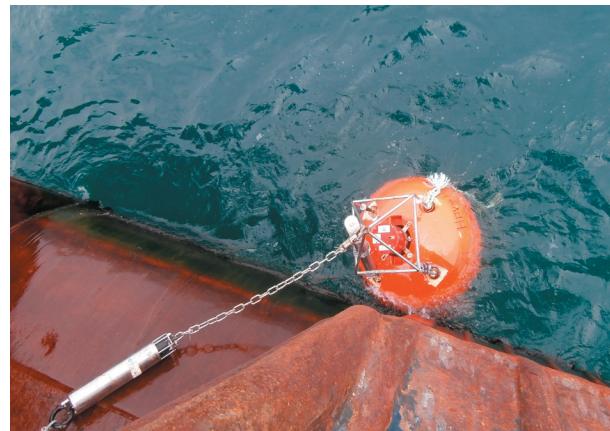




# NACLIM ADCP Deployments in Faroeese Waters 2015 - 2016

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# Introduction

This report documents 8 ADCP deployments in Faroese waters in 2015 – 2016. MicroCats are included in two of the deployments. An Aanderaa is included in one and a Starmon in one deployment. 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. Most of the moorings were located at standard (Nordic WOCE) sites. The deployments are listed in Tables 1 and 2.

At sites NWFB, NWFC, NWNB, NWNH, NWSC, and NWSM RDI ADCPs were placed in the top of single-point moorings. At site NWSQ a “shallow-water” rig was used, where an RDI ADCP was placed on the bottom inside a protective aluminum frame.

For each deployment, the ADCP measures the velocity averaged over a number of depth layers (“bins”). At 20 minute intervals, the ADCP records the data from all bins into “ensembles”.

An Aanderaa current meter on the mooring line below one of the ADCPs recorded speed, direction and temperature at 60 minutes intervals. The MicroCats attached to two of the ADCPs recorded temperature, salinity and pressure every 10 minutes. The Starmon attached to one of the ADCPs recorded temperature every 5 minutes.

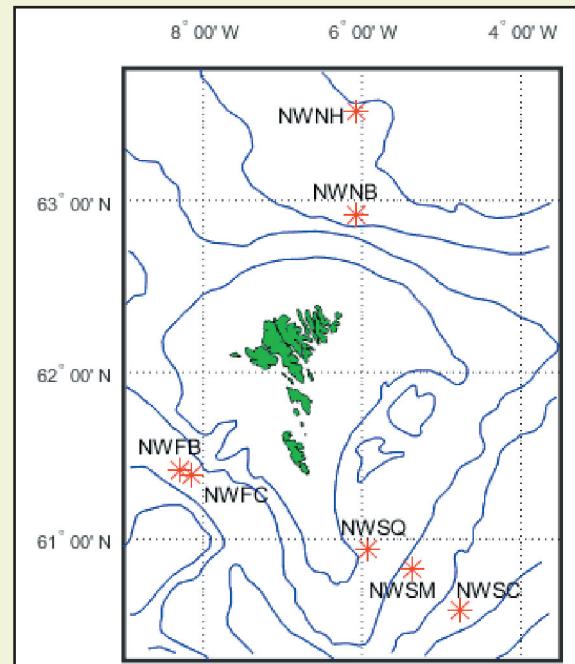


Figure 1. ADCP mooring sites in Faroese waters 2015–2016 superposed on a map with the bottom topography. Each site is indicated by a four-letter label.

Table 1. List of deployments with information on ADCP number, type and settings.

Deployment	No	Instr.	ADCP type	Freq.	Pings per ens	Binlngth	m
NWFB1506	1285		Broadband	75	1	25	
NWFC1506	1642		Broadband	75	1	25	
NWNB1506	1644		Broadband	75	1	25	
NWNH1506	19518		Long Ranger	75	10	10	
NWSC1506	8552		Long Ranger	75	10	10	
NWSM1506	1577		Broadband	75	1	25	
NWSM1602	1577		Broadband	75	1	25	
NWSQ1506	1279		Broadband	150	1	10	

Table 2. List of deployments with information on duration and range of valid data. All depths are in meters. The last column indicates whether other instruments were on the mooring.

Deployment	Bottom depth	Int. min.	Valid data period	Dur. days	No bins	Depth range	Comments
NWFB1506	812	20	2015 06 13–2016 05 21	343	24	195– 770	Microcats
NWFC1506	841	20	2015 06 13–2016 05 21	343	18	374– 799	Microcat
NWNB1506	947	20	2015 06 14–2016 05 19	339	22	132– 657	
NWNH1506	1802	20	2015 06 14–2016 05 19	340	57	55– 615	
NWSC1506	1066	20	2015 06 12–2016 05 22	345	58	58– 628	Aanderaa
NWSM1506	715	20	2015 06 12–2015 12 17	188	25	71– 671	
NWSM1602	717	20	2016 02 14–2016 05 22	98	22	148– 673	
NWSQ1506	296	20	2015 06 12–2016 05 22	345	23	59– 279	Starmon

## Quality control

The ADCP data have been quality controlled using an automatic routine. The data have been processed such that threshold values for e.g. maximum error velocity, minimum mean correlation and others were set. Also, error velocities deviating more than a selected number times the standard deviation from the mean error velocity were error flagged. Speed spikes are calculated in a similar manner selecting a number of standard deviations and then error flagging those values where u or v deviated more than the threshold from a 3 point median filtered u and v series. For specific values used, see the error statistics for the individual series.

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 at sites NWNB, NWSQ and deployment NWSM1506 are found using the data from the surface echo. The instrument depth at deployment NWSM1602 is found from the echo sounding depth (corrected for change in sound velocity). The instrument depths at sites NWFB and NWFC are found from the MicroCat pressure measurements. The instrument depths at sites NWNH and NWSC are found from the ADCP pressure measurements.

At site NWSM the mooring surfaced in December 2015. It was redeployed in February 2016.

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 FAMRI, based upon MATLAB.

The temperature and pressure from the MicroCats have been calibrated by being attached to a CTD one day prior to deployment. The pressure and temperature data from the MicroCat instruments have been quality controlled by a standard procedure based upon data variation with time in relation to neighboring values (spikes). The editing has been done manually using an interactive graphical software package developed by FAMRI, based upon MATLAB.

The Starmon 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 FAMRI, based upon MATLAB.

## 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 and threshold settings for the deployment, and it 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 M<sub>2</sub>, S<sub>2</sub>, N<sub>2</sub>, O<sub>1</sub>, and K<sub>1</sub>. 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 the deployment has 60 minutes intervals, all analyses are performed on unfiltered data. 15 of the dominant constituents are listed and for each constituent, amplitude and Greenwich phase lag are shown for the east (E-ampl and E-gpl) and the north (N-ampl and N-gpl) velocity components respectively, followed by the characteristics of the tidal ellipse, its major and minor semi-axes, the inclination (Incl) of the ellipse, its Greenwich phase lag (Grphl), and whether it rotates cyclonically (C) or anticyclonically (A). The definitions of the tidal ellipse parameters are shown in Figure 2. The tidal constants were computed by an adapted version of the Foreman FORTRAN package. Finally, on the 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 one page shows plots of the listed parameters as a function of time and one page shows the progressive vector diagram.

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

The Starmon temperature data is presented on one page.

On the following pages, the data descriptions from each deployment are presented in the same sequence as Tables 1 and 2. For each deployment, the ADCP data are presented first, followed by possible Aanderaa, MicroCat or Starmon data.

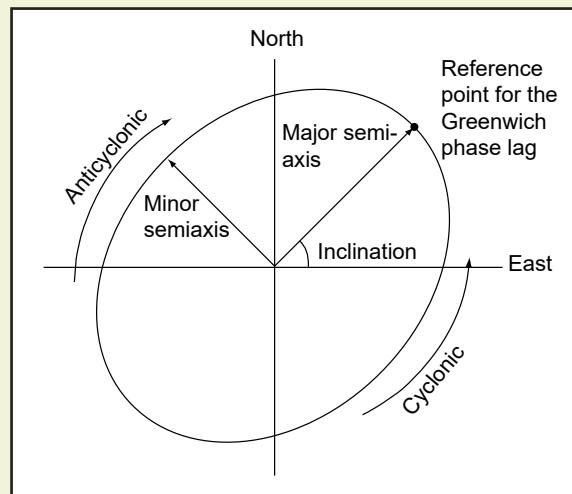


Figure 2. Parameters of the tidal ellipse for a given constituent. The reference point for the Greenwich phase lag is always chosen to be above the east-west axis.



# NWFB1506

**Latitude:** 61°25.000'N

**Longitude:** 008°16.900'W

**Echo sounding depth:** 822 m

**Bottom depth corr.:** 812 m

**Time of deployment:** 13/6 - 2015 0359 UTC

**Time of recovery:** 21/5 - 2016 0928 UTC

## ADCP:

**Instrument no.:** RDI ADCP 1285

**Instrument frequency:** 75 kHz

**Height above bottom:** 6 m

**Depth:** 806 m

**Time of first data:** 13/6 - 2015 0440 UTC

**Time of last data:** 21/5 - 2016 0920 UTC

**Sample interval:** 20 min

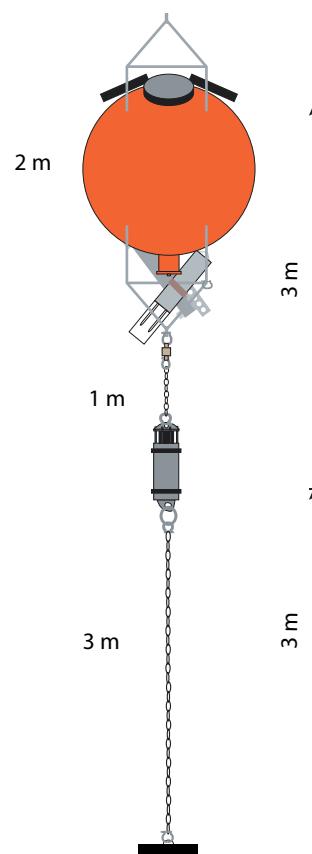
**No. of ensembles:** 24711

**Pings per ens.:** 1

**Binlength:** 25 m

**Depth of first bin:** 770 m

**No. of bins:** 24



## MicroCat

**Instrument no.:** 0984 & 6094

**Height above bottom:** 5 m

**Instrument depth:** 807 m

**Time of first data:** 13/6 - 2015 0420 UTC

**Time of last data:** 21/5 - 2016 0920 UTC

**Sample interval:** 10 min

**No. of ensembles:** 49423

## Data:

The temperatures and pressures from the MicroCats are calibrated against a SBE911+.

The salinity from the MicroCats may have a small drift.

## NWFB1506 ADCP 1285

Error statistics for deployment: NWFB1506 updated 2016/10/13

Temperature edited

Surface distance not edited

Heading, pitch and roll not edited

Intensity not edited

Velocity edited using these data filters:

Maximum Speed, number of std dev for each bin: 5.0

Maximum Error Velocity (erv\_tr+0.1\*spd):100.0

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 1): 5.00

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 24): 3.74

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 32): 3.00

Total number of ensembles: 24711

Interval between ensembles: 20 min

Original number of bins: 32

Number of acceptable velocity bins: 24

Flagged values have been replaced by error codes: -999.99 for temperature and depth, -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.	Velocity ens.	%	Number of velocity gaps of length														
				1		2		3		4		5		6-10	11-20	21-30	31-50	>50
				flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	
1	0	60	0	54	3	0	0	0	0	0	0	0	0	0	0	0	0	
2	0	67	0	57	5	0	0	0	0	0	0	0	0	0	0	0	0	
3	0	64	0	51	5	1	0	0	0	0	0	0	0	0	0	0	0	
4	0	84	0	63	9	1	0	0	0	0	0	0	0	0	0	0	0	
5	0	90	0	75	7	0	0	0	0	0	0	0	0	0	0	0	0	
6	0	156	1	116	11	3	2	0	0	0	0	0	0	0	0	0	0	
7	0	247	1	182	14	8	2	1	0	0	0	0	0	0	0	0	0	
8	0	360	1	267	29	10	1	0	0	0	0	0	0	0	0	0	0	
9	0	552	2	397	57	9	2	1	0	0	0	0	0	0	0	0	0	
10	0	676	3	509	45	16	7	0	0	0	0	0	0	0	0	0	0	
11	0	722	3	539	61	14	2	2	0	0	0	0	0	0	0	0	0	
12	0	507	2	373	46	9	2	0	1	0	0	0	0	0	0	0	0	
13	0	468	2	330	37	12	5	0	1	0	0	0	0	0	0	0	0	
14	0	400	2	284	36	10	2	1	0	0	0	0	0	0	0	0	0	
15	0	374	2	282	32	6	1	1	0	0	0	0	0	0	0	0	0	
16	0	308	1	204	26	7	1	1	3	0	0	0	0	0	0	0	0	
17	0	299	1	207	20	4	3	0	0	0	1	0	0	0	0	0	0	
18	0	309	1	198	25	7	2	0	1	0	1	0	0	0	0	0	0	
19	0	513	2	297	29	11	5	3	5	2	1	0	0	0	0	0	0	
20	0	1265	5	524	110	41	21	10	19	7	1	0	0	0	0	0	0	
21	0	3376	14	775	208	86	59	35	90	36	9	2	0	0	0	0	0	
22	0	6167	25	877	267	134	85	40	135	101	23	18	1	0	0	0	0	
23	0	9034	37	863	281	148	90	80	147	117	55	41	9	0	0	0	0	
24	0	11703	47	840	252	113	87	50	141	104	72	65	31	0	0	0	0	

## NWFB1506 ADCP 1285

Deployment: NWFB1506 updated 2016/10/13  
Instrument no.: 1285  
Instrument freq.: 75  
Latitude: 61 25.000 N  
Longitude: 08 16.900 W  
Bottom depth: 812  
Instrument depth: 806  
Center depth of first bin: 770  
Bin length: 25  
Number of bins: 24  
Number of first ensemble: 279  
Time of first ensemble: 2015 06 13 04 40  
Number of last ensemble: 24989  
Time of last ensemble: 2016 05 21 09 20  
Time between ensembles (min.): 20  
All directions have been corrected by adding: -6.0

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	957	950	307	998
2	745	67	1026	1020	309	997
3	720	92	1051	1045	311	997
4	695	117	1055	1050	313	997
5	670	142	1048	1043	314	996
6	645	167	1023	1017	314	994
7	620	192	960	950	316	990
8	595	217	848	830	319	985
9	570	242	691	660	322	978
10	545	267	524	470	325	973
11	520	292	384	295	329	971
12	495	317	297	179	332	979
13	470	342	248	108	335	981
14	445	367	221	66	341	984
15	420	392	208	42	350	985
16	395	417	200	27	6	988
17	370	442	198	20	32	988
18	345	467	197	18	58	987
19	320	492	197	19	75	979
20	295	517	198	21	85	949
21	270	542	201	23	89	863
22	245	567	203	26	92	750
23	220	592	204	26	98	634
24	195	617	205	27	98	526

## NWFB1506 ADCP 1285

Deployment: NWFB1506

Frequency of high speeds.

=====

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

Bin Depth  no.	m	Speed (cm/s)																	
		10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	770	998	998	998	997	992	980	949	863	680	406	155	34	6	1	0	0	0	0
2	745	997	997	997	997	994	985	970	926	822	615	324	95	17	3	0	0	0	0
3	720	997	997	997	997	995	987	972	937	852	684	405	132	25	4	1	0	0	0
4	695	997	997	997	997	994	985	971	937	857	697	423	142	25	3	1	0	0	0
5	670	996	996	996	994	992	983	966	928	843	682	406	139	24	3	1	0	0	0
6	645	993	991	990	987	982	969	944	897	795	622	356	118	21	3	1	0	0	0
7	620	988	984	978	970	958	932	883	806	677	487	250	80	16	3	1	0	0	0
8	595	981	971	953	923	881	812	733	631	482	303	145	46	9	2	0	0	0	0
9	570	966	927	867	788	704	612	510	394	264	151	66	19	4	1	0	0	0	0
10	545	933	840	719	596	482	380	281	189	110	57	22	6	1	0	0	0	0	0
11	520	900	742	551	385	263	177	112	68	33	13	4	1	0	0	0	0	0	0
12	495	871	637	403	235	134	76	40	21	7	2	0	0	0	0	0	0	0	0
13	470	828	543	301	148	69	30	14	6	2	1	0	0	0	0	0	0	0	0
14	445	802	483	242	101	37	14	6	2	1	0	0	0	0	0	0	0	0	0
15	420	788	448	209	78	24	7	3	1	0	0	0	0	0	0	0	0	0	0
16	395	776	430	187	67	19	5	1	0	0	0	0	0	0	0	0	0	0	0
17	370	775	420	181	65	19	4	0	0	0	0	0	0	0	0	0	0	0	0
18	345	775	415	178	65	18	4	0	0	0	0	0	0	0	0	0	0	0	0
19	320	770	409	175	64	19	4	1	0	0	0	0	0	0	0	0	0	0	0
20	295	750	401	168	63	19	4	1	0	0	0	0	0	0	0	0	0	0	0
21	270	689	373	159	59	19	5	1	0	0	0	0	0	0	0	0	0	0	0
22	245	602	331	142	52	18	4	1	0	0	0	0	0	0	0	0	0	0	0
23	220	512	285	124	45	13	4	1	0	0	0	0	0	0	0	0	0	0	0
24	195	425	238	103	38	11	3	1	0	0	0	0	0	0	0	0	0	0	0

## NWFB1506 ADCP 1285

Harmonic constants for constituent M2 for deployment NWFB1506.

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	52	21	317	23	21	147	263	A
02	745	26	57	21	313	27	20	156	255	A
03	720	27	63	21	311	29	18	150	263	A
04	695	26	72	20	308	29	15	148	269	A
05	670	25	82	20	304	30	11	145	276	A
06	645	26	101	20	294	33	3	143	286	A
07	620	30	136	21	280	35	10	148	305	C
08	595	37	164	21	267	37	20	169	338	C
09	570	42	193	21	239	45	14	21	200	C
10	545	50	220	32	195	58	12	32	213	A
11	520	62	240	57	176	72	45	39	213	A
12	495	69	249	80	172	84	64	61	194	A
13	470	72	253	93	172	95	70	75	184	A
14	445	72	257	99	173	99	71	81	179	A
15	420	70	261	100	174	100	70	86	178	A
16	395	68	266	98	177	98	68	88	179	A
17	370	66	270	98	180	98	66	90	180	A
18	345	65	275	98	182	98	65	93	181	A
19	320	65	278	97	185	98	65	94	182	A
20	295	64	281	98	186	98	64	95	183	A
21	270	66	283	101	188	102	66	96	184	A
22	245	68	287	101	190	101	68	98	184	A
23	220	67	288	100	193	100	66	96	189	A
24	195	67	289	101	195	101	67	95	192	A

Harmonic constants for constituent S2 for deployment NWFB1506.

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	83	8	349	11	8	176	266	A
02	745	13	86	7	348	14	7	174	269	A
03	720	14	91	8	346	14	7	168	277	A
04	695	12	97	7	347	12	6	165	285	A
05	670	8	107	6	328	10	3	148	299	A
06	645	7	146	7	309	9	1	134	317	C
07	620	7	180	8	302	9	5	128	325	C
08	595	7	211	10	292	10	7	78	284	C
09	570	8	231	12	262	14	4	58	253	C
10	545	14	255	19	245	24	2	53	248	A
11	520	21	279	24	227	29	14	52	248	A
12	495	24	294	30	218	32	22	68	234	A
13	470	24	299	34	220	35	24	76	229	A
14	445	23	300	35	218	36	23	81	224	A
15	420	23	299	35	216	35	22	82	222	A
16	395	22	300	36	213	36	22	87	215	A
17	370	22	304	36	213	36	22	91	212	A
18	345	21	308	35	216	35	21	92	215	A
19	320	21	311	33	219	33	20	92	217	A
20	295	21	317	33	225	33	21	92	223	A
21	270	21	323	34	226	34	21	97	222	A
22	245	22	320	32	228	32	22	93	225	A
23	220	23	315	31	232	31	23	78	241	A
24	195	20	317	28	235	29	20	79	243	A

## NWFB1506 ADCP 1285

Harmonic constants for constituent N2 for deployment NWFB1506.

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	7	53	4	303	7	3	167	239	A
02	745	8	53	5	302	8	4	164	241	A
03	720	10	53	5	295	10	4	165	240	A
04	695	9	52	6	284	10	4	155	243	A
05	670	10	45	7	275	11	5	152	237	A
06	645	10	49	8	263	12	4	143	242	A
07	620	9	60	10	263	13	3	132	253	A
08	595	9	89	14	270	16	0	124	269	A
09	570	11	139	10	261	13	7	141	295	C
10	545	16	176	5	161	17	1	19	175	A
11	520	17	202	14	135	19	12	34	179	A
12	495	15	211	21	146	22	12	65	161	A
13	470	15	212	21	144	22	13	68	157	A
14	445	15	209	22	142	23	13	69	154	A
15	420	14	207	21	143	22	12	66	157	A
16	395	12	215	21	148	22	10	74	156	A
17	370	11	228	22	154	22	10	81	158	A
18	345	10	235	23	159	23	10	83	162	A
19	320	11	244	22	160	22	11	86	162	A
20	295	11	242	23	163	23	11	83	166	A
21	270	12	242	22	160	22	12	84	163	A
22	245	13	240	23	162	23	12	81	166	A
23	220	15	243	23	161	24	14	82	166	A
24	195	17	250	29	164	29	17	87	165	A

Harmonic constants for constituent O1 for deployment NWFB1506.

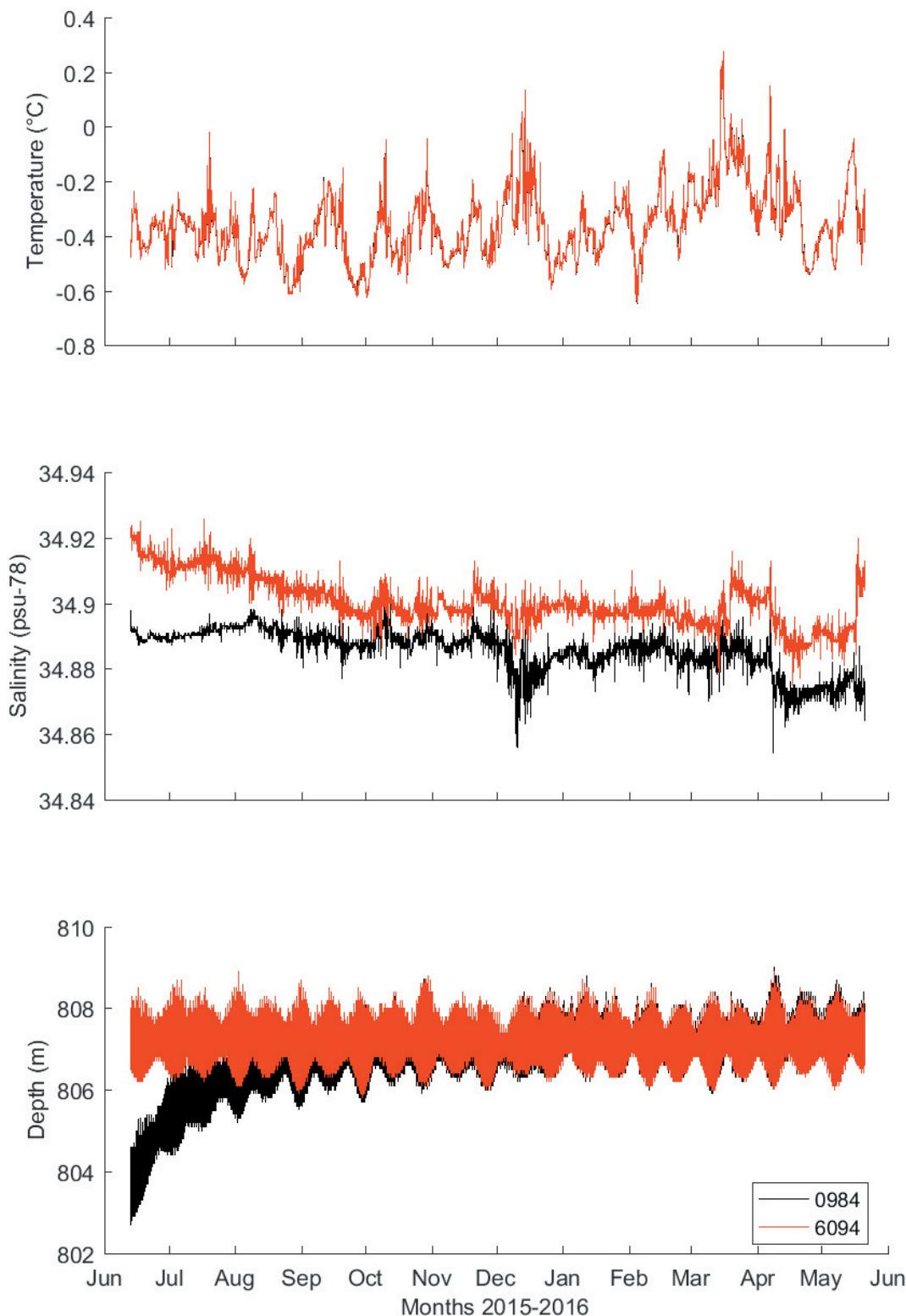
Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	770	17	319	11	154	20	2	147	144	A
02	745	16	319	11	153	20	2	146	143	A
03	720	17	321	13	150	21	2	142	144	A
04	695	16	323	14	149	21	1	139	146	A
05	670	16	325	16	151	23	1	136	148	A
06	645	19	331	18	151	26	0	137	151	A
07	620	23	337	20	156	31	0	139	156	C
08	595	28	341	26	162	39	0	137	162	A
09	570	30	350	29	167	41	1	136	169	C
10	545	26	354	28	165	38	3	132	169	C
11	520	20	3	23	174	31	2	131	178	C
12	495	17	12	19	183	26	2	132	187	C
13	470	15	25	18	196	23	2	130	200	C
14	445	14	32	15	204	20	1	133	208	C
15	420	11	40	11	211	15	1	136	216	C
16	395	10	40	9	204	14	2	139	213	C
17	370	11	37	9	206	15	1	140	212	C
18	345	12	37	11	207	17	1	137	213	C
19	320	11	34	11	211	15	0	136	212	C
20	295	11	38	11	210	15	1	135	214	C
21	270	11	37	13	214	17	0	130	216	C
22	245	11	49	13	231	17	0	130	230	A
23	220	8	11	9	245	11	6	131	221	A
24	195	7	11	5	207	9	1	144	196	A

## NWFB1506 ADCP 1285

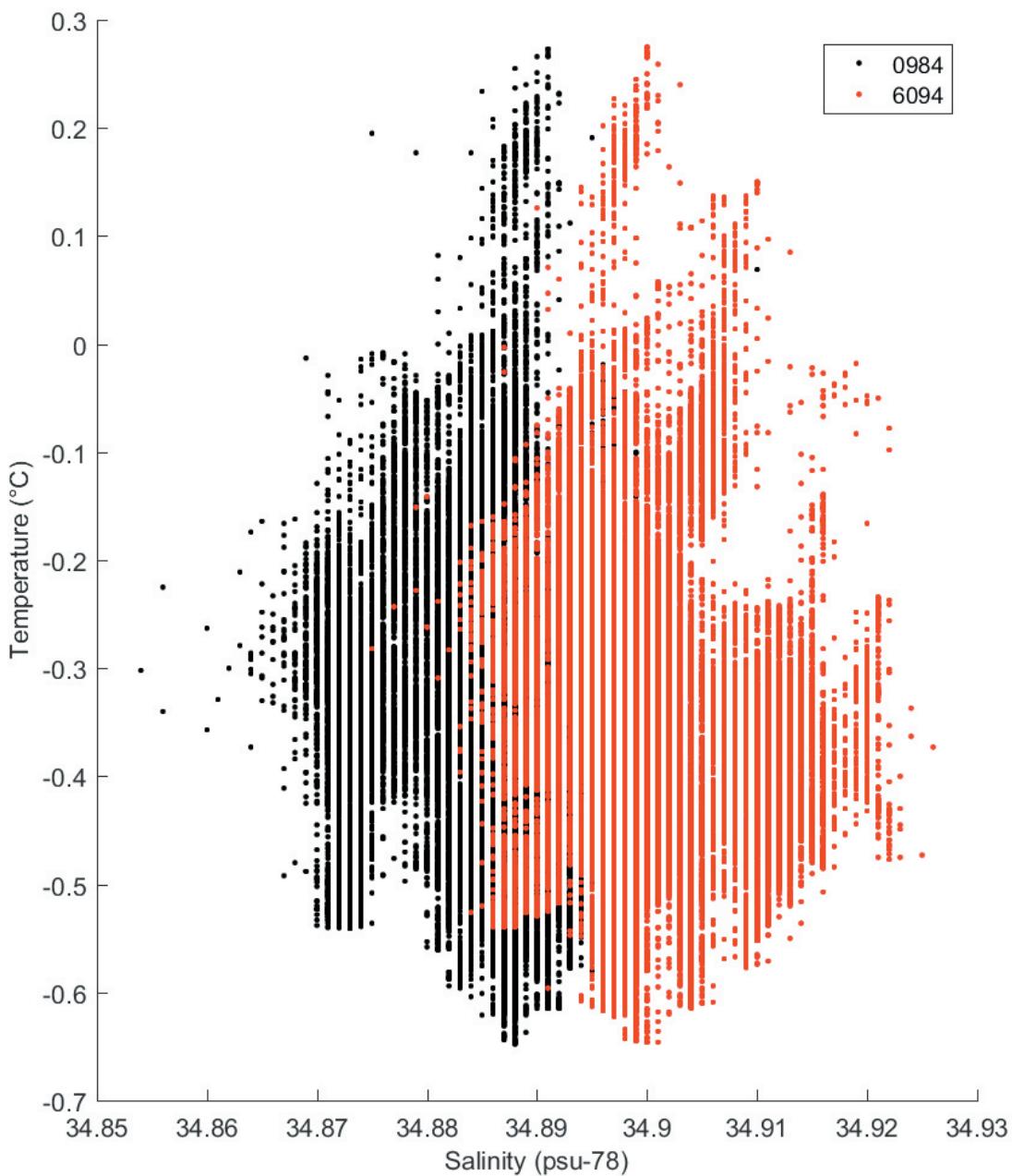
Harmonic constants for constituent K1 for deployment NWFB1506.

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	14	223	13	42	19	0	138	43	C
02	745	17	217	15	41	22	1	139	39	A
03	720	17	214	16	42	24	1	137	38	A
04	695	16	215	16	40	23	1	134	38	A
05	670	17	216	16	43	23	1	135	40	A
06	645	18	222	17	48	25	1	137	45	A
07	620	25	231	20	50	32	0	141	51	C
08	595	29	239	26	52	39	3	139	56	C
09	570	28	246	32	55	42	4	132	60	C
10	545	21	251	32	55	38	5	123	60	C
11	520	16	252	28	57	32	4	119	60	C
12	495	10	257	25	63	27	2	112	65	C
13	470	9	281	21	66	23	5	110	70	C
14	445	11	286	19	75	21	5	117	82	C
15	420	10	287	18	80	20	4	117	86	C
16	395	9	282	19	77	21	4	115	82	C
17	370	10	283	20	73	22	4	113	78	C
18	345	10	277	19	75	21	3	117	80	C
19	320	9	279	17	77	19	3	117	82	C
20	295	12	280	15	82	19	3	127	89	C
21	270	13	279	16	88	20	2	130	92	C
22	245	18	280	19	100	27	0	133	100	A
23	220	21	291	22	116	31	1	134	114	A
24	195	19	292	20	142	26	7	134	127	A

## NWFB1506 MicroCats 0984 and 6094



## NWFB1506 MicroCats 0984 and 6094





# NWFC1506

**Latitude:** 61°23.400'N

**Longitude:** 008°18.900'W

**Echo sounding depth:** 831 m

**Bottom depth corr.:** 841 m

**Time of deployment:** 13/6 - 2015 0324 UTC

**Time of recovery:** 21/5 - 2016 0850 UTC

## ADCP:

**Instrument no.:** RDI ADCP 1642

**Instrument frequency:** 75 kHz

**Height above bottom:** 6 m

**Depth:** 835 m

**Time of first data:** 13/6 - 2015 0340 UTC

**Time of last data:** 21/5 - 2016 0820 UTC

**Sample interval:** 20 min

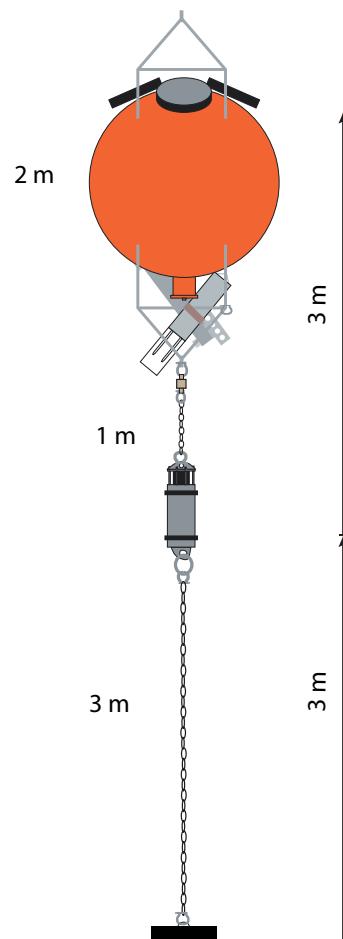
**No. of ensembles:** 24711

**Pings per ens.:** 1

**Binlength:** 25 m

**Depth of first bin:** 799 m

**No. of bins:** 18



## MicroCat

**Instrument no.:** 5184

**Height above bottom:** 5 m

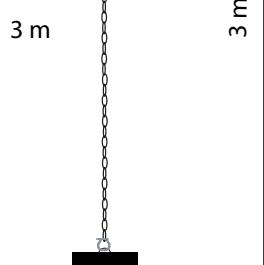
**Instrument depth:** 836 m

**Time of first data:** 13/6 - 2015 0340 UTC

**Time of last data:** 21/5 - 2016 0850 UTC

**Sample interval:** 10 min

**No. of ensembles:** 49424



## Data:

The temperature from the ADCP is not edited.

The temperature and pressure from the MicroCat are calibrated against a SBE911+.

The salinity from the MicroCat have a drift.

## NWFC1506 ADCP 1642

Error statistics for deployment: NWFC1506 updated 2016/10/18

Temperature not edited  
Surface distance not edited  
Heading, pitch and roll not edited  
Intensity not edited

Velocity edited using these data filters:

Minimum Intensity: 60.0  
Maximum Speed, number of std dev for each bin: 5.0  
Maximum Error Velocity (erv\_tr+0.1\*spd): 150.0  
Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 1): 4.50  
Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 18): 3.51  
Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 32): 2.00  
Vertical Speed Spikes, u and v deviated from 3 point median by number of std dev: 5.0

Total number of ensembles: 24711  
Interval between ensembles: 20 min  
Original number of bins: 32  
Number of acceptable velocity bins: 18

Flagged values have been replaced by error codes: -999.99 for temperature and depth, -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.	Velocity	Number of velocity gaps of length												
			ens.	ens.	%	1	2	3	4	5	6-10	11-20	21-30	31-50	>50
flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd	flgd
1	0	419	2	333	27	8	2	0	0	0	0	0	0	0	0
2	0	40	0	38	1	0	0	0	0	0	0	0	0	0	0
3	0	55	0	51	2	0	0	0	0	0	0	0	0	0	0
4	0	130	1	102	9	2	1	0	0	0	0	0	0	0	0
5	0	432	2	229	36	15	2	4	4	2	0	0	0	0	0
6	0	800	3	368	67	20	5	6	15	6	0	0	0	0	0
7	0	987	4	536	76	17	5	3	8	7	2	0	0	0	0
8	0	1122	5	750	89	22	6	1	7	3	0	0	0	0	0
9	0	1129	5	758	113	30	6	2	1	1	0	0	0	0	0
10	0	759	3	482	88	17	6	2	2	0	0	0	0	0	0
11	0	545	2	322	48	20	6	2	3	1	0	0	0	0	0
12	0	403	2	232	35	16	1	2	4	1	0	0	0	0	0
13	0	391	2	215	28	13	1	0	5	1	1	0	0	0	0
14	0	569	2	271	44	12	10	4	4	4	0	1	0	0	0
15	0	1409	6	392	92	43	25	12	26	16	3	1	0	0	0
16	0	3403	14	595	177	79	46	34	59	36	15	9	2	0	0
17	0	6346	26	723	213	104	69	41	101	57	26	27	12	0	0
18	0	10281	42	783	259	141	85	59	128	109	51	31	26	0	0

## NWFC1506 ADCP 1642

Deployment: NWFC1506 updated 2016/10/18  
Instrument no.: 1642  
Instrument freq.: 75  
Latitude: 61 23.400 N  
Longitude: 08 18.900 W  
Bottom depth: 841  
Instrument depth: 835  
Center depth of first bin: 799  
Bin length: 25  
Number of bins: 18  
Number of first ensemble: 276  
Time of first ensemble: 2015 06 13 03 40  
Number of last ensemble: 24986  
Time of last ensemble: 2016 05 21 08 20  
Time between ensembles (min.): 20  
All directions have been corrected by adding: -6.0

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	799	42	1001	994	306	983
2	774	67	1073	1067	308	998
3	749	92	1076	1070	310	998
4	724	117	1057	1051	312	995
5	699	142	1020	1013	312	983
6	674	167	934	921	312	968
7	649	192	771	744	312	960
8	624	217	569	507	314	955
9	599	242	393	274	319	954
10	574	267	287	107	330	969
11	549	292	234	30	37	978
12	524	317	210	54	103	984
13	499	342	201	77	115	984
14	474	367	197	90	119	977
15	449	392	193	94	120	943
16	424	417	191	94	120	862
17	399	442	193	97	121	743
18	374	467	198	104	122	584

## NWFC1506 ADCP 1642

Frequency of high speeds.

=====

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

Bin Depth no.	m	Speed (cm/s)																	
		10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1  799	983	983	982	982	978	968	941	873	732	515	274	104	28	5	1	0	0	0	0
2  774	998	998	998	998	995	987	972	942	863	712	477	215	56	10	1	0	0	0	0
3  749	998	997	997	997	993	984	972	944	866	724	489	220	56	9	1	0	0	0	0
4  724	995	994	992	990	986	975	960	927	841	680	442	192	46	8	1	0	0	0	0
5  699	980	977	973	969	961	947	920	867	758	589	374	164	44	8	1	0	0	0	0
6  674	964	954	942	925	901	863	802	714	593	449	277	127	37	7	1	0	0	0	0
7  649	946	906	864	812	747	668	583	491	385	270	159	68	19	3	0	0	0	0	0
8  624	909	800	691	594	506	426	350	272	195	123	61	23	6	1	0	0	0	0	0
9  599	859	658	488	369	283	215	160	113	73	38	15	5	2	0	0	0	0	0	0
10  574	831	554	339	212	139	93	61	36	18	7	3	1	0	0	0	0	0	0	0
11  549	817	495	253	123	60	32	18	8	3	1	0	0	0	0	0	0	0	0	0
12  524	802	451	200	80	32	12	5	1	0	0	0	0	0	0	0	0	0	0	0
13  499	794	433	176	64	20	5	2	0	0	0	0	0	0	0	0	0	0	0	0
14  474	788	416	165	56	16	2	0	0	0	0	0	0	0	0	0	0	0	0	0
15  449	757	390	148	47	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0
16  424	686	348	128	40	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0
17  399	594	305	116	40	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0
18  374	472	248	99	36	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0

## NWFC1506 ADCP 1642

Harmonic constants for constituent M2 for deployment NWFC1506.

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	799	12	73	6	265	14	1	155	255	A
02	774	16	75	8	266	18	1	153	257	A
03	749	18	76	11	271	21	2	148	260	A
04	724	19	80	15	280	24	4	142	268	A
05	699	21	87	22	298	29	8	134	283	A
06	674	35	109	35	314	48	11	135	301	A
07	649	57	125	41	325	69	11	145	311	A
08	624	67	140	30	332	73	6	156	322	A
09	599	56	161	1	166	56	0	1	161	C
10	574	44	199	36	153	53	22	37	182	A
11	549	47	231	61	156	63	44	67	172	A
12	524	52	245	73	161	73	51	82	167	A
13	499	55	253	79	165	79	55	86	168	A
14	474	58	259	81	170	81	58	88	171	A
15	449	58	264	83	175	83	58	90	175	A
16	424	58	270	83	179	83	58	90	179	A
17	399	59	275	85	183	85	59	93	181	A
18	374	61	280	87	186	88	61	95	182	A

Harmonic constants for constituent S2 for deployment NWFC1506.

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	799	6	98	5	336	7	4	146	297	A
02	774	7	97	5	339	8	4	158	288	A
03	749	9	102	7	328	11	4	146	298	A
04	724	10	108	8	329	13	4	143	303	A
05	699	11	119	12	338	16	6	131	321	A
06	674	15	135	16	345	21	6	134	331	A
07	649	23	150	19	352	29	6	141	338	A
08	624	25	159	14	352	29	3	151	342	A
09	599	21	183	2	322	21	2	175	3	C
10	574	18	230	12	197	21	5	31	221	A
11	549	19	266	23	192	25	17	63	212	A
12	524	21	281	29	200	29	20	77	209	A
13	499	22	286	31	205	31	22	78	213	A
14	474	21	291	31	209	31	21	81	215	A
15	449	22	298	32	210	32	22	87	213	A
16	424	22	303	32	213	32	22	90	213	A
17	399	22	311	34	221	34	22	91	220	A
18	374	24	329	35	226	36	23	105	216	A

## NWFC1506 ADCP 1642

Harmonic constants for constituent N2 for deployment NWFC1506.

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	799	8	45	6	234	10	1	145	228	A
02	774	7	50	5	235	9	0	143	232	A
03	749	8	50	6	232	10	0	145	231	A
04	724	9	58	6	242	11	0	144	239	A
05	699	9	68	8	265	12	2	138	256	A
06	674	12	74	12	280	16	4	133	268	A
07	649	18	92	13	297	21	4	146	280	A
08	624	21	116	9	339	22	6	160	302	A
09	599	19	146	10	61	19	10	4	144	A
10	574	19	171	15	94	19	14	21	156	A
11	549	19	189	18	113	21	16	38	158	A
12	524	17	199	19	121	20	16	56	149	A
13	499	16	208	19	129	19	15	64	150	A
14	474	13	215	17	137	18	13	71	151	A
15	449	10	219	16	147	16	10	72	158	A
16	424	11	227	15	153	16	10	69	167	A
17	399	9	221	15	159	16	8	70	169	A
18	374	10	217	13	152	14	9	59	172	A

Harmonic constants for constituent O1 for deployment NWFC1506.

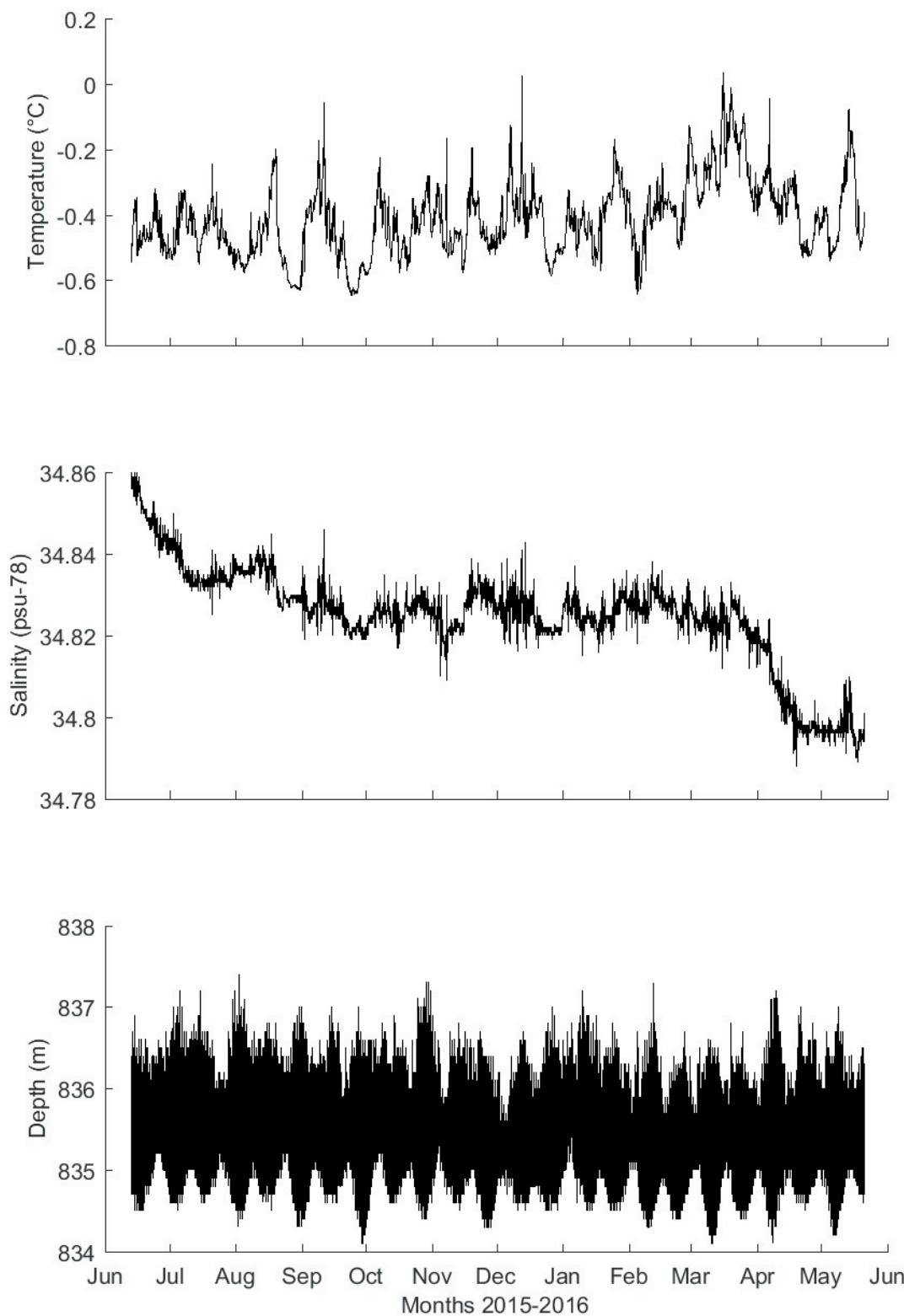
Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
<hr/>										
01	799	14	344	11	170	18	1	140	166	A
02	774	13	347	11	168	17	0	141	167	A
03	749	13	343	12	169	18	1	137	166	A
04	724	14	342	14	170	20	1	134	166	A
05	699	17	346	18	174	24	2	134	170	A
06	674	27	348	26	172	37	1	136	170	A
07	649	37	351	33	174	49	1	138	172	A
08	624	39	347	33	173	51	3	140	169	A
09	599	29	345	29	178	41	5	135	171	A
10	574	19	359	24	183	31	1	128	182	A
11	549	17	17	20	186	26	3	131	191	C
12	524	15	19	17	190	23	2	132	194	C
13	499	14	23	14	192	20	2	134	197	C
14	474	13	15	14	191	19	1	131	193	C
15	449	12	20	14	198	18	0	130	199	C
16	424	11	21	13	200	17	0	130	200	C
17	399	12	16	15	204	20	1	130	201	A
18	374	11	28	13	218	17	1	130	214	A

## NWFC1506 ADCP 1642

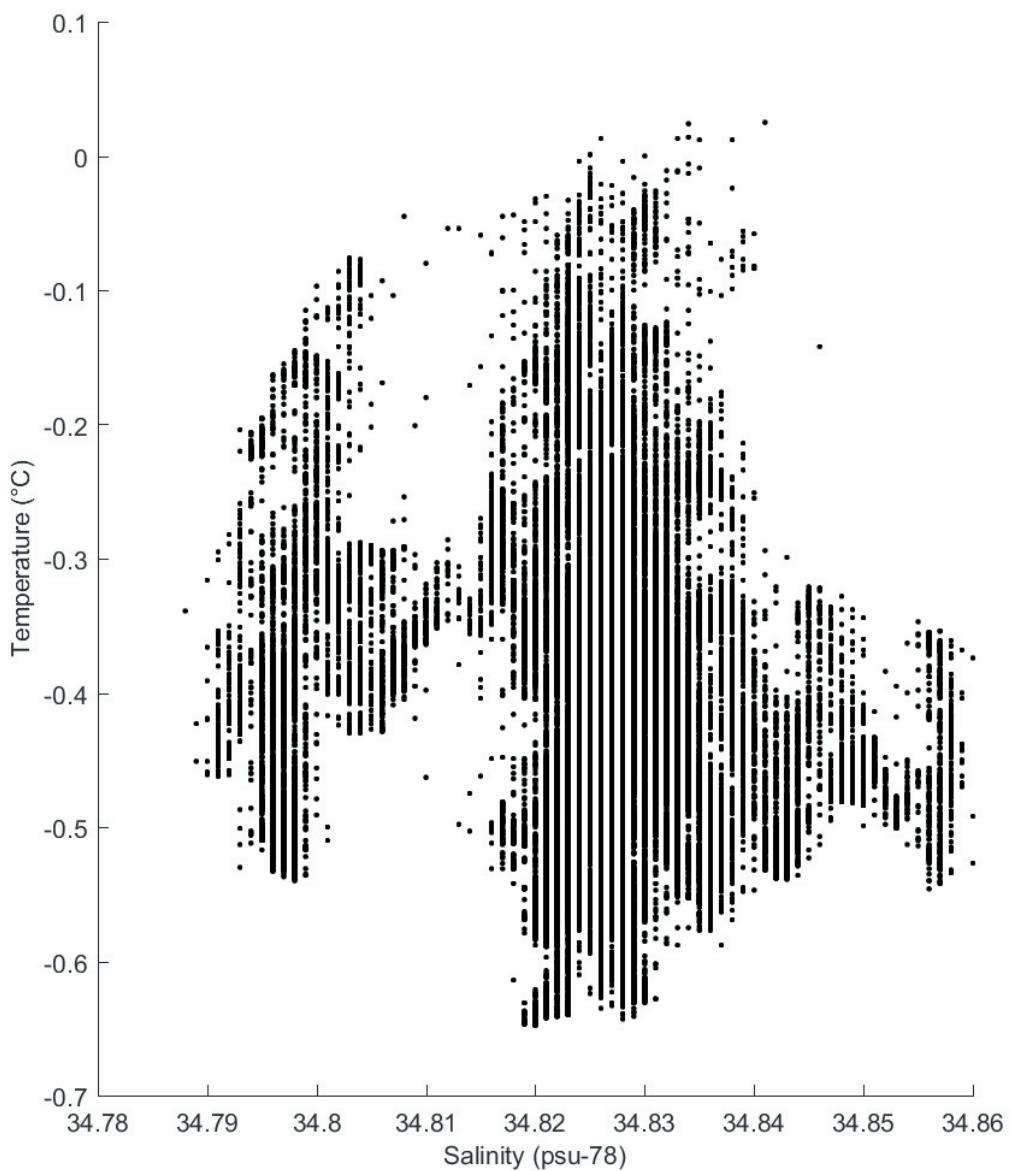
Harmonic constants for constituent K1 for deployment NWFC1506.

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	799	16	235	9	56	18	0	151	55	A
02	774	17	226	12	47	20	0	145	46	A
03	749	17	228	14	46	22	0	140	47	C
04	724	16	232	16	50	22	0	135	51	C
05	699	17	240	21	58	27	1	129	59	C
06	674	26	241	26	66	36	1	135	64	A
07	649	36	247	32	70	48	1	138	68	A
08	624	36	252	37	72	51	0	135	72	A
09	599	30	257	36	76	47	0	130	76	C
10	574	22	261	27	84	35	1	129	83	A
11	549	17	267	22	87	28	0	128	87	C
12	524	15	270	20	84	25	1	127	87	C
13	499	11	276	19	83	22	2	121	86	C
14	474	9	284	18	80	20	3	115	85	C
15	449	10	283	17	81	20	3	118	86	C
16	424	11	281	18	81	21	3	120	86	C
17	399	10	268	19	80	22	1	118	82	C
18	374	9	277	18	83	20	2	117	86	C

## NWFC1506 MicroCat 5184



## NWFC1506 MicroCat 5184





# NWNB1506

**Latitude:** 62°55.000'N

**Longitude:** 006°05.000'W

**Echo sound depth:** 974 m

**Bottom depth corr.:** 947 m

**Time of deployment:** 14/6 - 2015 1050 UTC

**Time of recovery:** 19/5 - 2016 0510 UTC

## ADCP:

**Instrument no.:** RDI ADCP 1644

**Instrument frequency:** 75 kHz

**Height above bottom:** 254 m

**Depth:** 693 m

**Time of first data:** 14/6 - 2015 1140 UTC

**Time of last data:** 19/5 - 2016 0500 UTC

**Sample interval:** 20 min

**No. of ensembles:** 24461

**Pings per ens.:** 1

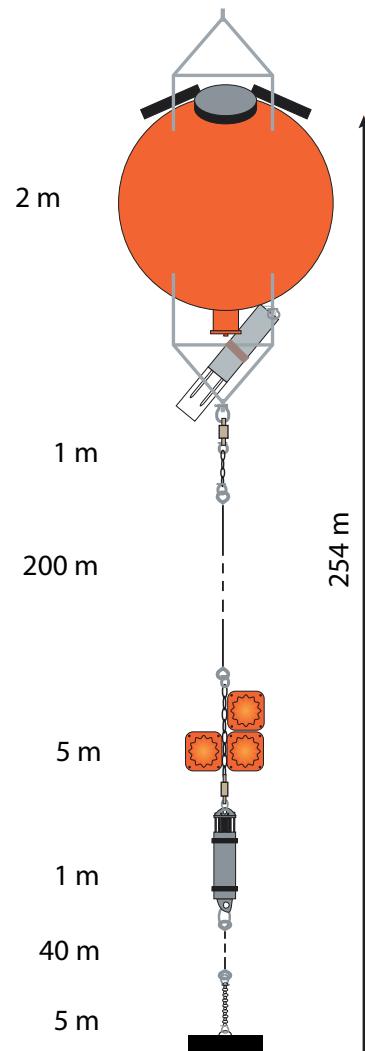
**Binlength:** 25 m

**Depth of first bin:** 657 m

**No. of bins:** 22

## Data:

All data ok.



## NWNB1506 ADCP 1644

Error statistics for deployment: NWNB1506 updated 2016/10/18

Temperature edited

Surface distance not edited

Heading, pitch and roll not edited

Intensity not edited

Velocity edited using these data filters:

Maximum Speed, number of std dev for each bin: 5.0

Maximum Error Velocity (erv\_tr+0.1\*spd):100.0

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 1): 6.00

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 22): 3.63

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 32): 1.00

Vertical Speed Spikes, u and v deviated from 3 point median by number of std dev: 4.0

Total number of ensembles: 24461

Interval between ensembles: 20 min

Original number of bins: 32

Number of acceptable velocity bins: 22

Flagged values have been replaced by error codes: -999.99 for temperature and depth, -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.	Velocity ens.	%	Number of velocity gaps of length											
				flgd	flgd	flgd	1	2	3	4	5	6-10	11-20	21-30	31-50
1	0	27	0	27	0	0	0	0	0	0	0	0	0	0	0
2	0	52	0	48	2	0	0	0	0	0	0	0	0	0	0
3	0	57	0	55	1	0	0	0	0	0	0	0	0	0	0
4	0	61	0	51	5	0	0	0	0	0	0	0	0	0	0
5	0	62	0	41	6	3	0	0	0	0	0	0	0	0	0
6	0	83	0	47	9	2	3	0	0	0	0	0	0	0	0
7	0	78	0	51	12	1	0	0	0	0	0	0	0	0	0
8	0	94	0	68	10	2	0	0	0	0	0	0	0	0	0
9	0	88	0	68	7	2	0	0	0	0	0	0	0	0	0
10	0	80	0	70	5	0	0	0	0	0	0	0	0	0	0
11	0	125	1	112	5	1	0	0	0	0	0	0	0	0	0
12	0	166	1	145	9	1	0	0	0	0	0	0	0	0	0
13	0	149	1	126	10	1	0	0	0	0	0	0	0	0	0
14	0	226	1	180	20	2	0	0	0	0	0	0	0	0	0
15	0	238	1	169	17	5	2	0	0	0	1	0	0	0	0
16	0	594	2	267	29	11	5	2	7	10	1	0	0	0	0
17	0	1870	8	267	63	36	26	9	42	33	13	2	0	0	0
18	0	4133	17	336	105	38	26	16	63	70	33	26	0	0	0
19	0	6154	25	401	106	45	40	29	81	67	53	54	2	0	0
20	0	8410	34	540	156	79	47	30	110	66	66	86	3	0	0
21	0	10670	44	572	191	82	63	46	117	81	60	99	23	0	0
22	0	12953	53	712	235	108	69	56	127	113	57	97	42	0	0

## NWNB1506 ADCP 1644

Deployment: NWNB1506 updated 2016/10/18  
Instrument no.: 1644  
Instrument freq.: 75  
Latitude: 62 55.000 N  
Longitude: 06 05.000 W  
Bottom depth: 947  
Instrument depth: 693  
Center depth of first bin: 657  
Bin length: 25  
Number of bins: 22  
Number of first ensemble: 372  
Time of first ensemble: 2015 06 14 11 40  
Number of last ensemble: 24832  
Time of last ensemble: 2016 05 19 05 00  
Time between ensembles (min.): 20  
All directions have been corrected by adding: -5.0

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	657	290	126	12	96	999
2	632	315	126	6	90	998
3	607	340	127	2	44	998
4	582	365	127	4	333	998
5	557	390	129	6	309	997
6	532	415	134	7	300	997
7	507	440	139	8	290	997
8	482	465	142	5	288	996
9	457	490	144	1	186	996
10	432	515	149	9	124	997
11	407	540	155	23	119	995
12	382	565	164	39	117	993
13	357	590	173	55	116	994
14	332	615	185	72	117	991
15	307	640	201	90	117	990
16	282	665	216	106	117	976
17	257	690	230	120	117	924
18	232	715	242	131	118	831
19	207	740	255	143	118	748
20	182	765	268	156	119	656
21	157	790	279	163	119	564
22	132	815	285	161	120	470

## NWNB1506 ADCP 1644

Frequency of high speeds.

=====

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

=====

Bin	Depth	Speed (cm/s)																			
		no.	m	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	657	565	160	33	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	632	566	159	30	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	607	577	161	28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	582	582	163	27	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	557	595	170	27	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	532	613	188	33	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	507	633	210	40	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	482	644	225	49	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	457	655	231	51	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	432	677	245	53	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	407	706	267	63	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	382	735	303	80	19	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	357	756	334	105	28	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	332	785	381	133	34	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	307	821	446	169	49	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	282	829	501	215	67	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	257	798	510	248	86	22	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	232	721	484	253	102	29	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	207	655	455	258	118	41	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0
20	182	584	412	248	125	48	14	2	1	0	0	0	0	0	0	0	0	0	0	0	0
21	157	503	363	228	124	54	18	3	1	0	0	0	0	0	0	0	0	0	0	0	0
22	132	418	303	194	109	54	21	6	1	0	0	0	0	0	0	0	0	0	0	0	0

## NWNB1506 ADCP 1644

Harmonic constants for constituent M2 for deployment NWNB1506.

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	657	73	266	44	128	81	27	153	95	A
02	632	75	267	43	133	82	28	155	96	A
03	607	78	269	43	139	83	31	157	98	A
04	582	81	271	43	144	85	33	159	99	A
05	557	85	273	44	152	89	36	162	100	A
06	532	91	276	45	160	94	39	165	103	A
07	507	98	279	48	168	100	44	168	105	A
08	482	104	283	50	178	105	48	171	107	A
09	457	108	288	51	190	108	50	175	111	A
10	432	113	295	55	204	113	55	180	115	A
11	407	120	300	60	215	120	60	4	298	A
12	382	124	304	66	225	125	64	7	301	A
13	357	122	310	68	235	124	65	11	304	A
14	332	122	315	71	245	125	65	16	307	A
15	307	123	319	77	252	128	68	19	308	A
16	282	124	323	81	257	130	71	21	311	A
17	257	123	325	84	259	131	72	23	312	A
18	232	118	328	85	263	127	72	25	312	A
19	207	117	329	89	265	128	74	29	312	A
20	182	117	331	93	270	130	73	32	312	A
21	157	115	334	95	270	128	76	33	313	A
22	132	108	337	90	271	119	75	32	316	A

Harmonic constants for constituent S2 for deployment NWNB1506.

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	657	32	309	17	194	34	15	164	136	A
02	632	33	310	17	197	34	16	165	138	A
03	607	32	315	16	205	33	15	168	141	A
04	582	32	320	14	216	32	14	172	143	A
05	557	32	324	14	229	32	14	177	146	A
06	532	30	327	13	235	30	13	179	147	A
07	507	30	330	12	245	30	12	2	329	A
08	482	33	332	13	248	33	13	3	331	A
09	457	34	331	15	246	34	15	3	330	A
10	432	35	334	16	251	35	16	4	332	A
11	407	36	339	16	259	36	16	5	337	A
12	382	38	346	17	273	38	16	9	342	A
13	357	40	352	20	284	41	18	13	346	A
14	332	40	352	19	289	41	17	14	347	A
15	307	37	353	18	294	38	15	16	346	A
16	282	33	355	17	305	35	12	22	347	A
17	257	32	3	22	314	35	14	30	350	A
18	232	30	10	23	316	34	16	32	353	A
19	207	35	11	26	318	40	19	32	355	A
20	182	42	16	30	318	46	23	29	0	A
21	157	44	16	33	310	48	28	28	359	A
22	132	43	19	32	310	46	28	26	2	A

## NWNB1506 ADCP 1644

Harmonic constants for constituent N2 for deployment NWNB1506.

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	657	10	233	8	62	13	1	140	56	A
02	632	9	230	9	59	13	1	136	54	A
03	607	9	227	10	57	13	1	134	52	A
04	582	9	222	10	58	13	2	132	51	A
05	557	9	226	9	64	13	2	135	55	A
06	532	12	240	8	75	14	2	147	64	A
07	507	13	252	5	100	14	2	161	75	A
08	482	16	254	5	124	16	4	168	77	A
09	457	19	252	7	123	20	5	166	76	A
10	432	23	252	11	131	24	9	165	78	A
11	407	24	258	11	153	25	10	172	81	A
12	382	24	268	12	174	24	12	178	89	A
13	357	24	274	12	198	24	12	9	270	A
14	332	22	280	11	210	22	10	13	273	A
15	307	21	285	10	211	21	9	9	281	A
16	282	23	291	11	221	23	10	11	286	A
17	257	23	296	13	225	24	12	15	288	A
18	232	21	299	14	235	22	12	22	287	A
19	207	20	300	14	233	21	12	24	286	A
20	182	23	308	17	245	25	14	29	290	A
21	157	23	309	21	240	25	17	36	283	A
22	132	21	302	16	245	24	12	31	285	A

Harmonic constants for constituent O1 for deployment NWNB1506.

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	657	5	38	1	41	5	0	10	38	C
02	632	6	37	1	344	6	1	7	36	A
03	607	6	39	1	10	6	1	9	38	A
04	582	6	44	1	51	6	0	14	45	C
05	557	5	46	1	123	5	1	2	47	C
06	532	6	54	1	46	6	0	9	53	A
07	507	8	50	1	337	8	1	2	50	A
08	482	9	40	1	280	9	1	176	220	A
09	457	9	30	2	264	9	2	173	211	A
10	432	10	39	3	301	10	3	177	219	A
11	407	11	49	5	293	12	4	168	233	A
12	382	10	51	6	266	12	3	154	238	A
13	357	10	50	7	257	12	3	147	238	A
14	332	12	37	7	280	13	6	161	226	A
15	307	14	38	7	290	14	7	169	223	A
16	282	14	43	7	321	14	7	6	40	A
17	257	13	46	8	314	13	8	179	227	A
18	232	16	32	8	286	16	8	169	217	A
19	207	15	32	10	295	16	10	172	217	A
20	182	16	22	10	314	16	9	19	12	A
21	157	10	24	16	330	18	8	64	341	A
22	132	7	332	15	321	17	1	66	323	A

## NWNB1506 ADCP 1644

Harmonic constants for constituent K1 for deployment NWNB1506.

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	657	4	297	3	189	5	3	154	135	A
02	632	5	301	2	188	5	2	165	128	A
03	607	4	305	2	170	5	1	164	129	A
04	582	4	306	1	158	4	1	163	129	A
05	557	5	291	3	168	6	2	160	120	A
06	532	5	286	4	157	6	3	148	121	A
07	507	6	267	4	144	7	3	154	100	A
08	482	9	267	7	131	10	4	148	101	A
09	457	10	269	7	138	11	5	147	105	A
10	432	9	278	6	141	10	4	149	110	A
11	407	8	283	4	133	9	2	157	108	A
12	382	7	266	4	111	8	2	151	92	A
13	357	9	255	6	115	10	3	147	87	A
14	332	11	255	8	111	13	4	144	88	A
15	307	13	263	9	129	15	6	151	95	A
16	282	12	269	8	146	13	6	154	103	A
17	257	12	276	7	166	12	7	162	106	A
18	232	7	316	3	209	7	3	171	139	A
19	207	9	346	1	293	9	1	3	346	A
20	182	9	357	3	334	9	1	19	355	A
21	157	5	89	10	344	10	5	100	339	A
22	132	14	106	17	345	19	10	124	325	A



# NWNH1506

**Latitude:** 63°30.183'N

**Longitude:** 006°04.399'W

**Echo sounding depth:** 1838 m

**Bottom depth corr.:** 1802 m

**Time of deployment:** 14/6 - 2015 0624 UTC

**Time of recovery:** 19/5 - 2016 0936 UTC

## ADCP:

**Instrument no.:** RDI ADCP 19518

**Instrument frequency:** 75 kHz

**Height above bottom:** 1168 m

**Depth:** 634 m

**Time of first data:** 14/6 - 2015 0700 UTC

**Time of last data:** 19/5 - 2016 0900 UTC

**Sample interval:** 20 min

**No. of ensembles:** 24487

**Pings per ens.:** 10

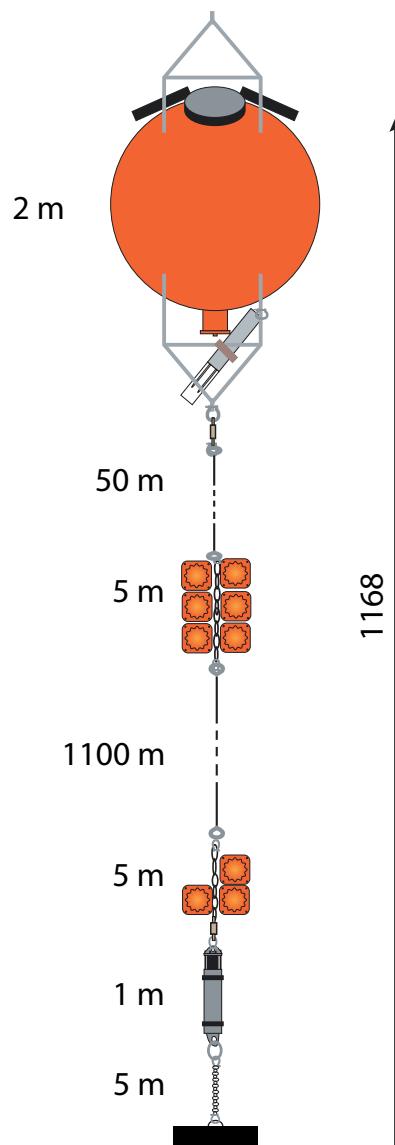
**Binlength:** 10 m

**Depth of first bin:** 615 m

**No. of bins:** 57

## Data:

All data ok.



## NWNH1506 ADCP 19518

Error statistics for deployment: NWNH1506 updated 2016/10/25

Temperature edited

Depth edited

Surface distance not edited

Heading, pitch and roll not edited

Intensity not edited

Velocity edited using these data filters:

Minimum Intensity: 50.0

Minimum Mean Correlation: 64.0

Maximum Speed, number of std dev for each bin: 5.0

Maximum Error Velocity (erv\_tr+0.1\*spd): 100.0

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 1): 4.00

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 57): 2.56

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 70): 2.00

Vertical Speed Spikes, u and v deviated from 3 point median by number of std dev: 4.0

Total number of ensembles: 24487

Interval between ensembles: 20 min

Original number of bins: 70

Number of acceptable velocity bins: 57

Flagged values have been replaced by error codes: -999.99 for temperature and depth, -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 depth ens. flagged : 0

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	101	0	97	2	0	0	0	0	0	0	0
2	0	101	0	99	1	0	0	0	0	0	0	0
3	0	115	0	100	6	1	0	0	0	0	0	0
4	0	111	0	91	10	0	0	0	0	0	0	0
5	0	116	0	104	6	0	0	0	0	0	0	0
6	0	134	1	115	8	1	0	0	0	0	0	0
7	0	145	1	122	10	1	0	0	0	0	0	0
8	0	136	1	126	4	0	0	0	0	0	0	0
9	0	136	1	128	8	0	0	0	0	0	0	0
10	0	137	1	121	0	0	0	0	0	0	0	0
11	0	140	1	124	0	0	0	0	0	0	0	0
12	0	138	1	123	0	0	0	0	0	0	0	0
13	0	157	1	138	0	0	0	0	0	0	0	0
14	0	173	1	160	5	3	0	0	0	0	0	0
15	0	167	1	161	0	0	0	0	0	0	0	0
16	0	188	1	163	11	0	0	0	0	0	0	0
17	0	175	1	155	10	0	1	0	0	0	0	0
18	0	201	1	178	10	1	1	0	0	0	0	0
19	0	182	1	153	13	0	0	0	0	0	0	0
20	0	229	1	198	14	0	0	0	0	0	0	0
21	0	208	1	182	13	0	1	0	0	0	0	0
22	0	220	1	183	17	9	1	0	0	0	0	0
23	0	248	1	219	23	4	2	3	4	2	0	0
24	0	276	1	217	18	0	0	0	0	0	0	0
25	0	289	1	241	18	0	0	0	0	0	0	0
26	0	289	1	257	13	0	0	0	0	0	0	0
27	0	320	1	258	25	0	0	0	0	0	0	0
28	0	313	1	269	19	0	0	0	0	0	0	0
29	0	341	1	273	31	0	0	0	0	0	0	0
30	0	390	2	310	35	0	0	0	0	0	0	0
31	0	378	2	298	30	1	0	0	0	0	0	0
32	0	397	2	325	31	0	0	0	0	0	0	0
33	0	444	2	344	35	0	0	0	0	0	0	0
34	0	481	2	370	45	4	2	0	0	0	0	0
35	0	498	2	390	48	0	0	0	0	0	0	0
36	0	501	2	384	46	6	2	0	0	0	0	0
37	0	555	2	426	46	7	8	7	0	0	0	0
38	0	585	2	440	56	7	7	0	0	0	0	0
39	0	659	3	481	69	7	7	0	0	0	0	0
40	0	691	3	463	58	16	23	0	0	0	0	0
41	0	819	3	511	78	23	24	0	0	0	0	0
42	0	957	4	473	82	30	16	0	0	0	0	0
43	0	1128	5	100	28	16	13	0	0	0	0	0
44	0	1503	6	92	52	31	37	0	0	0	0	0
45	0	2003	8	446	110	43	29	0	0	0	0	0
46	0	2619	11	407	130	51	31	0	0	0	0	0
47	0	3287	13	412	109	53	47	0	0	0	0	0
48	0	3942	16	414	112	61	29	0	0	0	0	0
49	0	4640	19	414	127	48	38	0	0	0	0	0
50	0	5458	22	411	113	54	34	0	0	0	0	0
51	0	6332	26	429	123	61	39	0	0	0	0	0
52	0	7075	29	446	115	51	34	0	0	0	0	0
53	0	7694	31	486	134	63	34	0	0	0	0	0
54	0	8243	34	541	156	68	32	0	0	0	0	0
55	0	8765	36	668	155	65	30	0	0	0	0	0
56	0	9249	38	713	180	80	50	0	0	0	0	0
57	0	11481	47	1094	285	110	60	27	83	109	109	14

## NWNH1506 ADCP 19518

Deployment: NWNH1506 updated 2016/10/25  
 Instrument no.: 19518  
 Instrument freq.: 75  
 Latitude: 63 30.183 N  
 Longitude: 06 04.399 W  
 Bottom depth: 1802  
 Instrument depth: 634  
 Center depth of first bin: 615  
 Bin length: 10  
 Number of bins: 57  
 Number of first ensemble: 358  
 Time of first ensemble: 2015 06 14 07 00  
 Number of last ensemble: 24844  
 Time of last ensemble: 2016 05 19 09 00  
 Time between ensembles (min.): 20  
 All directions have been corrected by adding: -6.0

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	615	1187	90	26	123	996
2	605	1197	92	27	127	996
3	595	1207	91	27	127	995
4	585	1217	91	27	127	995
5	575	1227	92	27	127	995
6	565	1237	92	27	127	995
7	555	1247	92	26	127	994
8	545	1257	93	27	129	994
9	535	1267	93	27	129	994
10	525	1277	94	27	129	994
11	515	1287	94	27	130	994
12	505	1297	95	28	130	994
13	495	1307	96	28	129	994
14	485	1317	97	27	129	993
15	475	1327	98	28	129	993
16	465	1337	99	28	129	992
17	455	1347	100	28	129	993
18	445	1357	101	28	128	992
19	435	1367	102	28	127	993
20	425	1377	102	28	128	991
21	415	1387	103	27	127	992
22	405	1397	104	27	126	991
23	395	1407	105	28	126	990
24	385	1417	106	27	125	989
25	375	1427	107	28	125	988
26	365	1437	109	27	124	988
27	355	1447	110	28	124	987
28	345	1457	113	28	124	987
29	335	1467	115	29	123	986
30	325	1477	117	29	125	984
31	315	1487	120	29	125	985
32	305	1497	122	30	126	984
33	295	1507	126	31	127	982
34	285	1517	127	32	126	980
35	275	1527	131	33	129	980
36	265	1537	134	34	129	980
37	255	1547	139	36	130	977
38	245	1557	144	39	130	976
39	235	1567	149	43	131	973
40	225	1577	153	46	132	972
41	215	1587	159	50	132	967
42	205	1597	165	54	131	961
43	195	1607	171	57	130	954
44	185	1617	177	60	128	939
45	175	1627	184	66	127	918
46	165	1637	191	71	126	893
47	155	1647	199	77	126	866
48	145	1657	206	81	125	839
49	135	1667	213	87	125	811
50	125	1677	221	92	125	777
51	115	1687	228	96	124	741
52	105	1697	235	100	123	711
53	95	1707	240	102	123	686
54	85	1717	245	103	122	663
55	75	1727	249	103	122	642
56	65	1737	255	100	122	622
57	55	1747	252	90	124	531

## NWNH1506 ADCP 19518

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	615	386	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	605	401	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	595	398	18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	585	393	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	575	399	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	565	402	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	555	398	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	545	407	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	535	414	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	525	414	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	515	416	25	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	505	424	27	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	495	432	31	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	485	429	33	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	475	442	36	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	465	448	40	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	455	455	43	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	445	457	46	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	435	464	49	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	425	468	52	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	415	471	52	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	405	476	59	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	395	483	58	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	385	490	63	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	375	499	65	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	365	513	73	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	355	518	76	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	345	530	86	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	335	544	92	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	325	554	99	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	315	570	111	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	305	579	120	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	295	596	134	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	285	602	144	20	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	275	613	152	24	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	265	626	171	27	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	255	645	188	32	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
38	245	662	204	41	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0
39	235	680	229	48	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0
40	225	692	251	57	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0
41	215	705	276	65	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0
42	205	713	298	76	16	4	0	0	0	0	0	0	0	0	0	0	0	0	0
43	195	731	319	88	21	5	1	0	0	0	0	0	0	0	0	0	0	0	0
44	185	734	338	98	23	7	1	0	0	0	0	0	0	0	0	0	0	0	0
45	175	732	354	111	29	8	1	0	0	0	0	0	0	0	0	0	0	0	0
46	165	727	368	126	35	10	2	0	0	0	0	0	0	0	0	0	0	0	0
47	155	714	383	136	43	14	3	0	0	0	0	0	0	0	0	0	0	0	0
48	145	700	390	150	52	17	5	0	0	0	0	0	0	0	0	0	0	0	0
49	135	684	397	160	57	20	7	1	0	0	0	0	0	0	0	0	0	0	0
50	125	664	397	174	66	24	8	2	0	0	0	0	0	0	0	0	0	0	0
51	115	639	394	179	70	28	10	3	0	0	0	0	0	0	0	0	0	0	0
52	105	617	390	187	76	31	12	4	1	0	0	0	0	0	0	0	0	0	0
53	95	595	385	188	82	33	13	5	2	1	0	0	0	0	0	0	0	0	0
54	85	578	377	192	87	37	15	6	3	1	0	0	0	0	0	0	0	0	0
55	75	559	369	194	93	39	15	6	3	1	0	0	0	0	0	0	0	0	0
56	65	547	363	197	99	44	18	7	3	1	0	0	0	0	0	0	0	0	0
57	55	460	305	168	83	36	15	6	2	1	0	0	0	0	0	0	0	0	0

## NWNH1506 ADCP 19518

Harmonic constants for constituent M2 for deployment NWNH1506.

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	615	48	294	56	268	72	17	50	279	A
02	605	51	293	57	268	75	16	49	279	A
03	595	50	292	57	269	74	15	49	279	A
04	585	50	292	55	269	73	15	48	279	A
05	575	49	291	55	269	73	14	49	278	A
06	565	49	290	55	268	73	14	48	278	A
07	555	50	289	53	269	72	13	47	278	A
08	545	50	288	53	267	72	13	47	277	A
09	535	50	287	53	267	72	13	46	276	A
10	525	51	286	52	267	72	12	46	276	A
11	515	51	285	51	265	71	12	45	275	A
12	505	52	283	50	263	71	12	44	273	A
13	495	52	281	48	262	70	12	43	273	A
14	485	53	280	47	261	70	12	42	272	A
15	475	54	280	46	259	70	12	40	271	A
16	465	54	277	46	258	70	12	40	269	A
17	455	55	277	45	257	70	12	39	269	A
18	445	55	275	44	256	69	12	38	268	A
19	435	55	275	44	255	69	12	38	267	A
20	425	55	274	43	254	69	12	38	267	A
21	415	54	273	42	254	68	11	37	266	A
22	405	55	271	41	254	68	10	36	265	A
23	395	54	270	39	253	66	9	35	264	A
24	385	55	268	37	252	66	9	34	263	A
25	375	55	265	35	250	65	8	32	261	A
26	365	56	264	34	248	64	8	31	260	A
27	355	55	262	33	247	63	8	30	258	A
28	345	56	259	29	243	63	7	27	256	A
29	335	57	257	29	239	63	8	26	254	A
30	325	58	255	27	235	63	9	24	252	A
31	315	59	253	24	232	63	8	21	250	A
32	305	60	251	23	227	64	9	19	248	A
33	295	62	248	21	219	65	10	17	245	A
34	285	64	245	19	206	66	12	14	243	A
35	275	66	243	19	196	67	14	12	240	A
36	265	68	240	19	184	69	16	10	238	A
37	255	71	238	20	172	71	18	7	236	A
38	245	74	236	22	161	74	22	5	234	A
39	235	78	233	25	152	78	25	3	232	A
40	225	82	231	29	144	82	29	1	230	A
41	215	86	229	32	137	86	32	179	49	A
42	205	89	226	37	131	89	37	177	47	A
43	195	92	224	41	126	92	41	176	46	A
44	185	94	221	44	122	94	43	175	43	A
45	175	96	217	48	114	97	46	172	41	A
46	165	98	214	51	112	99	49	172	39	A
47	155	100	212	55	106	101	52	168	38	A
48	145	101	209	57	100	104	53	166	37	A
49	135	102	207	58	98	105	53	166	34	A
50	125	103	206	61	96	106	56	164	34	A
51	115	104	204	63	94	108	57	163	33	A
52	105	106	205	63	92	109	56	163	34	A
53	95	105	204	64	92	109	57	162	34	A
54	85	103	205	63	93	107	57	162	34	A
55	75	101	204	63	96	104	58	164	33	A
56	65	102	205	61	97	104	57	165	33	A
57	55	99	206	58	98	102	54	165	35	A

## NWNH1506 ADCP 19518

Harmonic constants for constituent S2 for deployment NWNH1506.

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	615	15	313	15	315	21	0	46	314	C
02	605	16	315	16	313	22	0	46	314	A
03	595	15	314	16	312	22	0	47	313	A
04	585	16	313	15	312	22	0	44	313	A
05	575	15	314	16	312	22	0	45	313	A
06	565	15	314	16	309	22	1	47	311	A
07	555	15	314	15	309	22	1	46	311	A
08	545	16	314	16	307	23	1	46	310	A
09	535	16	312	16	308	23	1	45	310	A
10	525	17	312	16	307	23	1	43	310	A
11	515	16	311	16	307	23	1	44	309	A
12	505	17	309	15	311	23	0	43	310	C
13	495	16	311	16	311	22	0	45	311	C
14	485	16	312	16	314	23	0	45	313	C
15	475	16	310	16	314	22	1	44	312	C
16	465	17	310	15	315	22	1	42	312	C
17	455	17	310	15	314	23	1	42	312	C
18	445	17	309	16	313	23	1	44	311	C
19	435	16	310	15	311	22	0	43	311	C
20	425	17	308	16	313	23	1	43	310	C
21	415	17	312	16	310	24	1	44	311	A
22	405	17	312	16	309	23	1	43	311	A
23	395	18	312	15	306	23	1	40	309	A
24	385	19	308	16	304	24	1	40	306	A
25	375	19	310	16	299	25	3	38	306	A
26	365	20	311	16	296	25	3	38	305	A
27	355	21	312	15	293	26	4	35	305	A
28	345	22	310	15	288	27	5	34	303	A
29	335	23	308	15	285	27	5	32	301	A
30	325	23	307	16	280	28	6	34	299	A
31	315	24	306	17	277	28	7	34	297	A
32	305	25	305	16	273	29	7	32	296	A
33	295	26	302	16	271	29	7	30	294	A
34	285	25	298	15	271	29	6	30	291	A
35	275	25	296	15	270	28	6	29	290	A
36	265	24	291	13	268	27	5	27	286	A
37	255	24	287	12	268	27	3	25	283	A
38	245	24	283	10	259	26	4	21	280	A
39	235	25	283	10	253	26	5	20	279	A
40	225	24	283	9	249	25	5	19	279	A
41	215	24	286	10	261	25	4	21	282	A
42	205	24	287	10	263	26	4	22	284	A
43	195	25	286	10	260	27	4	21	282	A
44	185	25	282	9	249	26	5	17	279	A
45	175	26	278	8	242	27	4	14	276	A
46	165	27	276	8	235	28	5	13	273	A
47	155	28	276	9	221	29	8	12	273	A
48	145	28	273	10	219	29	8	13	270	A
49	135	31	271	12	218	32	9	14	267	A
50	125	32	270	13	207	32	12	13	265	A
51	115	34	265	15	197	34	13	11	260	A
52	105	38	259	14	196	39	12	10	256	A
53	95	38	255	13	186	38	13	8	253	A
54	85	40	250	10	194	40	8	9	248	A
55	75	38	256	12	205	39	9	12	253	A
56	65	34	253	11	207	35	8	14	250	A
57	55	31	252	11	201	32	9	14	248	A

## NWNH1506 ADCP 19518

Harmonic constants for constituent N2 for deployment NWNH1506.

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	615	15	268	15	224	19	8	45	246	A
02	605	16	268	15	225	20	8	40	250	A
03	595	16	269	14	225	20	8	40	251	A
04	585	16	270	15	225	20	8	43	249	A
05	575	16	269	16	227	21	8	45	248	A
06	565	16	270	15	230	20	7	43	252	A
07	555	16	271	15	230	20	8	43	252	A
08	545	15	273	15	231	20	8	46	251	A
09	535	15	272	15	227	20	8	45	250	A
10	525	15	273	15	228	20	8	45	251	A
11	515	15	272	15	227	20	8	45	250	A
12	505	15	271	15	228	20	8	45	250	A
13	495	16	272	15	226	20	9	43	250	A
14	485	16	270	15	226	20	8	43	250	A
15	475	16	271	15	226	21	9	44	250	A
16	465	16	273	16	226	21	9	46	249	A
17	455	16	276	17	223	21	10	49	246	A
18	445	17	275	17	225	21	10	45	250	A
19	435	16	276	17	226	21	10	47	250	A
20	425	16	274	17	226	21	9	47	249	A
21	415	16	276	16	225	21	10	45	251	A
22	405	16	274	16	227	20	9	45	250	A
23	395	16	274	16	227	20	9	46	250	A
24	385	16	277	17	229	21	9	47	251	A
25	375	16	276	17	234	22	8	46	255	A
26	365	16	279	17	237	22	9	47	257	A
27	355	15	280	18	237	22	8	51	254	A
28	345	15	284	18	237	21	9	52	255	A
29	335	15	294	18	240	21	10	55	259	A
30	325	14	296	18	244	21	10	55	262	A
31	315	14	295	18	245	21	9	56	262	A
32	305	12	293	17	248	20	7	59	261	A
33	295	11	290	15	250	18	6	56	263	A
34	285	10	282	14	250	17	5	56	260	A
35	275	9	288	15	253	17	5	60	262	A
36	265	9	293	15	251	17	5	64	260	A
37	255	9	292	16	251	17	5	64	260	A
38	245	9	288	16	248	17	5	65	256	A
39	235	9	283	15	250	17	4	63	257	A
40	225	7	274	15	249	16	3	66	253	A
41	215	7	263	12	249	13	1	61	252	A
42	205	5	230	9	258	10	2	65	252	C
43	195	6	200	6	282	6	6	35	231	C
44	185	9	177	6	332	10	2	148	350	C
45	175	12	165	8	2	14	2	148	349	A
46	165	17	152	11	22	19	8	150	346	A
47	155	20	148	16	25	23	12	146	347	A
48	145	23	145	21	23	27	15	141	348	A
49	135	26	140	24	19	31	17	140	346	A
50	125	27	132	28	12	34	20	134	343	A
51	115	30	125	32	7	38	22	130	340	A
52	105	31	117	33	6	38	26	131	335	A
53	95	31	115	33	2	37	25	130	333	A
54	85	33	115	34	359	40	25	132	330	A
55	75	30	106	37	350	41	24	123	329	A
56	65	31	101	39	350	42	27	119	330	A
57	55	31	106	40	348	44	25	121	329	A

## NWNH1506 ADCP 19518

Harmonic constants for constituent O1 for deployment NWNH1506.

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	615	6	22	3	35	6	0	24	24	C
02	605	6	20	3	40	6	1	27	24	C
03	595	6	26	2	47	6	1	18	28	C
04	585	6	30	1	31	6	0	12	30	C
05	575	5	23	2	45	6	1	19	25	C
06	565	6	23	2	50	6	1	15	25	C
07	555	5	15	2	70	6	2	14	20	C
08	545	6	22	2	67	6	1	12	24	C
09	535	6	20	2	53	6	1	17	23	C
10	525	6	19	3	36	6	1	26	22	C
11	515	6	25	3	45	7	1	25	28	C
12	505	5	25	2	34	6	0	25	27	C
13	495	6	20	3	28	7	0	26	21	C
14	485	6	23	2	40	6	1	21	26	C
15	475	5	20	2	45	6	1	22	24	C
16	465	5	24	2	56	5	1	22	29	C
17	455	5	19	2	63	6	2	20	25	C
18	445	5	29	2	44	5	0	17	30	C
19	435	5	37	1	48	5	0	15	38	C
20	425	5	27	2	36	5	0	21	28	C
21	415	5	28	2	33	5	0	26	29	C
22	405	5	15	3	23	5	0	30	17	C
23	395	5	30	2	38	6	0	24	31	C
24	385	4	43	3	49	5	0	36	45	C
25	375	5	26	3	44	6	1	32	32	C
26	365	5	31	2	68	6	1	14	34	C
27	355	5	32	1	37	5	0	14	33	C
28	345	6	37	2	69	7	1	17	40	C
29	335	6	43	2	73	6	1	12	44	C
30	325	6	33	2	55	6	1	17	35	C
31	315	6	44	2	60	6	0	16	46	C
32	305	5	49	2	61	5	0	23	51	C
33	295	5	45	1	61	5	0	15	46	C
34	285	5	47	1	54	5	0	13	47	C
35	275	5	37	2	71	5	1	14	39	C
36	265	5	37	2	64	5	1	22	41	C
37	255	6	36	1	32	6	0	11	36	A
38	245	8	36	1	354	8	1	5	36	A
39	235	8	36	1	41	8	0	5	36	C
40	225	8	34	2	28	9	0	13	34	A
41	215	8	28	4	37	9	1	25	30	C
42	205	8	41	3	43	9	0	18	41	C
43	195	8	26	3	59	8	2	18	29	C
44	185	8	19	3	43	8	1	20	22	C
45	175	7	12	3	44	8	1	18	16	C
46	165	5	359	1	339	5	0	14	358	A
47	155	3	5	3	76	3	2	37	33	C
48	145	0	146	3	64	3	0	90	64	A
49	135	1	353	4	84	4	1	90	84	C
50	125	2	269	3	69	4	1	122	75	C
51	115	4	312	4	108	5	1	136	120	C
52	105	2	287	7	127	7	1	104	126	A
53	95	5	298	9	146	10	2	115	141	A
54	85	7	263	11	150	12	6	112	137	A
55	75	7	240	8	128	9	6	125	103	A
56	65	5	204	7	109	8	5	96	105	A
57	55	3	260	13	140	13	2	96	139	A

## NWNH1506 ADCP 19518

Harmonic constants for constituent K1 for deployment NWNH1506.

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	615	6	263	1	234	6	1	13	261	A
02	605	5	255	1	290	5	1	10	256	C
03	595	5	258	1	244	5	0	13	257	A
04	585	5	266	1	248	5	0	14	265	A
05	575	6	264	1	207	6	1	3	264	A
06	565	5	259	1	202	5	0	4	259	A
07	555	6	273	0	131	6	0	176	93	A
08	545	5	273	1	201	5	1	3	272	A
09	535	5	269	1	166	5	1	179	89	A
10	525	6	269	1	223	6	0	4	269	A
11	515	6	269	1	96	6	0	174	89	A
12	505	6	266	1	263	6	0	7	266	A
13	495	5	264	1	210	5	1	5	264	A
14	485	4	261	1	248	4	0	16	260	A
15	475	5	270	1	273	5	0	16	270	C
16	465	5	263	1	289	5	1	12	264	C
17	455	5	261	1	279	5	0	15	263	C
18	445	6	262	1	291	6	0	7	263	C
19	435	6	265	2	233	6	1	14	263	A
20	425	7	262	2	255	7	0	17	261	A
21	415	7	265	2	244	7	1	18	263	A
22	405	7	271	2	243	7	1	18	268	A
23	395	6	269	3	257	7	1	25	267	A
24	385	6	263	2	271	6	0	16	263	C
25	375	6	266	1	272	6	0	11	266	C
26	365	5	266	1	313	5	1	11	268	C
27	355	6	272	1	304	6	1	11	273	C
28	345	6	278	3	320	7	2	19	283	C
29	335	6	275	3	350	6	3	9	279	C
30	325	6	276	3	350	6	3	11	281	C
31	315	6	267	3	336	6	3	15	275	C
32	305	5	268	3	335	5	3	17	277	C
33	295	5	266	2	318	5	1	11	269	C
34	285	5	278	1	342	5	1	5	279	C
35	275	3	292	1	9	3	1	7	295	C
36	265	3	279	2	39	3	2	140	73	C
37	255	2	288	2	33	2	2	119	55	C
38	245	2	276	1	73	2	0	145	88	C
39	235	2	291	0	28	2	0	178	110	C
40	225	1	291	1	198	1	1	177	113	A
41	215	2	266	1	180	2	1	2	265	A
42	205	3	276	1	180	3	1	177	97	A
43	195	4	282	1	222	4	1	6	281	A
44	185	5	263	2	260	6	0	21	263	A
45	175	6	274	2	198	6	2	4	273	A
46	165	7	285	3	200	7	3	2	284	A
47	155	9	293	2	188	9	2	176	113	A
48	145	9	304	2	169	9	2	170	126	A
49	135	14	309	2	152	15	1	174	130	A
50	125	16	316	4	75	16	3	173	135	C
51	115	14	318	5	55	14	5	177	137	C
52	105	16	321	7	70	16	7	170	137	C
53	95	17	309	10	65	17	9	161	119	C
54	85	18	298	12	66	20	9	151	105	C
55	75	19	297	11	67	21	8	155	107	C
56	65	25	306	10	76	26	7	165	121	C
57	55	30	297	16	74	33	10	156	110	C



# NWSC1506

**Latitude:** 60°34.000'N

**Longitude:** 004°46.128'W

**Echo sounding depth:** 1085 m

**Bottom depth corr.:** 1066 m

**Time of deployment:** 12/6 - 2015 1126 UTC

**Time of recovery:** 22/5 - 2016 1235 UTC

## ADCP:

**Instrument no.:** RDI ADCP 8552

**Instrument frequency:** LR 75 kHz

**Height above bottom:** 419 m

**Depth:** 647 m

**Time of first data:** 12/6 - 2015 1200 UTC

**Time of last data:** 22/5 - 2016 1159 UTC

**Sample interval:** 20 min

**No. of ensembles:** 24841

**Pings per ens.:** 10

**Binlength:** 10 m

**Depth of first bin:** 628 m

**No. of bins:** 58

## Aanderaa

**Instrument no.:** RCM9 721

**Height above bottom:** 312 m

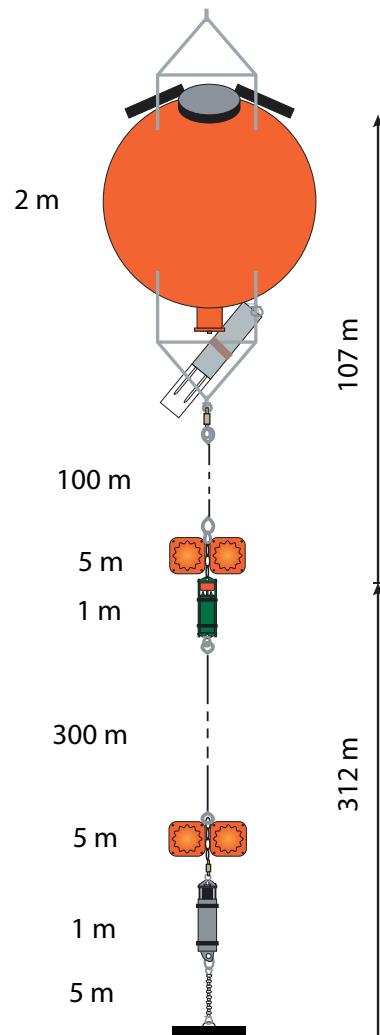
**Instrument depth:** 754 m

**Time of first data:** 12/6 - 2015 1130 UTC

**Time of last data:** 22/5 - 2016 1130 UTC

**Sample interval:** 60 min

**No. of ensembles:** 8281



## Data:

All data ok.

## NWSC1506 ADCP 8552

Error statistics for deployment: NWSC1506 updated 2016/10/11

Temperature edited  
Depth not edited  
Surface distance not edited  
Heading, pitch and roll not edited  
Intensity not edited

Velocity edited using these data filters:

Minimum Intensity: 65.0  
Minimum Mean Correlation: 60.0  
Maximum Speed, number of std dev for each bin: 4.0  
Maximum Vertical Velocity: 150.0  
Maximum Error Velocity (erv\_tr+0.1\*spd): 100.0  
Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 1): 5.00  
Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 58): 3.52  
Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 70): 3.00  
Vertical Speed Spikes, u and v deviated from 3 point median by number of std dev: 4.0

Total number of ensembles: 24841  
Interval between ensembles: 20 min  
Original number of bins: 70  
Number of acceptable velocity bins: 58

Flagged values have been replaced by error codes: -999.99 for temperature and depth, -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 depth ens. flagged : 0  
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	44	0	42	1	0	0	0	0	0	0	0	0
2	0	49	0	49	0	0	0	0	0	0	0	0	0
3	0	33	0	31	1	0	0	0	0	0	0	0	0
4	0	39	0	39	0	0	0	0	0	0	0	0	0
5	0	30	0	30	0	0	0	0	0	0	0	0	0
6	0	40	0	38	1	0	0	0	0	0	0	0	0
7	0	33	0	31	1	0	0	0	0	0	0	0	0
8	0	41	0	37	2	0	0	0	0	0	0	0	0
9	0	45	0	43	1	0	0	0	0	0	0	0	0
10	0	39	0	39	0	0	0	0	0	0	0	0	0
11	0	48	0	44	2	0	0	0	0	0	0	0	0
12	0	45	0	43	1	0	0	0	0	0	0	0	0
13	0	35	0	35	0	0	0	0	0	0	0	0	0
14	0	56	0	54	1	0	0	0	0	0	0	0	0
15	0	60	0	58	1	0	0	0	0	0	0	0	0
16	0	61	0	51	5	0	0	0	0	0	0	0	0
17	0	49	0	49	0	0	0	0	0	0	0	0	0
18	0	63	0	61	1	0	0	0	0	0	0	0	0
19	0	68	0	59	3	1	0	0	0	0	0	0	0
20	0	64	0	60	2	0	0	0	0	0	0	0	0
21	0	59	0	53	3	0	0	0	0	0	0	0	0
22	0	73	0	58	6	1	0	0	0	0	0	0	0
23	0	96	0	79	7	1	0	0	0	0	0	0	0
24	0	73	0	67	3	0	0	0	0	0	0	0	0
25	0	82	0	76	3	0	0	0	0	0	0	0	0
26	0	92	0	81	2	1	0	0	0	0	0	0	0
27	0	102	0	90	6	0	0	0	0	0	0	0	0
28	0	106	0	97	3	1	0	0	0	0	0	0	0
29	0	100	0	94	3	0	0	0	0	0	0	0	0
30	0	91	0	85	3	0	0	0	0	0	0	0	0
31	0	77	0	68	3	1	0	0	0	0	0	0	0
32	0	99	0	86	5	1	0	0	0	0	0	0	0
33	0	103	0	88	4	1	1	0	0	0	0	0	0
34	0	119	0	94	6	1	0	0	0	0	0	0	0
35	0	129	1	99	5	1	0	0	0	0	1	0	0
36	0	165	1	130	8	0	0	0	0	0	0	0	0
37	0	173	1	127	8	3	1	0	0	0	1	0	0
38	0	211	1	129	16	5	2	1	1	1	0	0	0
39	0	270	1	145	16	8	3	2	5	1	0	0	0
40	0	351	1	142	21	12	2	4	7	3	0	0	0
41	0	494	2	163	29	15	8	4	13	4	1	0	0
42	0	791	3	189	46	20	9	2	21	9	3	1	0
43	0	1176	5	183	48	28	22	5	15	27	4	3	0
44	0	1606	6	196	39	26	13	9	39	27	15	3	0
45	0	2151	9	259	60	29	15	16	33	45	21	3	0
46	0	2711	11	260	66	37	16	10	39	55	29	6	0
47	0	3201	13	241	62	36	23	17	38	50	41	12	0
48	0	3585	14	256	56	25	15	22	50	40	51	18	0
49	0	4044	16	301	76	39	26	10	35	48	52	28	0
50	0	4448	18	327	75	39	23	13	32	52	57	33	0
51	0	4945	20	350	88	40	18	14	36	55	61	39	0
52	0	5572	22	404	96	47	28	22	32	45	62	56	0
53	0	6148	25	396	115	40	26	19	44	32	55	76	2
54	0	6864	28	400	102	50	29	17	49	46	35	99	4
55	0	7605	31	416	117	50	25	14	38	37	34	99	18
56	0	8352	34	421	112	43	28	12	41	26	24	95	32
57	0	9219	37	383	107	56	27	20	40	23	29	86	46
58	0	10932	44	793	195	83	39	22	41	28	22	66	53

## NWSC1506 ADCP 8552

Deployment: NWSC1506 updated 2016/10/11  
 Instrument no.: 8552  
 Instrument freq.: 75  
 Latitude: 60 34.000 N  
 Longitude: 04 46.128 W  
 Bottom depth: 1066  
 Instrument depth: 647  
 Center depth of first bin: 628  
 Bin length: 10  
 Number of bins: 58  
 Number of first ensemble: 289  
 Time of first ensemble: 2015 06 12 12 00  
 Number of last ensemble: 25129  
 Time of last ensemble: 2016 05 22 11 59  
 Time between ensembles (min.): 20  
 All directions have been corrected by adding: -5.0

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	628	438	191	70	213	998
2	618	448	191	69	213	998
3	608	458	192	68	212	999
4	598	468	192	67	212	998
5	588	478	193	66	211	999
6	578	488	194	65	210	998
7	568	498	194	63	209	999
8	558	508	196	61	208	998
9	548	518	197	59	206	998
10	538	528	198	57	205	998
11	528	538	200	56	203	998
12	518	548	202	55	201	998
13	508	558	204	53	199	999
14	498	568	207	52	197	998
15	488	578	208	51	195	998
16	478	588	210	50	193	998
17	468	598	211	49	191	998
18	458	608	213	48	189	997
19	448	618	215	47	186	997
20	438	628	217	45	183	997
21	428	638	220	45	179	998
22	418	648	223	45	176	997
23	408	658	227	44	174	996
24	398	668	230	45	171	997
25	388	678	233	45	167	997
26	378	688	235	46	165	996
27	368	698	238	47	162	996
28	358	708	240	46	159	996
29	348	718	243	46	156	996
30	338	728	244	46	151	996
31	328	738	245	45	146	997
32	318	748	248	47	142	996
33	308	758	250	48	139	996
34	298	768	253	49	136	995
35	288	778	256	50	134	995
36	278	788	258	51	132	993
37	268	798	262	52	130	993
38	258	808	265	54	129	992
39	248	818	267	56	127	989
40	238	828	271	57	125	986
41	228	838	273	58	125	980
42	218	848	275	59	124	968
43	208	858	278	59	124	953
44	198	868	280	58	124	935
45	188	878	283	58	124	913
46	178	888	285	59	124	891
47	168	898	285	59	125	871
48	158	908	287	60	126	856
49	148	918	288	60	127	837
50	138	928	290	61	128	821
51	128	938	292	63	128	801
52	118	948	296	64	131	776
53	108	958	299	65	132	753
54	98	968	302	67	135	724
55	88	978	306	69	136	694
56	78	988	311	72	139	664
57	68	998	316	73	141	629
58	58	1008	289	64	145	560

## NWSC1506 ADCP 8552

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	628	769	411	165	49	13	3	0	0	0	0	0	0	0	0	0	0	0	0
2	618	769	413	165	48	13	3	0	0	0	0	0	0	0	0	0	0	0	0
3	608	770	418	167	48	12	3	0	0	0	0	0	0	0	0	0	0	0	0
4	598	768	419	169	48	12	3	0	0	0	0	0	0	0	0	0	0	0	0
5	588	775	424	170	50	12	3	0	0	0	0	0	0	0	0	0	0	0	0
6	578	777	428	173	52	13	3	0	0	0	0	0	0	0	0	0	0	0	0
7	568	777	432	174	52	12	3	0	0	0	0	0	0	0	0	0	0	0	0
8	558	782	432	177	54	14	3	0	0	0	0	0	0	0	0	0	0	0	0
9	548	783	436	178	54	13	3	0	0	0	0	0	0	0	0	0	0	0	0
10	538	788	439	184	58	15	3	0	0	0	0	0	0	0	0	0	0	0	0
11	528	784	446	191	60	14	3	0	0	0	0	0	0	0	0	0	0	0	0
12	518	789	451	195	64	14	3	0	0	0	0	0	0	0	0	0	0	0	0
13	508	796	457	202	71	16	3	0	0	0	0	0	0	0	0	0	0	0	0
14	498	803	463	208	73	18	2	0	0	0	0	0	0	0	0	0	0	0	0
15	488	807	472	213	73	18	3	0	0	0	0	0	0	0	0	0	0	0	0
16	478	807	480	218	74	19	3	0	0	0	0	0	0	0	0	0	0	0	0
17	468	812	483	218	76	19	3	0	0	0	0	0	0	0	0	0	0	0	0
18	458	814	485	224	80	20	3	0	0	0	0	0	0	0	0	0	0	0	0
19	448	816	492	226	83	23	5	1	0	0	0	0	0	0	0	0	0	0	0
20	438	822	496	235	86	24	5	1	0	0	0	0	0	0	0	0	0	0	0
21	428	825	507	243	91	26	5	1	0	0	0	0	0	0	0	0	0	0	0
22	418	833	517	249	95	28	6	1	0	0	0	0	0	0	0	0	0	0	0
23	408	842	527	259	99	29	7	2	0	0	0	0	0	0	0	0	0	0	0
24	398	851	541	266	104	31	7	2	1	0	0	0	0	0	0	0	0	0	0
25	388	852	548	273	111	32	8	3	1	0	0	0	0	0	0	0	0	0	0
26	378	851	559	276	112	34	9	3	1	0	0	0	0	0	0	0	0	0	0
27	368	860	565	285	115	36	9	3	1	0	0	0	0	0	0	0	0	0	0
28	358	861	569	295	118	40	10	3	1	0	0	0	0	0	0	0	0	0	0
29	348	866	575	301	124	41	11	3	1	0	0	0	0	0	0	0	0	0	0
30	338	868	579	305	127	45	12	4	1	0	0	0	0	0	0	0	0	0	0
31	328	861	582	309	132	47	14	4	1	0	0	0	0	0	0	0	0	0	0
32	318	863	582	318	136	50	15	5	1	0	0	0	0	0	0	0	0	0	0
33	308	862	592	323	140	54	16	5	2	0	0	0	0	0	0	0	0	0	0
34	298	862	596	330	149	58	19	6	2	0	0	0	0	0	0	0	0	0	0
35	288	865	604	335	153	61	21	7	3	0	0	0	0	0	0	0	0	0	0
36	278	865	612	342	159	65	21	8	3	1	0	0	0	0	0	0	0	0	0
37	268	869	618	349	165	71	24	9	3	1	0	0	0	0	0	0	0	0	0
38	258	867	622	359	173	76	27	10	4	1	0	0	0	0	0	0	0	0	0
39	248	864	625	363	177	80	28	11	4	1	0	0	0	0	0	0	0	0	0
40	238	863	632	368	184	83	30	12	5	1	0	0	0	0	0	0	0	0	0
41	228	861	629	374	189	87	32	12	5	1	0	0	0	0	0	0	0	0	0
42	218	850	620	375	192	89	35	13	5	1	0	0	0	0	0	0	0	0	0
43	208	836	616	373	195	93	36	14	5	1	0	0	0	0	0	0	0	0	0
44	198	822	606	373	195	94	38	14	5	2	1	0	0	0	0	0	0	0	0
45	188	809	599	370	200	96	40	15	5	2	0	0	0	0	0	0	0	0	0
46	178	788	586	364	197	99	40	15	5	2	0	0	0	0	0	0	0	0	0
47	168	771	573	357	195	98	40	16	5	1	0	0	0	0	0	0	0	0	0
48	158	762	563	351	194	98	41	16	6	1	0	0	0	0	0	0	0	0	0
49	148	745	553	344	194	99	43	16	6	1	0	0	0	0	0	0	0	0	0
50	138	730	545	341	191	100	43	18	6	1	0	0	0	0	0	0	0	0	0
51	128	715	536	335	189	100	44	19	6	1	0	0	0	0	0	0	0	0	0
52	118	692	522	333	186	100	47	20	6	2	0	0	0	0	0	0	0	0	0
53	108	675	512	328	185	102	48	20	8	2	0	0	0	0	0	0	0	0	0
54	98	652	497	319	181	100	48	20	8	2	0	0	0	0	0	0	0	0	0
55	88	627	480	315	181	100	47	20	7	2	0	0	0	0	0	0	0	0	0
56	78	604	463	307	183	100	48	20	8	3	1	0	0	0	0	0	0	0	0
57	68	574	443	296	181	100	47	20	8	3	1	0	0	0	0	0	0	0	0
58	58	498	361	228	131	68	31	14	6	2	1	0	0	0	0	0	0	0	0

## NWSC1506 ADCP 8552

Harmonic constants for constituent M2 for deployment NWSC1506.

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	628	157	254	98	247	185	10	32	252	A
02	618	159	254	99	247	186	10	32	252	A
03	608	158	254	100	247	187	11	32	252	A
04	598	158	255	101	247	187	12	32	252	A
05	588	159	254	101	246	188	13	32	252	A
06	578	160	255	102	247	189	12	32	252	A
07	568	159	254	103	247	189	11	33	252	A
08	558	160	254	103	247	190	11	33	252	A
09	548	159	254	103	248	189	10	33	252	A
10	538	158	254	104	248	189	9	33	252	A
11	528	157	254	103	249	188	8	33	252	A
12	518	157	254	104	249	188	7	34	252	A
13	508	157	254	105	249	189	7	34	252	A
14	498	156	254	107	250	189	6	34	253	A
15	488	155	254	107	250	188	5	35	253	A
16	478	153	253	106	252	186	3	35	253	A
17	468	151	253	106	253	184	1	35	253	A
18	458	149	253	105	254	183	1	35	254	C
19	448	148	253	106	256	182	3	36	254	C
20	438	146	254	107	256	181	4	36	255	C
21	428	144	255	109	257	181	3	37	255	C
22	418	143	255	111	257	181	3	38	256	C
23	408	142	255	113	257	181	2	38	256	C
24	398	141	256	114	257	181	3	39	256	C
25	388	139	256	114	258	180	2	39	257	C
26	378	138	256	114	258	179	4	40	257	C
27	368	136	256	114	259	177	5	40	257	C
28	358	134	255	114	260	176	7	40	257	C
29	348	131	255	115	261	174	9	41	258	C
30	338	129	256	116	263	173	11	42	259	C
31	328	126	256	117	264	172	12	43	260	C
32	318	124	257	118	266	170	13	44	261	C
33	308	122	257	119	267	170	14	44	262	C
34	298	121	258	121	268	170	15	45	263	C
35	288	119	258	122	268	170	15	46	263	C
36	278	118	258	123	269	170	16	46	264	C
37	268	118	258	124	269	170	16	46	264	C
38	258	117	258	124	270	170	17	47	264	C
39	248	115	258	125	270	169	17	47	265	C
40	238	114	258	125	271	168	18	48	265	C
41	228	111	258	126	272	167	19	49	266	C
42	218	110	259	129	271	168	18	50	266	C
43	208	110	259	131	272	170	19	50	267	C
44	198	108	260	131	273	169	18	51	268	C
45	188	109	261	132	274	170	19	51	268	C
46	178	109	262	131	274	170	18	50	269	C
47	168	109	263	131	273	170	14	50	269	C
48	158	108	264	131	273	169	14	51	270	C
49	148	107	264	131	274	168	14	51	270	C
50	138	105	265	130	274	167	14	51	270	C
51	128	103	264	130	274	165	14	52	270	C
52	118	103	263	131	274	166	15	52	270	C
53	108	103	263	132	274	166	15	52	270	C
54	98	101	263	130	272	164	13	52	269	C
55	88	104	264	133	273	168	12	52	270	C
56	78	105	268	137	273	172	7	53	271	C
57	68	106	268	138	272	174	6	53	270	C
58	58	97	267	122	273	156	7	51	271	C

## NWSC1506 ADCP 8552

Harmonic constants for constituent S2 for deployment NWSC1506.

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	628	50	293	40	297	64	2	39	294	C
02	618	50	292	40	297	64	3	39	294	C
03	608	49	293	40	298	64	3	39	295	C
04	598	49	292	41	298	64	3	40	294	C
05	588	50	293	41	298	64	3	40	295	C
06	578	49	294	41	299	64	3	40	296	C
07	568	49	293	42	297	65	2	40	295	C
08	558	50	293	41	296	65	2	40	294	C
09	548	50	293	40	295	64	1	39	294	C
10	538	51	294	41	295	66	1	39	294	C
11	528	52	294	42	295	67	0	39	294	C
12	518	51	294	42	293	66	0	39	294	A
13	508	51	292	41	294	65	1	38	293	C
14	498	52	290	40	293	65	1	37	291	C
15	488	53	290	39	293	66	2	36	291	C
16	478	53	291	40	292	66	0	37	291	C
17	468	54	291	40	292	68	1	37	291	C
18	458	56	291	41	290	69	0	37	291	A
19	448	55	290	41	290	68	0	36	290	C
20	438	55	291	42	290	69	0	37	290	A
21	428	54	293	44	291	70	1	39	292	A
22	418	53	294	46	292	70	1	41	293	A
23	408	51	294	46	293	69	1	42	294	A
24	398	49	295	47	295	68	0	44	295	A
25	388	49	295	48	297	68	1	44	296	C
26	378	48	296	47	299	67	2	45	298	C
27	368	46	296	48	302	67	4	46	299	C
28	358	47	296	49	303	68	4	46	300	C
29	348	48	297	49	302	68	3	46	300	C
30	338	49	297	48	301	69	3	44	299	C
31	328	51	296	47	300	69	2	43	298	C
32	318	52	297	48	299	70	1	43	298	C
33	308	52	298	48	297	71	1	43	298	A
34	298	52	297	48	297	70	0	43	297	C
35	288	52	297	46	295	70	1	42	296	A
36	278	53	295	46	294	70	1	41	294	A
37	268	53	295	45	293	70	1	41	294	A
38	258	53	295	45	293	70	1	40	295	A
39	248	53	296	44	294	69	1	40	295	A
40	238	53	297	44	295	69	1	40	296	A
41	228	54	297	44	295	70	1	39	296	A
42	218	54	296	43	293	69	2	38	295	A
43	208	54	294	42	292	68	1	37	293	A
44	198	54	292	41	292	68	0	37	292	A
45	188	53	291	41	294	67	2	37	292	C
46	178	54	290	39	293	67	1	36	291	C
47	168	54	289	37	292	65	2	34	290	C
48	158	53	289	35	295	63	3	33	291	C
49	148	53	289	35	293	64	2	33	290	C
50	138	52	289	33	292	62	2	32	290	C
51	128	54	291	34	291	63	0	32	291	C
52	118	55	294	33	291	64	1	31	294	A
53	108	56	296	34	291	66	3	31	295	A
54	98	59	297	35	288	68	5	31	295	A
55	88	61	297	35	285	70	7	30	294	A
56	78	62	297	38	283	72	8	31	293	A
57	68	60	296	35	284	70	6	30	293	A
58	58	56	292	32	290	64	1	30	292	A

## NWSC1506 ADCP 8552

Harmonic constants for constituent N2 for deployment NWSC1506.

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	628	35	223	17	219	39	1	26	223	A
02	618	35	225	18	221	39	1	27	225	A
03	608	35	226	18	221	39	1	27	225	A
04	598	35	226	18	221	39	1	28	225	A
05	588	34	226	18	222	38	1	28	225	A
06	578	33	224	18	227	37	1	29	225	C
07	568	32	224	17	230	36	2	28	225	C
08	558	32	223	18	229	37	2	29	224	C
09	548	33	223	17	230	37	2	27	225	C
10	538	33	224	17	227	37	1	27	224	C
11	528	33	224	17	228	37	1	27	225	C
12	518	33	224	18	226	38	0	29	225	C
13	508	34	226	19	225	39	0	29	226	A
14	498	34	226	20	227	40	0	31	226	C
15	488	35	229	21	227	41	1	31	229	A
16	478	34	231	22	229	41	1	33	231	A
17	468	34	231	22	228	40	1	32	230	A
18	458	34	233	22	231	40	1	32	232	A
19	448	34	232	21	229	40	1	32	231	A
20	438	34	230	21	229	40	0	32	229	A
21	428	33	232	22	231	39	0	33	232	A
22	418	31	233	21	233	38	0	35	233	C
23	408	29	232	21	238	36	2	37	234	C
24	398	28	233	20	242	34	3	36	236	C
25	388	29	233	21	246	35	4	36	237	C
26	378	28	234	22	245	36	3	38	239	C
27	368	29	238	23	247	37	3	39	241	C
28	358	29	241	25	249	38	3	41	244	C
29	348	28	242	26	251	38	3	43	247	C
30	338	28	243	27	249	39	2	43	246	C
31	328	29	243	27	246	40	1	43	244	C
32	318	30	245	28	245	41	0	42	245	C
33	308	30	246	29	245	41	0	44	245	A
34	298	30	246	28	246	41	0	44	246	C
35	288	30	245	28	248	40	1	43	246	C
36	278	30	244	28	249	41	2	42	246	C
37	268	30	244	28	250	41	2	43	247	C
38	258	30	244	29	249	42	2	43	246	C
39	248	30	243	28	249	41	2	43	246	C
40	238	30	242	28	250	41	3	44	246	C
41	228	28	244	28	249	40	2	44	246	C
42	218	28	243	29	250	40	2	45	246	C
43	208	28	244	29	252	41	3	46	248	C
44	198	27	246	30	255	40	3	48	251	C
45	188	26	246	31	254	40	3	51	251	C
46	178	25	251	32	251	41	0	52	251	C
47	168	28	250	33	251	43	1	50	251	C
48	158	26	248	34	251	43	1	52	250	C
49	148	26	243	34	249	43	2	52	247	C
50	138	26	244	33	250	42	2	51	247	C
51	128	24	242	32	250	40	3	53	247	C
52	118	23	242	31	251	38	3	53	248	C
53	108	25	247	30	252	39	2	51	250	C
54	98	23	254	29	254	37	0	51	254	A
55	88	24	251	30	253	38	1	52	252	C
56	78	28	251	29	262	40	4	46	256	C
57	68	26	255	32	267	41	4	51	262	C
58	58	24	253	31	256	40	1	52	255	C

## NWSC1506 ADCP 8552

Harmonic constants for constituent O1 for deployment NWSC1506.

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	628	11	15	7	50	13	4	32	25	C
02	618	10	19	7	47	12	3	35	29	C
03	608	9	15	7	55	11	4	33	28	C
04	598	10	13	6	55	11	4	30	24	C
05	588	10	10	6	46	12	3	28	18	C
06	578	10	16	6	42	12	2	29	22	C
07	568	11	16	7	42	13	3	31	23	C
08	558	11	14	7	52	12	4	29	24	C
09	548	11	13	6	39	12	2	30	20	C
10	538	11	9	7	35	13	3	31	16	C
11	528	12	11	7	37	13	3	30	17	C
12	518	12	13	7	35	13	2	32	19	C
13	508	12	14	8	25	14	1	33	17	C
14	498	11	10	8	28	13	2	35	16	C
15	488	12	13	9	26	14	2	37	18	C
16	478	11	9	9	27	15	2	39	16	C
17	468	10	14	10	24	14	1	44	19	C
18	458	10	22	9	34	13	1	42	27	C
19	448	9	20	8	34	12	1	41	26	C
20	438	9	23	7	33	11	1	37	27	C
21	428	9	30	7	36	11	1	37	32	C
22	418	11	34	8	36	13	0	35	35	C
23	408	11	33	9	37	14	0	42	35	C
24	398	9	28	9	34	13	1	46	31	C
25	388	8	11	7	37	10	2	39	22	C
26	378	8	8	5	41	9	2	33	18	C
27	368	7	14	5	41	8	2	36	24	C
28	358	6	12	6	40	8	2	43	25	C
29	348	6	18	6	36	8	1	42	26	C
30	338	6	12	5	39	8	2	37	22	C
31	328	8	18	5	40	10	2	34	25	C
32	318	7	14	7	52	9	3	44	32	C
33	308	5	18	7	54	8	3	53	41	C
34	298	5	16	8	53	9	3	61	44	C
35	288	5	16	8	46	10	2	61	39	C
36	278	6	25	8	48	10	2	54	40	C
37	268	7	31	8	52	10	2	51	43	C
38	258	7	37	8	52	10	1	51	46	C
39	248	8	26	7	49	10	2	41	36	C
40	238	7	14	8	47	10	3	53	34	C
41	228	7	11	8	48	10	3	52	34	C
42	218	5	18	8	39	10	2	58	33	C
43	208	5	5	9	43	10	3	64	35	C
44	198	6	22	10	44	12	2	59	38	C
45	188	5	42	13	50	14	1	71	49	C
46	178	7	49	14	57	15	1	64	55	C
47	168	7	51	14	54	16	0	64	53	C
48	158	7	65	16	58	17	1	67	59	A
49	148	5	63	11	53	12	1	67	55	A
50	138	4	41	9	51	10	1	68	50	C
51	128	3	37	7	45	8	0	70	44	C
52	118	5	74	6	53	8	1	55	60	A
53	108	7	51	8	43	10	1	50	47	A
54	98	9	49	10	42	13	1	49	45	A
55	88	12	57	7	51	14	1	31	55	A
56	78	16	57	9	42	18	2	29	53	A
57	68	16	51	8	28	18	3	24	47	A
58	58	19	51	11	1	20	8	24	42	A

## NWSC1506 ADCP 8552

Harmonic constants for constituent K1 for deployment NWSC1506.

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	628	7	218	3	247	7	1	22	222	C
02	618	6	209	2	255	6	1	11	211	C
03	608	7	220	2	246	7	1	14	222	C
04	598	6	222	3	259	7	2	26	230	C
05	588	6	223	4	252	7	2	33	232	C
06	578	7	218	3	249	7	1	20	222	C
07	568	7	212	3	254	7	2	18	216	C
08	558	7	209	2	268	7	2	10	212	C
09	548	7	215	1	242	7	0	7	215	C
10	538	8	210	2	232	8	1	12	211	C
11	528	7	207	2	209	8	0	13	207	C
12	518	7	203	2	235	7	1	13	205	C
13	508	7	206	2	273	7	2	8	209	C
14	498	6	203	3	251	7	2	23	212	C
15	488	6	208	3	251	7	2	24	216	C
16	478	5	210	4	239	6	2	42	223	C
17	468	5	216	5	242	6	2	46	229	C
18	458	5	220	4	258	6	2	35	233	C
19	448	6	217	3	289	6	3	14	225	C
20	438	4	208	3	297	4	3	1	209	C
21	428	4	199	2	297	4	2	176	17	C
22	418	4	187	1	239	4	1	12	190	C
23	408	5	196	2	125	5	2	7	193	A
24	398	6	186	3	127	6	3	20	178	A
25	388	6	185	4	148	7	2	32	174	A
26	378	5	181	5	171	7	1	47	176	A
27	368	4	176	5	180	7	0	54	179	C
28	358	5	158	6	185	7	2	51	174	C
29	348	5	147	7	187	8	3	55	173	C
30	338	5	146	6	188	8	3	52	172	C
31	328	5	157	6	188	8	2	53	177	C
32	318	4	160	5	194	6	2	50	180	C
33	308	5	169	6	191	8	1	51	182	C
34	298	5	187	6	176	8	1	54	179	A
35	288	5	191	6	170	8	1	47	180	A
36	278	5	207	5	169	7	2	48	187	A
37	268	5	213	6	173	7	2	52	189	A
38	258	4	215	4	174	5	2	49	191	A
39	248	3	204	4	176	5	1	50	188	A
40	238	4	194	2	168	5	1	29	187	A
41	228	6	180	2	162	6	1	22	177	A
42	218	6	161	3	176	7	1	24	163	C
43	208	8	142	4	135	9	0	27	141	A
44	198	12	120	6	143	13	2	24	124	C
45	188	14	110	6	143	15	3	19	114	C
46	178	19	108	5	123	19	1	14	109	C
47	168	22	104	6	69	22	3	12	103	A
48	158	25	103	7	54	25	5	11	101	A
49	148	25	109	7	30	25	7	4	108	A
50	138	23	114	10	15	23	10	175	296	A
51	128	20	119	11	8	21	10	165	307	A
52	118	19	127	13	357	21	9	152	319	A
53	108	18	134	13	10	20	9	151	329	A
54	98	17	131	13	0	19	8	148	326	A
55	88	14	146	11	337	18	2	143	330	A
56	78	16	144	8	346	17	3	154	328	A
57	68	16	150	8	40	16	7	169	335	A
58	58	13	162	8	103	14	7	23	151	A

## NWSC1506 Aanderaa 721

Deployment: NWSC1506                                  analyzed from beginning to end  
 Instrument no.: 721  
 Instrument type: Aanderaa  
 Latitude: 60 34.000 N  
 Longitude: 04 46.128 W  
 Bottom depth: 1066  
 Instrument depth: 754  
 Number of records: 8281  
 Time of first record: 2015 06 12 11 30  
 Time of last record : 2016 05 22 11 30  
 Time between records (min.): 60.000

Parameters	Records OK	Records flagged
Column 1 : Recno		
Column 2- 4: Date		
Column 5- 6: Time		
Column 7 : Temp	8281	0
Column 8 : Speed	8281	0
Column 9 : Direct	8281	0

### Comments

Residual current: 82 mm/sec towards: 212 degrees

### TIDAL ANALYSIS

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

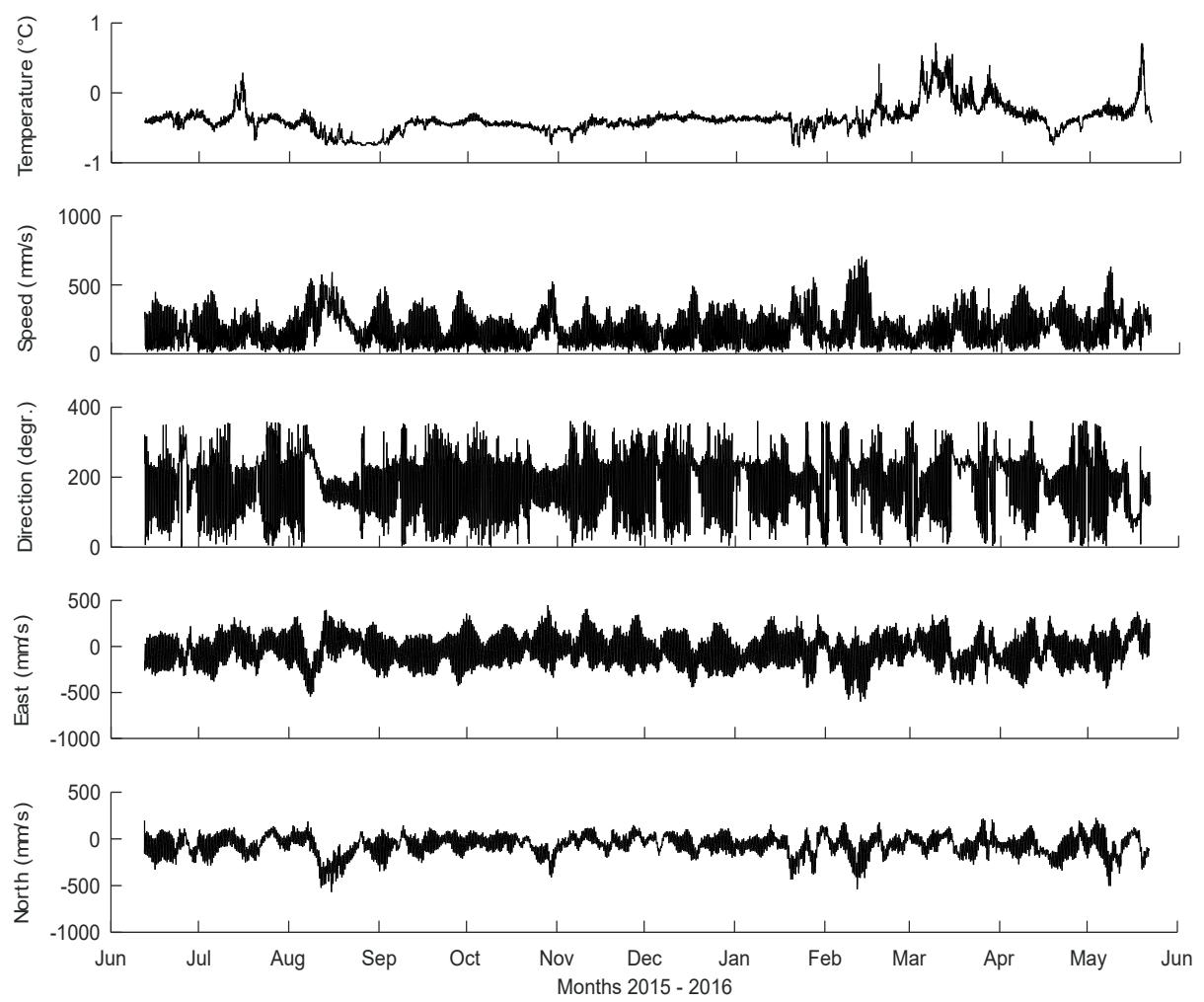
Const	Freq c/hr	E-amp mm/sec	E-gpl deg	N-amp1 mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grph1 deg	R
MM	.00151215	22	193	26	276	26	22	70	259	C
MSF	.00282193	15	345	24	199	27	7	120	190	A
Q1	.03721850	5	341	4	20	6	2	36	355	C
O1	.03873065	12	19	5	58	13	3	20	24	C
NO1	.04026859	1	101	1	147	1	0	69	140	C
P1	.04155259	1	245	0	33	1	0	164	62	C
K1	.04178075	7	236	2	286	7	1	8	237	C
N2	.07899925	35	228	12	219	37	2	18	227	A
M2	.08051140	165	256	66	248	177	9	22	255	A
L2	.08202355	3	343	4	323	5	1	47	332	A
S2	.08333334	54	296	29	300	61	2	28	297	C
K2	.08356149	17	290	7	293	18	0	22	291	C
MK3	.12229210	0	335	1	330	1	0	68	331	A
M4	.16102280	2	209	3	332	4	1	109	340	C
MS4	.16384470	0	230	3	17	3	0	99	18	C

### DIRECTIONAL CURRENT DISTRIBUTION (for all nonflagged observations in series)

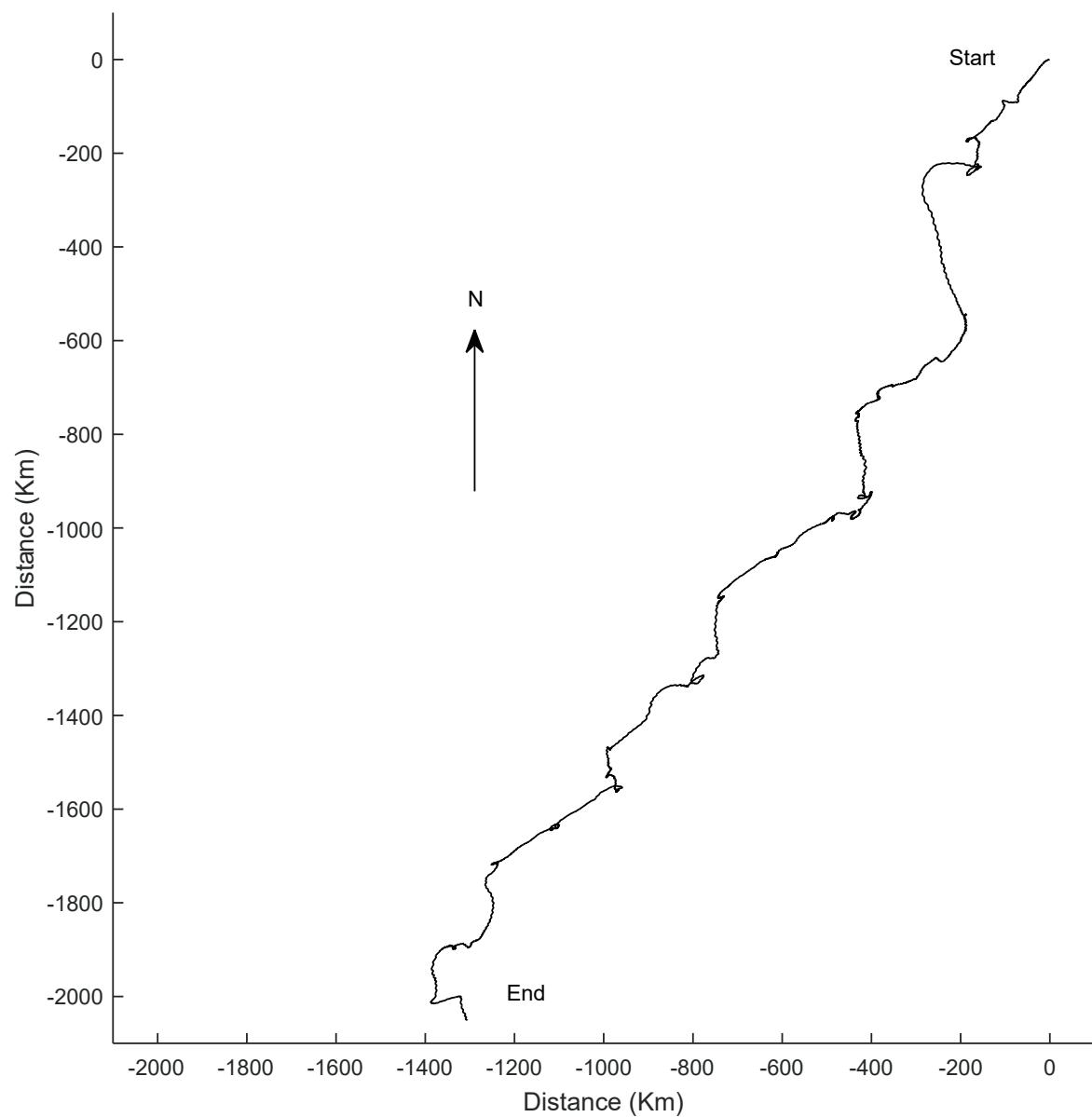
Relative number of observations in parts per thousand (ppt) grouped into speed and direction intervals (of 30 degree width centred around the directions shown)

Speed intervals (mm/s)	Direction intervals												All dir.	
	15	45	75	105	135	165	195	225	255	285	315	345	Tot	Acc
0 - 50	6	7	10	8	8	8	8	9	6	6	5	89	89	
50 - 100	7	16	22	19	15	13	15	23	21	11	9	7	180	269
100 - 150	5	15	33	24	11	9	17	30	31	10	4	2	191	459
150 - 200	2	8	28	15	10	8	14	36	41	8	1	1	172	631
200 - 300	0.24	3	31	13	15	13	16	70	63	7	1	0	231	863
300 - 400	0	0.12	8	3	5	6	11	38	24	1	0	0	96	959
400 - 500	0	0	0.36	0.36	2	1	4	13	10	0.48	0	0	31	990
500 - 600	0	0	0	0	0.12	0.12	1	4	2	0.12	0	0	8	998
600 - 700	0	0	0	0	0	0	0	2	0.12	0	0	0	2	1000
700 - 800	0	0	0	0	0	0	0	0.12	0	0	0	0	.12	1000
Total (ppt)	21	49	132	82	65	58	86	224	201	44	21	16		
Rel.flux (ppt)	10	30	119	64	61	53	91	287	235	34	10	6		
Avg.spd (mm/s)	85	110	162	140	167	163	189	230	210	137	81	73		
Max.spd (mm/s)	246	326	414	463	502	543	592	701	610	510	252	185		

## NWSC1506 Aanderaa 721



## NWSC1506 Aanderaa 721



# NWSM1506

**Latitude:** 60°48.921'N

**Longitude:** 005°22.300'W

**Echo sounding depth:** 729 m

**Bottom depth corr.:** 715 m

**Time of deployment:** 12/6 - 2015 0858 UTC

**Surfaced:** 19/12 - 2015

## ADCP:

**Instrument no.:** RDI ADCP 1577

**Instrument frequency:** 75 kHz

**Height above bottom:** 8 m

**Depth:** 707 m

**Time of first data:** 12/6 - 2015 0940 UTC

**Time of last data:** 17/12 - 2015 1440 UTC

**Sample interval:** 20 min

**No. of ensembles:** 13552

**Pings per ens.:** 1

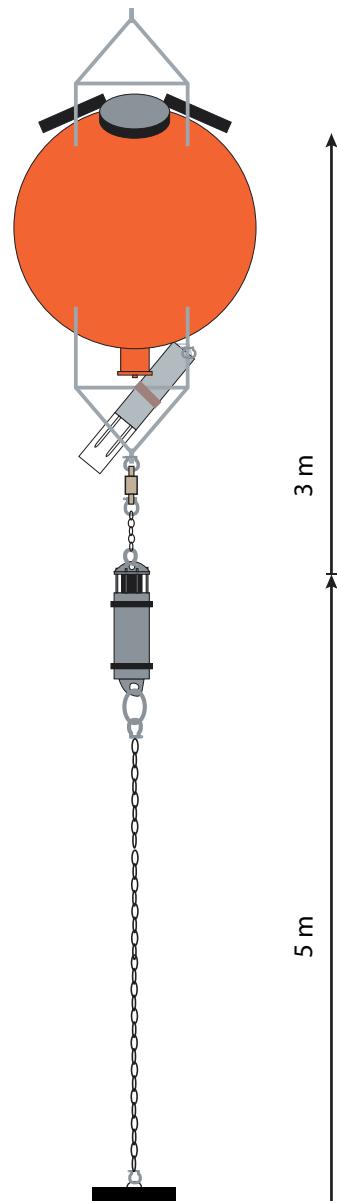
**Binlength:** 25 m

**Depth of first bin:** 671 m

**No. of bins:** 25

## Data:

**Data ok.**



## NWSM1506 ADCP 1577

Error statistics for deployment: NWSM1506 updated 2016/09/29

Temperature edited

Surface distance not edited

Heading, pitch and roll not edited

Intensity not edited

Velocity edited using these data filters:

Maximum Speed, number of std dev for each bin: 5.0

Maximum Error Velocity (erv\_tr+0.1\*spd):100.0

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 1): 5.00

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 25): 4.29

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 32): 4.00

Total number of ensembles: 13552

Interval between ensembles: 20 min

Original number of bins: 32

Number of acceptable velocity bins: 25

Flagged values have been replaced by error codes: -999.99 for temperature and depth, -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.	Velocity ens.	% -----	Number of velocity gaps of length									
				1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	0	104	1	52	19	2	2	0	0	0	0	0	0
2	0	121	1	72	19	1	2	0	0	0	0	0	0
3	0	118	1	68	19	0	3	0	0	0	0	0	0
4	0	134	1	80	22	2	1	0	0	0	0	0	0
5	0	136	1	70	25	4	1	0	0	0	0	0	0
6	0	132	1	64	29	2	1	0	0	0	0	0	0
7	0	145	1	72	25	6	0	1	0	0	0	0	0
8	0	132	1	75	20	4	0	1	0	0	0	0	0
9	0	124	1	64	20	4	2	0	0	0	0	0	0
10	0	108	1	61	14	5	1	0	0	0	0	0	0
11	0	113	1	65	15	6	0	0	0	0	0	0	0
12	0	122	1	75	19	3	0	0	0	0	0	0	0
13	0	111	1	67	18	1	0	1	0	0	0	0	0
14	0	118	1	74	19	2	0	0	0	0	0	0	0
15	0	126	1	84	12	6	0	0	0	0	0	0	0
16	0	126	1	80	20	2	0	0	0	0	0	0	0
17	0	170	1	100	18	2	0	0	2	1	0	0	0
18	0	362	3	105	22	5	3	2	3	8	1	0	0
19	0	933	7	129	34	17	3	5	10	12	11	4	0
20	0	1451	11	161	42	21	15	7	32	16	12	8	0
21	0	1799	13	173	62	30	16	11	41	37	8	7	0
22	0	2531	19	212	68	34	23	20	53	33	15	12	1
23	0	3677	27	242	63	39	24	20	60	35	24	11	12
24	0	4604	34	265	76	41	33	18	44	43	18	18	13
25	0	5984	44	406	102	55	25	24	63	45	34	12	11

## NWSM1506 ADCP 1577

Deployment: NWSM1506 updated 2016/09/29  
Instrument no.: 1577  
Instrument freq.: 75  
Latitude: 60 48.921 N  
Longitude: 05 22.300 W  
Bottom depth: 715  
Instrument depth: 707  
Center depth of first bin: 671  
Bin length: 25  
Number of bins: 25  
Number of first ensemble: 222  
Time of first ensemble: 2015 06 12 09 40  
Number of last ensemble: 13773  
Time of last ensemble: 2015 12 17 14 40  
Time between ensembles (min.): 20  
All directions have been corrected by adding: -5.0

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	671	44	209	20	188	992
2	646	69	223	26	189	991
3	621	94	228	28	187	991
4	596	119	228	29	182	990
5	571	144	224	28	180	990
6	546	169	219	27	181	990
7	521	194	215	26	182	989
8	496	219	212	24	182	990
9	471	244	209	21	184	991
10	446	269	208	18	186	992
11	421	294	210	16	198	992
12	396	319	210	16	213	991
13	371	344	209	17	223	992
14	346	369	208	22	220	991
15	321	394	208	26	218	991
16	296	419	209	27	219	991
17	271	444	208	27	216	987
18	246	469	209	28	213	973
19	221	494	213	29	210	931
20	196	519	218	26	199	893
21	171	544	224	22	186	867
22	146	569	233	17	168	813
23	121	594	243	18	130	729
24	96	619	257	25	116	660
25	71	644	273	34	88	558

## NWSM1506 ADCP 1577

Frequency of high speeds.

=====

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

Bin Depth  no.	m	Speed (cm/s)																	
		10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	671	830	494	198	54	11	2	0	0	0	0	0	0	0	0	0	0	0	0
2	646	852	538	234	72	15	4	1	0	0	0	0	0	0	0	0	0	0	0
3	621	852	549	253	85	20	5	2	0	0	0	0	0	0	0	0	0	0	0
4	596	851	549	252	86	20	6	2	0	0	0	0	0	0	0	0	0	0	0
5	571	841	537	242	84	18	5	1	0	0	0	0	0	0	0	0	0	0	0
6	546	833	515	233	75	17	5	1	0	0	0	0	0	0	0	0	0	0	0
7	521	825	502	221	70	17	5	1	0	0	0	0	0	0	0	0	0	0	0
8	496	819	485	209	67	18	5	1	1	0	0	0	0	0	0	0	0	0	0
9	471	811	478	206	66	19	5	2	1	0	0	0	0	0	0	0	0	0	0
10	446	807	468	209	65	19	5	1	0	0	0	0	0	0	0	0	0	0	0
11	421	809	475	212	69	19	5	1	0	0	0	0	0	0	0	0	0	0	0
12	396	814	474	205	70	20	6	1	0	0	0	0	0	0	0	0	0	0	0
13	371	813	471	202	70	20	7	2	0	0	0	0	0	0	0	0	0	0	0
14	346	811	467	204	66	16	5	1	0	0	0	0	0	0	0	0	0	0	0
15	321	811	472	201	65	15	3	0	0	0	0	0	0	0	0	0	0	0	0
16	296	817	473	206	65	14	2	0	0	0	0	0	0	0	0	0	0	0	0
17	271	812	462	205	65	14	2	0	0	0	0	0	0	0	0	0	0	0	0
18	246	802	462	207	68	14	2	0	0	0	0	0	0	0	0	0	0	0	0
19	221	773	455	208	69	14	2	0	0	0	0	0	0	0	0	0	0	0	0
20	196	748	450	213	74	16	3	0	0	0	0	0	0	0	0	0	0	0	0
21	171	732	450	222	82	20	5	0	0	0	0	0	0	0	0	0	0	0	0
22	146	695	446	230	88	27	6	0	0	0	0	0	0	0	0	0	0	0	0
23	121	627	418	227	99	32	8	1	0	0	0	0	0	0	0	0	0	0	0
24	96	584	408	233	103	34	9	1	0	0	0	0	0	0	0	0	0	0	0
25	71	501	368	220	106	40	10	2	0	0	0	0	0	0	0	0	0	0	0

## NWSM1506 ADCP 1577

Harmonic constants for constituent M2 for deployment NWSM1506.

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	671	238	238	70	182	242	57	10	235	A
02	646	253	241	89	185	258	73	12	238	A
03	621	256	244	103	190	264	81	15	240	A
04	596	256	247	109	195	266	83	16	242	A
05	571	251	249	111	200	263	80	18	243	A
06	546	244	251	112	205	258	76	20	245	A
07	521	238	252	115	210	255	71	22	245	A
08	496	230	253	117	217	250	65	24	247	A
09	471	221	255	121	223	245	58	26	248	A
10	446	211	258	128	230	241	53	30	251	A
11	421	201	261	136	235	237	49	33	253	A
12	396	190	262	140	240	232	43	36	254	A
13	371	178	262	139	244	223	33	38	255	A
14	346	167	261	133	248	212	24	38	256	A
15	321	156	262	132	252	204	17	40	258	A
16	296	147	263	132	255	197	13	42	259	A
17	271	141	263	131	258	192	9	43	260	A
18	246	138	264	132	259	191	8	44	261	A
19	221	136	266	135	260	192	9	45	263	A
20	196	137	266	137	260	193	11	45	263	A
21	171	140	267	140	260	198	12	45	264	A
22	146	143	267	141	260	200	12	45	264	A
23	121	144	237	141	230	201	13	44	234	A
24	96	141	267	145	259	202	15	46	263	A
25	71	144	271	146	259	204	22	45	265	A

Harmonic constants for constituent S2 for deployment NWSM1506.

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	671	89	273	29	216	91	24	11	270	A
02	646	98	278	38	218	100	32	13	274	A
03	621	100	283	45	225	103	37	15	277	A
04	596	97	287	47	233	101	36	18	280	A
05	571	91	289	47	241	97	33	22	282	A
06	546	88	291	47	248	95	30	24	283	A
07	521	84	293	49	256	94	27	27	285	A
08	496	79	297	51	264	91	24	31	288	A
09	471	73	300	52	273	88	20	34	291	A
10	446	70	300	53	278	86	16	36	292	A
11	421	64	298	51	282	82	12	38	292	A
12	396	60	295	49	285	77	7	39	291	A
13	371	59	295	49	285	76	6	40	291	A
14	346	56	296	50	287	75	6	42	292	A
15	321	54	298	50	291	74	5	43	295	A
16	296	53	297	50	290	73	5	44	293	A
17	271	52	295	50	289	71	4	44	292	A
18	246	51	292	46	290	69	1	42	291	A
19	221	47	286	44	289	64	2	43	288	C
20	196	43	291	44	291	62	0	46	291	A
21	171	45	294	44	298	63	2	44	296	C
22	146	44	292	39	302	58	5	42	296	C
23	121	46	260	39	269	61	5	40	263	C
24	96	41	289	44	304	60	8	48	297	C
25	71	40	303	47	311	62	4	50	308	C

## NWSM1506 ADCP 1577

Harmonic constants for constituent N2 for deployment NWSM1506.

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	671	49	207	10	162	49	7	8	206	A
02	646	51	212	14	157	52	11	9	210	A
03	621	53	217	19	164	54	14	13	213	A
04	596	54	222	22	171	56	16	15	218	A
05	571	55	227	24	180	57	16	18	221	A
06	546	54	232	26	186	57	18	21	225	A
07	521	54	235	30	190	59	19	24	227	A
08	496	57	237	35	191	63	23	27	227	A
09	471	58	241	37	193	64	24	27	229	A
10	446	56	242	37	197	63	23	29	230	A
11	421	53	238	33	202	60	17	30	229	A
12	396	50	234	31	204	57	14	30	226	A
13	371	46	233	30	207	54	11	32	226	A
14	346	37	237	28	217	46	8	37	230	A
15	321	31	243	32	231	44	5	46	237	A
16	296	28	246	33	236	43	4	49	241	A
17	271	28	248	31	239	41	3	47	243	A
18	246	27	248	30	238	40	3	48	242	A
19	221	26	252	30	239	39	5	49	245	A
20	196	29	250	30	238	41	4	46	244	A
21	171	29	248	28	244	40	1	44	246	A
22	146	30	246	30	249	43	1	46	247	C
23	121	27	210	30	221	41	4	48	216	C
24	96	22	226	27	264	33	11	52	250	C
25	71	18	234	31	273	35	10	63	264	C

Harmonic constants for constituent O1 for deployment NWSM1506.

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	671	43	346	20	35	45	14	19	352	C
02	646	43	344	17	40	44	14	14	349	C
03	621	42	342	18	40	43	15	15	347	C
04	596	41	343	19	41	42	15	16	349	C
05	571	40	342	19	36	42	14	17	348	C
06	546	39	342	17	34	40	13	17	348	C
07	521	37	341	18	37	38	14	17	347	C
08	496	37	339	18	38	38	15	17	346	C
09	471	35	339	17	38	36	14	16	345	C
10	446	33	335	17	38	34	15	16	342	C
11	421	30	330	16	48	31	15	8	334	C
12	396	28	325	15	54	28	15	1	325	C
13	371	26	323	13	52	26	13	0	323	C
14	346	25	321	10	58	25	10	177	140	C
15	321	24	320	9	54	24	9	179	140	C
16	296	23	317	8	65	23	7	173	134	C
17	271	22	316	9	74	23	8	168	132	C
18	246	21	318	9	76	22	8	167	133	C
19	221	25	322	11	85	26	9	165	136	C
20	196	28	322	9	101	29	6	165	139	C
21	171	26	322	10	112	28	5	161	139	C
22	146	25	317	12	98	27	7	158	131	C
23	121	25	307	14	90	28	8	153	119	C
24	96	25	331	14	99	27	10	156	141	C
25	71	21	321	12	109	24	6	153	134	C

## NWSM1506 ADCP 1577

Harmonic constants for constituent K1 for deployment NWSM1506.

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	671	26	209	8	274	26	7	8	211	C
02	646	26	208	7	284	26	7	4	209	C
03	621	25	209	7	272	25	7	8	211	C
04	596	24	208	7	273	25	6	7	210	C
05	571	25	206	7	284	25	7	3	207	C
06	546	25	206	6	284	25	6	3	206	C
07	521	25	207	7	275	25	6	6	209	C
08	496	23	209	9	268	23	7	12	213	C
09	471	21	208	8	265	21	7	13	212	C
10	446	21	205	6	281	21	6	5	206	C
11	421	19	197	7	306	19	7	172	14	C
12	396	18	193	5	302	18	5	174	12	C
13	371	19	190	3	296	19	3	178	9	C
14	346	17	182	3	272	17	3	180	2	C
15	321	16	171	3	262	16	3	180	351	C
16	296	16	180	2	256	16	2	2	180	C
17	271	14	189	2	292	14	2	178	8	C
18	246	16	188	2	327	16	1	174	7	C
19	221	20	215	5	284	20	5	6	217	C
20	196	19	203	7	275	19	7	8	205	C
21	171	17	185	4	260	17	4	3	186	C
22	146	21	176	1	114	21	1	2	176	A
23	121	21	136	5	72	22	4	6	135	A
24	96	23	158	3	77	23	3	1	158	A
25	71	40	143	22	124	46	7	28	139	A



## NWSM1602

**Latitude:** 60°48.917'N

**Longitude:** 005°22.349'W

**Echo sounding depth:** 722 m

**Bottom depth corr.:** 717 m

**Time of deployment:** 14/2 - 2016 0047 UTC

**Time of recovery:** 22/5 - 2016 1606 UTC

### ADCP:

**Instrument no.:** RDI ADCP 1577

**Instrument frequency:** 75 kHz

**Height above bottom:** 8 m

**Depth:** 709 m

**Time of first data:** 14/2 - 2012 0120 UTC

**Time of last data:** 22/5 - 2016 1600 UTC

**Sample interval:** 20 min

**No. of ensembles:** 7101

**Pings per ens.:** 1

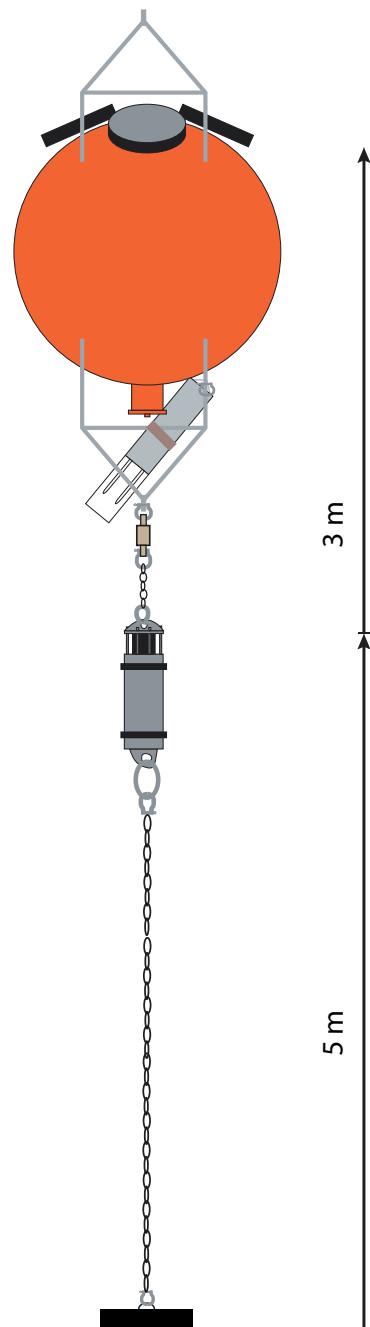
**Binlength:** 25 m

**Depth of first bin:** 673 m

**No. of bins:** 22

### Data:

**Data ok.**



## NWSM1602 ADCP 1577

Error statistics for deployment: NWSM1602 updated 2016/10/11

Temperature edited

Surface distance not edited

Heading, pitch and roll not edited

Intensity not edited

Velocity edited using these data filters:

Maximum Speed, number of std dev for each bin: 5.0

Maximum Vertical Velocity:150.0

Maximum Error Velocity (erv\_tr+0.1\*spd):100.0

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 1): 6.00

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 22): 3.50

Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 28): 2.00

Total number of ensembles: 7101

Interval between ensembles: 20 min

Original number of bins: 28

Number of acceptable velocity bins: 22

Flagged values have been replaced by error codes: -999.99 for temperature and depth, -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.	Velocity ens.	%	Number of velocity gaps of length													
				flgd		flgd		1	2	3	4	5	6-10	11-20	21-30	31-50	>50
				flgd	flgd	flgd	flgd										
1	0	25	0	17	4	0	0	0	0	0	0	0	0	0	0	0	
2	0	27	0	23	2	0	0	0	0	0	0	0	0	0	0	0	
3	0	32	0	22	5	0	0	0	0	0	0	0	0	0	0	0	
4	0	34	0	28	3	0	0	0	0	0	0	0	0	0	0	0	
5	0	31	0	21	5	0	0	0	0	0	0	0	0	0	0	0	
6	0	36	1	22	7	0	0	0	0	0	0	0	0	0	0	0	
7	0	35	0	25	5	0	0	0	0	0	0	0	0	0	0	0	
8	0	42	1	28	7	0	0	0	0	0	0	0	0	0	0	0	
9	0	41	1	33	4	0	0	0	0	0	0	0	0	0	0	0	
10	0	41	1	29	6	0	0	0	0	0	0	0	0	0	0	0	
11	0	42	1	24	5	1	0	1	0	0	0	0	0	0	0	0	
12	0	47	1	34	5	1	0	0	0	0	0	0	0	0	0	0	
13	0	53	1	39	7	0	0	0	0	0	0	0	0	0	0	0	
14	0	66	1	48	5	1	0	1	0	0	0	0	0	0	0	0	
15	0	77	1	60	7	1	0	0	0	0	0	0	0	0	0	0	
16	0	88	1	69	8	1	0	0	0	0	0	0	0	0	0	0	
17	0	166	2	81	14	7	0	2	1	1	0	0	0	0	0	0	
18	0	405	6	122	27	9	7	6	10	5	0	0	0	0	0	0	
19	0	1021	14	149	52	21	15	6	19	14	6	3	0	0	0	0	
20	0	2212	31	136	57	28	15	8	21	33	20	15	0	0	0	0	
21	0	3222	45	122	45	27	11	6	6	13	37	44	0	0	0	0	
22	0	3930	55	112	41	23	7	7	17	9	31	62	0	0	0	0	

## NWSM1602 ADCP 1577

Deployment: NWSM1602 updated 2016/10/11  
Instrument no.: 1577  
Instrument freq.: 75  
Latitude: 60 48.917 N  
Longitude: 05 22.349 W  
Bottom depth: 717  
Instrument depth: 709  
Center depth of first bin: 673  
Bin length: 25  
Number of bins: 22  
Number of first ensemble: 335  
Time of first ensemble: 2016 02 14 01 20  
Number of last ensemble: 7435  
Time of last ensemble: 2016 05 22 16 00  
Time between ensembles (min.): 20  
All directions have been corrected by adding: -5.0

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	673	44	218	41	199	996
2	648	69	227	45	198	996
3	623	94	231	48	198	995
4	598	119	230	50	198	995
5	573	144	223	50	199	996
6	548	169	216	50	198	995
7	523	194	211	50	197	995
8	498	219	207	51	197	994
9	473	244	204	51	195	994
10	448	269	206	55	193	994
11	423	294	210	56	194	994
12	398	319	213	53	195	993
13	373	344	212	56	199	993
14	348	369	212	62	204	991
15	323	394	213	65	205	989
16	298	419	214	65	203	988
17	273	444	214	64	200	977
18	248	469	215	63	199	943
19	223	494	218	62	200	856
20	198	519	222	59	199	688
21	173	544	223	51	193	546
22	148	569	224	45	182	447

## NWSM1602 ADCP 1577

Frequency of high speeds.

=====

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

=====

Bin Depth  no.	m	Speed (cm/s)																	
		10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	673	830	501	245	83	19	2	0	0	0	0	0	0	0	0	0	0	0	0
2	648	842	533	264	100	27	5	1	0	0	0	0	0	0	0	0	0	0	0
3	623	845	541	279	107	30	6	1	0	0	0	0	0	0	0	0	0	0	0
4	598	844	534	267	107	32	6	1	0	0	0	0	0	0	0	0	0	0	0
5	573	834	519	243	95	28	5	0	0	0	0	0	0	0	0	0	0	0	0
6	548	827	502	222	79	21	3	0	0	0	0	0	0	0	0	0	0	0	0
7	523	817	481	211	77	20	2	0	0	0	0	0	0	0	0	0	0	0	0
8	498	812	462	200	71	20	3	0	0	0	0	0	0	0	0	0	0	0	0
9	473	800	455	197	65	21	3	0	0	0	0	0	0	0	0	0	0	0	0
10	448	802	461	197	66	20	5	1	0	0	0	0	0	0	0	0	0	0	0
11	423	807	476	212	70	21	7	2	0	0	0	0	0	0	0	0	0	0	0
12	398	820	485	213	74	21	4	1	0	0	0	0	0	0	0	0	0	0	0
13	373	817	482	215	75	17	4	0	0	0	0	0	0	0	0	0	0	0	0
14	348	815	479	216	80	22	3	0	0	0	0	0	0	0	0	0	0	0	0
15	323	808	476	224	85	24	3	0	0	0	0	0	0	0	0	0	0	0	0
16	298	811	479	221	82	23	3	0	0	0	0	0	0	0	0	0	0	0	0
17	273	803	479	220	75	22	3	0	0	0	0	0	0	0	0	0	0	0	0
18	248	780	466	212	77	21	5	0	0	0	0	0	0	0	0	0	0	0	0
19	223	712	431	203	71	22	4	1	0	0	0	0	0	0	0	0	0	0	0
20	198	574	356	172	62	20	4	0	0	0	0	0	0	0	0	0	0	0	0
21	173	458	282	136	51	18	3	0	0	0	0	0	0	0	0	0	0	0	0
22	148	373	230	112	45	14	3	0	0	0	0	0	0	0	0	0	0	0	0

## NWSM1602 ADCP 1577

Harmonic constants for constituent M2 for deployment NWSM1602.

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	673	225	242	80	200	233	52	16	239	A
02	648	237	246	98	201	247	67	17	242	A
03	623	241	249	109	204	254	74	19	244	A
04	598	239	252	115	208	254	74	21	245	A
05	573	231	253	116	214	250	67	23	247	A
06	548	223	255	118	220	244	61	25	248	A
07	523	213	257	121	226	239	55	28	250	A
08	498	205	258	127	232	236	48	30	252	A
09	473	195	260	130	237	231	42	33	253	A
10	448	188	261	136	240	229	40	35	254	A
11	423	188	263	140	241	231	43	36	255	A
12	398	186	263	143	242	230	42	37	255	A
13	373	180	263	139	243	225	37	37	256	A
14	348	173	262	135	246	218	30	38	256	A
15	323	167	261	132	248	211	24	38	256	A
16	298	162	261	128	249	205	20	38	256	A
17	273	159	261	127	250	203	18	38	257	A
18	248	159	261	126	251	203	17	38	257	A
19	223	155	260	128	252	200	14	40	257	A
20	198	156	260	143	252	211	15	42	256	A
21	173	181	259	166	246	244	28	43	253	A
22	148	190	264	166	240	247	52	41	254	A

Harmonic constants for constituent S2 for deployment NWSM1602.

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	673	96	285	44	226	99	36	15	279	A
02	648	102	289	53	229	106	44	18	281	A
03	623	105	293	61	235	111	49	21	283	A
04	598	102	295	62	241	110	46	24	284	A
05	573	95	294	57	246	104	38	26	284	A
06	548	88	292	50	249	97	31	26	283	A
07	523	85	291	48	255	94	25	26	284	A
08	498	81	291	44	262	91	19	27	285	A
09	473	78	290	41	264	87	16	26	285	A
10	448	74	291	41	271	84	12	28	286	A
11	423	68	296	42	284	80	7	31	292	A
12	398	64	300	45	293	78	5	35	298	A
13	373	57	296	44	297	72	1	38	296	C
14	348	57	289	43	297	71	5	37	292	C
15	323	58	291	43	298	72	4	37	293	C
16	298	58	300	44	304	73	2	38	301	C
17	273	55	306	47	309	72	2	41	307	C
18	248	52	304	48	308	71	2	42	305	C
19	223	51	305	47	309	70	2	43	306	C
20	198	46	308	50	309	68	1	47	309	C
21	173	60	317	42	320	73	2	35	318	C
22	148	51	337	59	309	76	19	50	321	A

## NWSM1602 ADCP 1577

Harmonic constants for constituent N2 for deployment NWSM1602.

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	673	42	217	10	216	43	0	13	217	A
02	648	44	218	11	202	45	3	14	217	A
03	623	44	221	14	204	46	4	17	220	A
04	598	42	226	16	212	45	4	21	225	A
05	573	39	231	19	223	43	2	26	229	A
06	548	35	230	20	228	41	1	30	230	A
07	523	35	234	22	229	41	2	32	233	A
08	498	37	238	25	228	45	4	34	235	A
09	473	41	242	28	218	49	10	34	235	A
10	448	45	242	30	215	53	12	33	234	A
11	423	45	242	29	213	52	12	32	234	A
12	398	46	238	29	210	53	12	31	230	A
13	373	48	235	33	207	57	13	33	227	A
14	348	52	238	41	204	63	19	37	225	A
15	323	54	242	42	205	65	21	37	228	A
16	298	51	243	37	206	60	19	34	231	A
17	273	46	242	35	211	56	15	37	231	A
18	248	43	241	33	216	53	12	37	232	A
19	223	41	244	31	220	51	10	36	236	A
20	198	35	248	30	227	45	8	41	239	A
21	173	38	258	45	222	56	18	51	237	A
22	148	39	265	59	194	61	36	71	205	A

Harmonic constants for constituent O1 for deployment NWSM1602.

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	673	43	356	17	42	45	12	16	0	C
02	648	44	358	16	46	45	12	15	2	C
03	623	43	0	15	44	44	10	15	4	C
04	598	39	359	13	51	40	10	12	2	C
05	573	36	358	17	49	38	12	18	4	C
06	548	36	1	15	46	38	10	17	6	C
07	523	35	358	16	59	36	13	14	4	C
08	498	34	356	17	66	34	15	12	2	C
09	473	34	353	13	69	34	13	6	355	C
10	448	32	350	12	70	32	12	5	352	C
11	423	30	351	10	87	30	10	178	170	C
12	398	30	343	8	88	30	8	176	162	C
13	373	30	337	6	89	30	5	176	156	C
14	348	32	332	3	85	33	3	178	152	C
15	323	31	331	5	120	32	2	173	151	C
16	298	31	330	6	124	32	3	169	149	C
17	273	30	327	8	122	31	3	166	145	C
18	248	31	326	8	117	32	4	168	145	C
19	223	32	325	5	116	33	2	173	145	C
20	198	40	331	20	350	44	6	26	334	C
21	173	68	325	68	338	96	11	45	332	C
22	148	81	343	84	328	116	15	46	335	A

## NWSM1602 ADCP 1577

Harmonic constants for constituent K1 for deployment NWSM1602.

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	673	24	239	7	285	25	5	13	242	C
02	648	25	239	4	304	25	4	5	240	C
03	623	22	227	5	327	22	5	178	46	C
04	598	18	217	7	351	19	5	165	33	C
05	573	17	215	6	341	17	5	166	31	C
06	548	19	213	5	322	19	5	175	31	C
07	523	20	208	3	331	20	3	175	28	C
08	498	16	208	1	326	16	1	178	28	C
09	473	15	210	5	59	15	2	162	33	A
10	448	17	194	7	76	18	6	168	18	A
11	423	15	194	6	83	15	5	171	17	A
12	398	19	187	4	92	19	4	179	8	A
13	373	19	147	7	89	19	6	13	143	A
14	348	31	115	15	103	34	3	25	113	A
15	323	34	113	19	111	39	0	30	112	A
16	298	26	119	16	114	31	1	32	117	A
17	273	19	120	16	110	25	2	41	116	A
18	248	26	120	23	107	34	4	41	114	A
19	223	30	115	21	105	36	3	36	111	A
20	198	28	77	20	102	34	7	35	85	C
21	173	22	0	37	84	38	22	84	80	C
22	148	70	353	13	164	71	2	169	172	C



# NWSQ1506

**Latitude:** 60°56.293'N

**Longitude:** 005°56.074'W

**Echo sounding depth:** 288 m

**Bottom depth corr.:** 296 m

**Time of deployment:** 12/6 - 2015 0556 UTC

**Time of recovery:** 22/5 - 2016 1843 UTC

## ADCP:

**Instrument no.:** RDI ADCP 1279

**Instrument frequency:** 150 kHz

**Height above bottom:** 1 m

**Depth:** 295 m

**Time of first data:** 12/6 - 2015 0620 UTC

**Time of last data:** 22/5 - 2016 1820 UTC

**Sample interval:** 20 min

**No. of ensembles:** 24877

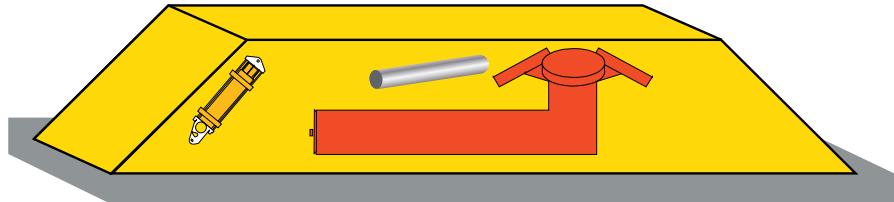
**Pings per ens.:** 1

**Binlength:** 10 m

**Depth of first bin:** 279 m

**No. of bins:** 23

## Starmon



**Instrument no.:** 4886

**Height above bottom:** 1 m

**Instrument depth:** 295 m

**Time of first data:** 12/6 - 2015 0605 UTC

**Time of last data:** 22/5 - 2016 1835 UTC

**Sample interval:** 5 min

**No. of ensembles:** 99511

## Data:

All data ok.

## NWSQ1506 ADCP 1279

Error statistics for deployment: NWSQ1506 updated 2016/10/11

Temperature edited  
Surface distance not edited  
Heading, pitch and roll not edited  
Intensity not edited

Velocity edited using these data filters:

Minimum Intensity:45.0  
Minimum Mean Correlation:40.0  
Maximum Speed, number of std dev for each bin: 4.0  
Maximum Vertical Velocity:150.0  
Maximum Error Velocity (erv\_tr+0.1\*spd):100.0  
Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 1): 4.00  
Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 23): 1.87  
Speed Spikes, u and v deviated from 3 point median by number of std dev (bin 30): 0.50  
Vertical Speed Spikes, u and v deviated from 3 point median by number of std dev: 4.0  
Vertical Velocity Spikes, deviated from 3 point median by number of std dev: 3.0

Total number of ensembles: 24877  
Interval between ensembles: 20 min  
Original number of bins: 30  
Number of acceptable velocity bins: 23

Flagged values have been replaced by error codes: -999.99 for temperature and depth, -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.	Velocity ens.	%	Number of velocity gaps of length											
				flgd	flgd	flgd	1	2	3	4	5	6-10	11-20	21-30	31-50
1	0	1499	6	1104	118	29	5	1	7	0	0	0	0	0	0
2	0	1243	5	969	98	23	1	1	0	0	0	0	0	0	0
3	0	1092	4	815	104	15	3	1	1	0	0	0	0	0	0
4	0	1025	4	730	99	23	7	0	0	0	0	0	0	0	0
5	0	991	4	681	96	26	4	0	4	0	0	0	0	0	0
6	0	928	4	590	114	20	6	1	3	0	0	0	0	0	0
7	0	920	4	574	98	27	9	2	2	1	0	0	0	0	0
8	0	930	4	585	108	30	3	3	2	0	0	0	0	0	0
9	0	899	4	573	108	23	9	1	0	0	0	0	0	0	0
10	0	1008	4	603	127	32	10	3	0	0	0	0	0	0	0
11	0	1034	4	629	121	26	9	2	6	0	0	0	0	0	0
12	0	1159	5	612	125	39	15	8	7	2	0	0	0	0	0
13	0	1270	5	629	148	38	22	7	11	2	0	0	0	0	0
14	0	1530	6	681	189	49	21	8	24	2	0	0	0	0	0
15	0	1756	7	699	189	70	30	15	30	4	0	0	0	0	0
16	0	2117	9	742	214	64	27	23	46	10	2	0	0	0	0
17	0	2776	11	858	229	104	35	27	57	18	7	0	0	0	0
18	0	3679	15	927	252	131	52	36	85	36	13	0	0	0	0
19	0	4910	20	1114	294	144	51	44	86	48	26	8	1	0	0
20	0	6517	26	1238	369	172	98	50	86	53	45	15	5	0	0
21	0	8286	33	1234	419	185	113	67	110	60	52	39	8	0	0
22	0	10226	41	1303	410	235	132	85	150	66	31	62	18	0	0
23	0	12137	49	1249	443	214	139	88	166	72	30	62	34	0	0

## NWSQ1506 ADCP 1279

Deployment: NWSQ1506 updated 2016/10/11  
Instrument no.: 1279  
Instrument freq.: 150  
Latitude: 60 56.293 N  
Longitude: 05 56.074 W  
Bottom depth: 296  
Instrument depth: 295  
Center depth of first bin: 279  
Bin length: 10  
Number of bins: 23  
Number of first ensemble: 212  
Time of first ensemble: 2015 06 12 06 20  
Number of last ensemble: 25088  
Time of last ensemble: 2016 05 22 18 20  
Time between ensembles (min.): 20  
All directions have been corrected by adding: -5.0

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	279	17	195	46	184	940
2	269	27	214	50	189	950
3	259	37	227	55	192	956
4	249	47	237	59	195	959
5	239	57	245	60	196	960
6	229	67	251	64	198	963
7	219	77	254	64	198	963
8	209	87	256	65	198	963
9	199	97	257	64	198	964
10	189	107	256	62	197	959
11	179	117	256	61	197	958
12	169	127	255	59	197	953
13	159	137	255	57	196	949
14	149	147	254	55	196	938
15	139	157	254	54	196	929
16	129	167	254	53	196	915
17	119	177	254	50	196	888
18	109	187	255	47	195	852
19	99	197	258	43	195	803
20	89	207	261	40	194	738
21	79	217	264	35	191	667
22	69	227	266	29	184	589
23	59	237	269	25	171	512

## NWSQ1506 ADCP 1279

Frequency of high speeds.

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

Bin	Depth	Speed (cm/s)																			
		no.	m	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	279	768	420	146	29	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	269	809	487	204	52	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	259	832	534	242	71	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	249	851	567	272	90	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	239	868	590	295	103	22	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	229	873	605	312	117	25	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	219	879	615	323	122	30	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	209	881	618	327	127	30	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9	199	884	620	330	129	33	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10	189	877	616	325	127	32	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11	179	878	613	322	126	33	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12	169	871	607	317	122	35	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0
13	159	866	602	312	123	35	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0
14	149	854	592	309	119	35	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0
15	139	845	586	304	117	35	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0
16	129	830	576	301	116	37	9	2	1	0	0	0	0	0	0	0	0	0	0	0	0
17	119	805	560	291	115	36	9	2	1	0	0	0	0	0	0	0	0	0	0	0	0
18	109	771	539	282	113	37	11	3	1	0	0	0	0	0	0	0	0	0	0	0	0
19	99	728	509	269	112	37	11	3	1	0	0	0	0	0	0	0	0	0	0	0	0
20	89	671	472	252	109	40	13	4	1	0	0	0	0	0	0	0	0	0	0	0	0
21	79	605	430	232	104	39	14	5	2	0	0	0	0	0	0	0	0	0	0	0	0
22	69	531	379	208	95	38	15	5	2	1	0	0	0	0	0	0	0	0	0	0	0
23	59	459	327	187	88	37	15	6	2	1	0	0	0	0	0	0	0	0	0	0	0

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Harmonic constants for constituent M2 for deployment NWSQ1506.

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	279	207	241	99	208	224	50	23	236	A
02	269	230	245	114	204	247	69	23	238	A
03	259	243	248	128	203	262	83	23	240	A
04	249	253	250	141	204	273	95	24	242	A
05	239	258	253	152	205	281	104	25	243	A
06	229	261	255	161	206	286	111	26	244	A
07	219	263	256	168	207	290	115	27	245	A
08	209	262	258	174	209	292	118	28	245	A
09	199	261	259	178	210	292	120	29	246	A
10	189	259	260	180	211	292	121	30	247	A
11	179	257	261	182	213	292	120	31	247	A
12	169	257	261	184	214	292	119	32	247	A
13	159	255	262	185	215	291	118	32	248	A
14	149	253	263	184	216	290	116	32	248	A
15	139	251	263	184	217	289	115	33	249	A
16	129	250	263	183	217	288	114	33	249	A
17	119	249	263	181	217	287	113	33	249	A
18	109	249	263	180	218	286	111	32	249	A
19	99	249	263	179	217	286	111	32	249	A
20	89	250	262	180	217	287	111	32	248	A
21	79	247	261	176	216	283	108	32	248	A
22	69	243	260	171	216	279	103	32	247	A
23	59	242	258	161	216	274	95	30	246	A

Harmonic constants for constituent S2 for deployment NWSQ1506.

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	279	69	277	33	258	76	10	25	274	A
02	269	78	281	35	254	85	15	22	277	A
03	259	84	283	39	250	91	20	22	278	A
04	249	89	286	43	247	95	25	23	279	A
05	239	91	289	48	247	99	29	24	281	A
06	229	93	292	52	249	101	32	25	283	A
07	219	93	294	55	250	103	35	26	284	A
08	209	94	296	58	252	104	36	28	285	A
09	199	94	297	60	252	105	38	28	286	A
10	189	93	298	61	254	104	38	29	287	A
11	179	93	299	61	255	104	38	29	288	A
12	169	92	300	61	255	103	38	30	288	A
13	159	90	300	60	257	102	37	30	289	A
14	149	89	300	60	257	101	36	30	288	A
15	139	87	300	60	258	100	35	31	288	A
16	129	87	300	60	259	99	35	32	288	A
17	119	85	301	60	259	98	35	32	288	A
18	109	85	301	59	258	97	35	32	288	A
19	99	84	301	58	257	95	35	31	288	A
20	89	85	300	56	255	95	35	30	288	A
21	79	84	299	56	255	95	34	30	287	A
22	69	87	299	56	253	97	36	29	287	A
23	59	88	297	56	253	98	35	29	286	A

## NWSQ1506 ADCP 1279

Harmonic constants for constituent N2 for deployment NWSQ1506.

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	279	35	215	16	205	38	3	25	213	A
02	269	39	215	16	196	42	5	21	213	A
03	259	43	217	19	186	46	9	21	213	A
04	249	46	220	21	183	50	12	22	214	A
05	239	50	222	25	181	53	16	23	215	A
06	229	52	225	28	181	56	18	24	217	A
07	219	54	228	32	182	59	21	26	218	A
08	209	55	229	34	184	61	22	27	219	A
09	199	56	231	35	186	62	23	28	220	A
10	189	56	235	37	186	63	25	28	223	A
11	179	56	237	37	188	63	25	28	225	A
12	169	56	239	38	189	62	26	29	226	A
13	159	55	241	40	191	63	27	32	226	A
14	149	56	242	41	193	64	27	32	227	A
15	139	55	244	41	195	63	27	33	229	A
16	129	55	245	42	197	64	27	34	229	A
17	119	56	246	44	198	65	28	35	229	A
18	109	56	246	45	198	66	28	36	228	A
19	99	53	246	45	198	63	27	38	227	A
20	89	52	244	43	197	62	26	37	226	A
21	79	55	241	45	198	66	25	37	225	A
22	69	56	241	41	197	65	25	34	227	A
23	59	59	236	39	187	66	26	28	224	A

Harmonic constants for constituent O1 for deployment NWSQ1506.

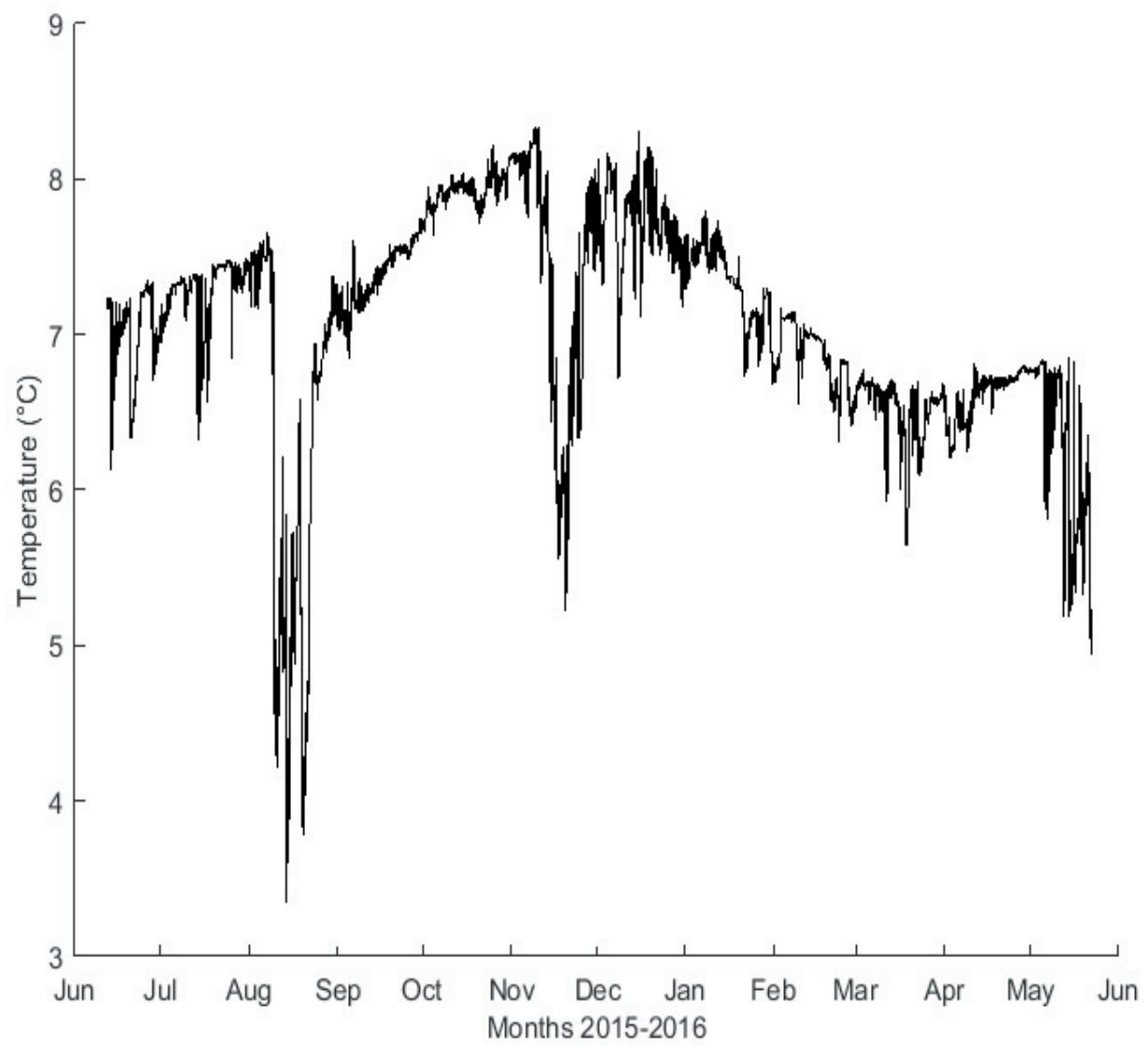
Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	279	45	306	28	239	47	24	19	296	A
02	269	48	303	29	234	50	26	17	294	A
03	259	51	301	30	230	52	28	15	293	A
04	249	50	303	30	227	51	29	13	295	A
05	239	51	303	31	224	52	31	10	297	A
06	229	52	302	30	221	52	30	8	297	A
07	219	52	303	30	219	53	30	5	299	A
08	209	53	303	31	216	53	31	3	301	A
09	199	51	303	32	216	51	32	3	300	A
10	189	52	303	32	215	52	32	2	302	A
11	179	52	303	32	215	52	32	3	301	A
12	169	51	302	32	216	51	32	3	300	A
13	159	51	302	32	216	51	32	4	300	A
14	149	51	303	31	216	51	31	3	302	A
15	139	51	304	31	215	51	31	2	303	A
16	129	49	303	30	216	49	30	3	301	A
17	119	48	302	30	216	48	30	4	299	A
18	109	47	303	29	217	47	29	4	301	A
19	99	46	304	27	216	46	27	3	302	A
20	89	46	302	28	218	46	28	5	300	A
21	79	46	302	27	211	46	27	179	122	A
22	69	46	301	27	211	46	27	0	301	A
23	59	47	292	26	210	48	26	6	288	A

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Harmonic constants for constituent K1 for deployment NWSQ1506.

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	279	31	171	19	94	32	18	11	165	A
02	269	35	167	20	91	35	19	12	161	A
03	259	35	167	22	90	35	22	13	160	A
04	249	34	167	23	86	35	23	10	161	A
05	239	34	166	25	83	34	24	10	159	A
06	229	33	167	24	84	33	24	10	160	A
07	219	32	167	25	85	33	24	13	157	A
08	209	31	168	24	85	31	24	14	157	A
09	199	31	167	23	85	31	23	12	158	A
10	189	30	167	23	85	30	22	13	158	A
11	179	30	167	23	82	30	22	8	162	A
12	169	30	166	21	84	30	21	12	158	A
13	159	31	168	21	85	31	21	9	162	A
14	149	31	169	20	82	31	20	3	167	A
15	139	31	169	19	81	31	19	2	168	A
16	129	31	169	19	78	31	19	179	350	A
17	119	31	170	18	76	31	18	177	352	A
18	109	30	169	17	79	30	17	0	169	A
19	99	30	168	16	78	30	16	180	348	A
20	89	30	164	16	75	30	16	1	164	A
21	79	29	169	11	66	29	11	174	352	A
22	69	28	171	14	70	29	13	173	354	A
23	59	27	175	14	65	28	13	167	1	A

## NWSQ1506 Starmon 4886







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