	25	192	25	16	104	183	A
25	170	18	295	28	197	28	18	99	191	A

Harmonic constants for constituent O1 for deployment NWFB9907.

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	770	22	327	7	150	23	0	163	148	A
02	745	25	327	8	151	27	0	162	148	A
03	720	25	329	10	147	27	0	159	149	C
04	695	25	333	12	148	27	1	155	152	C
05	670	25	336	12	147	28	2	155	154	C
06	645	29	342	13	146	32	3	156	159	C
07	620	36	347	16	155	39	3	157	165	C
08	595	45	352	22	166	50	2	153	171	C
09	570	39	354	28	168	48	2	145	172	C
10	545	29	3	26	174	39	3	138	179	C
11	520	22	16	22	185	31	3	136	190	C
12	495	20	23	20	189	28	3	135	196	C
13	470	20	20	17	186	26	3	139	194	C
14	445	21	21	16	179	26	5	142	193	C
15	420	21	21	17	179	26	5	142	192	C
16	395	21	21	17	183	27	4	142	194	C
17	370	21	25	17	191	27	3	142	200	C
18	345	21	25	17	200	27	1	141	203	C
19	320	21	28	15	207	26	0	143	207	C
20	295	19	27	15	206	24	0	142	206	C
21	270	16	26	13	196	21	2	141	202	C
22	245	15	35	8	202	17	2	152	212	C
23	220	12	29	6	197	13	1	153	206	C
24	195	12	23	7	192	14	1	150	201	C
25	170	10	31	4	221	10	1	159	212	A

Harmonic constants for constituent K1 for deployment NWFB9907.

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	770	21	232	9	65	23	2	157	54	A
02	745	23	229	11	59	25	2	155	51	A
03	720	24	227	13	61	27	3	152	50	A
04	695	23	229	14	58	27	2	150	51	A
05	670	24	231	13	61	28	2	152	53	A
06	645	29	237	13	67	32	2	156	58	A
07	620	35	239	16	66	38	2	155	60	A
08	595	39	243	24	63	46	0	148	63	C
09	570	37	254	25	64	45	4	146	71	C
10	545	28	255	25	69	38	2	138	72	C
11	520	21	256	24	69	32	2	132	73	C
12	495	16	262	22	71	27	3	126	75	C
13	470	15	269	20	75	25	3	126	80	C
14	445	14	271	20	74	24	3	124	79	C
15	420	13	271	20	73	24	3	122	78	C
16	395	13	270	19	71	23	4	124	77	C
17	370	13	269	16	75	20	3	128	80	C
18	345	13	271	12	74	17	3	135	82	C
19	320	12	271	8	80	15	1	146	88	C
20	295	12	280	7	105	14	1	150	101	A
21	270	13	289	8	117	15	1	147	111	A
22	245	19	282	10	114	21	2	154	105	A
23	220	23	281	10	110	25	1	156	102	A
24	195	25	277	8	101	26	0	162	97	A
25	170	25	279	5	72	25	2	169	98	C

Deployment Id: NWNA9907

Latitude: 62°41.947'N

Longitude: 006°03.887'W

Echo sound depth: 296m

Bottom depth corr.: 295m

Time of deployment: 02/07 -1999 0425UTC

Time of recovery: 16/06 - 2000 0228UTC

ADCP:

Instrument no.: RDI ADCP 1279

Instrument frequency: 150kHz

Height above bottom: 1m

Depth: 294m (corr.)

Time of first data: 02/07 – 1999 0440UTC

Time of last data: 16/06 – 2000 0220UTC

Sample interval: 20 min

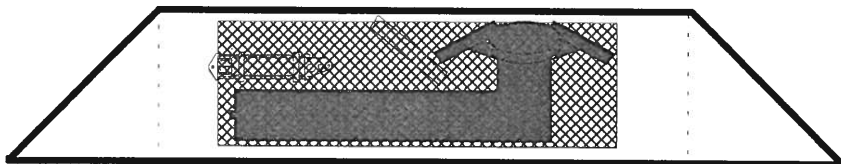
No. of ensembles: 25194

Pings per ens.: 1

Binlength: 10 m

Depth of first bin: 278m (corr.)

No. of bins: 24



Deployment: NWNA9907 updated 2000/09/11
 Instrument no.: 1279
 Instrument freq.: 150
 Latitude: 62 41.947 N
 Longitude: 06 03.887 W
 Bottom depth: 295
 Instrument depth: 294
 Center depth of first bin: 278
 Bin length: 10
 Number of bins: 24
 Number of first ensemble: 102
 Time of first ensemble: 1999 07 02 04 40
 Number of last ensemble: 25295
 Time of last ensemble: 2000 06 16 02 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	278	17	200	119	100	905
2	268	27	215	125	103	915
3	258	37	223	123	105	908
4	248	47	230	125	106	917
5	238	57	235	129	108	929
6	228	67	238	133	109	941
7	218	77	239	139	109	947
8	208	87	240	144	110	949
9	198	97	240	148	110	952
10	188	107	240	150	110	956
11	178	117	239	153	110	954
12	168	127	239	156	110	950
13	158	137	239	157	109	947
14	148	147	239	159	109	937
15	138	157	241	161	109	925
16	128	167	243	164	109	903
17	118	177	245	166	110	870
18	108	187	248	169	109	830
19	98	197	251	170	110	783
20	88	207	253	173	110	730
21	78	217	257	176	110	671
22	68	227	260	180	110	606
23	58	237	263	181	110	537
24	48	247	268	182	109	474

Error statistics for deployment: NWNA9907 updated 2000/09/11

Surface distance not edited
 Heading, pitch and roll not edited
 Temperature edited by MCP in Aug 2000
 Velocity edited up to and including bin 25 by MCP in July 2000
 Intensity edited up to and including bin 25 by MCP in Aug 2000

Total number of ensembles: 25194
 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: 0

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

Bin	Int. ens. flgd	Velocity ens. flgd	%	Number of velocity gaps of length										
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50	
1	7	2392	9	1825	206	33	9	4	0	0	0	0	0	
2	9	2146	9	1624	177	33	13	2	1	0	0	0	0	
3	4	2320	9	1664	215	52	9	3	3	0	0	0	0	
4	1	2080	8	1524	200	34	8	2	2	0	0	0	0	
5	3	1777	7	1316	153	41	4	2	1	0	0	0	0	
6	4	1498	6	1117	125	30	4	2	2	0	0	0	0	
7	0	1347	5	1040	116	14	7	1	0	0	0	0	0	
8	0	1275	5	989	99	25	2	1	0	0	0	0	0	
9	1	1216	5	939	98	23	3	0	0	0	0	0	0	
10	0	1116	4	886	91	12	3	0	0	0	0	0	0	
11	1	1151	5	898	79	18	7	0	2	0	0	0	0	
12	0	1249	5	932	91	16	10	1	4	1	0	0	0	
13	0	1327	5	912	114	25	7	4	6	2	0	0	0	
14	0	1590	6	923	128	36	23	13	18	1	0	0	0	
15	1	1889	7	922	137	56	17	17	38	6	0	0	0	
16	2	2438	10	929	156	66	38	17	46	18	4	1	0	
17	0	3280	13	941	172	57	45	20	53	42	16	3	0	
18	2	4274	17	1027	158	66	26	28	47	59	20	13	3	
19	1	5463	22	1102	203	86	30	21	50	46	40	22	8	
20	0	6797	27	1061	188	89	61	28	54	46	38	31	17	
21	0	8299	33	1084	226	98	40	24	65	45	40	41	27	
22	0	9932	39	1061	227	92	54	25	51	39	24	49	45	
23	3	11666	46	1038	276	103	57	20	62	34	16	37	46	
24	2	13245	53	1048	252	106	54	27	59	32	13	23	50	

Deployment: NWNA9907

Frequency of high speeds.

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

Bin no.	Depth m	Speed (cm/s)																	
		10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	278	708	391	175	62	18	5	0	0	0	0	0	0	0	0	0	0	0	0
2	268	745	435	208	85	29	9	2	0	0	0	0	0	0	0	0	0	0	0
3	258	758	454	222	94	35	11	2	0	0	0	0	0	0	0	0	0	0	0
4	248	780	480	236	105	42	14	4	1	0	0	0	0	0	0	0	0	0	0
5	238	797	499	251	111	45	14	4	1	0	0	0	0	0	0	0	0	0	0
6	228	811	511	260	119	48	17	4	1	0	0	0	0	0	0	0	0	0	0
7	218	814	519	267	123	51	17	5	1	0	0	0	0	0	0	0	0	0	0
8	208	819	519	270	126	53	18	6	1	0	0	0	0	0	0	0	0	0	0
9	198	817	518	271	127	55	19	5	1	0	0	0	0	0	0	0	0	0	0
10	188	819	522	274	128	55	19	5	1	0	0	0	0	0	0	0	0	0	0
11	178	815	514	277	128	54	18	5	1	0	0	0	0	0	0	0	0	0	0
12	168	810	509	275	126	55	20	5	1	0	0	0	0	0	0	0	0	0	0
13	158	807	508	276	126	55	20	6	1	0	0	0	0	0	0	0	0	0	0
14	148	794	503	271	128	54	21	6	1	0	0	0	0	0	0	0	0	0	0
15	138	786	500	275	127	56	21	6	1	0	0	0	0	0	0	0	0	0	0
16	128	769	494	271	129	58	23	6	1	0	0	0	0	0	0	0	0	0	0
17	118	741	482	265	126	57	22	7	2	0	0	0	0	0	0	0	0	0	0
18	108	710	464	259	125	57	23	7	2	0	0	0	0	0	0	0	0	0	0
19	98	674	441	251	122	57	23	7	2	0	0	0	0	0	0	0	0	0	0
20	88	628	415	238	117	54	23	8	3	1	0	0	0	0	0	0	0	0	0
21	78	576	384	224	113	51	22	9	3	1	1	0	0	0	0	0	0	0	0
22	68	521	353	208	107	50	23	9	4	2	1	0	0	0	0	0	0	0	0
23	58	463	315	183	97	46	22	9	4	2	1	1	0	0	0	0	0	0	0
24	48	415	285	167	88	42	21	9	4	2	1	1	0	0	0	0	0	0	0

Harmonic constants for constituent M2 for deployment NWNA9907.

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	278	130	295	94	174	143	73	151	130	A
02	268	145	294	109	174	159	86	150	131	A
03	258	155	293	121	176	171	97	149	132	A
04	248	162	294	129	177	179	104	149	133	A
05	238	167	295	132	179	183	109	149	134	A
06	228	171	295	133	181	186	112	151	134	A
07	218	172	297	133	183	186	113	151	135	A
08	208	172	298	131	186	185	112	153	136	A
09	198	171	300	129	188	183	112	154	137	A
10	188	171	301	127	190	181	111	154	138	A
11	178	170	303	125	192	180	110	155	139	A
12	168	170	305	122	194	179	108	157	139	A
13	158	170	306	119	196	177	107	158	140	A
14	148	169	308	116	198	176	105	159	140	A
15	138	169	309	114	201	175	104	161	141	A
16	128	167	311	112	203	173	102	161	143	A
17	118	168	313	110	205	173	101	162	144	A
18	108	170	316	108	209	174	100	164	145	A
19	98	170	317	104	212	173	98	166	145	A
20	88	167	319	101	216	170	97	168	146	A
21	78	166	322	98	219	168	94	169	148	A
22	68	164	324	95	223	166	92	170	150	A
23	58	164	326	95	225	165	93	171	151	A
24	48	166	326	99	228	167	97	172	151	A

Harmonic constants for constituent S2 for deployment NWNA9907.

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	278	46	343	32	224	50	26	154	177	A
02	268	49	342	38	227	53	32	152	179	A
03	258	47	338	42	228	52	36	144	184	A
04	248	52	338	45	229	57	39	147	182	A
05	238	58	340	46	228	63	40	150	180	A
06	228	61	342	48	227	66	40	151	180	A
07	218	62	343	48	226	68	39	150	181	A
08	208	63	344	47	227	69	39	151	181	A
09	198	64	345	46	227	70	37	153	180	A
10	188	65	346	45	227	70	37	154	181	A
11	178	65	347	43	228	70	35	155	181	A
12	168	65	349	43	230	70	35	156	182	A
13	158	66	350	42	231	70	34	157	182	A
14	148	65	352	40	232	69	33	158	183	A
15	138	65	354	41	234	69	33	157	185	A
16	128	65	355	40	236	69	33	158	186	A
17	118	65	356	38	239	68	33	160	186	A
18	108	64	356	38	242	66	33	162	185	A
19	98	63	356	38	244	65	34	162	185	A
20	88	61	356	36	245	63	33	164	185	A
21	78	62	356	38	245	64	34	163	186	A
22	68	58	357	36	248	60	33	163	187	A
23	58	57	355	36	247	59	33	164	185	A
24	48	51	360	32	259	52	31	170	186	A

Harmonic constants for constituent N2 for deployment NWNA9907.

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	278	22	265	17	137	26	12	147	102	A
02	268	26	267	20	141	29	14	148	104	A
03	258	28	268	23	142	33	16	144	108	A
04	248	30	267	24	144	34	18	146	107	A
05	238	31	267	25	148	35	19	146	108	A
06	228	31	271	26	152	35	20	146	112	A
07	218	32	274	26	158	35	21	148	114	A
08	208	32	275	26	159	35	21	149	115	A
09	198	32	278	25	164	35	21	152	115	A
10	188	31	280	23	168	33	20	155	116	A
11	178	31	282	23	173	33	20	157	117	A
12	168	31	285	22	178	32	20	160	118	A
13	158	31	287	22	181	32	20	162	118	A
14	148	31	289	23	183	32	21	160	122	A
15	138	31	292	24	186	33	22	156	129	A
16	128	32	293	25	188	34	23	159	128	A
17	118	32	292	24	190	33	23	162	125	A
18	108	35	295	23	192	35	22	165	124	A
19	98	36	296	24	193	37	23	165	125	A
20	88	38	298	23	198	38	23	171	124	A
21	78	37	299	23	206	37	23	178	120	A
22	68	40	300	24	206	40	24	176	122	A
23	58	40	297	21	207	40	21	0	296	A
24	48	40	298	25	201	40	25	173	122	A

Harmonic constants for constituent O1 for deployment NWNA9907.

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	278	27	48	14	286	28	11	161	236	A
02	268	28	43	15	285	29	13	161	232	A
03	258	29	36	16	275	31	13	161	225	A
04	248	31	32	17	275	32	15	162	220	A
05	238	32	29	17	273	33	15	163	217	A
06	228	30	28	17	272	32	15	163	216	A
07	218	30	27	18	269	32	15	160	217	A
08	208	30	28	19	267	32	15	157	219	A
09	198	30	29	19	267	32	15	156	221	A
10	188	30	29	18	268	32	14	158	220	A
11	178	31	29	20	270	33	16	158	220	A
12	168	30	29	19	272	32	16	158	221	A
13	158	31	30	21	273	33	17	156	224	A
14	148	30	30	22	274	33	18	153	227	A
15	138	31	33	23	275	34	19	152	229	A
16	128	30	32	22	274	33	18	152	228	A
17	118	30	34	22	273	33	17	151	230	A
18	108	30	33	21	268	33	16	151	227	A
19	98	30	35	20	265	34	14	151	228	A
20	88	28	32	18	266	31	14	153	225	A
21	78	28	28	19	261	31	14	152	221	A
22	68	29	27	20	258	33	14	150	221	A
23	58	34	31	22	264	37	16	153	224	A
24	48	34	29	25	270	37	20	151	225	A

Harmonic constants for constituent K1 for deployment Nwana9907.

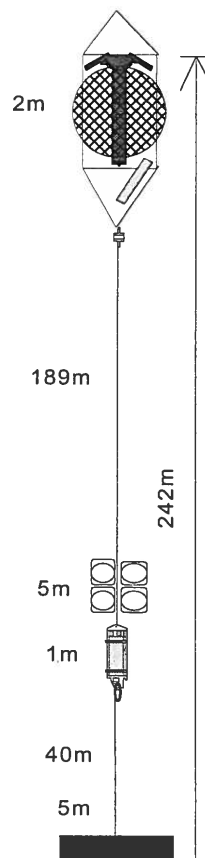
Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	278	30	270	14	190	30	14	6	267	A
02	268	32	279	17	184	32	17	177	100	A
03	258	37	287	20	176	38	18	166	114	A
04	248	37	285	20	174	38	18	166	111	A
05	238	34	280	19	174	34	18	168	106	A
06	228	33	277	18	175	33	17	171	102	A
07	218	32	278	18	173	33	18	169	104	A
08	208	32	278	19	171	32	18	167	105	A
09	198	33	275	19	166	33	18	165	104	A
10	188	33	273	20	165	34	19	164	102	A
11	178	33	271	21	163	34	19	164	101	A
12	168	35	270	22	162	36	20	164	99	A
13	158	35	269	21	163	36	20	166	97	A
14	148	36	268	22	163	37	21	167	95	A
15	138	37	267	22	163	37	21	168	93	A
16	128	37	264	21	164	37	21	171	89	A
17	118	35	266	22	167	35	21	171	92	A
18	108	32	265	22	171	32	22	175	88	A
19	98	31	266	23	174	31	23	177	89	A
20	88	30	268	23	173	30	23	171	95	A
21	78	30	270	22	178	30	22	175	94	A
22	68	30	269	24	182	31	24	7	263	A
23	58	32	270	24	181	32	24	2	269	A
24	48	33	263	21	177	33	21	3	261	A

Deployment Id: NWNB9907

Latitude: 62°55.012'N
Longitude: 006°05.250'W
Echo sounding depth: 968m
Bottom depth corr.: 947m
Time of deployment: 02/07 -1999 0700UTC
Time of recovery: Surfaced 07/07 - 1999

ADCP:

Instrument no.: RDI ADCP 1577
Instrument frequency: 75kHz
Height above bottom: 242m (corr.)
Depth: 705m (corr.)
Time of first data: 02/07 - 1999 0740UTC
Time of last data: 07/07 - 1900 0340UTC
Sample interval: 20 min
No. of ensembles: 349
Pings per ens.: 1
Binlength: 25m
Depth of first bin: 669m (corr.)
No. of bins: 24



Deployment: NWNB9907 updated 2000/08/07
 Instrument no.: 1577
 Instrument freq.: 75
 Latitude: 62 55.012 N
 Longitude: 06 05.250 W
 Bottom depth: 947
 Instrument depth: 705
 Center depth of first bin: 669
 Bin length: 25
 Number of bins: 24
 Number of first ensemble: 114
 Time of first ensemble: 1999 07 02 07 40
 Number of last ensemble: 462
 Time of last ensemble: 1999 07 07 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	669	278	104	11	50	994
2	644	303	101	8	326	994
3	619	328	106	9	300	991
4	594	353	114	12	262	991
5	569	378	126	14	251	1000
6	544	403	133	12	249	1000
7	519	428	128	18	222	1000
8	494	453	115	23	192	1000
9	469	478	115	40	171	991
10	444	503	121	54	157	1000
11	419	528	131	76	144	991
12	394	553	147	93	145	994
13	369	578	163	119	149	994
14	344	603	191	145	147	986
15	319	628	217	182	146	991
16	294	653	232	204	143	1000
17	269	678	254	224	142	1000
18	244	703	272	240	142	1000
19	219	728	281	250	141	997
20	194	753	289	257	142	1000
21	169	778	294	261	142	994
22	144	803	296	265	142	997
23	119	828	301	271	142	1000
24	94	853	307	276	142	994

Deployment Id: NWNB9908

Latitude: 62°55.133'N

Longitude: 006°05.052'W

Echo sounding depth: 978m

Bottom depth corr.: 957m

Time of deployment: 20/08 -1999 0315UTC

Time of recovery: 16/06 - 2000 0453UTC

ADCP:

Instrument no.: RDI ADCP 1577

Instrument frequency: 75kHz

Height above bottom: 242m (corr.)

Depth: 715m (corr.)

Time of first data: 20/08 - 1999 0400UTC

Time of last data: 16/06 - 2000 0440UTC

Sample interval: 20 min

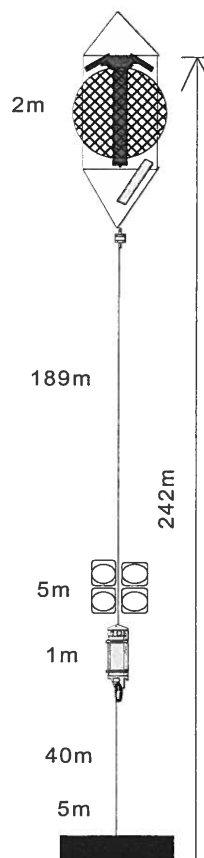
No. of ensembles: 21675

Pings per ens.: 1

Binlength: 25m

Depth of first bin: 679m (corr.)

No. of bins: 25



Deployment: NWNB9908 updated 2000/08/07
 Instrument no.: 1577
 Instrument freq.: 75
 Latitude: 62 55.133 N
 Longitude: 06 05.052 W
 Bottom depth: 957
 Instrument depth: 715
 Center depth of first bin: 679
 Bin length: 25
 Number of bins: 25
 Number of first ensemble: 3631
 Time of first ensemble: 1999 08 20 04 00
 Number of last ensemble: 25305
 Time of last ensemble: 2000 06 16 04 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	679	278	137	66	92	991
2	654	303	136	63	92	991
3	629	328	134	59	92	992
4	604	353	134	56	93	993
5	579	378	134	54	93	994
6	554	403	135	53	93	995
7	529	428	136	53	95	994
8	504	453	140	55	97	996
9	479	478	145	59	99	994
10	454	503	148	64	100	993
11	429	528	152	70	101	992
12	404	553	158	79	103	991
13	379	578	169	92	104	992
14	354	603	184	109	105	988
15	329	628	205	132	106	988
16	304	653	229	159	106	986
17	279	678	253	185	105	972
18	254	703	274	207	104	929
19	229	728	293	227	104	863
20	204	753	311	243	103	779
21	179	778	327	257	104	709
22	154	803	337	263	104	638
23	129	828	342	265	104	560
24	104	853	343	262	103	459
25	79	878	338	259	101	306

Error statistics for deployment: NWNB9908 updated 2000/08/07

Surface distance not edited
 Heading, pitch and roll not edited
 Temperature edited by MCP in Aug 2000
 Velocity edited up to and including bin 25 by MCP in July 2000
 Intensity edited up to and including bin 26 by MCP in Aug 2000

Total number of ensembles: 21675
 Interval between ensembles: 20 min
 Original number of bins: 28
 Number of acceptable velocity bins: 25
 Number of acceptable intensity bins: 25

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

Number of temperature ens. flagged: 0

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

Bin	Int. ens. flgd	Velocity ens. flgd	Velocity % flgd	Number of velocity gaps of length										
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50	
1	3	197	1	184	3	1	1	0	0	0	0	0	0	0
2	7	186	1	174	6	0	0	0	0	0	0	0	0	0
3	4	167	1	159	4	0	0	0	0	0	0	0	0	0
4	1	156	1	145	4	1	0	0	0	0	0	0	0	0
5	1	120	1	107	5	1	0	0	0	0	0	0	0	0
6	0	119	1	110	3	1	0	0	0	0	0	0	0	0
7	0	126	1	117	1	1	1	0	0	0	0	0	0	0
8	0	91	0	83	4	0	0	0	0	0	0	0	0	0
9	1	121	1	106	6	1	0	0	0	0	0	0	0	0
10	2	154	1	143	4	1	0	0	0	0	0	0	0	0
11	1	183	1	173	5	0	0	0	0	0	0	0	0	0
12	0	197	1	185	6	0	0	0	0	0	0	0	0	0
13	0	172	1	162	5	0	0	0	0	0	0	0	0	0
14	0	254	1	223	11	3	0	0	0	0	0	0	0	0
15	0	254	1	217	14	3	0	0	0	0	0	0	0	0
16	0	295	1	200	17	9	0	1	4	0	0	0	0	0
17	1	602	3	277	21	11	5	8	6	9	1	0	0	0
18	0	1530	7	354	63	31	27	12	36	17	6	3	0	0
19	1	2959	14	393	86	31	27	28	50	39	23	13	1	1
20	0	4780	22	391	102	58	26	31	59	53	25	42	5	5
21	0	6303	29	429	96	55	31	22	62	42	29	53	25	25
22	4	7841	36	502	146	81	28	28	64	40	19	50	49	49
23	0	9532	44	518	154	77	64	28	48	57	28	44	58	58
24	3	11725	54	538	124	77	41	30	80	62	40	35	55	55
25	3	15041	69	498	143	66	47	32	62	51	43	28	54	54

Harmonic constants for constituent M2 for deployment NWNB9908.

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	679	74	268	38	129	80	24	157	95	A
02	654	76	269	38	134	81	25	158	97	A
03	629	78	271	38	137	83	26	159	98	A
04	604	80	272	37	141	84	27	161	98	A
05	579	83	273	38	147	86	29	163	99	A
06	554	86	275	38	152	89	31	165	100	A
07	529	90	276	39	158	92	33	167	101	A
08	504	95	279	40	169	96	38	170	103	A
09	479	99	283	42	179	100	41	173	106	A
10	454	101	287	42	188	102	41	176	108	A
11	429	102	291	42	202	102	42	1	291	A
12	404	102	296	44	216	103	43	5	294	A
13	379	105	302	48	229	106	45	9	298	A
14	354	107	307	54	239	110	49	13	301	A
15	329	113	311	61	245	117	54	15	304	A
16	304	116	316	68	250	121	60	18	307	A
17	279	122	320	78	254	128	68	21	308	A
18	254	122	324	84	260	130	71	24	310	A
19	229	123	326	88	262	132	74	26	311	A
20	204	126	329	96	264	136	80	28	312	A
21	179	135	330	102	267	147	83	29	313	A
22	154	137	331	105	268	151	85	30	313	A
23	129	142	330	111	265	154	93	30	312	A
24	104	142	330	114	264	155	96	30	310	A
25	79	150	332	117	268	164	96	30	313	A

Harmonic constants for constituent S2 for deployment NWNB9908.

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	679	32	310	15	193	33	13	166	136	A
02	654	32	313	14	195	33	12	166	139	A
03	629	31	312	14	197	31	12	167	137	A
04	604	31	313	13	202	31	12	169	137	A
05	579	31	315	13	205	31	12	170	139	A
06	554	32	317	14	207	33	13	170	141	A
07	529	33	319	16	216	33	15	173	142	A
08	504	35	320	17	221	35	17	174	143	A
09	479	35	321	16	224	35	16	176	143	A
10	454	33	327	14	234	33	14	178	148	A
11	429	31	335	11	253	31	11	3	334	A
12	404	30	344	11	277	30	10	9	341	A
13	379	30	349	11	295	31	8	13	345	A
14	354	32	351	11	297	33	9	13	347	A
15	329	33	356	13	305	34	10	14	352	A
16	304	36	360	15	310	38	11	17	355	A
17	279	40	4	19	310	41	15	19	357	A
18	254	42	3	25	311	45	18	25	353	A
19	229	41	1	28	314	46	18	30	348	A
20	204	41	7	28	310	44	22	28	352	A
21	179	45	9	33	316	51	24	31	354	A
22	154	47	8	36	322	55	23	34	353	A
23	129	46	11	39	323	56	24	37	352	A
24	104	43	15	47	322	57	29	50	344	A
25	79	44	13	46	312	55	32	47	340	A

Harmonic constants for constituent N2 for deployment NWNB9908.

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	679	10	263	4	62	11	1	161	80	C
02	654	10	261	4	61	11	1	159	79	C
03	629	11	264	4	61	11	1	161	82	C
04	604	12	270	4	73	13	1	164	88	C
05	579	13	270	2	111	13	1	170	91	A
06	554	14	271	3	172	14	3	178	91	A
07	529	16	275	4	176	16	4	177	96	A
08	504	18	273	6	162	18	5	173	96	A
09	479	19	268	7	160	19	7	172	91	A
10	454	21	266	9	166	21	8	175	88	A
11	429	20	267	9	165	20	9	172	91	A
12	404	18	267	8	159	18	7	171	91	A
13	379	19	265	8	159	19	7	173	88	A
14	354	21	263	10	166	21	10	176	85	A
15	329	25	267	11	168	25	10	175	89	A
16	304	25	266	10	171	25	10	178	86	A
17	279	24	268	10	167	24	10	174	91	A
18	254	22	275	12	175	23	12	173	98	A
19	229	24	284	14	190	24	14	176	106	A
20	204	27	301	15	204	27	15	174	125	A
21	179	28	308	18	209	28	18	170	135	A
22	154	31	310	21	215	31	21	174	134	A
23	129	27	307	23	217	27	23	1	305	A
24	104	28	302	21	214	28	21	4	298	A
25	79	42	278	13	255	43	5	16	277	A

Harmonic constants for constituent O1 for deployment NWNB9908.

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	679	5	52	3	259	6	1	150	239	A
02	654	5	56	3	248	6	1	149	239	A
03	629	6	56	2	243	6	0	156	237	A
04	604	6	50	2	246	7	1	159	232	A
05	579	6	45	4	249	8	1	147	232	A
06	554	7	48	4	259	8	2	148	237	A
07	529	7	51	5	264	8	2	148	241	A
08	504	8	45	5	265	9	3	153	234	A
09	479	8	47	4	273	8	3	157	235	A
10	454	8	55	5	270	9	2	153	243	A
11	429	9	59	5	272	10	3	151	248	A
12	404	11	56	4	283	11	3	163	240	A
13	379	12	46	6	282	12	5	161	233	A
14	354	12	50	7	276	13	5	154	240	A
15	329	11	51	5	283	11	3	164	236	A
16	304	11	50	4	279	12	3	164	235	A
17	279	12	52	6	282	13	4	160	239	A
18	254	13	42	7	283	13	6	161	231	A
19	229	11	39	9	274	13	6	148	237	A
20	204	6	25	10	267	11	5	109	258	A
21	179	2	61	7	256	7	1	105	255	A
22	154	5	88	10	254	11	1	116	257	C
23	129	3	69	6	289	6	2	111	283	A
24	104	2	358	6	319	6	1	75	322	A
25	79	8	320	2	248	8	2	5	319	A

Harmonic constants for constituent K1 for deployment NWNB9908.

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	679	3	306	5	157	5	1	119	150	A
02	654	4	311	4	158	5	1	128	148	A
03	629	4	299	4	165	5	2	138	140	A
04	604	5	282	5	151	7	3	134	127	A
05	579	5	278	5	142	7	3	134	121	A
06	554	5	292	5	139	6	2	135	125	A
07	529	5	303	4	143	6	1	146	130	A
08	504	5	296	5	162	6	3	138	137	A
09	479	6	299	6	158	8	3	138	137	A
10	454	8	295	7	151	10	3	139	131	A
11	429	8	284	6	149	9	4	143	121	A
12	404	8	282	4	164	8	4	164	109	A
13	379	8	274	3	122	8	1	158	98	A
14	354	7	252	6	109	9	3	143	86	A
15	329	8	219	8	112	9	7	142	69	A
16	304	11	218	8	134	11	8	10	211	A
17	279	12	231	9	155	12	8	20	217	A
18	254	12	247	12	182	14	9	47	213	A
19	229	6	231	16	196	17	3	72	199	A
20	204	4	10	11	200	12	1	111	199	A
21	179	4	5	12	207	13	1	107	205	A
22	154	5	24	16	216	16	1	106	215	A
23	129	4	359	20	214	21	2	98	213	A
24	104	3	1	19	200	19	1	99	199	A
25	79	11	9	29	191	31	0	110	190	A

Deployment Id: NWNC9907

Latitude: 63°15.920'N

Longitude: 006°06.390'W

Echo sounding depth: 1775 m

Bottom depth corr.: 1740m

Time of deployment: 02/07 -1999 0945UTC

Time of recovery: 16/06 - 2000 0825UTC

ADCP:

Instrument no.: RDI ADCP 1292

Instrument frequency: 75kHz

Height above bottom: 1073 m

Depth: 667m (corr.)

Time of first data: 02/07 – 1999 1020UTC

Time of last data: 16/06 – 2000 0720UTC

Sample interval: 20 min

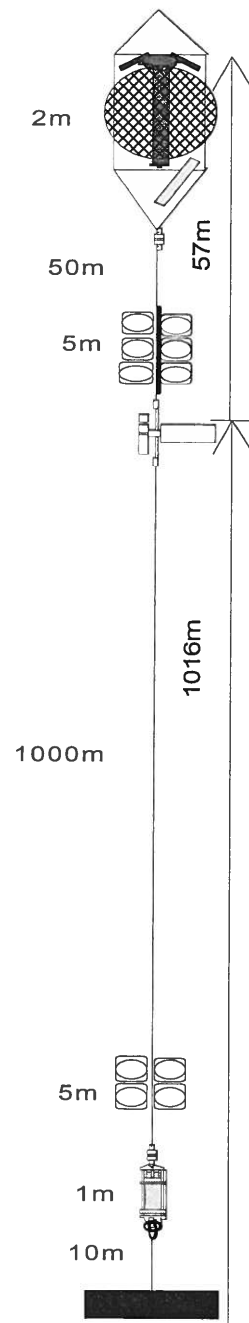
No. of ensembles: 25192

Pings per ens.: 1

Binlength: 25 m

Depth of first bin: 631 m (corr.)

No. of bins: 23



Deployment: NWNC9907
 Instrument no.: 1292
 Instrument freq.: 75
 Latitude: 63 15.920 N
 Longitude: 06 06.390 W
 Bottom depth: 1740
 Instrument depth: 667
 Center depth of first bin: 631
 Bin length: 25
 Number of bins: 23
 Number of first ensemble: 119
 Time of first ensemble: 1999 07 02 10 20
 Number of last ensemble: 25310
 Time of last ensemble: 2000 06 16 07 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	631	1109	86	21	189	991
2	606	1134	86	21	186	992
3	581	1159	87	20	183	991
4	556	1184	88	20	180	994
5	531	1209	90	21	176	994
6	506	1234	92	22	172	996
7	481	1259	94	23	169	995
8	456	1284	97	23	165	995
9	431	1309	101	24	158	995
10	406	1334	105	26	151	995
11	381	1359	109	28	147	994
12	356	1384	115	31	142	992
13	331	1409	123	35	136	987
14	306	1434	133	39	130	987
15	281	1459	142	44	126	982
16	256	1484	155	50	124	966
17	231	1509	170	55	123	931
18	206	1534	188	65	123	885
19	181	1559	204	74	120	828
20	156	1584	219	82	119	793
21	131	1609	238	90	117	745
22	106	1634	260	97	115	666
23	81	1659	289	109	112	542

Error statistics for deployment: NWNC9907

Surface distance not edited
 Heading, pitch and roll not edited
 Temperature edited by MCP in Aug 2000
 Velocity edited up to and including bin 23 by MCP in July 2000
 Intensity edited up to and including bin 25 by MCP in Aug 2000

Total number of ensembles: 25192
 Interval between ensembles: 20 min
 Original number of bins: 28
 Number of acceptable velocity bins: 23
 Number of acceptable intensity bins: 23

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

Number of temperature ens. flagged: 0

Below are for each bin listed ensembles flagged for intensity in number and for velocity in number and % of total ens.number. For velocity is also shown the 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	2	238	1	234	2	0	0	0	0	0	0	0	0	0
2	0	207	1	199	4	0	0	0	0	0	0	0	0	0
3	0	225	1	219	3	0	0	0	0	0	0	0	0	0
4	0	156	1	154	1	0	0	0	0	0	0	0	0	0
5	0	159	1	141	9	0	0	0	0	0	0	0	0	0
6	0	95	0	93	1	0	0	0	0	0	0	0	0	0
7	0	133	1	127	3	0	0	0	0	0	0	0	0	0
8	0	123	0	117	3	0	0	0	0	0	0	0	0	0
9	0	116	0	116	0	0	0	0	0	0	0	0	0	0
10	0	119	0	117	1	0	0	0	0	0	0	0	0	0
11	0	143	1	135	4	0	0	0	0	0	0	0	0	0
12	0	195	1	184	4	1	0	0	0	0	0	0	0	0
13	1	326	1	306	7	2	0	0	0	0	0	0	0	0
14	1	330	1	303	9	3	0	0	0	0	0	0	0	0
15	0	464	2	383	22	6	1	3	0	0	0	0	0	0
16	2	851	3	583	47	9	2	2	9	4	0	0	0	0
17	2	1741	7	727	97	30	20	12	23	22	4	0	0	0
18	2	2906	12	849	130	73	45	18	52	38	11	3	0	0
19	1	4328	17	971	181	75	43	31	62	49	18	19	1	1
20	2	5216	21	831	179	87	39	30	59	51	30	31	4	4
21	3	6434	26	791	173	76	43	23	43	36	25	36	22	22
22	2	8426	33	857	202	61	40	29	49	39	32	39	34	34
23	1	11547	46	979	226	93	50	29	69	34	59	50	47	47

Harmonic constants for constituent M2 for deployment NWNC9907.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	631	64	285	38	252	72	18	28	277	A
02	606	63	285	37	254	71	17	29	278	A
03	581	62	286	37	255	71	17	29	278	A
04	556	61	285	37	256	70	16	29	278	A
05	531	60	285	36	258	69	14	30	278	A
06	506	59	286	36	261	68	13	30	280	A
07	481	58	287	35	264	66	12	30	281	A
08	456	55	287	34	268	65	9	31	282	A
09	431	53	288	34	272	63	8	32	283	A
10	406	51	288	34	275	61	7	34	284	A
11	381	49	290	34	279	59	5	35	286	A
12	356	46	291	35	283	58	4	37	288	A
13	331	43	291	35	289	55	1	39	290	A
14	306	38	290	35	296	51	3	42	293	C
15	281	32	289	35	306	47	7	48	298	C
16	256	27	285	37	315	44	11	55	305	C
17	231	23	281	38	324	42	14	63	314	C
18	206	18	270	37	331	39	15	74	325	C
19	181	17	256	39	336	39	16	84	334	C
20	156	14	231	44	343	44	13	97	345	C
21	131	14	187	53	351	55	4	104	352	C
22	106	27	143	71	359	75	15	107	355	A
23	81	45	119	96	360	99	38	105	354	A

Harmonic constants for constituent S2 for deployment NWNC9907.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	631	21	324	13	301	24	4	32	318	A
02	606	21	324	13	299	24	5	32	317	A
03	581	20	325	13	301	24	5	33	318	A
04	556	19	325	14	305	23	4	35	318	A
05	531	18	323	13	304	22	3	36	316	A
06	506	17	322	12	303	21	3	36	315	A
07	481	17	320	12	305	20	3	35	315	A
08	456	17	321	12	309	21	2	35	317	A
09	431	18	320	12	314	21	1	35	318	A
10	406	18	320	11	315	21	1	33	318	A
11	381	17	317	10	319	20	0	30	317	C
12	356	16	309	7	312	18	0	23	309	C
13	331	16	301	6	315	17	1	19	303	C
14	306	16	304	6	338	17	3	19	308	C
15	281	16	303	6	341	17	4	18	307	C
16	256	18	303	5	326	19	2	14	304	C
17	231	20	303	6	294	21	1	15	302	A
18	206	22	302	6	254	23	4	10	300	A
19	181	23	302	4	232	23	3	3	301	A
20	156	22	292	4	107	22	0	170	112	C
21	131	22	288	10	73	24	5	160	103	C
22	106	21	297	12	65	22	9	156	107	C
23	81	26	300	11	97	28	4	158	117	C

Harmonic constants for constituent N2 for deployment NWNC9907.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	631	15	273	10	233	17	6	31	262	A
02	606	14	272	9	238	16	4	31	262	A
03	581	12	269	8	243	15	3	32	262	A
04	556	12	268	7	248	14	2	32	262	A
05	531	12	265	7	248	13	2	30	261	A
06	506	12	265	7	248	14	2	32	260	A
07	481	11	269	8	251	14	2	35	263	A
08	456	11	272	9	254	14	2	38	265	A
09	431	11	282	11	261	15	3	44	272	A
10	406	10	293	12	272	15	3	50	281	A
11	381	8	298	12	285	14	1	58	289	A
12	356	4	293	12	295	13	0	70	295	C
13	331	1	271	12	311	12	1	86	311	C
14	306	1	184	12	314	12	1	93	314	C
15	281	1	202	12	310	12	1	92	310	C
16	256	0	192	13	315	13	0	91	315	C
17	231	3	122	15	323	15	1	99	323	A
18	206	6	112	14	332	15	4	109	327	A
19	181	8	140	15	355	17	4	114	349	A
20	156	13	135	20	12	22	10	116	359	A
21	131	20	124	29	8	31	16	115	354	A
22	106	23	122	32	8	34	19	114	354	A
23	81	18	99	28	2	28	18	98	356	A

Harmonic constants for constituent O1 for deployment NWNC9907.

Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	631	6	41	1	29	6	0	9	40	A
02	606	7	44	1	12	7	1	9	43	A
03	581	7	48	2	21	7	1	13	47	A
04	556	7	44	2	23	7	1	14	43	A
05	531	6	41	1	360	6	1	8	40	A
06	506	6	38	1	323	6	1	3	37	A
07	481	6	32	1	326	6	1	3	32	A
08	456	6	41	2	350	6	1	10	39	A
09	431	6	50	1	30	6	0	11	49	A
10	406	6	57	2	45	7	0	20	56	A
11	381	7	51	3	46	7	0	24	50	A
12	356	8	49	2	17	8	1	14	47	A
13	331	8	48	3	352	8	2	12	44	A
14	306	7	48	3	3	8	2	16	44	A
15	281	6	43	2	7	6	1	15	40	A
16	256	7	40	2	9	7	1	14	38	A
17	231	6	41	3	15	6	1	25	36	A
18	206	7	44	4	360	8	2	22	37	A
19	181	10	36	6	1	11	3	27	28	A
20	156	11	24	7	10	13	1	32	20	A
21	131	12	26	2	5	13	1	10	25	A
22	106	9	14	4	59	9	2	17	19	C
23	81	5	97	12	72	13	2	68	75	A

Harmonic constants for constituent K1 for deployment NWNC9907.

Bin	Depth m	E-ampl mm/sec	E-gph deg	N-ampl mm/sec	N-gph deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	631	5	285	1	219	5	1	3	285	A
02	606	5	285	1	232	5	1	8	284	A
03	581	5	289	1	241	6	1	9	287	A
04	556	6	285	1	191	6	1	180	105	A
05	531	6	284	2	125	6	1	165	106	A
06	506	6	285	2	135	6	1	160	108	A
07	481	6	288	2	143	6	1	167	110	A
08	456	6	280	2	126	6	1	162	102	A
09	431	6	274	3	148	7	2	165	99	A
10	406	7	275	1	194	7	1	2	275	A
11	381	6	288	2	250	7	1	14	285	A
12	356	7	289	2	310	8	1	14	291	C
13	331	7	282	2	319	7	1	13	284	C
14	306	7	276	1	355	7	1	2	276	C
15	281	7	271	1	275	7	0	5	271	C
16	256	7	289	1	248	7	1	9	287	A
17	231	7	284	1	266	7	0	9	284	A
18	206	8	268	0	143	8	0	178	89	A
19	181	8	267	1	149	8	1	175	88	A
20	156	8	264	1	101	8	0	170	85	A
21	131	8	249	4	206	8	2	20	244	A
22	106	10	247	10	238	14	1	44	243	A
23	81	12	224	16	256	19	5	55	245	C

Deployment Id: NWSA9907

Latitude: 61°00.000'N

Longitude: 005°51.400'W

Echo sounding depth: 293m

Bottom depth corr.: 293m

Time of deployment: 06/07 -1999 2150UTC

Time of recovery: 20/06 – 2000 0224 UTC

ADCP:

Instrument no.: RDI ADCP 1244

Instrument frequency: 150kHz

Height above bottom: 1m

Depth: 292m (corr.)

Time of first data: 06/07 – 1999 2220 UTC

Time of last data: 20/06 – 2000 0200 UTC

Sample interval: 20 min

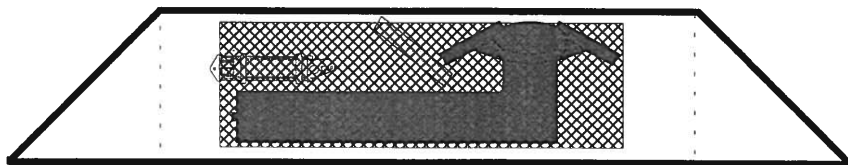
No. of ensembles: 25140

Pings per ens.: 1

Binlength: 10 m

Depth of first bin: 276 (corr.)

No. of bins: 22



Deployment: NWSA9907
 Instrument no.: 1244
 Instrument freq.: 150
 Latitude: 61 00.000 N
 Longitude: 05 51.400 W
 Bottom depth: 293
 Instrument depth: 292
 Center depth of first bin: 276
 Bin length: 10
 Number of bins: 22
 Number of first ensemble: 91
 Time of first ensemble: 1999 07 06 22 20
 Number of last ensemble: 25230
 Time of last ensemble: 2000 06 20 02 00
 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	276	17	186	30	186	889
2	266	27	201	32	187	890
3	256	37	218	34	190	905
4	246	47	225	36	195	910
5	236	57	229	37	195	925
6	226	67	231	38	196	940
7	216	77	233	38	196	961
8	206	87	233	38	196	964
9	196	97	232	38	197	961
10	186	107	231	37	197	965
11	176	117	229	35	197	961
12	166	127	227	35	198	960
13	156	137	227	35	198	961
14	146	147	229	34	199	957
15	136	157	231	33	201	947
16	126	167	234	31	202	927
17	116	177	236	30	202	890
18	106	187	239	28	203	848
19	96	197	247	25	209	759
20	86	207	250	23	214	689
21	76	217	254	13	221	549
22	66	227	269	14	233	519

Error statistics for deployment: NWSA9907

Surface distance not edited
 Heading, pitch and roll not edited
 Temperature edited by MCP in Aug 2000
 Velocity edited up to and including bin 22 by MCP in Aug 2000
 Intensity edited up to and including bin 25 by MCP in Aug 2000

Total number of ensembles: 25140
 Interval between ensembles: 20 min
 Original number of bins: 30
 Number of acceptable velocity bins: 22
 Number of acceptable intensity bins: 22

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

Number of temperature ens. flagged: 0

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

Bin	Int. ens. flgd	Velocity ens. flgd	Velocity % flgd	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	23	2796	11	1938	267	64	20	4	5	0	0	0	0
2	1	2758	11	1821	306	71	24	3	0	0	0	0	0
3	1	2391	10	1627	248	55	11	4	6	0	0	0	0
4	1	2273	9	1491	225	59	22	6	6	0	0	0	0
5	1	1884	7	1311	148	47	7	13	6	0	0	0	0
6	0	1511	6	1061	139	24	8	8	4	0	0	0	0
7	0	988	4	788	65	11	1	4	2	0	0	0	0
8	1	909	4	748	55	11	3	0	1	0	0	0	0
9	1	991	4	759	74	20	6	0	0	0	0	0	0
10	0	888	4	682	58	14	5	2	3	0	0	0	0
11	0	968	4	713	73	22	2	4	2	0	0	0	0
12	1	1009	4	688	78	16	8	4	6	2	0	0	0
13	2	989	4	692	62	18	6	5	7	1	0	0	0
14	0	1089	4	677	79	17	11	4	10	5	0	0	0
15	0	1340	5	766	97	28	13	5	17	7	0	0	0
16	1	1825	7	868	107	44	20	14	18	12	5	1	0
17	1	2761	11	976	160	76	29	20	25	15	13	4	2
18	0	3832	15	1067	209	64	60	25	35	27	10	10	7
19	1	6060	24	1322	303	120	69	40	69	38	13	23	9
20	1	7819	31	1167	309	133	60	31	82	42	17	32	22
21	1	11333	45	1546	379	165	63	46	88	42	24	34	39
22	0	12084	48	849	183	86	54	24	53	28	19	36	44

Harmonic constants for constituent M2 for deployment NWSA9907.

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	276	202	214	107	190	225	40	27	209	A
02	266	219	247	118	216	243	55	26	241	A
03	256	231	250	141	214	261	74	29	241	A
04	246	236	226	154	185	267	87	30	215	A
05	236	238	228	162	187	273	92	31	216	A
06	226	238	229	167	188	275	96	32	217	A
07	216	239	231	174	191	280	95	34	218	A
08	206	237	231	175	192	279	94	34	218	A
09	196	235	232	176	193	278	92	35	219	A
10	186	233	232	177	194	278	91	35	219	A
11	176	231	233	177	196	277	89	36	220	A
12	166	228	233	177	196	275	88	36	220	A
13	156	227	233	177	196	274	88	36	220	A
14	146	227	234	178	197	275	88	36	220	A
15	136	228	234	179	197	276	88	36	220	A
16	126	230	234	180	197	278	88	37	220	A
17	116	230	234	182	197	279	89	37	220	A
18	106	233	233	183	197	282	90	36	220	A
19	96	239	233	184	194	286	96	36	219	A
20	86	241	233	182	193	286	97	35	219	A
21	76	244	232	177	191	284	99	33	219	A
22	66	247	230	187	189	292	105	35	217	A

Harmonic constants for constituent S2 for deployment NWSA9907.

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	276	67	246	33	233	75	7	26	243	A
02	266	75	279	36	258	83	12	25	275	A
03	256	81	281	44	253	90	19	27	275	A
04	246	82	257	49	221	92	25	28	248	A
05	236	82	259	52	222	93	27	29	250	A
06	226	84	261	53	224	95	28	30	252	A
07	216	83	263	55	227	96	28	31	253	A
08	206	82	265	57	229	96	28	33	254	A
09	196	82	266	57	231	96	28	33	255	A
10	186	81	266	58	232	96	27	34	255	A
11	176	80	267	57	234	94	26	34	256	A
12	166	78	267	57	236	93	24	35	257	A
13	156	77	267	57	236	92	24	35	257	A
14	146	78	267	56	237	93	23	34	257	A
15	136	78	267	56	238	93	23	35	258	A
16	126	77	267	56	238	93	23	35	257	A
17	116	76	267	56	239	92	22	35	258	A
18	106	77	266	57	238	93	22	36	256	A
19	96	78	268	62	237	96	26	37	257	A
20	86	81	267	65	232	99	30	37	254	A
21	76	85	268	61	228	99	33	33	255	A
22	66	89	266	69	222	105	41	35	251	A

Harmonic constants for constituent N2 for deployment NWSA9907.

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	276	42	188	20	163	46	7	24	183	A
02	266	46	219	21	189	49	10	22	214	A
03	256	49	221	24	185	53	13	23	215	A
04	246	50	196	26	157	54	15	24	189	A
05	236	50	198	28	160	56	16	26	190	A
06	226	51	201	29	161	56	17	27	192	A
07	216	50	203	32	165	56	17	29	194	A
08	206	50	206	33	168	57	18	31	195	A
09	196	49	208	34	169	57	19	33	196	A
10	186	48	210	35	171	57	18	33	198	A
11	176	48	212	36	176	57	17	35	199	A
12	166	47	213	35	177	56	17	35	200	A
13	156	46	212	35	178	55	16	36	200	A
14	146	45	213	34	179	54	16	36	201	A
15	136	45	211	33	178	54	15	35	200	A
16	126	45	210	33	179	54	14	34	200	A
17	116	44	209	32	179	52	13	35	199	A
18	106	43	207	32	180	52	12	35	198	A
19	96	44	204	31	177	53	12	34	195	A
20	86	46	202	30	177	53	11	32	195	A
21	76	45	202	33	168	53	15	34	191	A
22	66	43	207	32	170	51	16	34	195	A

Harmonic constants for constituent O1 for deployment NWSA9907.

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	276	38	282	19	209	39	18	10	277	A
02	266	40	293	21	219	41	20	10	289	A
03	256	41	291	22	210	41	21	7	287	A
04	246	42	276	22	194	42	21	6	273	A
05	236	41	276	22	190	41	22	3	274	A
06	226	41	276	22	187	41	22	1	275	A
07	216	42	276	21	189	42	21	2	275	A
08	206	42	276	21	189	42	21	2	275	A
09	196	43	275	21	189	43	21	2	274	A
10	186	42	276	21	189	42	21	2	275	A
11	176	42	276	21	192	42	21	4	274	A
12	166	43	277	20	192	43	20	3	275	A
13	156	42	276	20	190	42	20	2	275	A
14	146	43	275	20	189	43	20	2	274	A
15	136	43	276	20	186	43	20	180	96	A
16	126	43	275	20	183	43	20	179	95	A
17	116	42	275	19	183	42	19	178	96	A
18	106	43	275	18	185	43	18	0	275	A
19	96	43	273	19	185	43	19	1	272	A
20	86	45	273	18	189	45	18	3	272	A
21	76	45	276	18	178	45	18	176	98	A
22	66	43	275	21	188	43	21	2	274	A

Harmonic constants for constituent K1 for deployment NWSA9907.

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	276	26	150	20	85	28	16	29	132	A
02	266	26	164	20	95	28	17	25	148	A
03	256	26	161	24	87	28	21	35	134	A
04	246	26	145	23	67	28	22	30	121	A
05	236	26	143	23	68	28	21	29	121	A
06	226	26	144	21	69	27	19	26	125	A
07	216	26	143	20	71	28	18	24	127	A
08	206	27	147	21	70	28	20	21	132	A
09	196	28	145	19	70	29	18	17	134	A
10	186	28	145	19	70	29	18	16	135	A
11	176	29	145	19	71	30	18	16	135	A
12	166	28	144	18	72	29	17	17	135	A
13	156	29	146	19	71	29	18	15	136	A
14	146	29	145	17	69	29	16	12	138	A
15	136	29	147	17	66	29	16	8	142	A
16	126	29	145	16	67	29	16	10	139	A
17	116	27	144	16	68	28	15	11	138	A
18	106	28	144	16	66	28	15	9	139	A
19	96	28	143	14	65	28	13	7	139	A
20	86	30	142	15	66	30	15	10	137	A
21	76	29	141	17	61	29	16	9	136	A
22	66	33	135	17	66	34	15	13	129	A

Deployment Id: NWSB9907

Latitude: 60°46.980'N

Longitude: 005°18.000'W

Echo sounding depth: 801m

Bottom depth corr.: 786m

Time of deployment: 04/07 -1999 1756UTC

Time of recovery: 20/06 - 2000 0457UTC

ADCP:

Instrument no.: RDI ADCP 1245

Instrument frequency: 75kHz

Height above bottom: 108m

Depth: 678m (corr.)

Time of first data: 04/07 - 1999 1840UTC

Time of last data: 20/06 - 2000 0440UTC

Sample interval: 20 min

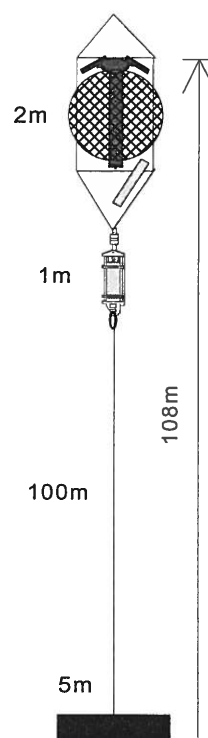
No. of ensembles: 25303

Pings per ens.: 1

Binlength: 25m

Depth of first bin: 642 (corr.)

No. of bins: 24



Deployment: NWSB9907
 Instrument no.: 1245
 Instrument freq.: 75
 Latitude: 60 46.980 N
 Longitude: 05 18.000 W
 Bottom depth: 786
 Instrument depth: 678
 Center depth of first bin: 642
 Bin length: 25
 Number of bins: 24
 Number of first ensemble: 288
 Time of first ensemble: 1999 07 04 18 40
 Number of last ensemble: 25590
 Time of last ensemble: 2000 06 20 04 40
 Time between ensembles (min.): 20
 All directions have been corrected by adding: -11.0

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

Bin no.	Depth m	Height m	Speed mm/s	Vel mm/s	Dir deg	Good ppt
1	642	144	209	46	183	993
2	617	169	205	45	183	995
3	592	194	201	45	183	995
4	567	219	198	44	183	995
5	542	244	196	45	183	995
6	517	269	195	47	183	995
7	492	294	196	48	185	995
8	467	319	197	50	186	995
9	442	344	200	50	187	993
10	417	369	201	51	189	994
11	392	394	202	53	189	992
12	367	419	204	60	191	991
13	342	444	207	67	191	989
14	317	469	210	69	191	991
15	292	494	213	68	189	989
16	267	519	217	68	188	986
17	242	544	222	69	189	978
18	217	569	229	72	190	968
19	192	594	235	72	189	919
20	167	619	241	71	187	858
21	142	644	247	70	187	810
22	117	669	257	68	187	756
23	92	694	270	63	185	686
24	67	719	257	36	168	421

Error statistics for deployment: NWSB9907

Surface distance not edited
 Heading, pitch and roll not edited
 Temperature edited by MCP in Aug 2000
 Velocity edited up to and including bin 24 by MCP Aug in 2000
 Intensity edited up to and including bin 25 by MCP in Aug 2000

Total number of ensembles: 25303
 Interval between ensembles: 20 min
 Original number of bins: 28
 Number of acceptable velocity bins: 24
 Number of acceptable intensity bins: 24

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

Number of temperature ens. flagged: 0

Below are for each bin listed ensembles flagged for intensity in number and for velocity in number and % of total ens.number. For velocity is also shown the 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	169	1	159	5	0	0	0	0	0	0	0	0	0
2	5	129	1	123	3	0	0	0	0	0	0	0	0	0
3	4	129	1	125	2	0	0	0	0	0	0	0	0	0
4	0	130	1	128	1	0	0	0	0	0	0	0	0	0
5	1	126	0	117	3	1	0	0	0	0	0	0	0	0
6	0	121	0	111	5	0	0	0	0	0	0	0	0	0
7	0	122	0	116	3	0	0	0	0	0	0	0	0	0
8	0	134	1	118	8	0	0	0	0	0	0	0	0	0
9	0	166	1	161	1	1	0	0	0	0	0	0	0	0
10	0	153	1	141	4	0	1	0	0	0	0	0	0	0
11	0	197	1	162	10	5	0	0	0	0	0	0	0	0
12	1	224	1	192	8	4	1	0	0	0	0	0	0	0
13	1	266	1	227	14	1	2	0	0	0	0	0	0	0
14	1	228	1	199	10	3	0	0	0	0	0	0	0	0
15	0	268	1	244	9	2	0	0	0	0	0	0	0	0
16	0	358	1	294	24	4	1	0	0	0	0	0	0	0
17	0	566	2	415	47	5	4	4	1	0	0	0	0	0
18	1	798	3	422	57	17	13	7	9	1	2	0	0	0
19	1	2062	8	502	91	23	24	12	42	28	13	3	0	0
20	0	3587	14	459	84	35	9	10	25	29	52	24	0	0
21	1	4810	19	555	95	36	24	9	17	25	45	56	1	1
22	0	6184	24	646	103	46	17	8	36	40	40	77	4	4
23	1	7939	31	661	133	57	27	12	45	49	45	92	11	11
24	2	14648	58	612	156	74	43	32	118	61	16	62	75	75

Harmonic constants for constituent M2 for deployment NWSB9907.

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	642	216	251	126	215	241	67	28	243	A
02	617	210	252	128	218	238	64	29	244	A
03	592	205	253	129	221	234	61	30	245	A
04	567	199	254	130	224	231	57	32	246	A
05	542	193	256	133	227	229	54	33	247	A
06	517	188	257	137	231	227	50	35	248	A
07	492	183	259	141	234	226	48	37	250	A
08	467	179	261	146	237	226	46	39	251	A
09	442	176	262	150	239	227	45	40	253	A
10	417	170	262	150	242	224	39	41	254	A
11	392	160	262	149	246	216	31	43	255	A
12	367	150	263	148	249	209	25	45	256	A
13	342	139	263	147	253	202	19	47	258	A
14	317	129	264	146	257	194	12	49	260	A
15	292	121	265	148	260	191	7	51	262	A
16	267	114	266	151	262	189	6	53	264	A
17	242	110	267	155	263	190	6	55	265	A
18	217	107	269	157	264	190	8	56	265	A
19	192	107	269	158	264	191	8	56	265	A
20	167	108	270	159	264	192	9	56	266	A
21	142	109	271	162	264	195	11	56	266	A
22	117	109	273	168	264	200	14	57	267	A
23	92	113	275	170	263	203	20	57	267	A
24	67	119	281	159	264	197	27	54	270	A

Harmonic constants for constituent S2 for deployment NWSB9907.

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	642	77	291	48	256	88	24	30	282	A
02	617	75	292	49	258	86	24	31	282	A
03	592	73	292	49	260	85	22	32	283	A
04	567	72	293	49	263	85	21	33	284	A
05	542	71	294	50	266	84	20	34	285	A
06	517	66	296	50	269	81	18	36	286	A
07	492	62	297	51	273	79	16	39	287	A
08	467	59	299	53	278	78	15	42	290	A
09	442	56	303	56	282	78	15	45	293	A
10	417	55	305	58	284	78	14	47	294	A
11	392	51	305	59	287	77	12	49	295	A
12	367	49	305	60	290	76	10	51	296	A
13	342	47	302	58	291	74	7	51	295	A
14	317	43	298	55	295	70	2	52	296	A
15	292	40	300	55	301	68	0	54	300	C
16	267	37	302	55	304	66	1	56	303	C
17	242	35	299	54	305	64	3	58	303	C
18	217	33	298	55	304	64	3	59	303	C
19	192	37	303	57	308	68	3	57	306	C
20	167	40	304	60	309	72	3	56	308	C
21	142	40	304	60	310	72	3	56	308	C
22	117	41	307	58	309	71	1	55	308	C
23	92	44	306	57	306	72	0	52	306	A
24	67	50	289	51	303	71	9	45	296	C

Harmonic constants for constituent N2 for deployment NWSB9907.

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	642	51	210	19	153	52	15	12	206	A
02	617	50	214	19	163	51	15	15	209	A
03	592	48	218	21	175	51	14	19	212	A
04	567	47	221	24	180	51	15	23	214	A
05	542	46	224	26	185	51	15	26	216	A
06	517	44	227	27	193	49	13	29	219	A
07	492	41	231	27	200	48	12	31	222	A
08	467	40	232	27	203	47	11	33	223	A
09	442	39	232	27	208	46	9	34	225	A
10	417	35	235	28	217	44	7	39	228	A
11	392	31	238	30	226	43	5	44	233	A
12	367	27	248	31	233	41	5	50	239	A
13	342	24	260	35	242	42	6	56	247	A
14	317	23	271	40	246	45	9	61	252	A
15	292	26	276	43	244	49	12	62	252	A
16	267	26	279	44	244	49	13	61	252	A
17	242	28	277	45	241	51	15	61	250	A
18	217	28	273	47	239	53	14	62	247	A
19	192	29	273	45	238	51	14	60	248	A
20	167	29	273	42	239	49	14	57	249	A
21	142	31	275	41	240	49	15	55	252	A
22	117	35	272	41	240	51	15	50	253	A
23	92	30	275	42	233	48	17	58	246	A
24	67	34	262	41	225	51	17	51	239	A

Harmonic constants for constituent O1 for deployment NWSB9907.

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	642	27	343	15	33	29	11	24	353	C
02	617	27	341	15	39	28	12	20	350	C
03	592	26	340	15	34	27	11	22	349	C
04	567	26	342	15	32	28	11	24	352	C
05	542	27	341	15	29	30	11	24	350	C
06	517	28	337	16	30	30	12	22	346	C
07	492	29	338	15	26	31	10	21	345	C
08	467	28	336	14	32	29	11	18	342	C
09	442	28	332	12	33	29	10	14	337	C
10	417	27	332	11	30	28	9	14	337	C
11	392	28	334	12	28	29	9	17	340	C
12	367	26	336	12	30	27	9	16	341	C
13	342	25	331	11	46	25	10	8	334	C
14	317	25	325	10	61	25	10	177	144	C
15	292	25	326	9	55	25	9	1	327	C
16	267	23	325	8	53	23	8	0	325	C
17	242	23	326	7	75	23	6	174	144	C
18	217	24	327	7	79	24	6	174	146	C
19	192	25	330	8	83	26	8	172	147	C
20	167	28	330	12	84	29	11	168	145	C
21	142	27	326	10	78	27	9	171	143	C
22	117	27	331	11	92	27	9	167	146	C
23	92	28	337	11	115	30	7	163	153	C
24	67	40	339	3	215	40	3	177	159	A

Harmonic constants for constituent K1 for deployment NWSB9907.

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	642	15	209	6	259	16	5	17	214	C
02	617	15	206	7	257	16	5	17	212	C
03	592	15	208	6	253	15	4	19	214	C
04	567	15	207	5	240	16	3	17	210	C
05	542	15	208	5	246	15	3	16	212	C
06	517	15	204	5	259	15	4	11	207	C
07	492	16	205	4	265	16	4	8	207	C
08	467	17	208	5	253	17	3	12	210	C
09	442	15	208	4	257	16	3	11	210	C
10	417	14	203	3	272	14	3	6	204	C
11	392	12	199	5	285	12	5	2	200	C
12	367	13	177	3	319	13	2	168	355	C
13	342	13	159	3	69	13	3	0	159	A
14	317	12	151	4	102	13	3	14	147	A
15	292	11	162	4	101	11	4	11	158	A
16	267	12	172	4	118	12	3	11	169	A
17	242	11	164	5	102	11	4	15	158	A
18	217	13	154	7	105	14	5	23	146	A
19	192	15	155	4	138	16	1	15	154	A
20	167	19	161	8	182	20	3	23	165	C
21	142	19	160	10	183	22	4	26	165	C
22	117	23	161	15	176	27	3	33	165	C
23	92	30	160	19	184	35	7	31	166	C
24	67	40	158	19	164	44	2	26	159	C

Deployment Id: NWSC9907

Latitude: 60°33.960'N

Longitude: 004°45.981'W

Echo sounding depth: 1081m

Bottom depth corr.: 1071m

Time of deployment: 04/07 -1999 1950UTC

Time of recovery: 20/06 - 2000 0730UTC

ADCP:

Instrument no.: RDI ADCP 1578

Instrument frequency: 75kHz

Height above bottom: 414m (corr.)

Depth: 657m (corr.)

Time of first data: 04/07 - 1999 2020UTC

Time of last data: 20/06 - 2000 0700UTC

Sample interval: 20 min

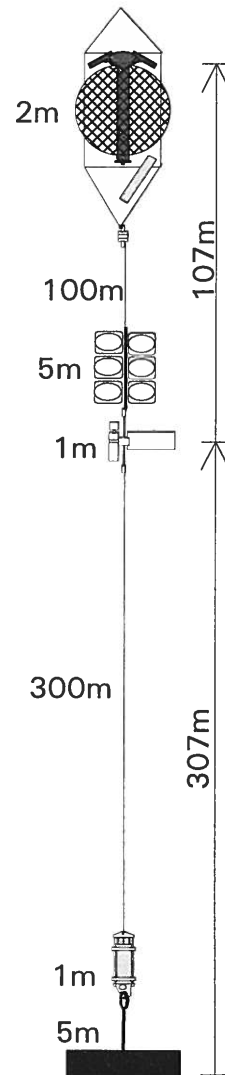
No. of ensembles: 25305

Pings per ens.: 1

Binlength: 25m

Depth of first bin: 621m (corr.)

No. of bins: 12



Deployment: NWSC9907 updated 2000/09/11
 Instrument no.: 1578
 Instrument freq.: 75
 Latitude: 60 33.960 N
 Longitude: 04 45.981 W
 Bottom depth: 1071
 Instrument depth: 657
 Center depth of first bin: 621
 Bin length: 25
 Number of bins: 12
 Number of first ensemble: 296
 Time of first ensemble: 1999 07 04 20 20
 Number of last ensemble: 25600
 Time of last ensemble: 2000 06 20 07 00
 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	621	450	180	59	218	991
2	596	475	181	57	217	990
3	571	500	185	56	217	992
4	546	525	190	54	217	991
5	521	550	196	51	214	986
6	496	575	204	47	212	988
7	471	600	211	43	205	986
8	446	625	215	41	200	988
9	421	650	217	38	192	990
10	396	675	224	37	186	990
11	371	700	234	39	182	949
12	346	725	246	36	178	902

Error statistics for deployment: NWSC9907 updated 2000/09/11

Surface distance not edited
 Heading, pitch and roll not edited
 Temperature edited by MCP in Aug 2000
 Velocity edited up to and including bin 15 by MCP in July 2000
 Intensity edited up to and including bin 17 by MCP in Aug 2000

Total number of ensembles: 25305
 Interval between ensembles: 20 min
 Original number of bins: 23
 Number of acceptable velocity bins: 12
 Number of acceptable intensity bins: 12

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

Number of temperature ens. flagged: 0

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

Bin	Int. ens. flgd	Velocity ens. flgd	%	Number of velocity gaps of length										
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50	
1	0	236	1	232	2	0	0	0	0	0	0	0	0	0
2	0	264	1	246	9	0	0	0	0	0	0	0	0	0
3	0	192	1	174	9	0	0	0	0	0	0	0	0	0
4	0	240	1	206	12	2	1	0	0	0	0	0	0	0
5	0	355	1	275	27	5	0	1	1	0	0	0	0	0
6	2	300	1	253	13	3	3	0	0	0	0	0	0	0
7	1	355	1	287	25	6	0	0	0	0	0	0	0	0
8	3	302	1	258	16	4	0	0	0	0	0	0	0	0
9	2	245	1	210	14	1	1	0	0	0	0	0	0	0
10	2	248	1	182	18	2	2	2	1	0	0	0	0	0
11	0	1296	5	275	47	20	6	8	28	23	8	1	0	0
12	0	2488	10	374	87	43	32	16	54	32	17	4	2	0

Harmonic constants for constituent M2 for deployment NWSC9907.

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	621	155	256	106	250	187	10	34	254	A
02	596	156	256	107	250	189	10	34	254	A
03	571	159	257	108	251	192	9	34	255	A
04	546	162	257	108	252	195	8	34	255	A
05	521	165	257	109	254	197	5	33	256	A
06	496	166	257	110	256	199	2	33	257	A
07	471	167	257	108	257	199	0	33	257	C
08	446	159	258	109	260	193	4	35	259	C
09	421	149	259	114	263	187	7	38	260	C
10	396	144	259	116	264	185	9	39	261	C
11	371	145	258	119	265	188	10	39	261	C
12	346	158	260	117	264	196	7	36	261	C

Harmonic constants for constituent S2 for deployment NWSC9907.

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	621	45	297	46	303	64	4	46	300	C
02	596	46	300	47	302	66	1	46	301	C
03	571	48	300	49	301	68	1	45	301	C
04	546	51	299	48	301	70	1	44	300	C
05	521	52	299	49	301	72	1	43	300	C
06	496	54	297	49	300	72	2	42	298	C
07	471	56	295	48	297	74	2	41	296	C
08	446	58	294	45	293	74	1	38	294	A
09	421	56	295	42	293	70	1	37	294	A
10	396	55	296	41	296	69	0	37	296	A
11	371	59	295	45	298	75	2	37	296	C
12	346	65	295	47	297	80	2	36	295	C

Harmonic constants for constituent N2 for deployment NWSC9907.

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	621	31	218	15	238	34	5	24	222	C
02	596	31	217	14	240	33	5	23	221	C
03	571	30	217	13	242	33	5	22	220	C
04	546	30	218	14	245	33	6	24	223	C
05	521	29	223	15	247	32	6	26	228	C
06	496	30	222	14	247	33	6	23	226	C
07	471	33	221	14	238	35	4	23	223	C
08	446	33	222	16	233	37	3	26	224	C
09	421	32	228	20	240	37	3	32	231	C
10	396	30	235	22	242	37	2	37	237	C
11	371	28	243	24	241	37	1	40	242	A
12	346	29	263	27	239	39	8	42	252	A

Harmonic constants for constituent O1 for deployment NWSC9907.

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	621	11	19	10	38	14	2	42	27	C
02	596	11	24	9	36	14	2	39	29	C
03	571	12	20	10	40	16	3	39	28	C
04	546	13	18	9	38	16	3	33	24	C
05	521	15	14	9	43	17	4	28	21	C
06	496	17	10	9	41	19	4	26	17	C
07	471	17	10	9	40	19	4	25	15	C
08	446	17	7	8	43	19	4	22	12	C
09	421	16	3	8	34	18	4	23	8	C
10	396	14	9	8	37	16	3	27	15	C
11	371	16	8	7	58	17	5	18	14	C
12	346	22	19	4	23	23	0	10	19	C

Harmonic constants for constituent K1 for deployment NWSC9907.

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	621	6	256	2	245	7	0	15	255	A
02	596	5	252	2	235	6	0	17	251	A
03	571	6	257	1	236	6	0	9	257	A
04	546	5	264	1	228	5	1	8	263	A
05	521	6	245	1	358	6	1	177	65	C
06	496	5	249	0	331	5	0	0	249	C
07	471	6	249	1	313	6	1	7	251	C
08	446	6	249	2	352	6	2	174	67	C
09	421	5	235	3	6	5	2	156	46	C
10	396	4	238	1	58	4	0	164	58	A
11	371	4	205	2	124	4	2	4	203	A
12	346	6	182	7	111	7	5	54	138	A