

DRIFTER DATA PROCESSING FOR THE CALYPSO 2018-2019, DDR20, MREP20 EXPERIMENTS

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1. Introduction

The MAOS (Mobile Autonomous Oceanographic Systems) group of the OGS oceanographic section (OCE) mainly works with autonomous instruments, including a variety of different drifters. In the last years, the MAOS group has been involved in four international experiments, led by CMRE (Centre for Maritime Research & Experimentation), both providing some of the drifters used for these experiments and managing the processing and processing of all the drifter data collected in near-real time and delayed mode. The experiments involving drifter deployments were:

- **CALYPSO experiments 2018 and 2019:** The main objective of the Coherent Lagrangian Pathways from the Surface Ocean to Interior (CALYPSO) project sponsored by ONR is to improve our understanding on the 3D dynamics in the upper ocean through which water and properties are transported from the surface to depths below the mixed layer, by exploring the dynamics of the frontal areas in the Alboran Sea (southwest Mediterranean Sea) at scales ranging between 1 and 100 km using data collected by ship-born instruments (CTD, underway-CTD, ADCP, etc.), Lagrangian platforms (drifters and floats), gliders and satellites. As part of CALYPSO, two experiments were carried out in the Alboran Sea: the first one on 27 May – 2 June 2018 with the participation of international scientists (from the US, Spain, Italy) on two vessels (the NATO R/V ALLIANCE and the Spanish R/V SOCIB); the second on 28 March – 10 April 2019 with the participation of international scientists (from the US, Spain, Italy) on two vessels (the French R/V POURQUOI PAS? and the Spanish R/V SOCIB).
- **Drifter Demonstration and Research 2020 (DDR20):** The DDR20 sea trial, sponsored by NATO-ACT, was performed to demonstrate the effective use of a network of freely-drifting mini-robots (drifters) to characterize the littoral marine environment at small scales. A swarm of drifting instruments were operated for 2 days in the vicinity of the Arno River mouth in the eastern Ligurian Sea (Poulain and Ampolo-Rella, 2020; Poulain, 2020).
- **Mediterranean Recognized Environmental Picture 2020 (MREP20):** The main scientific objectives of the MREP20 sea trial sponsored by NATO-ACT were: to investigate the frontal variability in the eastern Sicily Channel and the associated mesoscale and sub mesoscale features; to study the influence of the 3D oceanographic variability associated with a front in the Sicily Channel on the acoustic propagation and

potential improvement deriving from the combined data assimilation (Poulain and Oddo, 2020).

This report provides information on the deployments of the drifters involved in the CALYPSO 2018-2019, DDR20 and MREP20 experiments and on the processing of their data. After a brief description of the drifter data processing (Section 2), details on the deployments and drifter trajectories are given in tables (Section 3). Future works and conclusions are in the last Section 4.

2. Data processing

Drifter data collected from the CALYPSO 2018-2019, DDR20 and MREP20 experiments were processed using the standard procedures developed for the OGS Mediterranean drifter dataset. A brief summary of the procedure used is given in this Section. More details and explanations on the data preprocessing and processing procedures can be found in Menna et al. (2017) and in the references therein.

The raw data collection and storage are automatic procedures (preprocessing) executed every morning (or with higher frequency during specific experiments). The raw data are downloaded via telnet, ftp or http (shared pages) or received by means of sms (one message per drifter) or by e-mail (multiple drifter per e-mail). The file received via e-mail is split in different parts corresponding to different drifters, and saved in files identified by the IMEI number (Iridium) and the ESN number (for SPOT devices). A PostgreSQL database was chosen to organize and manage the large amount of drifter information and the related decoding and deployment data. This kind of database guarantees good performances and high data security level. The raw data collected by the different kinds of drifters have their own peculiarity and need to be processed to obtain files with common characteristics from which the decoding procedure can start. The deployment information (decoding, time, latitude, longitude and other metadata) are retrieved from the database for each drifter and the integrity of the received packets is checked (i.e. number of bits, number of blocks, CRC, etc). Incomplete packets are discarded. For each drifter, a dedicated Matlab script interrogates the database and automatically generates a specific Matlab script for its decoding. These data are then saved in the same output Matlab file. Additionally, the scripts which decode the raw data also extract the Metadata of each deployment from the database.

Drifter decoded data are edited to remove spikes generated by malfunction or failure of the sensors. A specific script for the automatic editing was created to remove location errors. The automatic editing procedure eliminates the majority of the spikes. Nevertheless, some erroneous data require a visual check and the decision of an operator in order to be removed manually. A recurrent case is when there are important temporal gaps or when a drifter has stranded. If the temporal interval between the raw observations exceeds 4 days, the drifter trajectory is split in two parts which are considered as two different deployments.

The manual editing procedure allows also to evaluate the status of the drogue (presence/absence) for the SVP drifters and, eventually, to visually define the date of drogue lost. Drogue presence information is saved in the drifter metadata and in particular as three parameters (flag_lost_drogue, lost_drogue_time, lost_drogue_wind).

Edited data of position (latitude and longitude), temperature, voltage and drogue presence are then interpolated at 30 minute uniform intervals using a kriging optimal interpolation method (Hansen and Poulain, 1996). The velocities are then calculated as finite differences of the interpolated position. Data are finally subsampled at 1, 2, 3 and 6 h and the 2-h subsampled data are low-pass filtered with a hamming filter with cut-off period at 36 h, in order to eliminate tidal and inertial variability, and then they are subsampled every 6 hours. All the data at 30 minutes, 1, 2, 3, 6 h and the 6-h filtered data are then saved in dedicated folders as Matlab or NetCDF files.

More details on the data decoding, metadata, automatic and manual editing and interpolation can be found in Menna et al. (2017).

3. CALYPSO 2018-2019, DDR20, MREP20 experiments

3.1 CALYPSO pilot experiment 2018

The CALYPSO 2018 experiment involved the deployment of 110 drifters of 5 different types (see Table 1 in the Appendix and Figure 1): 51 SVP (Surface Velocity Program), 2 SVPB (Surface Velocity Program with Barometer), 2 DWS (Directional Wave Spectra), 20 CODE (Coastal Ocean Dynamics Experiment) and 35 CARTHE (85% biodegradable). The characteristics of the drifter types and the scientific goals of this experiment are described in Poulain et al. (2018).

Figure 2 shows the trajectories of the CALYPSO 2018 drifters interpolated at 1 h. The drifters detected the pathway of the Algerian Current (AC) and the occurrence of two

anticyclonic structures along the Algerian coast: the first one, centered at $\sim 2^{\circ}\text{W}$, is the well-known quasi-permanent Eastern Alboran Gyre (EAG, Poulain et al, 2012a; Peliz et al., 2013); the second one, centered at $\sim 3.5^{\circ}\text{E}$, is a vortex related to the instability of the AC.

The temporal distribution of drifter data (number of drifter-days i.e. number of observations for each day) during the CALYPSO 2018 experiment is shown in Figure 3. The total number of drifter-days is 2344, collected in the period May-December 2018.



Fig. 1. Upper panels, from left to right: SVP (surface buoy with a holey-sock drogue) and DWS drifters (surface buoy with ballasting chain). Lower panels, from left to right: CODE and CARTHE drifters.

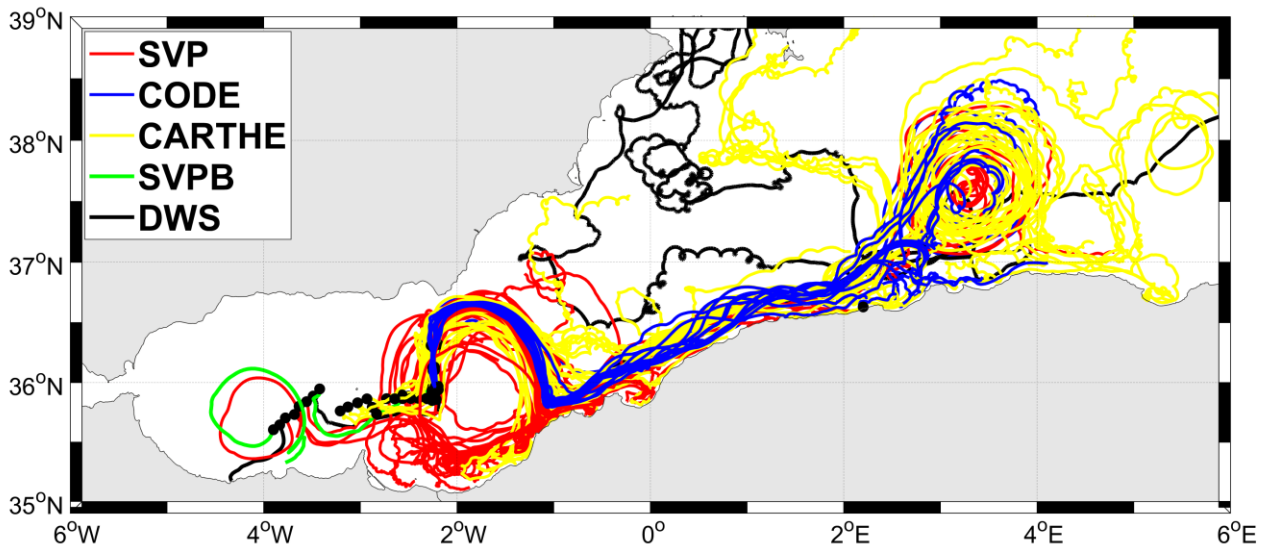


Fig. 2. Trajectories of the drifters deployed during the CALYPSO 2018 experiment. Different colors correspond to different drifter types. Black dots indicate deployment positions.

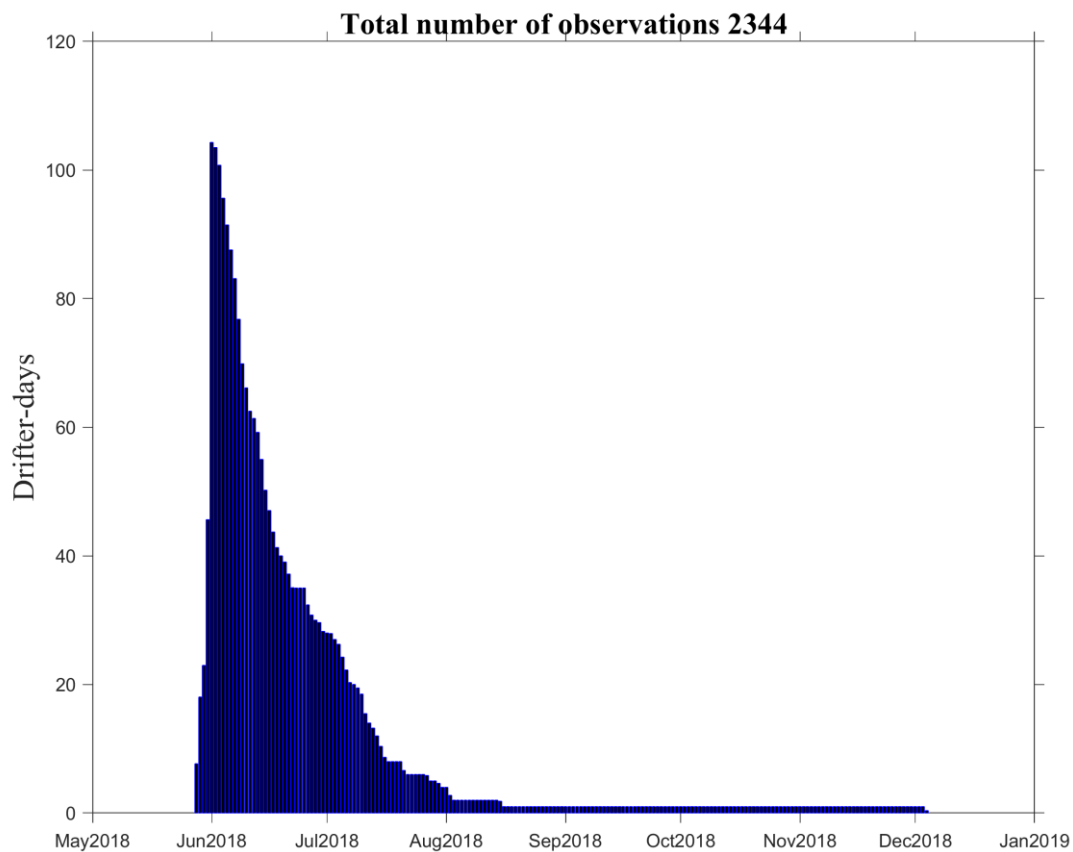


Fig. 3. Temporal distribution of the drifter data (drifter-days) during the CALYPSO 2018 experiment.

3.2 CALYPSO experiment 2019

During the CALYPSO 2019 experiment a total of 183 drifters of 5 different types were deployed (see Table 2 in the Appendix and Figure 1): 53 SVP, 25 CODE, 6 DWS and 99 CARTHE.

The characteristics of the 5 different drifter types involved and the scientific goals of this experiment are described in Poulain et al. (2019) and Menna et al. (2020).

Figure 4 shows the trajectories of the drifters involved in CALYPSO 2019 interpolated at 1 h. Compared to CALYPSO 2018 (Figure 2), the 2019 experiment focused more on the Alboran Sea and most of the deployment were conducted in the area of the Western Alboran Gyre (WAG; for more details on this structure see Poulain et al., 2012a and Peliz et al., 2013).

The number of drifter-days during the CALYPSO 2019 experiment is shown in Figure 5. The total number of drifter-days is 4933, collected in the period Mar 2019 - January 2020.

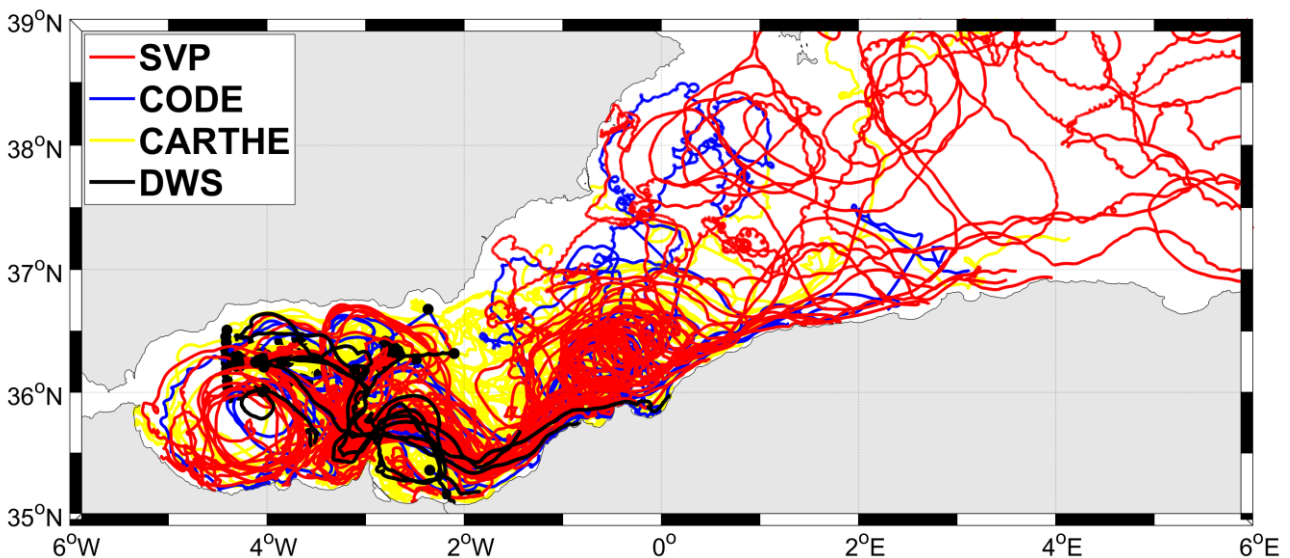


Fig. 4. Trajectories of the drifters deployed during the CALYPSO 2019 experiment. Different colour correspond to different drifter types. Black dots indicate deployment positions.

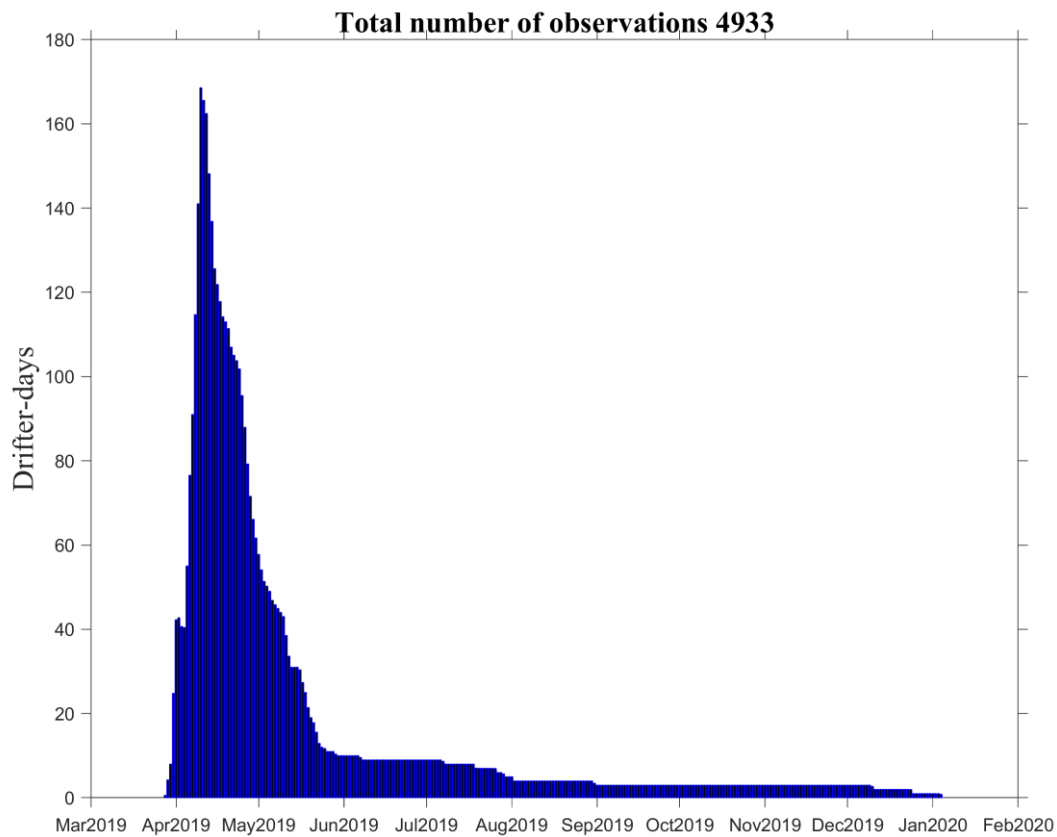


Fig. 5. Temporal distribution of the drifter data (drifter-days) during the CALYPSO 2019 experiment.

3.3 Statistics on the CALYPSO 2018-2019 experiments

Pie charts in Figure 4 and 5 show the percentage of the total distribution of the different types of instruments and of the depths at which the currents were sampled during the CALYPSO experiments, respectively. CARTHE drifters are the most abundant and represent 44.6% of the dataset, followed by the SVPs (34.7%) and by CODEs (16.8%). DWS and SVPB types represent 3% and 1% of the dataset, respectively (Figure 4).

The most widely sampled depth (Figure 5) is 0.3 m (44,6%), corresponding to the CARTHE drifters, followed by 15 m (29.7%) and 0.5 m (16.8%). A few drifters sampled the currents at 0 m (3%), 10 m (2%), 30 m (2%) and 50 m (2%).

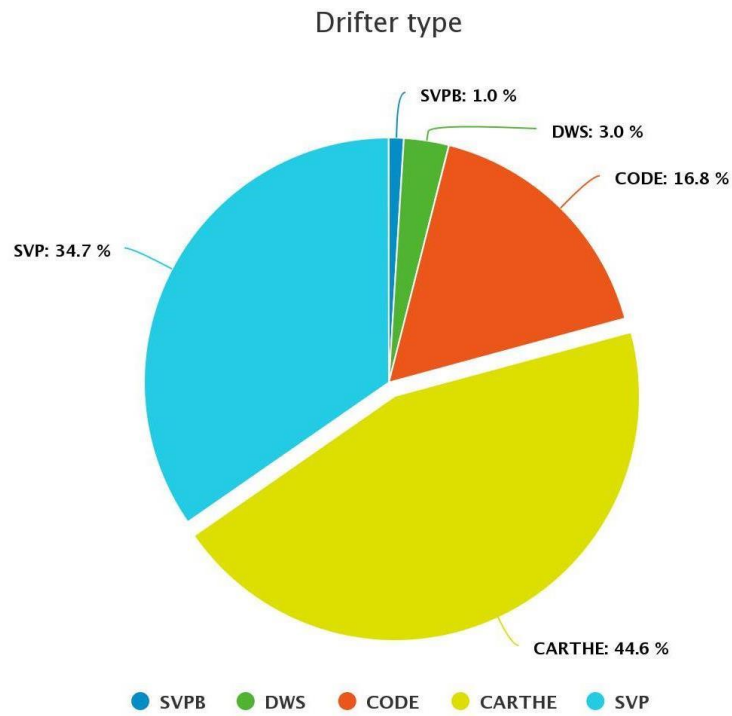


Fig. 6. Pie chart of the percentages of the drifter types involved in the CALYPSO 2018 and CALYPSO 2019 experiments.

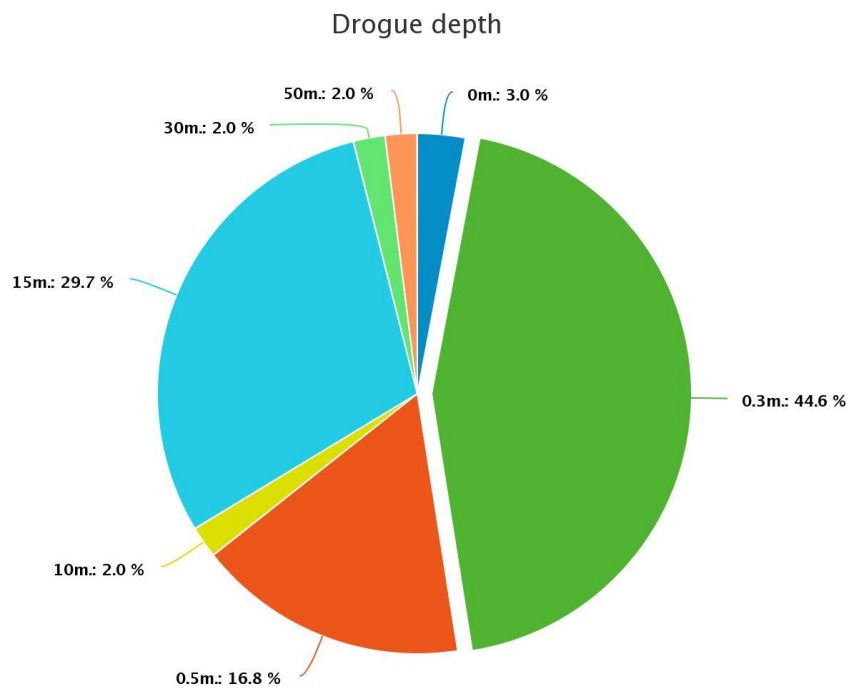


Fig. 7. Pie chart of the depth (m) of current measurements during the CALYPSO 2018 and CALYPSO 2019 experiments.

3.4 DDR20 experiment

The DDR20 sea trial involved the deployment of 108 drifters of 5 different types (see Table 3 in the Appendix and Figures 1 and 8) in the vicinity of the Arno River mouth in the eastern Ligurian Sea at beginning of October 2020: 5 SVP, 50 CODE, 20 CARTHE 3 DWS and 30 PARC drifters. Six PARC drifters did not provide data. Analysis of the raw data revealed that 8 of DDR20 drifters have a time gap of more than 4 days. The trajectories of these instruments were divided into two (or three) parts, as explained in Section 2, and they are considered as two or three different drifters. For this reason, Table 3 lists 115 drifters. An illustration of the PARC drifter is shown in Figure 8.

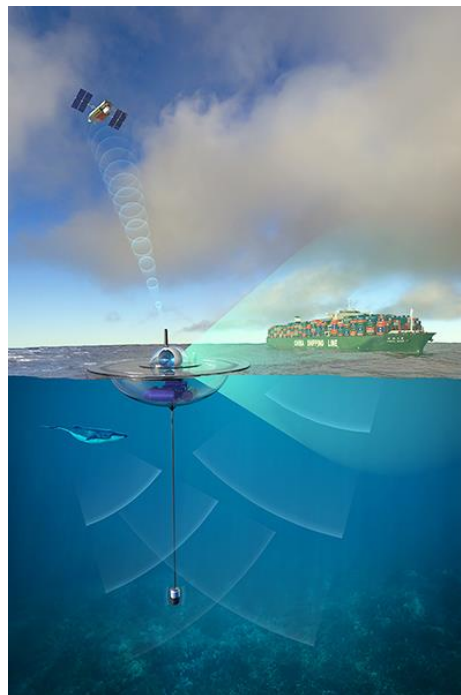


Fig. 8. PARC drifter manufactured by DARPA.

Figure 9a shows the deployment array locations and the drifter tracks after few hours of activity (adapted from Poulain et al., 2020). Figure 9b shows the trajectories of the drifters involved in DDR20 interpolated at 1h. The drifters turn anticyclonically in the eastern Ligurina Sea before being captured by the Northern Current (details on this current structure can be found in Poulain et al., 2012a,b and Berta et al., 2018) toward the Gulf of Lion. Only one CODE drifter moved southward following the eastern Sardinia coast and turning toward the centre of Tyrrhenian Sea at 41°N. The trajectories shown in Figure 9 are updated to November 17, 2020; on that date 27 instruments were

still alive and were collecting data. Figure 10 shows the number of drifter-days (number of observations for each day) during the DDR20 experiment. The total number of drifter-days is 1821 for the period 8 Oct 2020 – 17 Nov 2020.

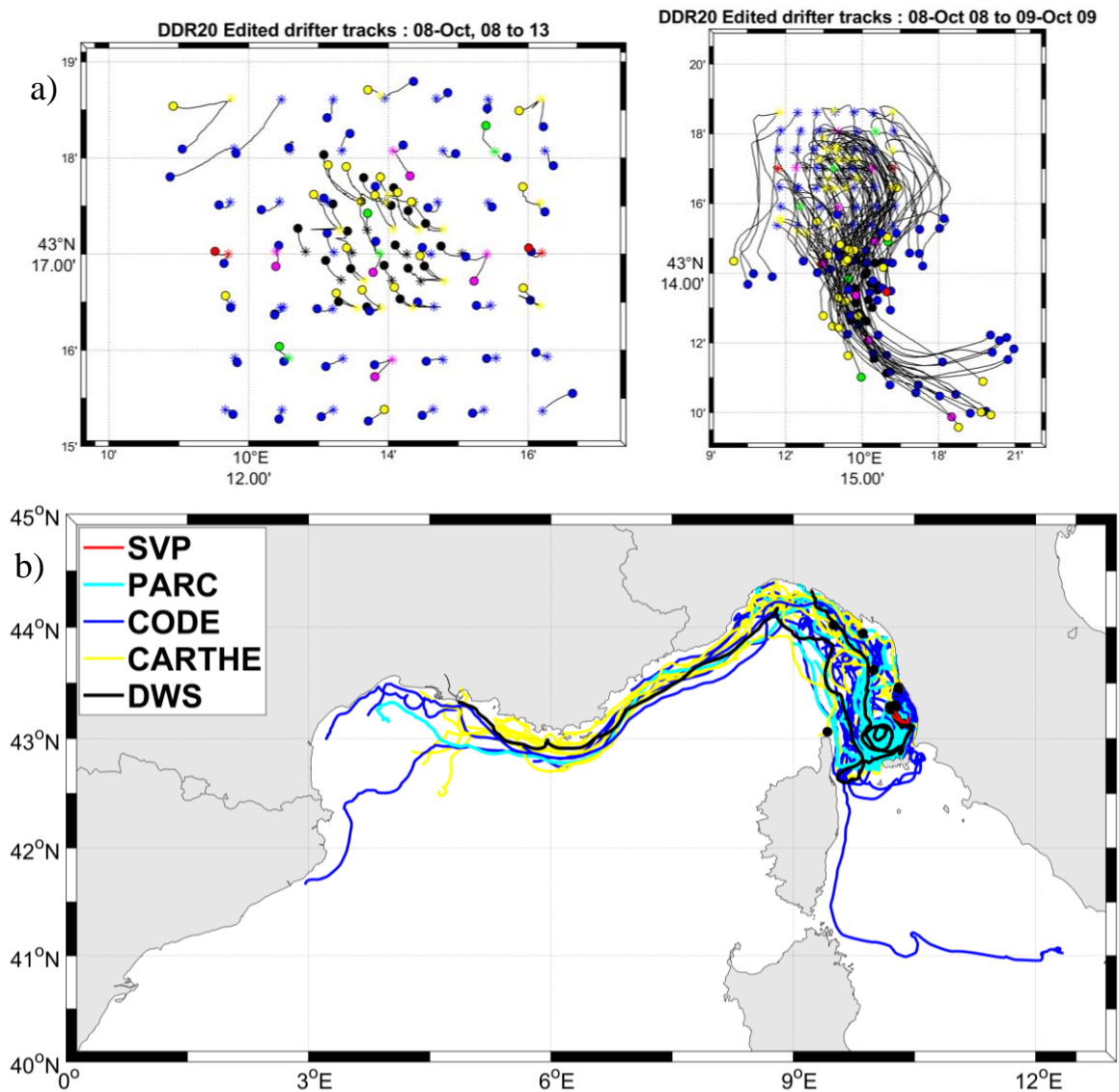


Fig. 9. a) Tracks of all the drifters deployed during DDR20 in the first few hours (left) and 24 h (right) after the deployment (adapted from Poulain et al., 2020): star and circle symbols represent start and end points, respectively. They are colored as follows: blue (CODE), black (CARTHE), red (RD profiler), yellow (PARC), magenta (SVP) and green (DWS). b) Trajectories of the drifters deployed during the DDR20 experiment updated on 17 November 2020. Different colour correspond to different drifter types. Black dots indicate deployment positions.

The CODE drifters are the most abundant and represent 46% of the dataset (Figure 11), followed by the PARC drifters (22%) and by CARTHE (25%). DWS and SVP types represent 3% and 4% of the dataset, respectively.

The pie chart in Figure 12 shows in percentage the depths at which the sampling was performed. The most widely sampled depth is 0.5 m (45%), corresponding to the CODE drifters, followed by 0 m (25%), 0.3 m (26%) and 15 m (4%).

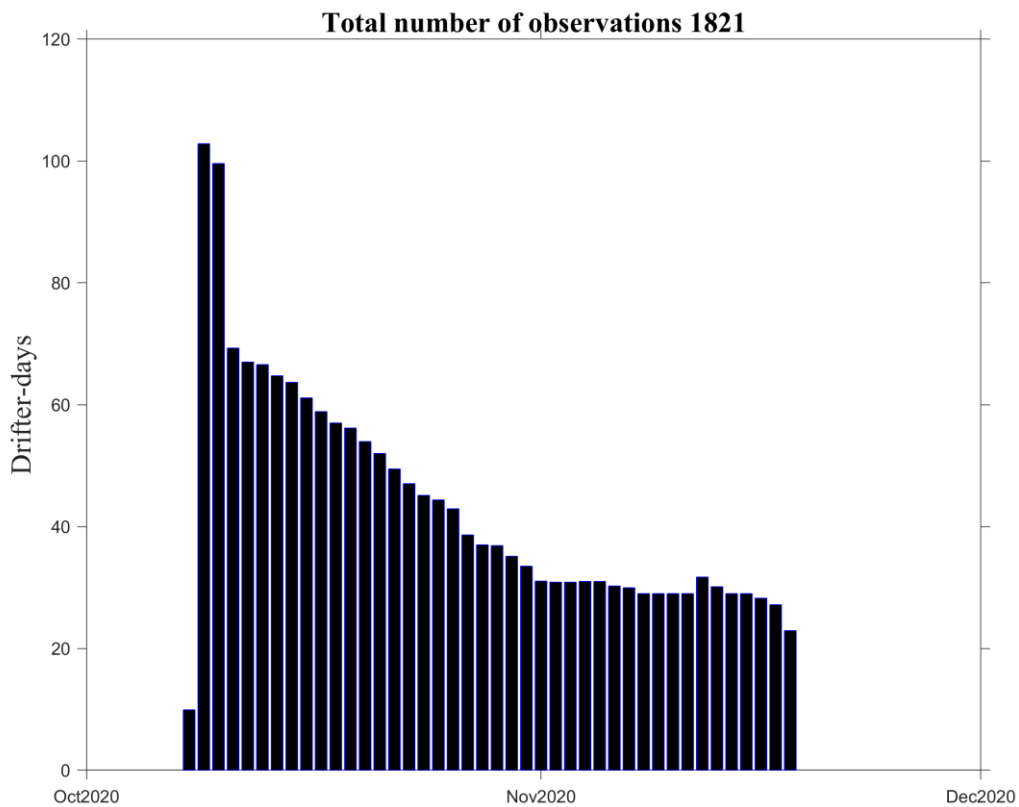


Fig. 10. Temporal distribution of the drifter data (drifter-days) during the DDR20 experiment.

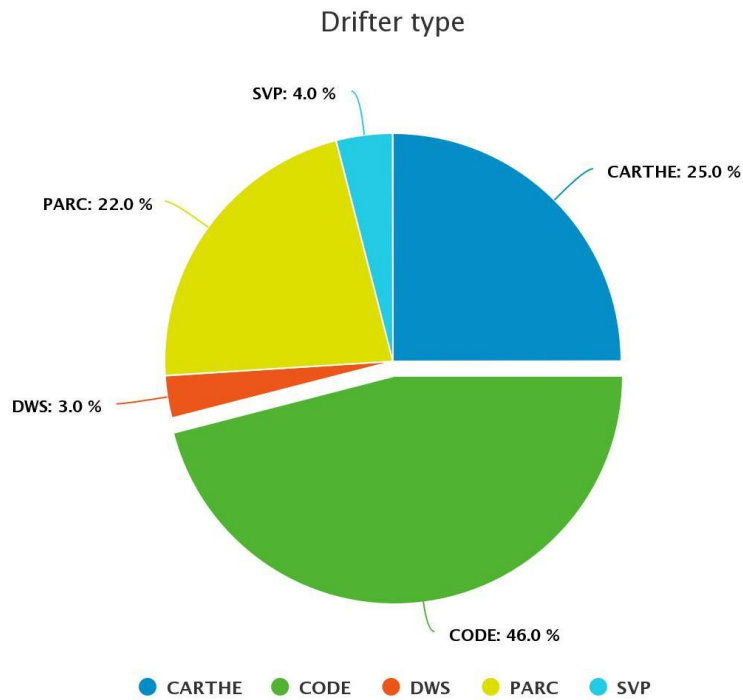


Fig. 11. Pie chart of the percentage of drifter types involved in the DDR20 experiment.

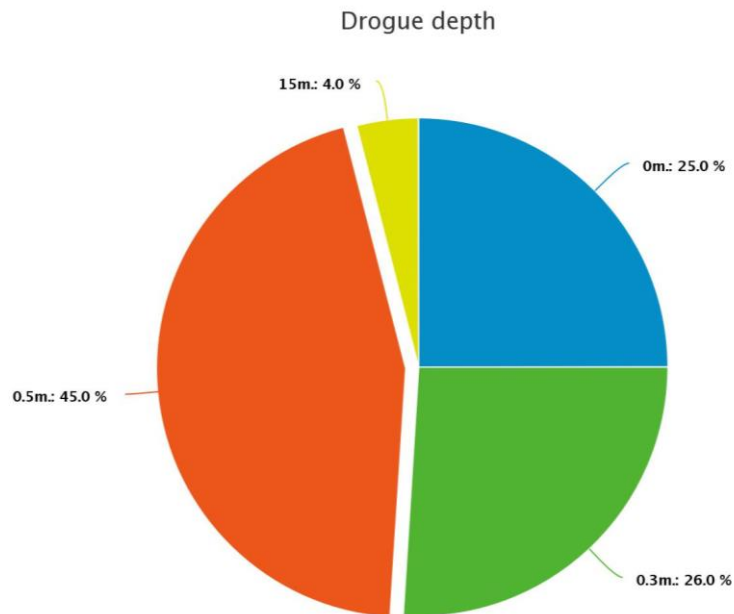


Fig. 12. Pie chart of the depth (m) of current measurements during the DDR20 experiment.

3.5 MREP20 experiment

The MREP20 sea trial included the deployment of 49 drifters of 5 different types (see Table 4 in the Appendix and Figures 1 and 8) in the Southern Tyrrhenian Sea and

eastern Sicily Channel in October – November 2020: 13 SVP, 4 SVPB, 14 CODE, 2 DWS and 16 PARC drifters.

Figure 13 shows the trajectories of the MREP20 drifters in interpolated at 1 h updated to November 18, 2020; on that date 27 instruments were still alive and were still collecting data. In general, the drifters deployed in the eastern Sicily Channel followed two different directions: some of them moved eastward following the Mid-Mediterranean Jet pathway towards the center of the Ionian Sea; others moved southward, toward the African coast, following a meridional current centered at 15°E. Figure 14 shows the temporal distribution of drifter data during the MREP20 experiment. The total number of drifter-days is 769, collected in the period 25 Oct 2020 – 17 Nov 2020. The PARC drifters are the most abundant and represent 34% of the dataset (Figure 15), followed by the CODE drifters (28%) and by SVPs (26%). SVPB and DWS types represent 8% and 4% of the dataset, respectively.

The pie chart in Figure 16 shows in percentage the depths at which the sampling was performed. The most widely sampled depth is 0 m (38%), corresponding to the PARC and DWS drifters, followed by 15 m (34%), concerning the SVP and SVPB drifter and 0.5 m (28%) relative to the CODE drifters.

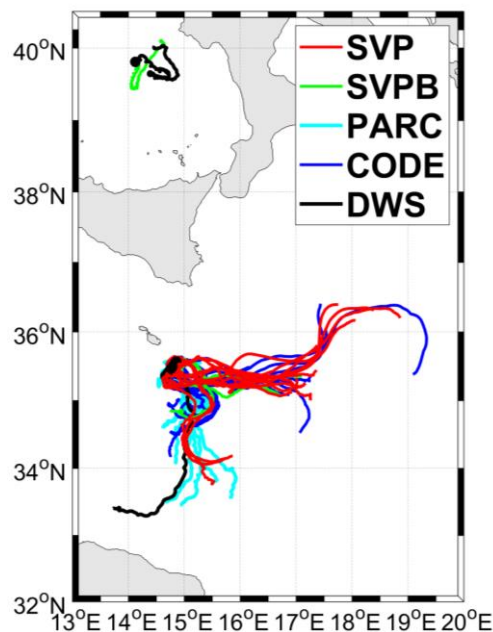


Fig. 13. Trajectories of the drifters deployed during the MREP20 experiment updated on 17 November 2020. Different colors correspond to different drifter types. Black dots indicate deployment.

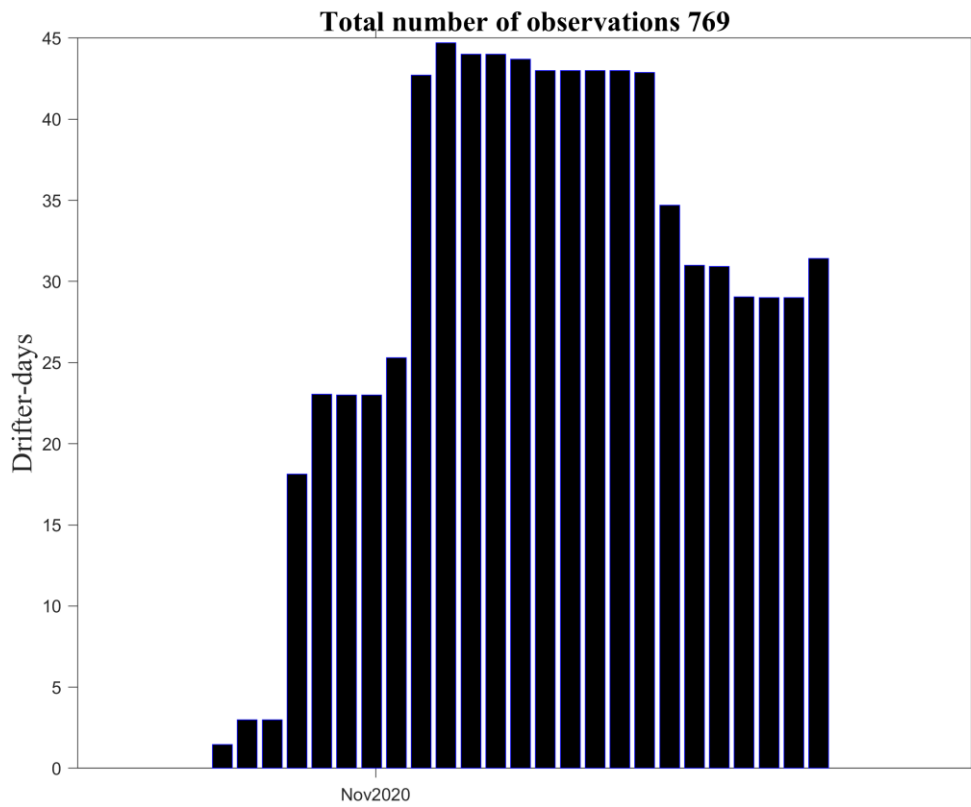


Fig. 14. Temporal distribution of the drifter data (drifter-days) during the MREP20 experiment.

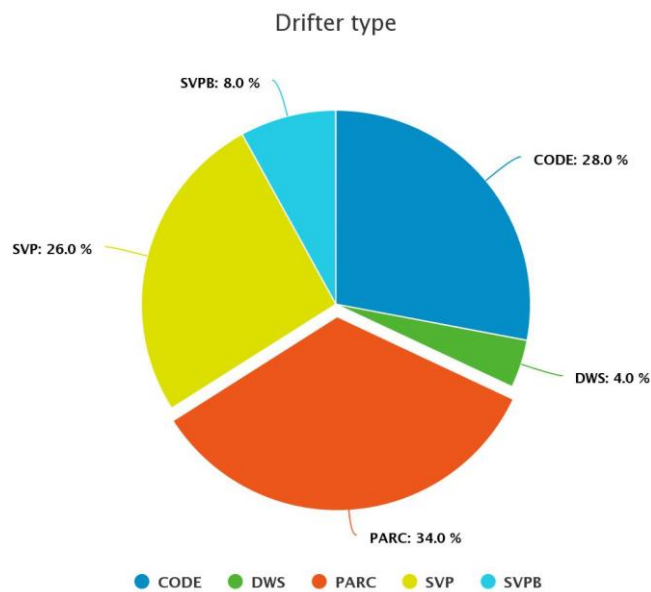


Fig. 15. Pie chart of the percentage of the drifter types involved in the MREP20 experiment.

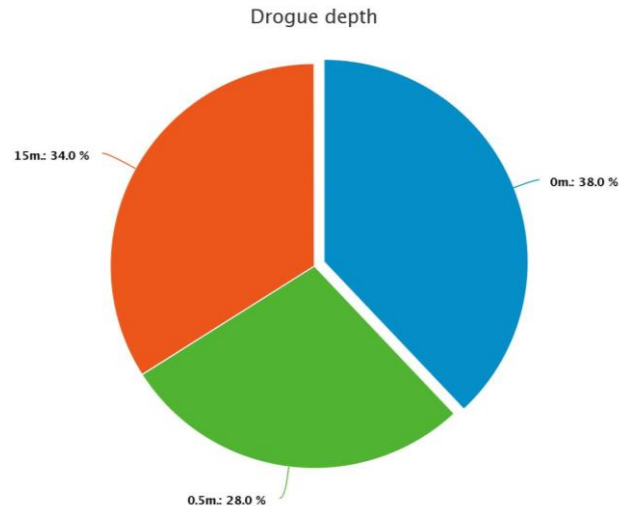


Fig. 16. Pie chart of the depth (m) of current measurements during the MREP20 experiment.

4. Future work and Conclusions

The estimation of accurate ocean surface currents is crucial not only for the oceanographic and climate research, but also for a wide and growing range of applications – offshore industry, search and rescue, oil spill monitoring, etc. (Rio et al., 2014). Surface drifting buoys (drifters) are instruments that approximately follow water at the ocean surface, thus providing information on ocean currents. In this context, the MAOS group of OGS works to collect drifter data (mainly in the Mediterranean Sea) and to ensure a standard data processing procedure as reliable and consistent as possible. In recent years, the MAOS group has been involved in four international experiments (CALYPSO 2018, CALYPSO 2019, DDR20, MREP 20), managing the processing and treatment of all the drifter data collected.

The data analysis of the CALYPSO 2018 and 2019 experiments was already completed in 2019 and the relative datasets were made available to all research groups involved in the experiments (OGS - Italy, CMRE - Italy, RSMAS - USA and SIO - USA).

Data from the DDR20 and MREP20 experiments, currently still in progress, are daily processed by the automatic procedures described in Section 2. When the experiments will be completed, manual editing of these datasets will also be performed and the data will be made available to the partners involved in the experiments (ISMAR/CNR -Italy, LAMMA/CNR - Italy, OGS - Italy, SIO/UCSD -USA, DARPA - USA).

All the drifter data considered in this report can be viewed on the MAOS group website (<http://maos.inogs.it/#/>) which is automatically updated daily. The majority of the data collected in the CALYPSO 2018-2019, DDR20 and MREP20 experiments will become part of the OGS Mediterranean drifter dataset (Menna et al., 2017) and will be made available to interested users.

5. References

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Appendix

Table 1. Deployment information for the drifters released during the CALYPSO 2018 experiment

Argos/IMEI	Deploy Date	Lat	Lon	Last Date	Lat	Lon	Type	Depth of current measurement (m)
a300234065612140	27-May-2018 23:56	35.71	-3.78	31-May-2018 14:23	35.53	-3.66	SVP	15
a300234065612150	28-May-2018 01:13	35.76	-3.71	21-Jun-2018 17:13	37.06	2.59	SVP	15
a300234065612170	28-May-2018 01:43	35.8	-3.64	14-Jun-2018 18:53	36.6	2.12	SVP	15
a300234065612180	28-May-2018 02:16	35.85	-3.56	18-Jun-2018 07:03	35.84	-0.24	SVP	15
a300234065610140	31-May-2018 13:39	35.92	-2.26	06-Jul-2018 22:53	37.83	3.24	SVP	15
a300234065612190	31-May-2018 13:47	35.91	-2.24	04-Jun-2018 21:23	35.63	-1.11	SVP	15
a300234065610150	31-May-2018 13:47	35.92	-2.24	07-Jun-2018 19:03	35.72	-0.91	SVP	15
a300234065612280	31-May-2018 13:53	35.91	-2.23	04-Jun-2018 20:43	35.65	-1.06	SVP	15
a300234065610160	31-May-2018 13:55	35.92	-2.23	13-Jun-2018 07:33	35.85	-0.04	SVP	15
a300234065612430	31-May-2018 14:00	35.91	-2.21	03-Jun-2018 15:53	35.73	-1.09	SVP	15
a300234065610170	31-May-2018 14:04	35.92	-2.21	27-Jun-2018 18:13	36.33	-1.73	SVP	15
a300234065612490	31-May-2018 14:09	35.92	-2.19	10-Jul-2018 15:43	36.18	-1.55	SVP	15
a300234065610180	31-May-2018 14:13	35.94	-2.19	06-Jun-2018 08:13	35.63	-1.11	SVP	15
a300234065612580	31-May-2018 14:18	35.94	-2.21	07-Jun-2018 06:13	35.92	-0.04	SVP	15
a300234065613130	31-May-2018 14:24	35.93	-2.23	29-Jun-2018 15:33	35.4	-2.49	SVP	15
a300234065610260	31-May-2018 14:25	35.95	-2.21	04-Jun-2018 06:43	35.62	-1.12	SVP	15
a300234065613140	31-May-2018 14:31	35.93	-2.24	04-Jun-2018 15:53	35.62	-1.11	SVP	15
a300234065610540	31-May-2018 14:32	35.95	-2.23	03-Jun-2018 15:53	35.73	-1.09	SVP	15
a300234065610580	31-May-2018 14:38	35.95	-2.24	02-Jul-2018 21:33	35.53	-2.69	SVP	15
a300234065613150	31-May-2018 14:40	35.95	-2.28	06-Jun-2018 17:53	35.83	-0.49	SVP	15
a300234065613170	31-May-2018 14:47	35.96	-2.24	09-Jun-2018 01:53	35.72	-1.45	SVP	15
a300234065611120	31-May-2018 14:48	35.94	-2.26	05-Jul-2018 17:23	38.27	3.14	SVP	15
a300234065613180	31-May-2018 14:53	35.96	-2.23	14-Jun-2018 17:13	36.61	1.98	SVP	15
a300234065613260	31-May-2018 14:59	35.96	-2.21	12-Jun-2018 07:43	36.55	1.55	SVP	15
a300234065611130	31-May-2018 15:00	35.92	-2.29	11-Jul-2018 15:53	37.08	4.8	SVP	15

a300234065613270	31-May-2018 15:08	35.95	-2.19	09-Jul-2018 10:43	36.91	-1.3	SVP	15
a300234065611140	31-May-2018 15:12	35.95	-2.29	09-Jun-2018 17:03	36.5	1.08	SVP	15
a300234065611190	31-May-2018 15:31	35.99	-2.24	08-Jun-2018 04:33	36.3	0.47	SVP	15
a300234065611290	31-May-2018 15:39	35.99	-2.21	10-Jul-2018 19:23	36.38	0.13	SVP	15
a300234065611430	31-May-2018 15:55	35.95	-2.16	30-Jun-2018 05:33	35.13	-1.86	SVP	15
a300234065611590	31-May-2018 16:03	35.92	-2.16	05-Jul-2018 05:43	35.17	-2.43	SVP	15
a300234065611860	31-May-2018 16:20	35.88	-2.21	06-Jul-2018 06:13	36.3	0.59	SVP	15
a300234065612130	31-May-2018 16:28	35.88	-2.24	04-Jun-2018 12:43	36.72	-1.69	SVP	15
aCP24	31-May-2018 23:28	36.09	-2.25	06-Jun-2018 09:13	35.61	-1.13	SVP:	30
aCP6	31-May-2018 23:28	36.09	-2.25	05-Jun-2018 10:50	35.74	-0.94	SVP:	50
aCP15	31-May-2018 23:29	36.09	-2.24	02-Jun-2018 03:16	36.62	-1.9	SVP	10
aCP19	31-May-2018 23:36	36.09	-2.23	03-Jun-2018 16:09	35.73	-1.06	SVP	10
aCP27	31-May-2018 23:36	36.09	-2.24	02-Jun-2018 08:15	36.63	-1.88	SVP	50
aCP2	31-May-2018 23:37	36.09	-2.24	14-Jun-2018 22:14	35.82	-1.16	SVP	30
aCP18	31-May-2018 23:46	36.1	-2.23	08-Jun-2018 14:52	35.46	-1.49	SVP	50
aCP11	31-May-2018 23:46	36.1	-2.23	08-Jun-2018 18:47	35.72	-0.66	SVP	30
aCP4	31-May-2018 23:46	36.1	-2.23	08-Jun-2018 10:04	35.87	-0.18	SVP	10
aCP21	01-Jun-2018 00:12	36.1	-2.25	07-Jun-2018 17:51	35.71	-1.11	SVP:	30
aCP14	01-Jun-2018 00:12	36.1	-2.25	02-Jun-2018 07:51	36.62	-1.94	SVP	50
aCP7	01-Jun-2018 00:12	36.1	-2.25	14-Jun-2018 06:47	35.88	0.01	SVP	10
aCP10	01-Jun-2018 00:25	36.11	-2.24	03-Jun-2018 16:06	35.73	-1.07	SVP	10
aCP13	01-Jun-2018 00:25	36.11	-2.24	02-Jun-2018 08:06	36.62	-1.89	SVP	50
aCP26	01-Jun-2018 00:25	36.11	-2.24	15-Jun-2018 08:01	35.52	-2.32	SVP	30
aCP20	01-Jun-2018 00:34	36.12	-2.23	08-Jun-2018 10:04	35.86	-0.18	SVP	10
aCP8	01-Jun-2018 00:35	36.12	-2.23	13-Jun-2018 07:45	35.58	-1.2	SVP	50
aCP23	01-Jun-2018 00:35	36.12	-2.23	10-Jun-2018 09:38	35.89	-0.47	SVP	30
aCP5	31-May-2018 23:30	36.09	-2.24	16-Jun-2018 22:20	36.88	3.44	CODE	0.5
aCP17	31-May-2018 23:36	36.09	-2.24	08-Jun-2018 15:04	36.74	1.77	CODE	0.5
aCP9	31-May-2018 23:46	36.1	-2.23	14-Jun-2018 19:42	38.1	3.21	CODE	0.5
aCP1	01-Jun-2018 00:12	36.1	-2.25	15-Jun-2018 18:43	37.68	3.09	CODE	0.5
aCP22	01-Jun-2018 00:25	36.11	-2.24	16-Jun-2018 02:28	36.92	2.47	CODE	0.5
aCP16	01-Jun-2018 00:34	36.12	-2.23	09-Jun-2018 08:10	36.71	2.24	CODE	0.5
a300234065706140	27-May-2018 22:41	35.61	-3.9	01-Jun-2018 03:00	35.33	-3.78	SVPB	15
a300234065706150	28-May-2018 03:33	35.95	-3.42	05-Nov-2020 02:00	36.29	0.57	SVPB	15
aTrace34	30-May-2018 13:07	35.87	-2.36	26-Jun-2018 19:21	37.63	3.55	CODE	0.5

iTrace10	31-May-2018 13:47	35.92	-2.24	08-Jun-2018 14:23	36.31	0.54	CODE	0.5
jTrace2	31-May-2018 13:53	35.91	-2.23	17-Jun-2018 04:39	37.91	3.42	CODE	0.5
iTrace12	31-May-2018 13:55	35.92	-2.23	16-Jun-2018 12:08	36.66	2.61	CODE	0.5
gTrace13	31-May-2018 14:04	35.92	-2.21	16-Jun-2018 10:04	36.99	4.11	CODE	0.5
aTrace29	31-May-2018 14:13	35.94	-2.19	26-Jun-2018 04:17	37.95	3.95	CODE	0.5
hTrace5	31-May-2018 14:18	35.94	-2.21	17-Jun-2018 14:05	37.93	3.78	CODE	0.5
hTrace6	31-May-2018 14:24	35.93	-2.23	17-Jun-2018 21:18	37.56	3.57	CODE	0.5
aTrace30	31-May-2018 14:25	35.95	-2.21	26-Jun-2018 02:53	38.04	3.78	CODE	0.5
iTrace7	31-May-2018 14:31	35.93	-2.24	20-Jun-2018 00:11	38.45	3.35	CODE	0.5
aTrace31	31-May-2018 14:32	35.95	-2.23	26-Jun-2018 04:08	38.2	4.02	CODE	0.5
aTrace32	31-May-2018 14:38	35.95	-2.24	21-Jun-2018 15:51	37.22	2.63	CODE	0.5
aTrace33	31-May-2018 14:48	35.94	-2.26	21-Jun-2018 03:24	38.28	3.19	CODE	0.5
hTrace9	31-May-2018 14:53	35.96	-2.23	18-Jun-2018 22:33	37.4	3.44	CODE	0.5
a300234065513740	27-May-2018 23:19	35.66	-3.85	29-May-2018 19:00	35.18	-4.33	DWS	0
a300234065513750	28-May-2018 03:00	35.9	-3.49	04-Dec-2018 08:00	37.09	7.16	DWS	0
aONR_0050	28-May-2018 21:06	35.77	-3.22	13-Jun-2018 17:15	38.03	3.08	CARTHE	0.3
aONR_0025	28-May-2018 21:39	35.8	-3.13	11-Jun-2018 06:43	35.91	0.03	CARTHE	0.3
aONR_0279	28-May-2018 22:15	35.83	-3.03	07-Jun-2018 05:12	36.08	0.01	CARTHE	0.3
aONR_0036	28-May-2018 22:52	35.86	-2.93	11-Jul-2018 12:12	37.15	4.59	CARTHE	0.3
aONR_0029	28-May-2018 23:28	35.79	-2.88	15-Aug-2018 20:09	40	1.38	CARTHE	0.3
aONR_0313	28-May-2018 23:54	35.74	-2.83	04-Jul-2018 05:16	36.67	5.25	CARTHE	0.3
aONR_0035	29-May-2018 07:18	35.87	-2.23	10-Jun-2018 05:43	35.41	-1.25	CARTHE	0.3
aONR_0437	29-May-2018 07:48	35.87	-2.31	10-Jun-2018 10:51	35.44	-1.24	CARTHE	0.3
aONR_0093	29-May-2018 08:25	35.87	-2.4	06-Jun-2018 02:07	35.47	-1.23	CARTHE	0.3
aONR_0443	29-May-2018 09:01	35.87	-2.49	04-Jun-2018 08:43	35.74	-0.6	CARTHE	0.3
aONR_0445	29-May-2018 09:31	35.87	-2.57	11-Jul-2018 05:10	36.97	3.93	CARTHE	0.3
aONR_0464	29-May-2018 10:06	35.87	-2.65	15-Jul-2018 08:35	39.87	4.94	CARTHE	0.3
aONR_0175	29-May-2018 10:39	35.87	-2.73	13-Jul-2018 21:51	37.73	4.53	CARTHE	0.3
aONR_0460	30-May-2018 11:15	35.84	-2.21	09-Jun-2018 08:40	35.51	-1.22	CARTHE	0.3
aONR_0434	30-May-2018 11:48	35.85	-2.26	13-Jun-2018 18:09	35.73	-0.64	CARTHE	0.3
aONR_0454	30-May-2018 12:34	35.86	-2.31	11-Jun-2018 04:45	36.39	0.82	CARTHE	0.3

aONR_0442	30-May-2018 14:06	35.88	-2.43	30-Jul-2018 14:03	38.19	5.97	CARTHE	0.3
aONR_0155	30-May-2018 14:58	35.89	-2.5	05-Jul-2018 05:59	37.09	2.09	CARTHE	0.3
aONR_0227	30-May-2018 15:48	35.9	-2.57	07-Jul-2018 05:39	37.54	-0.21	CARTHE	0.3
aONR_0481	31-May-2018 13:39	35.92	-2.26	16-Jul-2018 08:53	38.76	1.43	CARTHE	0.3
aONR_0200	31-May-2018 13:47	35.91	-2.24	16-Jul-2018 06:59	36.74	5.11	CARTHE	0.3
aONR_0203	31-May-2018 14:00	35.91	-2.21	06-Jun-2018 04:00	36.24	0.21	CARTHE	0.3
aONR_0213	31-May-2018 14:09	35.92	-2.19	06-Jun-2018 17:26	36.64	0.66	CARTHE	0.3
aONR_0226	31-May-2018 14:24	35.93	-2.23	15-Jul-2018 00:38	38.65	1.31	CARTHE	0.3
aONR_0364	31-May-2018 14:40	35.95	-2.28	02-Aug-2018 14:53	39.04	1.62	CARTHE	0.3
aONR_0394	31-May-2018 14:47	35.96	-2.24	27-Jul-2018 19:10	38.33	4.38	CARTHE	0.3
aONR_0424	31-May-2018 14:59	35.96	-2.21	21-Jul-2018 12:12	38.21	5.86	CARTHE	0.3
aONR_0425	31-May-2018 15:08	35.95	-2.19	09-Jun-2018 21:40	37.12	2.2	CARTHE	0.3
aONR_0196	01-Jun-2018 07:12	36.3	-2.21	14-Jun-2018 08:33	36.8	3.19	CARTHE	0.3
aONR_0430	01-Jun-2018 07:19	36.3	-2.21	02-Jun-2018 03:24	36.65	-1.86	CARTHE	0.3
aONR_0448	01-Jun-2018 07:29	36.3	-2.23	13-Jul-2018 06:34	39.27	4.75	CARTHE	0.3
aONR_0451	01-Jun-2018 07:39	36.3	-2.24	21-Jun-2018 13:05	37.76	2.32	CARTHE	0.3
aONR_0455	01-Jun-2018 07:46	36.3	-2.25	10-Jun-2018 23:33	36.77	1.16	CARTHE	0.3
aONR_0457	01-Jun-2018 07:55	36.3	-2.26	21-Jul-2018 01:14	37.5	3.01	CARTHE	0.3
aONR_0521	01-Jun-2018 08:04	36.3	-2.27	02-Aug-2018 02:16	38.1	2.73	CARTHE	0.3

Table 2. Deployment information for the drifters released during the CALYPSO 2019 experiment

Argos/IMEI	Deploy Date	Lat	Lon	Last Date	Lat	Lon	Type	Depth of current measurement (m)
a300234066318080	30-Mar-2019 23:19	36.24	-4.29	13-Apr-2019 12:48	35.49	-3.25	SVP	15
a300234066318040	30-Mar-2019 23:36	36.26	-4.29	04-Jan-2020 09:00	37.15	9.03	SVP	15
a300234066318090	30-Mar-2019 23:42	36.27	-4.29	14-Apr-2019 18:28	36.28	0.5	SVP	15
a300234066318050	30-Mar-2019 23:52	36.27	-4.3	21-May-2019 08:00	36.74	2.33	SVP	15
a300234066317080	30-Mar-2019 23:58	36.26	-4.31	10-May-2019 08:00	36.98	3.6	SVP	15
a300234066317230	31-Mar-2019 00:04	36.24	-4.31	28-Apr-2019 12:38	36.72	2.73	SVP	15

a300234066317440	31-Mar-2019 00:14	36.24	-4.32	14-Apr-2019 16:08	35.5	-1.91	SVP	15
a300234066317380	31-Mar-2019 00:20	36.26	-4.32	30-Apr-2019 09:58	36.51	-0.44	SVP	15
a300234066317000	31-Mar-2019 00:24	36.27	-4.32	12-Apr-2019 04:58	35.96	-0.34	SVP	15
a300234066316890	31-Mar-2019 00:33	36.29	-4.32	14-Apr-2019 13:08	35.8	-0.69	SVP	15
a300234066317030	31-Mar-2019 00:47	36.3	-4.29	07-Jun-2019 02:04	35.19	-4.52	SVP	15
a300234066317040	31-Mar-2019 01:03	36.27	-4.26	14-Apr-2019 05:58	36.64	1.89	SVP	15
a300234065619120	31-Mar-2019 01:14	36.24	-4.26	27-Apr-2019 07:25	36.15	0.13	SVP	15
a300234065618480	31-Mar-2019 01:28	36.21	-4.29	13-Apr-2019 03:45	36.56	1.73	SVP	15
a300234065619130	31-Mar-2019 01:39	36.21	-4.32	14-Apr-2019 12:20	35.52	-3.79	SVP	15
a300234065618560	31-Mar-2019 01:55	36.24	-4.36	14-Apr-2019 16:07	35.5	-1.9	SVP	15
a300234065618460	31-Mar-2019 03:04	36.27	-4.36	12-Apr-2019 17:00	36.57	1.83	SVP	15
a300234066317480	04-Apr-2019 00:42	36.38	-2.7	10-Dec-2019 05:00	36.89	6.11	SVP	15
a300234066317580	04-Apr-2019 01:01	36.38	-2.74	26-Apr-2019 19:03	36.15	0.23	SVP	15
a300234066318460	04-Apr-2019 01:38	36.41	-2.8	07-May-2019 08:00	36.73	2.62	SVP	15
a300234066318470	04-Apr-2019 21:20	36.34	-2.67	25-Apr-2019 08:00	35.64	-2.23	SVP	15
a300234066317900	04-Apr-2019 21:40	36.36	-2.7	22-May-2019 01:00	36.34	0.46	SVP	15
a300234066318170	04-Apr-2019 21:50	36.37	-2.72	14-Apr-2019 12:08	35.53	-3.09	SVP	15
a300234066318030	04-Apr-2019 22:01	36.38	-2.73	10-May-2019 12:10	35.9	-0.41	SVP	15
a300234066318000	04-Apr-2019 22:12	36.39	-2.75	05-May-2019 09:00	35.63	-1.15	SVP	15
a300234066318380	04-Apr-2019 22:22	36.4	-2.77	02-May-2019 09:11	35.13	-2.09	SVP	15
a300234066318500	04-Apr-2019 22:42	36.42	-2.8	12-Apr-2019 13:23	35.63	-1.43	SVP	15
a300234066317490	05-Apr-2019 05:39	36.34	-2.79	13-Apr-2019 13:48	35.65	-1.37	SVP	15
a300234066318020	05-Apr-2019 05:54	36.34	-2.76	18-Sep-2019 06:00	38.95	1.6	SVP	15
a300234066317870	05-Apr-2019 06:05	36.33	-2.74	11-May-2019 06:00	36.92	3.51	SVP	15
a300234066318480	05-Apr-2019 06:15	36.33	-2.72	12-Apr-2019 15:38	35.44	-1.94	SVP	15
a300234066318840	05-Apr-2019 06:25	36.33	-2.7	14-Apr-2019 14:23	35.66	-1.41	SVP	15
a300234066318860	05-Apr-2019 06:36	36.32	-2.68	14-Apr-2019 10:18	35.39	-1.65	SVP	15
a300234066318890	05-Apr-2019 06:36	36.31	-2.65	20-Apr-2019 12:58	35.6	-3.16	SVP	15
a300234066318870	05-Apr-2019 21:06	36.2	-3.07	16-Apr-2019 15:23	36.5	-0.99	SVP	15
a300234066319000	05-Apr-2019 21:21	36.19	-3.04	26-Apr-2019 16:08	36.25	0.47	SVP	15
a300234066319020	05-Apr-2019 21:35	36.19	-3.01	12-Apr-2019 16:38	35.43	-1.95	SVP	15
a300234066319030	05-Apr-2019 21:50	36.16	-3.03	29-Jul-2019 04:00	36.93	3.97	SVP	15

a300234066319040	05-Apr-2019 22:06	36.14	-3.05	01-Aug-2019 12:00	38.19	-0.56	SVP	15
a300234066319150	08-Apr-2019 15:13	36.24	-4.07	20-Apr-2019 07:23	35.53	-3.87	SVP	15
a300234066319110	08-Apr-2019 15:18	36.25	-4.08	26-Apr-2019 15:13	35.72	-1.36	SVP	15
a300234066319250	08-Apr-2019 15:43	36.22	-4.05	26-Apr-2019 08:13	35.15	-1.8	SVP	15
a300234066319170	08-Apr-2019 15:48	36.23	-4.06	17-Apr-2019 16:03	35.25	-3.76	SVP	15
a300234066319450	08-Apr-2019 16:08	36.23	-4.03	19-Apr-2019 18:18	35.29	-3.08	SVP	15
a300234066319460	08-Apr-2019 16:13	36.24	-4.04	14-Apr-2019 18:53	35.32	-3.58	SVP	15
a300234066319070	08-Apr-2019 16:13	36.25	-4.08	31-Aug-2019 07:00	40.04	3.81	SVP	15
a300234066319240	08-Apr-2019 16:13	36.22	-4.05	25-Apr-2019 06:53	35.28	-3.9	SVP	15
a300234066319440	08-Apr-2019 16:13	36.21	-4.04	12-Apr-2019 12:43	35.35	-3.76	SVP	15
a300234066319590	08-Apr-2019 16:13	36.22	-4.03	13-Apr-2019 05:43	35.41	-3.65	SVP	15
a300234066319300	08-Apr-2019 16:23	36.25	-4.04	29-Apr-2019 07:05	36.57	-0.93	SVP	15
a300234066319280	08-Apr-2019 16:23	36.26	-4.04	22-May-2019 01:00	35.47	-5.09	SVP	15
a300234066319370	08-Apr-2019 16:28	36.27	-4.05	25-May-2019 05:00	35.11	-2.49	SVP	15
a300234066319470	08-Apr-2019 16:33	36.28	-4.05	15-Apr-2019 12:03	35.58	-3.27	SVP	15
aCMRE1	28-Mar-2019 00:00	36.17	-3.25	28-Mar-2019 09:07	36.66	-2.35	CODE	0.5
aCMRE2	28-Mar-2019 08:29	36.72	-2.39	28-Mar-2019 13:28	36.31	-2.11	CODE	0.5
aCMRE3	28-Mar-2019 16:50	36.26	-2.48	05-Apr-2019 18:32	35.65	-1.05	CODE	0.5
aCMRE5	28-Mar-2019 21:05	36.21	-2.83	15-May-2019 21:11	37	3.12	CODE	0.5
aCMRE6	29-Mar-2019 01:23	36.16	-3.23	11-Apr-2019 18:23	35.92	-0.37	CODE	0.5
aCMRE7	29-Mar-2019 03:27	36.08	-3.58	12-Apr-2019 12:20	35.32	-3.74	CODE	0.5
aCMRE25	29-Mar-2019 05:45	36.09	-3.78	11-May-2019 05:25	35.89	-0.95	CODE	0.5
aCMRE9	30-Mar-2019 23:36	36.26	-4.29	17-Apr-2019 07:50	35.86	-0	CODE	0.5
aCMRE10	30-Mar-2019 23:42	36.27	-4.29	10-Apr-2019 10:46	35.85	-0.48	CODE	0.5
aCMRE11	30-Mar-2019 23:52	36.27	-4.3	12-Apr-2019 14:04	35.93	-0.33	CODE	0.5
aCMRE12	30-Mar-2019 23:58	36.26	-4.31	02-Apr-2019 09:57	35.75	-3.28	CODE	0.5
aCMRE13	31-Mar-2019 00:04	36.24	-4.31	13-Apr-2019 16:59	36.69	1.7	CODE	0.5
aCMRE14	31-Mar-2019 00:14	36.24	-4.32	12-Apr-2019 10:29	36.49	0.6	CODE	0.5
aCMRE15	31-Mar-2019 00:20	36.26	-4.32	02-Apr-2019 09:37	35.75	-3.26	CODE	0.5
aCMRE16	31-Mar-2019 00:24	36.27	-4.32	13-Apr-2019 14:08	35.87	-0.48	CODE	0.5
aCMRE8	31-Mar-2019 00:25	36.24	-4.28	31-Mar-2019 13:22	36.21	-4.02	CODE	0.5

aCMRE17	31-Mar-2019 00:33	36.29	-4.32	26-Jul-2019 11:51	37.36	-0.32	CODE	0.5
aCMRE18	31-Mar-2019 00:47	36.3	-4.29	07-Jul-2019 04:21	35.87	-0.49	CODE	0.5
aCMRE19	31-Mar-2019 01:03	36.27	-4.26	11-Apr-2019 14:59	35.92	-0.43	CODE	0.5
aCMRE20	31-Mar-2019 01:14	36.24	-4.26	13-Apr-2019 10:57	36.57	1.3	CODE	0.5
aCMRE21	31-Mar-2019 01:28	36.21	-4.29	29-Apr-2019 11:10	35.82	-0.19	CODE	0.5
aCMRE22	31-Mar-2019 01:39	36.21	-4.32	24-Apr-2019 10:38	35.9	-0.18	CODE	0.5
aCMRE23	31-Mar-2019 01:55	36.24	-4.36	15-Apr-2019 13:51	36.66	2.28	CODE	0.5
aCMRE24	31-Mar-2019 03:04	36.27	-4.36	08-Apr-2019 08:57	35.49	-1.24	CODE	0.5
aCMRE4	01-Apr-2019 07:49	35.36	-2.35	03-Apr-2019 08:26	35.76	-1.35	CODE	0.5
a300234065514580	28-Mar-2019 13:19	36.31	-2.09	10-Apr-2019 11:00	35.98	0.09	DWS	0
a300234065514600	29-Mar-2019 00:07	36.17	-3.09	14-Apr-2019 06:00	35.68	-1.46	DWS	0
a300234065514660	29-Mar-2019 08:40	36	-4.05	03-Apr-2019 08:00	35.55	-3.57	DWS	0
a300234065514730	31-Mar-2019 12:48	36.25	-4.12	07-Apr-2019 06:00	35.75	-0.83	DWS	0
a300234065514680	08-Apr-2019 15:00	36.26	-4.09	26-Apr-2019 15:00	35.08	-2.11	DWS	0
a300234065514670	09-Apr-2019 08:41	36.24	-3.86	25-Apr-2019 12:00	35.18	-1.83	DWS	0
aONR_0164	04-Apr-2019 20:57	36.32	-2.63	13-Apr-2019 04:07	36.15	-1.05	CARTHE	0.3
aONR_0123	04-Apr-2019 21:20	36.34	-2.67	12-Apr-2019 21:47	36.07	-1.02	CARTHE	0.3
aONR_0273	04-Apr-2019 21:40	36.36	-2.7	20-Apr-2019 09:35	36.02	-0.07	CARTHE	0.3
aONR_0297	04-Apr-2019 21:50	36.37	-2.72	24-Apr-2019 14:01	35.9	0.02	CARTHE	0.3
aONR_0265	04-Apr-2019 22:01	36.38	-2.73	27-Apr-2019 23:11	36.54	0.82	CARTHE	0.3
aONR_0259	04-Apr-2019 22:12	36.39	-2.75	06-Apr-2019 00:32	36.13	-2.83	CARTHE	0.3
aONR_0266	04-Apr-2019 22:22	36.4	-2.77	27-Apr-2019 04:53	35.98	0.04	CARTHE	0.3
aONR_0132	04-Apr-2019 22:42	36.42	-2.8	12-Apr-2019 04:54	36	-1.14	CARTHE	0.3
aONR_0267	04-Apr-2019 23:02	36.44	-2.83	23-Apr-2019 08:44	35.96	0.09	CARTHE	0.3
aONR_0357	05-Apr-2019 05:39	36.34	-2.79	08-May-2019 11:52	36.51	0.81	CARTHE	0.3
aONR_0336	05-Apr-2019 05:54	36.34	-2.76	12-Apr-2019 19:36	36.02	-1.03	CARTHE	0.3
aONR_0157	05-Apr-2019 06:05	36.33	-2.74	12-Apr-2019 21:36	36.06	-1.02	CARTHE	0.3
aONR_0444	05-Apr-2019 06:15	36.33	-2.72	16-Apr-2019 15:53	35.91	-0.42	CARTHE	0.3
aONR_0257	05-Apr-2019 06:25	36.33	-2.7	05-Apr-2019 06:59	36.32	-2.71	CARTHE	0.3
aONR_0543	05-Apr-2019 06:36	36.32	-2.68	23-Apr-2019 11:21	35.97	-0.74	CARTHE	0.3
aONR_0033	05-Apr-2019 06:52	36.31	-2.65	10-May-2019 00:40	37.38	0.13	CARTHE	0.3

aONR_0359	05-Apr-2019 20:50	36.21	-3.1	15-Apr-2019 04:37	35.97	-1.18	CARTHE	0.3
aONR_0534	05-Apr-2019 21:06	36.2	-3.07	02-May-2019 12:14	36.78	0.28	CARTHE	0.3
aONR_0422	05-Apr-2019 21:21	36.19	-3.04	13-Apr-2019 05:51	35.57	-1.59	CARTHE	0.3
aONR_0524	05-Apr-2019 21:35	36.19	-3.01	26-Apr-2019 05:13	36.22	-0.62	CARTHE	0.3
aONR_0494	05-Apr-2019 21:50	36.16	-3.03	27-Apr-2019 21:54	36.18	0.14	CARTHE	0.3
aONR_0264	05-Apr-2019 22:06	36.14	-3.05	22-Apr-2019 06:13	35.86	-0.95	CARTHE	0.3
aONR_0326	06-Apr-2019 19:54	36.17	-3.41	20-Apr-2019 06:44	35.76	-0.89	CARTHE	0.3
aONR_0365	06-Apr-2019 20:24	36.16	-3.48	11-May-2019 07:41	36.29	0.37	CARTHE	0.3
aONR_0235	06-Apr-2019 20:54	36.16	-3.48	12-May-2019 10:30	36.3	-0.13	CARTHE	0.3
aONR_0134	06-Apr-2019 21:29	36.13	-3.64	22-May-2019 00:02	36.81	0	CARTHE	0.3
aONR_0142	06-Apr-2019 21:59	36.11	-3.71	26-Apr-2019 06:42	35.36	-2.32	CARTHE	0.3
aONR_0249	06-Apr-2019 22:30	36.09	-3.78	10-Apr-2019 10:55	35.33	-3.04	CARTHE	0.3
aONR_0506	06-Apr-2019 23:00	36.08	-3.85	13-Apr-2019 07:06	35.34	-3.82	CARTHE	0.3
aONR_0077	06-Apr-2019 23:30	36.06	-3.93	12-May-2019 02:39	36.02	-0.78	CARTHE	0.3
aONR_0271	07-Apr-2019 00:00	36.04	-4.02	25-Apr-2019 07:52	35.3	-3.93	CARTHE	0.3
aONR_0268	07-Apr-2019 00:30	36.02	-4.1	12-Apr-2019 14:58	35.13	-2.1	CARTHE	0.3
aONR_0103	07-Apr-2019 01:00	36	-4.19	28-May-2019 21:17	36.23	-2.57	CARTHE	0.3
aONR_0064	07-Apr-2019 01:30	35.97	-4.29	18-Apr-2019 08:23	35.77	-2.81	CARTHE	0.3
aONR_0255	07-Apr-2019 02:00	35.95	-4.39	26-Apr-2019 01:22	36.64	-0.54	CARTHE	0.3
aONR_0463	07-Apr-2019 02:30	35.99	-4.4	11-Apr-2019 02:01	35.76	-3.22	CARTHE	0.3
aONR_0286	07-Apr-2019 03:00	36.04	-4.4	26-Apr-2019 12:23	35.76	-0.58	CARTHE	0.3
aONR_0066	07-Apr-2019 03:30	36.09	-4.4	12-May-2019 02:39	37.28	0.49	CARTHE	0.3
aONR_0054	07-Apr-2019 04:00	36.14	-4.41	12-May-2019 01:57	36.87	-0.47	CARTHE	0.3
aONR_0238	07-Apr-2019 04:30	36.19	-4.41	10-May-2019 05:30	36.39	0.82	CARTHE	0.3
aONR_0328	07-Apr-2019 05:00	36.24	-4.41	24-Apr-2019 16:38	35.72	-1	CARTHE	0.3
aONR_0517	07-Apr-2019 05:30	36.29	-4.42	02-May-2019 21:18	35.74	-5.34	CARTHE	0.3
aONR_0236	07-Apr-2019 06:00	36.34	-4.42	04-May-2019 16:23	35.86	-1.17	CARTHE	0.3
aONR_0017	07-Apr-2019 06:15	36.25	-3.97	01-May-2019 18:10	35.79	-0.14	CARTHE	0.3
aONR_0427	07-Apr-2019 06:33	36.41	-4.42	27-Apr-2019 03:15	36.47	0.56	CARTHE	0.3
aONR_0169	07-Apr-2019 07:00	36.45	-4.42	13-Apr-2019 18:27	36.58	-1.86	CARTHE	0.3

aONR_0212	07-Apr-2019 07:30	36.51	-4.41	16-May-2019 16:11	37.67	-0.73	CARTHE	0.3
aONR_0319	07-Apr-2019 10:35	36.35	-4.06	11-May-2019 00:44	36.53	-2.03	CARTHE	0.3
aONR_0350	07-Apr-2019 11:05	36.3	-4.01	14-Apr-2019 11:44	35.34	-3.23	CARTHE	0.3
aONR_0549	07-Apr-2019 12:05	36.2	-3.92	12-Apr-2019 09:42	35.16	-1.98	CARTHE	0.3
aONR_0354	07-Apr-2019 12:35	36.16	-3.87	16-Apr-2019 08:09	35.21	-2.84	CARTHE	0.3
aONR_0503	07-Apr-2019 12:59	36.11	-3.83	25-Apr-2019 03:59	35.23	-2.28	CARTHE	0.3
aONR_0055	07-Apr-2019 13:30	36.12	-3.79	30-Apr-2019 11:39	35.87	-5.34	CARTHE	0.3
aONR_0154	07-Apr-2019 15:30	36.38	-3.67	24-Apr-2019 20:09	36.9	-1.09	CARTHE	0.3
aONR_0195	07-Apr-2019 15:52	36.42	-3.64	29-Apr-2019 00:25	36.61	-1.62	CARTHE	0.3
aONR_0310	07-Apr-2019 16:30	36.45	-3.66	01-May-2019 10:21	35.72	-2.33	CARTHE	0.3
aONR_0072	07-Apr-2019 17:00	36.44	-3.73	01-May-2019 11:00	35.15	-2.78	CARTHE	0.3
aONR_0038	07-Apr-2019 18:00	36.42	-3.87	03-May-2019 18:31	35.85	-5.34	CARTHE	0.3
aONR_0061	07-Apr-2019 18:58	36.3	-3.86	17-May-2019 03:51	37.22	1.65	CARTHE	0.3
aONR_0110	08-Apr-2019 14:12	36.23	-4.06	22-May-2019 14:47	35.12	-1.76	CARTHE	0.3
aONR_0347	08-Apr-2019 15:00	36.25	-4.08	24-Apr-2019 10:29	35.14	-1.84	CARTHE	0.3
aONR_0084	08-Apr-2019 15:06	36.25	-4.08	28-Apr-2019 01:16	35.45	-2.46	CARTHE	0.3
aONR_0262	08-Apr-2019 15:11	36.24	-4.07	17-Apr-2019 03:25	36.04	-3.01	CARTHE	0.3
aONR_0491	08-Apr-2019 15:17	36.23	-4.06	17-Apr-2019 17:01	35.13	-2.35	CARTHE	0.3
aONR_0316	08-Apr-2019 15:23	36.22	-4.06	06-May-2019 08:49	36.55	-2.94	CARTHE	0.3
aONR_0346	08-Apr-2019 15:29	36.22	-4.05	18-May-2019 19:41	37.07	1.91	CARTHE	0.3
aONR_0542	08-Apr-2019 15:35	36.21	-4.04	10-Apr-2019 11:50	35.99	-3.2	CARTHE	0.3
aONR_0041	08-Apr-2019 15:56	36.22	-4.03	16-May-2019 12:52	36.55	-1.48	CARTHE	0.3
aONR_0351	08-Apr-2019 16:02	36.23	-4.03	11-May-2019 07:11	37.94	1.05	CARTHE	0.3
aONR_0056	08-Apr-2019 16:08	36.24	-4.04	27-Apr-2019 12:40	35.91	-2.72	CARTHE	0.3
aONR_0082	08-Apr-2019 16:14	36.25	-4.04	20-May-2019 10:43	37.26	4.16	CARTHE	0.3
aONR_0026	08-Apr-2019 16:20	36.26	-4.04	21-Apr-2019 19:10	36.12	-2.35	CARTHE	0.3
aONR_0231	08-Apr-2019 16:26	36.27	-4.05	29-Apr-2019 18:34	36.61	-0.62	CARTHE	0.3
aONR_0539	08-Apr-2019 16:31	36.28	-4.05	19-May-2019 15:41	36.56	0.41	CARTHE	0.3
aONR_0071	09-Apr-2019 08:41	36.24	-3.86	25-Apr-2019 06:25	35.84	-1.32	CARTHE	0.3
aONR_0516	09-Apr-2019 13:27	36.24	-3.81	23-May-2019 08:53	36.78	1.59	CARTHE	0.3

aONR_0049	09-Apr-2019 13:31	36.24	-3.8	21-Apr-2019 13:38	36.27	-2.5	CARTHE	0.3
aONR_0293	09-Apr-2019 13:35	36.25	-3.79	28-Apr-2019 17:39	35.19	-2.83	CARTHE	0.3
aONR_0208	09-Apr-2019 13:39	36.25	-3.79	18-May-2019 09:08	35.87	-0.48	CARTHE	0.3
aONR_0068	09-Apr-2019 13:44	36.26	-3.78	19-May-2019 06:14	37.13	-1.14	CARTHE	0.3
aONR_0057	09-Apr-2019 13:47	36.27	-3.78	17-May-2019 02:20	35.48	-1.28	CARTHE	0.3
aONR_0462	09-Apr-2019 13:52	36.28	-3.77	25-Apr-2019 15:36	35.17	-1.78	CARTHE	0.3
aONR_0204	09-Apr-2019 13:56	36.28	-3.77	26-Apr-2019 23:30	35.73	-0.61	CARTHE	0.3
aONR_0306	09-Apr-2019 14:00	36.29	-3.78	27-Apr-2019 23:59	36.37	-1.46	CARTHE	0.3
aONR_0473	09-Apr-2019 14:06	36.3	-3.78	01-May-2019 10:45	35.73	-0.65	CARTHE	0.3
aONR_0158	09-Apr-2019 14:11	36.31	-3.79	18-May-2019 01:06	36.46	0.03	CARTHE	0.3
aONR_0263	09-Apr-2019 14:17	36.31	-3.79	18-Jul-2019 13:02	40.6	4.12	CARTHE	0.3
aONR_0242	09-Apr-2019 14:22	36.32	-3.8	18-May-2019 21:58	36.73	-0.23	CARTHE	0.3
aONR_0528	09-Apr-2019 14:28	36.32	-3.81	05-May-2019 13:59	35.84	-0.7	CARTHE	0.3
aONR_0228	09-Apr-2019 14:34	36.32	-3.82	30-Apr-2019 02:01	35.42	-2.96	CARTHE	0.3
aONR_0114	09-Apr-2019 14:40	36.32	-3.83	10-Apr-2019 05:43	36.28	-3.47	CARTHE	0.3
aONR_0332	09-Apr-2019 14:45	36.32	-3.84	27-Apr-2019 15:11	35.6	-2.04	CARTHE	0.3
aONR_0030	09-Apr-2019 14:52	36.32	-3.85	30-Apr-2019 12:55	35.72	-2.26	CARTHE	0.3
aONR_0420	09-Apr-2019 14:57	36.32	-3.86	24-Apr-2019 16:29	35.41	-1.4	CARTHE	0.3
aONR_0438	09-Apr-2019 15:03	36.31	-3.87	20-Apr-2019 06:02	35.6	-3.81	CARTHE	0.3
aONR_0398	09-Apr-2019 15:09	36.31	-3.87	18-May-2019 02:52	36.49	-1	CARTHE	0.3
aONR_0201	09-Apr-2019 15:14	36.3	-3.88	28-Apr-2019 03:53	35.58	-1.99	CARTHE	0.3
aONR_0289	09-Apr-2019 15:20	36.29	-3.88	29-Apr-2019 04:50	35.2	-2.85	CARTHE	0.3
aONR_0046	09-Apr-2019 15:25	36.28	-3.89	16-Apr-2019 16:24	35.42	-2.9	CARTHE	0.3

Table 3. Deployment information for the drifters released during the DDR20 experiment

Argos/IMEI	Deploy Date	Lat	Lon	Last Date	Lat	Lon	Type	Depth of current measurement (m)
oTrace28	08-Oct-2020 09:44	43.29	10.2	10-Oct-2020 08:37	43.15	10.32	CODE	0.5
aTrace45	08-Oct-2020 11:17	43.27	10.23	26-Oct-2020 00:40	43.45	10.27	CODE	0.5

gTrace44	08-Oct-2020 11:27	43.27	10.2	10-Oct-2020 09:51	43.13	10.34	CODE	0.5
aTrace46	08-Oct-2020 11:39	43.27	10.2	10-Oct-2020 12:32	43.13	10.37	CODE	0.5
mTrace27	08-Oct-2020 12:27	43.26	10.19	26-Oct-2020 06:23	43.28	10.35	CODE	0.5
a300234066416890	08-Oct-2020 10:22	43.28	10.26	10-Oct-2020 10:55	43.1	10.37	SVP	15
a300234068348840	08-Oct-2020 10:30	43.28	10.23	10-Oct-2020 12:48	43.15	10.35	SVP	15
a300234066416920	08-Oct-2020 10:30	43.28	10.23	10-Oct-2020 12:10	43.13	10.35	SVP	15
a300234066411980	08-Oct-2020 10:37	43.28	10.21	10-Oct-2020 07:49	43.15	10.31	SVP	15
a300234068348710	08-Oct-2020 11:50	43.27	10.23	10-Oct-2020 13:43	43.19	10.42	SVP	15
a300234062950910	08-Oct-2020 10:17	43.28	10.27	10-Oct-2020 11:01	43.12	10.38	CODE	0.3
a300234062951910	08-Oct-2020 10:40	43.28	10.2	10-Oct-2020 08:32	43.15	10.32	CODE	0.3
aCMRE 1-3197247	08-Oct-2020 09:18	43.3	10.27	10-Oct-2020 09:34	43.24	10.35	CODE	0.5
aCMRE 2-3195122	08-Oct-2020 09:24	43.29	10.27	10-Oct-2020 10:52	43.12	10.38	CODE	0.5
aCMRE 17-3196136	08-Oct-2020 09:27	43.29	10.26	10-Oct-2020 11:08	43.11	10.39	CODE	0.5
aCMRE 6-3194600	08-Oct-2020 09:30	43.29	10.25	10-Oct-2020 11:34	43.12	10.37	CODE	0.5
aCMRE 13-3196144	08-Oct-2020 09:38	43.29	10.22	10-Oct-2020 12:50	43.16	10.35	CODE	0.5
aCMRE 11-3194706	08-Oct-2020 09:41	43.29	10.21	23-Nov-2020 10:19	44.1	9.87	CODE	0.5
aCMRE 7-3194832	08-Oct-2020 10:17	43.28	10.27	21-Oct-2020 20:07	43.31	10.31	CODE	0.5
aCMRE 9-3197380	08-Oct-2020 10:22	43.28	10.26	22-Oct-2020 13:02	43.32	10.31	CODE	0.5
aCMRE 12-3195114	08-Oct-2020 10:25	43.28	10.24	10-Oct-2020 11:26	43.11	10.38	CODE	0.5
aCMRE 15-3197585	08-Oct-2020 10:30	43.28	10.23	10-Oct-2020 10:10	43.12	10.35	CODE	0.5
aCMRE 10-3197252	08-Oct-2020 10:33	43.28	10.22	21-Oct-2020 16:55	43.12	9.85	CODE	0.5
aCMRE 8-3197592	08-Oct-2020 10:37	43.28	10.21	10-Oct-2020 13:03	43.15	10.34	CODE	0.5
aCMRE 4-3195759	08-Oct-2020 10:40	43.28	10.2	10-Oct-2020 13:03	43.15	10.34	CODE	0.5
aCMRE 18-3195117	08-Oct-2020 11:07	43.27	10.27	13-Oct-2020 03:23	43.06	10.44	CODE	0.5
aCMRE 5-3197586	08-Oct-2020 11:10	43.27	10.26	24-Oct-2020 12:54	43.46	10.08	CODE	0.5
aCMRE 3-3196140	08-Oct-2020 11:14	43.27	10.24	24-Oct-2020 09:07	43.94	9.88	CODE	0.5
aCMRE 16-3197584	08-Oct-2020 11:20	43.27	10.22	31-Oct-2020 09:54	43.38	10.42	CODE	0.5
aCMRE 14-3196825	08-Oct-2020 11:23	43.27	10.21	10-Oct-2020 12:01	43.12	10.35	CODE	0.5

a300234068344670	08-Oct-2020 09:15	43.3	10.26	26-Oct-2020 04:00	44.32	9.22	DWS	0
a300234068057510	08-Oct-2020 10:30	43.28	10.23	10-Oct-2020 12:54	43.16	10.34	DWS	0
a300234068056530	08-Oct-2020 11:43	43.27	10.21	07-Nov-2020 11:00	43.33	4.85	DWS	0
aCNR 0-2680647	08-Oct-2020 09:32	43.29	10.24	16-Oct-2020 05:14	43.08	9.93	CARTHE	0.3
aCNR 0-2692694	08-Oct-2020 09:34	43.29	10.23	02-Nov-2020 09:27	43.46	10.34	CARTHE	0.3
aCNR 0-2684104	08-Oct-2020 09:36	43.29	10.23	23-Nov-2020 10:04	41.41	4.47	CARTHE	0.3
aCNR 0-2684409	08-Oct-2020 09:59	43.29	10.22	21-Nov-2020 17:44	41.87	3.78	CARTHE	0.3
aCNR 0-2680851	08-Oct-2020 10:01	43.29	10.23	19-Oct-2020 09:40	43.1	9.52	CARTHE	0.3
aCNR 0-2684406	08-Oct-2020 10:02	43.29	10.23	10-Oct-2020 10:02	43.13	10.35	CARTHE	0.3
aCNR 0-2685782	08-Oct-2020 10:04	43.29	10.24	10-Oct-2020 10:08	43.12	10.35	CARTHE	0.3
aCNR 0-2685772	08-Oct-2020 10:06	43.29	10.25	10-Oct-2020 11:40	43.12	10.37	CARTHE	0.3
aCNR 0-2692608	08-Oct-2020 10:23	43.28	10.25	10-Oct-2020 10:39	43.12	10.37	CARTHE	0.3
aCNR 0-2684707	08-Oct-2020 10:27	43.28	10.24	16-Oct-2020 02:25	43.07	10.47	CARTHE	0.3
aCNR 0-2686004	08-Oct-2020 10:32	43.28	10.22	16-Nov-2020 17:50	42.74	9.63	CARTHE	0.3
aCNR 0-2692675	08-Oct-2020 10:35	43.28	10.21	13-Oct-2020 11:33	43.06	10.39	CARTHE	0.3
aCNR 0-2692609	08-Oct-2020 10:52	43.28	10.22	23-Nov-2020 10:12	42.06	4.08	CARTHE	0.3
aCNR 0-2692871	08-Oct-2020 10:54	43.28	10.23	10-Oct-2020 09:43	43.14	10.34	CARTHE	0.3
aCNR 0-2684410	08-Oct-2020 10:56	43.28	10.23	19-Nov-2020 08:24	43.17	6.6	CARTHE	0.3
aCNR 0-2684642	08-Oct-2020 10:57	43.28	10.24	23-Oct-2020 15:02	43.39	10.19	CARTHE	0.3
aCNR 0-2690419	08-Oct-2020 10:59	43.28	10.25	05-Nov-2020 18:49	43.67	10.11	CARTHE	0.3
aCNR 0-2692110	08-Oct-2020 11:15	43.27	10.24	23-Nov-2020 10:12	43.42	4.9	CARTHE	0.3
aCNR 0-2684105	08-Oct-2020 11:17	43.27	10.23	29-Oct-2020 17:29	43.73	10.27	CARTHE	0.3
aCNR 0-2693001	08-Oct-2020 11:19	43.27	10.23	23-Nov-2020 10:12	43.25	9.03	CARTHE	0.3
bCNR 0-2685772	10-Oct-2020 15:23	43.44	10.29	15-Nov-2020 18:43	43.43	4.34	CARTHE	0.3
bCNR 0-2684406	24-Oct-2020 00:00	43.4	10.29	21-Nov-2020 12:31	43.97	9.19	CARTHE	0.3
bCNR 0-2692871	24-Oct-2020 02:30	43.46	10.31	27-Oct-2020 09:18	43.52	10.31	CARTHE	0.3
bCNR 0-2692608	24-Oct-2020 19:54	44.02	9.5	13-Nov-2020 11:55	43.04	5.66	CARTHE	0.3
bCNR 0-2680851	02-Nov-2020 15:26	43.06	9.42	23-Nov-2020 10:13	41.94	5.69	CARTHE	0.3
cCNR 0-2692871	11-Nov-2020 14:28	43.94	9.86	20-Nov-2020 02:37	44.12	9.67	CARTHE	0.3

bCNR 0-2692694	11-Nov-2020 14:38	43.95	9.85	23-Nov-2020 09:48	43.39	7.93	CARTHE	0.3
bCNR 0-2684105	11-Nov-2020 15:08	43.95	9.86	23-Nov-2020 10:07	43.72	8.65	CARTHE	0.3
aLaMMA 0-4425770	08-Oct-2020 08:33	43.31	10.27	10-Oct-2020 09:22	43.26	10.36	CODE	0.5
aLaMMA 0-4425347	08-Oct-2020 08:37	43.31	10.26	23-Nov-2020 10:08	43.67	8.08	CODE	0.5
aLaMMA 0-4425708	08-Oct-2020 08:41	43.31	10.24	17-Oct-2020 09:10	43.33	10.32	CODE	0.5
aLaMMA 0-4426542	08-Oct-2020 08:44	43.31	10.23	23-Nov-2020 10:19	42.45	3.34	CODE	0.5
aLaMMA 0-4425734	08-Oct-2020 08:47	43.31	10.22	23-Nov-2020 09:51	43.01	5.74	CODE	0.5
aLaMMA 0-4425714	08-Oct-2020 08:51	43.31	10.21	23-Nov-2020 10:18	43.49	9.8	CODE	0.5
aLaMMA 0-4426538	08-Oct-2020 08:54	43.31	10.2	25-Oct-2020 04:41	43.39	10.43	CODE	0.5
aLaMMA 0-4425772	08-Oct-2020 08:58	43.3	10.2	23-Nov-2020 10:17	43.71	9.05	CODE	0.5
aLaMMA 0-4426352	08-Oct-2020 09:02	43.3	10.21	19-Oct-2020 16:01	43.11	10.37	CODE	0.5
aLaMMA 0-4426191	08-Oct-2020 09:05	43.3	10.22	17-Oct-2020 12:15	43.49	10.21	CODE	0.5
aLaMMA 0-4426548	08-Oct-2020 09:09	43.3	10.23	10-Oct-2020 10:43	43.12	10.37	CODE	0.5
aLaMMA 0-4426353	08-Oct-2020 09:12	43.3	10.25	10-Oct-2020 11:18	43.12	10.38	CODE	0.5
aLaMMA 0-4425738	08-Oct-2020 09:15	43.3	10.26	23-Nov-2020 10:13	42.5	5.25	CODE	0.5
aLaMMA 0-4426547	08-Oct-2020 11:31	43.27	10.21	21-Nov-2020 00:11	43.94	9.23	CODE	0.5
aLaMMA 0-4425727	08-Oct-2020 11:43	43.27	10.21	10-Oct-2020 13:47	43.2	10.42	CODE	0.5
aLaMMA 0-4426350	08-Oct-2020 11:46	43.27	10.22	16-Oct-2020 08:47	42.84	10.26	CODE	0.5
aLaMMA 0-4425741	08-Oct-2020 11:50	43.27	10.23	10-Oct-2020 12:02	43.18	10.39	CODE	0.5
aLaMMA 0-4425367	08-Oct-2020 11:53	43.27	10.25	31-Oct-2020 13:58	44.4	8.78	CODE	0.5
aLaMMA 0-4424563	08-Oct-2020 11:56	43.27	10.26	22-Nov-2020 15:24	43.71	9.48	CODE	0.5
aLaMMA 0-4425724	08-Oct-2020 11:59	43.27	10.27	23-Nov-2020 10:19	40.69	2.23	CODE	0.5
aLaMMA 0-4425730	08-Oct-2020 12:05	43.26	10.27	23-Nov-2020 10:18	41.57	12.1	CODE	0.5
aLaMMA 0-4425728	08-Oct-2020 12:10	43.26	10.26	23-Nov-2020 09:04	44.25	9.39	CODE	0.5
aLaMMA 0-4424313	08-Oct-2020 12:13	43.26	10.24	21-Nov-2020 14:26	44.03	8.7	CODE	0.5
aLaMMA 0-4425695	08-Oct-2020 12:16	43.26	10.23	23-Nov-2020 10:19	43.92	8.93	CODE	0.5

aLaMMA 0-4426355	08-Oct-2020 12:19	43.26	10.22	10-Oct-2020 11:52	43.17	10.4	CODE	0.5
aLaMMA 0-4425718	08-Oct-2020 12:22	43.26	10.21	23-Nov-2020 10:16	42.79	3.86	CODE	0.5
aLaMMA 0-4425780	08-Oct-2020 12:26	43.26	10.19	19-Nov-2020 18:06	44.23	9.25	CODE	0.5
bLaMMA 0-4426542	24-Oct-2020 08:41	43.62	10	23-Nov-2020 10:19	42.45	3.34	CODE	0.5
a300434063972970	08-Oct-2020 08:33	43.31	10.27	11-Oct-2020 12:31	43.13	10.45	PARC	0
a300434062570140	08-Oct-2020 08:44	43.31	10.23	20-Oct-2020 12:58	42.92	9.62	PARC	0
a300434063187490	08-Oct-2020 08:54	43.31	10.2	15-Oct-2020 08:46	42.83	10.28	PARC	0
a300434062390910	08-Oct-2020 09:24	43.29	10.27	15-Oct-2020 08:45	42.81	10.25	PARC	0
a300434063312790	08-Oct-2020 09:32	43.29	10.24	18-Oct-2020 19:40	42.87	9.77	PARC	0
a300434063313730	08-Oct-2020 09:34	43.29	10.23	29-Oct-2020 09:11	43.93	10.04	PARC	0
a300434063315780	08-Oct-2020 09:36	43.29	10.23	22-Oct-2020 01:01	43.7	9.25	PARC	0
a300434063179260	08-Oct-2020 09:59	43.29	10.22	23-Oct-2020 22:53	43.87	8.97	PARC	0
a300434063171120	08-Oct-2020 10:02	43.29	10.23	08-Oct-2020 22:22	43.27	10.27	PARC	0
a300434062497100	08-Oct-2020 10:04	43.29	10.24	23-Oct-2020 19:08	43.33	9.84	PARC	0
a300434062297960	08-Oct-2020 10:06	43.29	10.25	09-Oct-2020 07:26	43.24	10.24	PARC	0
a300434063972980	08-Oct-2020 10:07	43.29	10.22	20-Oct-2020 07:55	42.86	10.2	PARC	0
a300434062570120	08-Oct-2020 10:54	43.28	10.23	21-Oct-2020 22:39	43.21	9.83	PARC	0
a300434062572150	08-Oct-2020 10:56	43.28	10.23	08-Oct-2020 10:56	43.28	10.23	PARC	0
a300434063312490	08-Oct-2020 10:59	43.28	10.25	12-Nov-2020 14:40	44.03	8.44	PARC	0
a300434062198820	08-Oct-2020 11:07	43.27	10.27	31-Oct-2020 03:05	44.34	8.57	PARC	0
a300434063318480	08-Oct-2020 11:15	43.27	10.24	26-Oct-2020 12:52	44.36	9.12	PARC	0
a300434062393780	08-Oct-2020 11:17	43.27	10.23	14-Oct-2020 06:56	42.86	10.11	PARC	0
a300434063170480	08-Oct-2020 11:19	43.27	10.23	23-Oct-2020 19:47	44.02	8.94	PARC	0
a300434063189540	08-Oct-2020 11:27	43.27	10.2	10-Oct-2020 00:59	43.14	10.31	PARC	0
a300434063183460	08-Oct-2020 12:16	43.26	10.23	11-Oct-2020 11:33	43.31	10.4	PARC	0
a300434063183550	08-Oct-2020 12:26	43.26	10.19	12-Nov-2020 14:56	43.14	4	PARC	0
a300434062193830	08-Oct-2020 14:10	43.3	10.22	26-Oct-2020 23:37	43.75	10.27	PARC	0

a300434063183550	08-Oct-2020 15:53	43.25	10.21	12-Nov-2020 14:56	43.14	4	PARC	0
a300434063979970	08-Oct-2020 16:55	43.25	10.21	26-Oct-2020 19:40	44.38	9.04	PARC	0

Table 4. *Deployment information for the drifters released during the MREP20 experiment*

Argos/IMEI	Deploy Date	Lat	Lon	Last Date	Lat	Lon	Type	Depth of current measurement (m)
a300234068340270	28-Oct-2020 14:59	35.52	14.81	24-Nov-2020 10:00	34.67	15.99	SVP	15
a300234068340250	28-Oct-2020 15:38	35.44	14.74	24-Nov-2020 10:00	34.94	17.22	SVP	15
a300234068340260	28-Oct-2020 15:52	35.41	14.71	24-Nov-2020 10:00	34.66	16.98	SVP	15
a300234068340280	02-Nov-2020 11:44	35.41	14.71	24-Nov-2020 10:00	35.02	16.95	SVP	15
a300234068340290	02-Nov-2020 11:56	35.44	14.73	24-Nov-2020 10:00	36.23	19.23	SVP	15
a300234068340350	02-Nov-2020 12:20	35.5	14.79	24-Nov-2020 10:00	36.26	18.96	SVP	15
a300234068340450	02-Nov-2020 12:32	35.52	14.81	24-Nov-2020 09:00	35.65	19.08	SVP	15
a300234068340550	02-Nov-2020 12:42	35.55	14.84	24-Nov-2020 10:01	35.49	18.64	SVP	15
pTrace28	02-Nov-2020 11:39	35.4	14.7	24-Nov-2020 10:52	34.66	14.68	CODE	0.5
hTrace44	02-Nov-2020 12:14	35.48	14.77	24-Nov-2020 10:43	36.61	18.81	CODE	0.5
bTrace46	02-Nov-2020 12:47	35.56	14.85	22-Nov-2020 05:24	35.66	17.41	CODE	0.5
b300234068057510	25-Oct-2020 19:15	39.81	14.12	24-Nov-2020 10:00	39.57	13.99	DWS	0
a300234065514550	28-Oct-2020 15:19	35.48	14.77	24-Nov-2020 10:00	33.46	13.54	DWS	0
b300234066411980	28-Oct-2020 14:36	35.57	14.86	24-Nov-2020 10:02	34.72	15.88	SVP	15
b300234066416890	28-Oct-2020 15:12	35.49	14.79	22-Nov-2020 13:04	35.29	18.84	SVP	15
b300234068348840	28-Oct-2020 15:25	35.47	14.76	24-Nov-2020 10:00	35.62	18.57	SVP	15
b300234068348710	28-Oct-2020 16:04	35.39	14.69	24-Nov-2020 10:00	35.38	17.55	SVP	15
b300234066416920	28-Oct-2020 16:17	35.36	14.66	24-Nov-2020 10:00	33.93	15.65	SVP	15
bCMRE 13-3196144	28-Oct-2020 14:47	35.55	14.84	24-Nov-2020 10:18	34.95	15.49	CODE	0.5
bCMRE 6-3194600	28-Oct-2020 15:06	35.51	14.8	24-Nov-2020 10:50	34.35	17.3	CODE	0.5
bCMRE 5-3197586	28-Oct-2020 15:19	35.48	14.77	24-Nov-2020 10:59	36.39	18.87	CODE	0.5
bCMRE 4-3195759	28-Oct-2020 15:32	35.45	14.75	24-Nov-2020 10:56	34.09	15.53	CODE	0.5
bCMRE 3-3196140	28-Oct-2020 15:45	35.43	14.72	12-Nov-2020 19:14	34.86	15.38	CODE	0.5
bCMRE 1-3197247	28-Oct-2020 15:58	35.4	14.7	24-Nov-2020 02:39	34.88	14.89	CODE	0.5
bCMRE 8-3197592	28-Oct-2020 16:10	35.37	14.67	24-Nov-2020 10:37	34.88	17.13	CODE	0.5

bCMRE 2-3195122	02-Nov-2020 11:50	35.42	14.72	12-Nov-2020 05:54	35.13	15.44	CODE	0.5
bCMRE 12-3195114	02-Nov-2020 12:02	35.45	14.75	24-Nov-2020 10:38	36.73	18.62	CODE	0.5
bCMRE 14-3196825	02-Nov-2020 12:26	35.51	14.8	24-Nov-2020 10:51	34.97	16.97	CODE	0.5
bCMRE 15-3197585	02-Nov-2020 12:37	35.53	14.82	24-Nov-2020 10:54	33.52	16.51	CODE	0.5
a300234067976270	25-Oct-2020 19:28	39.81	14.12	24-Nov-2020 10:00	40.22	13.95	SVPB	15
a300234067976490	02-Nov-2020 11:33	35.38	14.69	24-Nov-2020 10:00	34.69	17.11	SVPB	15
a300234067976310	02-Nov-2020 12:09	35.47	14.76	15-Nov-2020 06:00	35.35	17.1	SVPB	15
a300234067976500	02-Nov-2020 12:53	35.57	14.86	15-Nov-2020 14:00	35.06	14.94	SVPB	15
a300434063077820	28-Oct-2020 14:47	35.55	14.84	28-Oct-2020 21:25	35.48	14.9	PARC	0
a300434063317410	28-Oct-2020 15:06	35.51	14.8	12-Nov-2020 15:23	33.55	15.84	PARC	0
a30043406071820	28-Oct-2020 15:19	35.48	14.77	NaN	0	0	PARC	0
a300434063282370	28-Oct-2020 15:32	35.45	14.75	04-Nov-2020 01:30	34.57	15.24	PARC	0
a300434063083620	28-Oct-2020 15:45	35.43	14.72	12-Nov-2020 17:14	33.5	14.65	PARC	0
a300434062390440	28-Oct-2020 15:58	35.4	14.7	12-Nov-2020 17:34	33.45	14.92	PARC	0
a300434063184540	28-Oct-2020 16:10	35.37	14.67	12-Nov-2020 17:02	33.8	15.5	PARC	0
a300434063310490	01-Nov-2020 13:57	35.4	14.66	12-Nov-2020 16:25	34.59	14.61	PARC	0
a300434062393410	01-Nov-2020 14:03	35.39	14.66	12-Nov-2020 17:57	34.06	14.83	PARC	0
a300434063379130	01-Nov-2020 14:09	35.39	14.67	12-Nov-2020 13:24	34.6	14.63	PARC	0
a300434063314490	02-Nov-2020 11:50	35.42	14.72	12-Nov-2020 16:21	34.68	14.9	PARC	0
a300434063974990	02-Nov-2020 12:02	35.45	14.75	12-Nov-2020 14:47	34.74	15.23	PARC	0
a300434062395480	02-Nov-2020 12:14	35.48	14.77	07-Nov-2020 01:11	35.53	15.29	PARC	0
a300434063316730	02-Nov-2020 12:26	35.51	14.8	03-Nov-2020 00:42	35.5	14.85	PARC	0
a300434063179230	02-Nov-2020 12:37	35.53	14.82	12-Nov-2020 16:58	34.73	14.98	PARC	0
a300434063179540	02-Nov-2020 12:47	35.56	14.85	02-Nov-2020 15:04	35.56	14.87	PARC	0