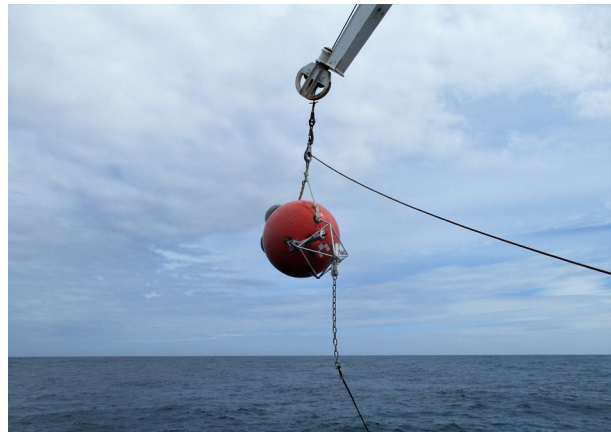


FARMON II Deployments in Faroese Waters 2018 - 2019

Tórshavn · December 2019



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Introduction

The report documents seven current meter deployments in Faroese waters in 2018 – 2019 deployed within the FARMON II project, which is funded by the Danish Ministry of Climate, Energy and Utilities as part of the Arctic Climate Support Programme.

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. Three of the moorings were located at standard (Nordic WOCE) sites (NWFB, NWFC and NWNB). Two were deployed (NWNJ and NWNL) at larger depths on the Faroe Current section. Additionally, two moorings were deployed on the eastern part of the Faroe Plateau to monitor the recirculation of the Faroe Current into the Faroe Shetland Channel (TNGY and TNGZ). The deployments are listed in Tables 1 and 2.

At all sites except NWNJ and TNGZ, RDI ADCPs (Acoustic Doppler Current Profiler) were placed in the top of single-point moorings. At site TNGZ a “shallow-water” rig was used, where an RDI ADCP was placed on the bottom inside a protective aluminium frame. The ADCP's measures the velocity averaged over a number of depth layers (“bins”). At 20 minute intervals, the ADCP's records the data from all bins into “ensembles” as well as the instruments heading, pitch, roll and temperature.

At site NWNJ an Aanderaa RCM9 current meter was on the mooring. But unfortunately, the Aanderaa current meter experienced a leakage and no data were retrieved from the instrument after recovery.

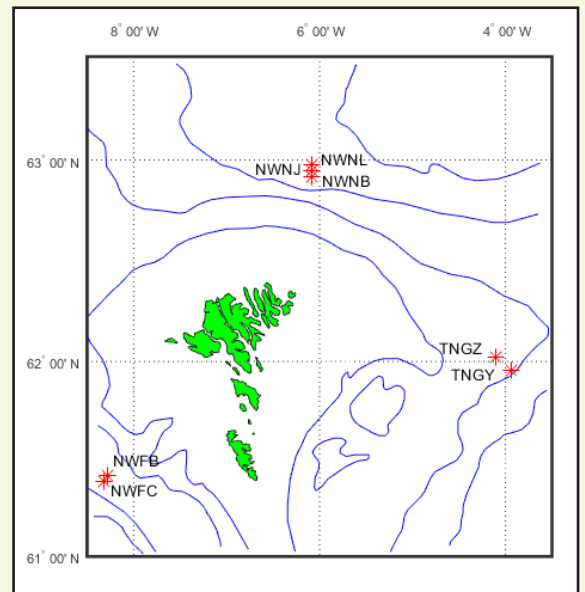


Figure 1. Mooring sites in Faroese waters 2018-2019 superposed on a map with the bottom topography. Each site is indicated by a four-letter label.

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

Deployment	Instr. No	Current Meter type	Freq. kHz	Pings per ens	Binlng. m
NWFB1806	1642	BB ADCP	75	1	25
NWFC1809	1285	BB ADCP	75	1	25
NWNB1806	1644	BB ADCP	75	1	25
NWNL1806	19518	LR ADCP	75	10	10
TNGY1806	1292	BB ADCP	75	1	25
TNGZ1806	1279	BB ADCP	150	1	25

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	Other instr.
NWFB1806	811	20	2018 06 17–2019 05 17	333	21	269– 769	Microcat
NWFC1809	861	20	2018 09 19–2019 05 17	239	23	269– 819	SBE39
NWNB1806	961	20	2018 06 16–2019 05 17	335	21	172– 672	Microcat
NWNL1806	1458	20	2018 06 16–2019 05 18	335	69	746–1426	SBE56
TNGY1806	693	20	2018 06 16–2019 05 19	336	23	99– 649	
TNGZ1806	466	20	2018 06 15–2019 05 19	337	15	84– 434	SBE56

In addition to ADCP's several moorings had other recorders attached as shown in Table 2. The MicroCats (SBE 37) recorded pressure, temperature and salinity. The MicroCat at site NWFB also recorded oxygen. The SBE39 and SBE56 are temperature recorders only.

For more details see Tables 1 and 2.

Quality control

ADCP data

The velocity data from the ADCPs have been quality controlled using a semi-automatic routine that error flags observations that are above/below specified thresholds or are identified by specific filters as elaborated below:

- i) A minimum threshold can be set for intensity and correlation.
- ii) In order to remove extremely large speed (spd) values, the mean speed is calculated for each bin and multiplied by a specified factor. The result is the maximum threshold for each bin.
- iii) A maximum threshold for absolute vertical velocity (w) can be set.
- iv) The ADCP data also include an error velocity and a maximum absolute threshold can be specified for this parameter. The final threshold is this threshold plus ten percent of the observed speed for the individual observations.
- v) A de-spiking filter for horizontal velocities u and v can be applied. Observations, where u and v deviate from a three point median filter by more than the standard deviation multiplied by a specified factor, are error flagged. The specified factor can be chosen to vary between bins. One factor can be specified for bin 1 and another for the uppermost bin. For the intermediate bins the factor varies exponentially from bin 1 to the uppermost bin, such that the “sensitivity” of the filter can decrease with increasing distance from the instrument.
- vi) A de-spiking filter similar to that described in v) can be selected that operates vertically between bins instead of temporally between ensembles, but here only one factor is specified.
- vii) A separate de-spiking filter (similar to that described in v)) can be set for the vertical velocity component, w . Also here only one factor is specified.

- viii) Finally, an absolute maximum threshold can be set for Pitch and Roll.

In the final process, all the thresholds and filters are combined and applied to the velocity components u , v and w . In the data files this corresponds to the Speed, Direction and Vertical velocity files. 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. Generally, the temperature recordings have been edited, but not the other ADCP sensor data nor intensity or correlation.

The instrument depths at sites NWFC, TNGY and TNGZ are found from the surface echo. The instrument depths at sites NWFB and NWNB are found from the MicroCat pressure measurements. The instrument depth at site NWNL is found from the ADCP pressure measurements.

Auxiliary data

In order to calibrate the data from the auxiliary sensors, these have been attached to a CTD and set to record data while on the CTD cast. Offsets have then been found by comparing the auxiliary data to the CTD recordings. Typically such calibrations have been performed just prior to or after the deployment, and if done this is indicated in the details for the deployment. Additionally, the data from the MicroCat SBE37 and the SBE39 and SBE56 instruments 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 MicroCat on NWFB was originally funded by the EU-H2020 project AtlantOS. It is of the type SBE37 SMP-ODO and includes oxygen measurements. The oxygen recordings on this type of instrument appear to have some kind of hysteresis adaptation when deployed at great depths. The correction of these data are not final and we refer to the AtlantOS D3.18 deliverable report for more information (due 31.

March 2019) and future guidelines for correction of oxygen data from this type of instrument.

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 M₂, S₂, N₂, O₁, and K₁. Each table lists for each bin the amplitude and Greenwich phase lag for the east and north velocity components and lists also major and minor semi-axes of the tidal ellipse for the constituent as well as its inclination (Fig. 2) and sense of rotation (cyclonic = C, anticyclonic = A). The tidal constants were computed by an adapted version of the Foreman FORTRAN package.

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

The SBE39 and SBE56 temperature data are 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 MicroCat or temperature recorder data.

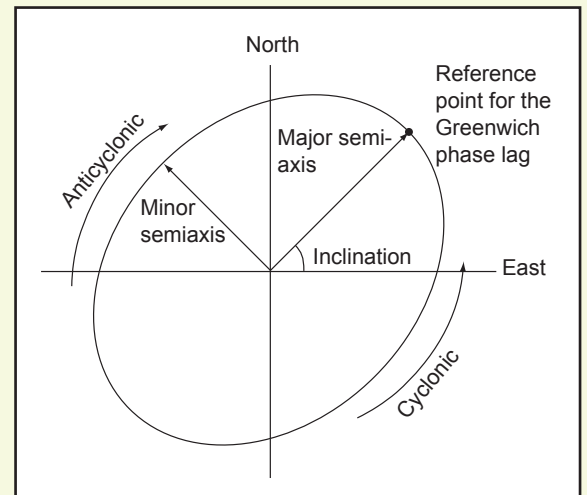


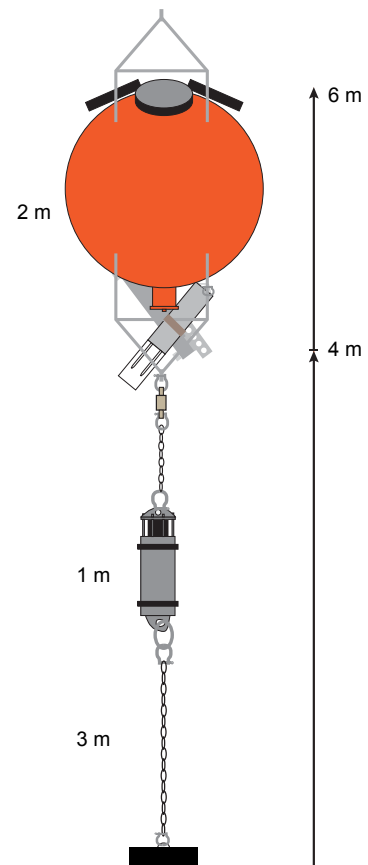
Figure 2. Parameters of the tidal ellipse for a given constituent. The reference point for the Greenwich phase lag is always chosen to be above the east-west axis.

NWFB18o6

Latitude: 61°25.063'N
Longitude: 008°17.054'W
Echo sounding depth: 821 m
Bottom depth corr.: 811 m
Time of deployment: 17/6 - 2018 0930 UTC
Time of recovery: 17/5 - 2019 0400 UTC

ADCP:

Instrument no.: RDI ADCP 1642
Instrument frequency: 75 kHz
Height above bottom: 6 m
Depth: 805 m
Time of first data: 17/6 - 2018 1000 UTC
Time of last data: 17/5 - 2019 0340 UTC
Sample interval: 20 min
No. of ensembles: 24030
Pings per ens.: 1
Binlength: 25 m
Depth of first bin: 769 m
No. of bins: 21



MicroCat

Instrument no.: 14007
Height above bottom: 4 m
Instrument depth: 807 m
Time of first data: 17/6 - 2018 1000 UTC
Time of last data: 17/5 - 2019 0302 UTC
Sample interval: 60 min
No. of ensembles: 8010

Data:

The temperature and pressure from the MicroCat are calibrated against an SBE911+.
The ADCP temperature has been deleted due to conversion error.

NWFB1806 ADCP 1642

Error statistics for deployment: NWFB1806 updated 2019/12/17

 The temperature has been deleted due to conversion error
 Surface distance not edited
 Heading, pitch and roll not edited
 Intensity not edited

Velocity (spd, dir, wel) is error flagged using these data filters:

Minimum Intensity threshold : 50.0
 Minimum Correlation threshold: 64.0
 Maximum Speed factor (Average speed for each bin times factor): 3.0
 Maximum Absolute Vertical Velocity threshold: 250.0
 Maximum Absolute Error Velocity threshold (erv_tr+0.1*spd):100.0
 Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 1): 4.00
 Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 21): 2.55
 Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 32): 1.00
 Std dev for vertical de-spiking (u and v deviate from 3 point median by more than number of std dev): 4.0
 Std dev for de-spiking (w deviates from 3 point median by more than number of std dev): 4.0

Total number of ensembles: 24030
 Interval between ensembles: 20 min
 Original number of bins: 32
 Number of acceptable velocity bins: 21

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: 24030

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	252	1	207	15	5	0	0	0	0	0	0	0	0
2	0	273	1	247	10	2	0	0	0	0	0	0	0	0
3	0	259	1	227	13	2	0	0	0	0	0	0	0	0
4	0	257	1	230	12	1	0	0	0	0	0	0	0	0
5	0	208	1	178	9	4	0	0	0	0	0	0	0	0
6	0	295	1	204	26	8	1	1	1	0	0	0	0	0
7	0	426	2	270	45	9	5	0	3	0	0	0	0	0
8	0	519	2	355	53	12	4	0	1	0	0	0	0	0
9	0	729	3	487	68	25	5	1	1	0	0	0	0	0
10	0	837	3	550	84	17	5	2	4	1	0	0	0	0
11	0	882	4	538	89	33	9	2	1	1	0	0	0	0
12	0	994	4	525	98	32	18	4	5	3	0	0	0	0
13	0	1007	4	538	95	22	11	6	7	3	0	0	0	1
14	0	992	4	563	93	19	14	4	3	3	0	1	0	0
15	0	1277	5	642	157	27	15	5	13	3	1	0	0	0
16	0	2160	9	858	210	72	51	31	28	6	1	0	0	0
17	0	3743	16	1182	344	152	89	45	81	18	0	0	0	0
18	0	5798	24	1576	499	236	128	80	133	43	2	0	0	0
19	0	7993	33	1827	670	342	171	99	194	60	11	2	0	0
20	0	9884	41	1824	698	353	228	127	258	94	20	10	0	0
21	0	11737	49	1786	678	338	203	126	289	141	45	23	0	0

NWFB1806 ADCP 1642

Deployment: NWFB1806 updated 2019/12/17
 Instrument no.: 1642
 Instrument freq.: 75
 Latitude: 61 25.063 N
 Longitude: 08 17.054 W
 Bottom depth: 811
 Instrument depth: 805
 Center depth of first bin: 769
 Bin length: 25
 Number of bins: 21
 Number of first ensemble: 427
 Time of first ensemble: 2018 06 17 10 00
 Number of last ensemble: 24456
 Time of last ensemble: 2019 05 17 03 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	769	42	982	976	306	990
2	744	67	1054	1048	308	989
3	719	92	1085	1080	310	989
4	694	117	1094	1089	312	989
5	669	142	1087	1082	312	991
6	644	167	1057	1051	313	988
7	619	192	985	975	315	982
8	594	217	853	838	318	978
9	569	242	682	655	321	970
10	544	267	511	465	324	965
11	519	292	374	303	327	963
12	494	317	284	184	329	959
13	469	342	236	111	334	958
14	444	367	215	66	345	959
15	419	392	209	42	13	947
16	394	417	213	46	57	910
17	369	442	224	74	81	844
18	344	467	247	117	93	759
19	319	492	275	165	98	667
20	294	517	297	204	100	589
21	269	542	308	224	103	512

NWFB1806 ADCP 1642

Frequency of high speeds.

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

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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
1 769	990	990	990	990	990	988	970	905	728	447	185	47	8	1	0	0	0	0
2 744	989	989	989	989	989	988	984	957	865	664	370	130	25	2	0	0	0	0
3 719	989	989	989	989	989	989	987	971	903	741	471	196	44	4	0	0	0	0
4 694	989	989	989	989	989	989	987	974	912	761	501	210	47	4	0	0	0	0
5 669	991	991	991	991	991	991	988	971	907	746	481	198	44	4	0	0	0	0
6 644	988	988	988	988	987	984	972	935	841	667	414	162	35	3	0	0	0	0
7 619	982	982	980	975	962	941	896	820	701	518	293	109	23	3	0	0	0	0
8 594	975	966	948	914	866	803	725	627	490	324	164	54	11	1	0	0	0	0
9 569	955	910	846	764	678	593	501	388	263	147	61	16	4	1	0	0	0	0
10 544	921	817	696	577	468	359	265	178	102	46	15	4	1	0	0	0	0	0
11 519	884	706	532	381	261	170	105	58	26	8	1	0	0	0	0	0	0	0
12 494	840	598	381	219	112	56	27	9	0	0	0	0	0	0	0	0	0	0
13 469	811	516	271	121	50	17	3	0	0	0	0	0	0	0	0	0	0	0
14 444	793	465	211	82	27	6	0	0	0	0	0	0	0	0	0	0	0	0
15 419	784	449	193	68	18	2	0	0	0	0	0	0	0	0	0	0	0	0
16 394	763	448	192	66	17	2	0	0	0	0	0	0	0	0	0	0	0	0
17 369	721	448	211	73	19	3	0	0	0	0	0	0	0	0	0	0	0	0
18 344	668	452	243	101	28	6	1	0	0	0	0	0	0	0	0	0	0	0
19 319	605	443	270	126	43	11	3	1	0	0	0	0	0	0	0	0	0	0
20 294	545	421	275	142	56	16	4	1	0	0	0	0	0	0	0	0	0	0
21 269	474	375	254	135	59	20	5	1	0	0	0	0	0	0	0	0	0	0

NWFB1806 ADCP 1642

Harmonic constants for constituent M2 for deployment NWFB1806.

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	769	27	66	20	328	27	19	168	254	A
02	744	31	71	19	326	32	18	167	258	A
03	719	32	77	18	323	33	16	163	266	A
04	694	32	83	17	323	33	14	161	272	A
05	669	30	90	16	310	33	10	155	278	A
06	644	27	106	20	287	34	0	143	286	A
07	619	30	135	24	272	36	14	144	299	C
08	594	37	162	27	265	38	25	164	331	C
09	569	43	195	27	236	48	16	30	206	C
10	544	53	226	42	197	66	16	37	215	A
11	519	70	243	66	180	82	50	42	214	A
12	494	78	251	86	174	92	71	57	201	A
13	469	78	255	96	173	98	76	73	186	A
14	444	78	258	100	173	100	77	80	181	A
15	419	74	263	102	175	102	74	86	179	A
16	394	75	269	101	179	101	75	90	179	A
17	369	75	272	100	183	100	75	89	183	A
18	344	66	277	95	186	95	66	91	185	A
19	319	62	278	87	190	87	62	87	192	A
20	294	53	274	74	194	75	51	77	203	A
21	269	46	245	68	170	70	43	74	181	A

Harmonic constants for constituent S2 NWFB1806.

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	769	14	85	9	9	14	9	15	75	A
02	744	15	89	11	358	15	11	179	270	A
03	719	16	95	12	353	16	11	164	286	A
04	694	14	97	12	348	15	10	148	300	A
05	669	10	117	9	332	13	4	136	314	A
06	644	11	158	8	298	13	4	144	324	C
07	619	17	185	9	289	17	9	168	358	C
08	594	20	195	8	274	20	8	6	197	C
09	569	19	223	10	250	21	4	26	229	C
10	544	20	258	19	237	27	5	43	248	A
11	519	24	283	27	227	32	17	51	250	A
12	494	28	296	33	213	33	27	71	229	A
13	469	30	297	34	211	34	30	77	222	A
14	444	30	302	37	209	37	30	97	203	A
15	419	30	309	38	211	38	29	105	200	A
16	394	30	314	39	215	39	29	105	204	A
17	369	30	322	40	219	41	28	109	206	A
18	344	30	333	40	225	42	27	115	208	A
19	319	29	342	38	228	41	25	118	210	A
20	294	28	335	32	241	33	28	105	228	A
21	269	11	309	22	222	22	11	88	223	A

NWFB1806 ADCP 1642

Harmonic constants for constituent N2 for deployment NWFB1806.

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	769	9	50	5	285	9	4	159	238	A
02	744	10	48	6	293	10	5	161	238	A
03	719	10	55	6	295	10	5	158	246	A
04	694	9	60	5	282	10	3	155	249	A
05	669	10	65	5	269	11	2	151	251	A
06	644	9	97	5	242	10	3	155	270	C
07	619	14	108	4	231	14	3	170	285	C
08	594	12	109	6	244	13	4	159	282	C
09	569	14	114	6	277	15	2	157	291	C
10	544	13	132	4	356	14	3	166	316	A
11	519	11	161	8	88	12	8	20	148	A
12	494	10	196	12	123	13	9	57	147	A
13	469	12	219	15	136	15	12	78	145	A
14	444	13	230	17	143	17	13	86	146	A
15	419	13	237	17	152	17	13	81	159	A
16	394	13	241	18	159	18	13	78	167	A
17	369	12	248	18	163	18	12	84	167	A
18	344	13	250	18	166	18	13	83	170	A
19	319	14	249	17	168	17	13	72	181	A
20	294	12	241	13	177	15	9	49	205	A
21	269	14	210	12	165	17	7	39	192	A

Harmonic constants for constituent O1 for deployment NWFB1806.

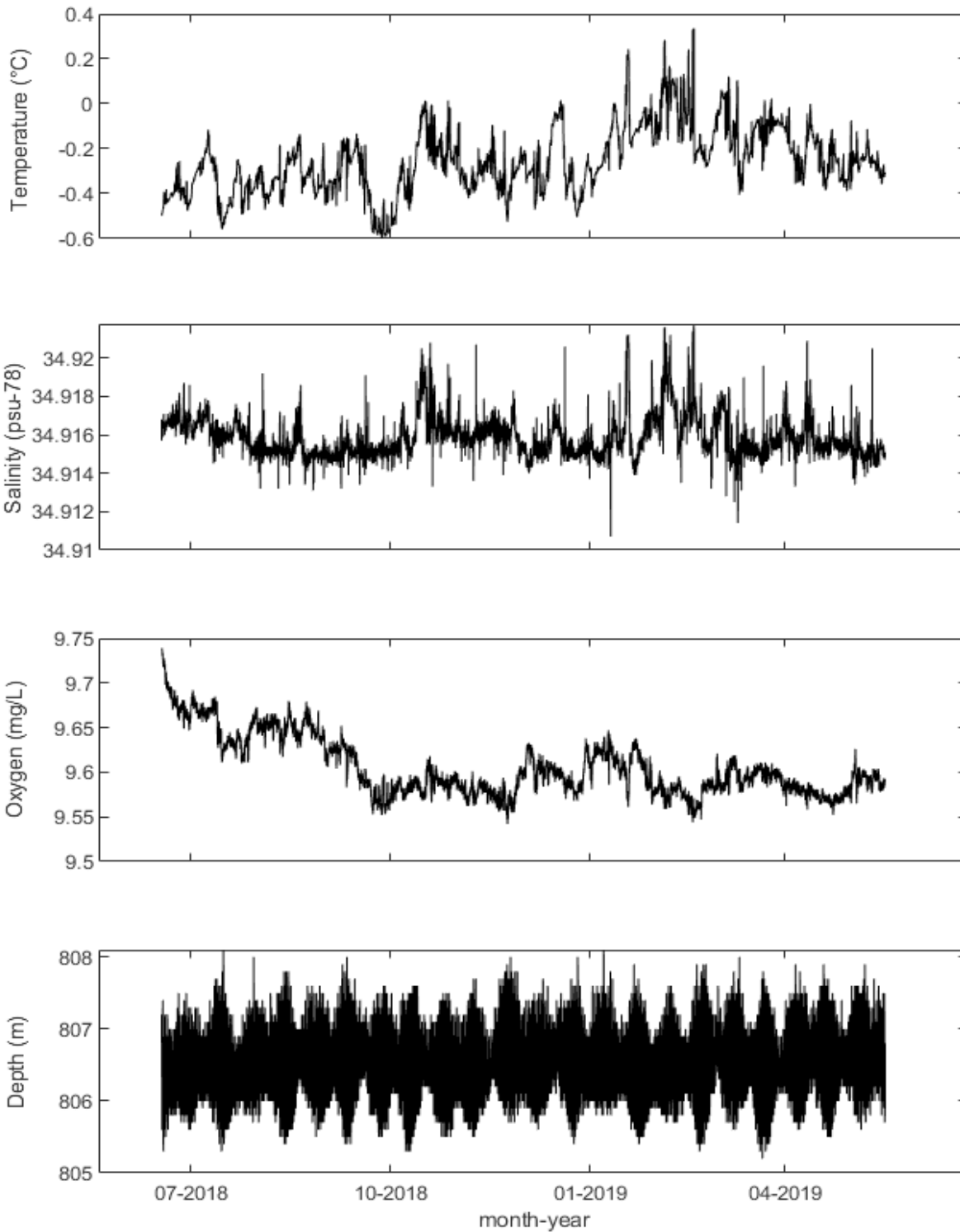
Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	769	17	303	10	140	20	3	150	128	A
02	744	19	305	12	136	23	2	149	128	A
03	719	20	307	13	135	24	1	148	129	A
04	694	19	313	13	134	23	0	146	133	A
05	669	21	317	14	137	26	0	146	137	A
06	644	27	323	16	141	31	1	150	143	C
07	619	34	331	21	148	40	1	147	150	C
08	594	35	340	29	152	45	3	141	157	C
09	569	32	346	32	157	46	4	135	162	C
10	544	26	343	31	163	41	0	131	163	C
11	519	22	352	28	169	36	1	127	170	C
12	494	15	7	19	179	24	2	128	182	C
13	469	12	17	16	192	20	1	128	194	C
14	444	12	17	15	198	19	0	129	197	A
15	419	12	12	16	199	20	1	126	196	A
16	394	11	6	14	197	18	2	129	193	A
17	369	8	11	10	202	13	1	129	198	A
18	344	5	49	4	188	6	2	140	212	C
19	319	5	36	6	229	7	1	131	224	A
20	294	6	30	4	177	7	2	148	200	C
21	269	2	154	7	292	7	1	101	294	C

NWFB1806 ADCP 1642

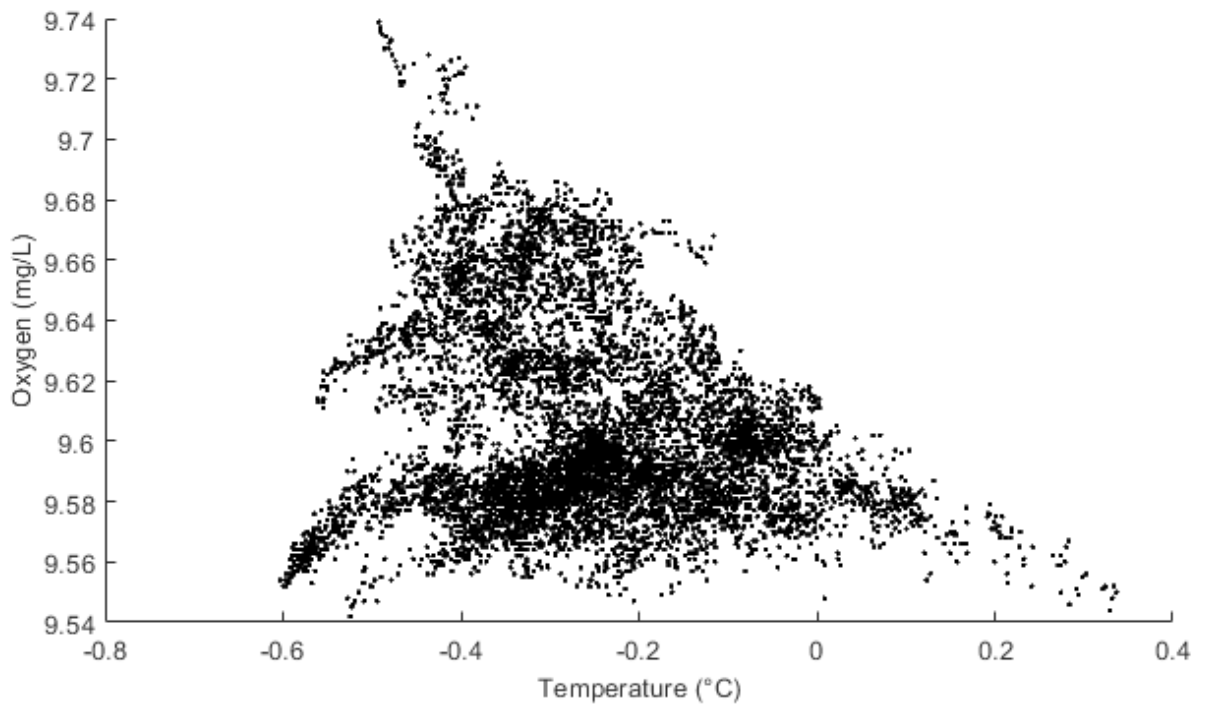
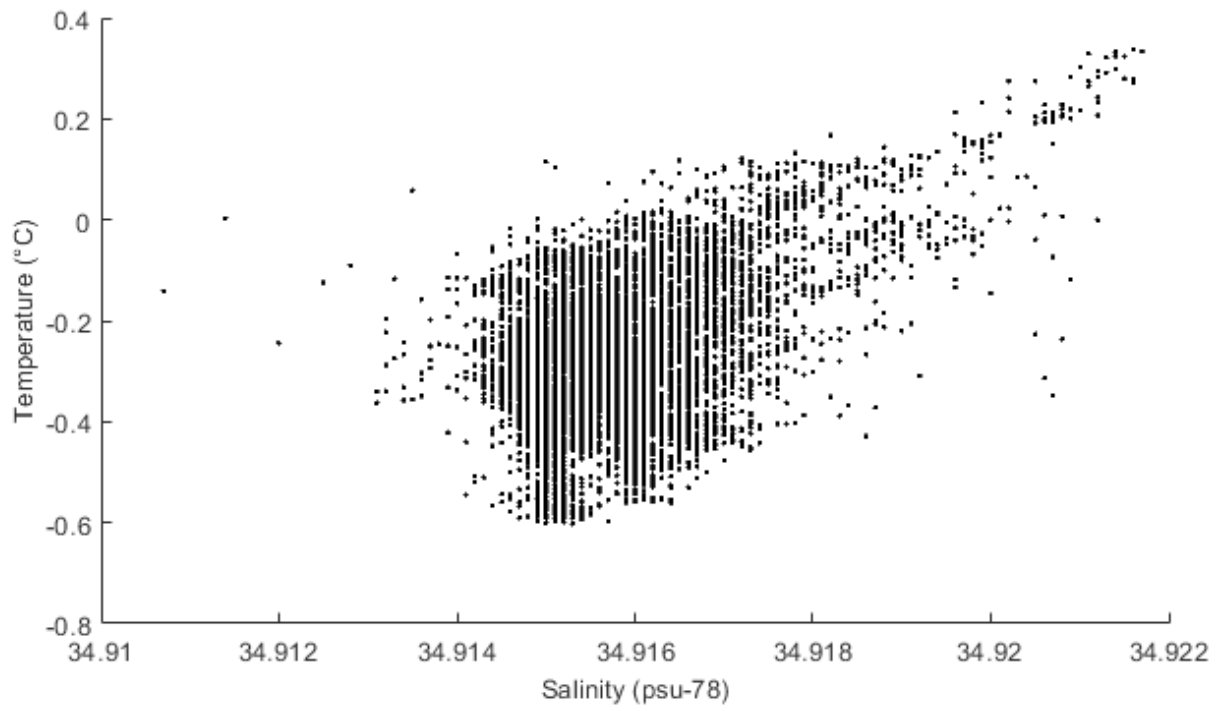
Harmonic constants for constituent K1 for deployment NWFB1806.

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	769	18	209	10	41	20	2	152	32	A
02	744	20	211	12	40	23	2	150	33	A
03	719	21	213	12	38	24	1	150	34	A
04	694	21	217	14	34	25	1	146	36	C
05	669	23	219	14	33	27	1	148	38	C
06	644	27	225	17	34	31	3	148	42	C
07	619	34	231	23	40	41	4	146	47	C
08	594	35	239	30	46	45	5	140	53	C
09	569	33	246	33	53	46	5	135	60	C
10	544	28	249	30	58	41	4	133	63	C
11	519	24	256	28	61	36	5	131	67	C
12	494	17	262	22	63	28	4	126	70	C
13	469	15	275	19	66	23	6	127	77	C
14	444	16	273	20	71	25	5	128	79	C
15	419	22	269	19	67	28	6	139	80	C
16	394	27	275	20	67	33	8	145	86	C
17	369	35	279	22	62	39	11	151	89	C
18	344	43	285	23	74	48	11	154	99	C
19	319	35	291	20	80	39	9	152	104	C
20	294	25	301	16	89	29	7	150	112	C
21	269	33	292	11	148	34	6	165	114	A

NWFB1806 MicroCat 14007



NWFB1806 MicroCat 14007



NWFC1809

Latitude: 61°23.400'N

Longitude: 008°18.900'W

Echo sounding depth: 855 m

Bottom depth corr.: 861 m

Time of deployment: 19/9 - 2018 1306 UTC

Time of recovery: 17/5 - 2019 0458 UTC

ADCP:

Instrument no.: RDI ADCP 1285

Instrument frequency: 75 kHz

Height above bottom: 6 m

Depth: 855 m

Time of first data: 19/9 - 2018 1340 UTC

Time of last data: 17/5 - 2019 0440 UTC

Sample interval: 20 min

No. of ensembles: 17254

Pings per ens.: 1

Binlength: 25 m

Depth of first bin: 819 m

No. of bins: 23

SBE39plus

Instrument no.: 7752

Height above bottom: 4 m

Instrument depth: 857 m

Time of first data: 19/9 - 2018 1320 UTC

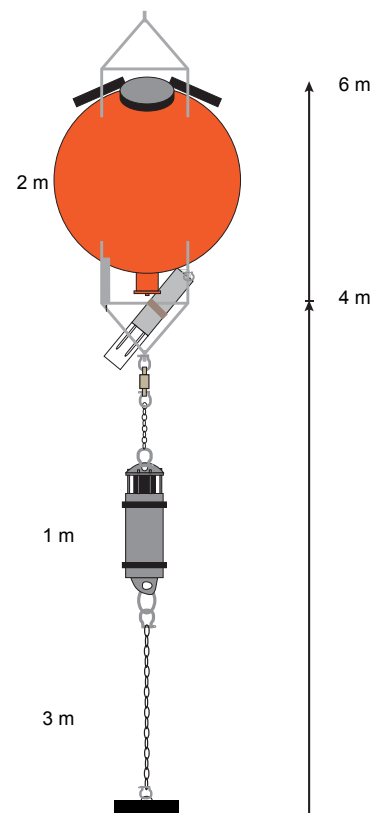
Time of last data: 17/5 - 2019 0458 UTC

Sample interval: 1 min

No. of ensembles: 345099

Data:

All data ok.



NWFC1809 ADCP 1285

Error statistics for deployment: NWFC1809 updated 2019/12/17

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

Velocity (spd, dir, wel) is error flagged using these data filters:

Minimum Correlation threshold: 64.0

Maximum Speed factor (Average speed for each bin times factor): 5.0

Maximum Absolute Vertical Velocity threshold: 200.0

Maximum Absolute Error Velocity threshold (erv_tr+0.1*spd):250.0

Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 1): 4.00

Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 23): 2.82

Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 32): 2.00

Std dev for vertical de-spiking (u and v deviate from 3 point median by more than number of std dev): 5.0

Std dev for de-spiking (w deviates from 3 point median by more than number of std dev): 4.0

Total number of ensembles: 17254

Interval between ensembles: 20 min

Original number of bins: 32

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. 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	307	2	205	24	15	1	1	0	0	0	0	0
2	0	363	2	213	29	18	5	1	2	0	0	0	0
3	0	395	2	238	38	17	2	2	2	0	0	0	0
4	0	658	4	359	72	26	4	7	2	1	0	0	0
5	0	948	5	491	101	33	9	8	11	0	0	0	0
6	0	933	5	502	101	26	12	9	6	1	0	0	0
7	0	834	5	433	96	28	12	3	6	1	0	0	0
8	0	722	4	376	83	25	14	4	4	0	0	0	0
9	0	589	3	303	71	31	8	1	2	0	0	0	0
10	0	554	3	266	66	28	6	6	3	0	0	0	0
11	0	477	3	262	47	23	9	2	1	0	0	0	0
12	0	481	3	288	44	23	4	4	0	0	0	0	0
13	0	467	3	307	47	14	1	4	0	0	0	0	0
14	0	521	3	339	56	11	4	3	1	0	0	0	0
15	0	579	3	378	63	13	4	2	1	0	0	0	0
16	0	610	4	396	52	18	7	3	2	0	0	0	0
17	0	634	4	389	54	20	6	2	4	1	0	0	0
18	0	725	4	406	74	21	6	6	8	0	0	0	0
19	0	1311	8	434	97	32	20	8	21	12	5	1	0
20	0	2522	15	483	130	53	34	26	50	28	17	2	1
21	0	4308	25	582	145	78	59	28	93	55	19	16	3
22	0	6782	39	639	202	106	57	49	131	108	38	20	7
23	0	9322	54	678	219	107	61	56	114	120	70	41	14

NWFC1809 ADCP 1285

Deployment: NWFC1809 updated 2019/12/17
 Instrument no.: 1285
 Instrument freq.: 75
 Latitude: 61 23.400 N
 Longitude: 08 18.900 W
 Bottom depth: 861
 Instrument depth: 855
 Center depth of first bin: 819
 Bin length: 25
 Number of bins: 23
 Number of first ensemble: 582
 Time of first ensemble: 2018 09 19 13 40
 Number of last ensemble: 17835
 Time of last ensemble: 2019 05 17 04 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	819	42	1049	1042	309	982
2	794	67	1104	1099	311	979
3	769	92	1105	1099	313	977
4	744	117	1088	1082	314	962
5	719	142	1047	1040	315	945
6	694	167	933	921	315	946
7	669	192	721	687	317	952
8	644	217	511	422	323	958
9	619	242	372	217	331	966
10	594	267	271	69	356	968
11	569	292	231	46	81	972
12	544	317	217	74	110	972
13	519	342	212	91	118	973
14	494	367	209	101	122	970
15	469	392	207	106	124	966
16	444	417	206	107	125	965
17	419	442	206	108	128	963
18	394	467	208	110	129	958
19	369	492	209	111	131	924
20	344	517	208	110	130	854
21	319	542	209	113	131	750
22	294	567	210	111	130	607
23	269	592	207	104	129	460

NWFC1809 ADCP 1285

Frequency of high speeds.

=====

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

=====

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	819	982	982	982	982	982	981	970	928	809	606	369	165	55	15	3	1	0	0
2	794	979	979	979	979	979	979	977	958	893	741	512	264	91	18	2	0	0	0
3	769	977	977	977	977	977	976	974	961	899	755	516	254	80	15	1	0	0	0
4	744	962	962	962	961	960	958	953	931	853	699	474	233	71	13	1	0	0	0
5	719	944	942	940	935	929	918	895	841	744	608	418	218	68	13	2	0	0	0
6	694	939	924	906	882	850	806	751	674	581	465	325	176	61	15	2	0	0	0
7	669	919	855	783	715	650	584	517	440	356	264	170	91	36	10	1	0	0	0
8	644	873	727	600	502	426	355	290	224	166	116	77	43	19	6	1	0	0	0
9	619	853	636	456	326	241	181	136	102	73	53	33	18	8	3	1	0	0	0
10	594	829	549	318	175	108	67	41	25	15	8	4	2	1	0	0	0	0	0
11	569	829	509	242	102	44	21	10	6	3	1	0	0	0	0	0	0	0	0
12	544	822	498	211	68	22	7	3	1	0	0	0	0	0	0	0	0	0	0
13	519	821	493	199	59	14	3	0	0	0	0	0	0	0	0	0	0	0	0
14	494	811	480	190	53	11	2	0	0	0	0	0	0	0	0	0	0	0	0
15	469	807	474	184	49	11	2	0	0	0	0	0	0	0	0	0	0	0	0
16	444	804	468	182	51	11	2	0	0	0	0	0	0	0	0	0	0	0	0
17	419	798	460	185	52	12	1	0	0	0	0	0	0	0	0	0	0	0	0
18	394	795	459	187	58	13	1	0	0	0	0	0	0	0	0	0	0	0	0
19	369	765	447	188	59	14	2	0	0	0	0	0	0	0	0	0	0	0	0
20	344	707	409	173	56	12	2	0	0	0	0	0	0	0	0	0	0	0	0
21	319	618	360	154	50	11	1	0	0	0	0	0	0	0	0	0	0	0	0
22	294	502	288	129	46	11	2	0	0	0	0	0	0	0	0	0	0	0	0
23	269	373	211	94	34	9	1	0	0	0	0	0	0	0	0	0	0	0	0

NWFC1809 ADCP 1285

Harmonic constants for constituent M2 for deployment NWFC1809.

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	819	11	97	10	320	14	5	139	296	A
02	794	13	89	13	297	18	4	135	283	A
03	769	15	86	16	293	21	5	133	280	A
04	744	14	77	18	293	21	7	126	280	A
05	719	18	93	26	300	31	7	122	292	A
06	694	34	118	41	308	53	5	129	304	A
07	669	46	132	44	311	64	0	137	312	C
08	644	41	147	22	301	45	9	154	322	C
09	619	34	179	14	175	37	1	23	179	A
10	594	40	215	47	153	53	31	53	177	A
11	569	50	236	67	155	68	48	76	165	A
12	544	56	248	77	161	77	55	85	165	A
13	519	59	256	82	167	82	59	88	168	A
14	494	61	263	85	173	85	61	90	172	A
15	469	62	270	88	178	88	62	92	177	A
16	444	65	276	90	184	90	65	93	181	A
17	419	67	279	93	187	93	67	93	184	A
18	394	69	282	95	189	95	69	94	186	A
19	369	71	283	96	190	96	70	96	186	A
20	344	70	287	100	192	101	69	96	188	A
21	319	69	290	101	196	101	69	95	193	A
22	294	78	289	98	196	99	78	96	191	A
23	269	77	289	94	195	94	77	100	187	A

Harmonic constants for constituent S2 for deployment NWFC1809.

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	819	5	113	9	316	10	2	119	310	A
02	794	6	98	8	306	9	2	126	296	A
03	769	7	111	10	313	12	2	123	307	A
04	744	6	125	12	313	13	1	116	312	A
05	719	7	144	13	321	14	0	120	322	C
06	694	13	163	17	331	21	2	128	335	C
07	669	16	182	14	329	20	6	139	348	C
08	644	12	208	6	304	12	6	175	25	C
09	619	12	230	5	228	13	0	22	230	A
10	594	14	253	16	188	19	12	53	213	A
11	569	17	271	24	184	24	17	85	188	A
12	544	20	282	28	194	28	20	87	196	A
13	519	21	289	31	203	31	21	85	207	A
14	494	22	294	34	210	34	21	83	214	A
15	469	22	300	35	215	35	22	84	219	A
16	444	23	307	36	219	36	23	87	221	A
17	419	25	311	38	221	38	25	90	221	A
18	394	25	315	38	224	38	25	91	223	A
19	369	25	317	37	226	37	25	91	226	A
20	344	26	318	35	236	35	25	78	244	A
21	319	28	325	37	238	37	28	85	242	A
22	294	26	329	35	253	36	25	70	267	A
23	269	27	319	35	251	37	23	63	268	A

NWFC1809 ADCP 1285

Harmonic constants for constituent N2 for deployment NWFC1809.

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	819	3	65	6	304	7	2	106	298	A
02	794	5	51	5	293	6	3	130	266	A
03	769	5	38	5	293	6	5	129	261	A
04	744	6	42	6	272	7	3	132	249	A
05	719	6	52	5	271	8	3	138	250	A
06	694	8	93	5	326	9	4	152	287	A
07	669	14	103	11	321	17	6	144	297	A
08	644	17	113	17	347	21	11	134	321	A
09	619	17	126	17	3	21	11	133	336	A
10	594	12	154	11	19	15	6	140	353	A
11	569	9	191	8	106	9	8	12	182	A
12	544	12	226	14	130	14	12	108	114	A
13	519	14	232	19	137	19	14	99	131	A
14	494	16	235	19	147	19	16	85	152	A
15	469	15	238	19	152	19	15	82	158	A
16	444	13	244	19	161	19	13	80	168	A
17	419	14	254	19	163	19	14	90	163	A
18	394	15	256	22	164	22	15	93	162	A
19	369	16	259	21	168	21	16	92	166	A
20	344	18	256	20	165	20	18	98	157	A
21	319	17	246	17	177	20	14	47	210	A
22	294	17	259	20	179	21	16	66	199	A
23	269	21	274	21	180	21	20	129	143	A

Harmonic constants for constituent O1 for deployment NWFC1809.

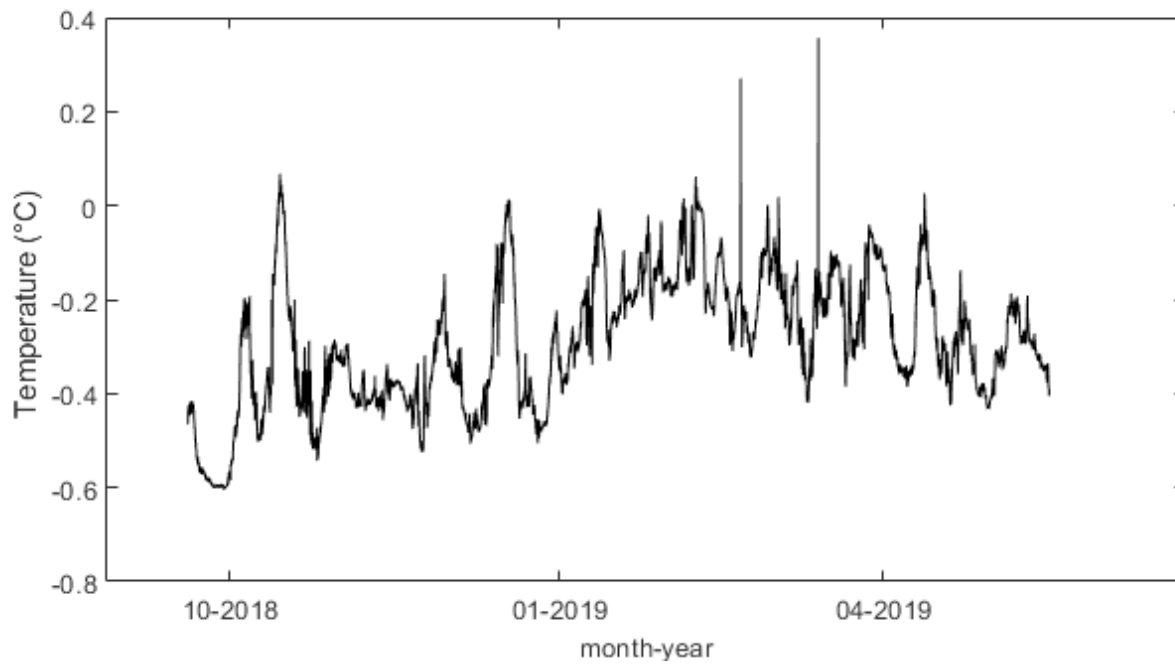
Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	819	12	347	17	154	21	2	126	158	C
02	794	12	340	18	158	21	0	124	159	C
03	769	12	340	21	159	24	0	121	159	C
04	744	13	349	23	163	26	1	119	164	C
05	719	21	354	29	165	36	3	126	168	C
06	694	35	353	39	172	52	0	131	173	C
07	669	45	354	50	177	67	2	132	176	A
08	644	42	353	52	177	67	2	129	175	A
09	619	32	356	42	176	52	0	128	176	A
10	594	26	7	34	190	43	1	128	189	A
11	569	21	9	26	195	33	2	128	193	A
12	544	16	5	23	193	28	2	125	190	A
13	519	13	8	22	195	26	1	121	193	A
14	494	15	14	21	201	26	1	126	198	A
15	469	15	14	20	205	25	2	127	201	A
16	444	14	18	20	199	25	0	126	198	A
17	419	15	21	20	197	25	1	127	198	C
18	394	15	23	19	194	24	2	129	197	C
19	369	16	22	19	197	25	1	130	199	C
20	344	16	17	21	206	26	2	128	202	A
21	319	13	27	18	211	22	1	127	209	A
22	294	15	38	17	209	23	2	131	213	C
23	269	17	33	17	196	24	4	136	205	C

NWFC1809 ADCP 1285

Harmonic constants for constituent K1 for deployment NWFC1809.

Bin	Depth m	E-ampl mm/sec	E-gph deg	N-ampl mm/sec	N-gph deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	819	7	228	16	36	17	1	114	38	C
02	794	7	223	16	40	18	0	113	40	C
03	769	8	230	18	42	19	1	114	44	C
04	744	9	253	21	52	23	3	112	55	C
05	719	21	257	29	61	35	5	126	67	C
06	694	39	253	41	65	56	4	134	69	C
07	669	50	259	47	78	68	1	137	79	C
08	644	44	258	48	80	65	1	133	79	A
09	619	35	262	39	76	53	3	132	79	C
10	594	25	268	27	78	37	3	133	83	C
11	569	18	269	23	71	29	5	127	78	C
12	544	15	276	22	71	26	5	124	79	C
13	519	13	278	20	73	24	5	122	80	C
14	494	13	289	18	76	22	6	124	87	C
15	469	14	290	20	74	23	7	125	86	C
16	444	14	288	23	70	26	8	117	79	C
17	419	12	279	29	66	31	6	111	71	C
18	394	13	280	32	67	34	7	109	70	C
19	369	15	277	33	66	36	7	112	71	C
20	344	16	272	26	71	30	5	121	77	C
21	319	17	266	24	72	30	3	125	77	C
22	294	14	278	15	89	21	2	133	93	C
23	269	13	274	18	92	22	0	126	93	C

NWFC1809 SBE39plus 7752



NWNB1806

Latitude: 62°55.120'N
Longitude: 006°04.835'W
Echo sound depth: 976 m
Bottom depth corr.: 961 m
Time of deployment: 16/6 - 2018 1207 UTC
Time of recovery: 17/5 - 2019 1947 UTC

ADCP:

Instrument no.: RDI ADCP 1644
Instrument frequency: 75 kHz
Height above bottom: 253 m
Depth: 708 m
Time of first data: 16/6 - 2018 1240 UTC
Time of last data: 17/5 - 2019 1920 UTC
Sample interval: 20 min
No. of ensembles: 24141
Pings per ens.: 1
Binlength: 25 m
Depth of first bin: 672 m
No. of bins: 21

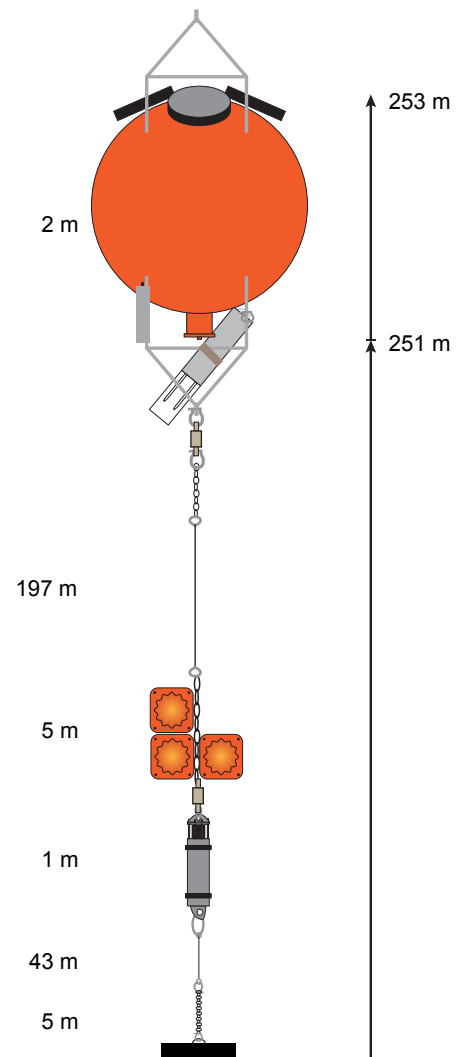
MicroCat

Instrument no.: 6094
Height above bottom: 251 m
Instrument depth: 710 m
Time of first data: 16/6 - 2018 1230 UTC
Time of last data: 17/5 - 2019 1930 UTC
Sample interval: 10 min
No. of ensembles: 48283

Data:

No data were available from beam #2 of the ADCP. This means that no error velocity is calculated since it is based on the fourth (redundant) beam.

The temperature and pressure from the MicroCat are calibrated against an SBE911+. Salinity data seem to have a drift and are not calibrated.



NWNB1806 ADCP 1644

Error statistics for deployment: NWNB1806 updated 2019/12/17

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

Velocity (spd, dir, wel) is error flagged using these data filters:

Minimum Intensity threshold : 50.0

Maximum Speed factor (Average speed for each bin times factor): 5.0

Maximum Absolute Vertical Velocity threshold: 150.0

Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 1): 4.00

Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 21): 2.55

Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 32): 1.00

Std dev for vertical de-spiking (u and v deviate from 3 point median by more than number of std dev): 4.0

Total number of ensembles: 24141

Interval between ensembles: 20 min

Original number of bins: 32

Number of acceptable velocity bins: 21

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. 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	168	1	147	6	3	0	0	0	0	0	0	0	0
2	0	180	1	149	11	3	0	0	0	0	0	0	0	0
3	0	205	1	171	14	2	0	0	0	0	0	0	0	0
4	0	217	1	166	21	3	0	0	0	0	0	0	0	0
5	0	238	1	198	17	2	0	0	0	0	0	0	0	0
6	0	271	1	218	22	3	0	0	0	0	0	0	0	0
7	0	271	1	224	22	1	0	0	0	0	0	0	0	0
8	0	367	2	266	43	5	0	0	0	0	0	0	0	0
9	0	452	2	300	60	7	0	1	1	0	0	0	0	0
10	0	456	2	348	34	9	2	1	0	0	0	0	0	0
11	0	550	2	364	50	18	4	2	1	0	0	0	0	0
12	0	594	2	393	66	19	3	0	0	0	0	0	0	0
13	0	633	3	411	78	12	5	2	0	0	0	0	0	0
14	0	695	3	470	78	19	3	0	0	0	0	0	0	0
15	0	800	3	516	90	24	3	0	3	0	0	0	0	0
16	0	1057	4	555	110	25	8	5	9	4	1	0	0	0
17	0	2250	9	578	139	38	35	9	33	30	9	5	0	0
18	0	4363	18	675	156	71	43	28	73	51	24	21	2	2
19	0	6574	27	670	200	80	54	38	103	76	42	37	7	7
20	0	9518	39	659	201	121	75	54	142	94	52	58	19	19
21	0	12989	54	580	208	102	62	57	124	111	63	75	44	44

NWNB1806 ADCP 1644

Deployment: NWNB1806 updated 2019/12/17
 Instrument no.: 1644
 Instrument freq.: 75
 Latitude: 62 55.120 N
 Longitude: 06 04.835 W
 Bottom depth: 961
 Instrument depth: 708
 Center depth of first bin: 672
 Bin length: 25
 Number of bins: 21
 Number of first ensemble: 363
 Time of first ensemble: 2018 06 16 12 40
 Number of last ensemble: 24503
 Time of last ensemble: 2019 05 17 19 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	672	289	120	37	89	993
2	647	314	119	33	88	993
3	622	339	119	29	86	992
4	597	364	120	25	83	991
5	572	389	122	21	80	990
6	547	414	124	18	77	989
7	522	439	126	17	79	989
8	497	464	130	18	81	985
9	472	489	135	21	91	981
10	447	514	141	28	98	981
11	422	539	152	41	102	977
12	397	564	163	57	104	975
13	372	589	178	77	105	974
14	347	614	196	101	105	971
15	322	639	213	125	106	967
16	297	664	230	147	107	956
17	272	689	243	161	107	907
18	247	714	254	167	107	819
19	222	739	267	175	107	728
20	197	764	281	183	108	606
21	172	789	291	190	110	462

NWNB1806 ADCP 1644

Frequency of high speeds.

=====

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

=====

no.	Bin Depth m	Speed (cm/s)																	
		10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1	672	526	142	28	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	647	523	139	26	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	622	520	138	27	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	597	527	140	28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	572	538	147	28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	547	549	159	31	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	522	553	165	31	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	497	567	180	40	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9	472	590	196	45	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10	447	622	213	54	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0
11	422	661	254	70	16	3	0	0	0	0	0	0	0	0	0	0	0	0	0
12	397	690	296	95	23	4	0	0	0	0	0	0	0	0	0	0	0	0	0
13	372	724	347	132	39	9	1	0	0	0	0	0	0	0	0	0	0	0	0
14	347	760	403	177	63	15	2	0	0	0	0	0	0	0	0	0	0	0	0
15	322	787	461	223	83	23	5	1	0	0	0	0	0	0	0	0	0	0	0
16	297	803	502	268	108	32	8	2	0	0	0	0	0	0	0	0	0	0	0
17	272	773	510	287	130	44	11	2	0	0	0	0	0	0	0	0	0	0	0
18	247	707	479	281	138	53	14	3	0	0	0	0	0	0	0	0	0	0	0
19	222	644	446	270	138	60	20	5	1	0	0	0	0	0	0	0	0	0	0
20	197	543	389	242	135	60	23	7	2	0	0	0	0	0	0	0	0	0	0
21	172	417	301	196	114	58	22	7	2	0	0	0	0	0	0	0	0	0	0

NWNB1806 ADCP 1644

Harmonic constants for constituent M2 for deployment NWNB1806.

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	672	66	270	37	123	74	18	153	97	A
02	647	69	270	38	124	76	19	154	97	A
03	622	70	270	39	126	78	21	154	97	A
04	597	73	271	40	131	80	24	155	99	A
05	572	78	270	42	138	84	29	157	99	A
06	547	83	272	44	144	88	32	159	101	A
07	522	87	274	43	152	91	35	162	101	A
08	497	93	278	44	163	95	38	166	104	A
09	472	98	284	45	178	99	43	171	108	A
10	447	105	289	47	193	105	47	177	110	A
11	422	111	293	52	205	111	52	1	293	A
12	397	115	297	57	215	115	56	5	295	A
13	372	118	301	62	224	120	60	9	296	A
14	347	121	306	66	232	122	63	12	300	A
15	322	121	311	70	241	125	64	15	303	A
16	297	123	315	74	248	127	66	18	305	A
17	272	122	319	77	254	128	66	20	308	A
18	247	124	322	80	257	130	69	22	310	A
19	222	128	322	85	260	136	71	24	309	A
20	197	133	322	93	261	143	76	26	308	A
21	172	135	323	97	260	145	80	26	308	A

Harmonic constants for constituent S2 for deployment NWNB1806.

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	672	28	310	14	184	30	11	161	138	A
02	647	29	309	15	184	30	12	161	137	A
03	622	28	307	15	179	30	11	159	135	A
04	597	28	306	15	175	30	11	157	135	A
05	572	28	304	17	177	31	13	156	135	A
06	547	30	306	18	181	32	14	157	136	A
07	522	32	309	18	194	34	15	163	137	A
08	497	34	314	16	203	34	15	168	139	A
09	472	33	321	13	215	33	12	173	144	A
10	447	32	329	13	237	32	13	179	149	A
11	422	36	333	15	246	36	15	1	333	A
12	397	39	339	16	259	39	16	5	337	A
13	372	40	346	18	271	40	17	8	343	A
14	347	40	351	19	278	41	18	10	347	A
15	322	39	1	23	291	41	21	15	353	A
16	297	40	5	27	298	42	23	21	353	A
17	272	37	2	30	305	43	22	34	343	A
18	247	40	3	34	308	47	24	36	343	A
19	222	49	2	33	306	54	25	28	348	A
20	197	46	0	32	304	51	24	28	346	A
21	172	47	354	26	289	49	22	16	346	A

NWNB1806 ADCP 1644

Harmonic constants for constituent N2 for deployment NWNB1806.

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	672	6	203	12	39	13	2	118	36	A
02	647	6	207	12	37	13	1	117	35	A
03	622	6	215	11	37	13	0	119	36	A
04	597	8	221	10	41	13	0	129	41	C
05	572	10	221	10	53	14	2	137	47	A
06	547	14	217	11	72	17	5	144	50	A
07	522	18	225	12	95	20	8	151	59	A
08	497	24	236	14	118	25	12	159	66	A
09	472	28	245	17	133	29	16	161	75	A
10	447	28	248	18	138	29	16	161	79	A
11	422	25	250	16	144	25	15	163	80	A
12	397	24	250	15	150	24	14	170	77	A
13	372	26	258	16	169	26	16	1	257	A
14	347	31	272	19	184	31	19	2	271	A
15	322	34	285	23	201	35	23	8	279	A
16	297	36	289	25	214	37	24	17	278	A
17	272	35	291	27	215	36	25	22	275	A
18	247	36	293	28	209	36	27	12	283	A
19	222	38	294	27	213	38	26	13	285	A
20	197	30	300	26	223	31	24	30	275	A
21	172	28	297	29	232	34	22	46	264	A

Harmonic constants for constituent O1 for deployment NWNB1806.

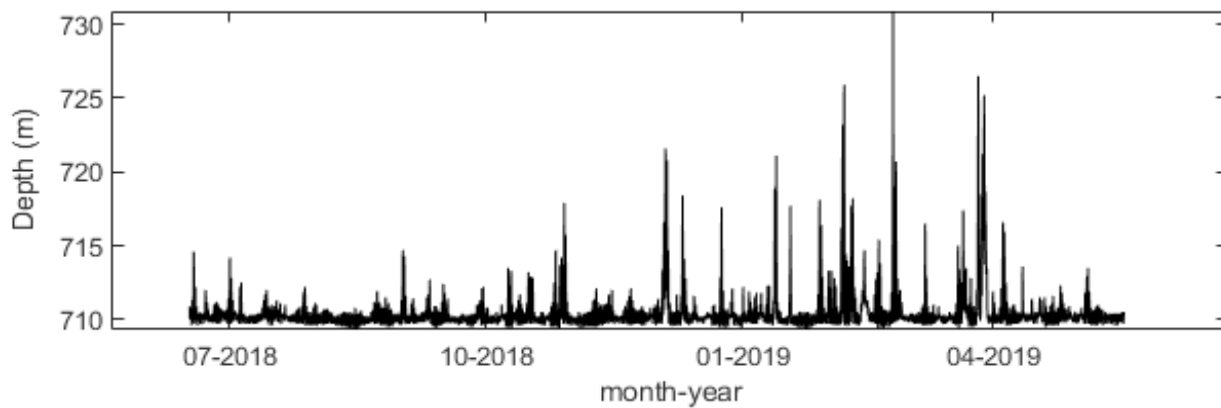
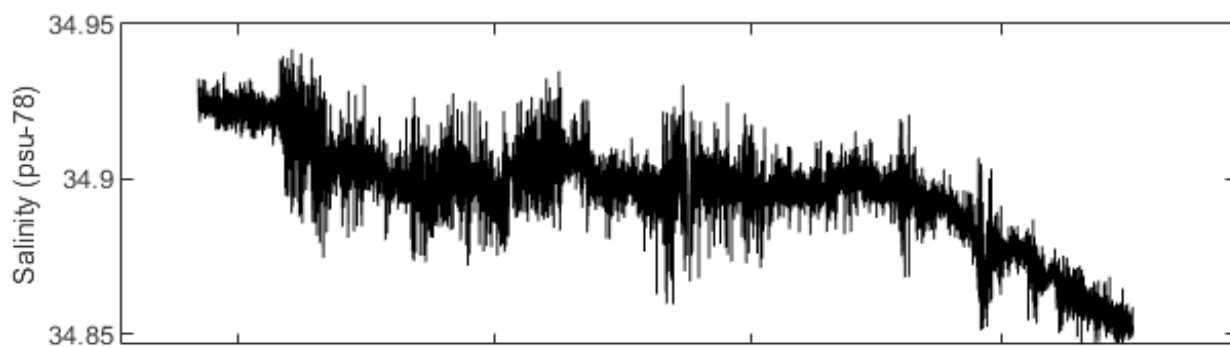
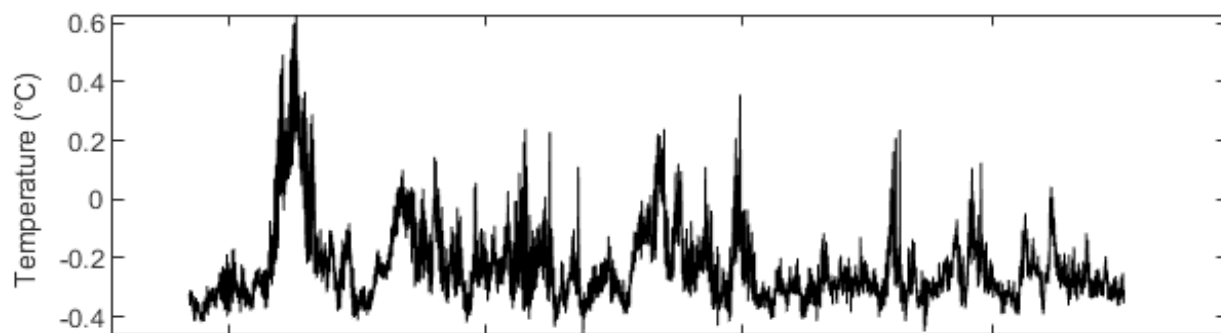
Bin	Depth m	E-ampl mm/sec	E-gpl deg	N-ampl mm/sec	N-gpl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	672	4	74	4	241	5	1	132	247	C
02	647	4	65	4	242	6	0	137	243	C
03	622	5	54	5	235	7	0	135	234	A
04	597	5	40	5	241	7	1	140	228	A
05	572	6	44	5	235	7	1	140	228	A
06	547	5	42	5	229	7	0	136	225	A
07	522	5	36	5	246	7	2	136	231	A
08	497	5	35	6	257	7	3	130	239	A
09	472	6	45	6	245	8	2	135	235	A
10	447	8	51	5	247	10	1	148	235	A
11	422	9	47	4	251	10	2	156	231	A
12	397	9	37	4	247	10	2	157	222	A
13	372	11	42	5	256	12	3	157	228	A
14	347	10	34	6	255	11	3	153	223	A
15	322	13	25	6	265	13	5	163	212	A
16	297	15	23	7	271	16	7	168	208	A
17	272	12	37	7	296	12	7	170	223	A
18	247	16	41	9	299	16	9	170	227	A
19	222	16	54	10	290	17	7	156	245	A
20	197	12	37	9	295	12	8	164	227	A
21	172	7	43	10	326	10	6	76	334	A

NWNB1806 ADCP 1644

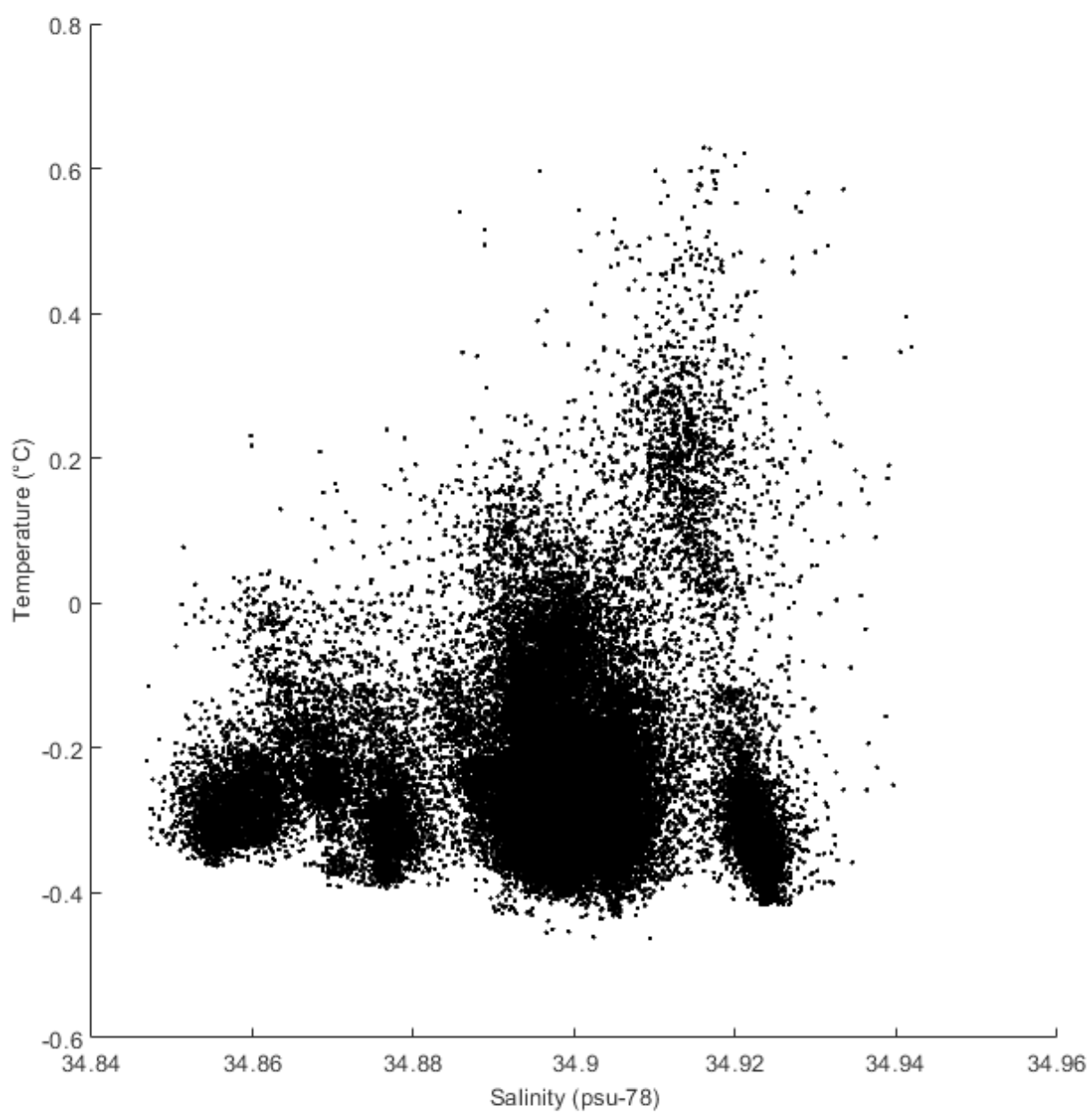
Harmonic constants for constituent K1 for deployment NWNB1806.

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	672	4	282	4	163	5	3	136	132	A
02	647	4	291	4	163	5	2	140	132	A
03	622	5	287	4	179	5	3	157	122	A
04	597	5	277	4	170	6	4	154	116	A
05	572	6	276	4	160	6	3	156	109	A
06	547	7	277	4	158	7	3	157	109	A
07	522	7	273	5	165	7	4	160	105	A
08	497	7	268	5	161	7	5	158	103	A
09	472	8	280	5	153	8	3	157	109	A
10	447	7	273	4	148	7	3	161	101	A
11	422	9	269	4	138	9	3	161	95	A
12	397	11	263	7	129	12	5	151	95	A
13	372	12	252	7	142	12	7	164	81	A
14	347	12	249	8	140	13	8	160	81	A
15	322	13	276	9	148	14	6	152	109	A
16	297	13	282	8	151	15	6	155	112	A
17	272	11	308	6	169	12	3	156	136	A
18	247	11	352	9	193	14	3	143	180	A
19	222	10	9	11	188	15	0	133	189	C
20	197	15	36	11	161	17	8	151	201	C
21	172	29	63	5	172	29	4	177	243	C

NWNB1806 MicroCat 6094



NWNB1806 MicroCat 6094



NWNL1806

Latitude: 62°58.516'N
Longitude: 006°05.255'W
Echo sounding depth: 1453 m
Bottom depth corr.: 1458 m
Time of deployment: 16/6 - 2018 1304 UTC
Time of recovery: 18/5 - 2019 0546 UTC

ADCP:

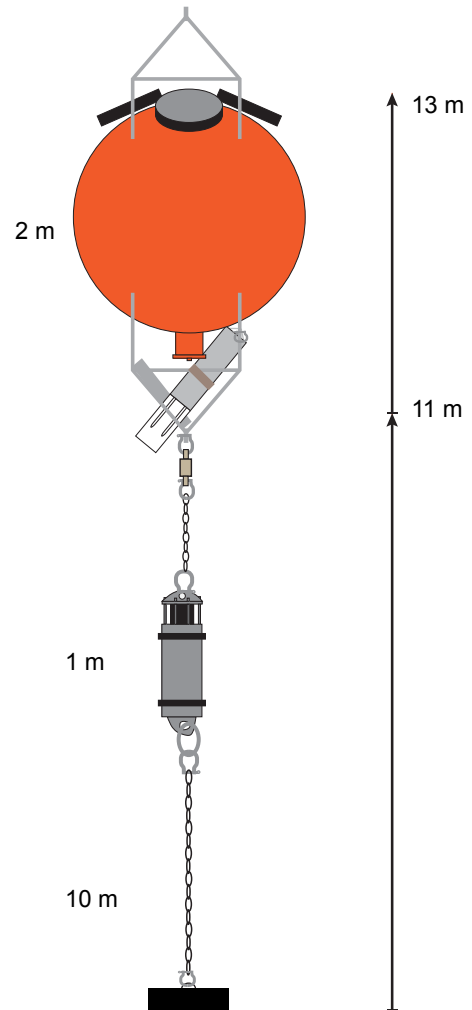
Instrument no.: RDI ADCP 19518
Instrument frequency: 75 kHz
Height above bottom: 5 m
Depth: 1445 m
Time of first data: 16/6 - 2018 1340 UTC
Time of last data: 18/5 - 2019 0520 UTC
Sample interval: 20 min
No. of ensembles: 24168
Pings per ens.: 10
Binlength: 10 m
Depth of first bin: 1426 m
No. of bins: 69

SBE56

Instrument no.: 6503
Height above bottom: 11 m
Instrument depth: 1447 m
Time of first data: 16/6 - 2018 1350 UTC
Time of last data: 18/5 - 2019 0540 UTC
Sample interval: 10 min
No. of ensembles: 48336

Data:

ADCP SN 19518 is a Long Ranger ADCP and when deployed closed to the bottom the instrument receives echoes from the side-lobes, which can be misinterpreted as real echoes. This means that velocities in the lower bins (up to 200 m from the ADCP) can be underestimated. A special and thorough analysis is needed to correct for these failures and is not implemented here. The temperature from the SBE56 is calibrated against an SBE911+.



NWNL1806 ADCP 19518

Error statistics for deployment: NWNL1806 updated 2019/12/17

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

Velocity (spd, dir, wel) is error flagged using these data filters:
 Minimum Intensity threshold : 50.0
 Maximum Speed factor (Average speed for each bin times factor): 4.0
 Maximum Absolute Error Velocity threshold (erv tr+0.1*spd): 100.0
 Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 1): 3.00
 Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 69): 3.00
 Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 70): 3.00

Total number of ensembles: 24168
 Interval between ensembles: 20 min
 Original number of bins: 70
 Number of acceptable velocity bins: 69

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	3219	13	1412	318	110	49	34	41	11	1	0	0	
2	0	640	3	475	61	13	1	0	0	0	0	0	0	
3	0	675	3	496	73	7	3	0	0	0	0	0	0	
4	0	641	3	480	57	13	2	0	0	0	0	0	0	
5	0	653	3	460	79	9	2	0	0	0	0	0	0	
6	0	631	3	472	64	7	1	0	0	1	0	0	0	
7	0	672	3	497	71	11	0	0	0	0	0	0	0	
8	0	657	3	495	58	14	1	0	0	0	0	0	0	
9	0	646	3	478	69	10	0	0	0	0	0	0	0	
10	0	646	3	492	59	9	1	1	0	0	0	0	0	
11	0	667	3	497	68	10	1	0	0	0	0	0	0	
12	0	676	3	511	64	7	4	0	0	0	0	0	0	
13	0	636	3	466	59	16	1	0	0	0	0	0	0	
14	0	659	3	497	64	8	0	2	0	0	0	0	0	
15	0	668	3	505	63	9	1	1	0	0	0	0	0	
16	0	690	3	508	71	7	2	1	1	0	0	0	0	
17	0	661	3	482	65	13	1	0	0	0	0	0	0	
18	0	677	3	476	78	11	1	0	0	0	0	0	0	
19	0	669	3	477	74	8	5	0	0	0	0	0	0	
20	0	684	3	493	71	12	1	1	0	0	0	0	0	
21	0	672	3	495	72	6	2	0	1	0	0	0	0	
22	0	642	3	473	68	7	3	0	0	0	0	0	0	
23	0	660	3	490	68	6	4	0	0	0	0	0	0	
24	0	721	3	555	66	10	1	0	0	0	0	0	0	
25	0	657	3	478	67	11	3	0	0	0	0	0	0	
26	0	708	3	492	86	12	2	0	0	0	0	0	0	
27	0	658	3	501	55	13	2	0	0	0	0	0	0	
28	0	650	3	499	66	4	0	0	1	0	0	0	0	
29	0	696	3	505	66	14	3	1	0	0	0	0	0	
30	0	700	3	528	62	12	3	0	0	0	0	0	0	
31	0	714	3	499	86	10	2	1	0	0	0	0	0	
32	0	715	3	532	76	9	1	0	0	0	0	0	0	
33	0	743	3	531	79	12	3	0	1	0	0	0	0	
34	0	712	3	535	61	15	0	0	1	0	0	0	0	
35	0	734	3	536	61	10	4	1	2	1	0	0	0	
36	0	747	3	533	82	7	2	3	1	0	0	0	0	
37	0	727	3	535	70	13	5	0	2	0	0	0	0	
38	0	774	3	535	67	12	5	0	2	0	0	0	0	
39	0	793	3	557	73	21	4	3	1	1	0	0	0	
40	0	833	3	547	78	18	4	2	2	1	1	0	0	
41	0	825	3	542	72	14	2	1	1	0	0	0	0	
42	0	902	4	547	97	20	5	4	1	1	0	0	0	
43	0	924	4	536	92	20	6	5	2	1	0	0	0	
44	0	1014	4	542	87	38	1	5	5	2	0	0	0	
45	0	1095	5	534	113	38	2	7	5	3	1	0	0	
46	0	1204	5	565	120	36	2	9	5	5	0	0	0	
47	0	1257	5	578	112	51	1	13	1	2	0	0	0	
48	0	1356	6	555	127	67	2	16	1	3	0	0	0	
49	0	1487	6	548	129	69	2	15	2	6	1	0	0	
50	0	1662	7	616	146	65	3	12	3	7	2	0	0	
51	0	1805	7	558	172	66	4	19	7	9	1	0	0	
52	0	2108	9	606	167	75	5	19	4	9	2	0	0	
53	0	2407	10	606	183	94	4	33	10	4	2	0	1	
54	0	2703	11	631	177	93	4	24	13	4	5	3	0	
55	0	3048	13	656	209	91	5	19	2	3	5	5	0	
56	0	3466	14	644	205	97	6	34	6	7	6	9	0	
57	0	3955	16	646	175	86	4	30	3	13	6	7	0	
58	0	4434	18	676	175	78	4	24	5	7	13	10	0	
59	0	4947	20	699	177	70	4	28	5	13	13	14	0	
60	0	5379	22	748	174	86	3	20	4	12	12	14	0	
61	0	5981	24	882	194	95	3	23	4	12	12	20	0	
62	0	6494	26	866	213	89	4	27	3	16	12	20	0	
63	0	7100	29	931	257	97	4	24	4	11	10	25	0	
64	0	7673	32	1115	272	117	4	28	6	8	9	21	0	
65	0	8285	34	1219	311	114	6	25	5	9	8	20	0	
66	0	8909	37	1240	310	115	8	34	6	10	14	20	0	
67	0	9657	40	1219	363	115	6	38	7	14	12	24	0	
68	0	10517	44	1291	333	150	6	40	8	15	19	26	0	
69	0	11410	47	1252	313	147	6	42	8	20	24	24	0	

NWNL1806 ADCP 19518

Deployment: NWNL1806 updated 2019/12/17
 Instrument no.: 19518
 Instrument freq.: 75
 Latitude: 62 58.516 N
 Longitude: 06 05.255 W
 Bottom depth: 1458
 Instrument depth: 1445
 Center depth of first bin: 1426
 Bin length: 10
 Number of bins: 69
 Number of first ensemble: 357
 Time of first ensemble: 2018 06 16 13 40
 Number of last ensemble: 24524
 Time of last ensemble: 2019 05 18 05 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	1426	32	169	135	113	867
2	1416	42	129	85	100	974
3	1406	52	132	87	100	972
4	1396	62	134	88	101	973
5	1386	72	133	87	101	973
6	1376	82	133	86	101	974
7	1366	92	132	86	101	972
8	1356	102	132	84	102	973
9	1346	112	132	84	102	973
10	1336	122	131	83	102	973
11	1326	132	129	81	103	972
12	1316	142	128	79	103	972
13	1306	152	128	79	103	974
14	1296	162	127	77	103	973
15	1286	172	126	76	103	972
16	1276	182	125	75	103	971
17	1266	192	124	74	103	973
18	1256	202	123	72	104	972
19	1246	212	123	72	104	972
20	1236	222	123	71	104	972
21	1226	232	122	70	104	972
22	1216	242	121	69	104	973
23	1206	252	121	69	104	973
24	1196	262	121	68	105	970
25	1186	272	120	67	105	973
26	1176	282	120	67	104	971
27	1166	292	119	67	105	973
28	1156	302	119	66	105	973
29	1146	312	118	65	104	971
30	1136	322	118	64	105	971
31	1126	332	117	64	106	970
32	1116	342	118	64	105	970
33	1106	352	117	63	105	969
34	1096	362	117	63	105	971
35	1086	372	117	62	106	970
36	1076	382	117	62	105	969
37	1066	392	116	61	105	970
38	1056	402	116	61	105	968
39	1046	412	116	60	105	967
40	1036	422	116	60	105	966
41	1026	432	116	59	105	966
42	1016	442	116	59	105	963
43	1006	452	116	59	105	962
44	996	462	116	59	105	958
45	986	472	116	58	105	955
46	976	482	117	57	105	950
47	966	492	117	56	105	948
48	956	502	117	55	105	944
49	946	512	118	55	105	938
50	936	522	119	55	105	931
51	926	532	120	54	105	925
52	916	542	120	54	106	913
53	906	552	120	53	105	900
54	896	562	121	53	104	888
55	886	572	122	52	105	874
56	876	582	123	53	105	857
57	866	592	123	52	104	836
58	856	602	125	54	105	817
59	846	612	125	53	105	795
60	836	622	126	53	105	777
61	826	632	126	53	106	753
62	816	642	128	52	106	731
63	806	652	129	53	105	706
64	796	662	132	52	104	683
65	786	672	134	51	105	657
66	776	682	137	51	105	631
67	766	692	140	49	105	600
68	756	702	143	50	105	565
69	746	712	143	48	105	528

NWNL1806 ADCP 19518

Frequency of high speeds.

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

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	1426	648	306	74	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1416	581	169	23	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	1406	592	181	29	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	1396	591	189	31	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	1386	591	190	31	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	1376	586	187	32	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	1366	583	185	32	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	1356	582	186	32	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	1346	579	184	31	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	1336	572	181	32	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	1326	566	172	32	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	1316	563	171	30	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	1306	560	167	29	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	1296	555	163	28	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	1286	551	160	27	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	1276	545	156	26	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	1266	544	153	26	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	1256	539	150	23	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	1246	540	147	25	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	1236	539	145	24	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	1226	537	145	23	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	1216	533	139	23	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	1206	533	136	22	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	1196	532	134	22	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	1186	529	135	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	1176	527	131	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	1166	524	133	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	1156	523	128	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	1146	519	125	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	1136	519	124	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	1126	517	123	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	1116	517	120	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	1106	518	119	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	1096	515	120	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	1086	514	118	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	1076	514	116	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	1066	513	116	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	1056	509	117	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	1046	507	114	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	1036	504	114	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	1026	510	113	16	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	1016	507	114	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	1006	505	115	16	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	996	503	116	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	986	505	114	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	976	510	112	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	966	506	116	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	956	506	120	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	946	500	117	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	936	505	119	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	926	504	118	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	916	498	119	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	906	495	119	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	896	492	116	20	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	886	491	119	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	876	485	121	22	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	866	476	116	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	856	465	122	22	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	846	457	117	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	836	454	115	22	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	826	443	113	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	816	431	117	22	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63	806	423	116	23	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	796	413	118	24	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65	786	405	120	26	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66	776	393	122	29	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0
67	766	379	125	33	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0
68	756	360	122	35	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0
69	746	338	114	32	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0

NWNL1806 ADCP 19518

Harmonic constants for constituent M2 for deployment NWNL1806.

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	1426	43	253	29	76	52	1	146	74	A
02	1416	44	254	27	79	52	2	149	75	A
03	1406	48	253	29	82	55	4	149	76	A
04	1396	51	253	28	84	58	4	151	76	A
05	1386	52	254	28	86	59	5	152	77	A
06	1376	53	254	28	89	59	6	153	77	A
07	1366	54	255	28	91	60	7	153	78	A
08	1356	55	255	29	91	62	7	153	78	A
09	1346	56	255	29	92	63	8	154	79	A
10	1336	57	256	28	95	63	8	155	80	A
11	1326	57	257	28	98	63	9	155	80	A
12	1316	58	257	28	97	64	9	155	81	A
13	1306	58	257	28	99	64	10	156	81	A
14	1296	59	257	28	99	64	9	156	81	A
15	1286	59	258	27	101	64	10	157	81	A
16	1276	59	257	27	101	64	10	157	81	A
17	1266	60	258	28	103	65	11	157	82	A
18	1256	61	258	28	104	66	11	157	82	A
19	1246	61	257	28	103	66	11	157	82	A
20	1236	61	258	28	105	66	12	157	82	A
21	1226	62	258	29	104	67	12	157	82	A
22	1216	62	258	28	107	67	12	157	83	A
23	1206	61	258	28	107	66	13	157	83	A
24	1196	61	258	28	107	66	13	158	83	A
25	1186	62	258	28	107	67	12	157	83	A
26	1176	62	258	28	107	67	12	158	83	A
27	1166	63	259	28	107	67	12	158	83	A
28	1156	62	259	28	109	67	13	158	84	A
29	1146	62	260	27	110	66	12	159	84	A
30	1136	63	260	28	110	68	13	158	84	A
31	1126	63	260	27	111	67	13	159	85	A
32	1116	63	260	27	111	67	13	159	84	A
33	1106	63	261	27	111	68	13	159	85	A
34	1096	63	260	28	112	67	13	158	85	A
35	1086	63	261	28	112	67	14	158	85	A
36	1076	64	260	28	112	68	13	159	85	A
37	1066	64	261	27	112	68	13	159	85	A
38	1056	64	261	28	112	69	14	159	85	A
39	1046	63	260	28	113	68	14	159	85	A
40	1036	64	261	28	113	69	14	159	85	A
41	1026	64	261	28	114	68	14	159	86	A
42	1016	65	261	29	115	69	15	159	86	A
43	1006	64	262	28	116	69	15	159	86	A
44	996	65	261	27	116	69	15	160	85	A
45	986	65	262	28	115	69	14	159	86	A
46	976	66	261	28	117	70	15	160	86	A
47	966	67	262	28	117	71	15	160	86	A
48	956	67	262	28	121	71	16	161	87	A
49	946	66	262	28	119	70	16	160	87	A
50	936	67	263	28	119	71	15	161	88	A
51	926	67	264	28	121	71	16	160	89	A
52	916	69	262	29	120	73	16	161	87	A
53	906	68	263	28	121	72	16	161	87	A
54	896	68	264	29	123	71	17	161	88	A
55	886	67	264	28	122	71	16	161	88	A
56	876	69	264	29	123	73	17	161	89	A
57	866	68	266	28	126	72	17	161	90	A
58	856	69	265	28	127	73	18	162	89	A
59	846	71	265	30	129	74	20	162	90	A
60	836	69	265	29	130	73	20	162	90	A
61	826	71	266	29	131	74	19	163	91	A
62	816	73	266	29	130	76	19	163	90	A
63	806	73	266	29	132	76	20	163	90	A
64	796	73	266	31	135	76	22	163	91	A
65	786	73	267	30	135	76	21	163	91	A
66	776	74	266	31	134	77	22	163	91	A
67	766	74	267	30	137	76	22	164	92	A
68	756	72	267	30	138	75	23	164	92	A
69	746	75	266	31	139	77	24	164	91	A

NWNL1806 ADCP 19518

Harmonic constants for constituent S2 for deployment NWNL1806.

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	1426	22	290	13	152	24	8	154	119	A
02	1416	21	290	11	153	23	7	156	118	A
03	1406	23	292	12	155	24	7	157	119	A
04	1396	24	292	12	158	26	8	158	120	A
05	1386	24	293	13	160	26	9	157	121	A
06	1376	24	292	12	163	26	9	160	119	A
07	1366	24	292	12	162	25	9	160	119	A
08	1356	25	291	13	163	26	9	160	119	A
09	1346	25	294	13	163	26	9	159	121	A
10	1336	26	294	12	167	27	9	161	121	A
11	1326	26	293	12	167	27	9	162	120	A
12	1316	26	293	12	164	27	9	162	120	A
13	1306	26	295	12	165	27	9	160	122	A
14	1296	26	296	12	168	27	9	162	122	A
15	1286	25	297	12	167	27	9	161	123	A
16	1276	26	297	13	170	27	10	161	123	A
17	1266	26	297	13	171	27	10	162	124	A
18	1256	25	298	12	174	26	10	163	125	A
19	1246	26	298	12	174	27	9	164	124	A
20	1236	26	299	12	174	27	10	163	125	A
21	1226	25	300	12	173	26	9	162	126	A
22	1216	26	299	12	173	27	9	162	126	A
23	1206	26	300	12	173	27	9	163	126	A
24	1196	26	300	12	177	27	10	164	126	A
25	1186	26	299	11	177	27	9	165	124	A
26	1176	27	300	11	174	28	9	164	126	A
27	1166	27	300	11	175	28	9	165	125	A
28	1156	27	299	12	175	28	9	165	124	A
29	1146	26	299	12	176	27	10	164	125	A
30	1136	27	299	12	176	28	10	164	124	A
31	1126	26	299	12	177	27	10	164	125	A
32	1116	27	300	12	177	28	10	165	125	A
33	1106	27	300	13	176	28	10	162	127	A
34	1096	26	298	12	174	27	10	163	124	A
35	1086	27	298	13	171	28	10	162	124	A
36	1076	27	297	12	170	28	9	162	123	A
37	1066	27	297	12	171	28	10	163	123	A
38	1056	27	298	13	173	28	10	163	125	A
39	1046	27	299	12	170	28	9	163	125	A
40	1036	27	297	13	171	28	10	162	123	A
41	1026	26	299	13	171	28	9	161	125	A
42	1016	27	298	12	173	28	10	163	124	A
43	1006	27	298	13	171	28	10	162	124	A
44	996	27	298	12	172	28	10	163	123	A
45	986	27	297	13	171	28	10	163	123	A
46	976	27	298	13	173	28	10	162	124	A
47	966	28	297	14	175	29	12	162	124	A
48	956	28	297	13	172	29	10	163	123	A
49	946	29	297	13	170	30	10	162	123	A
50	936	27	296	14	173	28	11	161	124	A
51	926	26	297	14	174	28	11	160	125	A
52	916	27	296	15	173	29	12	158	126	A
53	906	28	297	15	171	30	12	160	125	A
54	896	28	295	14	174	29	11	163	122	A
55	886	26	296	15	177	27	12	160	125	A
56	876	26	296	16	168	29	12	155	126	A
57	866	27	297	12	175	28	10	165	122	A
58	856	28	296	13	177	28	11	165	122	A
59	846	29	297	12	171	30	10	164	122	A
60	836	27	300	12	175	28	9	164	126	A
61	826	25	300	12	174	26	9	162	127	A
62	816	26	299	11	174	27	9	165	124	A
63	806	25	298	11	175	26	9	165	124	A
64	796	26	298	11	177	27	9	166	123	A
65	786	29	302	13	184	29	11	166	128	A
66	776	26	303	12	184	27	10	165	129	A
67	766	27	305	9	196	27	8	174	127	A
68	756	29	305	12	188	29	11	168	129	A
69	746	29	317	12	191	30	9	164	142	A

NWNL1806 ADCP 19518

Harmonic constants for constituent N2 for deployment NWNL1806.

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	1426	4	229	9	19	10	2	111	23	C
02	1416	4	245	8	21	9	3	111	28	C
03	1406	5	246	8	23	9	3	121	35	C
04	1396	5	247	7	21	8	3	120	34	C
05	1386	5	255	7	18	8	4	124	37	C
06	1376	5	248	7	23	8	3	124	38	C
07	1366	6	255	6	14	7	4	132	41	C
08	1356	6	250	6	14	8	4	133	40	C
09	1346	6	250	7	10	8	4	129	35	C
10	1336	6	252	7	15	8	4	126	36	C
11	1326	6	251	7	14	8	4	130	38	C
12	1316	6	257	6	18	7	4	128	42	C
13	1306	6	257	6	22	8	4	129	45	C
14	1296	6	252	7	19	8	4	125	38	C
15	1286	6	254	6	19	8	4	136	47	C
16	1276	5	253	7	18	7	4	124	37	C
17	1266	6	255	7	19	8	4	127	40	C
18	1256	6	261	7	18	7	4	123	39	C
19	1246	6	260	6	14	7	5	132	44	C
20	1236	5	260	6	15	7	4	125	39	C
21	1226	6	254	7	14	8	4	129	39	C
22	1216	6	247	6	18	8	4	130	38	C
23	1206	6	254	6	17	8	4	127	39	C
24	1196	5	251	7	20	8	4	123	36	C
25	1186	5	252	7	23	8	3	119	36	C
26	1176	5	250	7	17	8	4	123	34	C
27	1166	5	247	7	20	7	3	122	34	C
28	1156	6	252	6	22	8	4	130	44	C
29	1146	6	242	5	14	7	3	140	42	C
30	1136	6	250	6	14	8	4	135	42	C
31	1126	6	245	6	24	8	3	133	43	C
32	1116	6	242	6	22	8	3	132	40	C
33	1106	6	244	6	27	8	3	135	45	C
34	1096	6	244	6	28	8	3	133	45	C
35	1086	6	252	7	30	9	3	129	47	C
36	1076	5	246	7	25	8	3	126	40	C
37	1066	6	248	6	27	8	3	134	48	C
38	1056	5	247	7	22	8	3	127	39	C
39	1046	6	244	6	19	8	3	130	38	C
40	1036	6	251	7	22	8	4	128	41	C
41	1026	6	243	6	25	8	3	132	42	C
42	1016	6	244	6	24	8	3	137	45	C
43	1006	6	242	7	24	9	3	128	39	C
44	996	7	242	7	29	10	3	134	45	C
45	986	7	236	7	32	10	2	134	44	C
46	976	7	234	7	32	10	2	134	43	C
47	966	7	244	7	35	10	3	136	50	C
48	956	7	235	7	39	10	1	136	47	C
49	946	8	239	7	38	10	2	138	50	C
50	936	8	234	7	37	10	2	137	46	C
51	926	7	242	7	46	10	1	134	53	C
52	916	8	226	7	47	11	0	138	46	A
53	906	8	231	7	47	11	0	139	49	C
54	896	8	240	6	45	10	1	145	55	C
55	886	9	235	7	53	12	0	141	54	C
56	876	7	233	7	52	10	0	136	52	C
57	866	8	226	6	54	10	1	144	49	A
58	856	9	239	6	53	11	1	149	57	C
59	846	9	241	7	46	11	1	141	55	C
60	836	10	243	7	50	11	1	146	59	C
61	826	10	240	7	66	12	1	145	62	A
62	816	8	230	7	60	11	1	141	54	A
63	806	10	238	7	54	12	0	146	57	C
64	796	10	228	6	59	11	1	148	51	A
65	786	9	229	6	59	11	1	148	52	A
66	776	9	233	7	53	11	0	143	53	C
67	766	9	225	7	51	11	1	140	47	A
68	756	11	223	11	63	15	3	137	52	A
69	746	10	211	9	53	13	3	139	40	A

NWNL1806 ADCP 19518

Harmonic constants for constituent O1 for deployment NWNL1806.

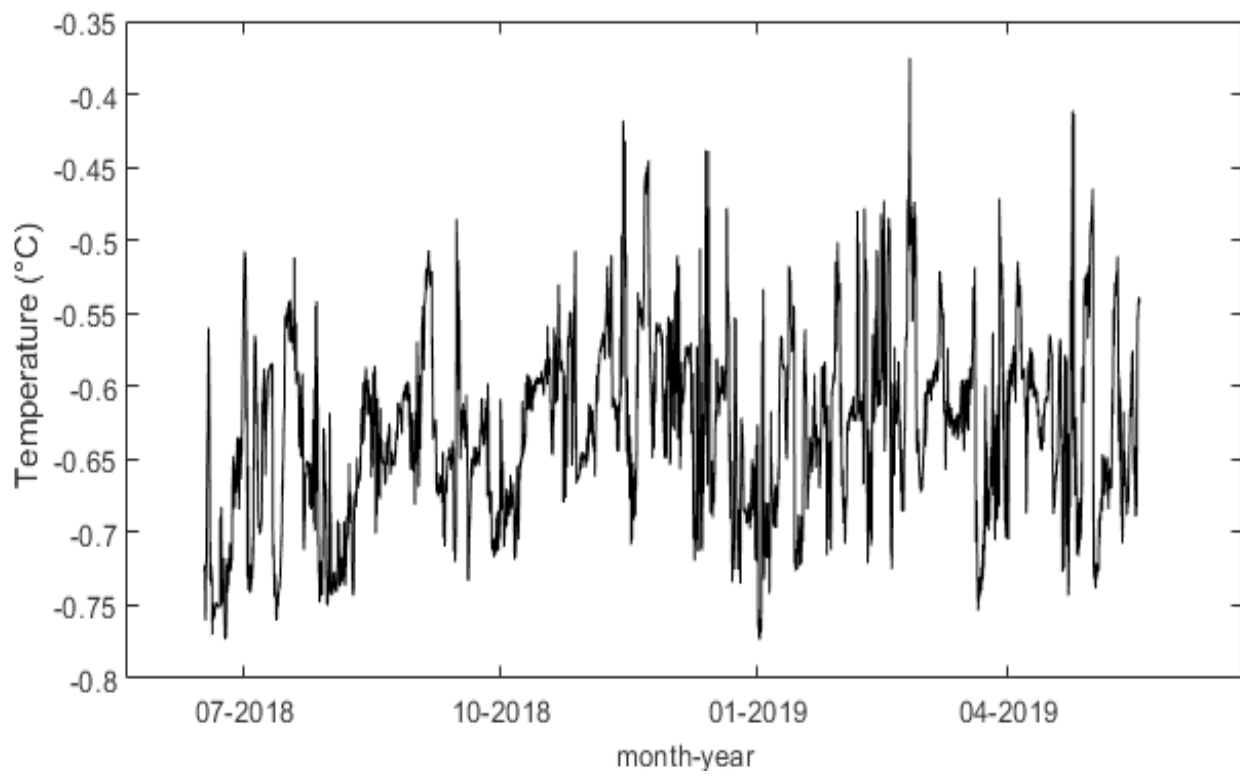
Bin	Depth m	E-ampl mm/sec	E-gphl deg	N-ampl mm/sec	N-gphl deg	Major mm/sec	Minor mm/sec	Incl deg	Grphl deg	R
01	1426	2	80	2	233	3	1	142	249	C
02	1416	3	102	2	241	4	1	147	269	C
03	1406	3	97	3	230	4	2	137	255	C
04	1396	3	100	2	261	4	1	146	274	C
05	1386	3	110	2	224	3	1	161	279	C
06	1376	3	95	2	231	3	1	145	260	C
07	1366	3	120	2	239	3	2	148	281	C
08	1356	2	100	2	240	3	1	145	266	C
09	1346	3	106	2	223	3	2	152	269	C
10	1336	4	94	2	217	4	2	158	264	C
11	1326	3	91	2	225	4	1	152	260	C
12	1316	3	91	2	223	3	1	154	261	C
13	1306	3	84	2	215	4	2	148	249	C
14	1296	3	88	3	208	4	2	142	244	C
15	1286	2	74	3	210	3	1	123	224	C
16	1276	3	89	3	211	3	2	134	240	C
17	1266	3	101	3	222	4	2	126	244	C
18	1256	3	87	3	214	4	2	124	232	C
19	1246	3	96	3	210	4	2	144	251	C
20	1236	3	97	3	201	3	2	153	257	C
21	1226	4	95	3	208	4	2	153	258	C
22	1216	4	94	3	209	4	2	153	257	C
23	1206	4	79	2	219	4	1	157	253	C
24	1196	3	81	2	230	4	1	152	254	C
25	1186	3	88	2	217	4	1	157	259	C
26	1176	4	88	2	227	4	1	151	257	C
27	1166	4	84	2	219	4	1	159	258	C
28	1156	4	80	2	228	4	1	160	256	C
29	1146	3	86	2	214	4	2	145	248	C
30	1136	4	77	2	222	4	1	153	249	C
31	1126	4	74	2	230	5	1	150	248	C
32	1116	3	87	2	228	4	1	154	258	C
33	1106	3	82	2	221	3	1	148	250	C
34	1096	3	76	2	218	4	1	150	246	C
35	1086	3	79	2	208	4	2	149	244	C
36	1076	4	78	2	221	4	1	150	248	C
37	1066	4	78	2	211	4	2	150	246	C
38	1056	4	75	2	216	4	1	151	245	C
39	1046	4	60	2	218	5	1	150	235	C
40	1036	4	70	2	205	4	1	158	242	C
41	1026	3	80	2	210	4	2	153	248	C
42	1016	4	74	2	209	5	2	156	246	C
43	1006	4	88	2	204	4	2	164	261	C
44	996	4	77	2	212	4	1	161	251	C
45	986	4	82	2	230	5	1	155	256	C
46	976	5	84	2	240	5	1	156	260	C
47	966	4	86	2	238	4	1	155	261	C
48	956	4	67	1	234	4	0	169	247	C
49	946	4	78	1	218	4	1	165	254	C
50	936	4	66	3	244	6	0	142	246	C
51	926	5	73	2	283	5	1	159	257	A
52	916	4	80	3	235	5	1	149	254	C
53	906	4	75	2	221	5	1	159	250	C
54	896	4	77	3	242	4	1	145	252	C
55	886	4	65	3	266	5	1	142	253	A
56	876	4	77	2	236	4	1	147	251	C
57	866	4	66	2	257	5	0	151	248	A
58	856	5	84	2	250	6	0	164	263	C
59	846	6	79	3	238	6	1	153	255	C
60	836	5	78	3	239	6	1	152	254	C
61	826	4	71	2	188	5	2	161	242	C
62	816	5	70	3	212	5	2	149	239	C
63	806	5	74	5	213	7	3	140	237	C
64	796	3	68	3	223	5	1	137	236	C
65	786	4	43	4	192	5	1	138	209	C
66	776	5	49	5	242	7	1	132	237	A
67	766	5	76	4	206	6	2	152	244	C
68	756	3	94	3	188	3	2	123	219	C
69	746	3	112	6	200	6	3	88	199	C

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Harmonic constants for constituent K1 for deployment NWNL1806.

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	1426	3	311	3	191	4	2	135	161	A
02	1416	3	303	3	173	4	2	137	147	A
03	1406	3	311	2	183	3	1	152	144	A
04	1396	3	293	2	177	3	2	146	135	A
05	1386	2	311	2	175	3	1	136	152	A
06	1376	3	304	3	187	3	2	136	154	A
07	1366	4	307	2	184	4	2	156	138	A
08	1356	4	285	2	198	4	2	2	284	A
09	1346	3	297	2	178	3	2	158	128	A
10	1336	4	305	3	185	4	2	149	143	A
11	1326	3	293	2	173	4	2	150	131	A
12	1316	4	290	2	184	4	2	167	117	A
13	1306	3	293	3	172	4	2	139	139	A
14	1296	4	299	3	180	4	2	146	139	A
15	1286	3	286	3	172	4	2	147	128	A
16	1276	3	291	3	168	4	2	133	142	A
17	1266	3	296	3	182	4	3	142	143	A
18	1256	3	305	3	180	4	2	149	141	A
19	1246	4	300	3	168	5	2	151	132	A
20	1236	4	301	3	175	4	2	147	138	A
21	1226	4	309	2	178	4	1	160	136	A
22	1216	4	303	3	161	5	1	146	135	A
23	1206	3	304	3	170	4	2	145	140	A
24	1196	3	309	2	187	4	2	154	143	A
25	1186	3	292	3	182	3	2	146	137	A
26	1176	3	299	2	167	4	2	144	137	A
27	1166	3	295	3	165	4	2	131	143	A
28	1156	3	294	3	169	4	2	140	137	A
29	1146	3	305	3	157	4	1	137	140	A
30	1136	3	300	3	170	4	2	144	139	A
31	1126	3	304	2	169	4	1	150	136	A
32	1116	3	303	3	174	3	2	135	148	A
33	1106	3	322	2	195	3	1	155	153	A
34	1096	3	304	3	178	4	2	141	146	A
35	1086	3	309	3	160	4	1	129	148	A
36	1076	3	306	3	173	4	2	132	152	A
37	1066	4	305	2	175	4	2	151	138	A
38	1056	4	305	3	175	4	2	148	141	A
39	1046	4	313	2	181	4	1	155	142	A
40	1036	4	310	2	181	4	2	153	142	A
41	1026	2	300	3	173	3	2	133	148	A
42	1016	3	304	3	177	4	2	146	142	A
43	1006	4	309	2	156	5	1	150	136	A
44	996	3	303	3	170	4	2	143	140	A
45	986	3	295	3	181	4	2	149	135	A
46	976	3	304	3	160	4	1	136	142	A
47	966	4	301	2	182	4	2	159	131	A
48	956	3	288	2	178	3	2	168	113	A
49	946	4	298	2	179	4	2	159	129	A
50	936	4	285	2	167	4	2	162	113	A
51	926	3	281	3	185	3	3	131	147	A
52	916	3	281	2	161	3	2	149	119	A
53	906	4	294	4	170	5	3	140	138	A
54	896	3	303	4	143	5	1	126	136	A
55	886	2	273	4	123	4	1	118	116	A
56	876	2	284	5	180	5	2	96	178	A
57	866	3	269	3	135	4	2	137	110	A
58	856	3	302	4	129	5	0	125	127	A
59	846	2	319	3	160	4	1	117	155	A
60	836	3	276	3	137	4	1	124	124	A
61	826	2	278	3	146	3	1	124	130	A
62	816	3	293	3	135	5	1	131	126	A
63	806	3	286	3	143	4	1	126	129	A
64	796	4	277	3	190	4	3	7	271	A
65	786	4	284	4	86	5	1	134	95	C
66	776	5	275	3	162	5	3	154	111	A
67	766	5	275	2	211	5	2	12	270	A
68	756	6	261	2	154	6	2	173	83	A
69	746	7	260	3	137	8	2	167	84	A

NWNL1806 SBE56 6503



TNGY1806

Latitude: 61°57.474'N

Longitude: 003°56.100'W

Echo sounding depth: 686 m

Bottom depth corr.: 693 m

Time of deployment: 16/6 - 2018 0040 UTC

Time of recovery: 19/5 - 2019 0412 UTC

ADCP:

Instrument no.: RDI ADCP 1292

Instrument frequency: 75 kHz

Height above bottom: 8 m

Depth: 685 m

Time of first data: 16/6 - 2018 0200 UTC

Time of last data: 19/5 - 2019 0400 UTC

Sample interval: 20 min

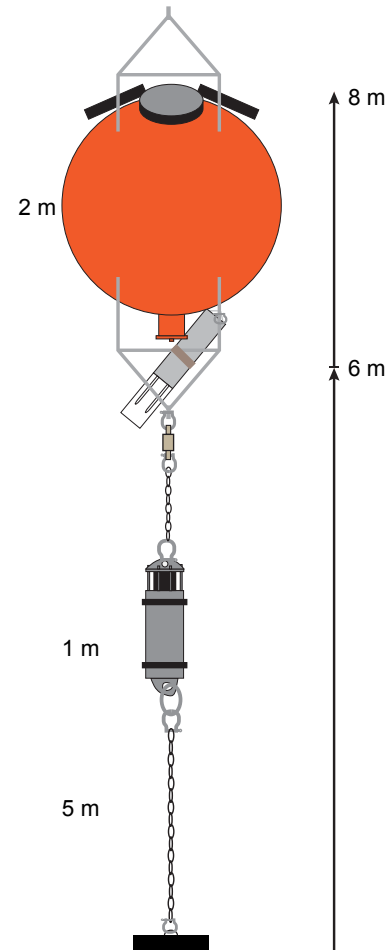
No. of ensembles: 24271

Pings per ens.: 1

Binlength: 25 m

Depth of first bin: 649 m

No. of bins: 23



Data:

All data ok.

TNGY1806 ADCP 1292

Error statistics for deployment: TNGY1806 updated 2019/12/17

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

Velocity (spd, dir, wel) is error flagged using these data filters:

Minimum Correlation threshold: 40.0
 Maximum Speed factor (Average speed for each bin times factor): 5.0
 Maximum Absolute Error Velocity threshold (erv_tr+0.1*spd): 100.0
 Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 1): 5.00
 Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 23): 3.33
 Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 32): 2.00

Total number of ensembles: 24271
 Interval between ensembles: 20 min
 Original number of bins: 32
 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. Velocity			Number of velocity gaps of length									
	ens. flgd	ens. flgd	% flgd	1	2	3	4	5	6-10	11-20	21-30	31-50	>50
1	0	89	0	61	12	0	1	0	0	0	0	0	0
2	0	100	0	64	13	2	1	0	0	0	0	0	0
3	0	95	0	71	9	2	0	0	0	0	0	0	0
4	0	116	0	73	16	2	0	1	0	0	0	0	0
5	0	115	0	72	18	1	1	0	0	0	0	0	0
6	0	125	1	78	18	2	0	1	0	0	0	0	0
7	0	141	1	78	21	7	0	0	0	0	0	0	0
8	0	135	1	90	19	1	1	0	0	0	0	0	0
9	0	134	1	104	11	1	0	1	0	0	0	0	0
10	0	194	1	146	15	6	0	0	0	0	0	0	0
11	0	198	1	144	22	2	1	0	0	0	0	0	0
12	0	234	1	166	19	7	1	1	0	0	0	0	0
13	0	230	1	180	20	2	1	0	0	0	0	0	0
14	0	249	1	190	22	2	1	1	0	0	0	0	0
15	0	332	1	239	27	10	1	1	0	0	0	0	0
16	0	379	2	247	38	8	1	2	1	1	0	0	0
17	0	622	3	319	54	18	2	5	3	6	0	0	0
18	0	1804	7	303	70	27	13	7	37	31	15	1	0
19	0	3586	15	314	84	33	16	4	30	48	40	26	0
20	0	5260	22	389	84	29	31	13	34	53	41	63	0
21	0	6988	29	411	127	69	31	13	42	65	65	75	1
22	0	8816	36	521	148	67	42	25	62	59	56	95	12
23	0	10907	45	695	214	92	54	25	79	53	56	103	17

TNGY1806 ADCP 1292

Deployment: TNGY1806 updated 2019/12/17
 Instrument no.: 1292
 Instrument freq.: 75
 Latitude: 61 57.474 N
 Longitude: 03 56.100 W
 Bottom depth: 693
 Instrument depth: 685
 Center depth of first bin: 649
 Bin length: 25
 Number of bins: 23
 Number of first ensemble: 331
 Time of first ensemble: 2018 06 16 02 00
 Number of last ensemble: 24601
 Time of last ensemble: 2019 05 19 04 00
 Time between ensembles (min.): 20
 All directions have been corrected by adding: -3.0

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	649	44	151	27	225	996
2	624	69	157	27	224	996
3	599	94	156	26	222	996
4	574	119	156	27	222	995
5	549	144	156	28	219	995
6	524	169	157	29	215	995
7	499	194	157	32	209	994
8	474	219	157	36	205	994
9	449	244	155	41	202	994
10	424	269	155	47	200	992
11	399	294	157	55	200	992
12	374	319	162	65	201	990
13	349	344	170	77	201	991
14	324	369	178	86	201	990
15	299	394	183	89	201	986
16	274	419	188	91	200	984
17	249	444	191	91	199	974
18	224	469	194	91	199	926
19	199	494	200	92	198	852
20	174	519	205	91	199	783
21	149	544	211	91	197	712
22	124	569	218	88	194	637
23	99	594	229	83	189	551

TNGY1806 ADCP 1292

Frequency of high speeds.

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

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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
1 649	700	253	52	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2 624	723	274	65	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3 599	722	269	65	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4 574	720	268	62	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5 549	720	268	63	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6 524	717	278	65	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7 499	713	277	68	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 474	707	278	70	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 449	696	279	69	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10 424	688	272	68	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11 399	693	281	77	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0
12 374	696	300	88	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0
13 349	721	329	109	32	8	1	0	0	0	0	0	0	0	0	0	0	0	0
14 324	738	352	128	41	11	2	1	0	0	0	0	0	0	0	0	0	0	0
15 299	753	366	138	50	14	4	1	0	0	0	0	0	0	0	0	0	0	0
16 274	762	377	144	54	17	4	0	0	0	0	0	0	0	0	0	0	0	0
17 249	764	386	149	56	19	4	0	0	0	0	0	0	0	0	0	0	0	0
18 224	731	376	151	57	19	5	1	0	0	0	0	0	0	0	0	0	0	0
19 199	678	363	153	61	20	6	1	0	0	0	0	0	0	0	0	0	0	0
20 174	631	347	150	62	22	6	1	0	0	0	0	0	0	0	0	0	0	0
21 149	578	328	147	62	23	8	1	0	0	0	0	0	0	0	0	0	0	0
22 124	526	308	143	62	24	9	2	0	0	0	0	0	0	0	0	0	0	0
23 99	461	282	142	62	26	10	3	1	0	0	0	0	0	0	0	0	0	0

TNGY1806 ADCP 1292

Harmonic constants for constituent M2 for deployment TNGY1806.

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	649	124	247	97	204	147	56	35	232	A
02	624	128	253	109	208	156	64	39	235	A
03	599	126	257	116	212	158	65	41	237	A
04	574	125	261	121	215	161	67	44	239	A
05	549	123	265	127	219	163	68	46	241	A
06	524	117	269	130	224	162	67	49	243	A
07	499	110	272	128	228	157	62	51	246	A
08	474	100	274	124	233	150	54	53	248	A
09	449	88	274	117	239	140	42	55	251	A
10	424	74	274	108	245	127	31	57	254	A
11	399	62	274	102	252	118	21	60	257	A
12	374	52	275	99	257	111	14	63	261	A
13	349	44	280	99	263	108	12	67	266	A
14	324	39	285	100	267	107	12	70	269	A
15	299	35	290	102	269	107	12	72	271	A
16	274	33	295	103	270	107	13	74	272	A
17	249	32	298	106	271	109	14	74	274	A
18	224	32	300	108	272	111	15	75	274	A
19	199	33	305	111	272	114	18	76	274	A
20	174	35	308	113	273	117	20	75	275	A
21	149	36	309	114	273	118	21	75	275	A
22	124	38	312	117	272	121	23	75	275	A
23	99	44	309	118	273	123	24	72	277	A

Harmonic constants for constituent S2 for deployment TNGY1806.

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	649	30	298	37	276	47	9	52	285	A
02	624	30	305	41	277	50	12	55	287	A
03	599	30	312	43	280	51	13	57	290	A
04	574	27	315	44	283	50	13	60	291	A
05	549	27	312	44	284	50	11	60	292	A
06	524	26	315	44	287	50	11	60	294	A
07	499	26	314	43	288	49	10	60	295	A
08	474	26	312	40	287	47	9	59	294	A
09	449	25	312	40	286	46	10	60	292	A
10	424	25	314	40	282	46	12	59	291	A
11	399	25	310	39	284	45	10	58	292	A
12	374	24	302	36	284	43	6	57	289	A
13	349	21	291	33	286	39	2	57	287	A
14	324	19	288	33	293	38	1	59	292	C
15	299	19	297	35	300	40	1	61	299	C
16	274	21	302	35	299	41	1	59	300	A
17	249	21	307	35	298	41	3	59	300	A
18	224	23	316	35	301	42	5	57	305	A
19	199	26	320	35	302	44	7	54	308	A
20	174	29	325	38	305	47	8	53	312	A
21	149	36	327	39	306	52	10	48	316	A
22	124	35	326	38	306	51	9	48	315	A
23	99	33	324	38	302	49	10	50	311	A

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Harmonic constants for constituent N2 for deployment TNGY1806.

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	649	19	202	8	184	21	2	23	199	A
02	624	20	199	9	179	21	3	24	196	A
03	599	23	194	9	161	24	5	19	190	A
04	574	25	199	11	158	26	7	21	193	A
05	549	23	215	15	176	27	8	31	205	A
06	524	24	233	22	193	31	11	42	215	A
07	499	25	244	26	198	33	14	46	220	A
08	474	26	250	25	202	33	15	44	228	A
09	449	21	252	22	209	28	11	46	230	A
10	424	20	251	21	215	28	9	48	231	A
11	399	18	260	21	222	26	9	52	237	A
12	374	18	264	23	224	27	10	53	239	A
13	349	14	264	23	230	26	7	60	239	A
14	324	12	276	23	238	25	7	66	245	A
15	299	12	285	23	238	25	8	67	247	A
16	274	12	290	24	242	26	9	69	249	A
17	249	11	286	25	243	26	7	70	249	A
18	224	11	285	23	243	25	7	69	249	A
19	199	12	286	23	243	25	8	66	251	A
20	174	14	283	22	242	25	8	62	251	A
21	149	13	283	22	246	25	7	63	254	A
22	124	13	284	20	250	23	6	61	259	A
23	99	15	300	19	254	22	9	56	269	A

Harmonic constants for constituent O1 for deployment TNGY1806.

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	649	17	20	4	317	17	4	7	18	A
02	624	16	17	4	302	16	4	4	16	A
03	599	16	14	4	292	16	4	2	14	A
04	574	16	10	4	292	16	4	3	9	A
05	549	17	13	5	298	17	4	4	12	A
06	524	17	15	5	307	17	5	6	13	A
07	499	17	14	5	309	17	5	8	12	A
08	474	16	11	6	300	16	5	8	8	A
09	449	16	7	7	286	16	7	5	5	A
10	424	15	5	6	285	15	6	5	3	A
11	399	15	2	6	292	16	6	9	358	A
12	374	15	354	10	286	16	9	20	342	A
13	349	17	355	9	286	17	9	15	347	A
14	324	16	360	8	291	16	7	13	354	A
15	299	16	1	9	287	17	8	11	355	A
16	274	17	0	9	281	17	9	8	356	A
17	249	16	353	9	280	17	9	13	346	A
18	224	16	346	11	274	17	10	19	334	A
19	199	14	353	15	271	15	13	52	305	A
20	174	14	360	16	281	17	13	63	303	A
21	149	17	8	17	274	18	17	135	230	A
22	124	20	13	19	270	22	17	142	225	A
23	99	23	21	20	281	24	19	152	224	A

TNGY1806 ADCP 1292

Harmonic constants for constituent K1 for deployment TNGY1806.

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	649	13	278	8	134	15	4	151	107	A
02	624	13	276	9	132	15	5	148	107	A
03	599	13	274	9	133	15	5	147	106	A
04	574	13	273	10	137	15	6	144	109	A
05	549	14	271	11	138	16	7	145	108	A
06	524	14	267	11	145	16	8	149	105	A
07	499	14	262	10	145	15	8	154	97	A
08	474	15	261	10	139	16	8	152	96	A
09	449	15	266	9	140	16	7	155	97	A
10	424	15	262	8	136	16	6	159	90	A
11	399	17	251	10	138	18	9	163	80	A
12	374	14	243	13	136	16	12	145	90	A
13	349	13	237	19	132	19	12	109	120	A
14	324	15	234	22	135	22	14	100	129	A
15	299	16	238	20	144	20	16	99	137	A
16	274	19	244	17	145	19	16	149	91	A
17	249	18	243	15	145	19	15	163	76	A
18	224	19	236	16	153	19	16	16	223	A
19	199	23	222	18	149	24	16	24	205	A
20	174	28	215	23	146	30	19	30	194	A
21	149	33	203	28	151	39	19	36	184	A
22	124	36	199	34	154	46	19	43	178	A
23	99	36	200	37	151	47	21	47	174	A

TNGZ18o6

Latitude: 62°01.145'N
Longitude: 004°06.340'W
Echo sounding depth: 462 m
Bottom depth corr.: 466 m
Time of deployment: 15/6 - 2018 2252 UTC
Time of recovery: 19/5 - 2019 0520 UTC

ADCP:

Instrument no.: RDI ADCP 1279
Instrument frequency: 150 kHz
Height above bottom: 1 m
Depth: 465 m
Time of first data: 15/6 - 2018 2300 UTC
Time of last data: 19/5 - 2019 0500 UTC
Sample interval: 20 min
No. of ensembles: 24283
Pings per ens.: 1
Binlength: 25 m
Depth of first bin: 434 m
No. of bins: 15

SBE56

Instrument no.: 6504
Height above bottom: 1 m
Instrument depth: 465 m
Time of first data: 16/6 - 2018 0020 UTC
Time of last data: 19/5 - 2019 0510 UTC
Sample interval: 10 min
No. of ensembles: 48558

Data:

The temperature from the SBE56 is calibrated against an SBE911+.



TNGZ1806 ADCP 1279

Error statistics for deployment: TNGZ1806 updated 2019/12/17

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

Velocity (spd, dir, wel) is error flagged using these data filters:

Minimum Correlation threshold: 50.0

Maximum Speed factor (Average speed for each bin times factor): 4.0

Maximum Absolute Error Velocity threshold (erv_tr+0.1*spd): 100.0

Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 1): 4.00

Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 15): 2.00

Std dev for de-spiking (u, v deviate from 3 point median by more than number of std dev, bin 15): 2.00

Total number of ensembles: 24283

Interval between ensembles: 20 min

Original number of bins: 20

Number of acceptable velocity bins: 15

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. 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	1486	6	1129	145	17	4	0	0	0	0	0	0
2	0	1599	7	1197	140	22	4	3	3	0	0	0	0
3	0	1814	7	1373	153	25	6	2	4	0	0	0	0
4	0	1833	8	1418	161	21	6	0	1	0	0	0	0
5	0	1754	7	1342	156	25	5	1	0	0	0	0	0
6	0	1715	7	1357	143	17	4	1	0	0	0	0	0
7	0	1746	7	1315	155	27	6	2	1	0	0	0	0
8	0	1824	8	1333	176	32	7	3	0	0	0	0	0
9	0	1816	7	1288	182	33	10	5	0	0	0	0	0
10	0	1996	8	1312	173	50	14	7	14	0	0	0	0
11	0	2758	11	1283	189	54	32	18	49	15	4	0	0
12	0	4158	17	1268	215	67	38	24	55	60	21	4	0
13	0	6650	27	1293	274	106	56	30	69	71	65	23	1
14	0	9590	39	1247	323	128	70	43	98	60	65	82	8
15	0	12536	52	1184	356	147	92	49	107	58	55	87	36

TNGZ1806 ADCP 1279

Deployment: TNGZ1806 updated 2019/12/17
 Instrument no.: 1279
 Instrument freq.: 150
 Latitude: 62 01.145 N
 Longitude: 04 06.340 W
 Bottom depth: 466
 Instrument depth: 465
 Center depth of first bin: 434
 Bin length: 25
 Number of bins: 15
 Number of first ensemble: 322
 Time of first ensemble: 2018 06 15 23 00
 Number of last ensemble: 24604
 Time of last ensemble: 2019 05 19 05 00
 Time between ensembles (min.): 20
 All directions have been corrected by adding: -3.0

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	434	32	177	45	211	939
2	409	57	178	54	212	934
3	384	82	175	64	208	925
4	359	107	176	74	208	925
5	334	132	180	82	208	928
6	309	157	182	86	208	929
7	284	182	183	89	207	928
8	259	207	184	89	206	925
9	234	232	184	91	205	925
10	209	257	187	92	205	918
11	184	282	191	94	205	886
12	159	307	196	96	204	829
13	134	332	204	95	203	726
14	109	357	213	93	200	605
15	84	382	227	87	199	484

TNGZ1806 ADCP 1279

Frequency of high speeds.

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

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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	
1 434	711	340	115	26	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 409	705	336	119	32	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 384	687	319	114	32	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4 359	686	328	117	32	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5 334	699	339	121	36	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0
6 309	706	348	129	40	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7 284	708	348	135	40	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0
8 259	706	350	134	40	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0
9 234	705	350	139	40	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0
10 209	704	358	141	44	10	3	1	0	0	0	0	0	0	0	0	0	0	0	0
11 184	691	356	145	45	12	3	1	0	0	0	0	0	0	0	0	0	0	0	0
12 159	656	345	146	45	14	4	1	0	0	0	0	0	0	0	0	0	0	0	0
13 134	585	323	140	49	15	5	1	0	0	0	0	0	0	0	0	0	0	0	0
14 109	501	286	130	49	17	6	2	0	0	0	0	0	0	0	0	0	0	0	0
15 84	407	249	121	52	20	7	2	0	0	0	0	0	0	0	0	0	0	0	0

TNGZ1806 ADCP 1279

Harmonic constants for constituent M2 for deployment TNGZ1806.

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	434	102	259	119	221	149	50	51	237	A
02	409	97	267	123	227	148	52	54	241	A
03	384	84	276	125	236	143	46	59	247	A
04	359	72	288	128	245	140	45	65	253	A
05	334	66	302	131	252	138	47	69	259	A
06	309	63	312	132	256	138	50	72	263	A
07	284	60	316	134	258	138	49	74	264	A
08	259	61	314	135	258	140	49	74	263	A
09	234	61	311	136	257	142	48	74	263	A
10	209	60	311	136	257	141	47	74	262	A
11	184	60	312	137	256	141	48	74	262	A
12	159	61	312	137	256	142	49	74	262	A
13	134	65	311	142	256	148	51	73	262	A
14	109	67	309	144	255	150	52	72	262	A
15	84	72	305	139	256	148	52	69	263	A

Harmonic constants for constituent S2 for deployment TNGZ1806.

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	434	25	291	31	275	40	5	51	282	A
02	409	26	294	35	277	43	6	54	283	A
03	384	22	292	37	278	43	5	60	281	A
04	359	20	304	42	281	45	7	66	285	A
05	334	18	321	45	286	48	10	71	290	A
06	309	19	338	50	290	52	14	74	294	A
07	284	23	343	52	293	54	17	73	298	A
08	259	25	341	54	291	57	18	71	298	A
09	234	27	343	54	292	57	20	70	299	A
10	209	26	343	55	292	58	20	71	299	A
11	184	27	344	54	292	57	20	70	300	A
12	159	30	343	54	292	58	21	68	301	A
13	134	29	341	52	293	56	20	66	302	A
14	109	27	346	52	295	55	20	69	303	A
15	84	24	345	50	295	52	18	71	301	A

TNGZ1806 ADCP 1279

Harmonic constants for constituent N2 for deployment TNGZ1806.

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	434	16	211	17	184	23	5	47	197	A
02	409	14	235	18	199	22	7	54	212	A
03	384	16	253	23	208	26	10	59	221	A
04	359	19	268	26	214	29	14	61	228	A
05	334	19	275	30	219	32	15	65	231	A
06	309	19	283	31	226	33	15	68	236	A
07	284	18	288	31	230	33	15	69	240	A
08	259	16	286	29	229	31	12	70	238	A
09	234	15	280	27	229	29	11	68	237	A
10	209	13	281	29	232	30	9	72	238	A
11	184	13	281	28	231	29	10	72	237	A
12	159	13	283	28	234	29	9	71	240	A
13	134	10	284	25	240	27	7	73	244	A
14	109	10	308	25	244	25	9	79	247	A
15	84	17	294	25	235	27	13	64	248	A

Harmonic constants for constituent O1 for deployment TNGZ1806.

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	434	27	6	13	278	27	13	1	6	A
02	409	27	4	15	289	28	14	12	358	A
03	384	29	1	18	299	30	15	21	350	A
04	359	30	354	18	301	33	14	25	343	A
05	334	31	351	19	299	33	14	25	341	A
06	309	29	352	19	296	32	14	25	340	A
07	284	27	351	16	290	28	13	20	341	A
08	259	27	348	17	288	28	14	23	337	A
09	234	26	348	16	288	27	13	22	338	A
10	209	26	349	15	285	27	13	18	341	A
11	184	25	348	15	286	26	13	20	338	A
12	159	23	346	15	286	25	12	23	335	A
13	134	23	358	13	289	24	12	17	349	A
14	109	28	6	15	304	29	13	18	358	A
15	84	27	8	15	307	28	13	20	359	A

TNGZ1806 ADCP 1279

Harmonic constants for constituent K1 for deployment TNGZ1806.

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	434	31	261	20	157	32	19	166	89	A
02	409	31	256	22	164	31	22	177	78	A
03	384	31	249	24	163	32	24	8	243	A
04	359	31	245	25	162	31	25	17	231	A
05	334	30	242	27	161	31	26	25	220	A
06	309	30	238	29	158	32	27	38	205	A
07	284	30	239	30	160	33	27	44	200	A
08	259	29	241	28	161	31	26	43	203	A
09	234	28	240	28	159	30	26	42	202	A
10	209	29	238	28	158	31	26	42	201	A
11	184	30	235	27	158	32	25	35	206	A
12	159	31	231	28	157	34	25	33	205	A
13	134	33	226	29	155	36	25	34	202	A
14	109	36	229	33	149	38	31	31	203	A
15	84	32	227	35	146	37	31	59	172	A

TNGZ1806 SBE56 6504

