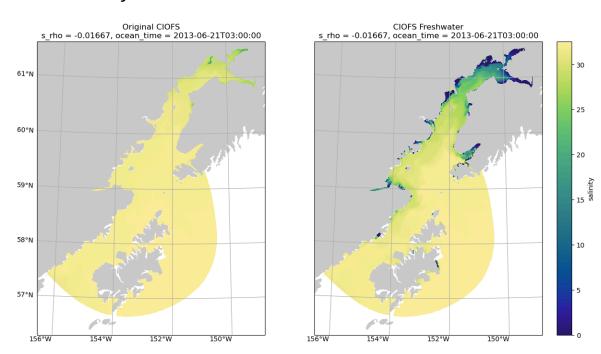
Cook Inlet Circulation Modeling - Freshwater Forcing Experiment and Lagrangian Analysis

Contents

Drifter Simulations

- · Overview of Drifter Data
- · Overview of Drifter Simulations
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Final Report to the National Oceanic Atmospheric Administration National Centers for Coastal Ocean Science Kasitsna Bay Lab



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October 11, 2024

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Online report: https://ciofs-fresh.axds.co/

PDFs of parts of report:

- Main content
- Model-data comparison: moorings
- Model-data comparison: CTD transects
- Model-data comparison: CTD profiles
- Model-data comparison: HF Radar
- Model-data comparison: ADCP
- Model-data comparison: drifters

Overview of Drifter Data

This page summarizes skill scores comparing simulated particles in the ocean models with *in situ* drifters. See details describing drifter simulations and metrics <u>here</u>.

The area-based skill score distinguishes between models much more than the separate distance skill score. For the area-based skill score, results show that model skill is similar for CIOFS hindcast and CIOFS fresh below the influence of freshwater (15m and 40m depth) but improved in CIOFS fresh above that (1m, 5m, 7.5m).

100MB zipfile of plots

Map of Drifters

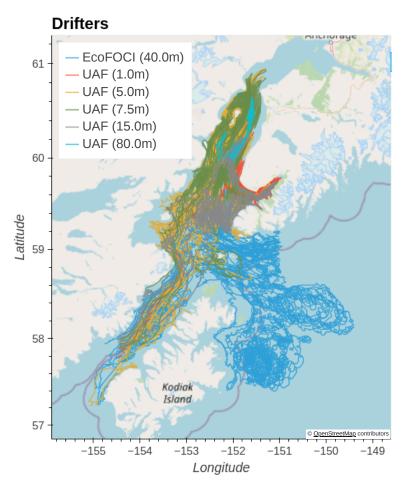


Fig. 1 All drifter deployments, by project. Click on a legend entry to toggle the transparency. (HTML plot, won't show up correctly in PDF.)

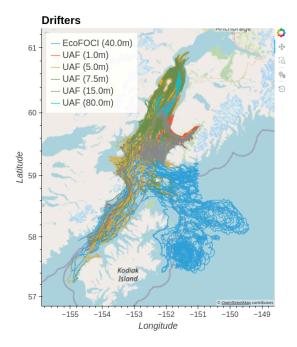
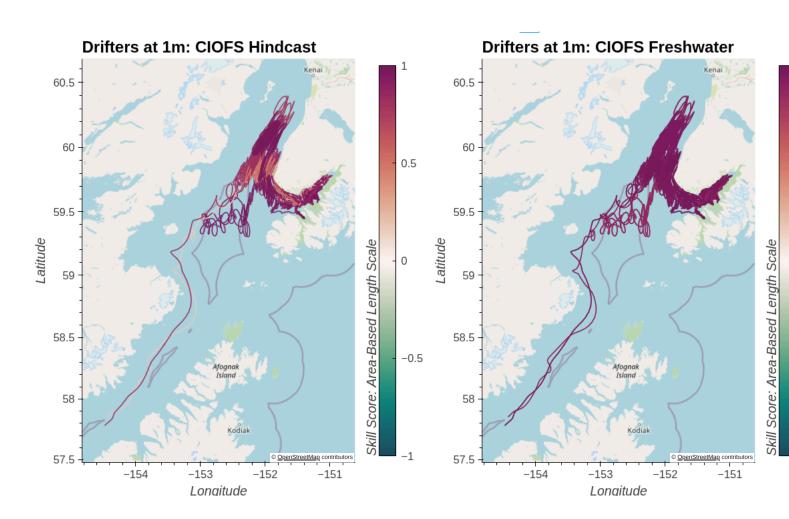


Fig. 2 All drifter deployments, by project. (PNG screenshot, available for PDF and for saving image.)

Results

Skill Score: Area-Based Length Scale



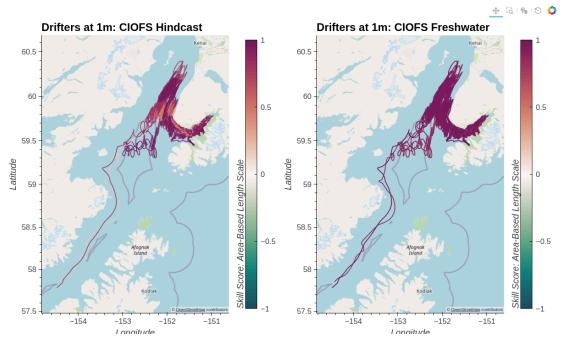
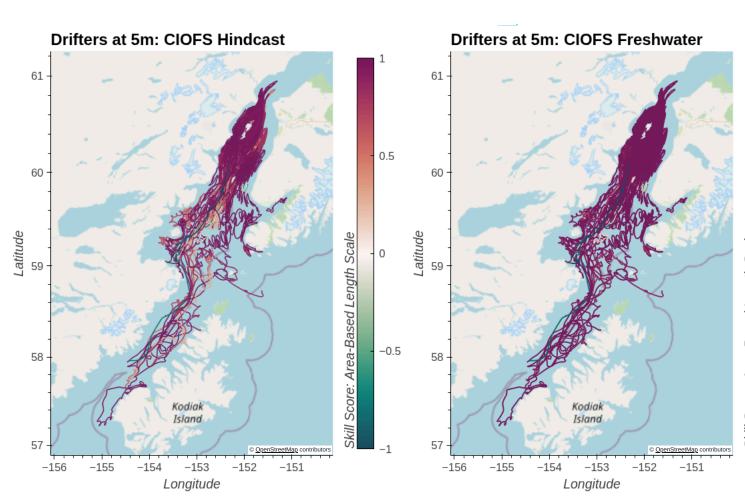


Fig. 4 Area-based skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 1m depth. (PNG screenshot, available for PDF and for saving image.)



Skill Score: Area-Based Length Scale

Fig. 5 Area-based skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 5m depth. (HTML plot, won't show up correctly in PDF.)

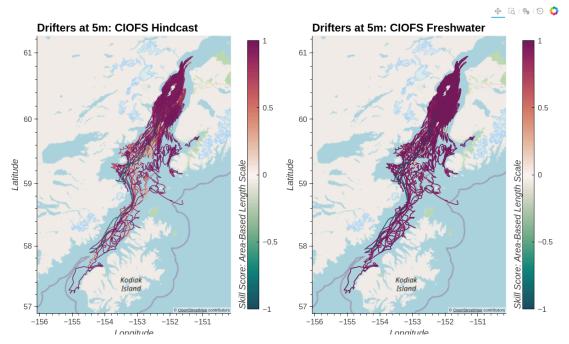


Fig. 6 Area-based skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 5m depth. (PNG screenshot, available for PDF and for saving image.)

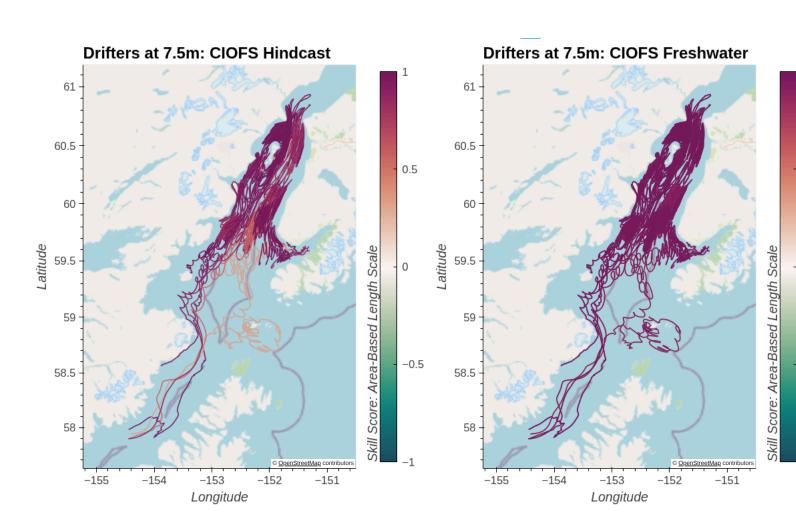


Fig. 7 Area-based skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 7.5m depth. (HTML plot, won't show up correctly in PDF.)

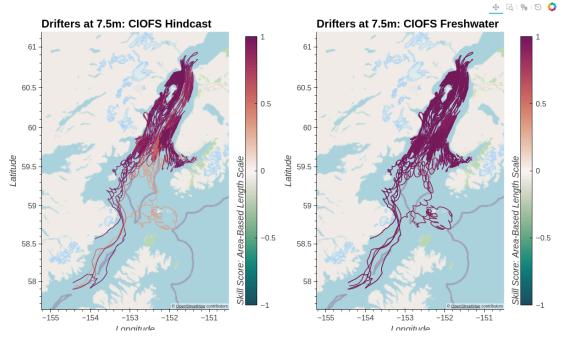
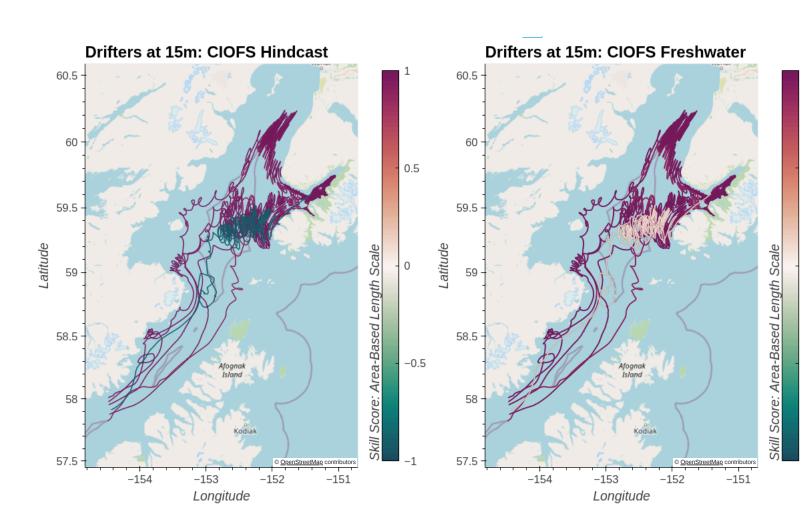


Fig. 8 Area-based skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 7.5m depth. (PNG screenshot, available for PDF and for saving image.)



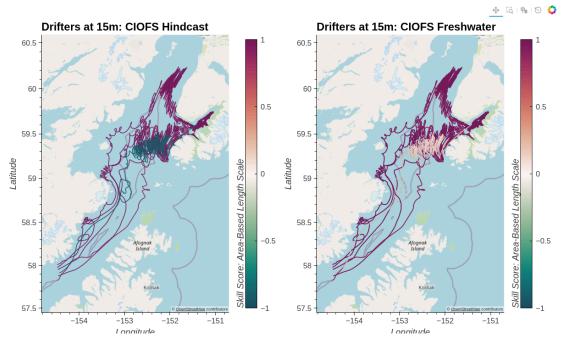


Fig. 10 Area-based skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 15m depth. (PNG screenshot, available for PDF and for saving image.)

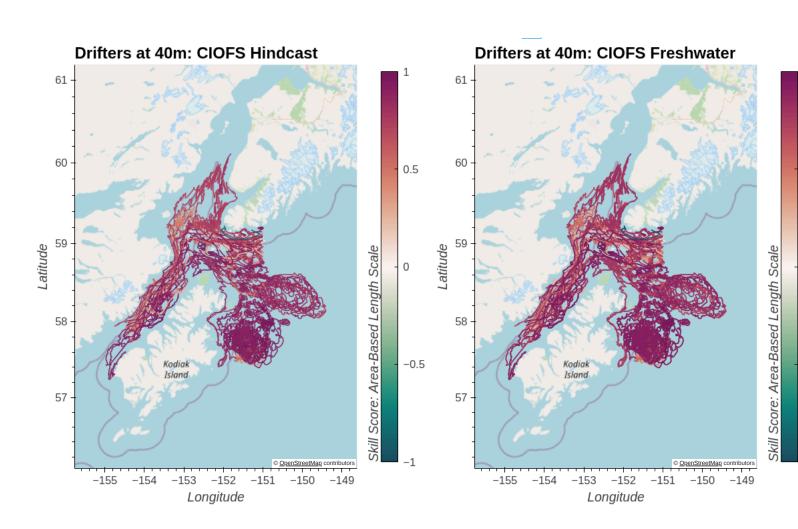


Fig. 11 Area-based skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 40m depth. (HTML plot, won't show up correctly in PDF.)

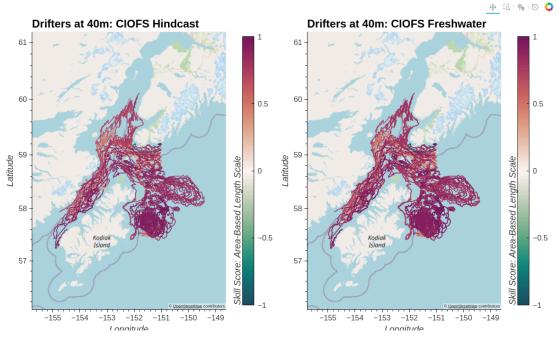
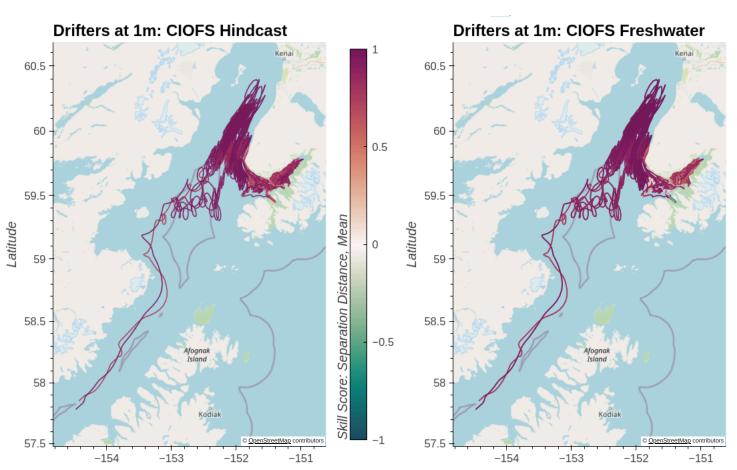


Fig. 12 Area-based skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 40m depth. (PNG screenshot, available for PDF and for saving image.)

Skill Score: Separation Distance, Mean



Skill Score: Separation Distance, Mean

Longitude Longitude

Fig. 13 Separation-distance skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 1m depth. (HTML plot, won't show up correctly in PDF.)

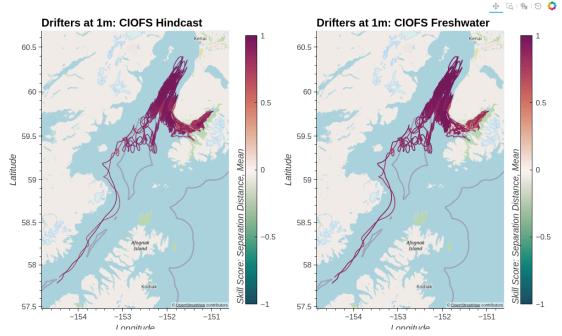
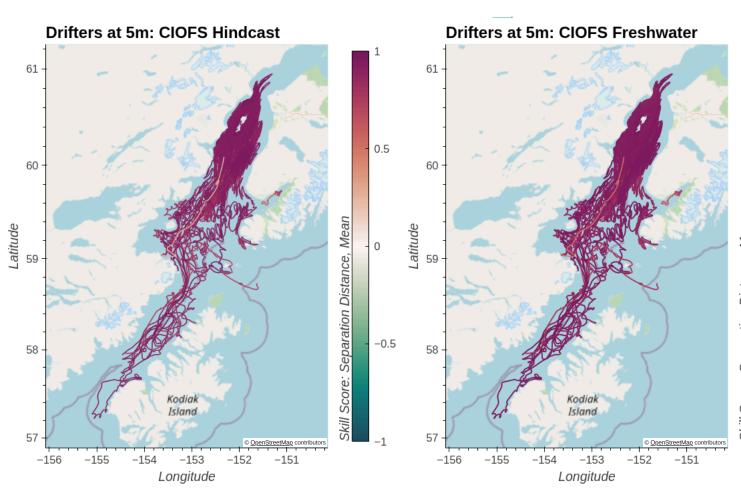


Fig. 14 Separation-distance skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 1m depth. (PNG screenshot, available for PDF and for saving image.)



Skill Score: Separation Distance, Mean

Fig. 15 Separation-distance skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 5m depth. (HTML plot, won't show up correctly in PDF.)

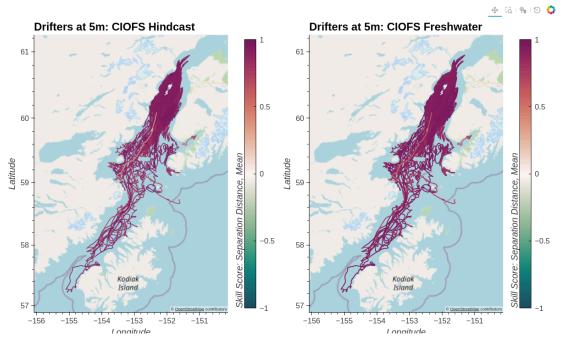
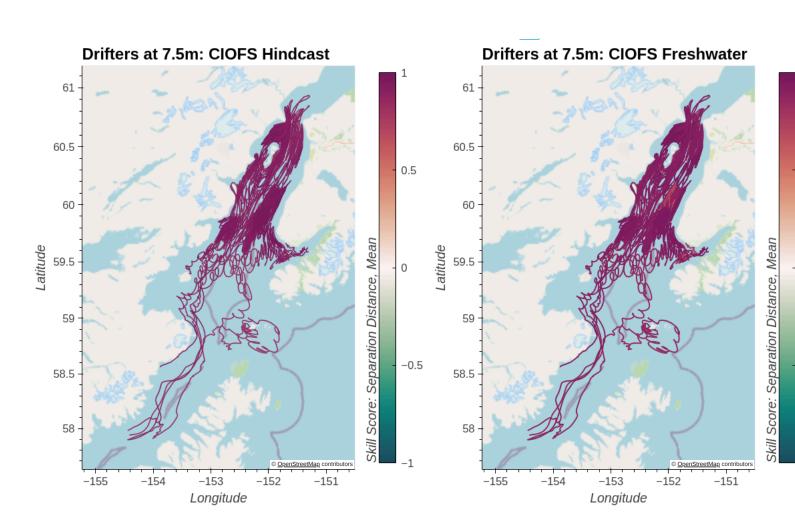


Fig. 16 Separation-distance skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 5m depth. (PNG screenshot, available for PDF and for saving image.)



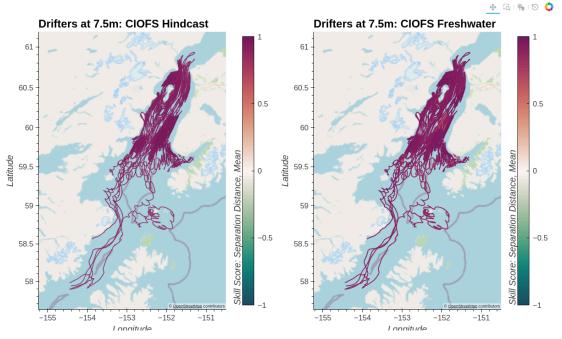
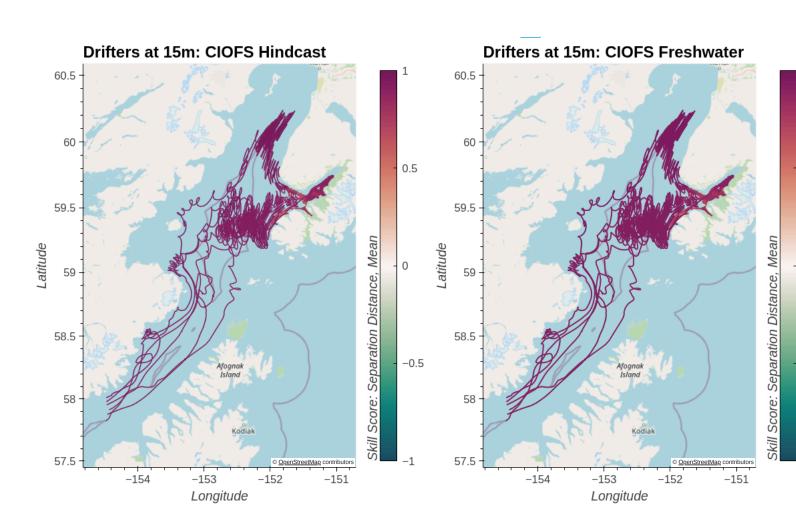


Fig. 18 Separation-distance skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 7.5m depth. (PNG screenshot, available for PDF and for saving image.)



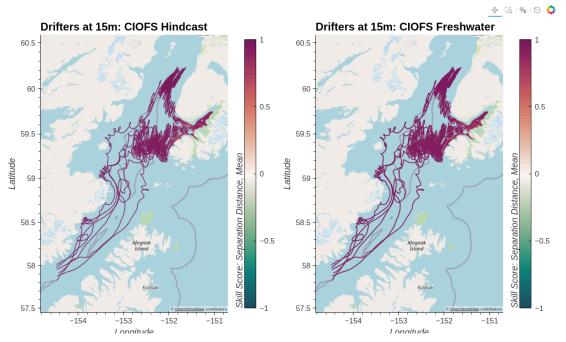


Fig. 20 Separation-distance skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 15m depth. (PNG screenshot, available for PDF and for saving image.)

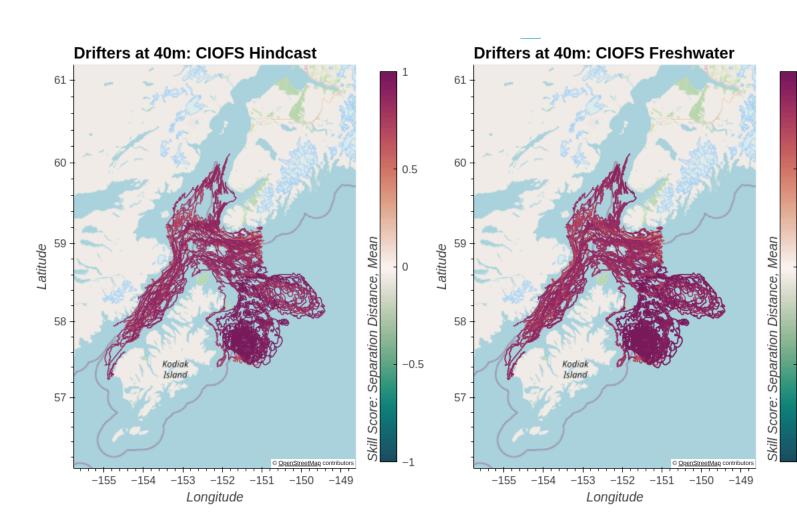


Fig. 21 Separation-distance skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 40m depth. (HTML plot, won't show up correctly in PDF.)

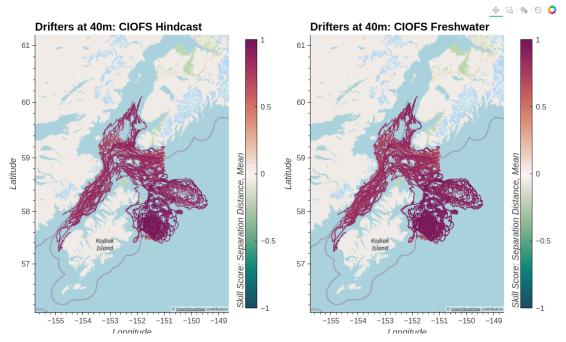


Fig. 22 Separation-distance skill scores for CIOFS Hindcast (left) and CIOFS Freshwater (right) with drifters at 40m depth. (PNG screenshot, available for PDF and for saving image.)

Overview of Drifter Simulations

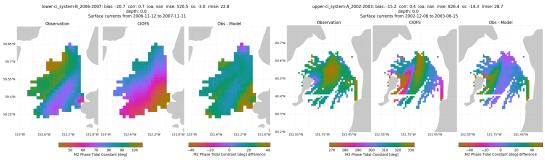
Particle simulations are run to match each available drifter dataset: drifters_ecofoci and drifters_uaf.

Simulation Setup

The simulated particle simulations are run with the following conditions:

- Start the simulated particles at the in situ drifter location in the CIOFS domain and in a radius 500m around that location.
- Start the simulated particles at the time the drifter is at that location in the CIOFS domain, but starting 40 minutes before and every time step through 40 minutes after. See immediately below for details.
- Start the simulated particles at the same depth that the *in situ* drifter is droqued, and run them fixed to that depth.
- · Run 1000 simulated particles.
- Use time-varying masks from ROMS if the drifter is shallower than the tidal flats (5m), otherwise use static versions to save time.
- Use estimate of horizontal diffusivity in [particle-tracking-manager] which is calculated as 0.1m/s sub-gridscale velocity that is missing from the model output and multiplied by an estimate of the horizontal grid resolution. The horizontal grid resolution is variable but is approximated as 100m so that the horizontal diffusivity is calculated as $0.1m/s*100m = 10 m^2/s$. This has not been tuned but instead is a theoretical calculation.

The timing of how out to extend the simulation timing before and after the *in situ* drifter was based on the HF Radar comparisons in the CIOFS Hindcast Report []. On the HF Radar comparison page, the tidal phase difference of the data minus the model is plotted on the far right side of each of the two figures, each for two different time periods for HF Radar data. The M_2 tide is the dominant tide in the region.



Taking the maximum phase difference seen in the plot of about 20 degrees, we use the relationship based on the fact that the M_2 tide repeats every 12 hours and 25 minutes:

$$\frac{360^{\circ}}{12hr25min} = \frac{20^{\circ}}{x}$$

This phase difference between the model and the data gives us a time difference of 41.4 minutes, or about 40 minutes. We use this time scale both backward and forward in time with our simulation start times.

Metrics

We use two metrics to assess the performance of the model in capturing the drifter movements: an area-based metric and a separation distance-based metric. We will use an example simulation shown here to explain each metric, where the gray lines show the 1000 simulated particles with the green circles showing their initial locations and blue circles showing their final locations, and the single red line shows the *in situ* drifter with the red circle showing its final location (at least in the domain, it may continue farther, outside the domain). The dashed black line shows an estimated model domain boundary.

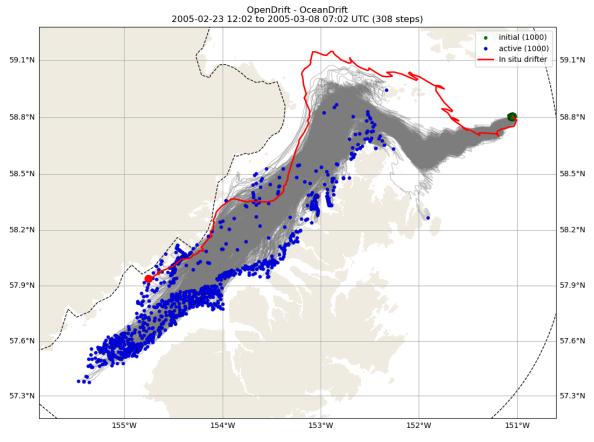


Fig. 23 Example particle simulation (EcoFOCI 53298 y2005).

The normalized length-scale metric L compares the behavior of the group of simulated particles with the in situ drifter, with the idea that no single simulated drifter track is more representative than another. The distance from the drifter to the envelope of simulated particles represents how well the model captures the drifter's movement, and is 0 if the drifter is within the Qhull of the simulated particles. This length scale is normalized by the square root of the area of the same Qhull, which is the dispersion of the particles and therefore gives a lengthscale for the flowfield at the same time. In other words, this metric gives the difference between the in situ drifter location and the envelope of numerical particles, in time.

$$L_i = rac{d_i^{Qhull}}{\sqrt{A_i^{Qhull}}}$$

for i from times 1 to N. For example, in the image we see how this is calculated at a particular time step overlaid on a representation of particle simulations. At the time shown, the drifter locations are in blue circles, and the envelope or Qhull they create is outlined in blue. The shortest distance from that polygon to the present in situ drifter location (red circle) is represented by a dashed blue line, which is the numerator of L. The square root of the area within the blue polygon is the denominator of L. This is calculated for each time step of the drifter simulation.

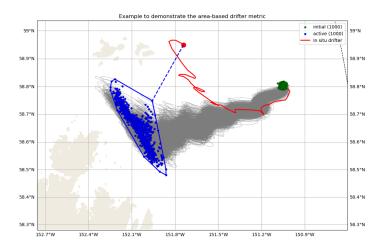


Fig. 24 Diagram explaining the area-based length scale (EcoFOCI 53298_y2005 as example).

For this example, the calculation of L for the full set of time are in the following image, with the time of comparison noted with the vertical dashed blue line. Comparing with the image of the full set of simulation tracks above, one can see that the time of comparison was chosen to be the time of maximal excursion of the simulated particles away from the $in \, situ \, drifter$. A horizontal line marks the value of L=1 since that is when the length scale of the Qhull away from the drifter equals the length scale of the particle dispersion. When L>1, the particle Qhull and drifter are farther apart than the dispersion length scale, and thus the model is performing worse compared to this measure.

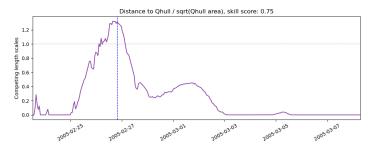


Fig. 25 Area-based length scale over time for example drifter and particle simulations EcoFOCI 53298_y2005.

The length scale metric L is converted into a skill score by adding over the time frame, dividing by the number of time steps to create a mean, and subtracting it from 1:

$$ss_L = 1 - \frac{1}{N} \sum_{i=1}^{N} L_i$$
.

When $0 < ss_L \le 1$, the simulated particle cloud is capturing the *in situ* drifter within the cloud with some skill, particularly if $0.5 \le ss_L \le 1$. There can be scenarios in which $ss_L < 0$ due to the way it is calculated, in which case, the model is not

demonstrating skill. Note that the skill score for this example is shown in the title of the image and in this case it is $ss_L=0.75$

.

Separation Distance

The separation distance is proposed in as a way to compare modeled particles against *in situ* drifters 1 to 1 and to be able to interpret the full time series without having separations early in the time series pollute the interpretation later in the time series. The way they manage this is by having both the numerator and the denominator be cumulative calculations. The separation distance s is calculated as:

$$s_i = rac{\Sigma_{j=1}^i d_j}{\Sigma_{i=1}^i \ell_i}$$

for i from times 1 to N, and where d_j is the distance between a simulated particle and the in situ drifter at time j between 1 and i, and ℓ_j is the distance traveled along the in situ drifter trajectory at time j. To help understand the separation distance, two drifters are pulled out as examples in particular in the image: the in situ drifter in red and a simulated particle track in purple. At the time shown, they have each reached to an extent marked by circles, having traveled along the paths indicated by matching colors, and occasionally marked by circles to represent previous time steps, pretending that there were only a few time steps for demonstration purposes. The separation distance is calculated as the summation of the distance between the drifters at each time up to this point in time divided by the summation of the distance traveled by the in situ drifter from start up each time up to this point:

$$s_6 = rac{d_1 + d_2 + d_3 + d_4 + d_5 + d_6}{\ell_1 + \ell_2 + \ell_3 + \ell_4 + \ell_5 + \ell_6},$$

but remember that ℓ_i are the total distance from the start of the drifter track to the time it is counting.

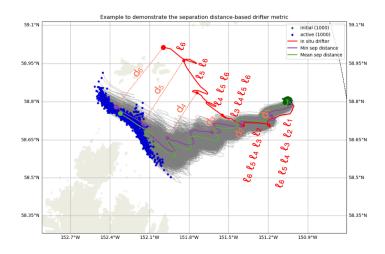


Fig. 26 Diagram explaining the separation distance (EcoFOCI 53298_y2005 as example).

The full time series of the separation distance for the example is shown in the following image. The time shown in the previous plot is noted with a vertical dashed line. The time shown is a time when the *in situ* drifter and comparison simulated particle were the farthest apart for the simulation. The separation distance can be converted into a skill score by taking the root mean square error over the times available as follows:

$$ss_s = 1 - rac{1}{N} \Sigma_{i=1}^N \sqrt{s_i^2}.$$

The skill score can be negative but must be positive to display skill in recreating the drifter behavior; closer to 1 is better skill with 1 being perfect skill.

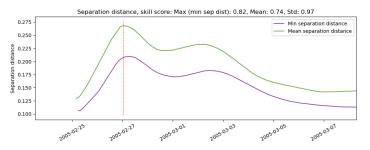


Fig. 27 Separation distance over time for example drifter and particle simulations EcoFOCI 53298 y2005.

The separation distance is calculated between each simulated drifter and the *in situ* drifter. We present two specific simulated particles: the minimum and the mean separation distance, as calculated from the root mean square. These are the two tracks highlighted in the example image, and the two skill scores given in the results. Note that the skill score is given in the image title and is $ss_s=0.82$ for the minimum separation distance (which is the maximum skill score) and $ss_s=0.74$ for the mean separation distance (which is the mean skill score).

Drifters (EcoFOCI)

EcoFOCI Project.

As described on the main project website for EcoFOCI:

We study the ecosystems of the North Pacific Ocean, Bering Sea and U.S. Arctic to improve understanding of ecosystem dynamics and we apply that understanding to the management of living marine resources. EcoFOCI scientists integrate field, laboratory and modeling studies to determine how varying biological and physical factors influence large marine ecosystems within Alaskan waters.

EcoFOCI is a joint research program between the Alaska Fisheries Science Center (NOAA/ NMFS/ AFSC) and the Pacific Marine Environmental Laboratory (NOAA/ OAR/ PMEL).

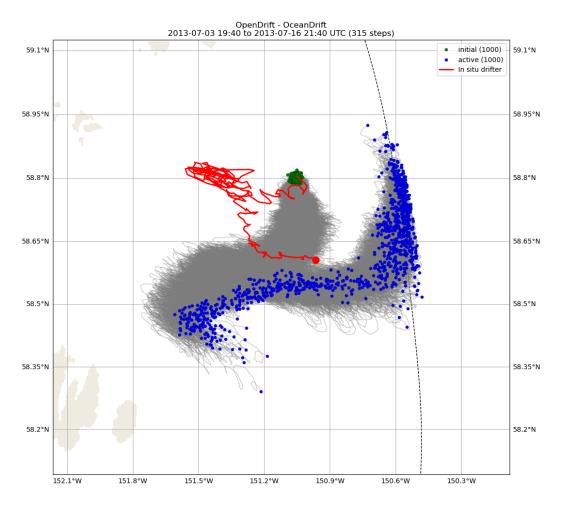
Drifter data are being pulled from this webpage: https://www.ecofoci.noaa.gov/drifters/efoci_drifterData.shtml which also has a plot available for each drifter dataset.

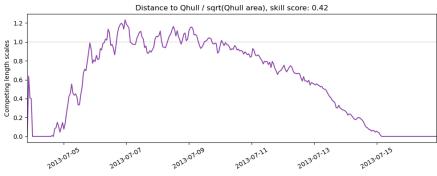
Several years of EcoFOCI drifter data are also available in a private Research Workspace project: https://researchworkspace.com/project/41531085/files.

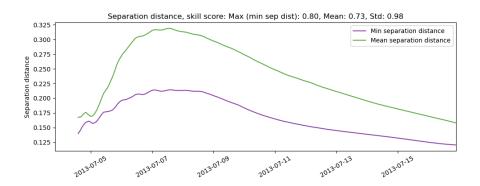
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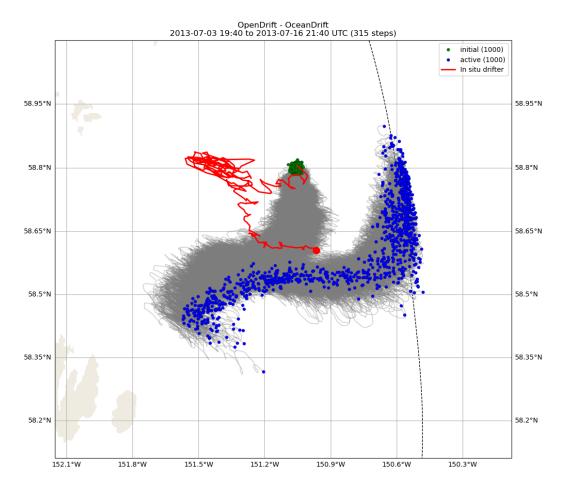
CIOFS

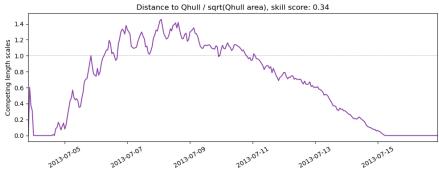
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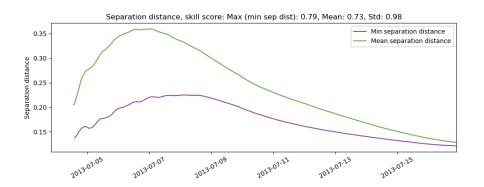






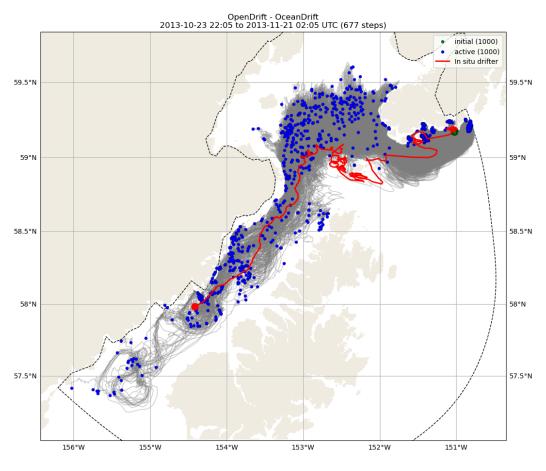


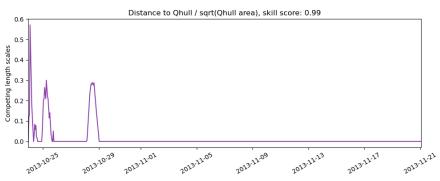


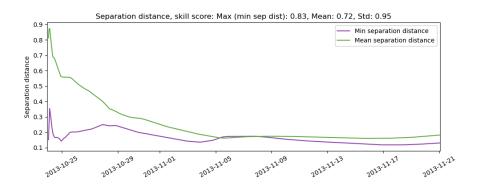


111971_y2013_withT

• Animation

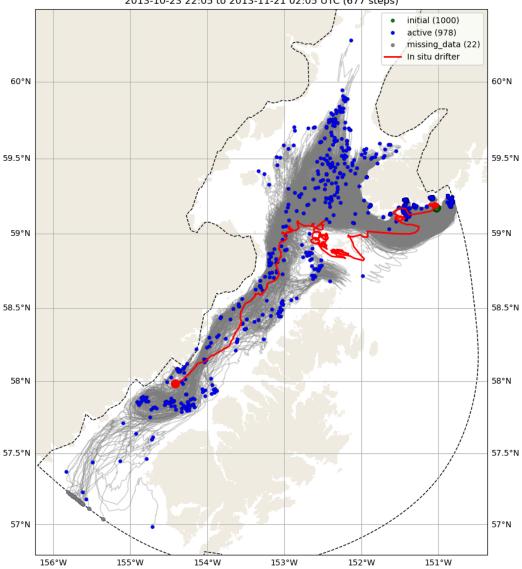


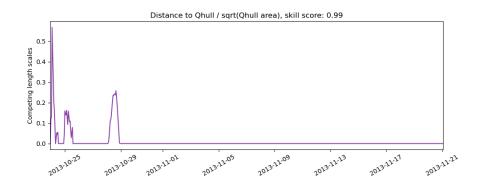


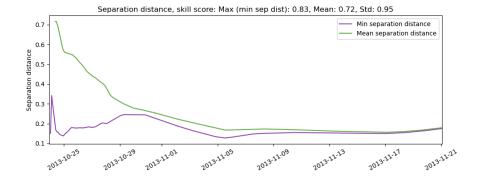


CIOFSFRESH

OpenDrift - OceanDrift 2013-10-23 22:05 to 2013-11-21 02:05 UTC (677 steps)

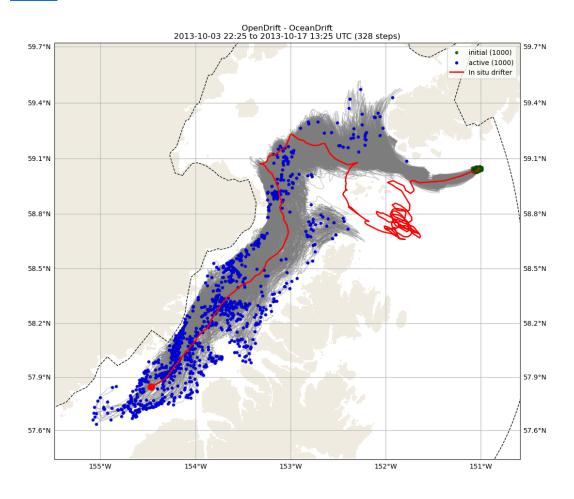


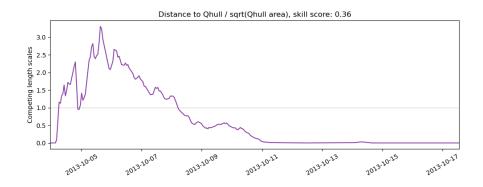


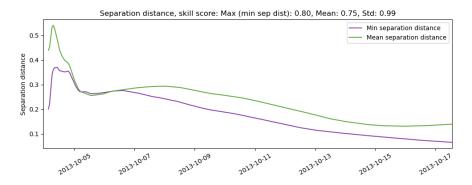


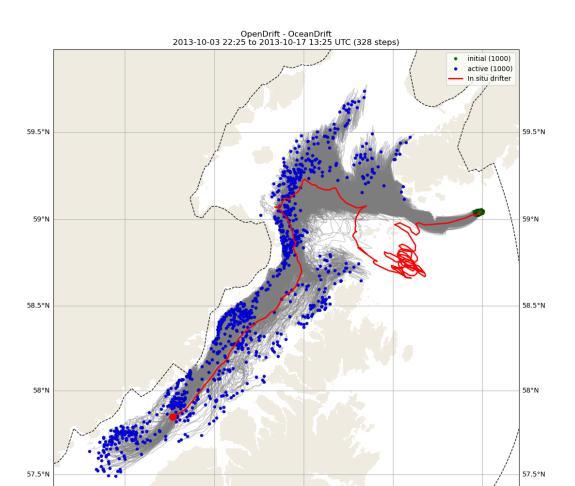
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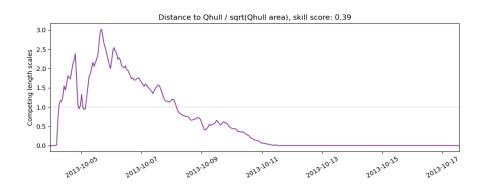
CIOFS









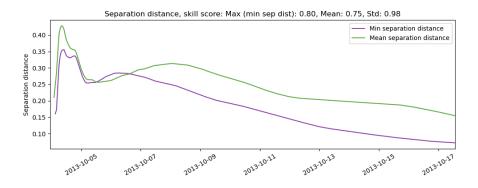


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151°W

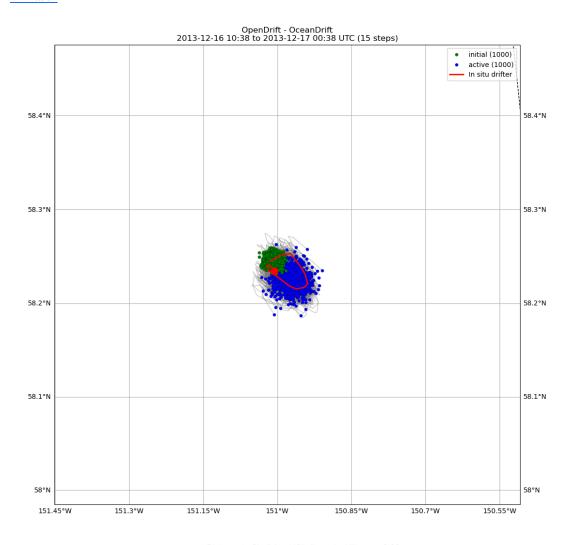
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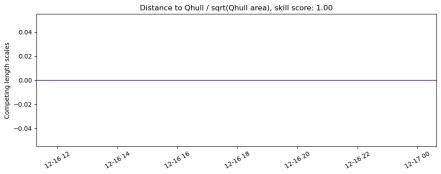
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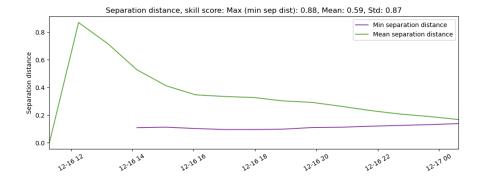


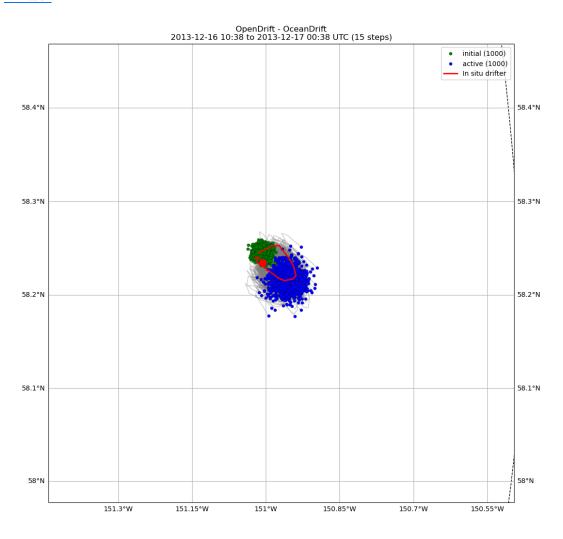
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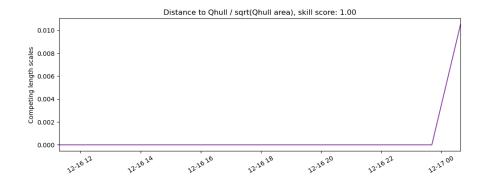
CIOFS

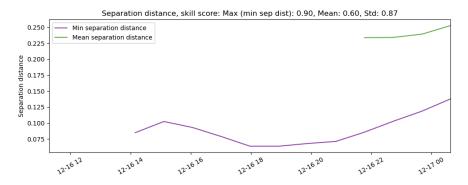






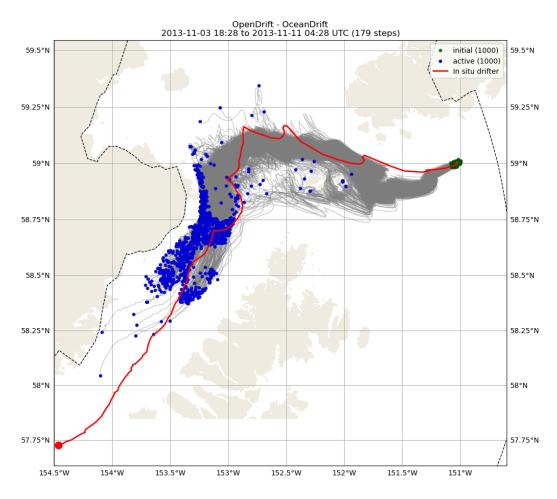


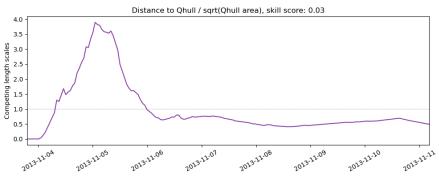


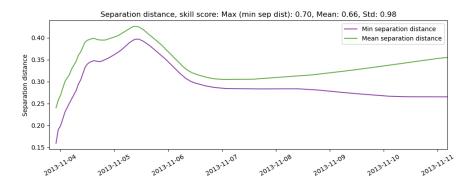


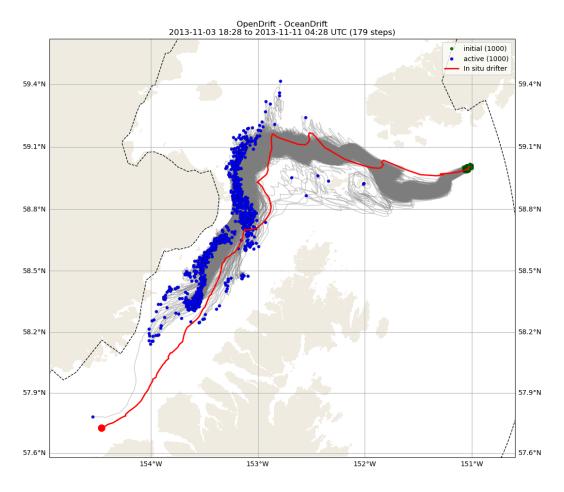
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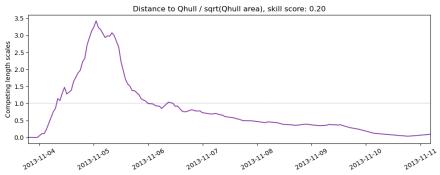
CIOFS

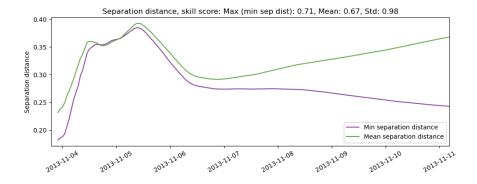


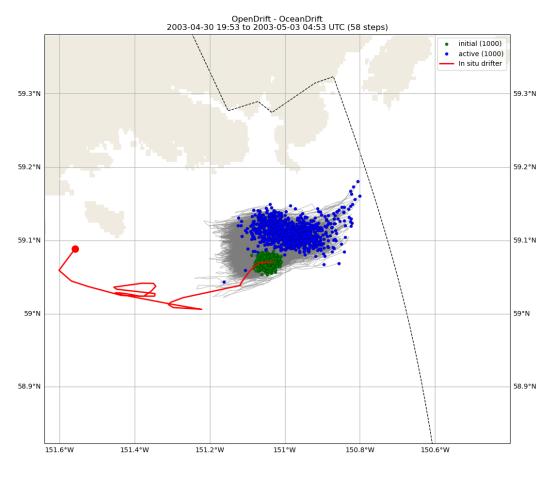


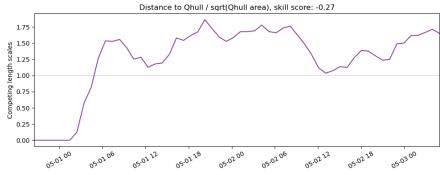


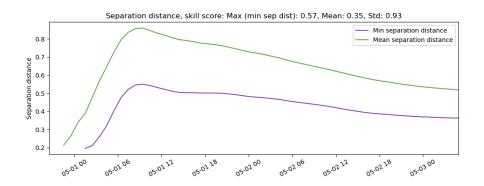


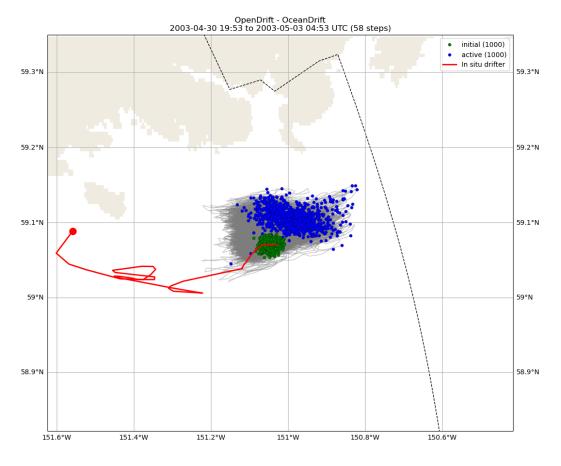


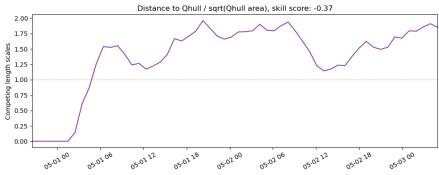


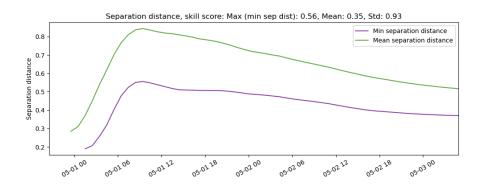






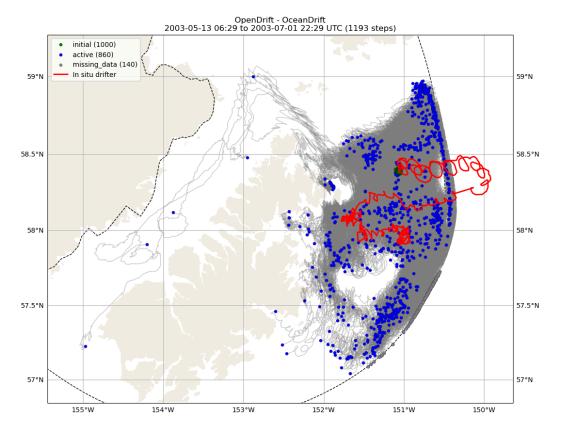


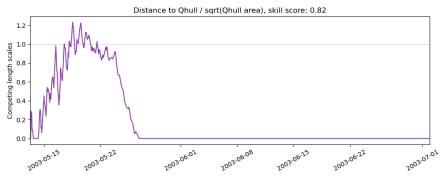


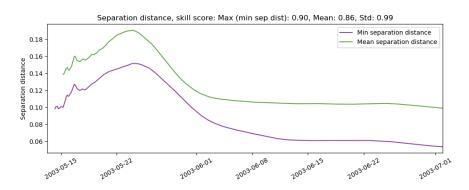


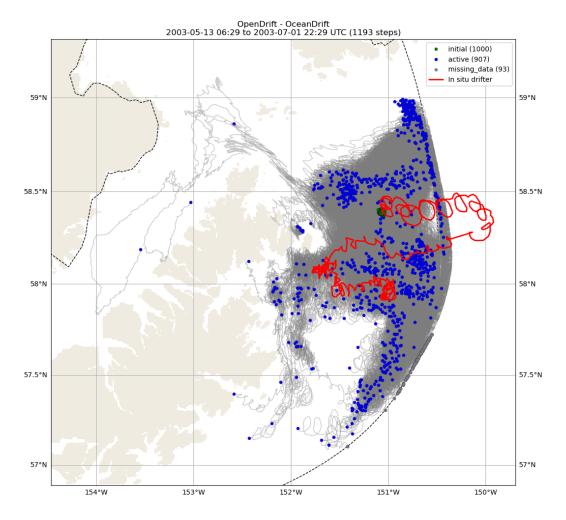
37485_y2003

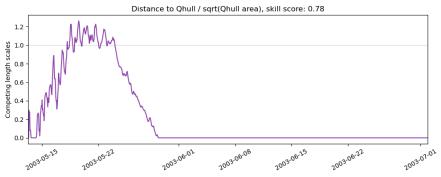
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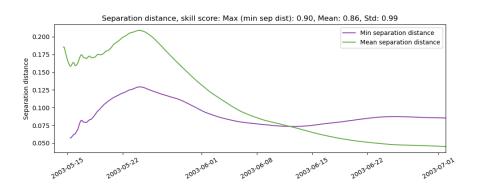






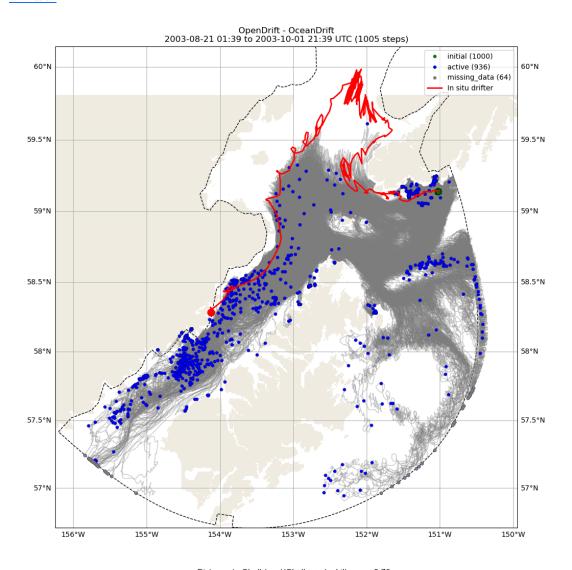


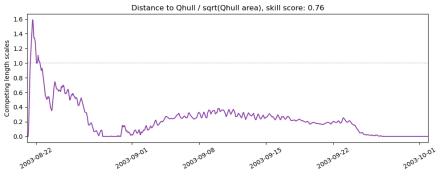


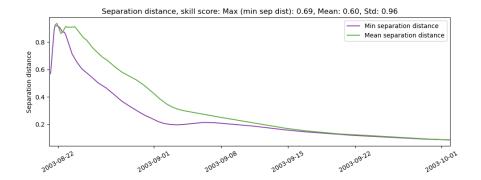


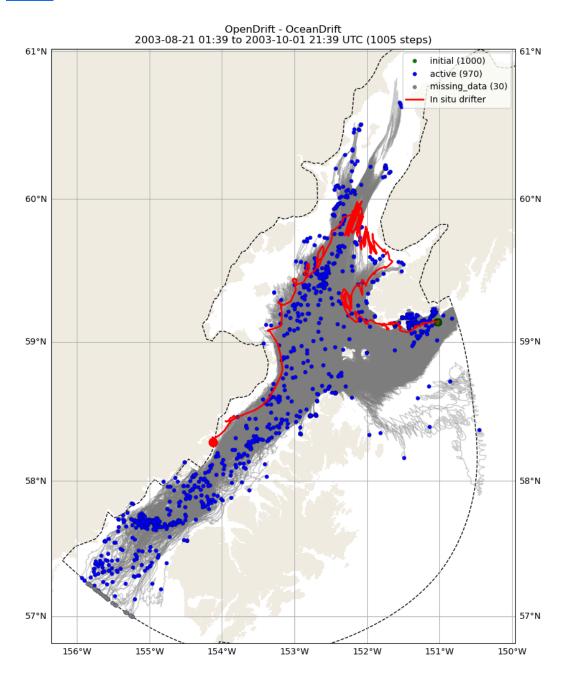
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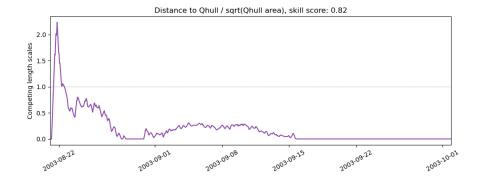
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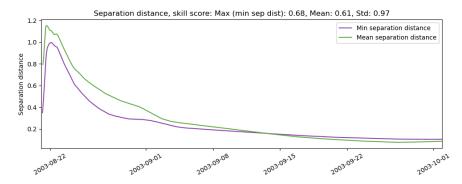






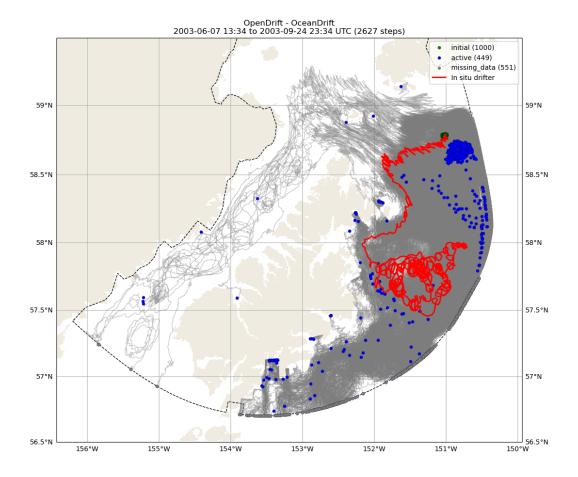


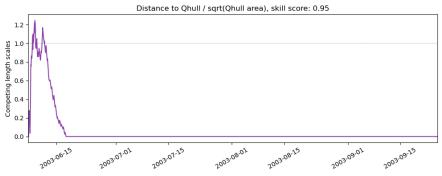


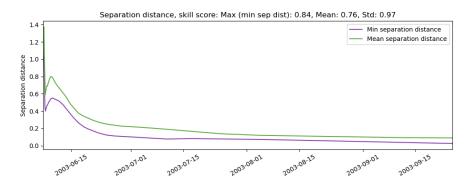


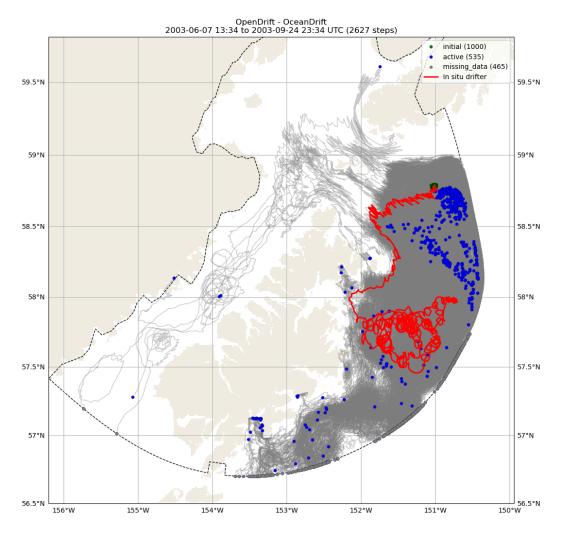
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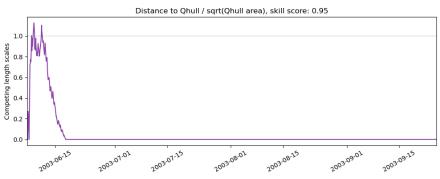
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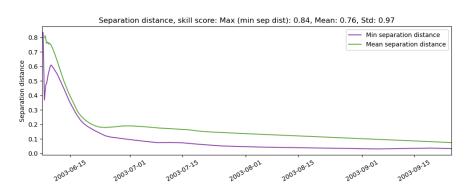




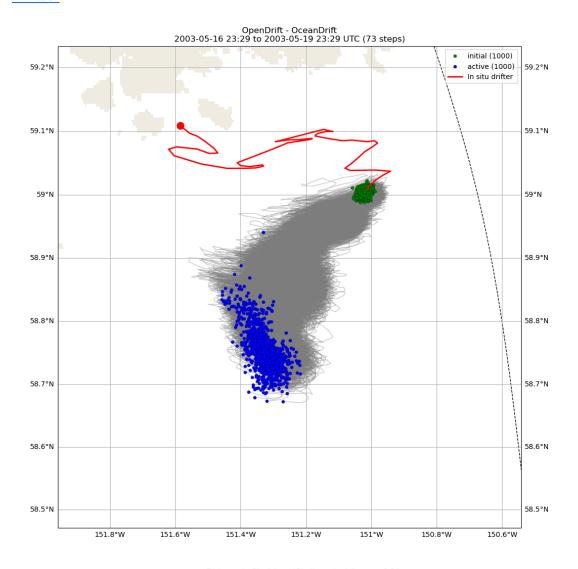


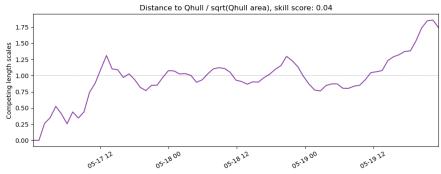


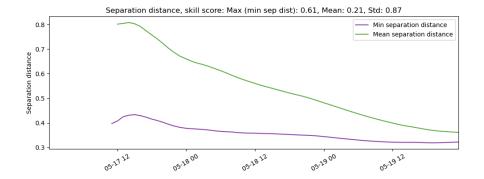


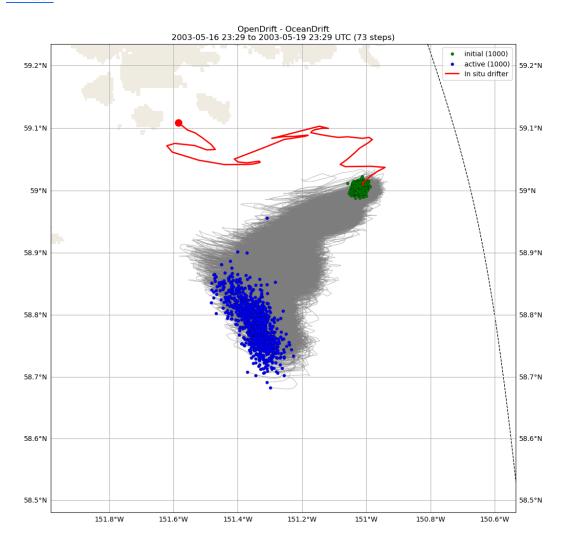


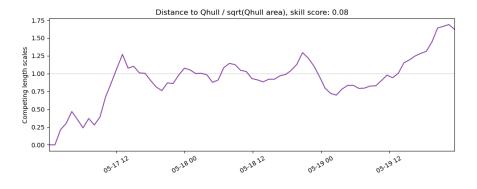
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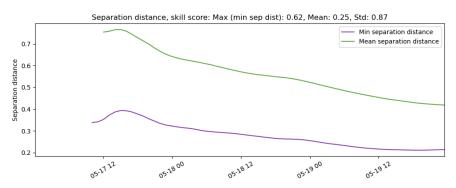




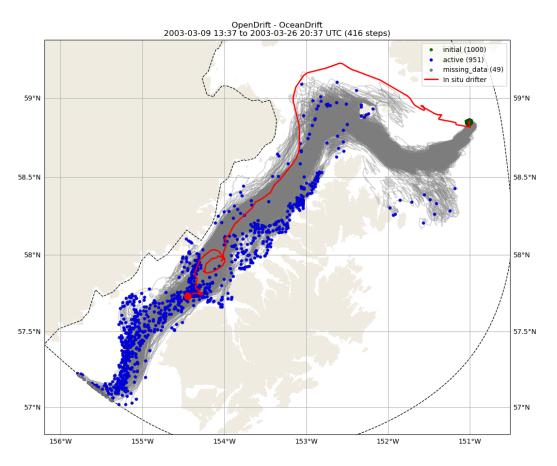


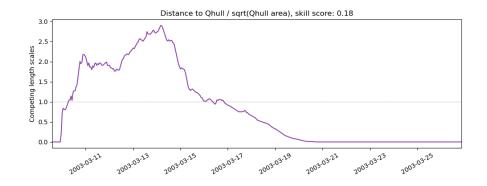


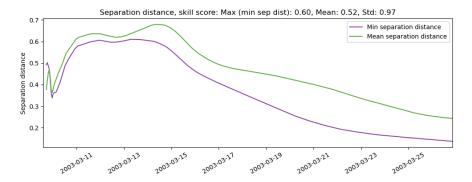


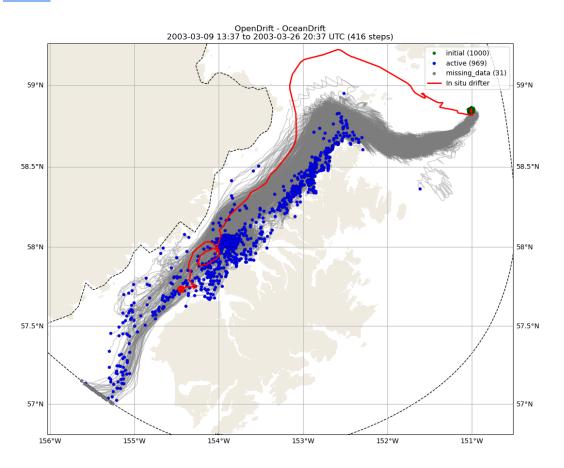


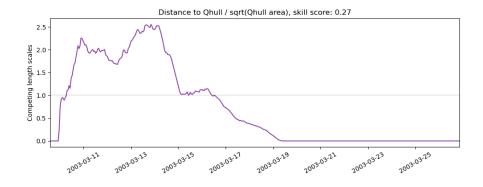
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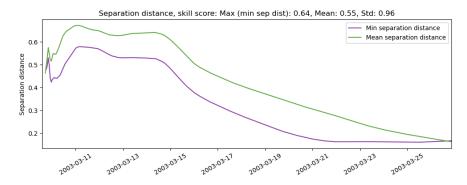




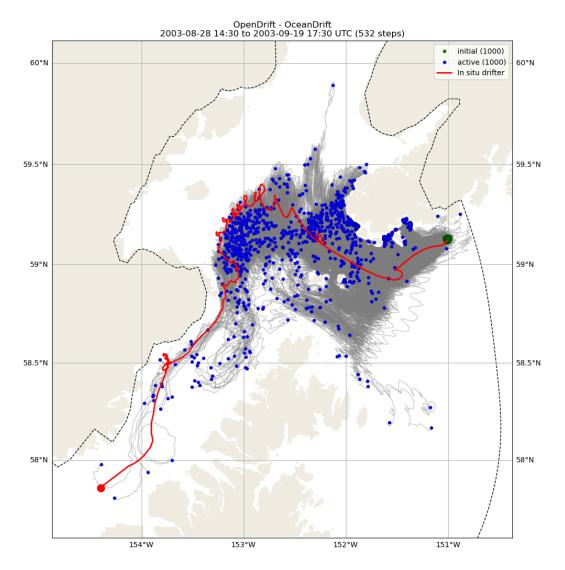


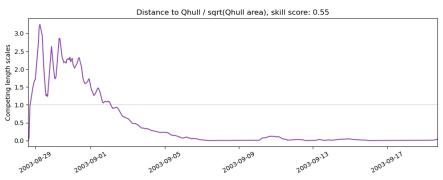


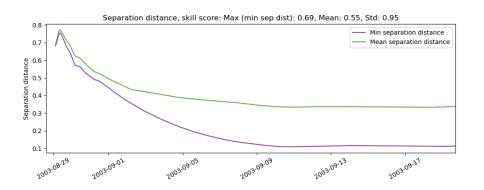


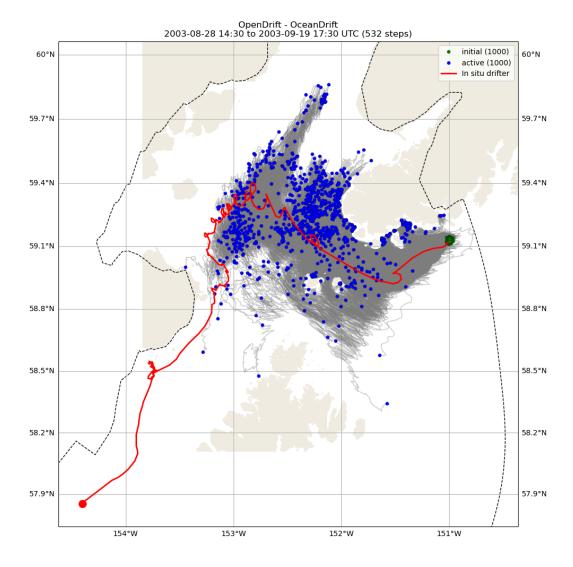


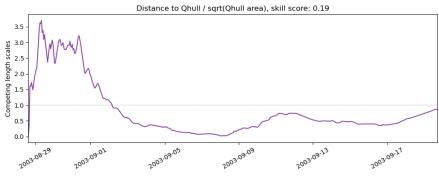
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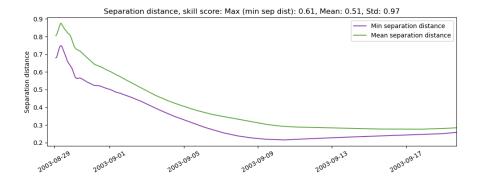




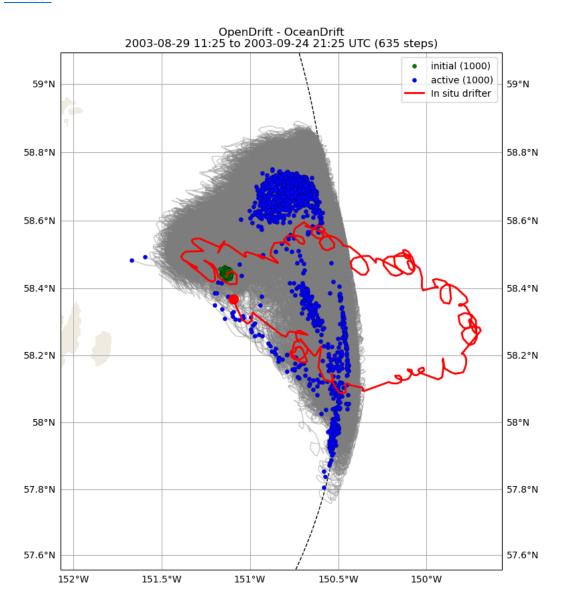


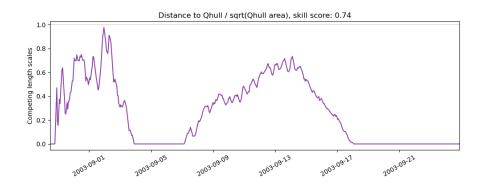


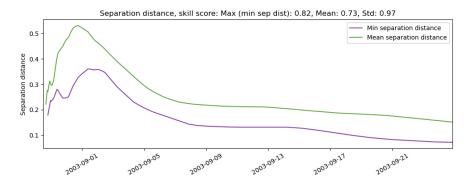




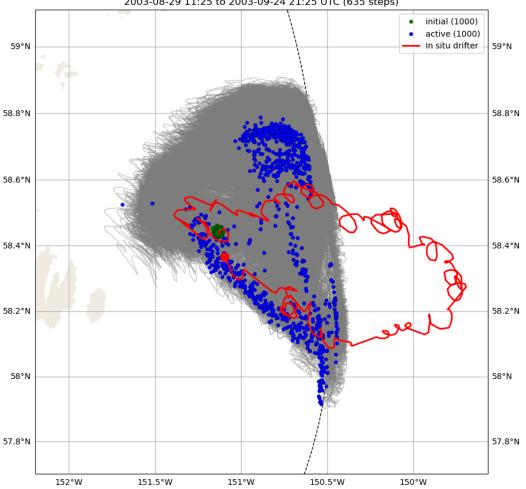
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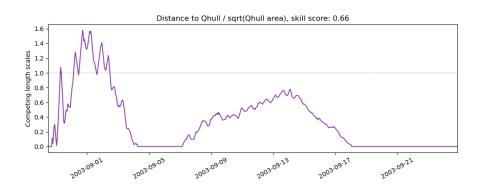


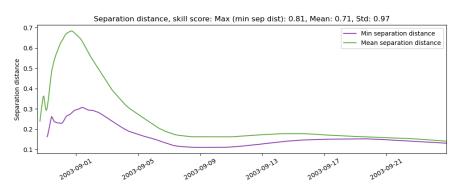




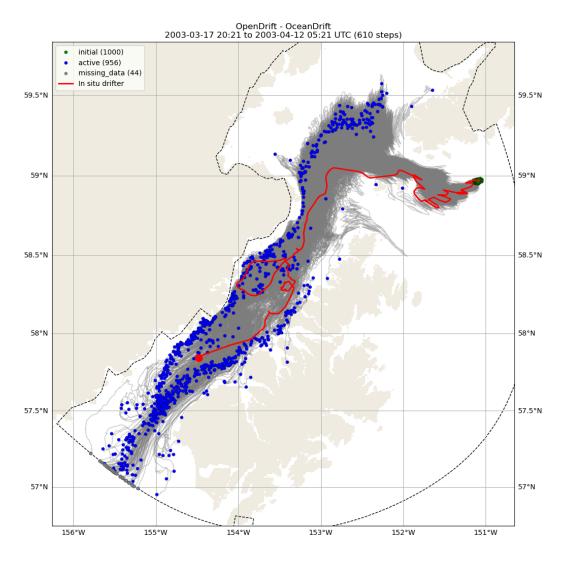
OpenDrift - OceanDrift 2003-08-29 11:25 to 2003-09-24 21:25 UTC (635 steps)

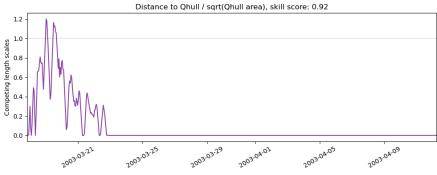


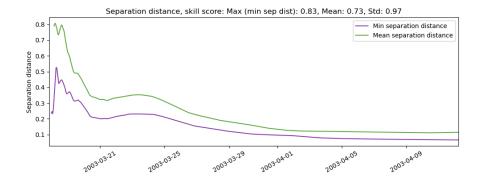


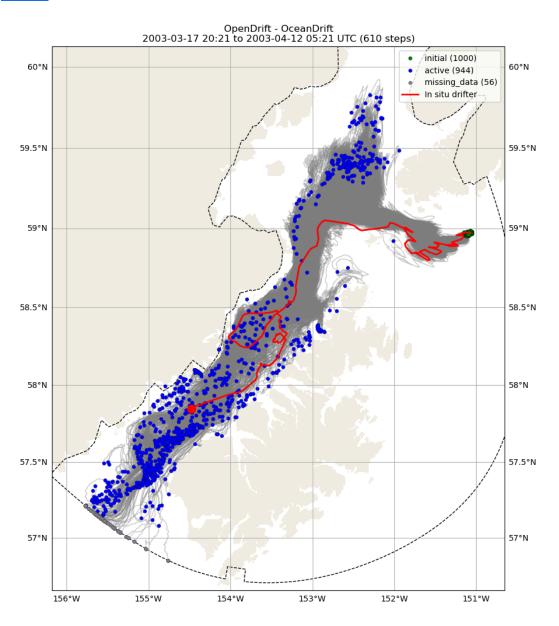


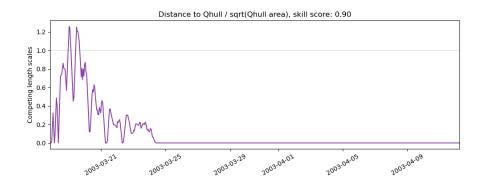
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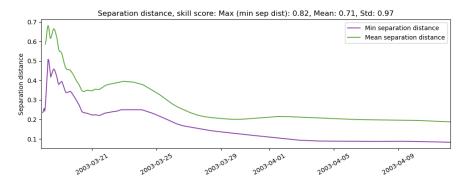




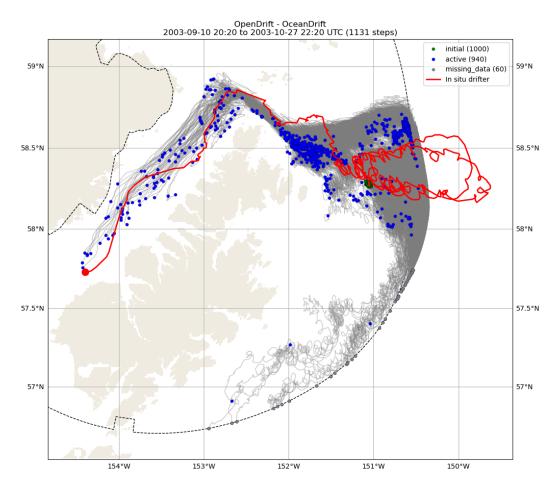


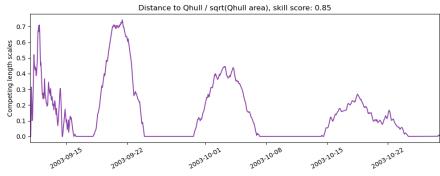


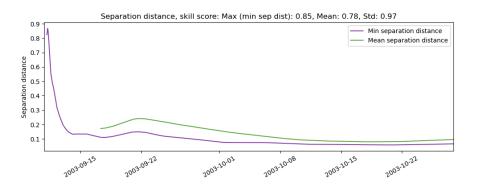


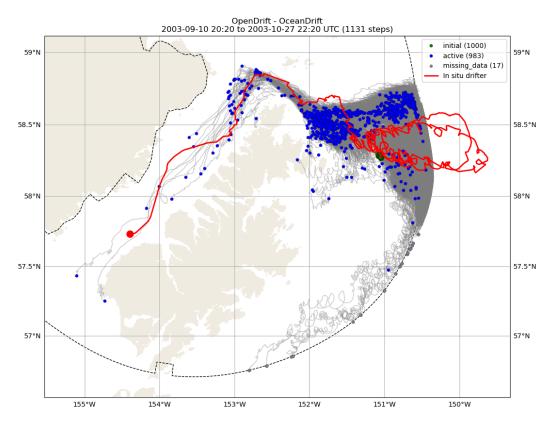


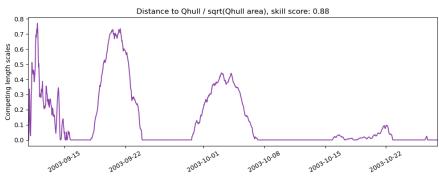
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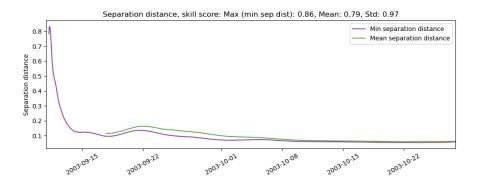




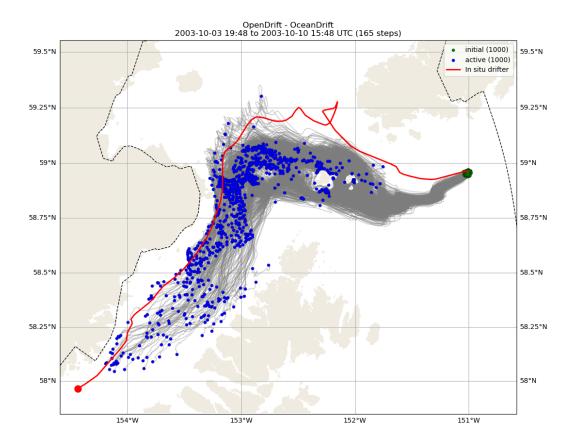


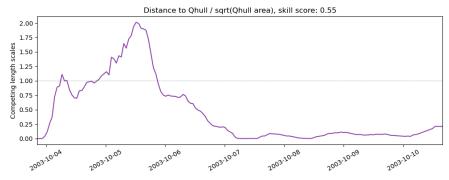


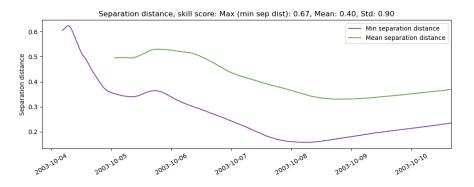


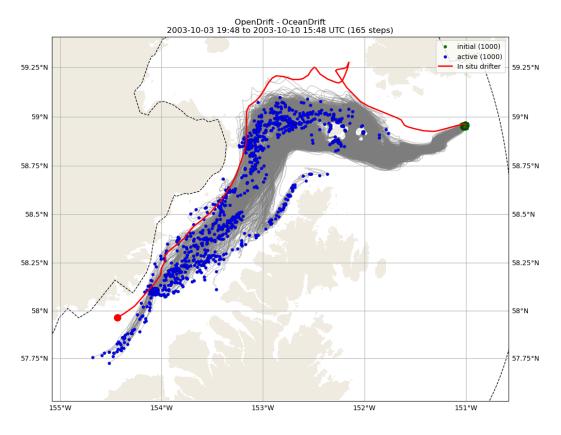


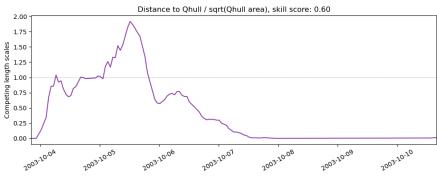
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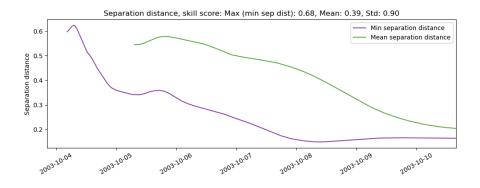




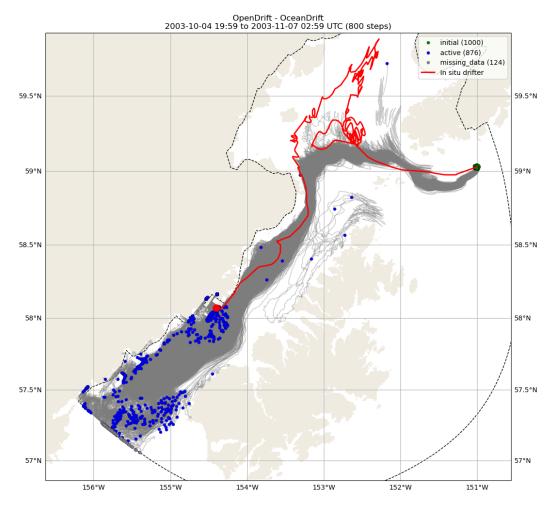


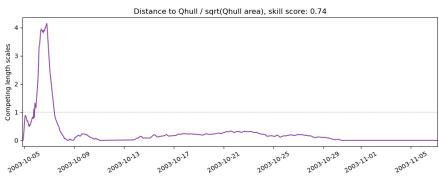


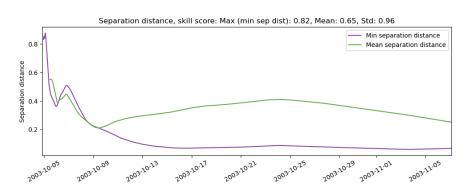




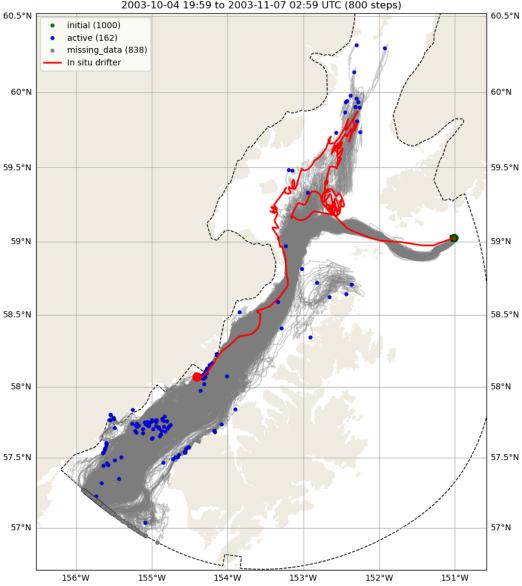
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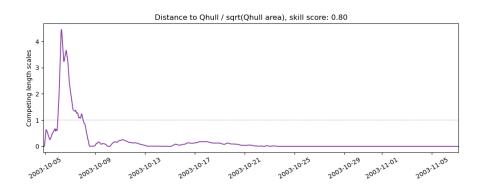


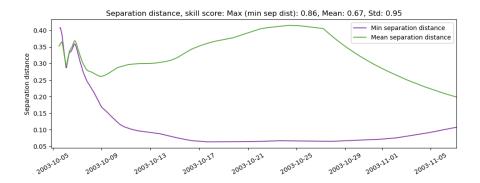




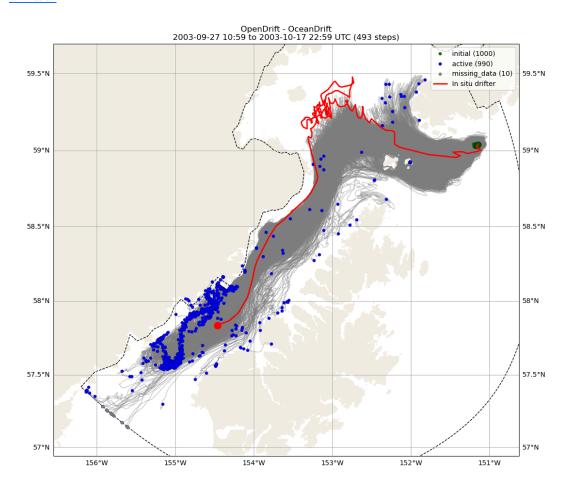
OpenDrift - OceanDrift 2003-10-04 19:59 to 2003-11-07 02:59 UTC (800 steps)

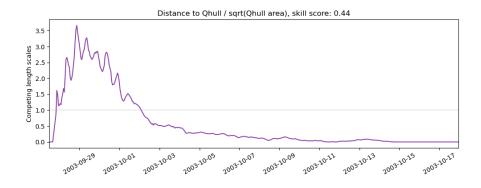


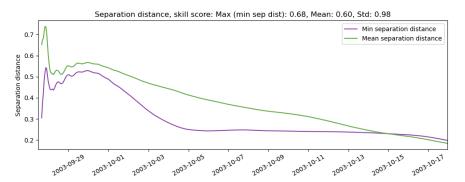


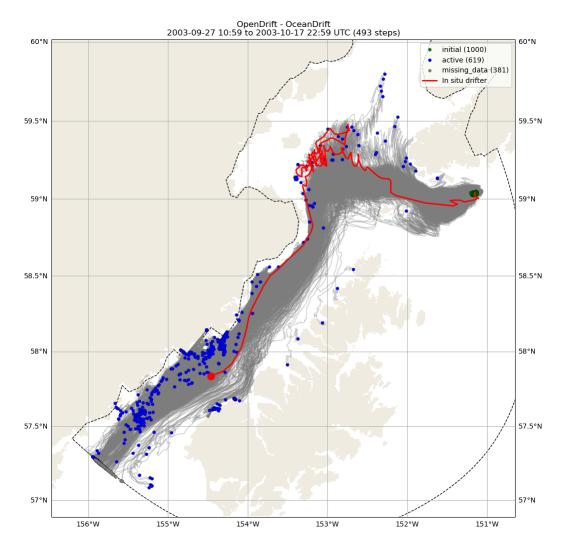


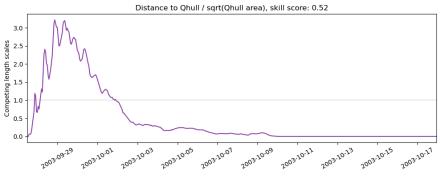
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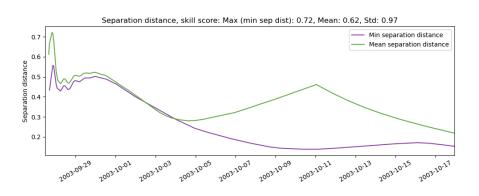




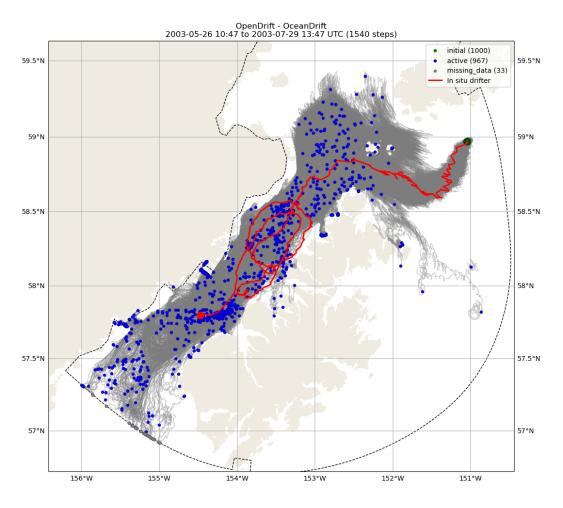


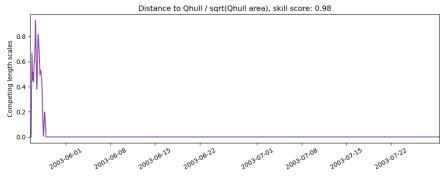


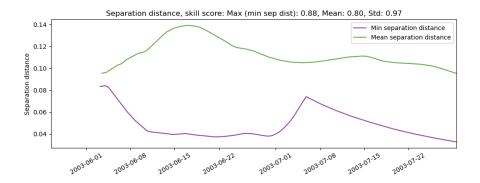




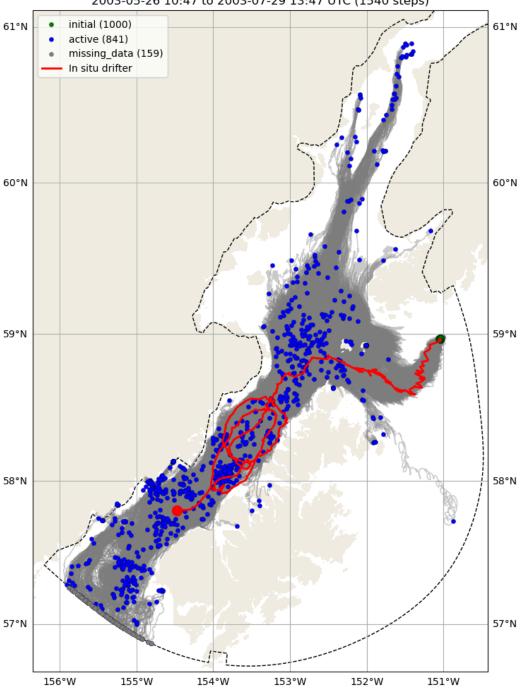
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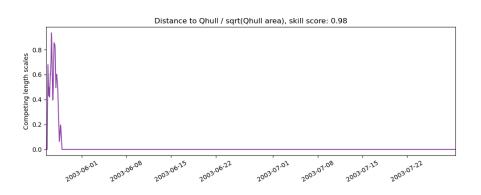


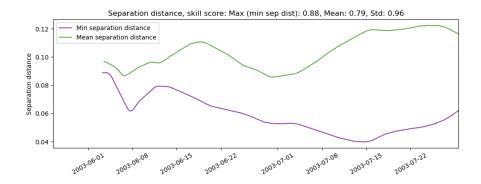




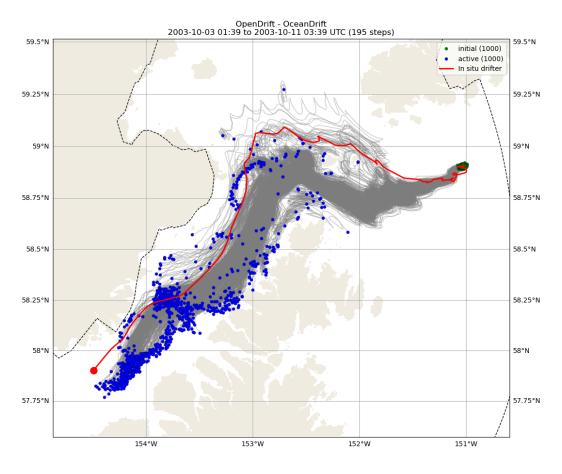
OpenDrift - OceanDrift 2003-05-26 10:47 to 2003-07-29 13:47 UTC (1540 steps)

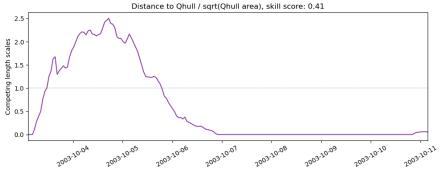


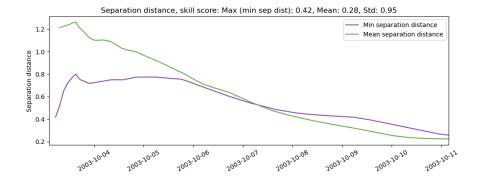


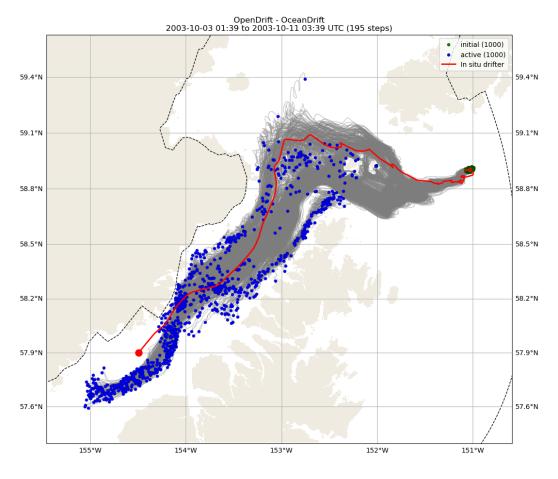


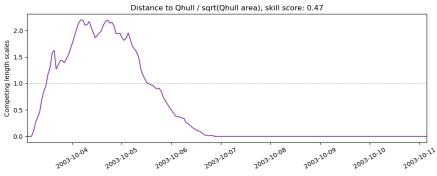
CIOFS

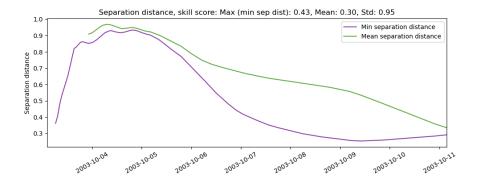




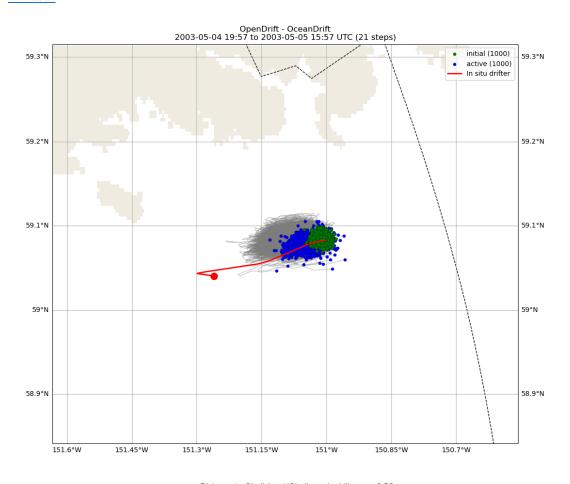


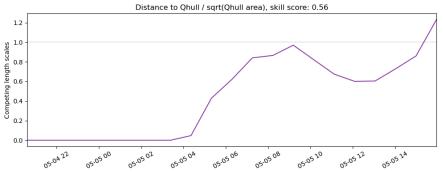


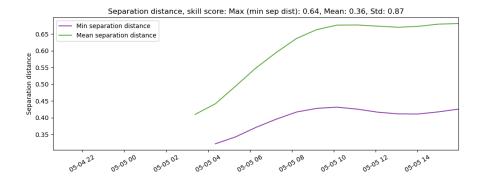


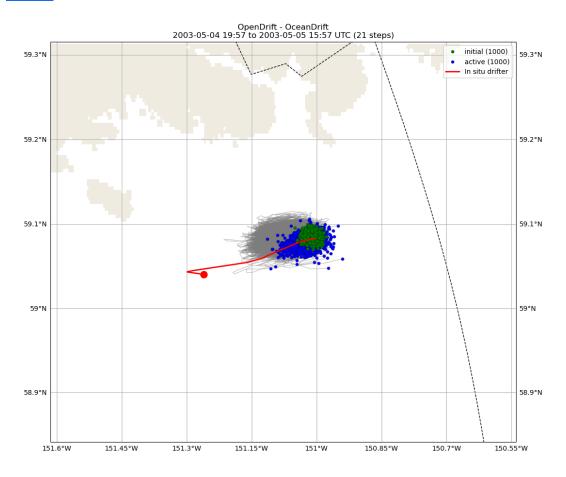


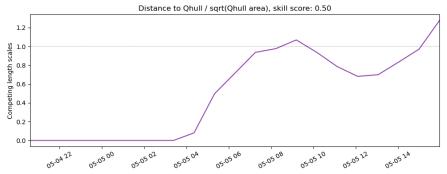
CIOFS

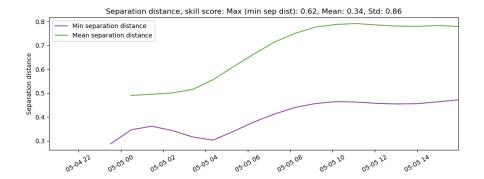




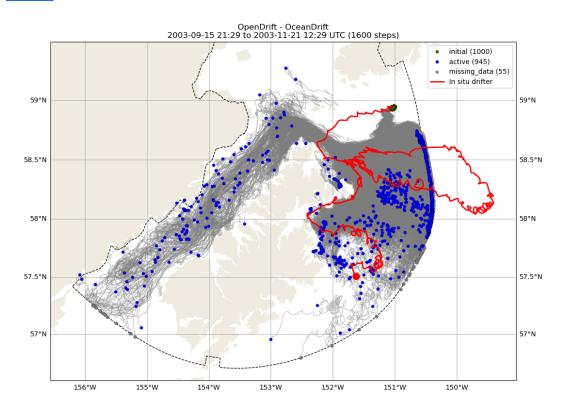


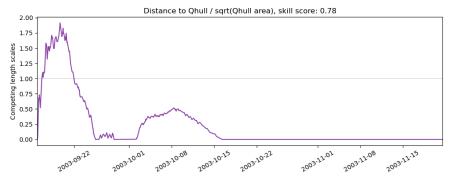


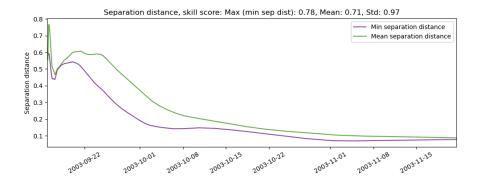


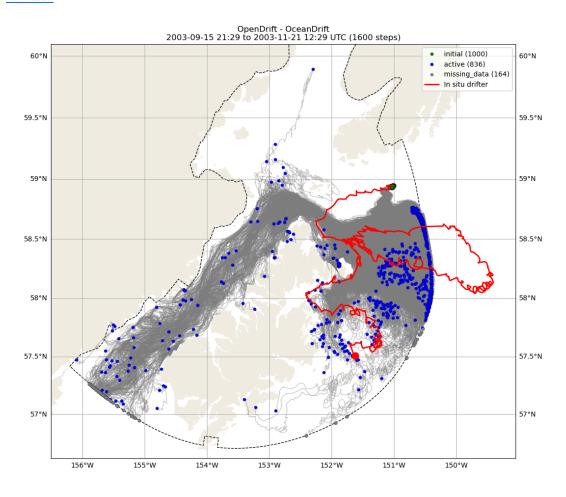


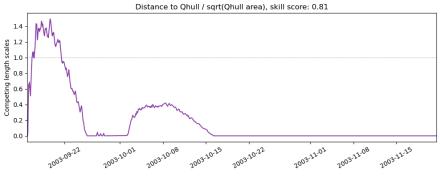
CIOFS

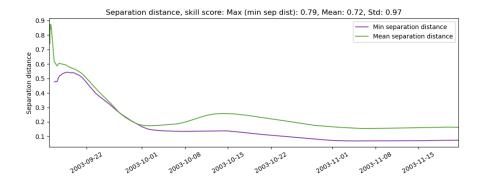




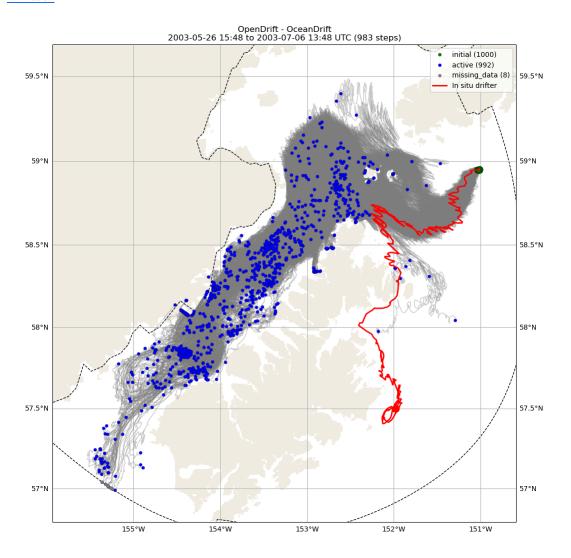


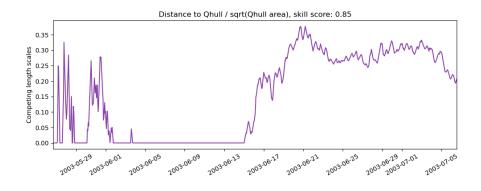


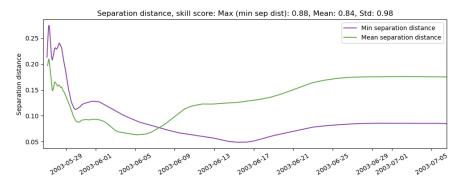




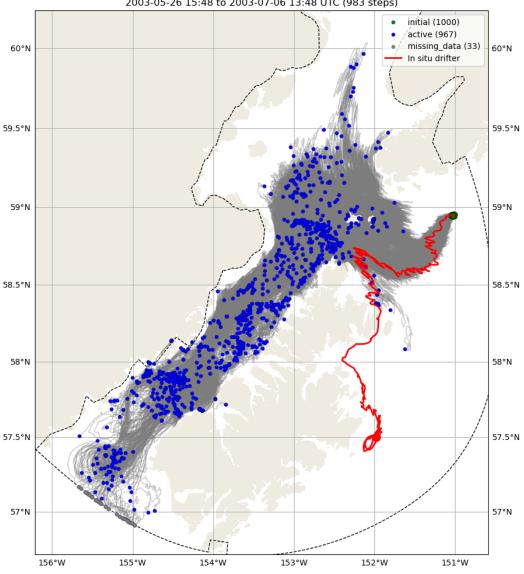
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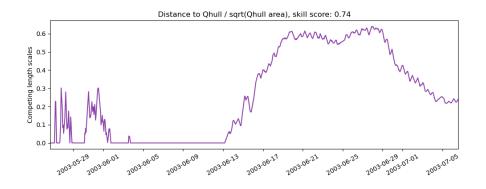


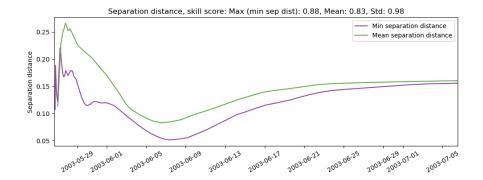




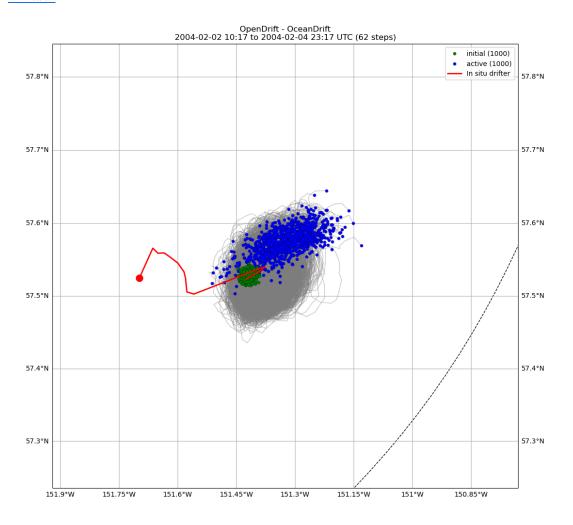
OpenDrift - OceanDrift 2003-05-26 15:48 to 2003-07-06 13:48 UTC (983 steps)

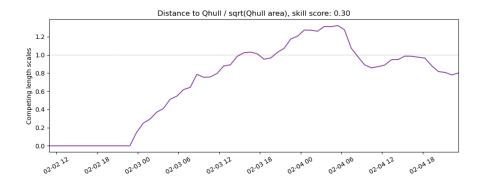


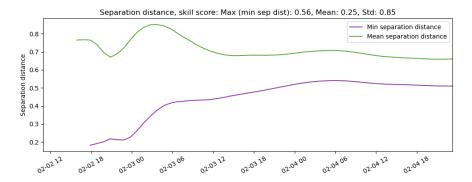


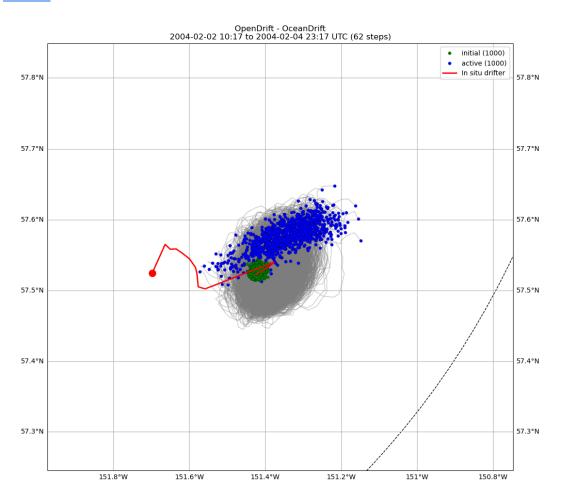


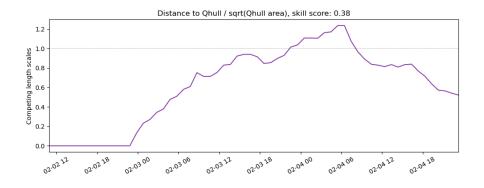
CIOFS

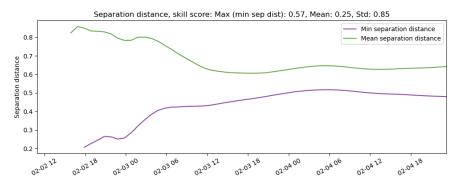




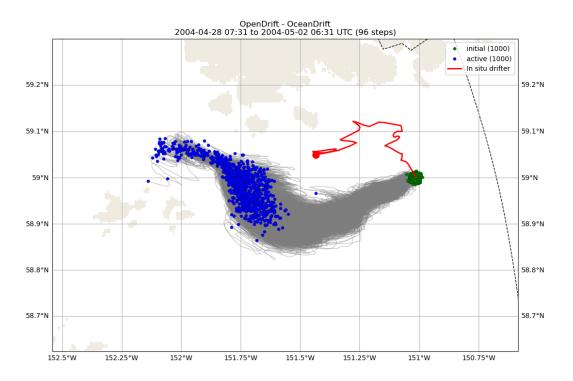


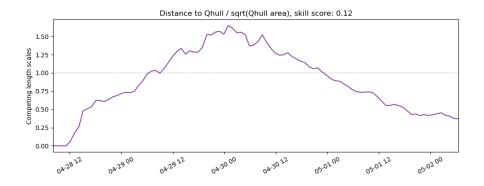


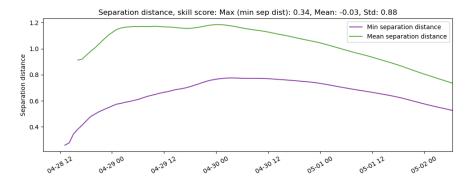


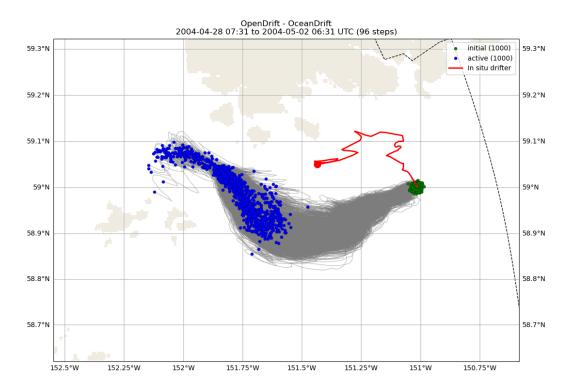


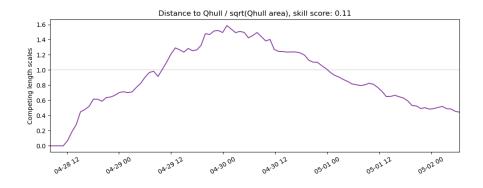
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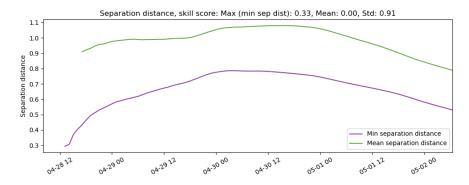




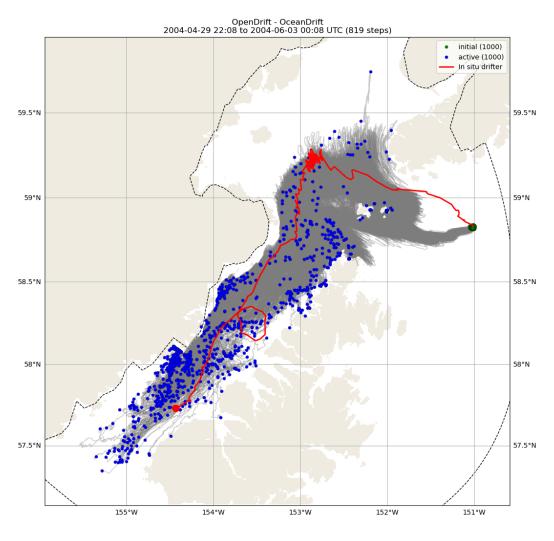


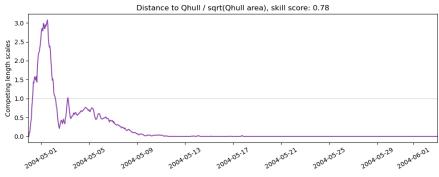


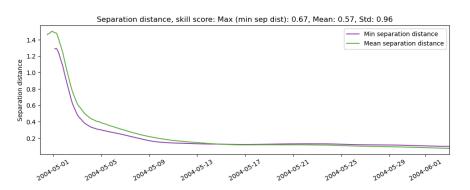


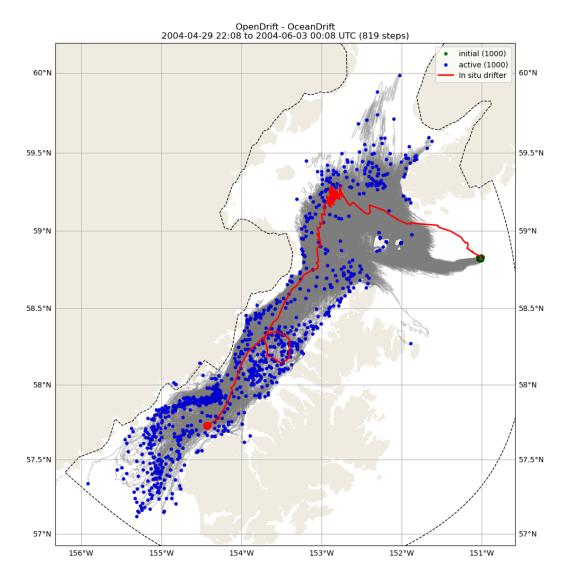


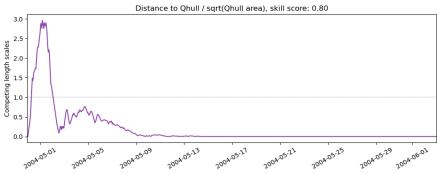
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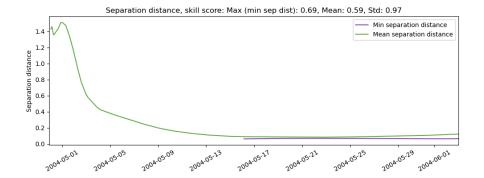




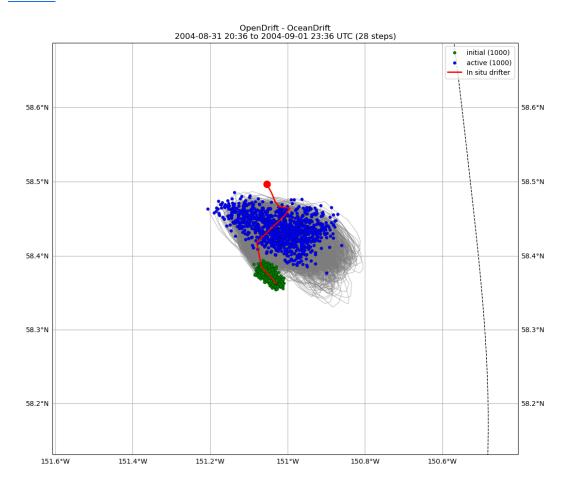


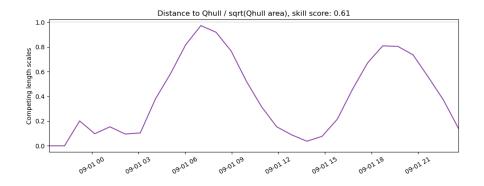


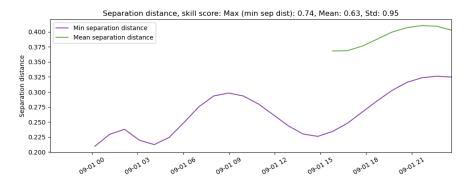


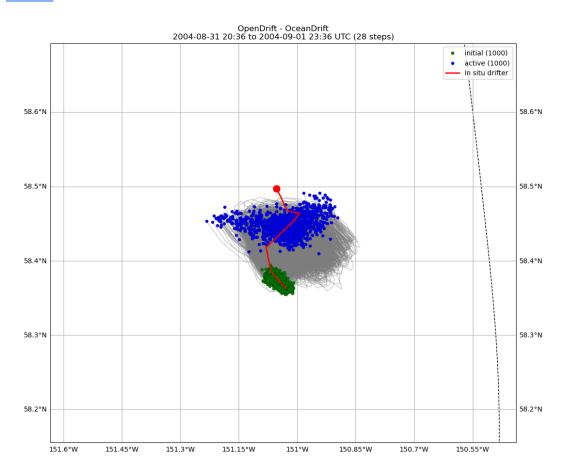


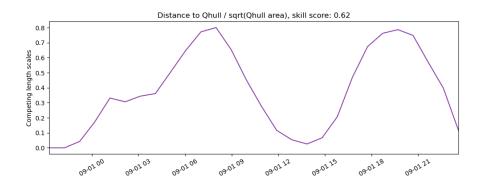
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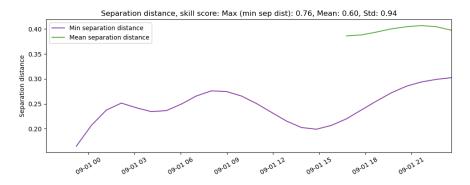




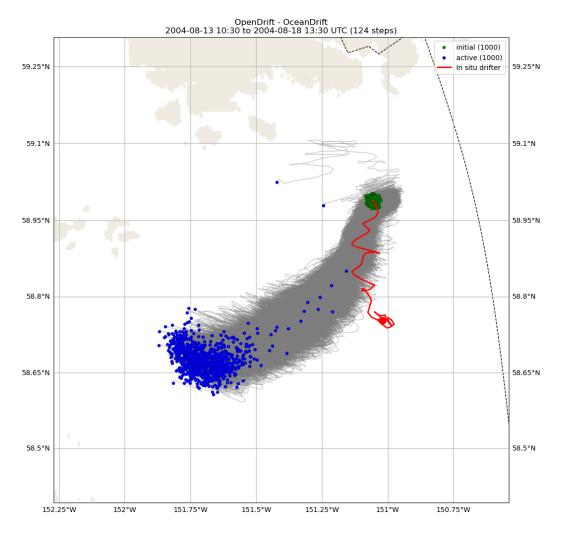


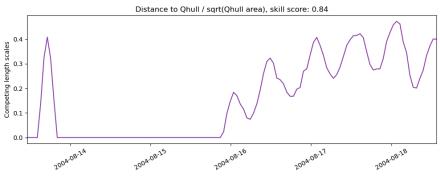


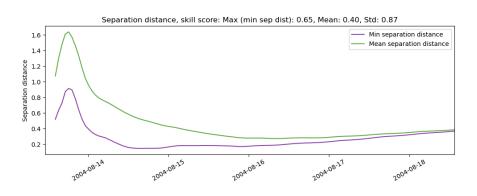


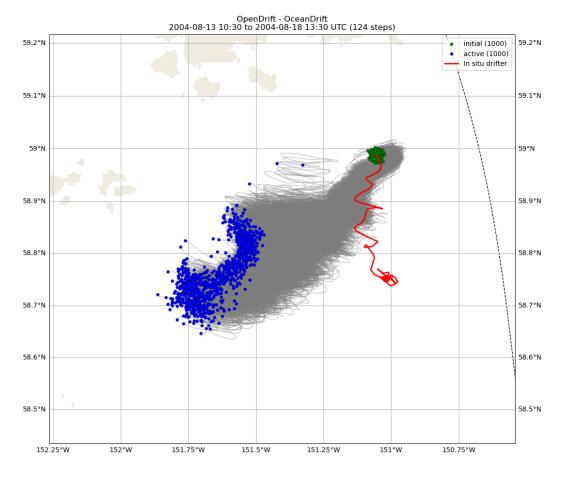


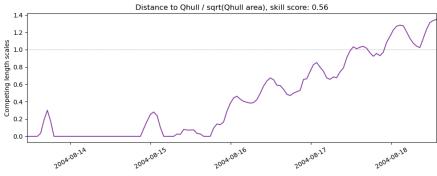
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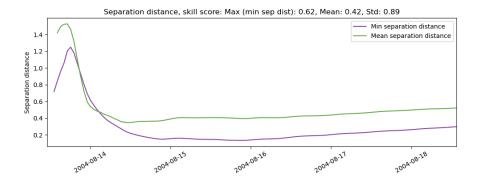




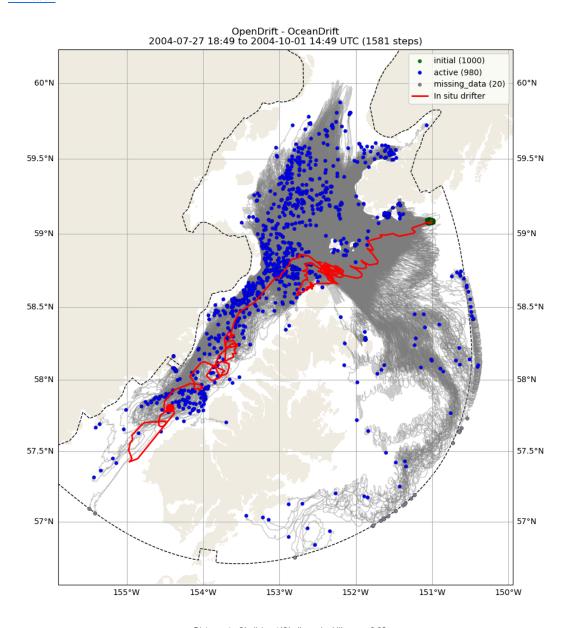


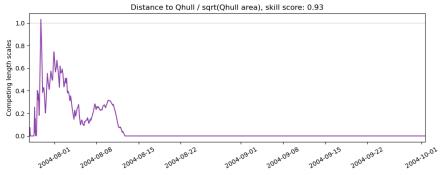


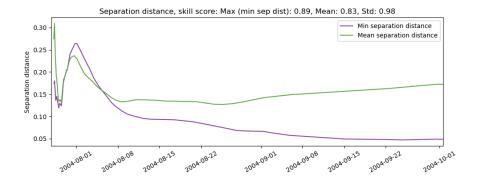




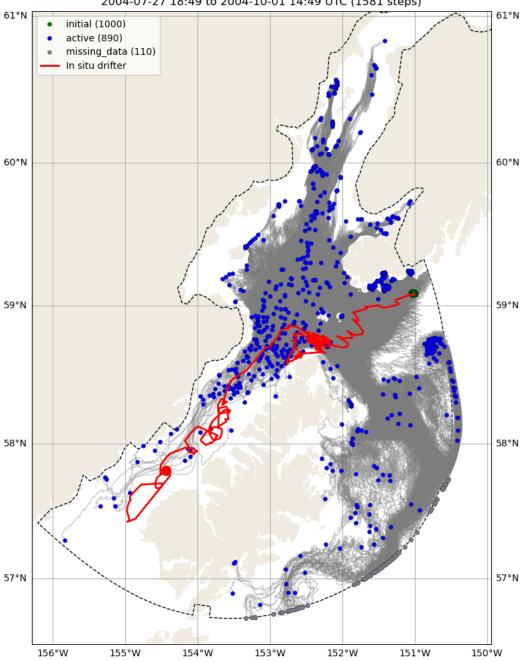
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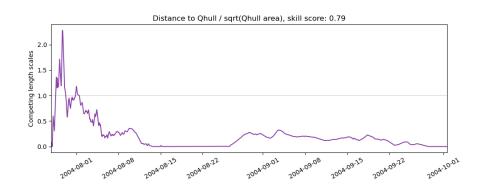


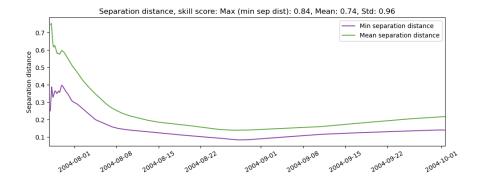




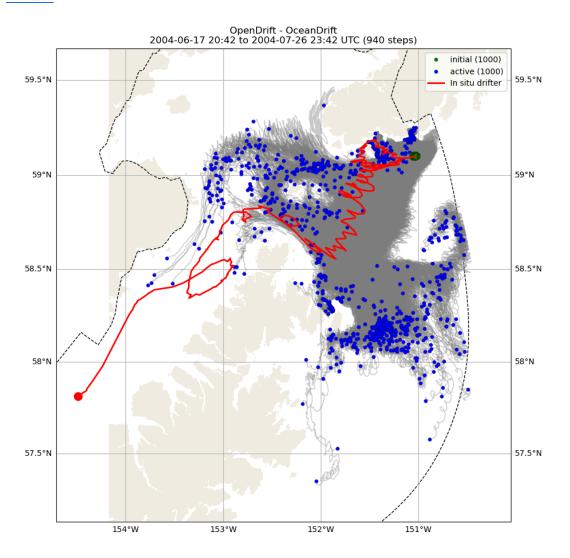
OpenDrift - OceanDrift 2004-07-27 18:49 to 2004-10-01 14:49 UTC (1581 steps)

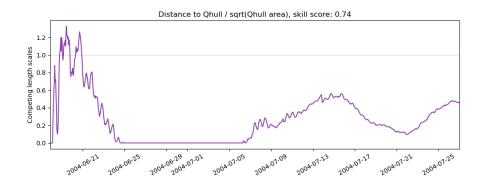


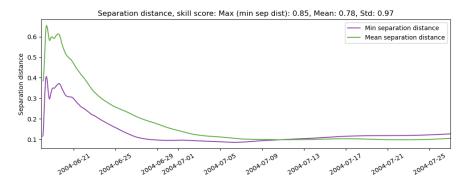




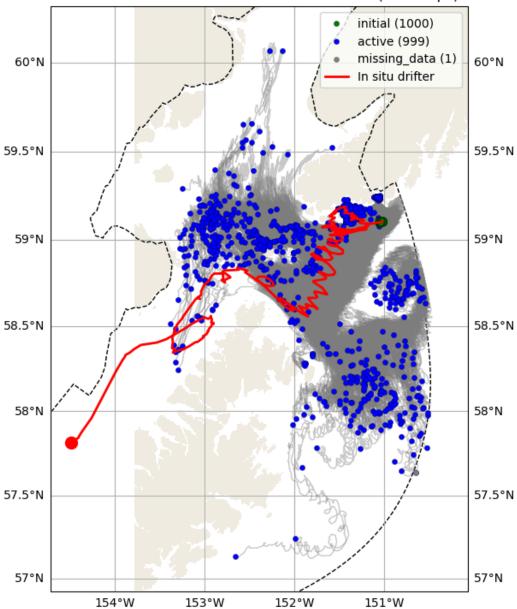
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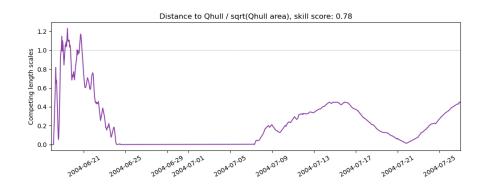


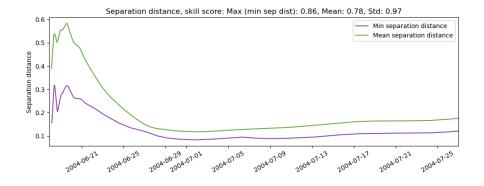




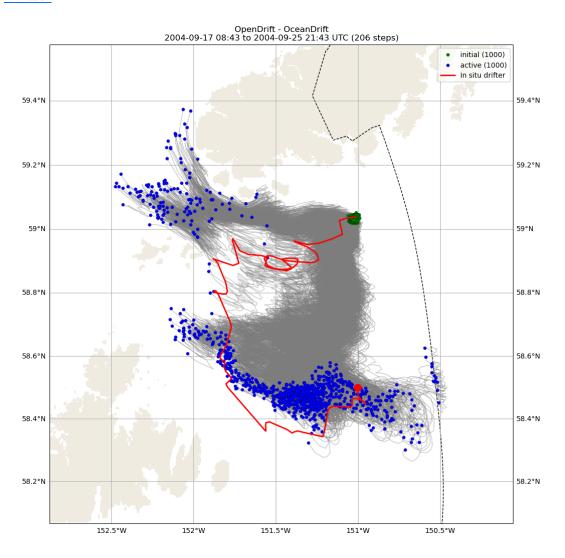
OpenDrift - OceanDrift 2004-06-17 20:42 to 2004-07-26 23:42 UTC (940 steps)

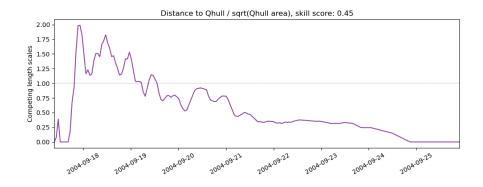


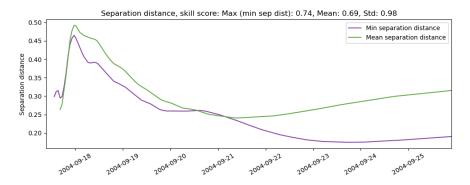


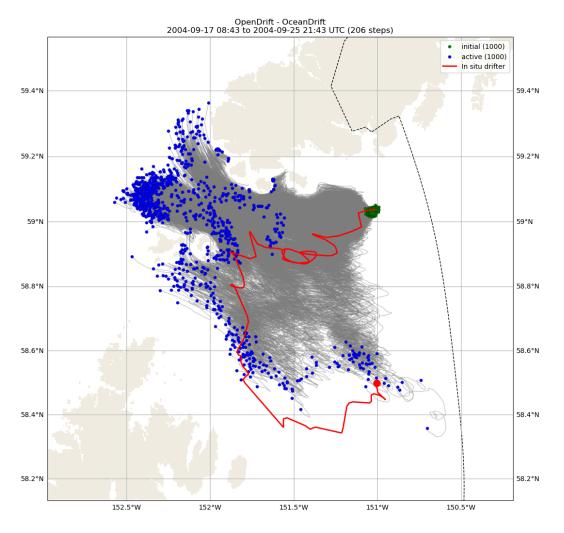


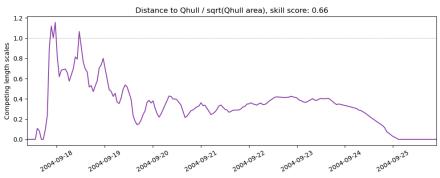
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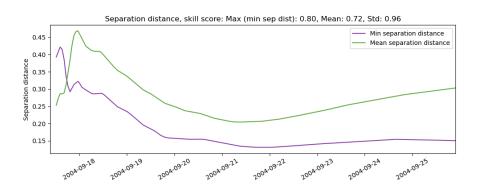




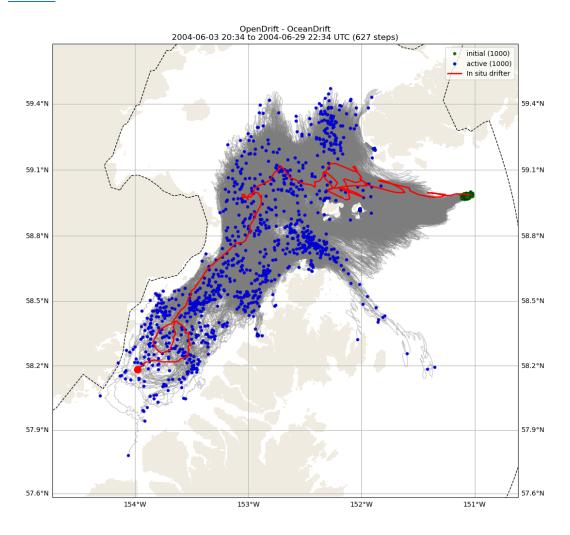


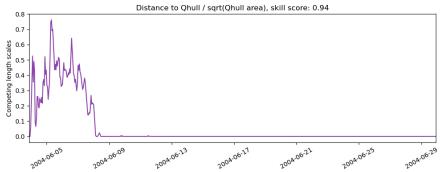


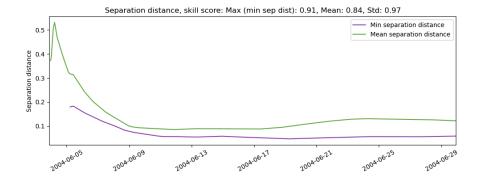


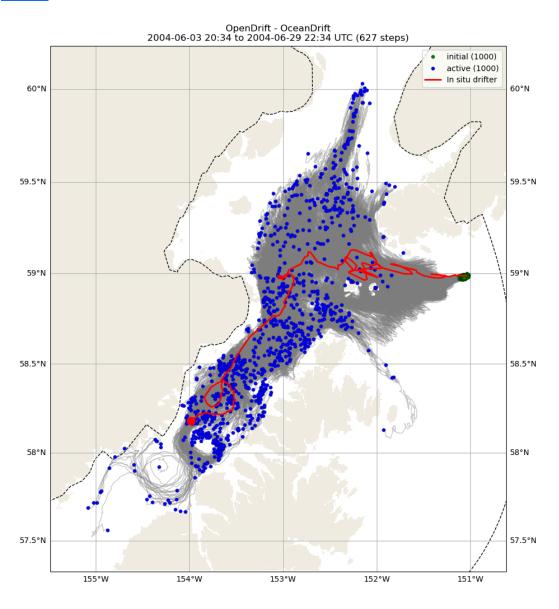


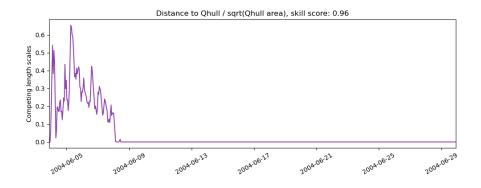
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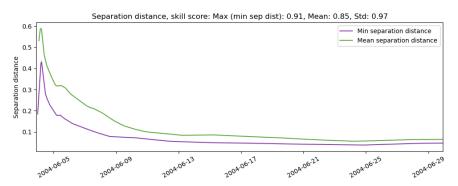




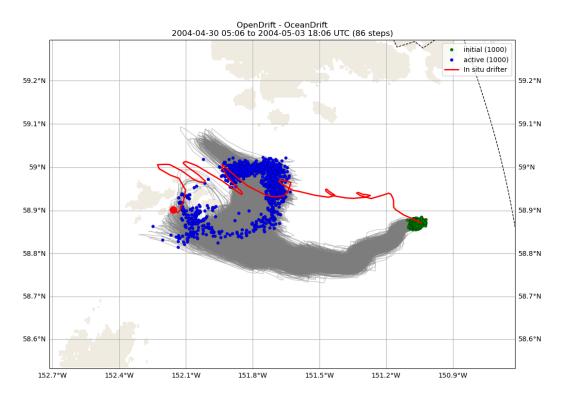


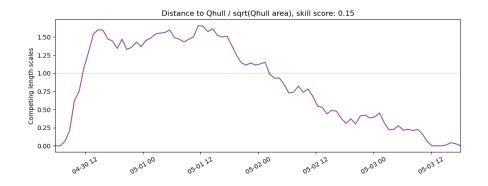


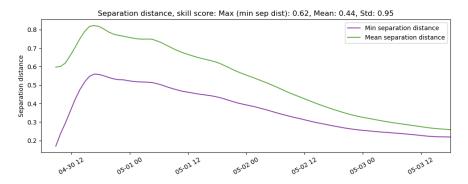


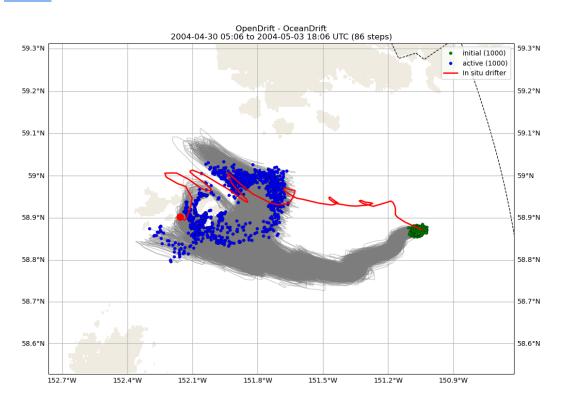


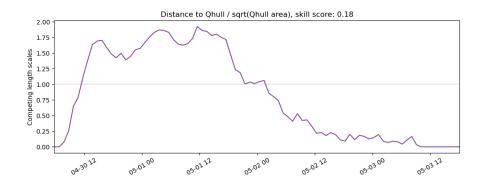
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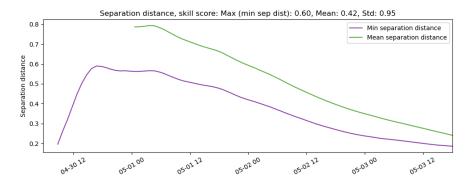




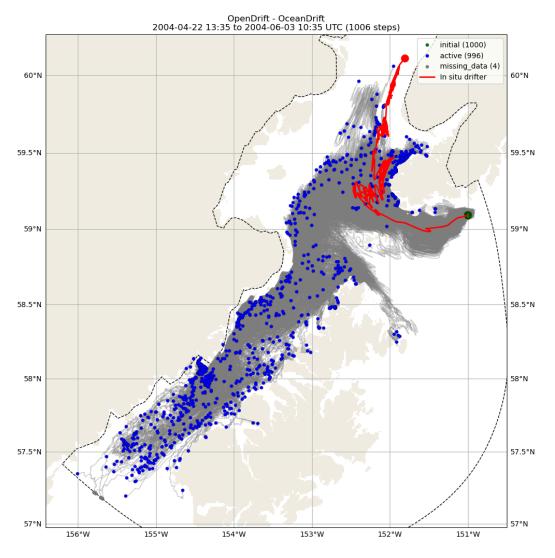


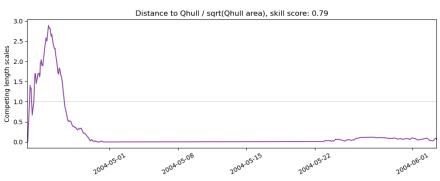


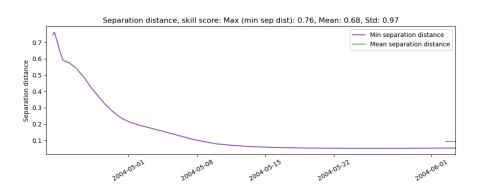


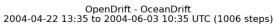


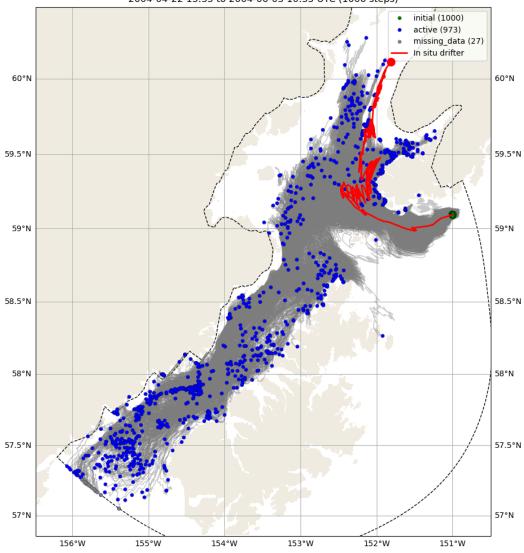
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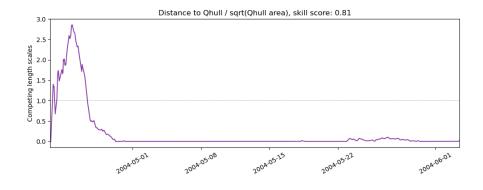


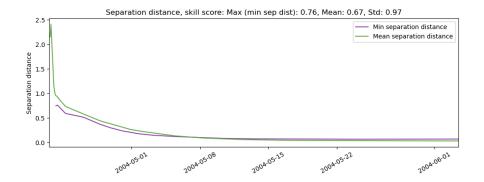




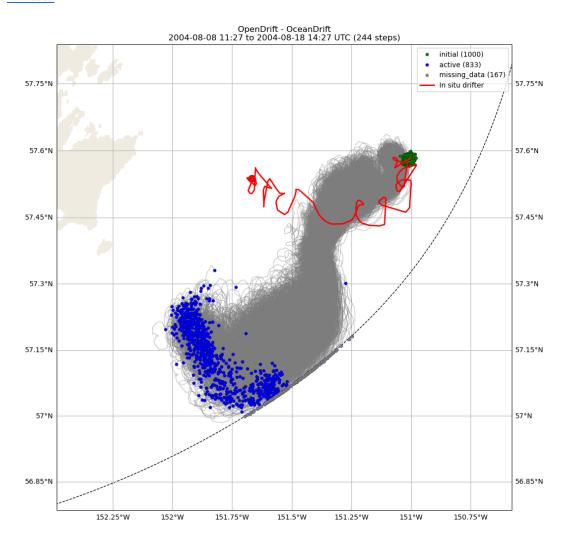


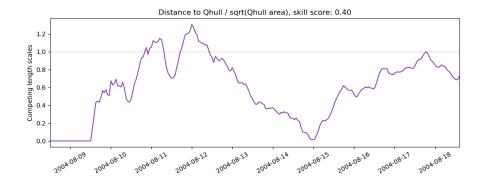


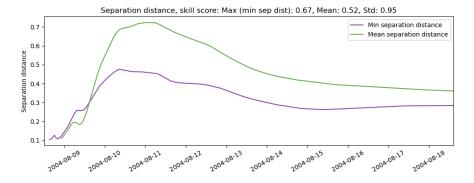




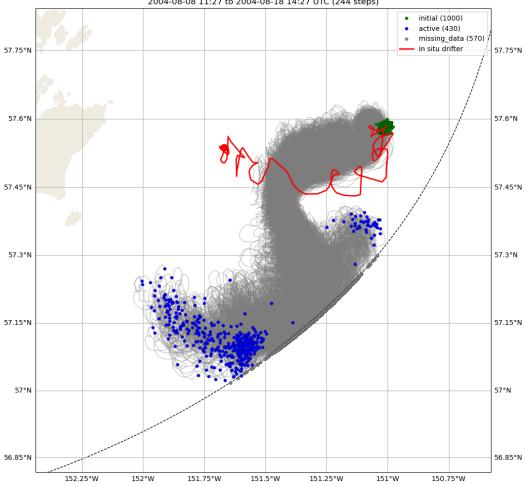
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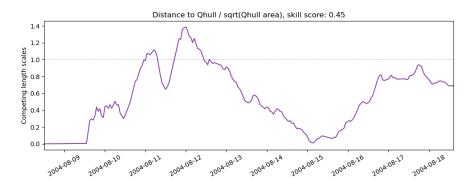


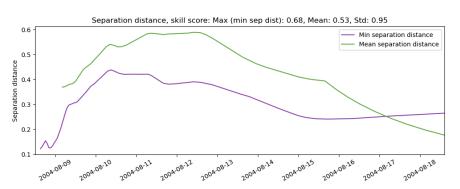




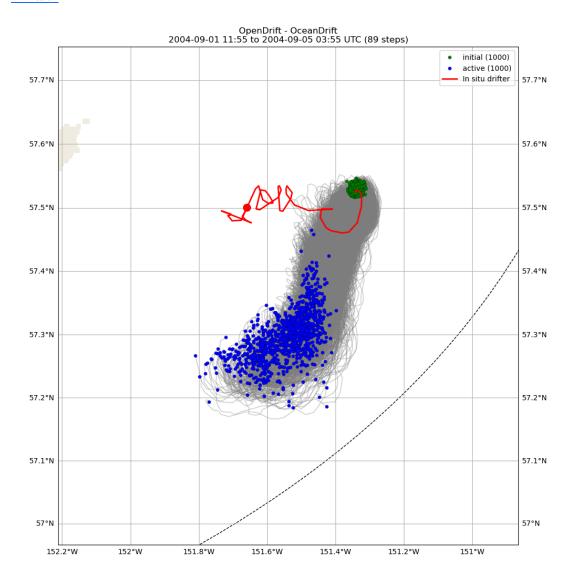
OpenDrift - OceanDrift 2004-08-08 11:27 to 2004-08-18 14:27 UTC (244 steps)

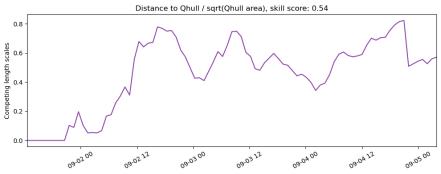


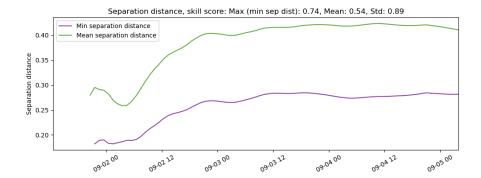


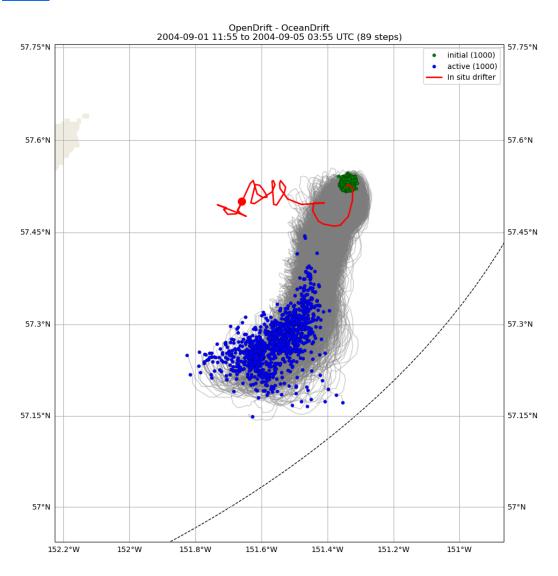


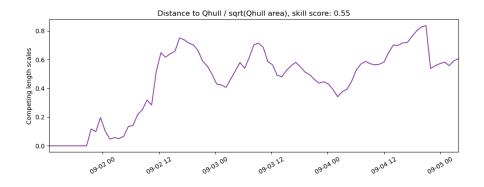
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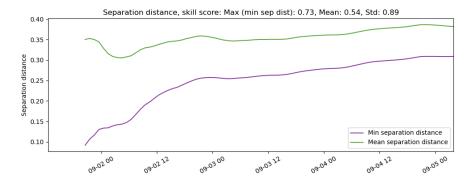




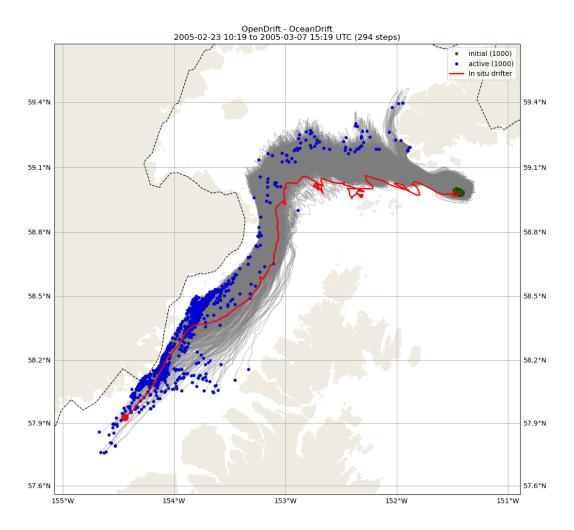


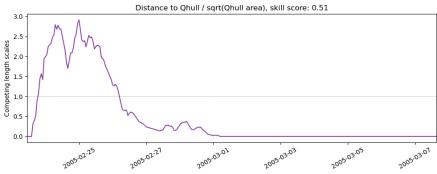


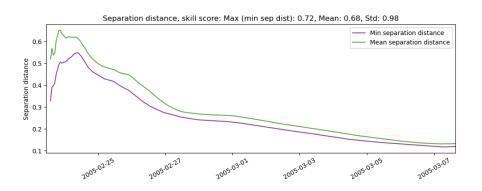


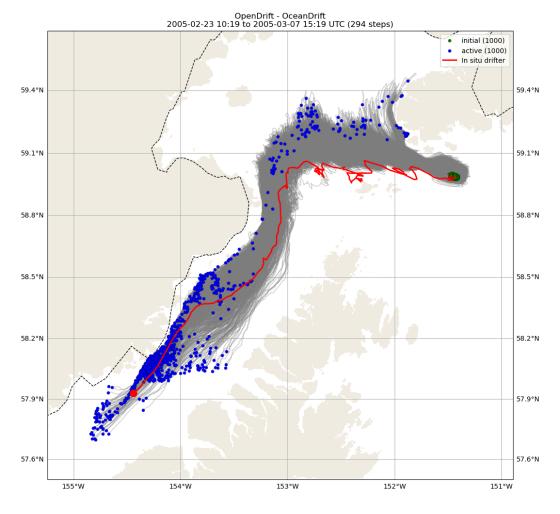


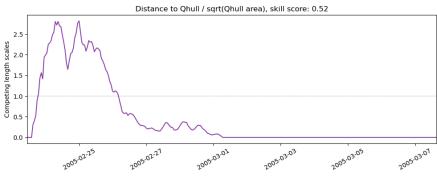
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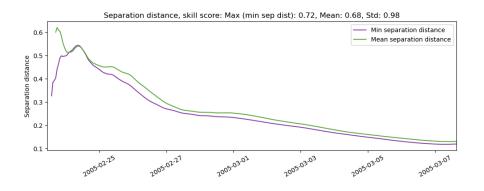




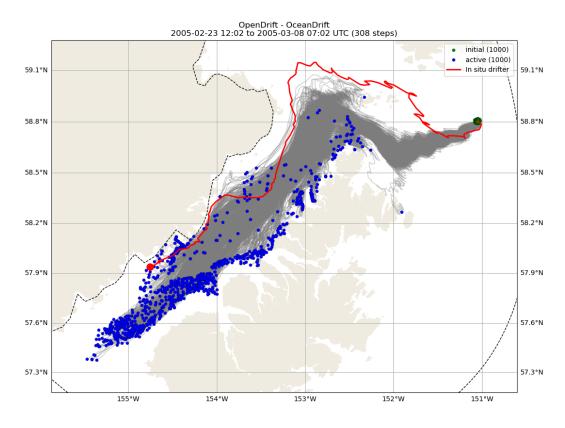


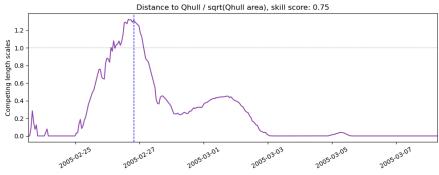


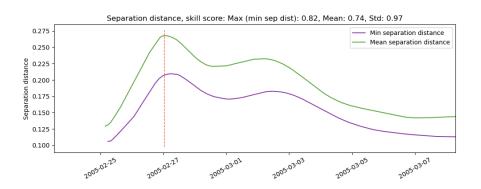




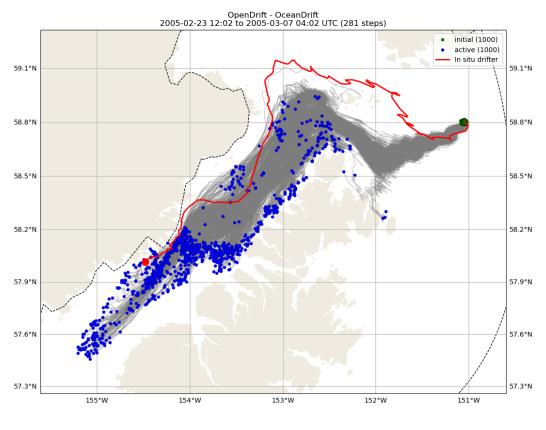
CIOFS

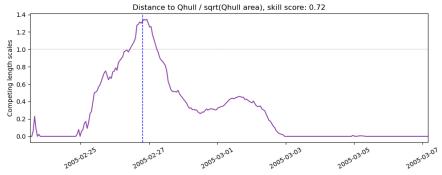


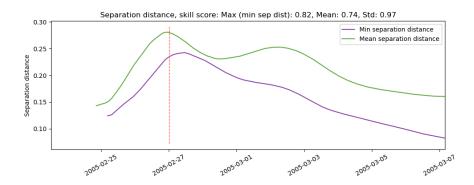




• Animation



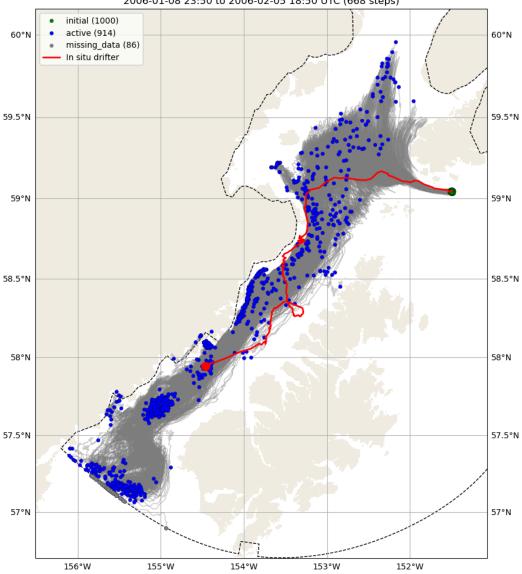


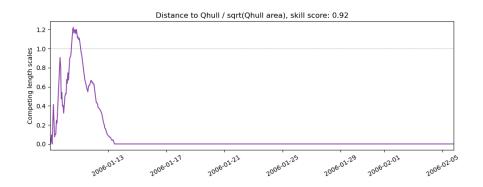


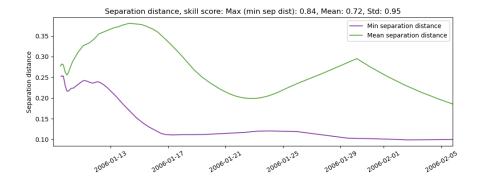
53306_y2005

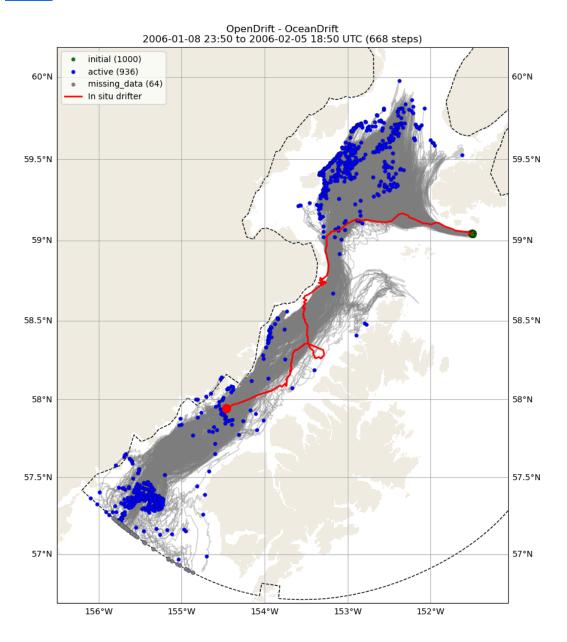
CIOFS

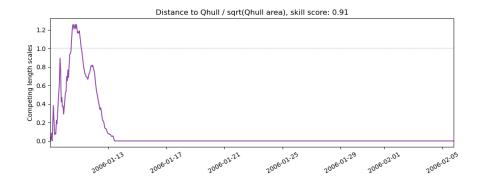
OpenDrift - OceanDrift 2006-01-08 23:50 to 2006-02-05 18:50 UTC (668 steps)

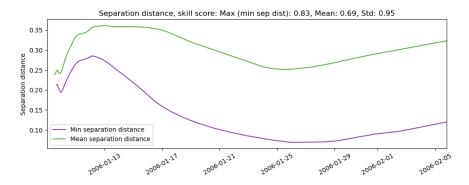




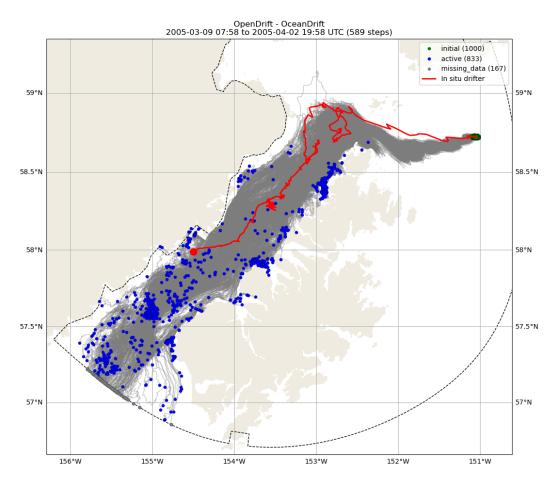


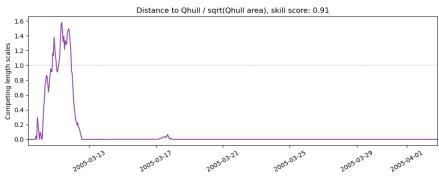


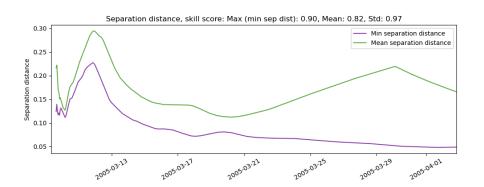


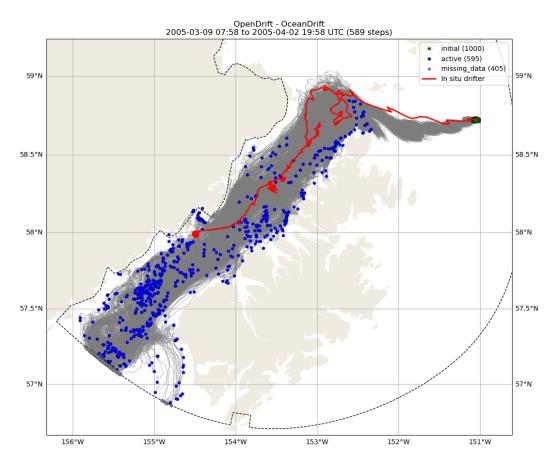


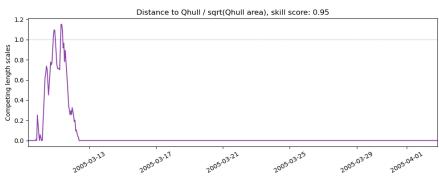
CIOFS

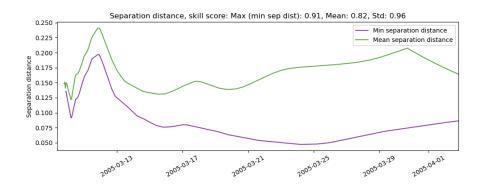




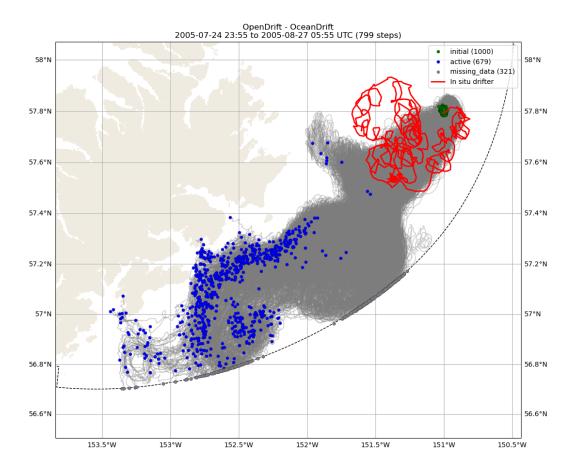


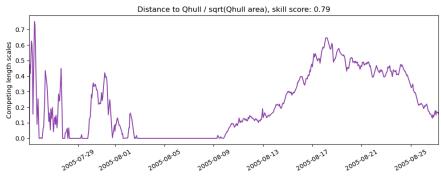


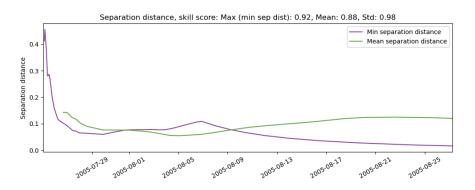


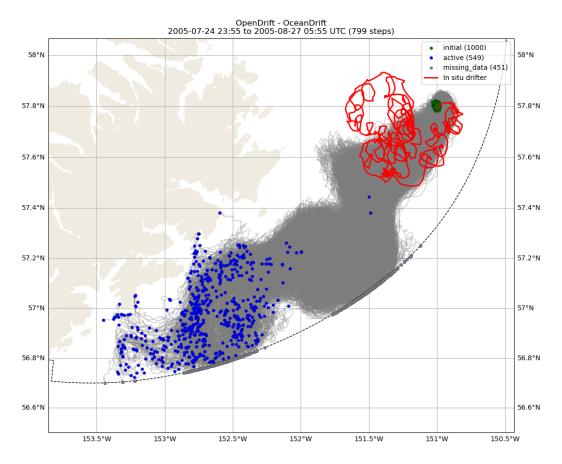


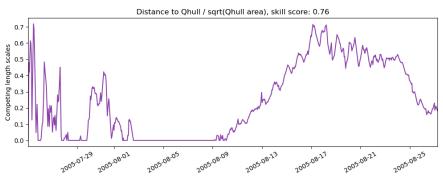
CIOFS

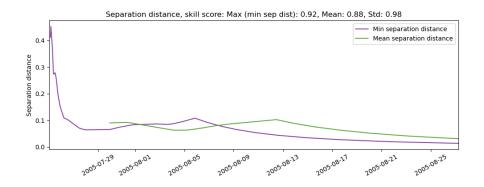




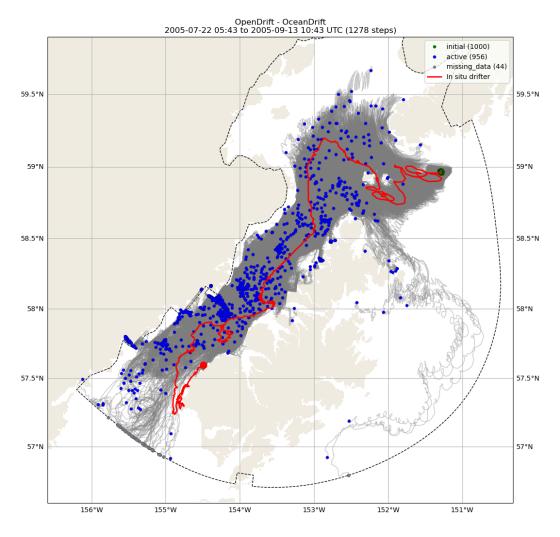


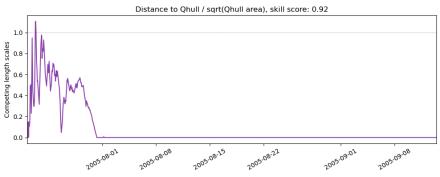


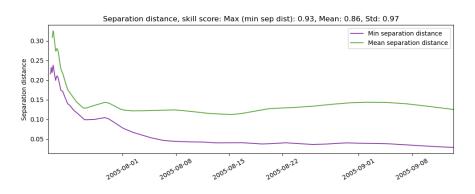


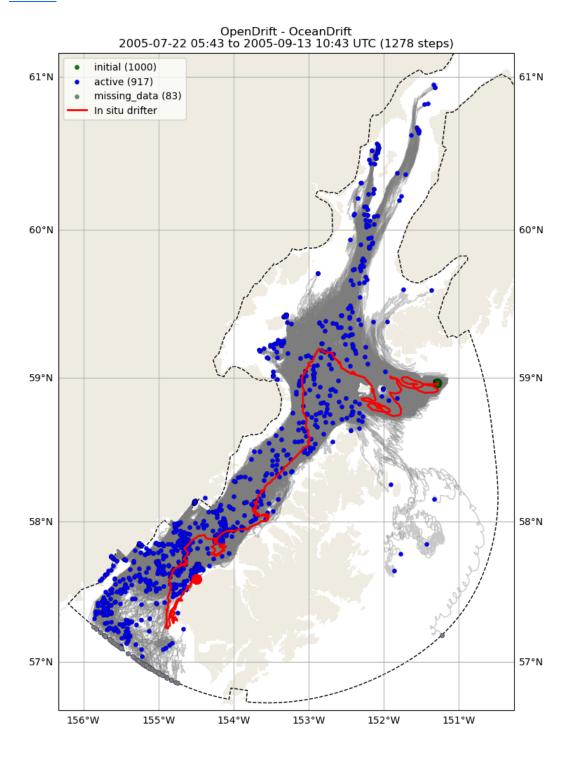


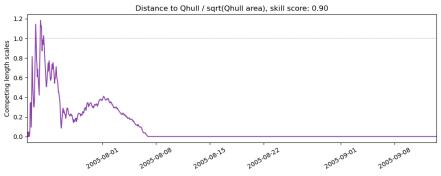
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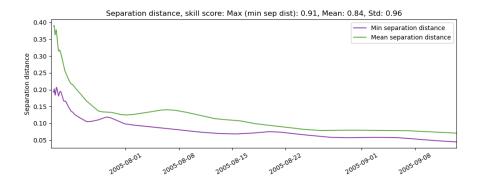




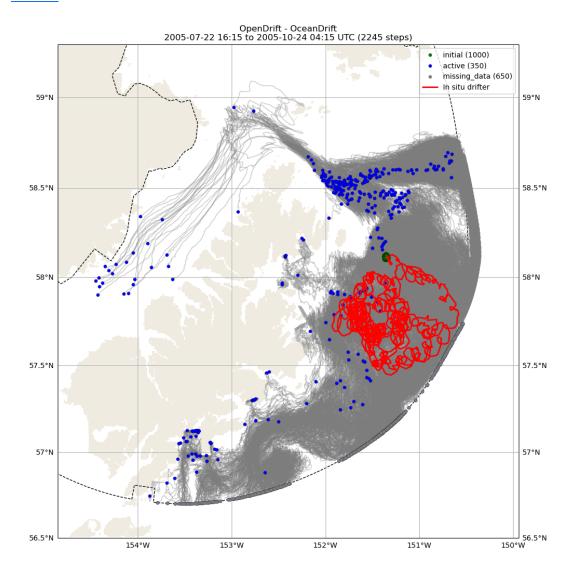


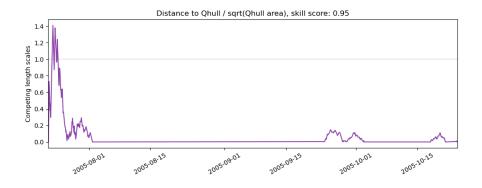


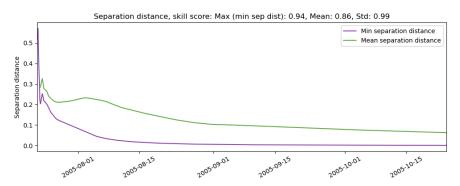


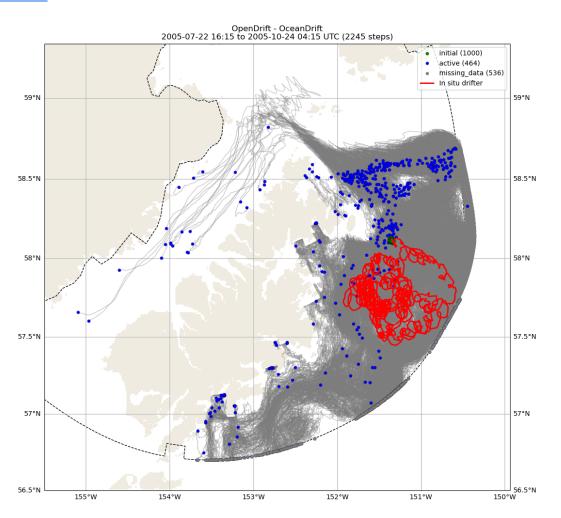


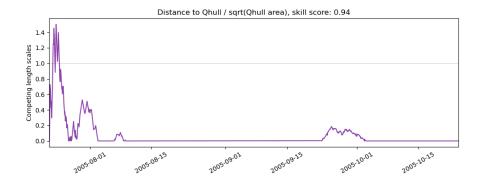
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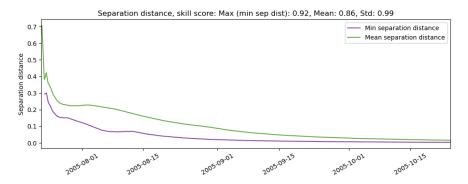




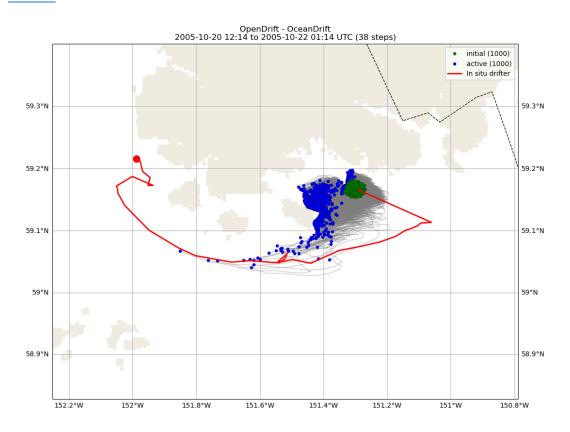


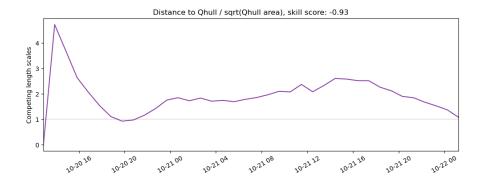


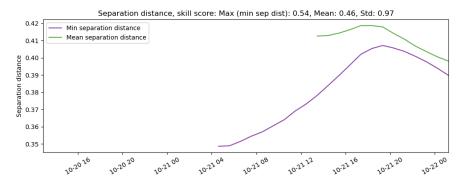


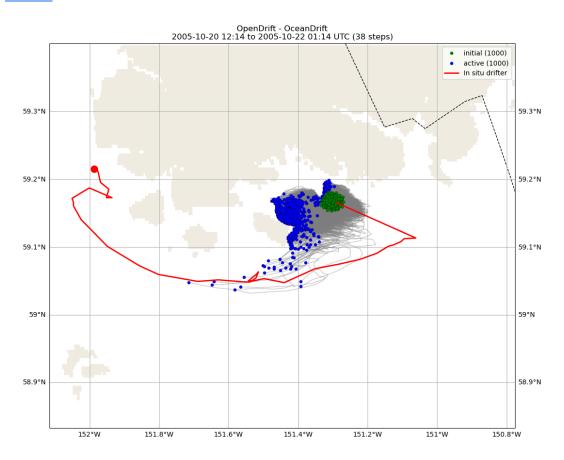


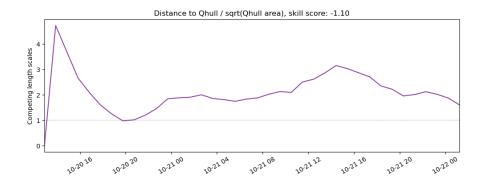
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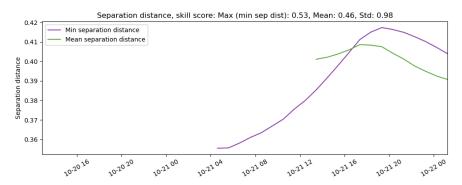




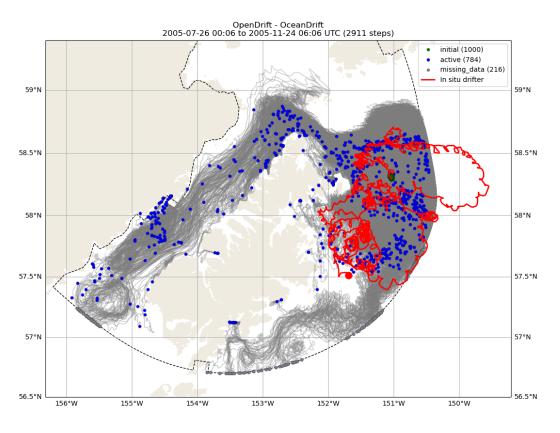


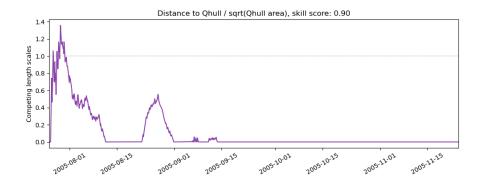


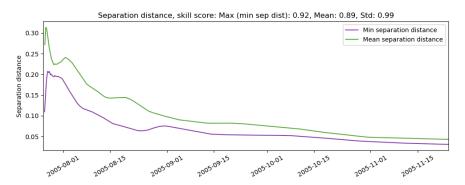


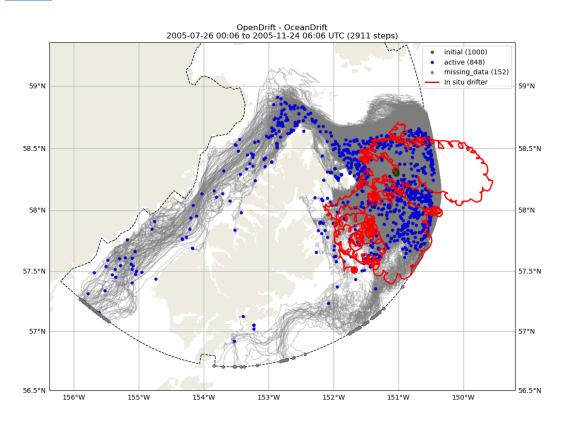


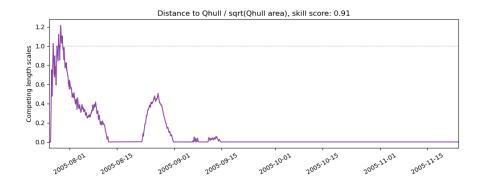
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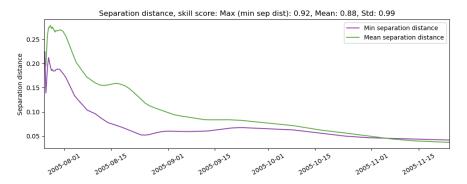




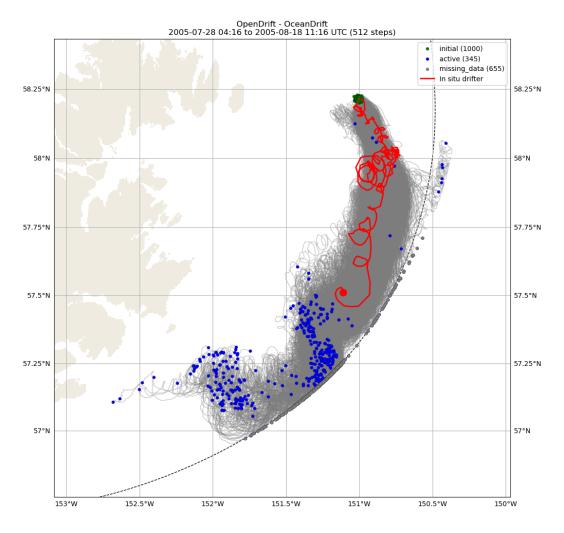


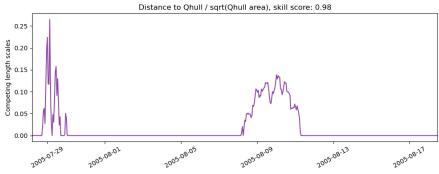


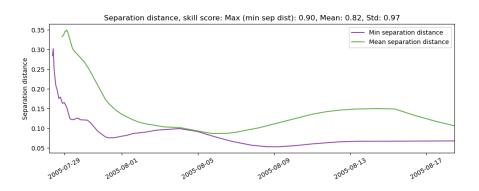


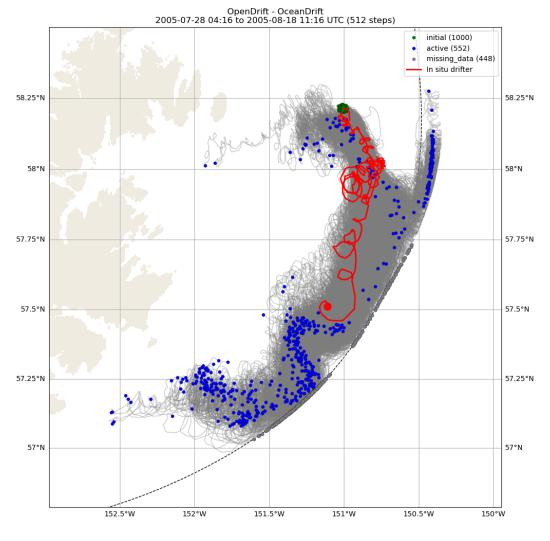


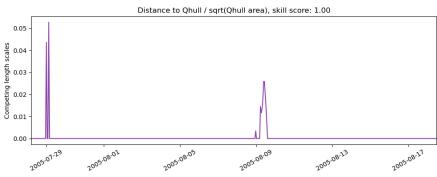
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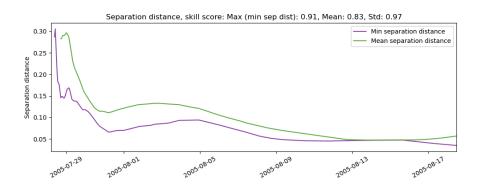












Drifters (UAF)

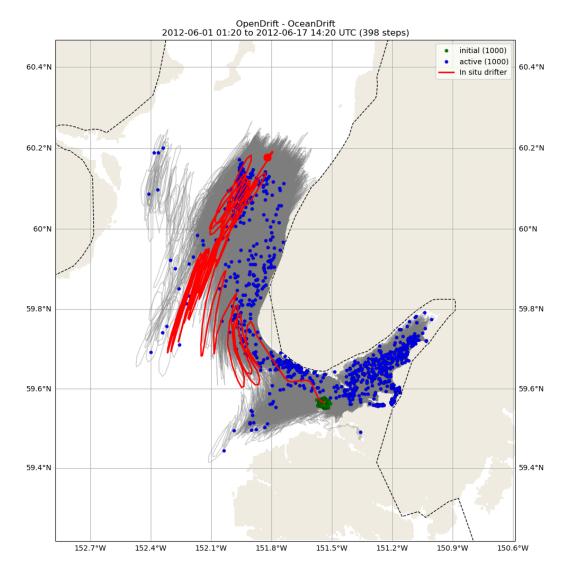
Drifters run by Mark Johnson and others out of UAF with various years and drogue depths.

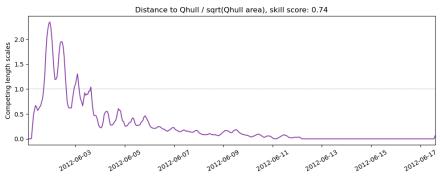
- 2003: 7.5m (Cook Inlet)
- 2004: 5m (Cook Inlet)
- 2005: 5m (Cook Inlet)
- 2006: 5m (Cook Inlet)
- 2012: 1m (Cook Inlet), 15m (Cook Inlet)
- 2013: 1m (Cook Inlet), 15m (Cook Inlet)
- 2014: 1m (Cook Inlet)
- 2019: 1m (Kachemak Bay, Lynn Canal)
- 2020: 1m (Kachemak Bay, Lynn Canal)

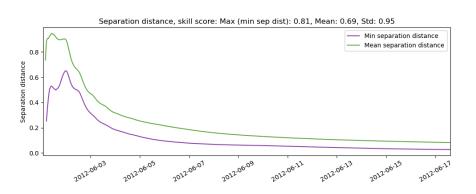
Descriptive summary of later drifter deployment: https://www.alaska.edu/epscor/about/newsletters/May-2022-feature-current-events.php, data portal: https://ak-epscor.portal.axds.co/

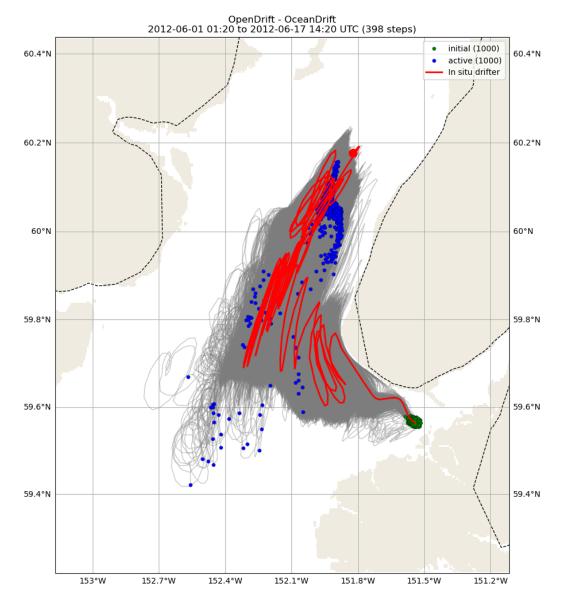
CIDrifter0001Y2012_MicrostarSurfaceAt1M_deployment1

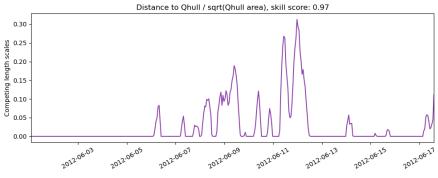
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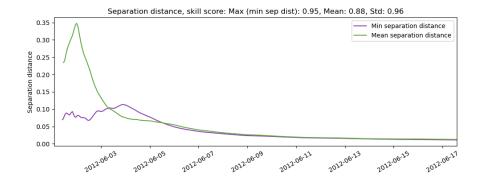






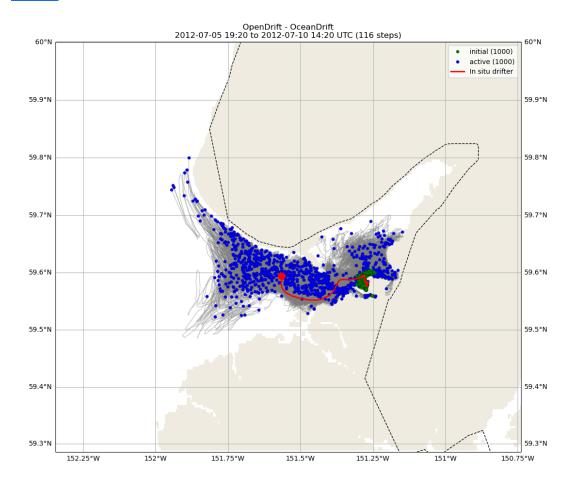


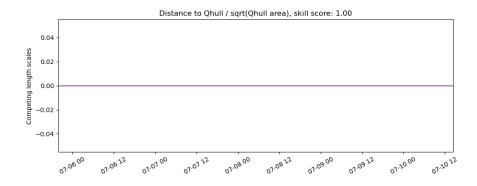


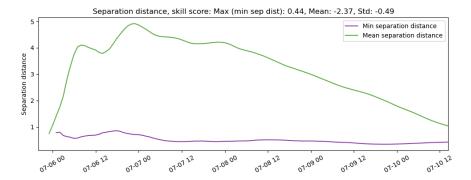


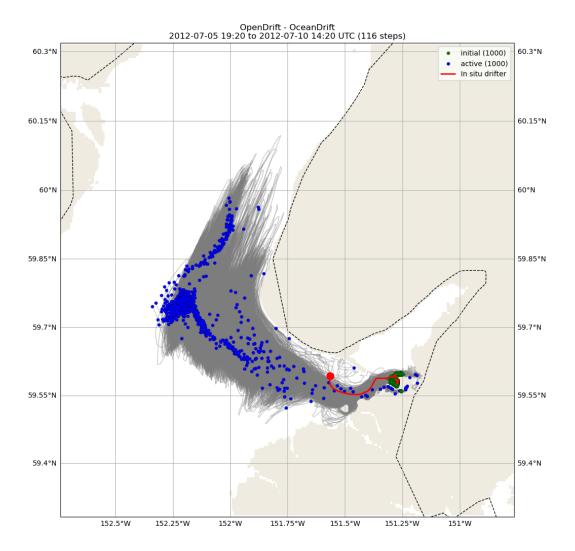
CIDrifter0001Y2012_MicrostarSurfaceAt1M_deployment2

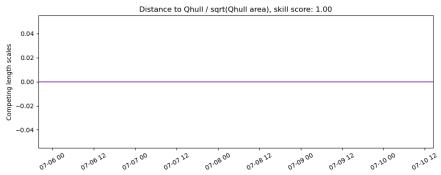
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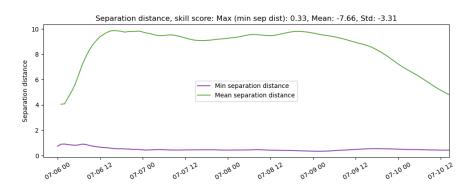






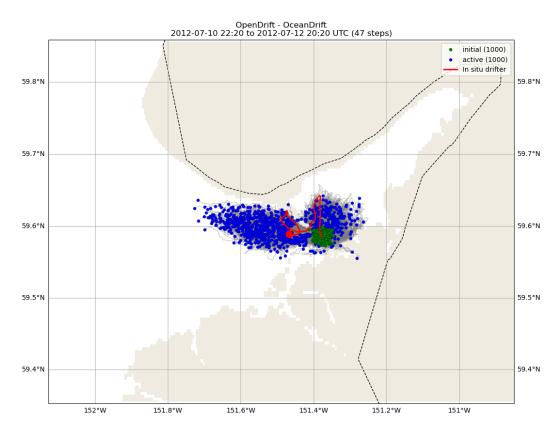


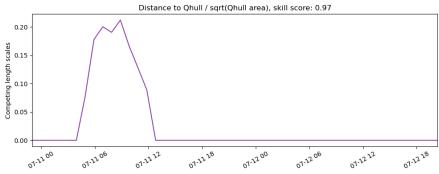


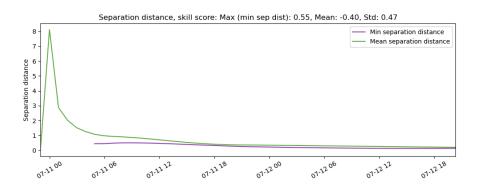


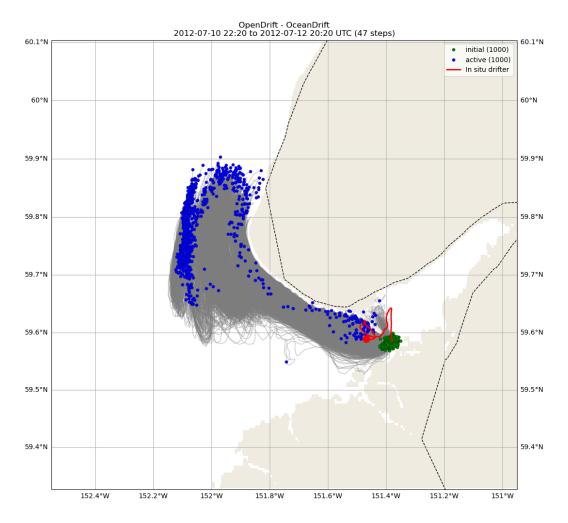
CIDrifter0001Y2012_MicrostarSurfaceAt1M_deployment3

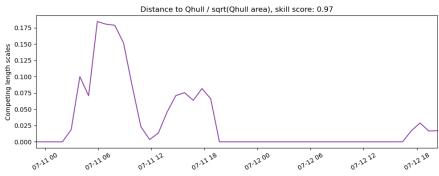
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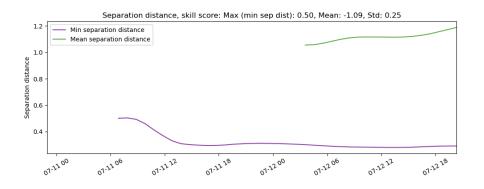






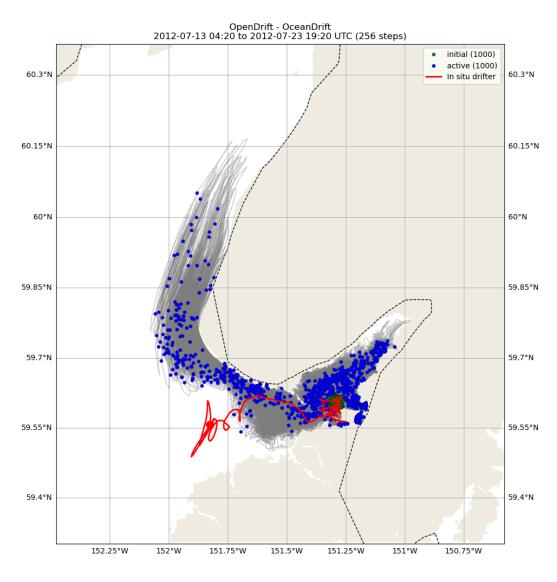


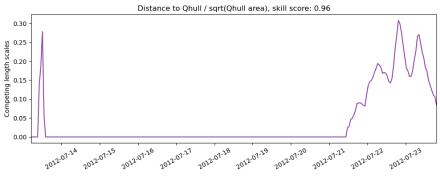


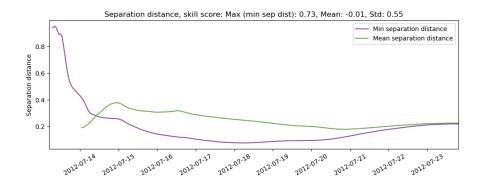


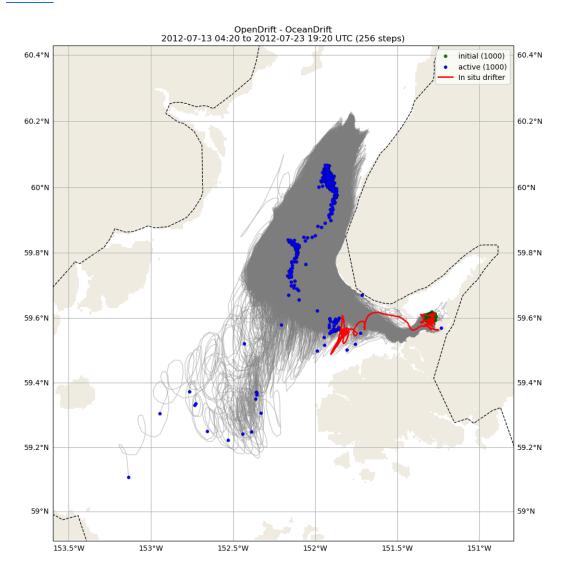
CIDrifter0001Y2012_MicrostarSurfaceAt1M_deployment4

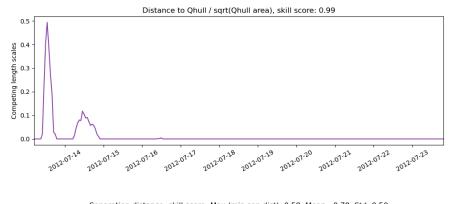
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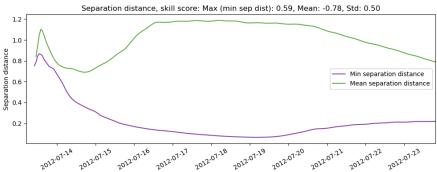






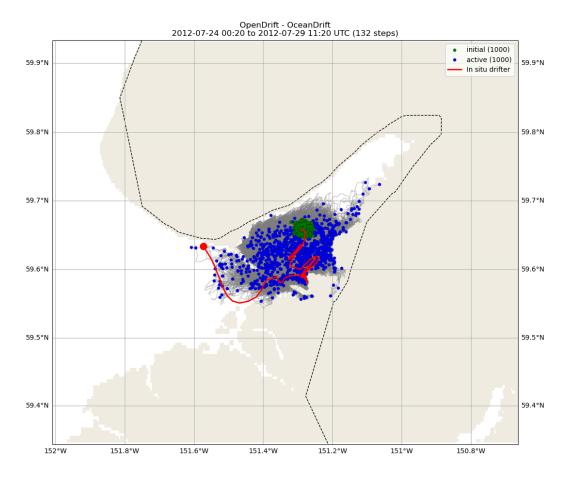


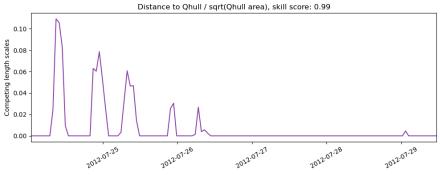


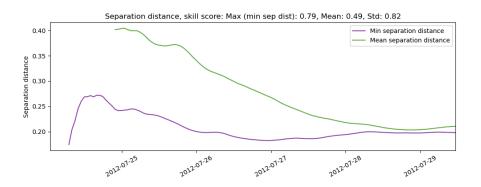


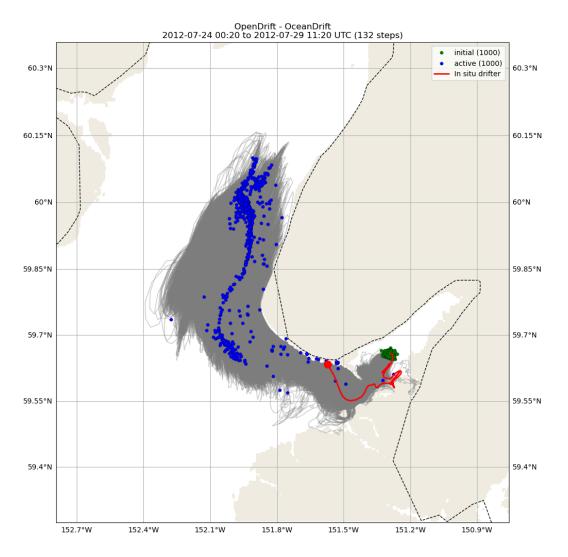
$CID rifter 0001Y2012_Microstar Surface At 1M_deployment 5$

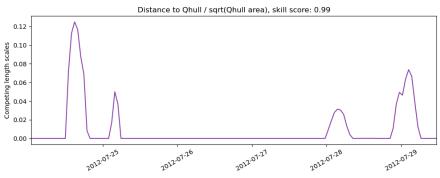
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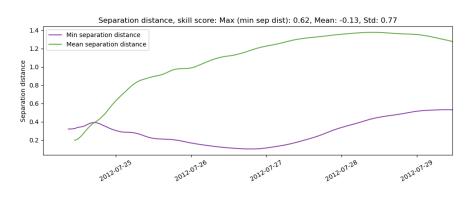






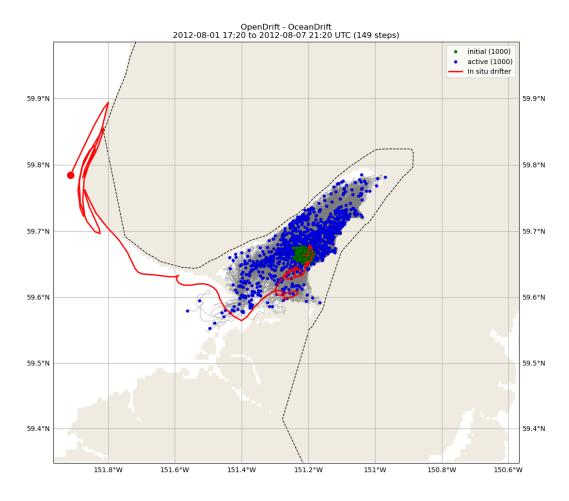


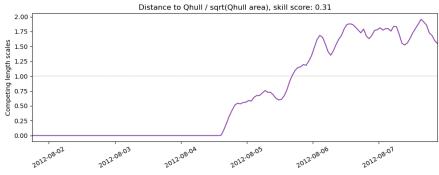


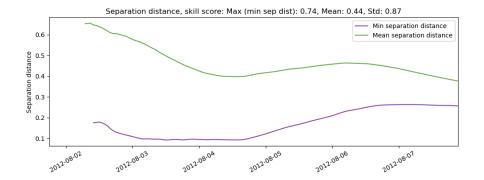


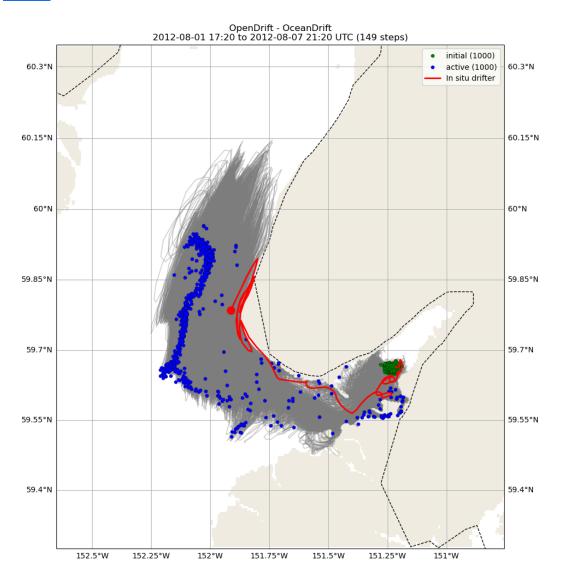
$CID rifter 0001Y2012_Microstar Surface At 1M_deployment 6$

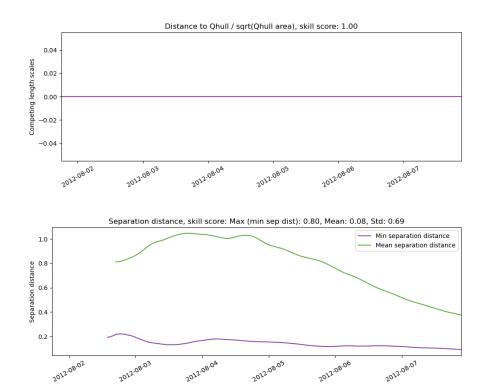
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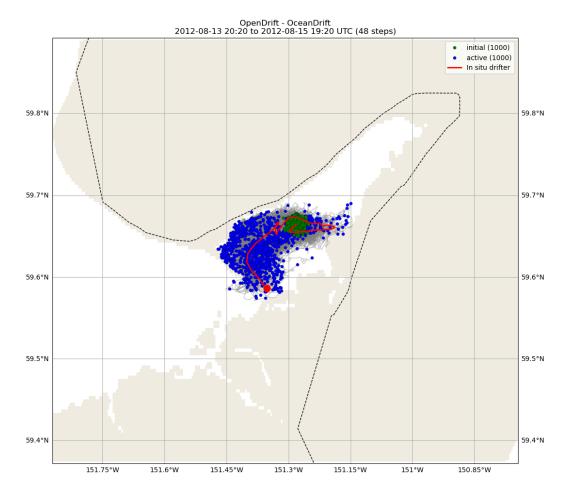


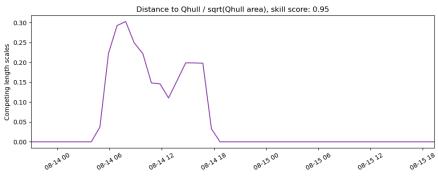


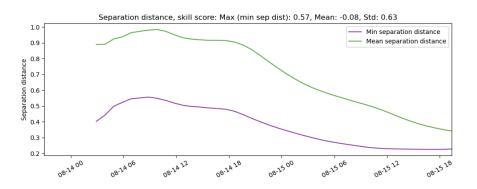


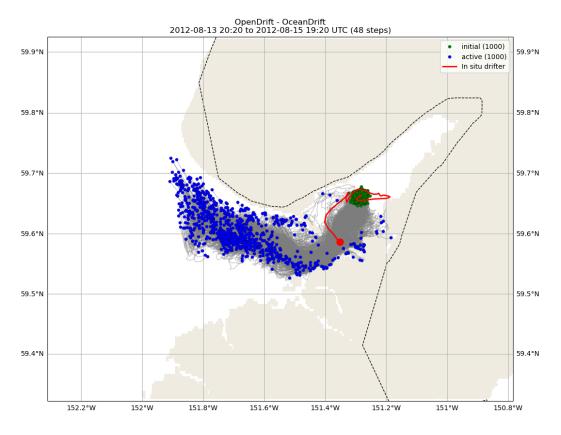
$CID rifter 0001Y2012_Microstar Surface At 1M_deployment 7$

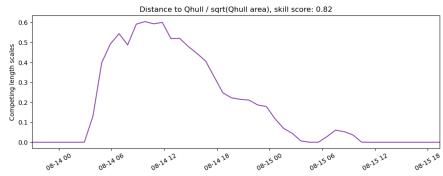
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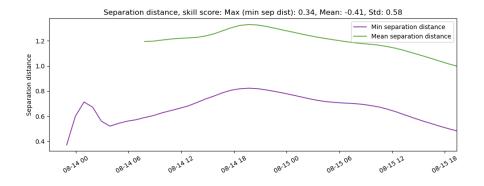






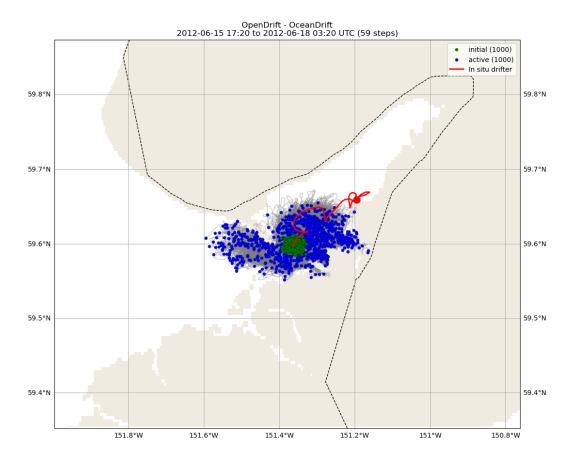


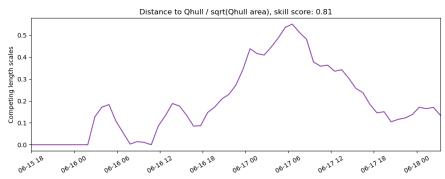


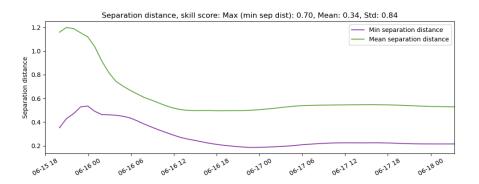


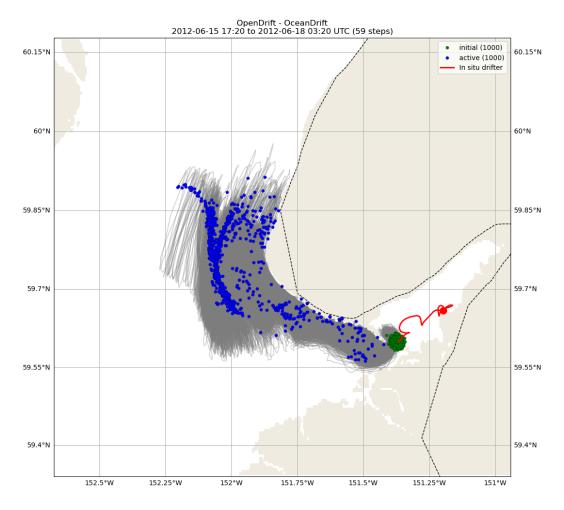
$CID rifter 0002Y2012_Microstar Surface At 1M_deployment 1$

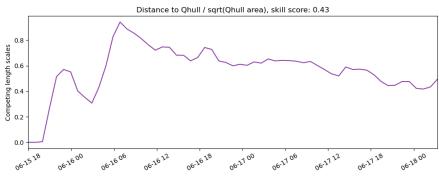
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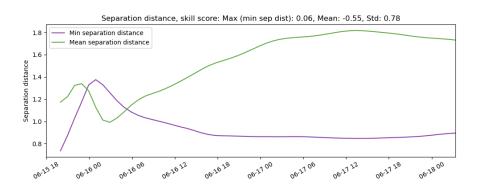






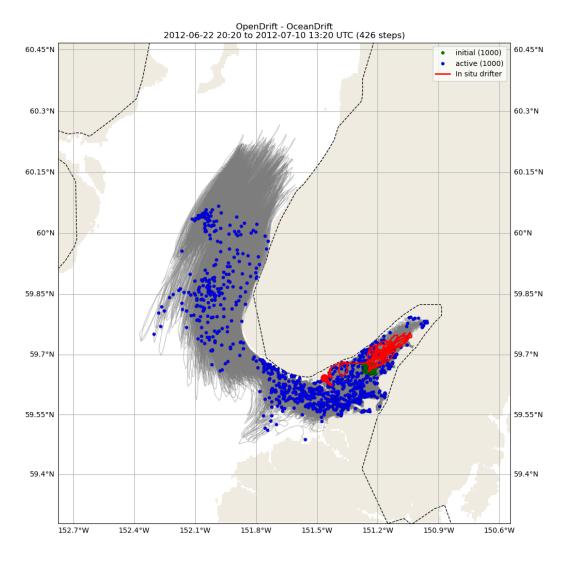


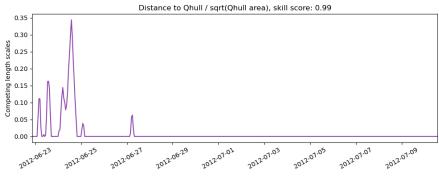


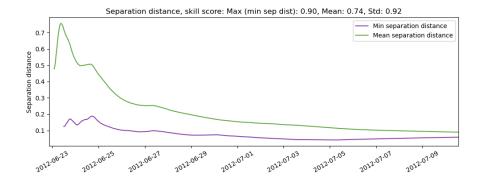


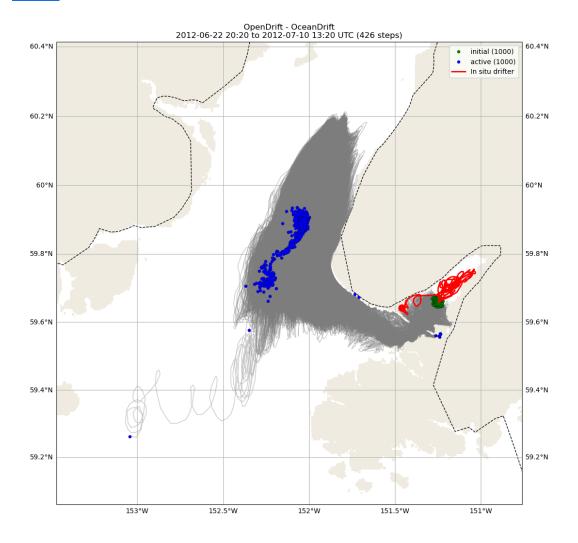
CIDrifter0002Y2012_MicrostarSurfaceAt1M_deployment2

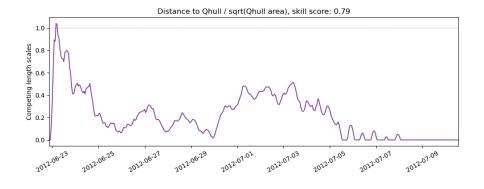
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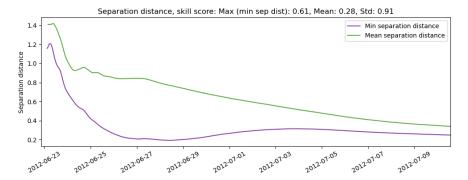






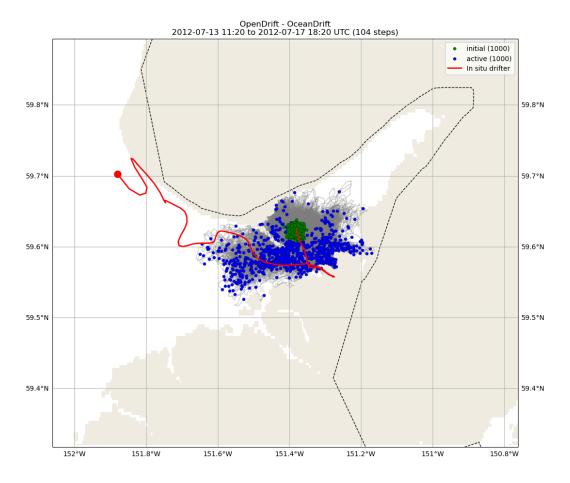


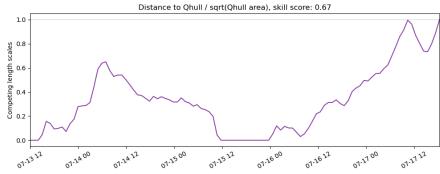


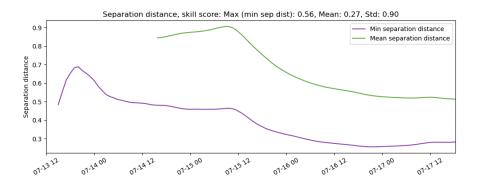


$CID rifter 0002Y2012_Microstar Surface At 1M_deployment 3$

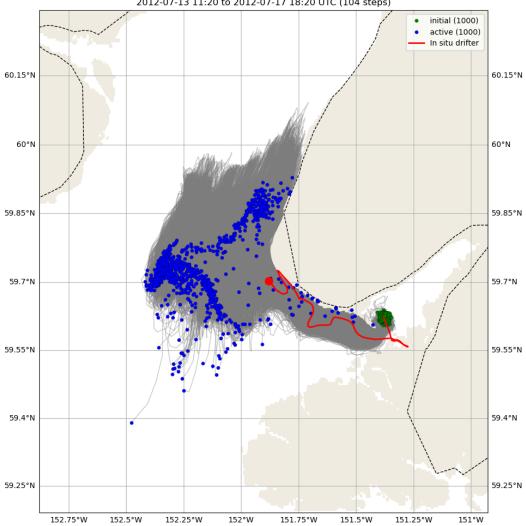
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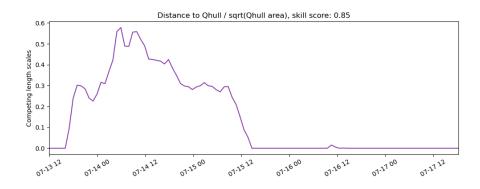


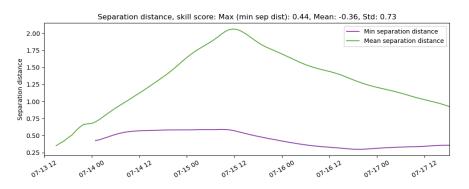




OpenDrift - OceanDrift 2012-07-13 11:20 to 2012-07-17 18:20 UTC (104 steps)

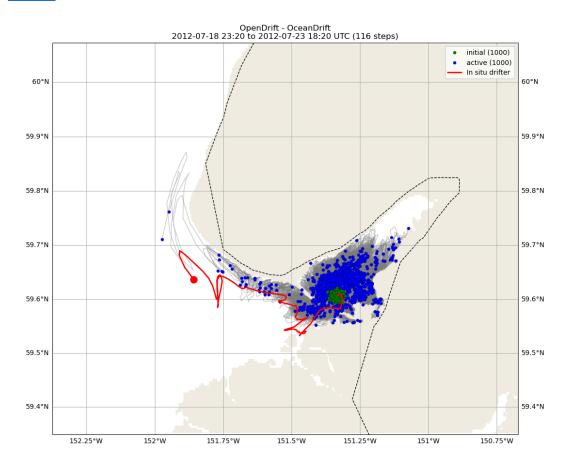


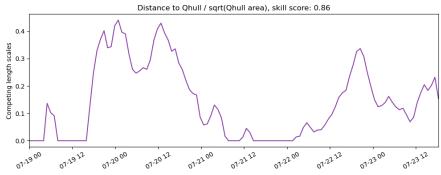


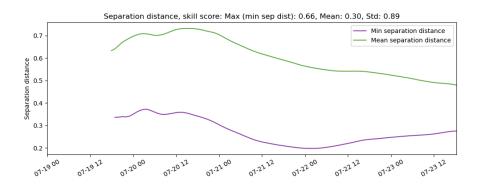


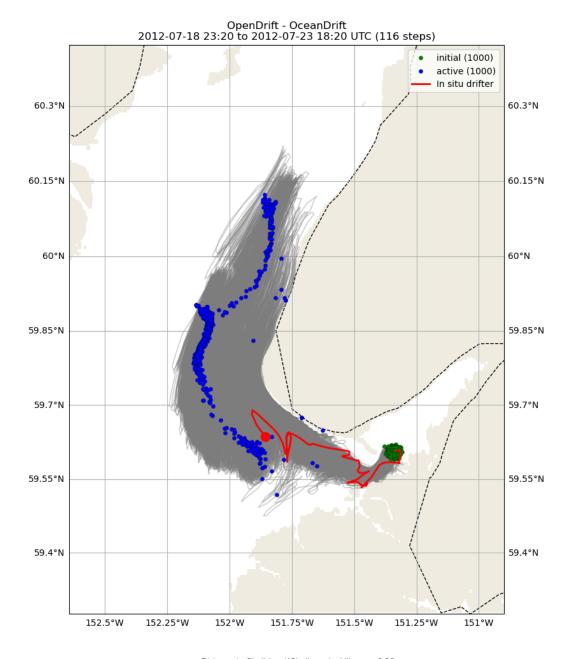
CIDrifter0002Y2012_MicrostarSurfaceAt1M_deployment4

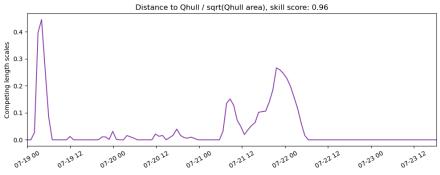
CIOFS

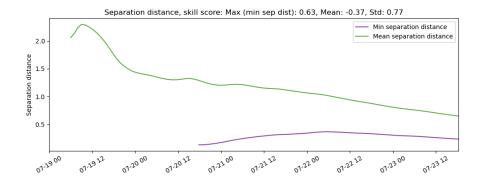






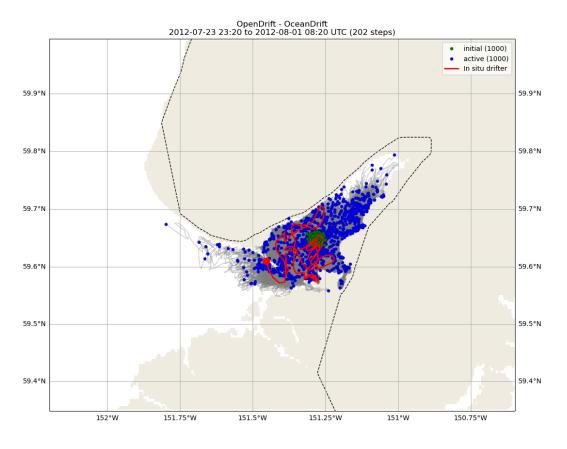


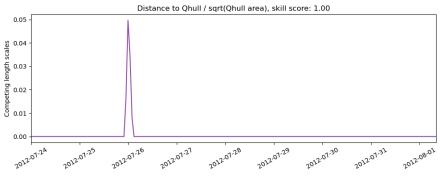


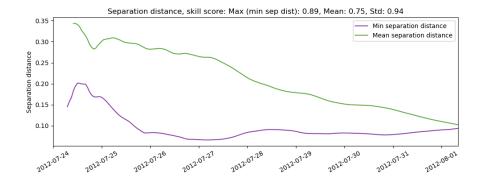


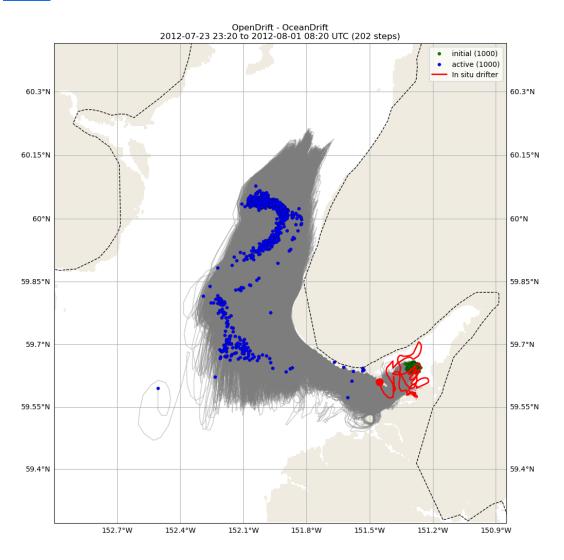
CIDrifter0002Y2012_MicrostarSurfaceAt1M_deployment5

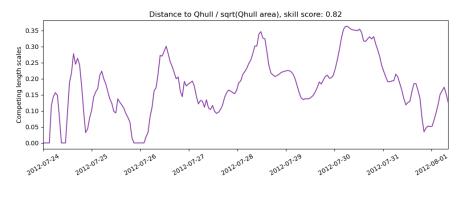
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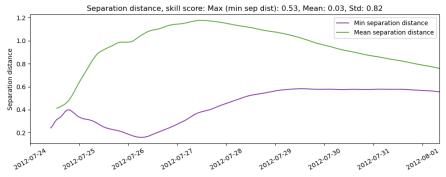






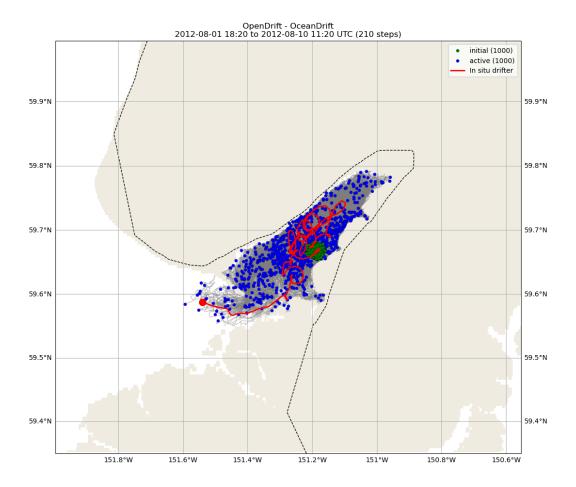


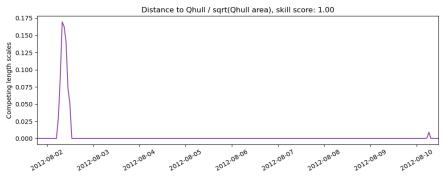


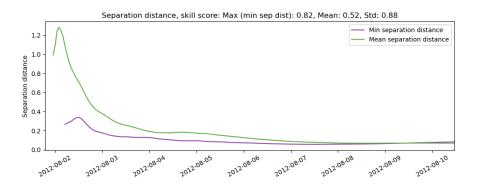


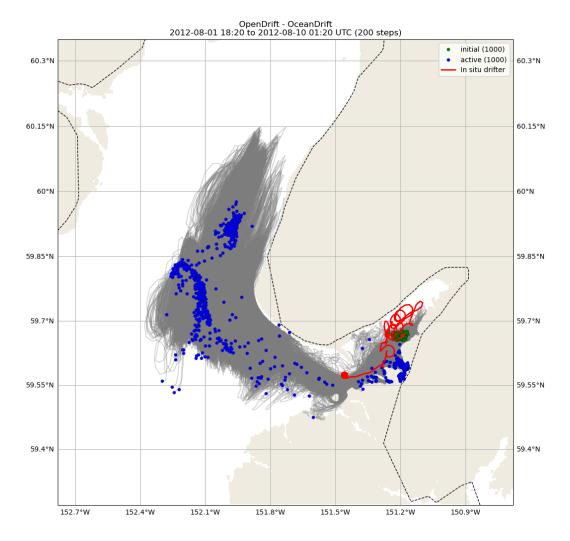
$CID rifter 0002Y2012_Microstar Surface At 1M_deployment 6$

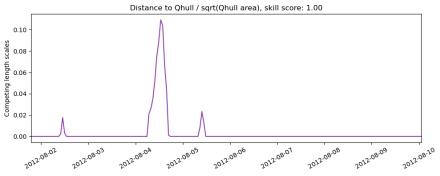
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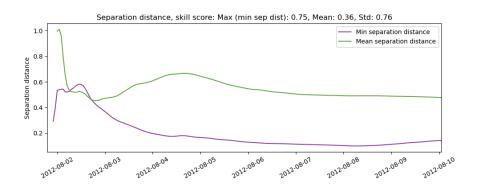






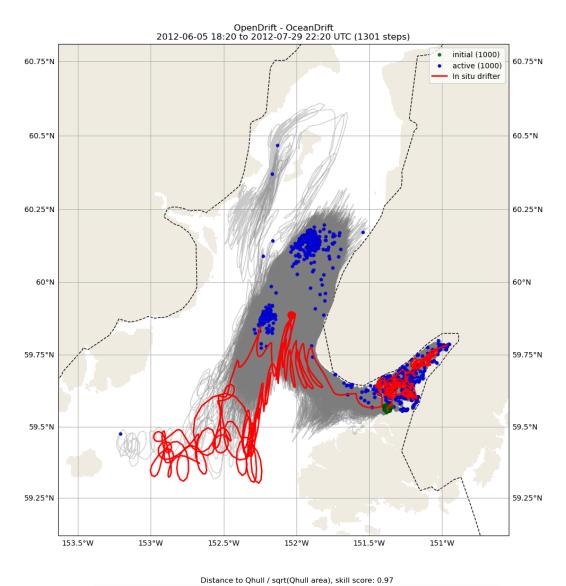


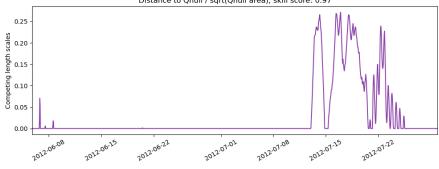


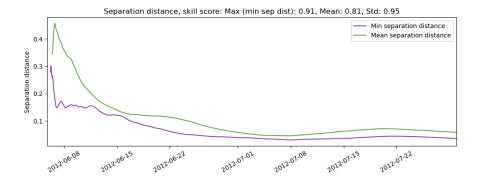


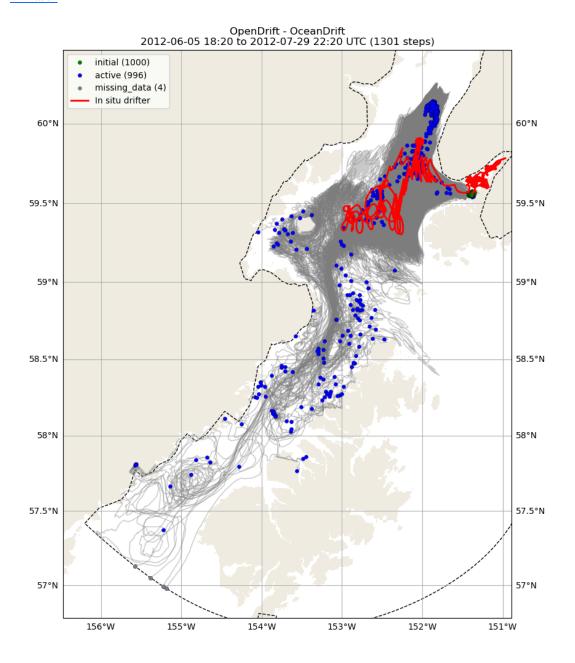
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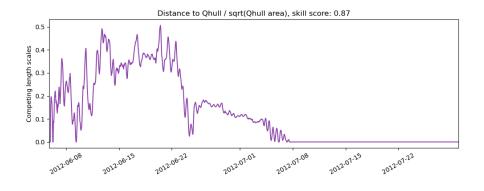
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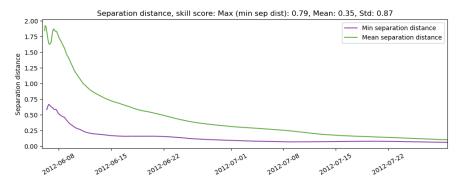






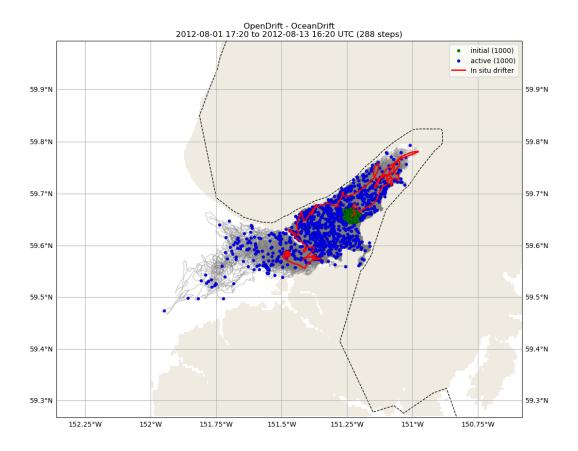


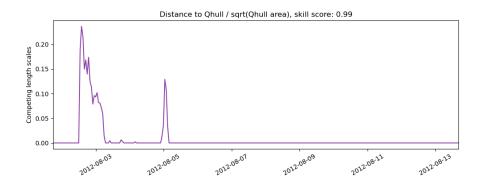


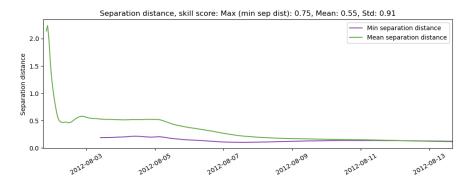


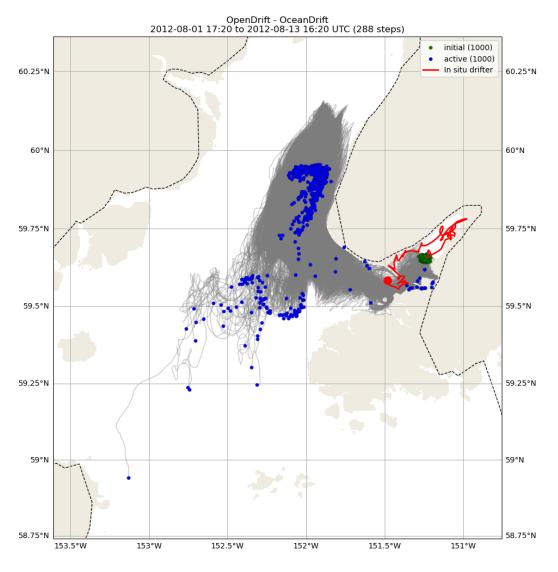
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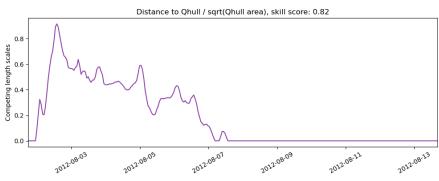
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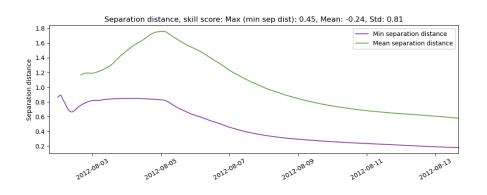






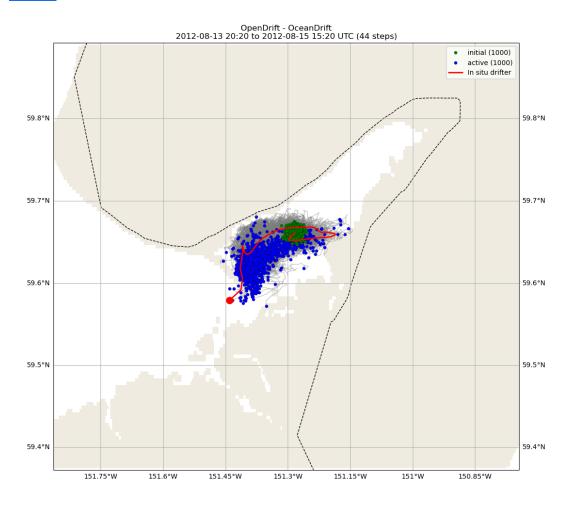


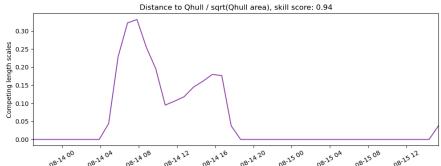


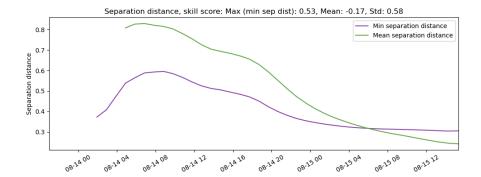


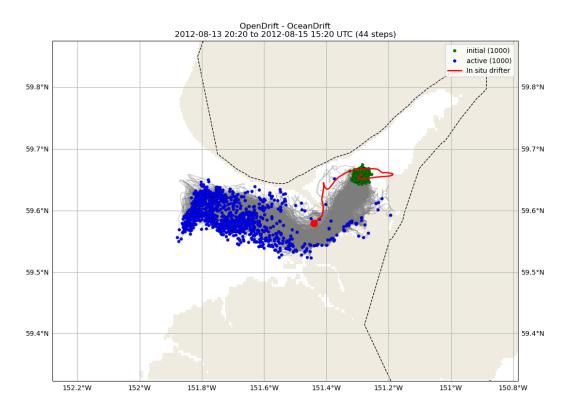
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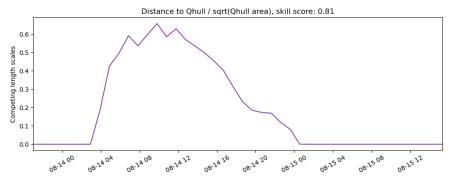
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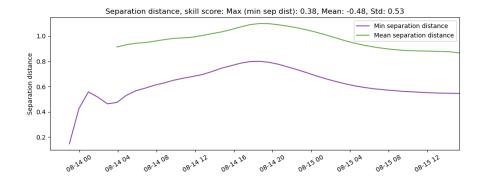






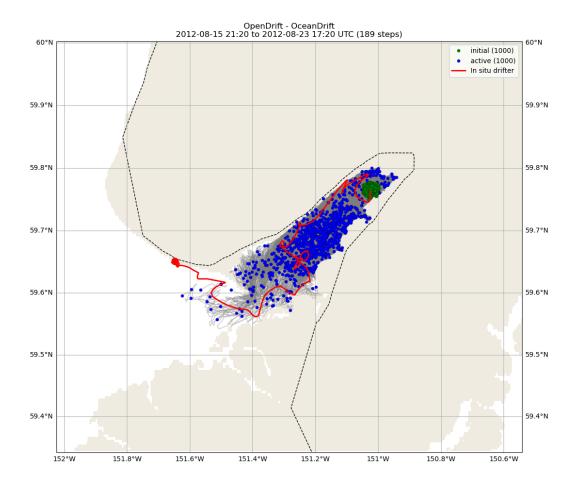


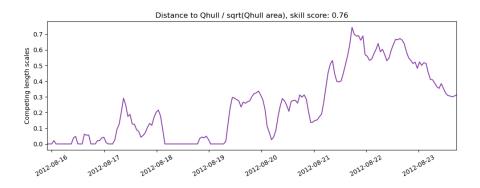


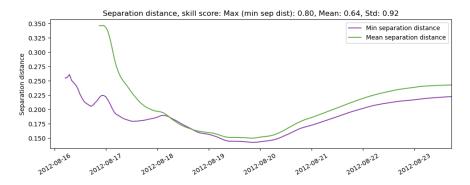


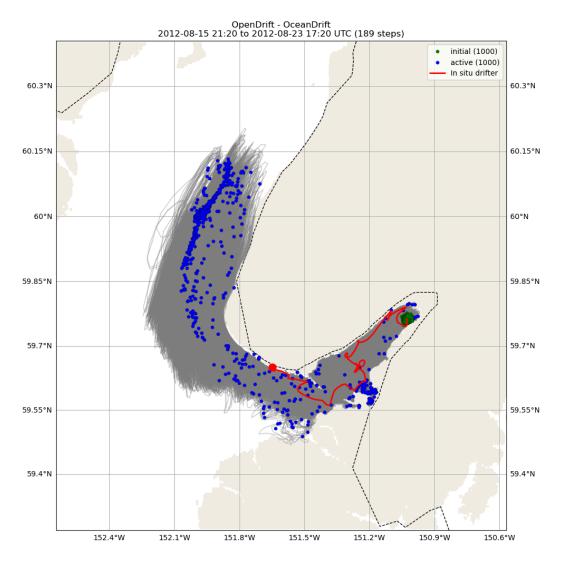
CIDrifter0003Y2012_MicrostarSurfaceAt1M_deployment4

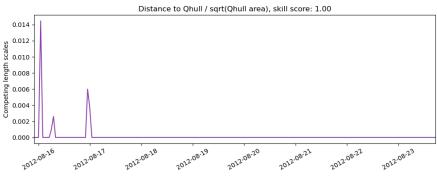
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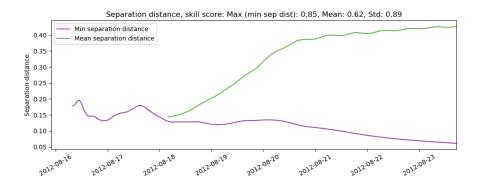






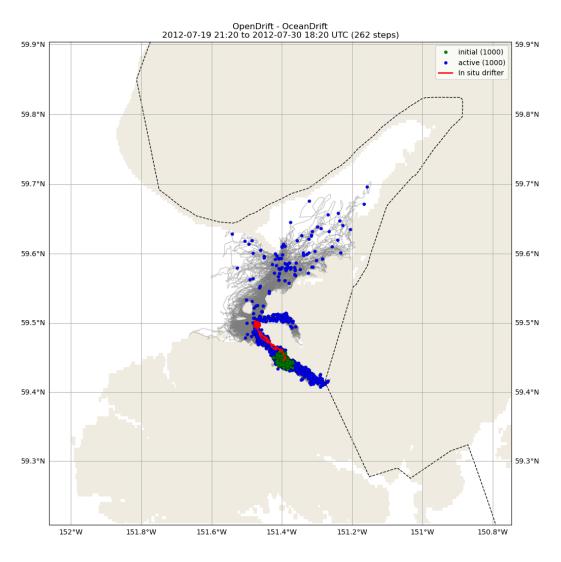


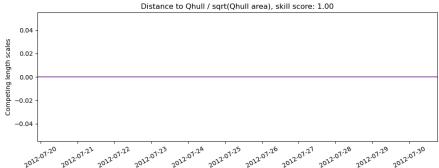


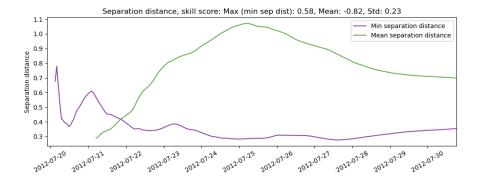


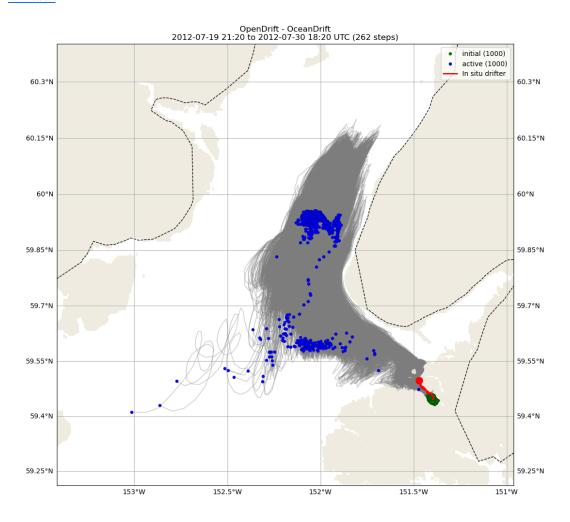
CIDrifter0005Y2012_MicrostarSurfaceAt1M_deployment1

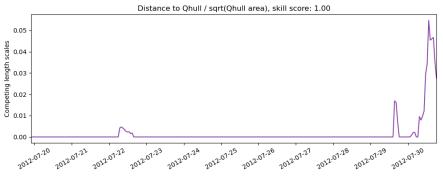
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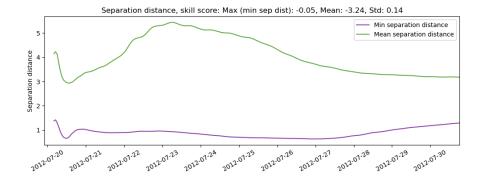






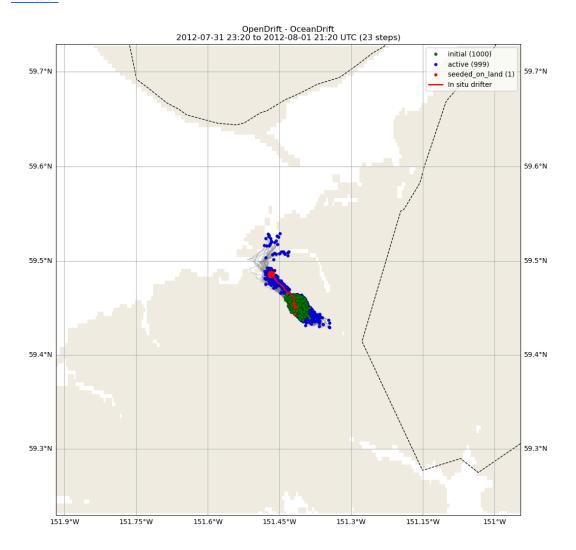


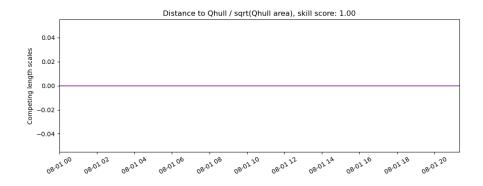


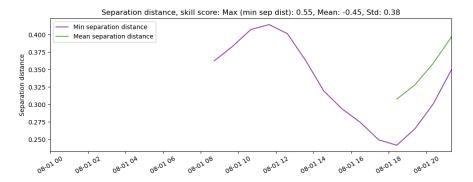


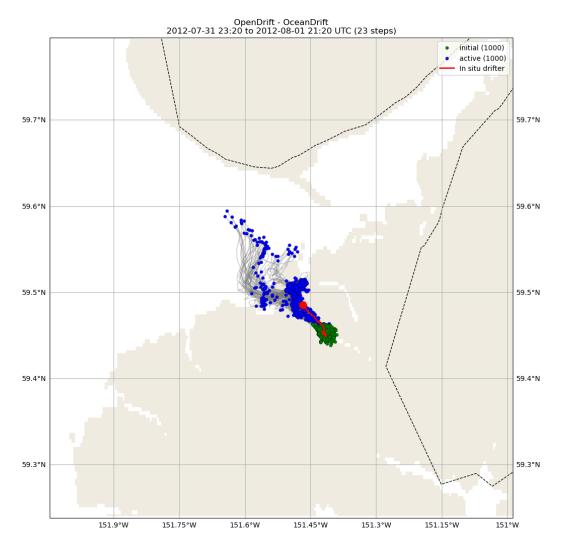
CIDrifter0005Y2012_MicrostarSurfaceAt1M_deployment3

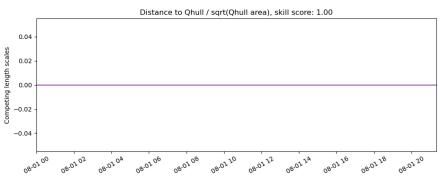
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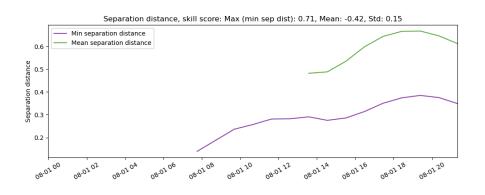






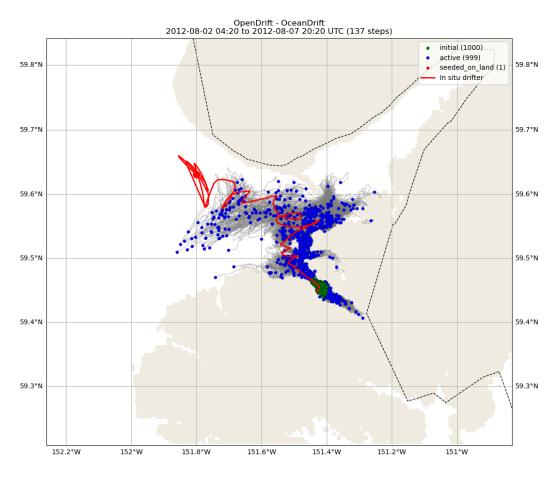


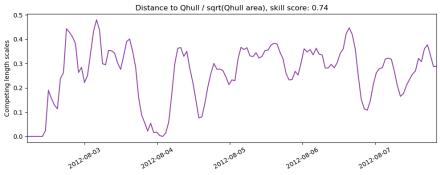


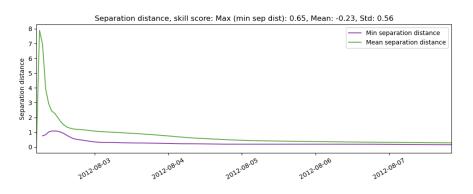


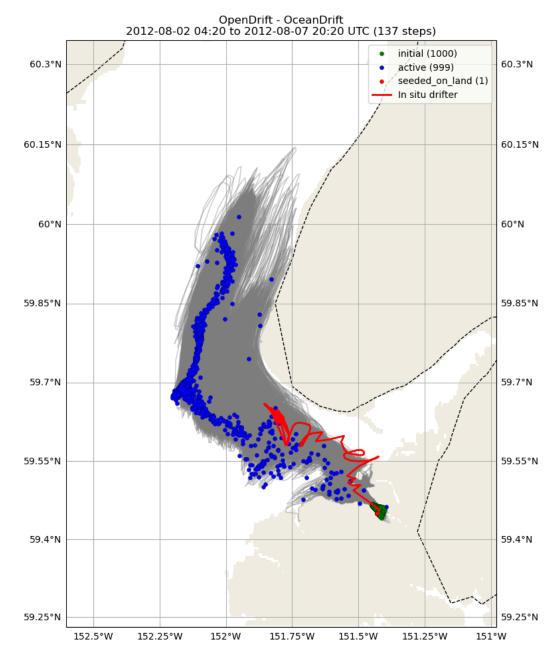
CIDrifter0005Y2012_MicrostarSurfaceAt1M_deployment4

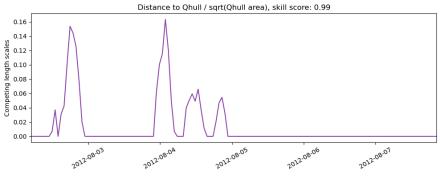
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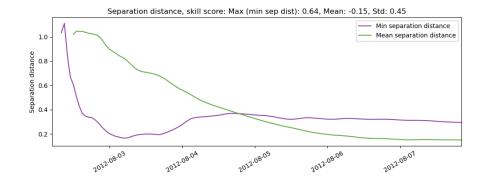






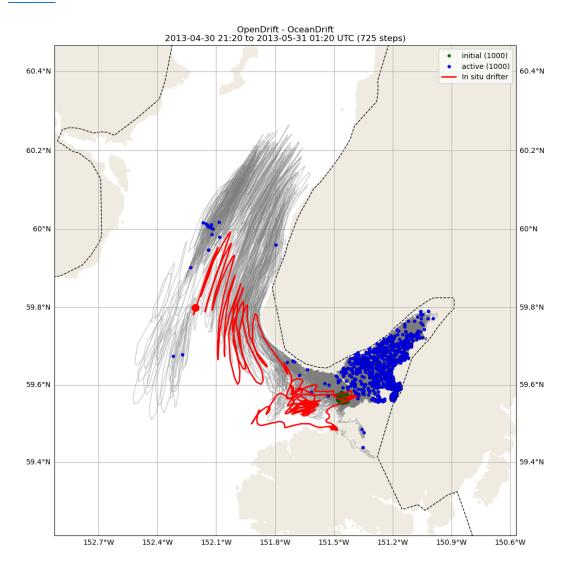


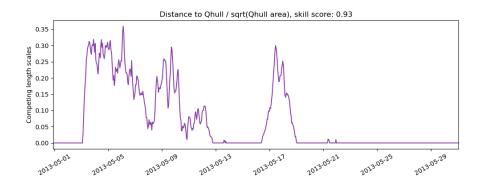


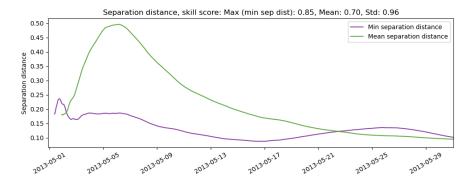


CIDrifter0005Y2012_MicrostarSurfaceAt1M_deployment8

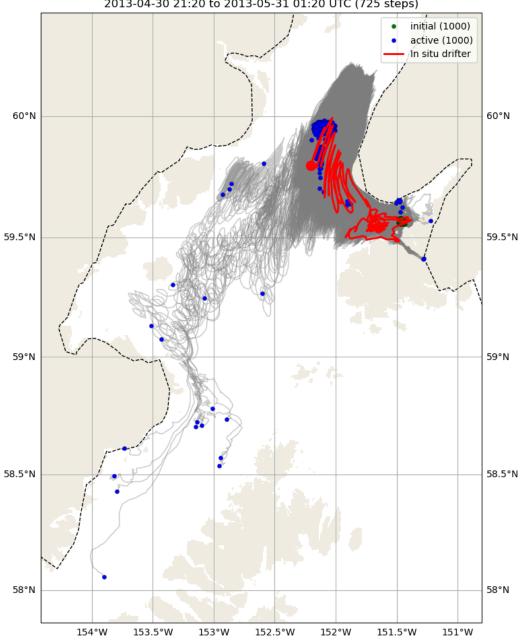
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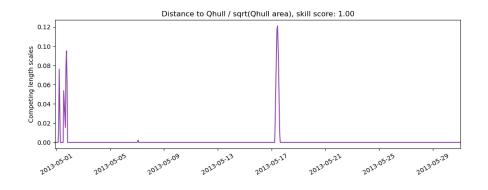


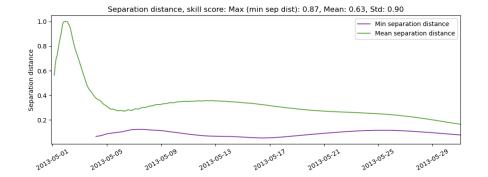




OpenDrift - OceanDrift 2013-04-30 21:20 to 2013-05-31 01:20 UTC (725 steps)

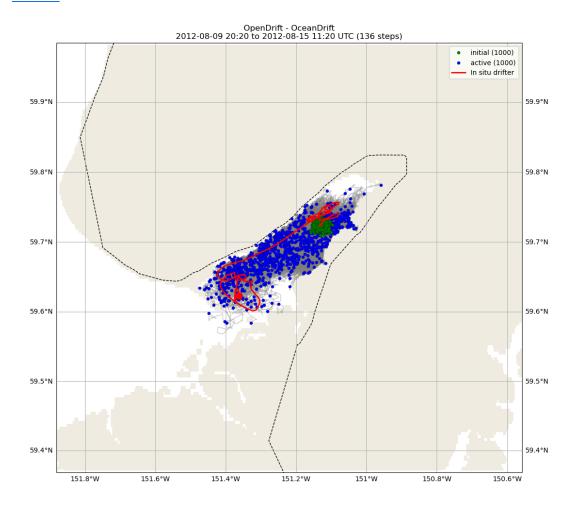


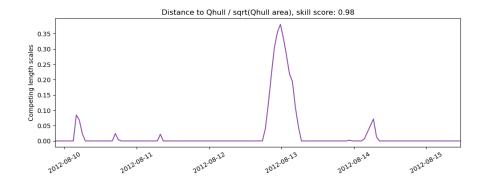


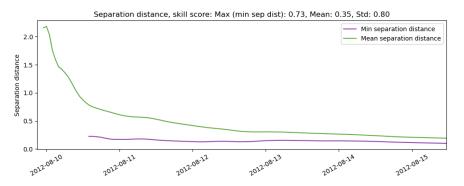


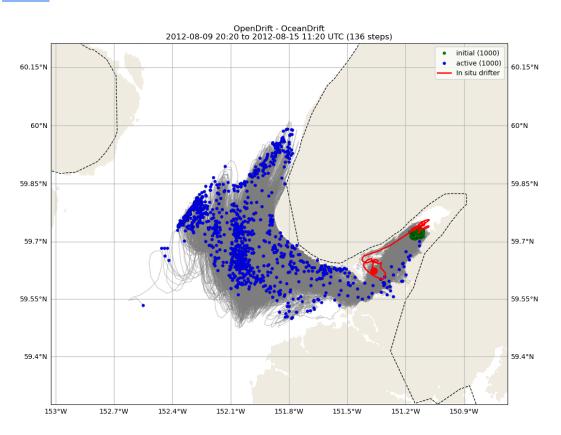
CIDrifter0006Y2012_MicrostarSurfaceAt1M_deployment1

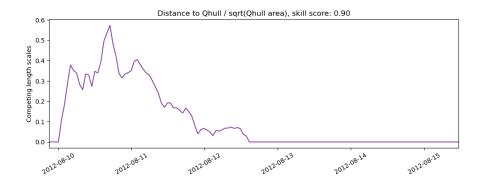
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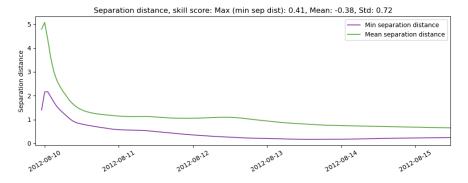






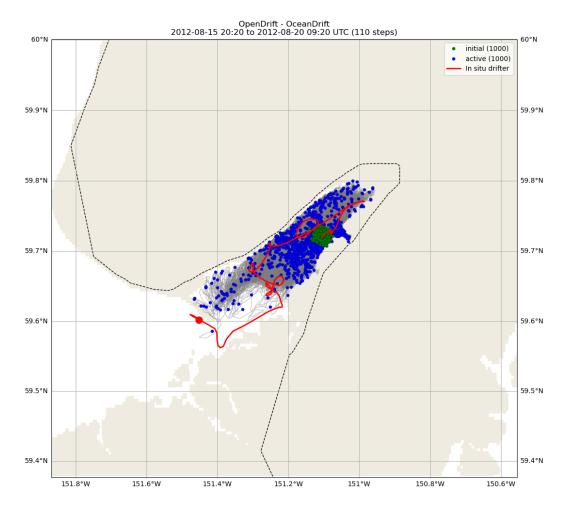


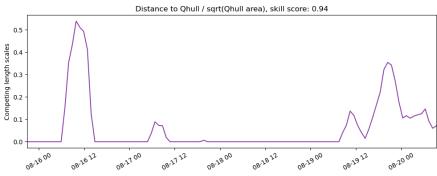


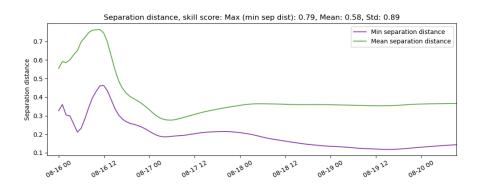


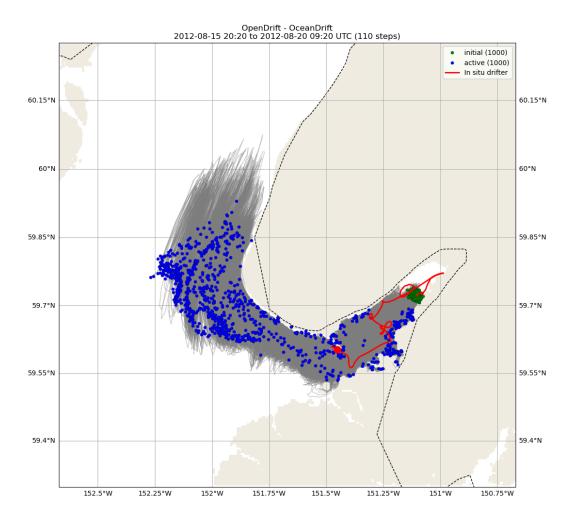
$CID rifter 0006 Y2012_Microstar Surface At 1M_deployment 2$

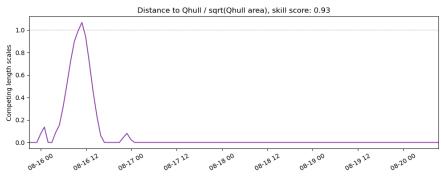
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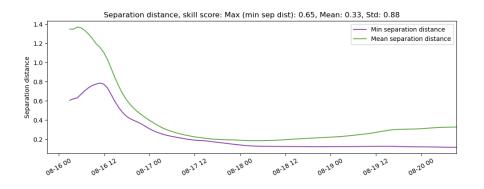






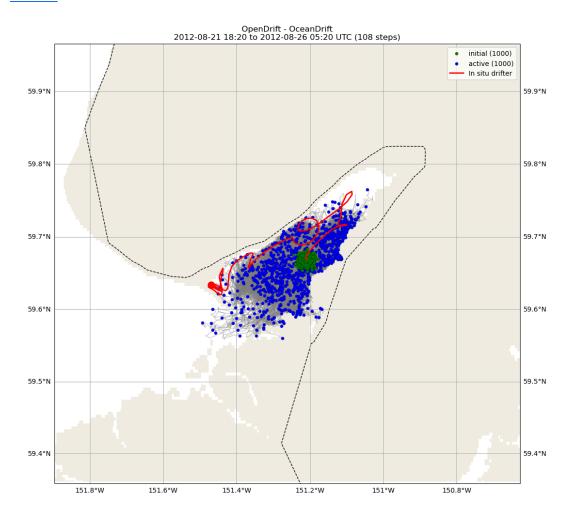


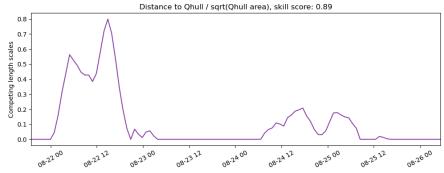


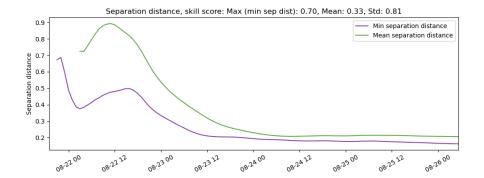


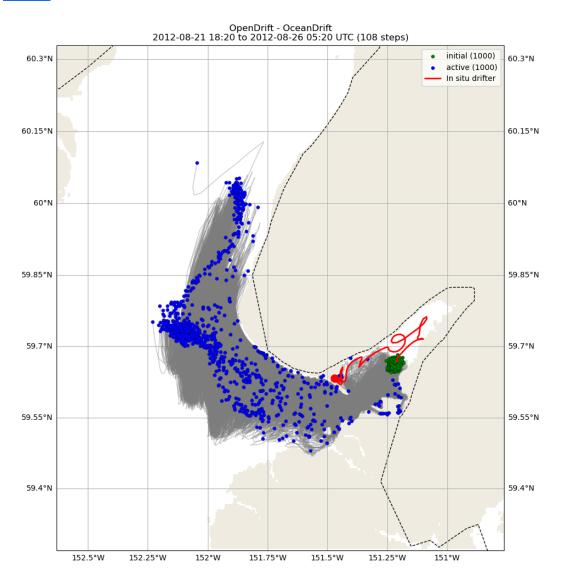
$CID rifter 0006 Y2012_Microstar Surface At 1M_deployment 3$

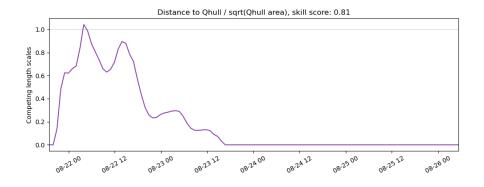
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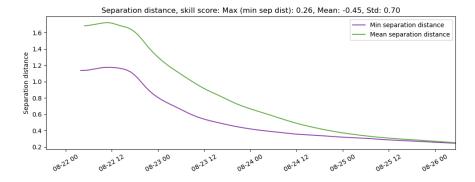






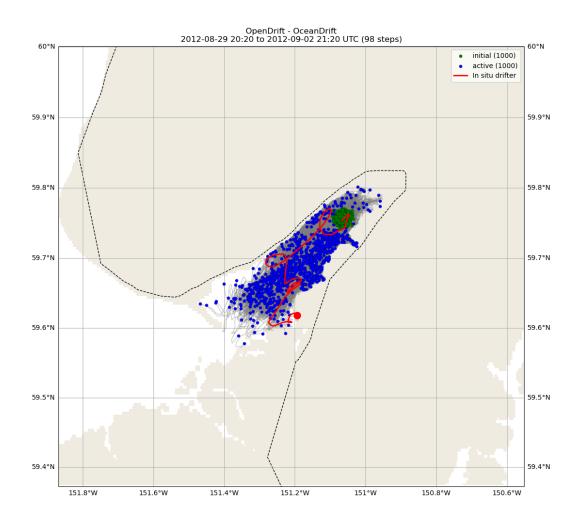


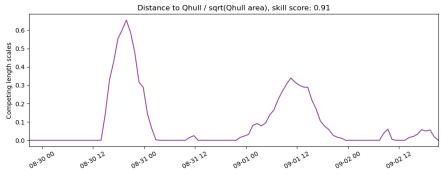


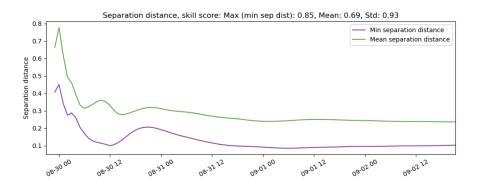


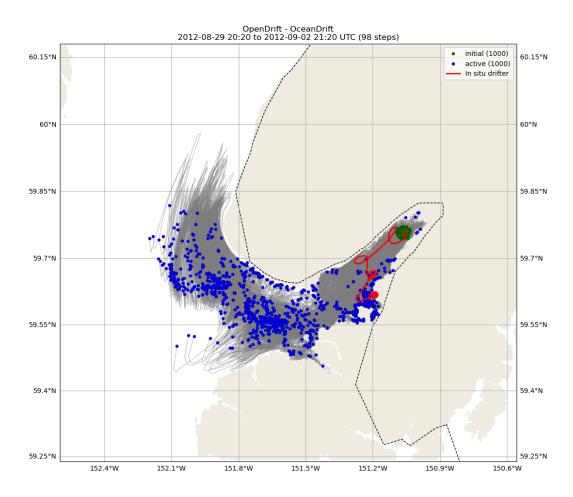
$CID rifter 0006 Y2012_Microstar Surface At 1M_deployment 4$

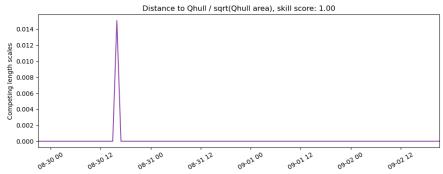
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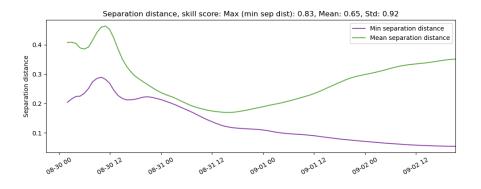




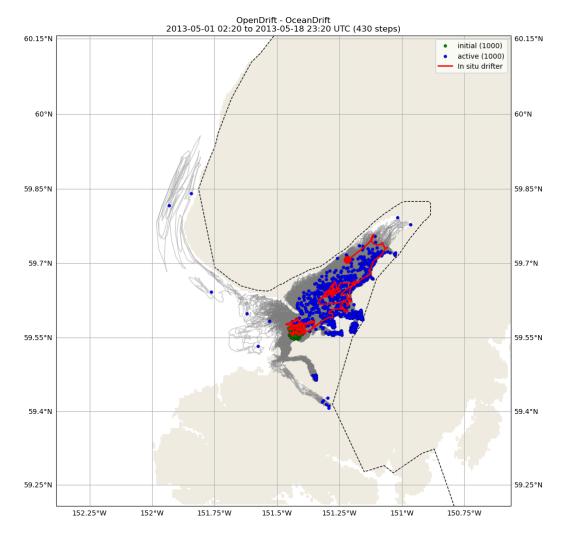


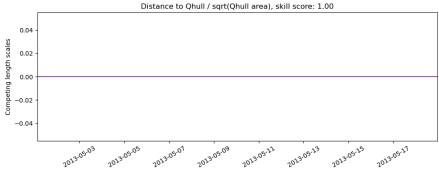


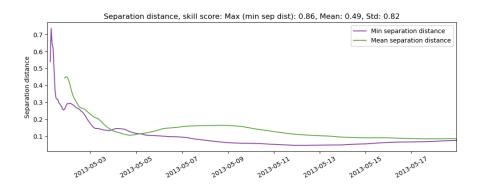


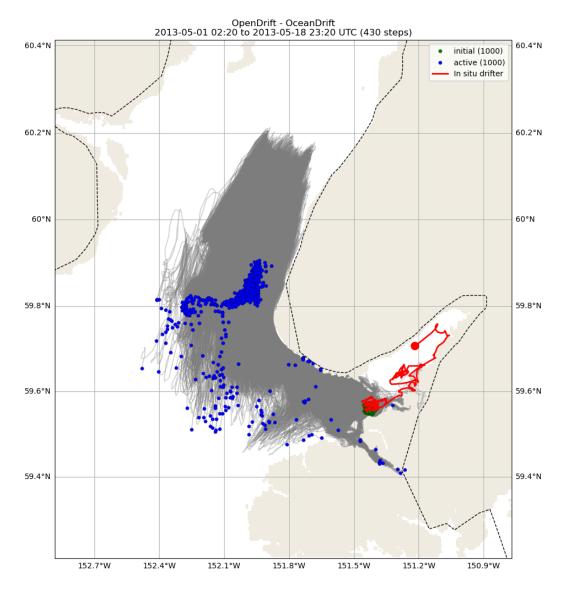


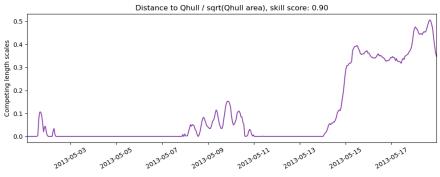
 $CID rifter 0007Y2013_Microstar Surface At 1M_deployment 1$

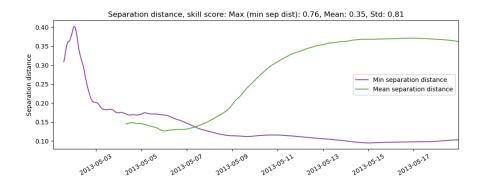






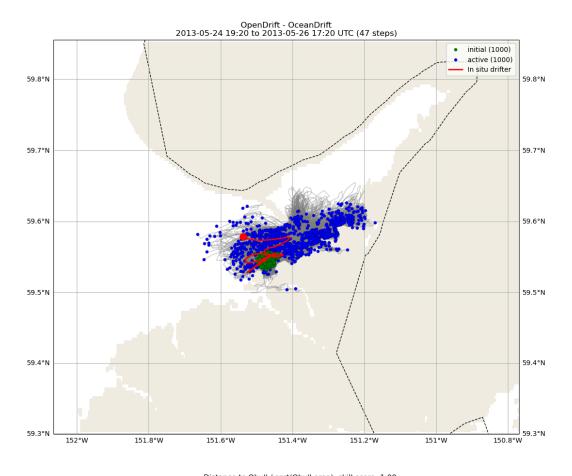


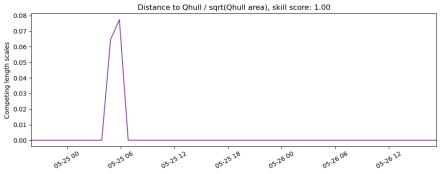


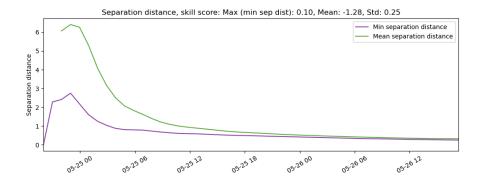


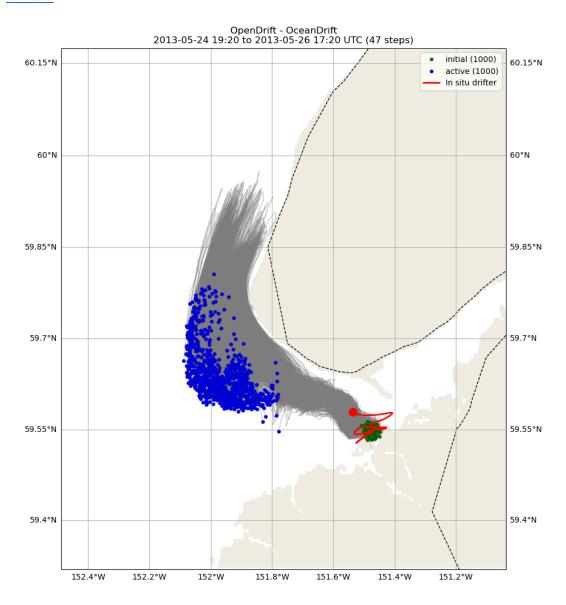
CIDrifter0008Y2013_MicrostarSurfaceAt1M_deployment2

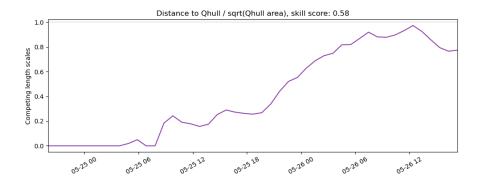
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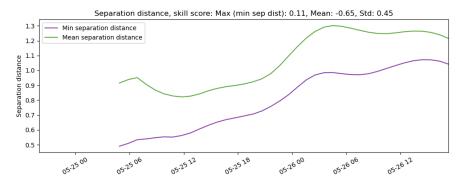






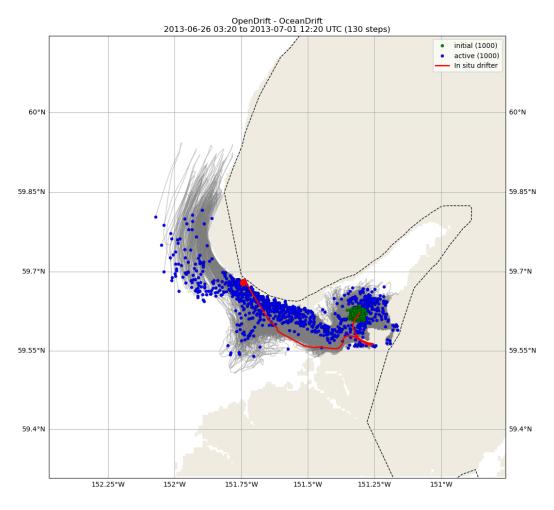


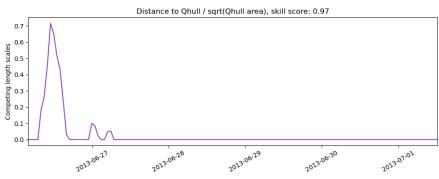


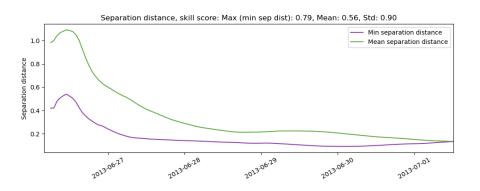


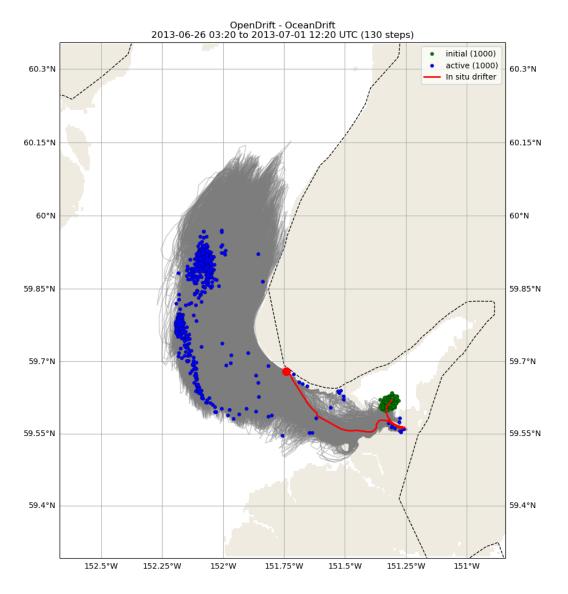
$CID rifter 0008 Y2013_Microstar Surface At 1M_deployment 3$

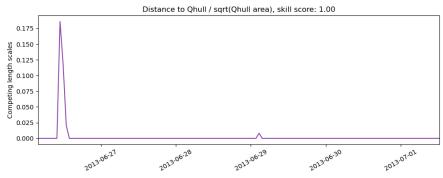
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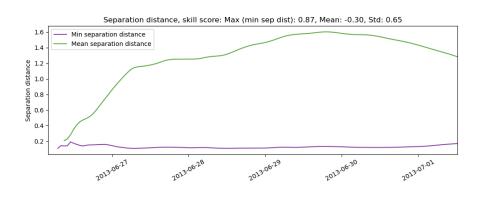






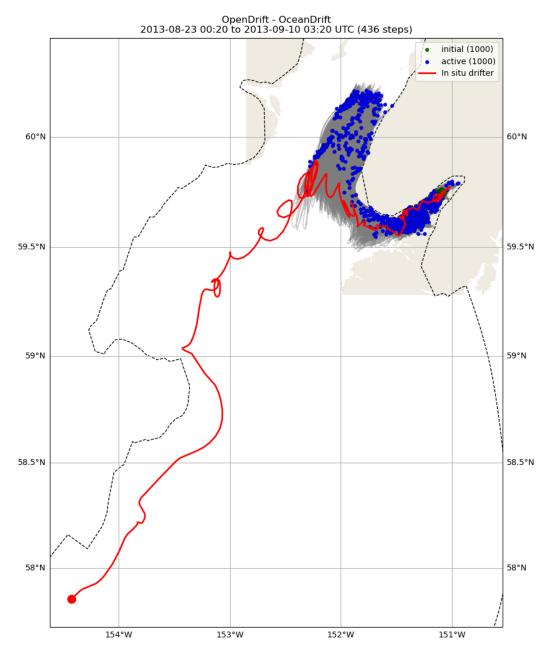


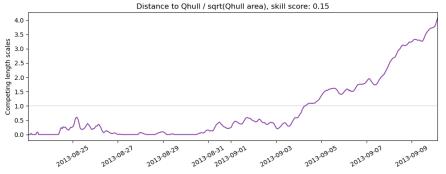


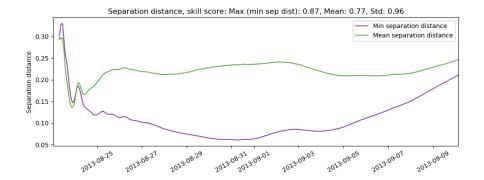


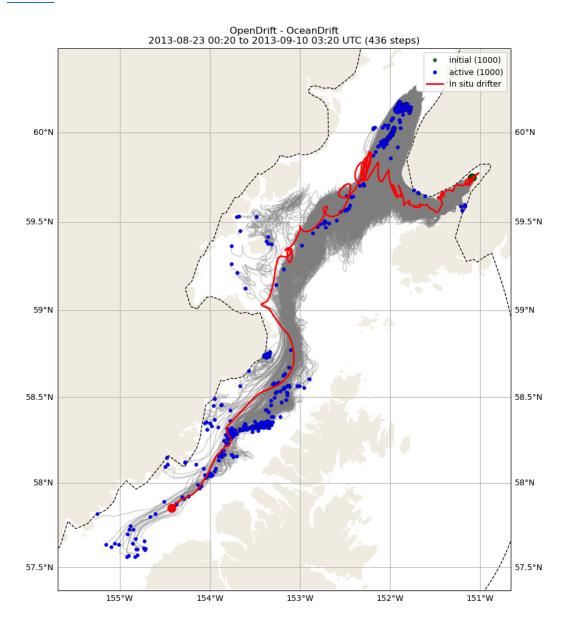
CIDrifter0008Y2013_MicrostarSurfaceAt1M_deployment4

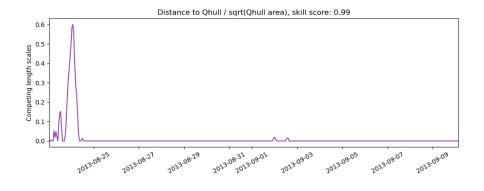
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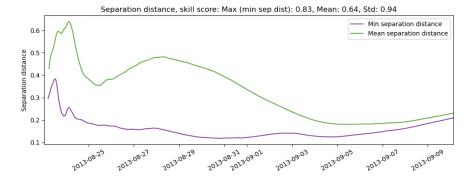






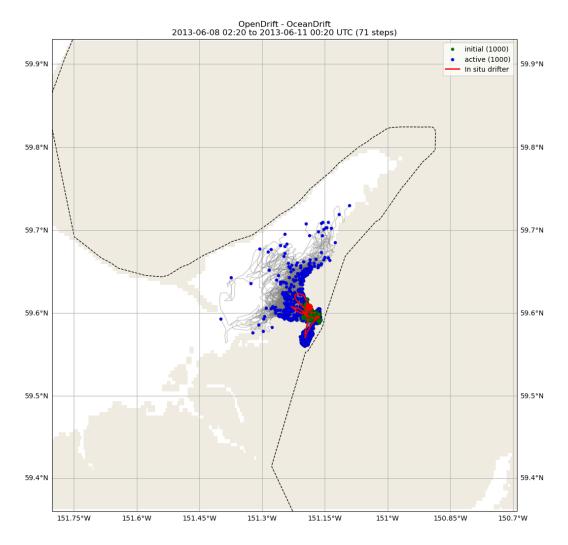


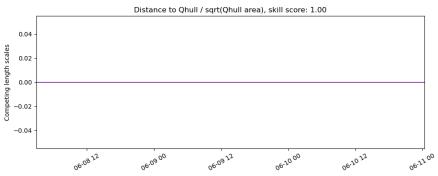


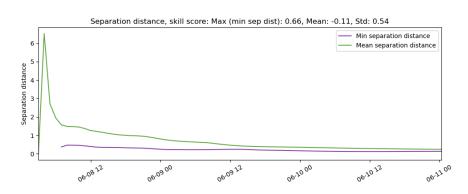


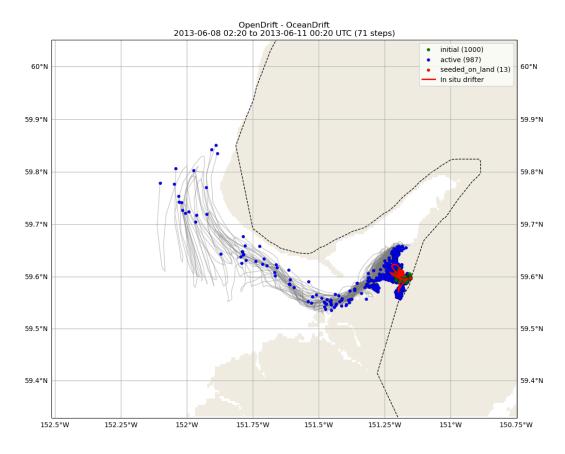
$CID rifter 0009Y2013_Microstar Surface At 1M_deployment 1$

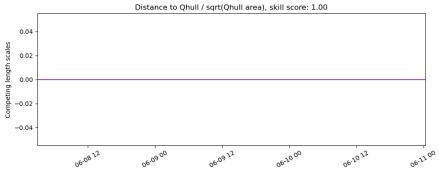
CIOFS

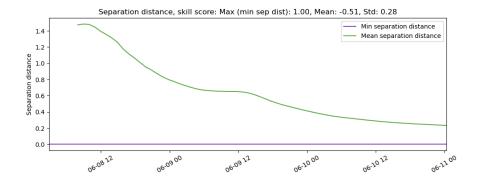




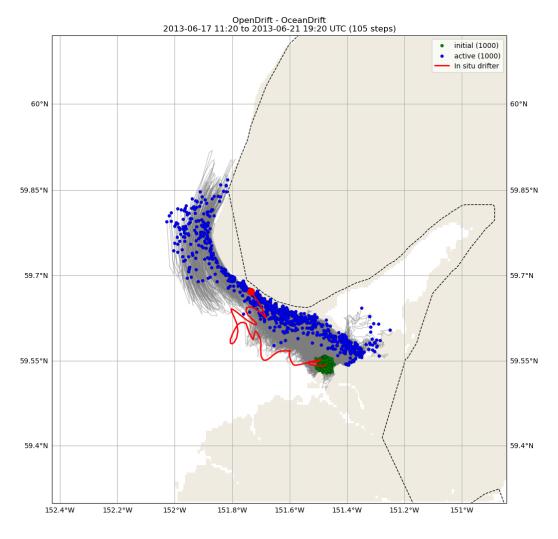


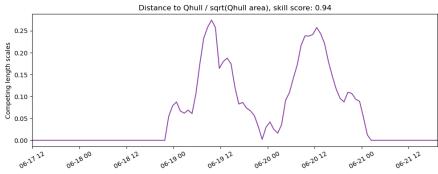


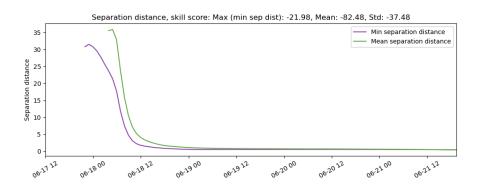


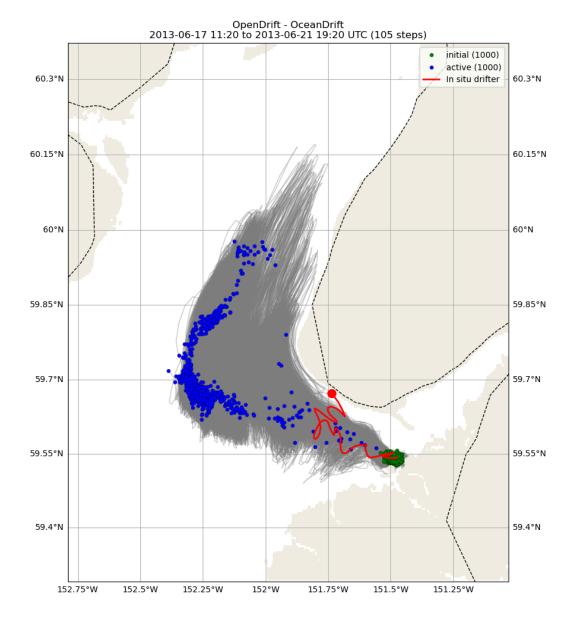


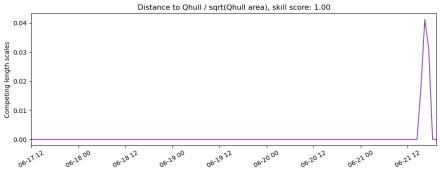
CIDrifter0009Y2013_MicrostarSurfaceAt1M_deployment2

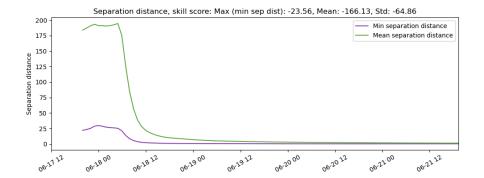






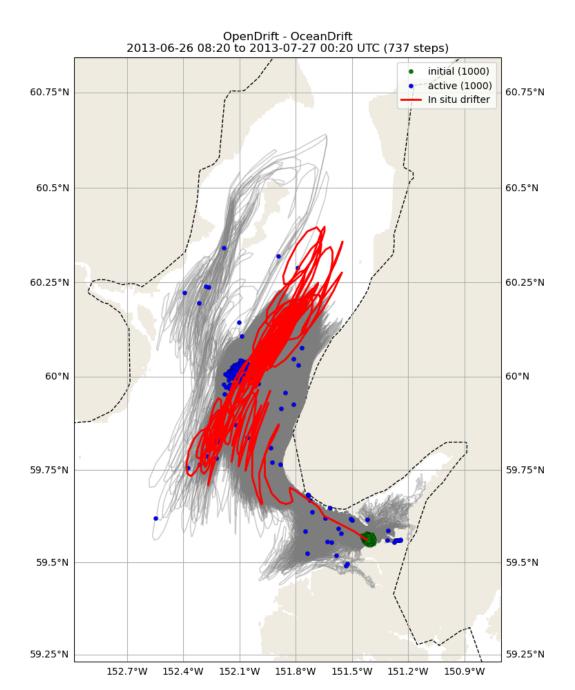


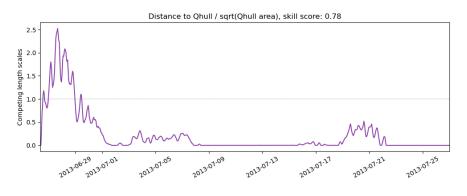


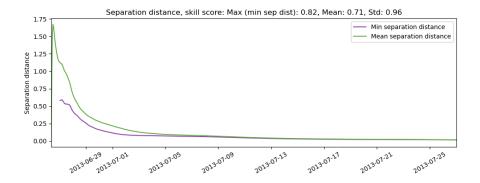


$CID rifter 0009Y2013_Microstar Surface At 1M_deployment 3$

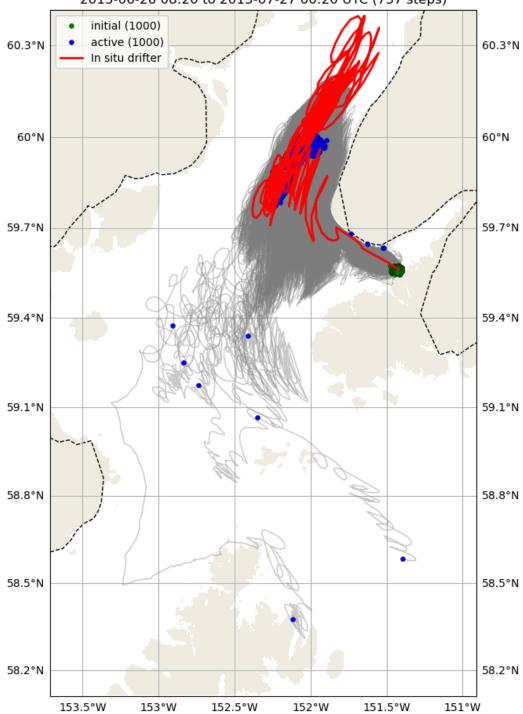
CIOFS

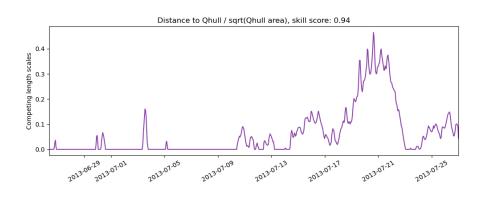


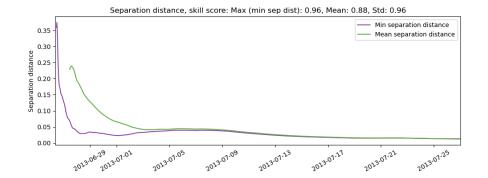




OpenDrift - OceanDrift 2013-06-26 08:20 to 2013-07-27 00:20 UTC (737 steps)

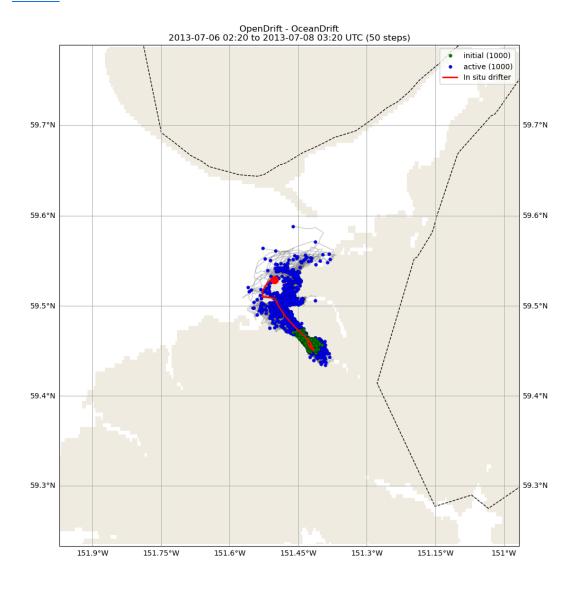


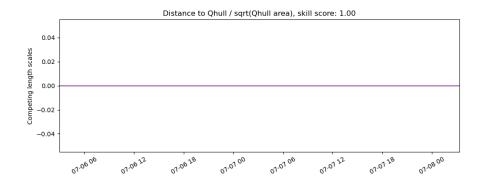


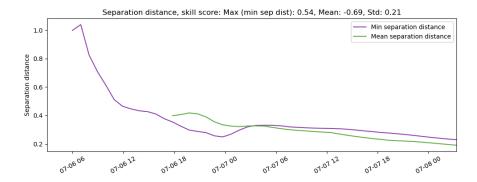


CIDrifter0010Y2013_MicrostarSurfaceAt1M_deployment2

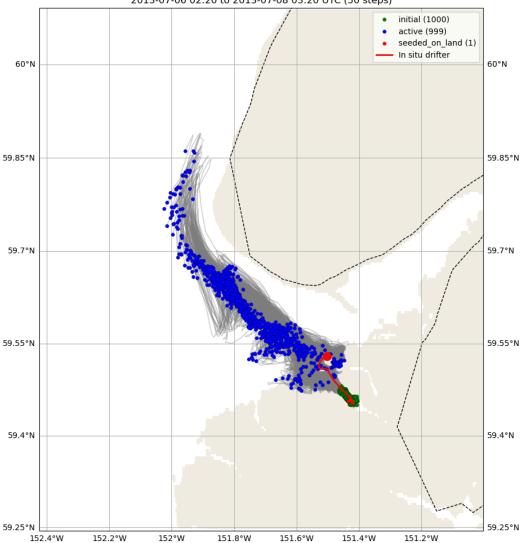
CIOFS

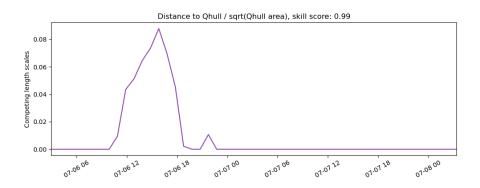


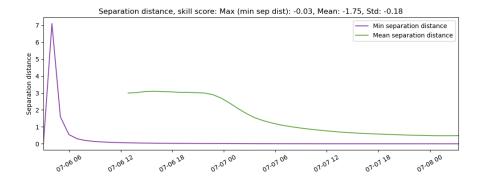




OpenDrift - OceanDrift 2013-07-06 02:20 to 2013-07-08 03:20 UTC (50 steps)

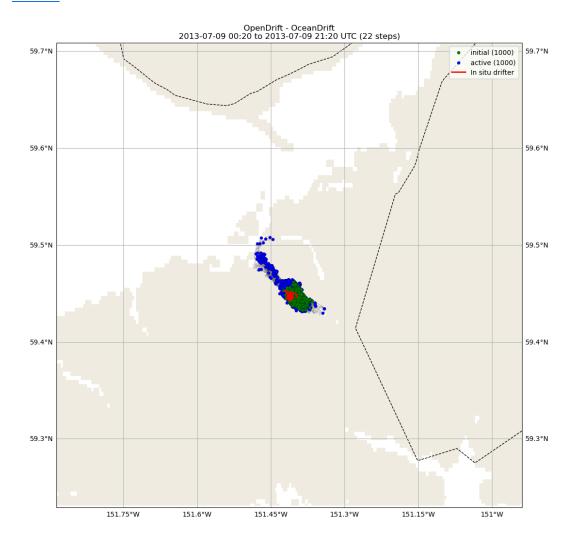


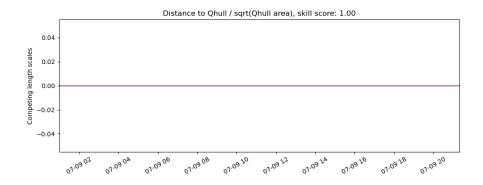


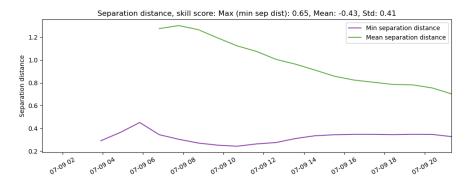


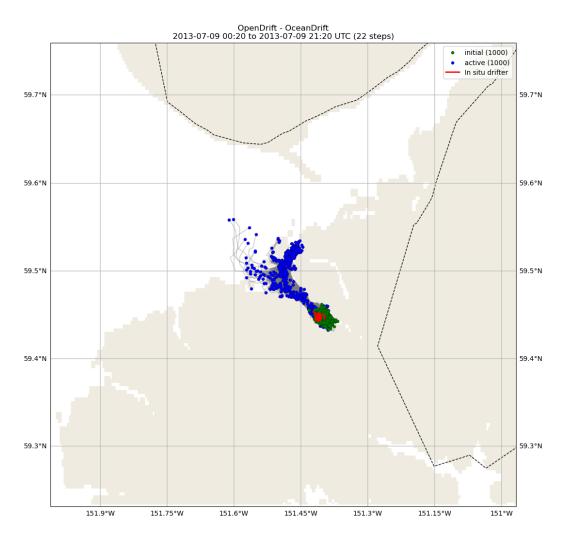
CIDrifter0010Y2013_MicrostarSurfaceAt1M_deployment3

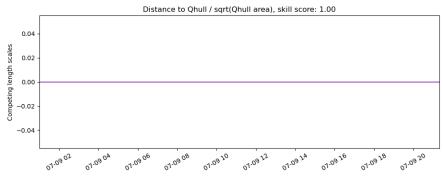
CIOFS

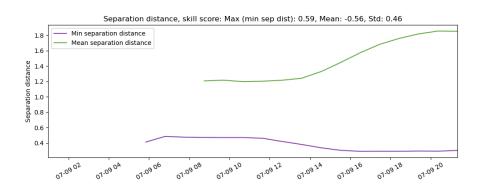






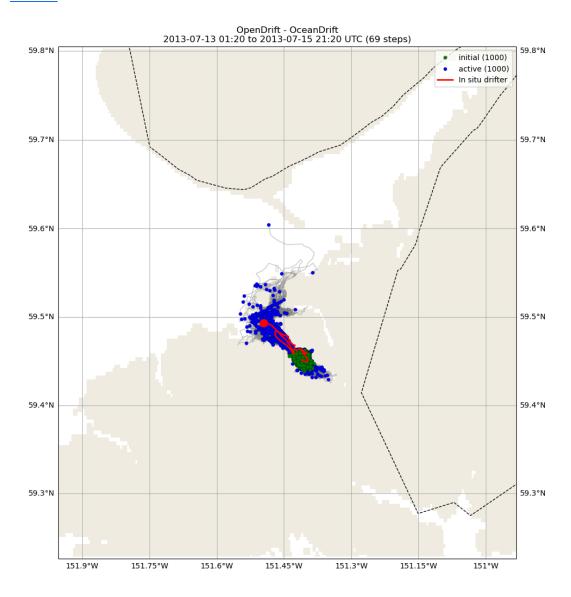


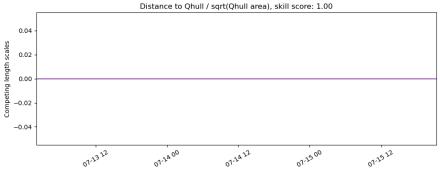


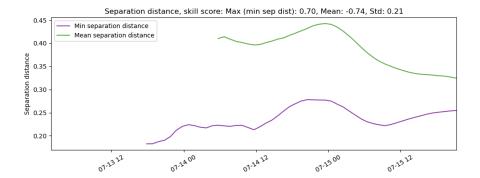


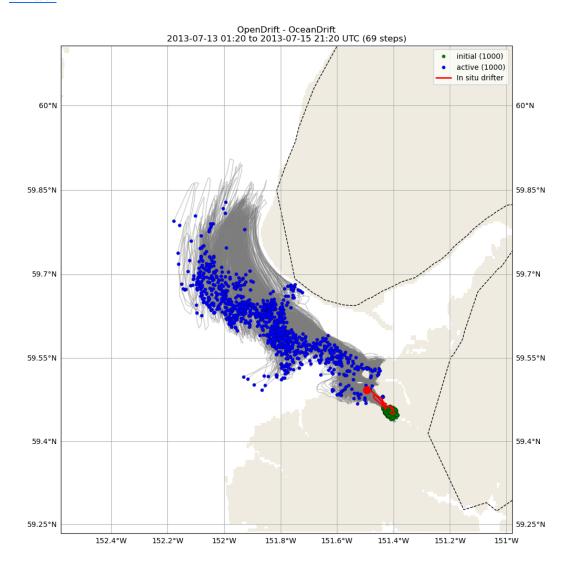
$CID rifter 0010Y2013_Microstar Surface At 1M_deployment 5$

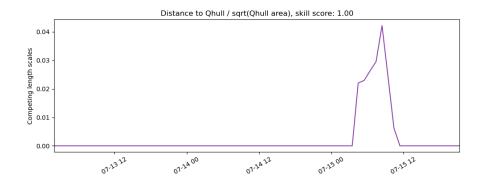
CIOFS

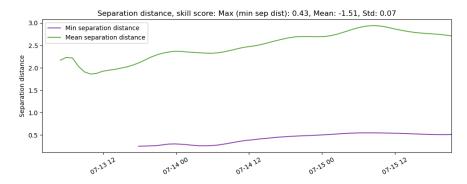








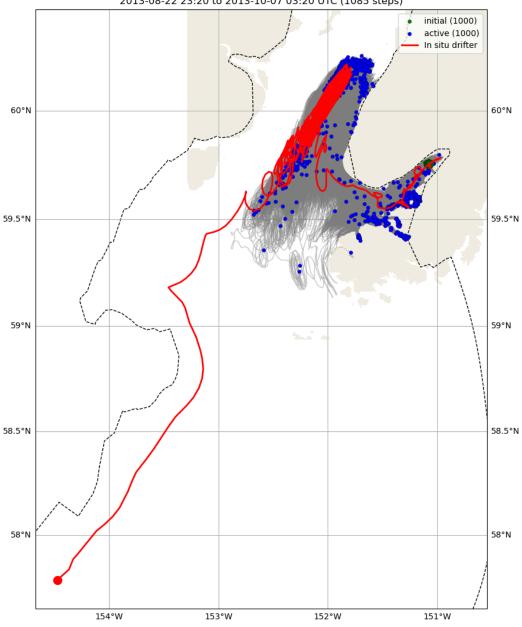


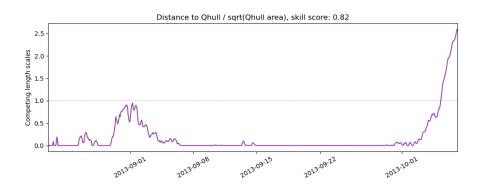


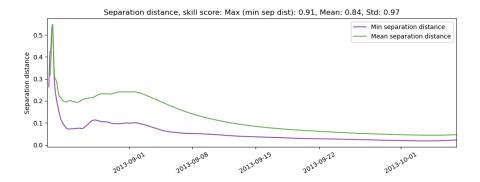
$CID rifter 0010Y2013_Microstar Surface At 1M_deployment 6$

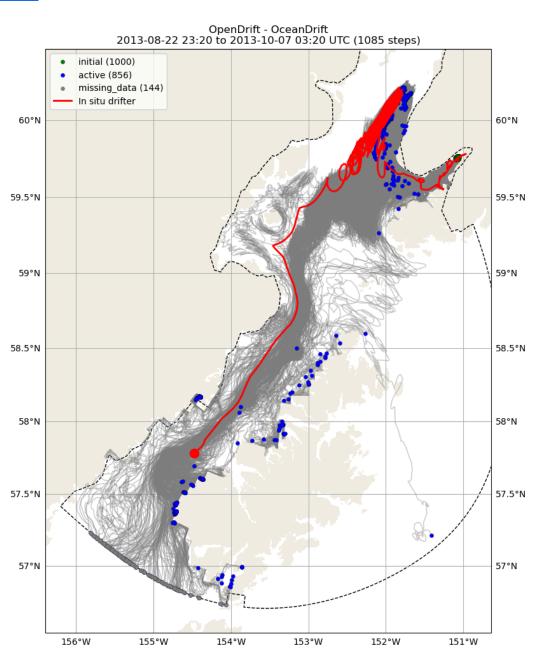
CIOFS

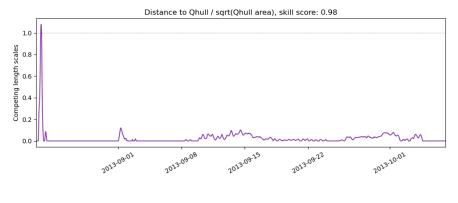
OpenDrift - OceanDrift 2013-08-22 23:20 to 2013-10-07 03:20 UTC (1085 steps)

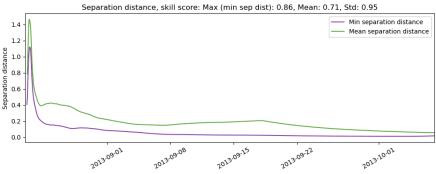




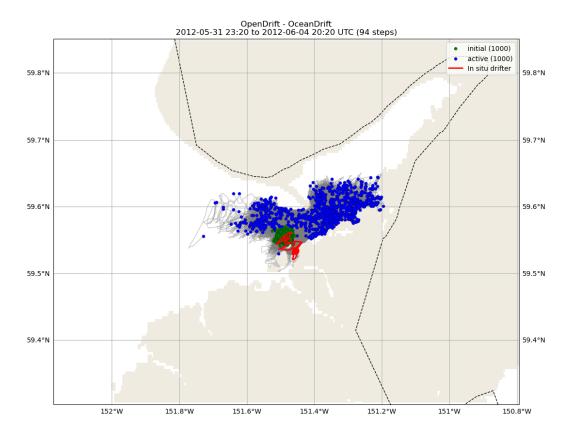


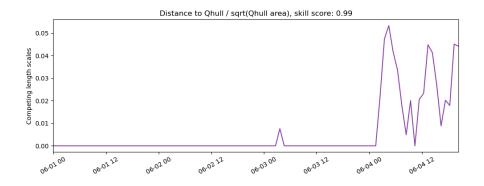


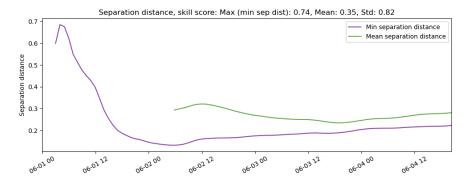


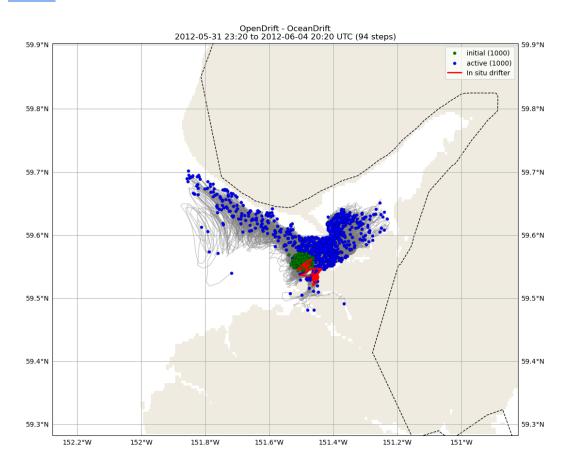


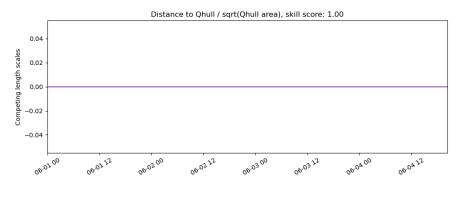
CIOFS

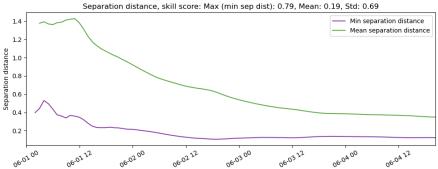




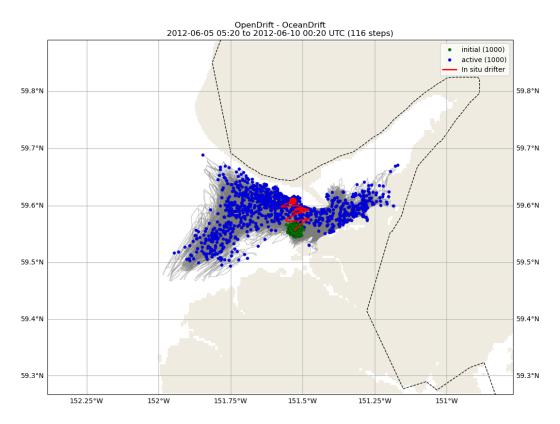


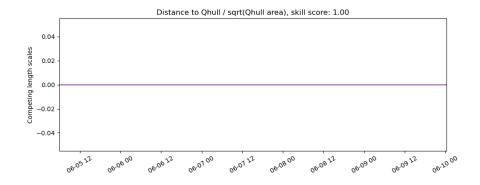


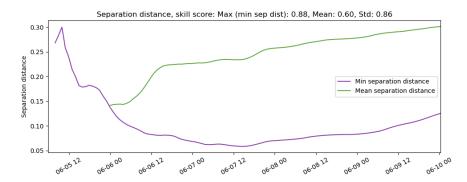


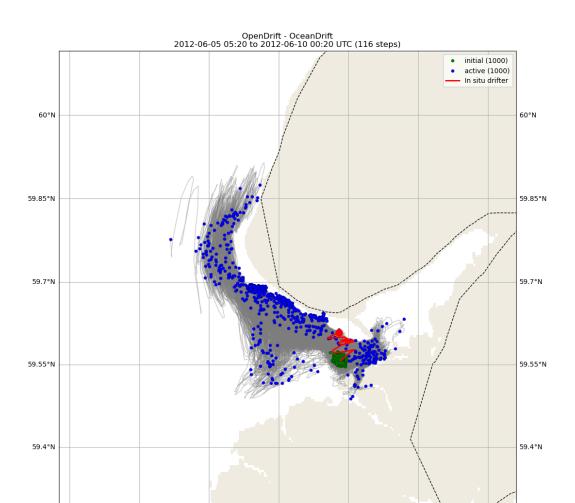


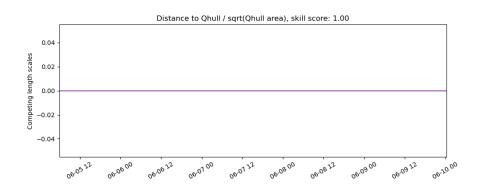
CIOFS











151.75°W

151.5°W

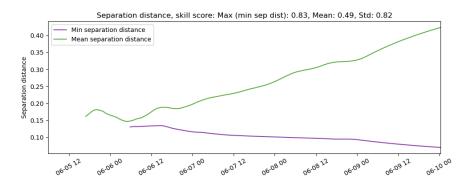
151.25°W

151°W

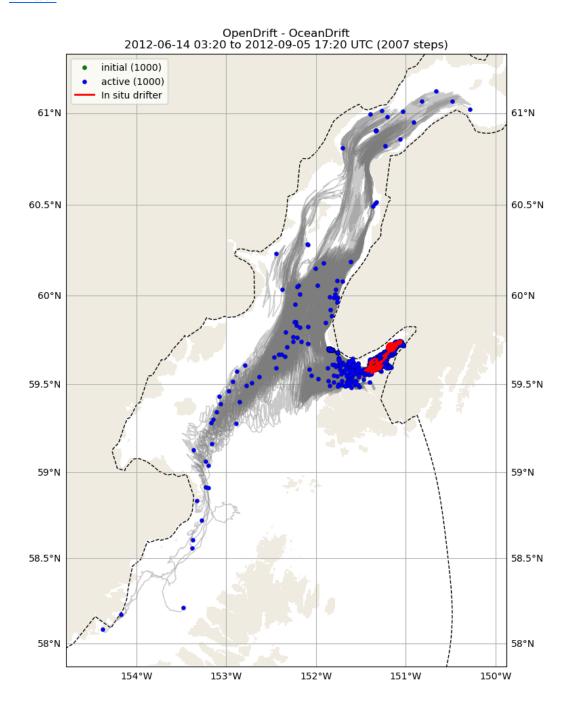
152.5°W

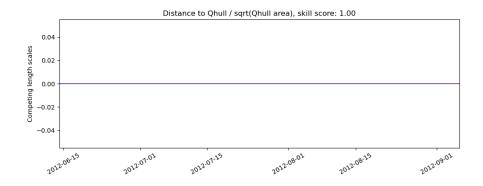
152.25°W

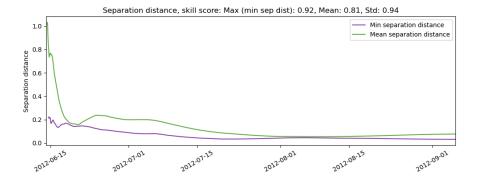
152°W



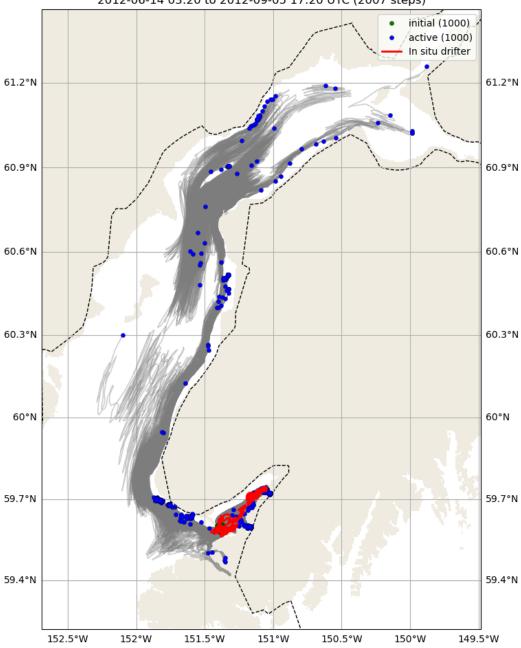
CIOFS

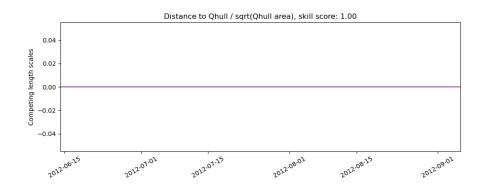


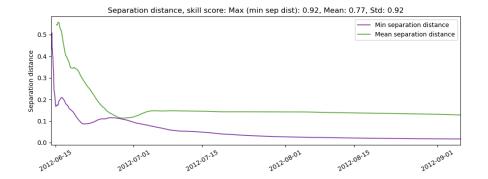




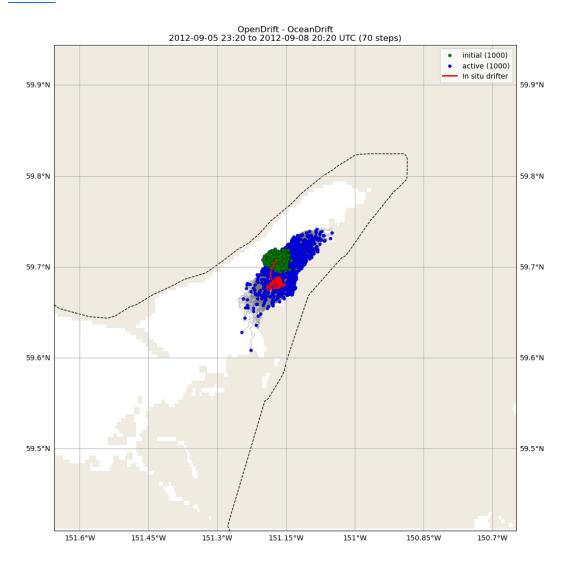
OpenDrift - OceanDrift 2012-06-14 03:20 to 2012-09-05 17:20 UTC (2007 steps)

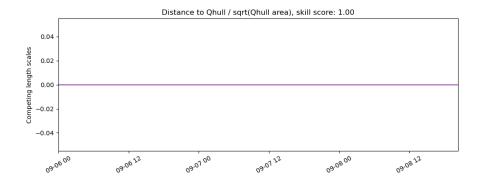


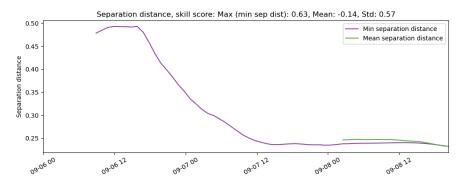


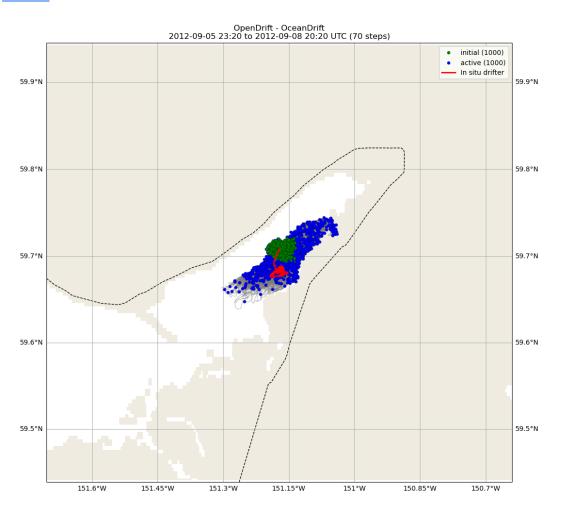


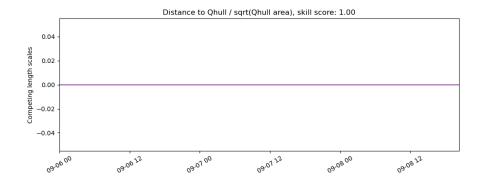
CIOFS

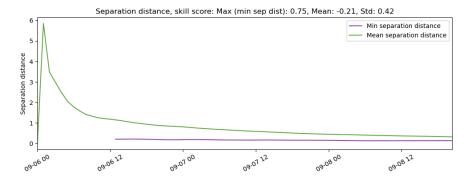




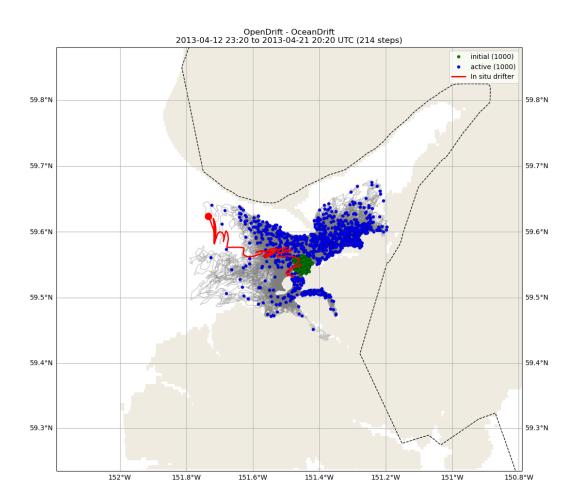


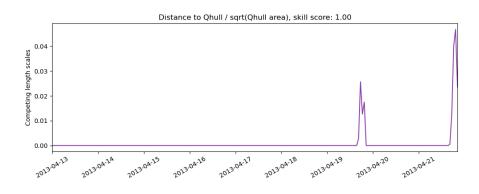


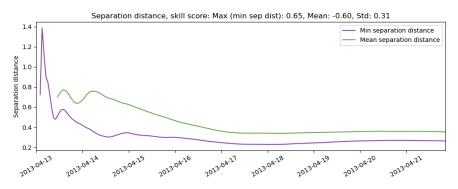


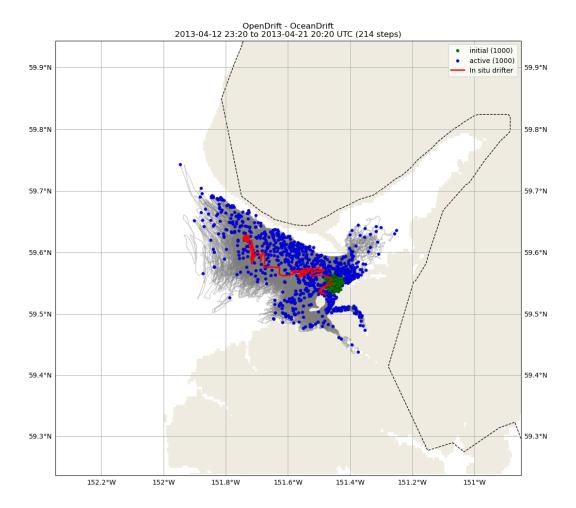


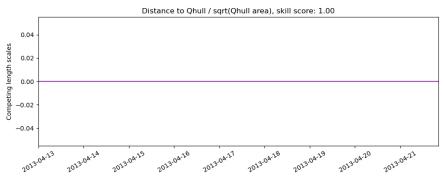
CIOFS

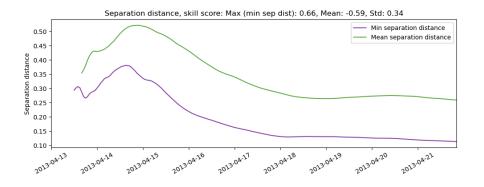




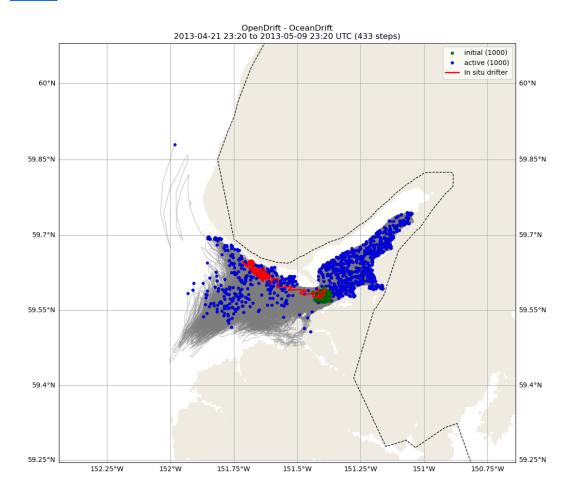


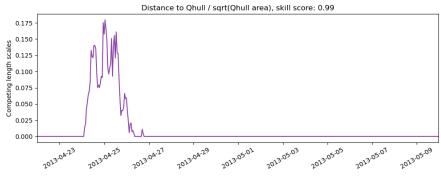


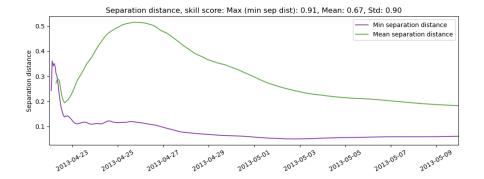


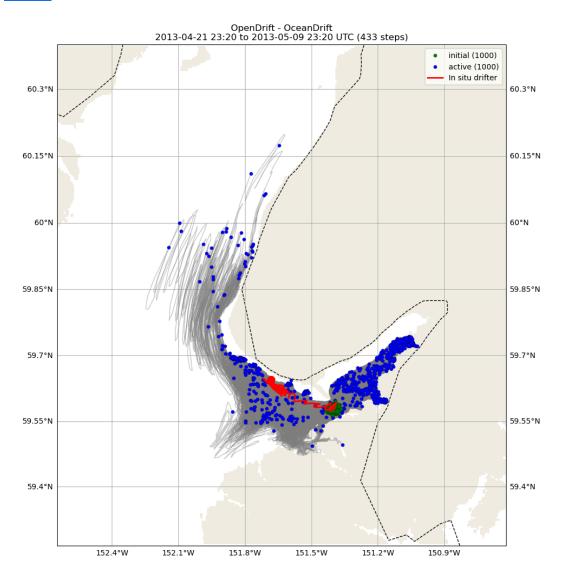


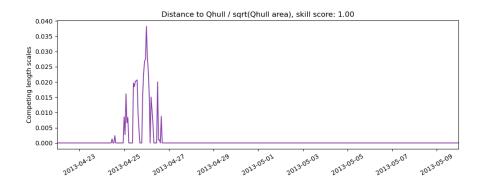
CIOFS

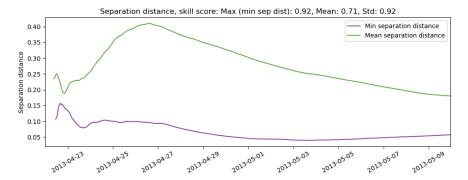




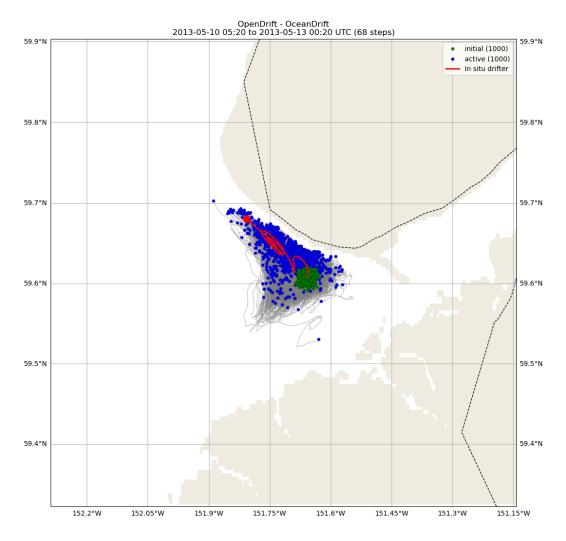


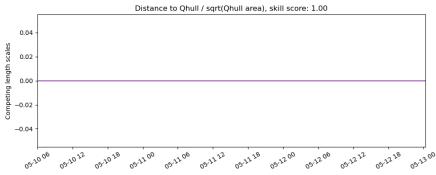


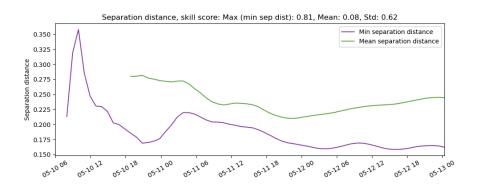


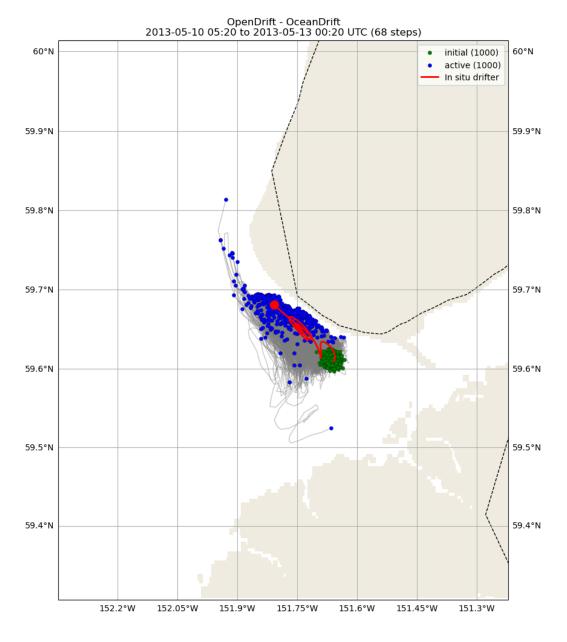


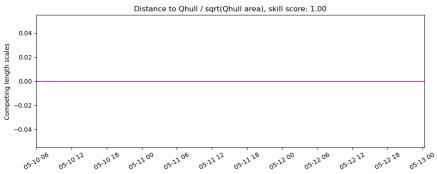
CIOFS

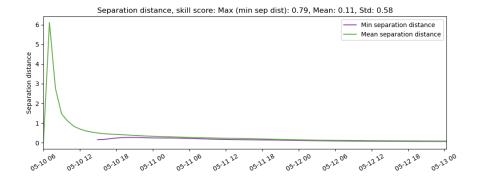




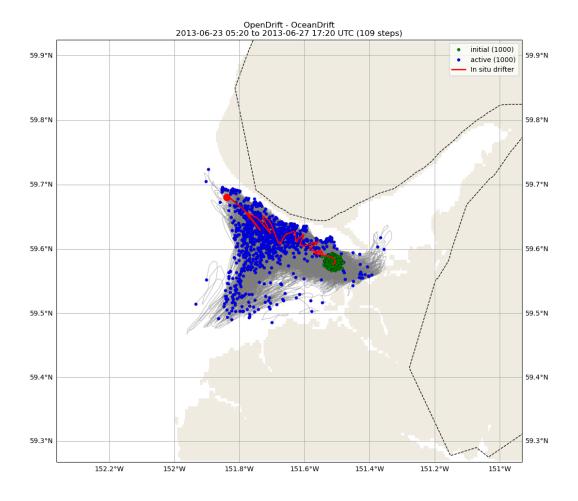


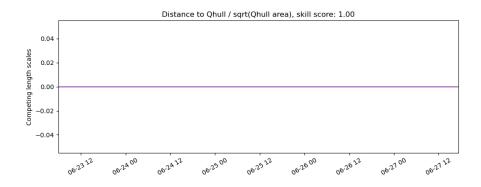


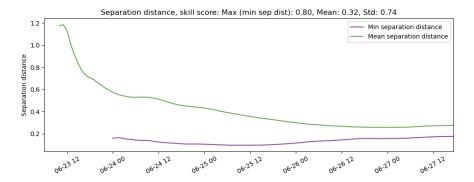


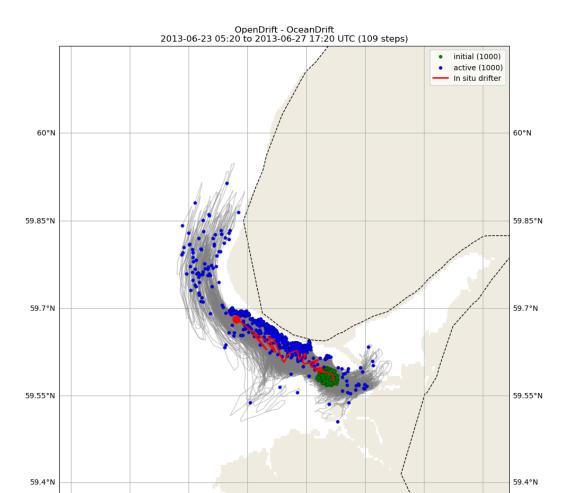


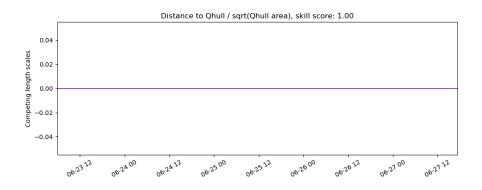
CIOFS











151.6°W

151.4°W

151.2°W

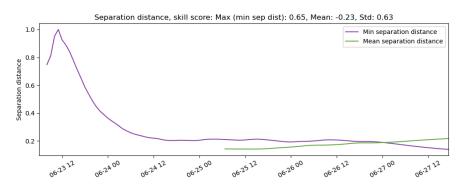
151°W

152.4°W

152.2°W

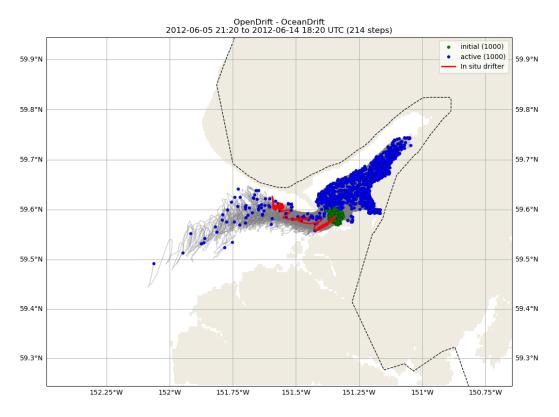
152°W

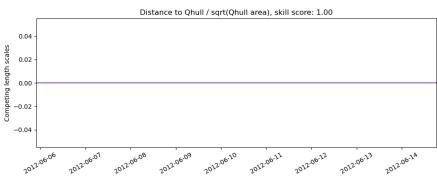
151.8°W

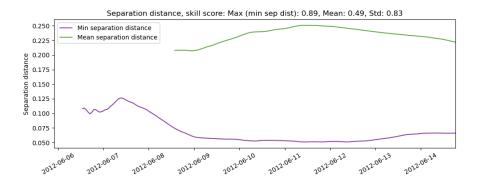


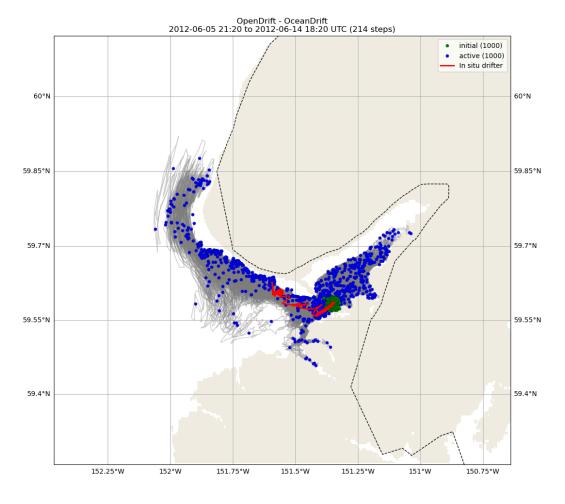
CIOFS

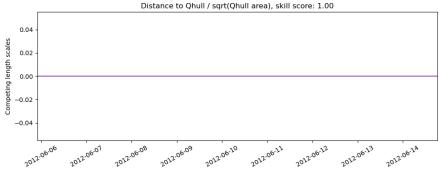
Animation

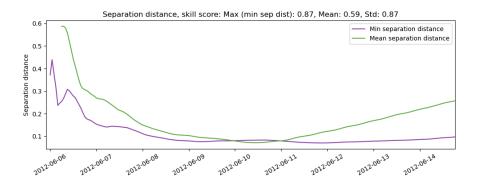




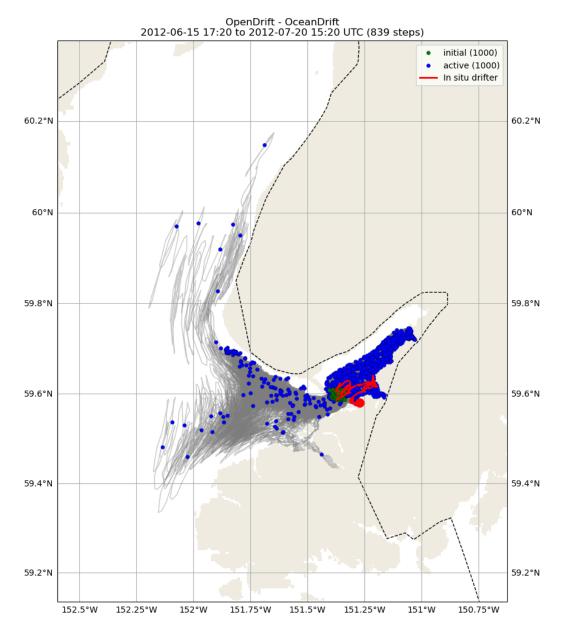


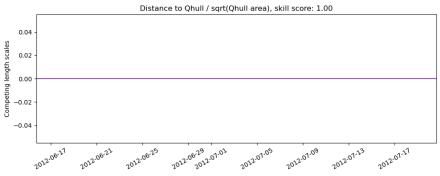


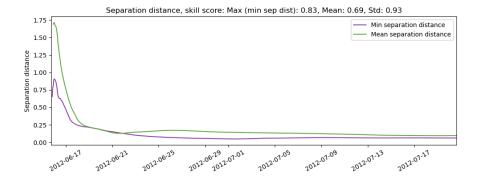




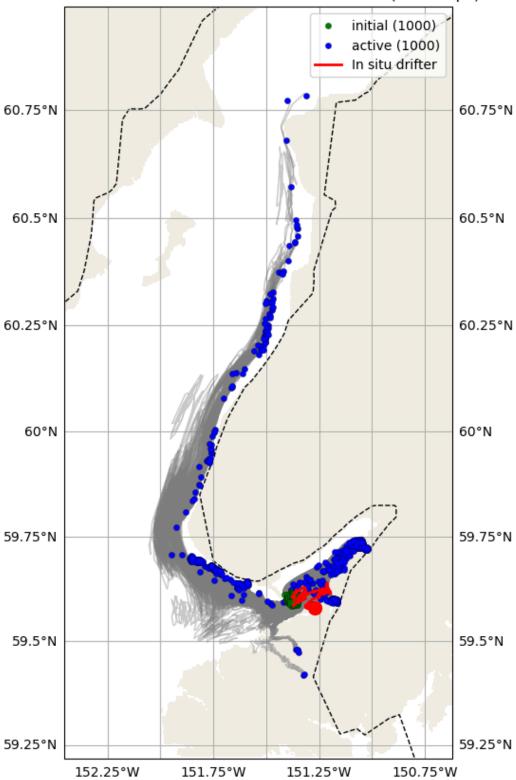
CIOFS

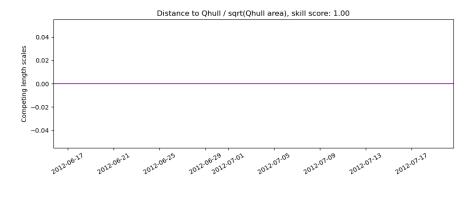


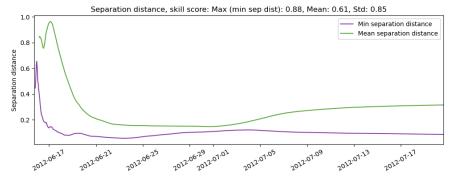




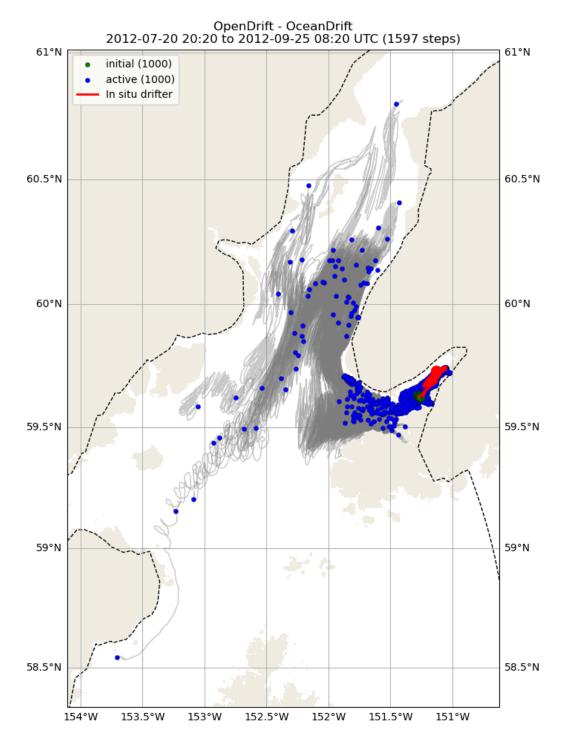
OpenDrift - OceanDrift 2012-06-15 17:20 to 2012-07-20 15:20 UTC (839 steps)

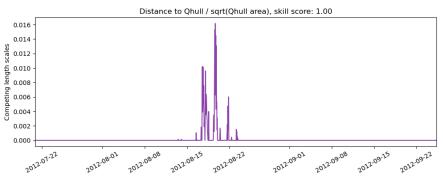


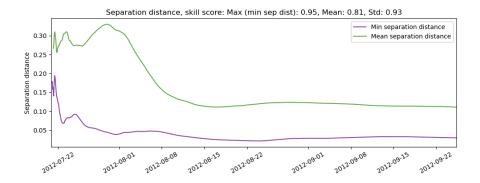




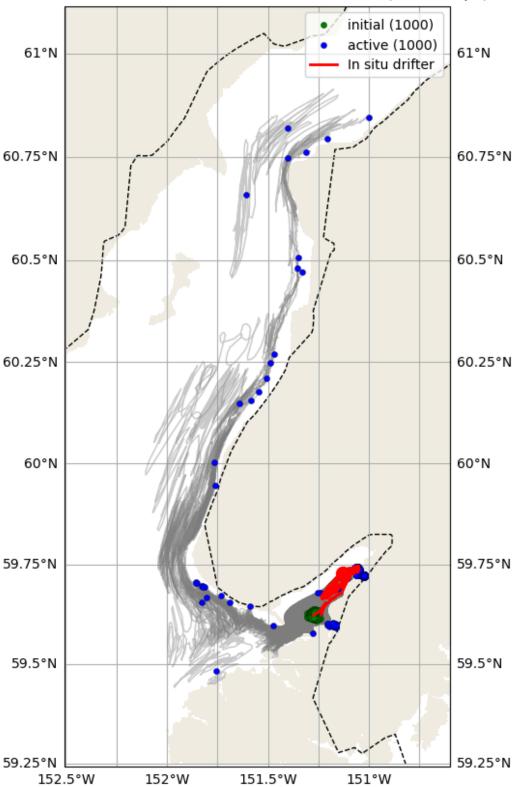
CIOFS

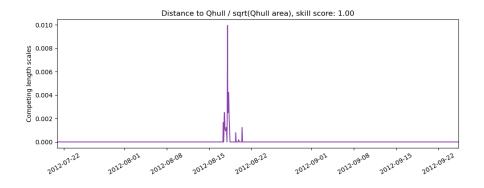


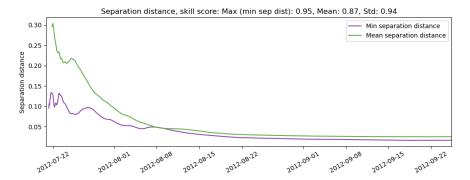




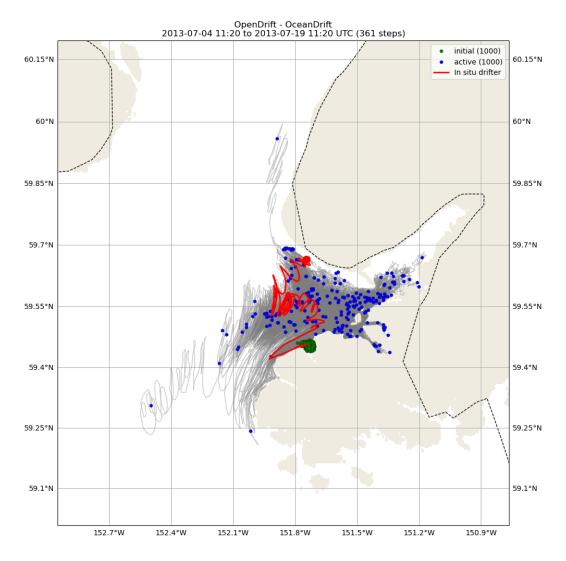
OpenDrift - OceanDrift 2012-07-20 20:20 to 2012-09-25 08:20 UTC (1597 steps)

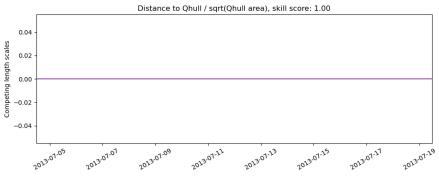


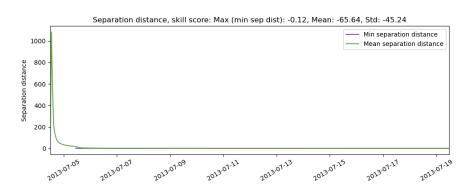


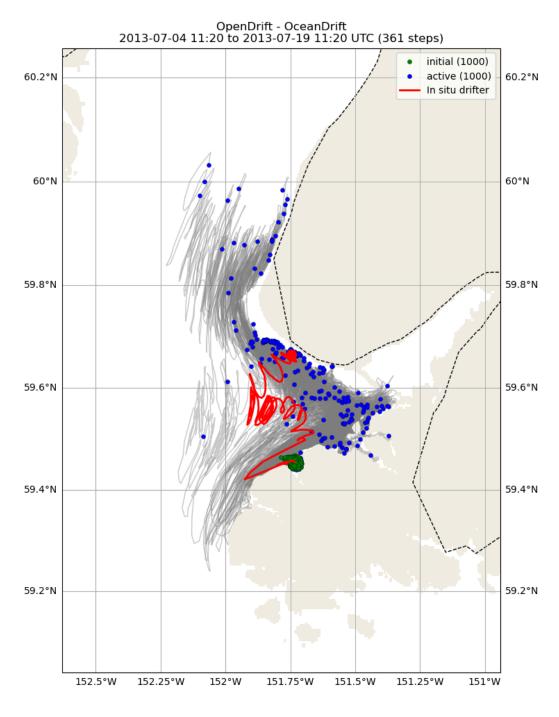


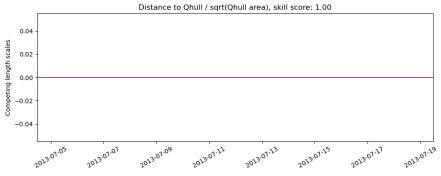
CIOFS

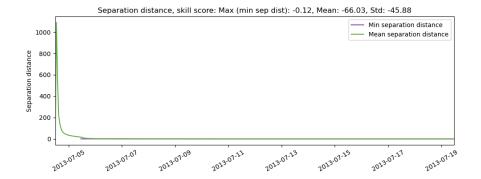




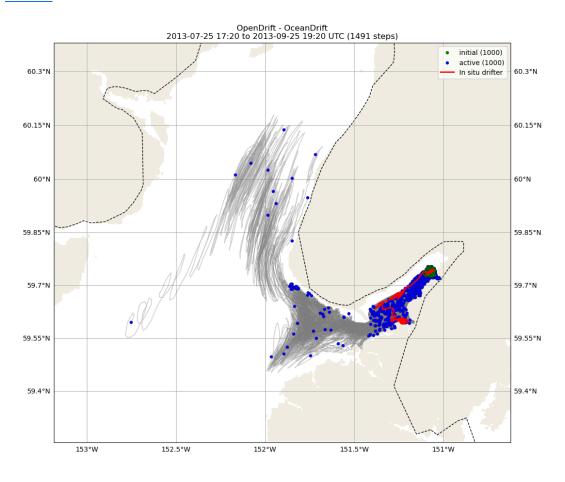


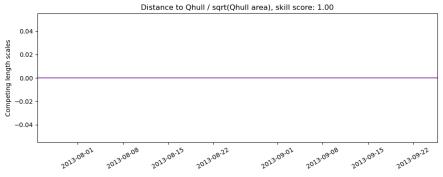


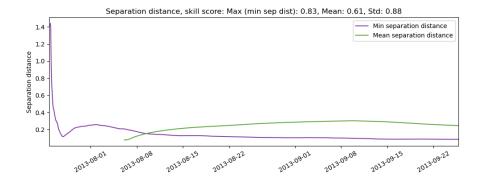


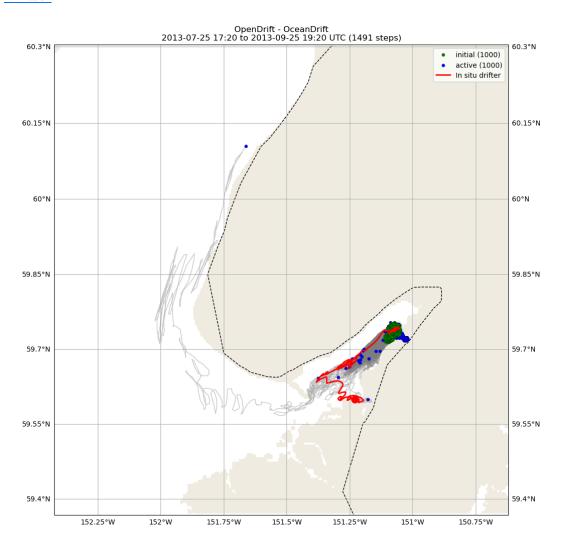


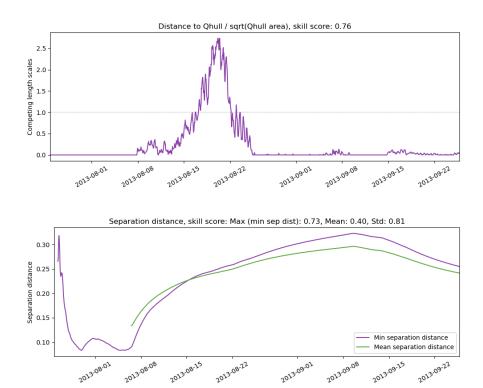
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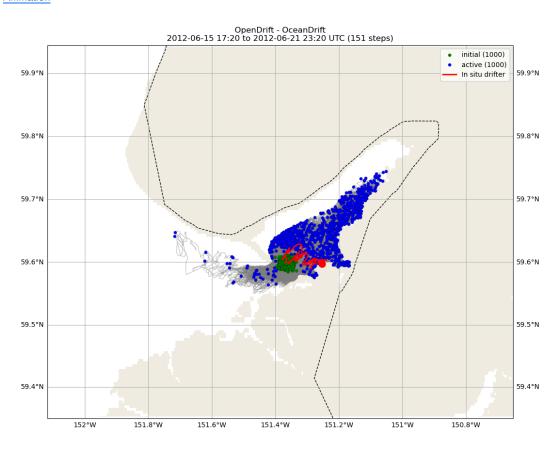


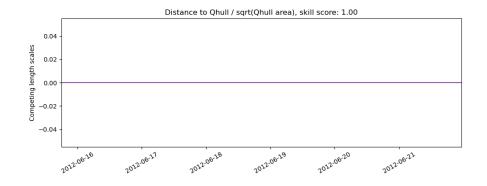


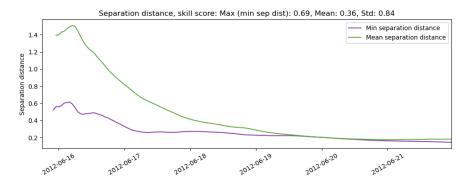


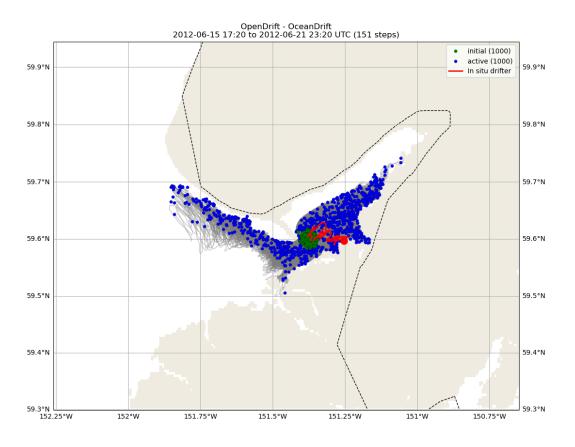


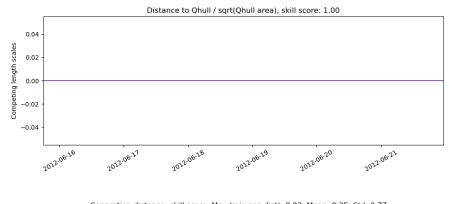
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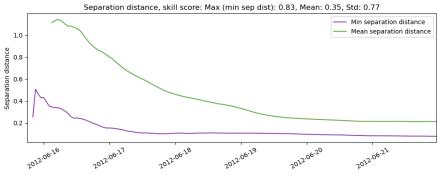




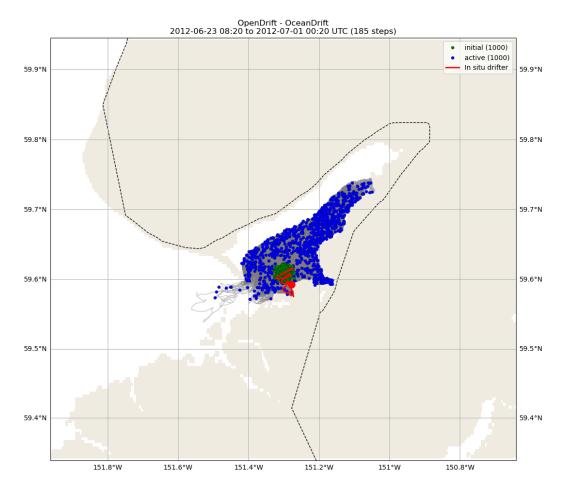


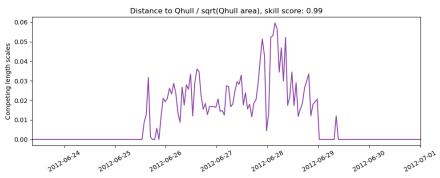


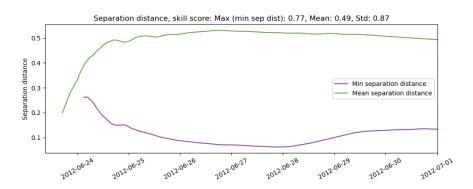


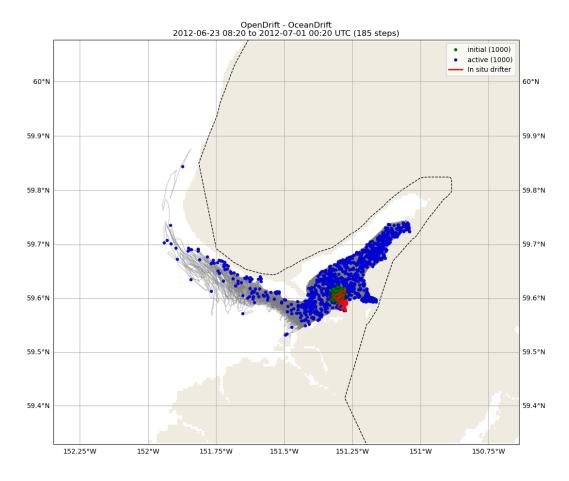


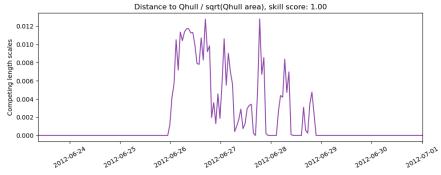
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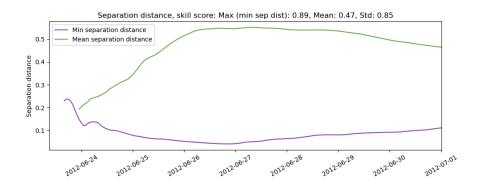






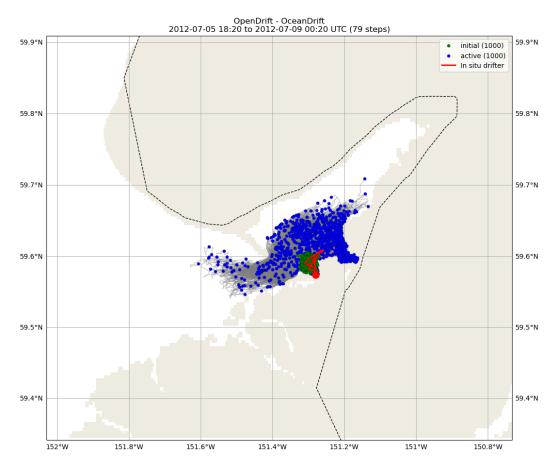


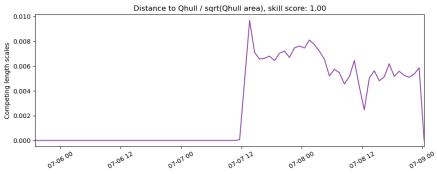


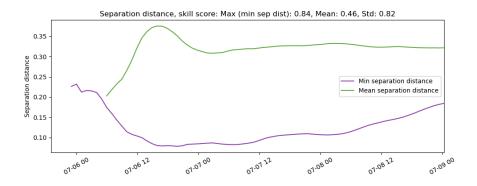


 $CID rifter 0013Y2012_Subsurface Drogue At 15M_deployment 3$

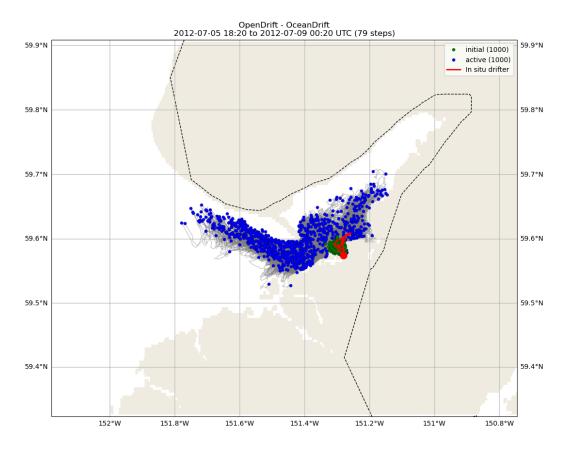
• Animation

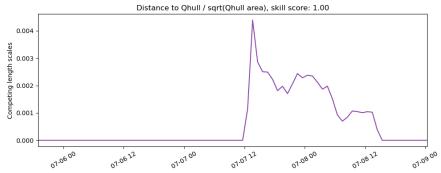


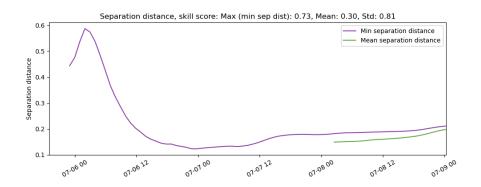




CIOFSFRESH

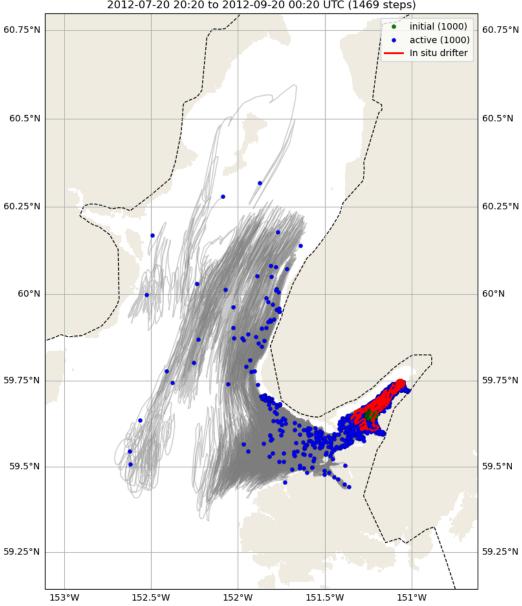


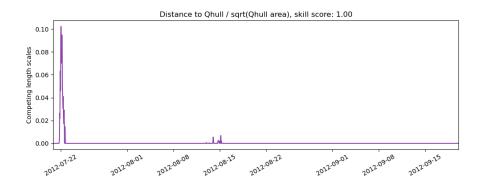


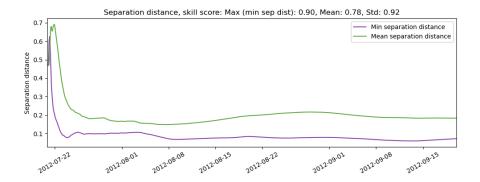


CIOFS

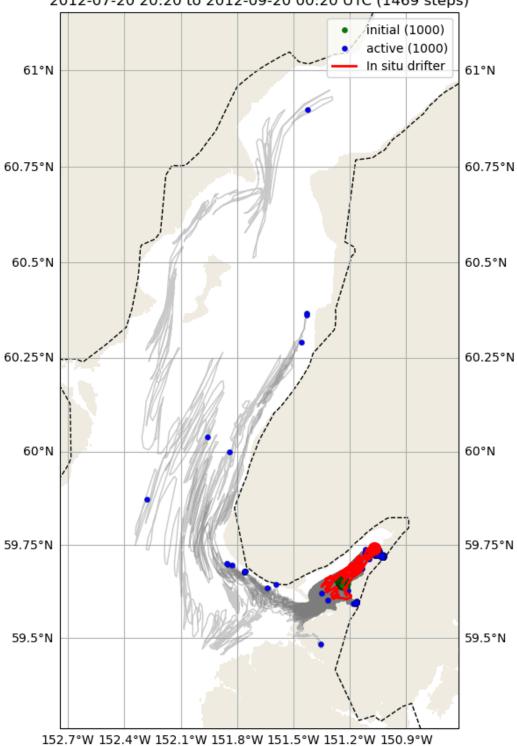
OpenDrift - OceanDrift 2012-07-20 20:20 to 2012-09-20 00:20 UTC (1469 steps)

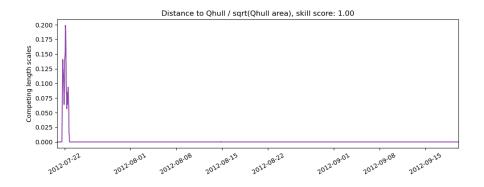


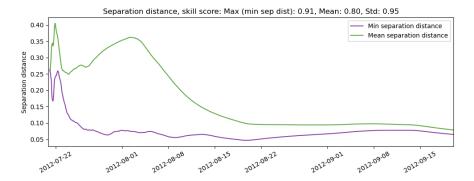




OpenDrift - OceanDrift 2012-07-20 20:20 to 2012-09-20 00:20 UTC (1469 steps)

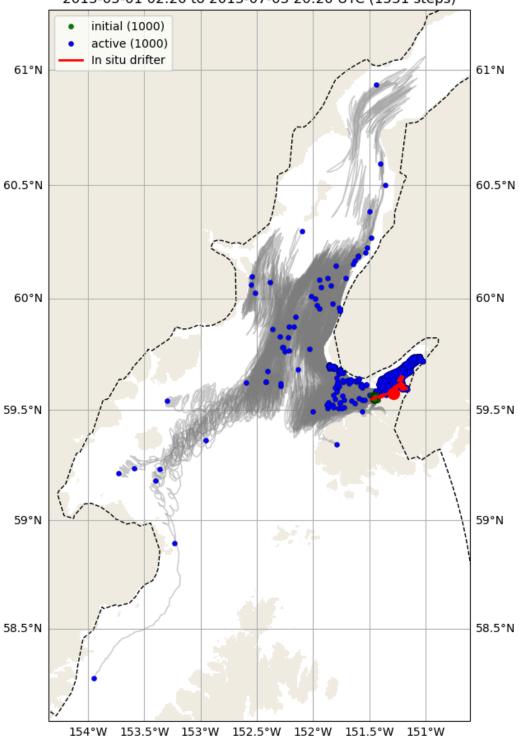


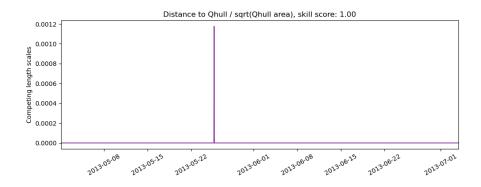


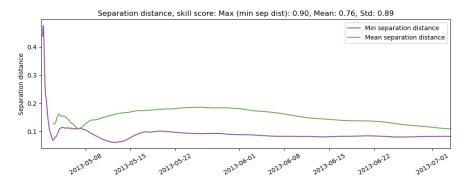


CIOFS

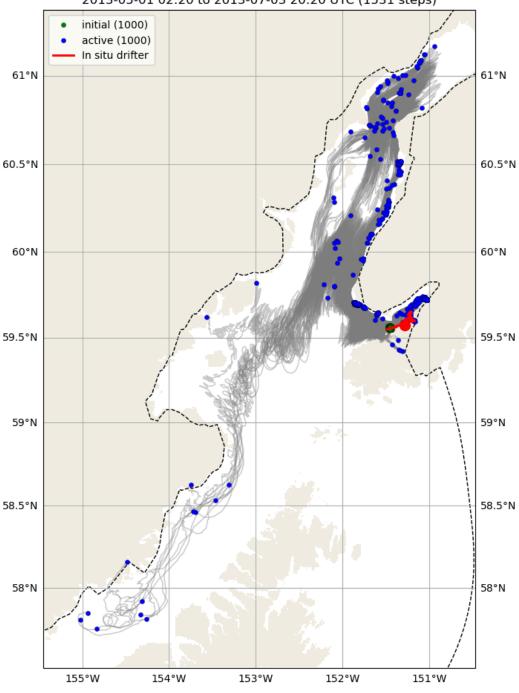
OpenDrift - OceanDrift 2013-05-01 02:20 to 2013-07-03 20:20 UTC (1531 steps)

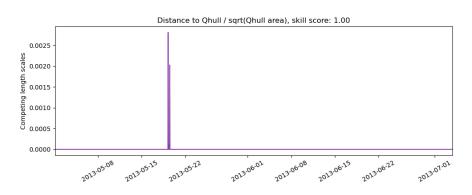


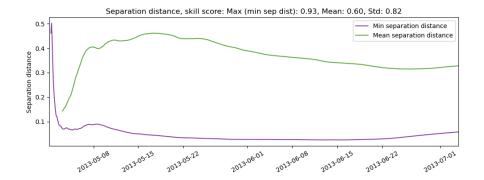




OpenDrift - OceanDrift 2013-05-01 02:20 to 2013-07-03 20:20 UTC (1531 steps)

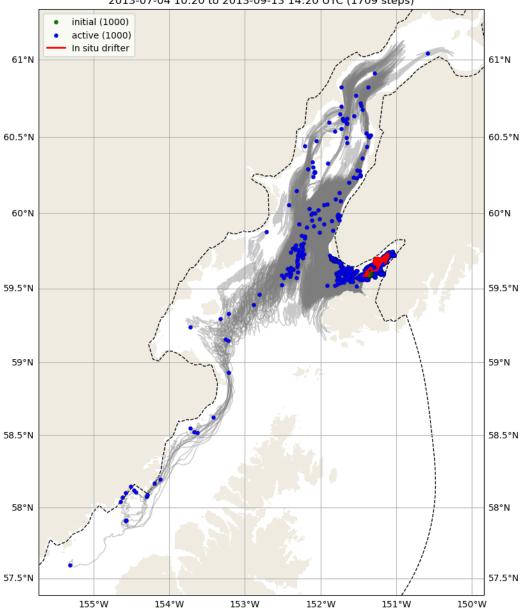


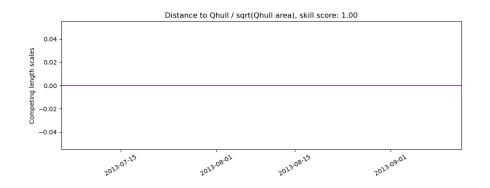


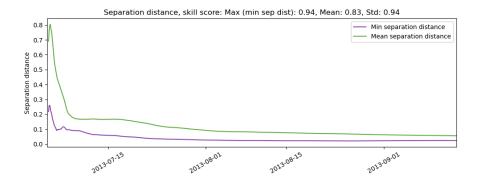


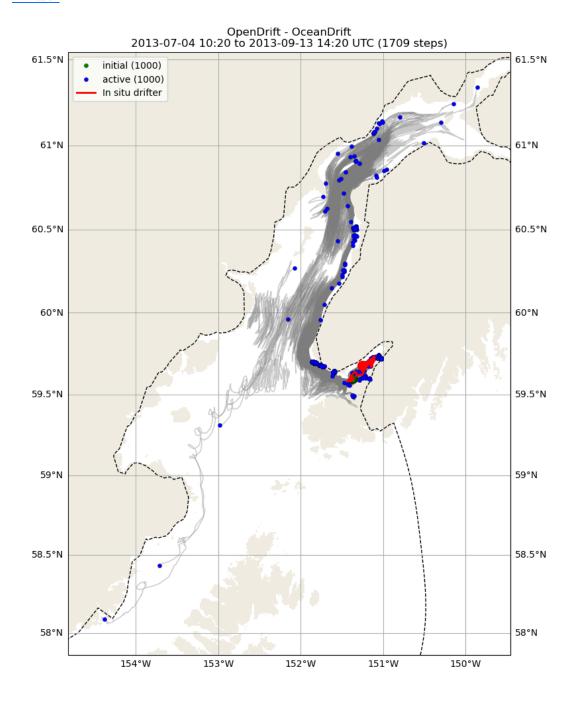
CIOFS

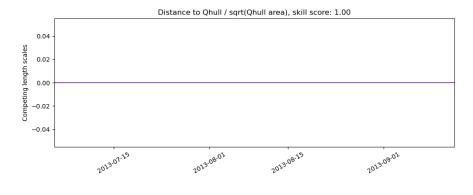
OpenDrift - OceanDrift 2013-07-04 10:20 to 2013-09-13 14:20 UTC (1709 steps)

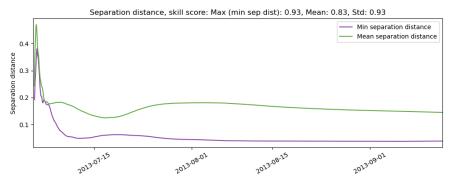






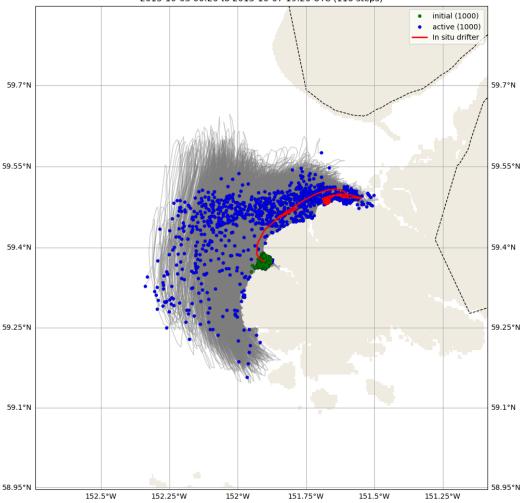


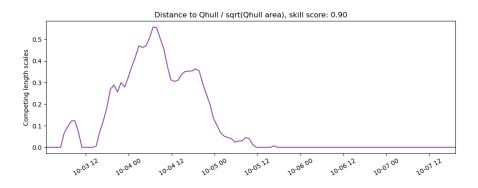


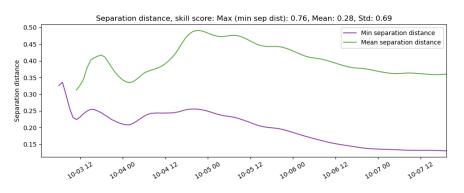


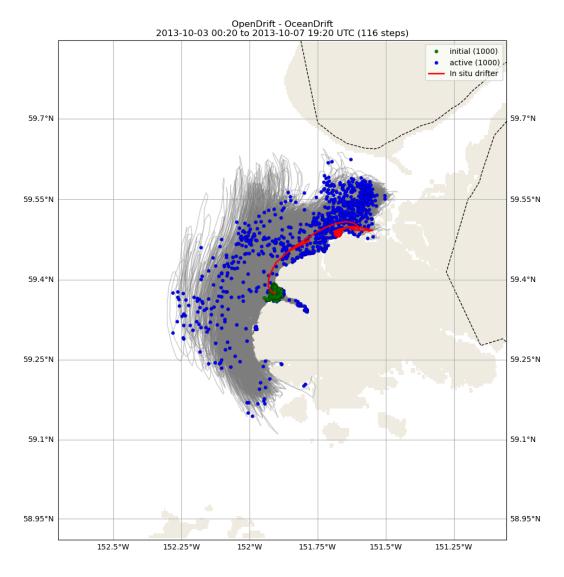
CIOFS

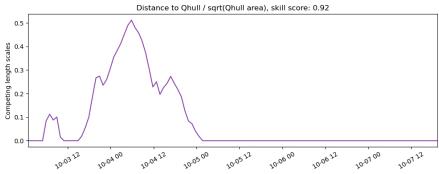
OpenDrift - OceanDrift 2013-10-03 00:20 to 2013-10-07 19:20 UTC (116 steps)

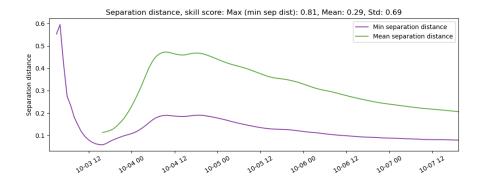




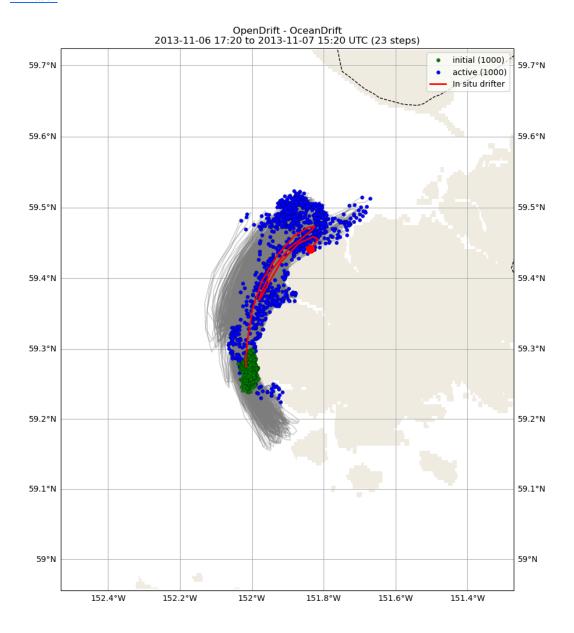


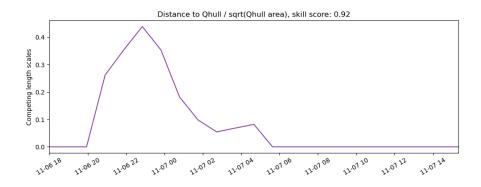


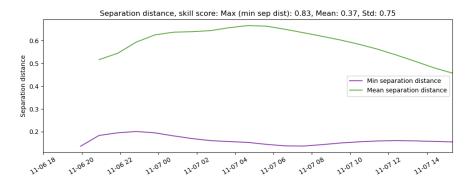


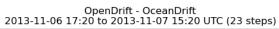


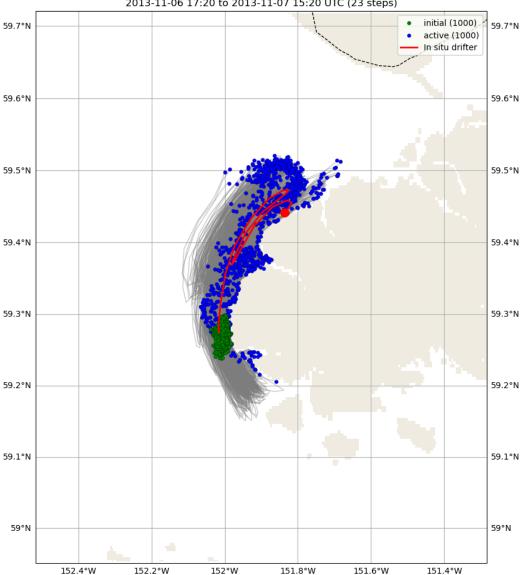
CIOFS

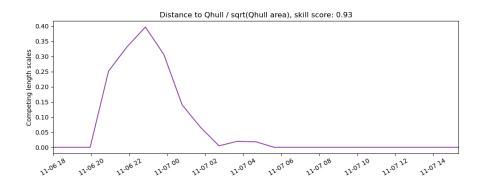


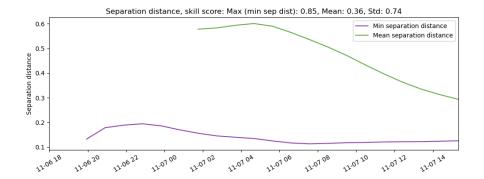




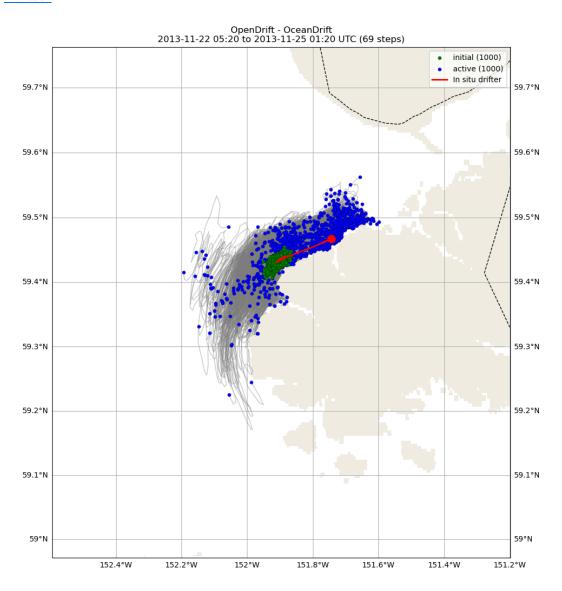


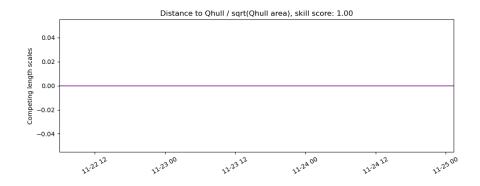


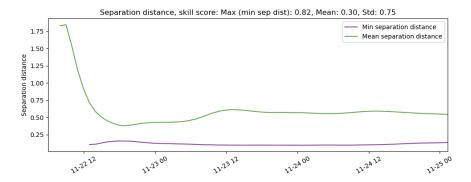


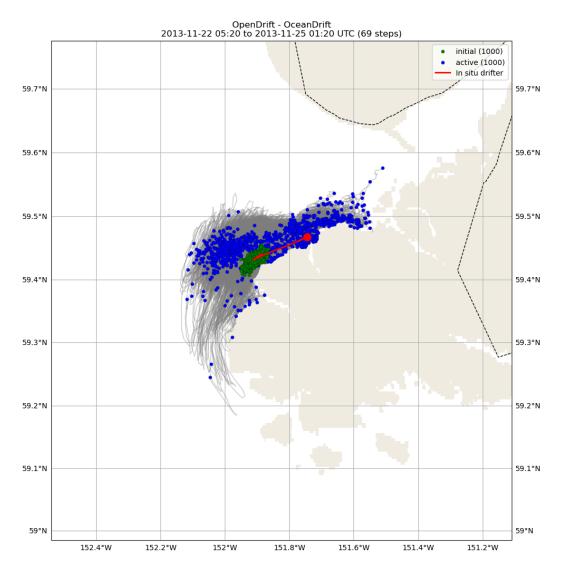


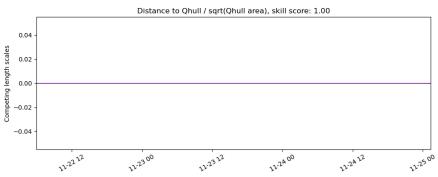
CIOFS

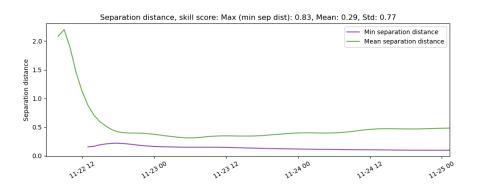




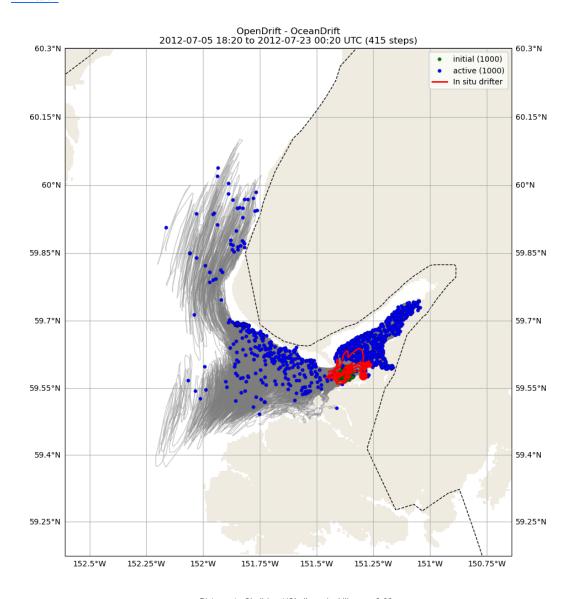


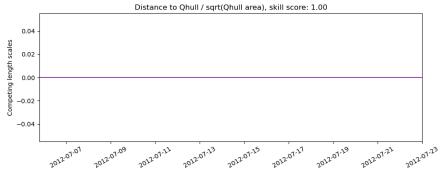


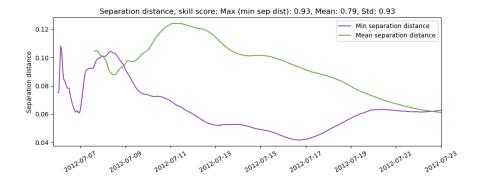


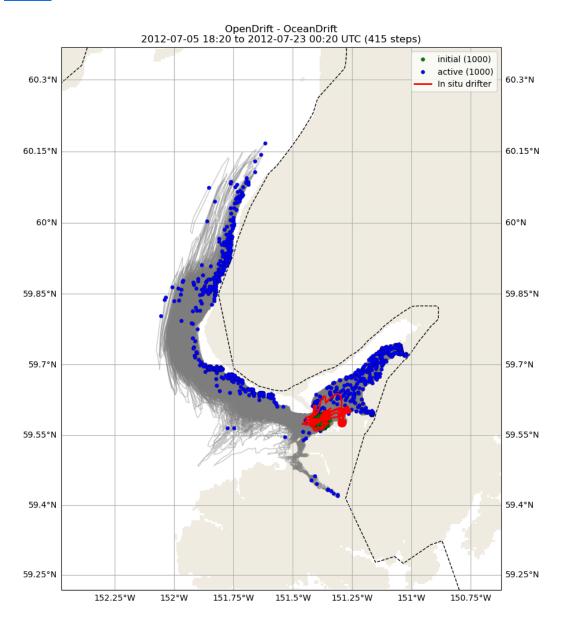


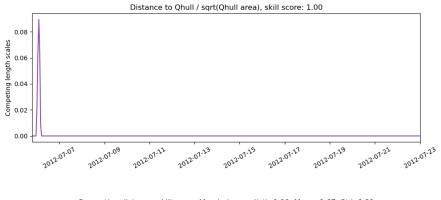
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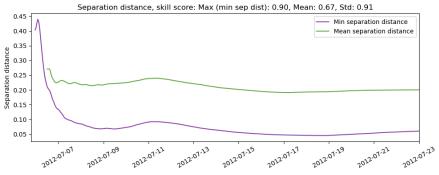






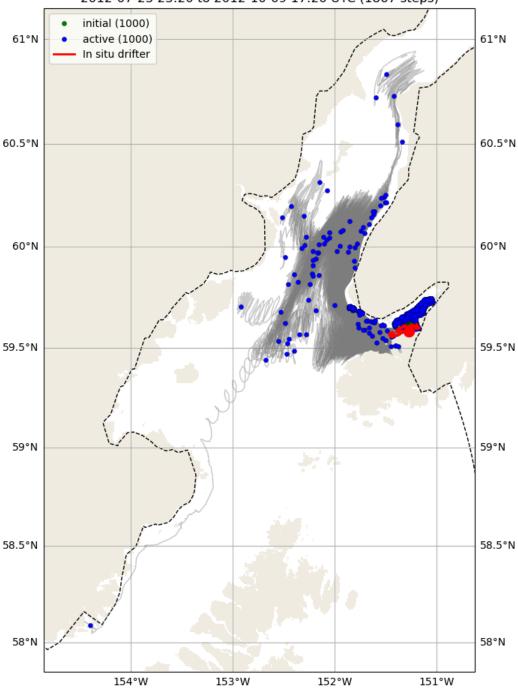


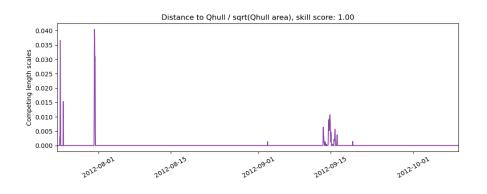


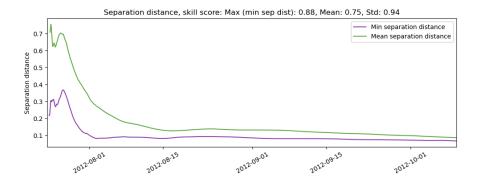


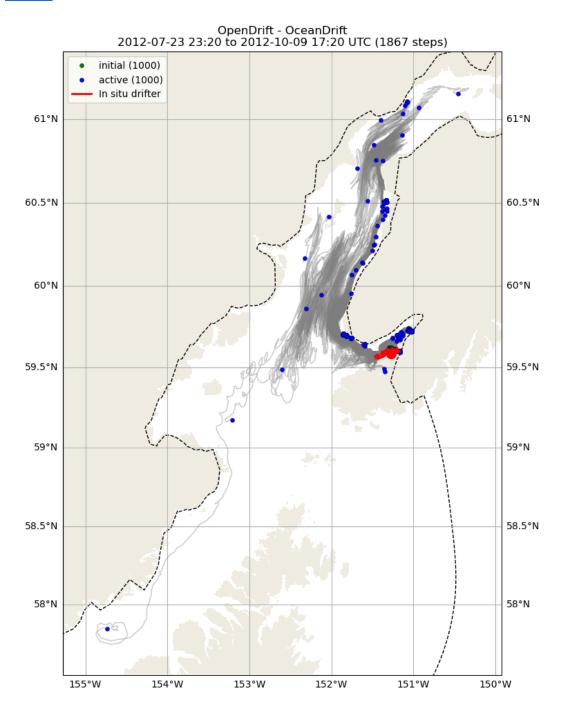
CIOFS

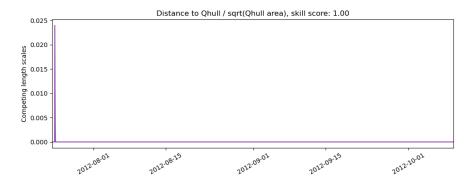
OpenDrift - OceanDrift 2012-07-23 23:20 to 2012-10-09 17:20 UTC (1867 steps)

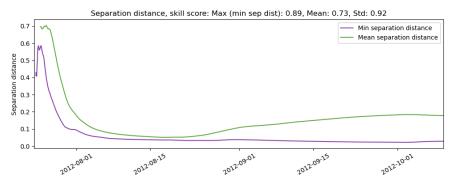




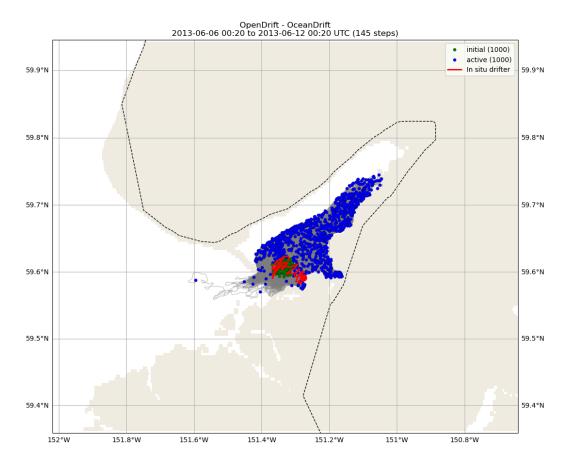


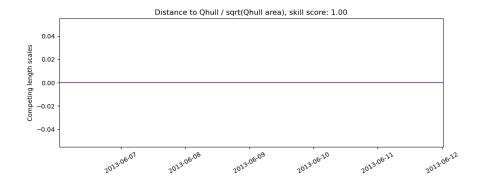


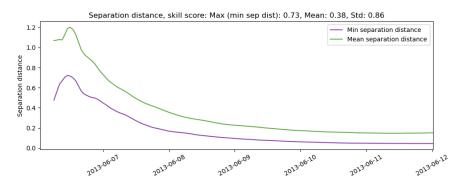


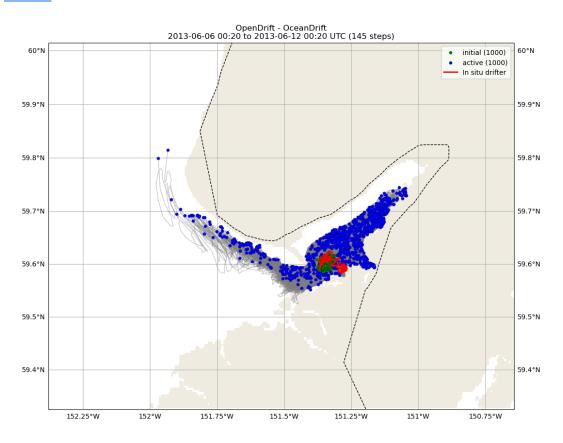


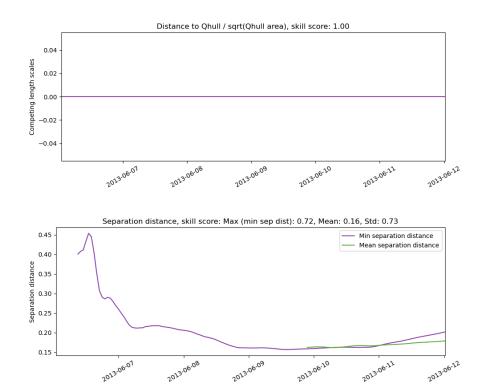
CIOFS





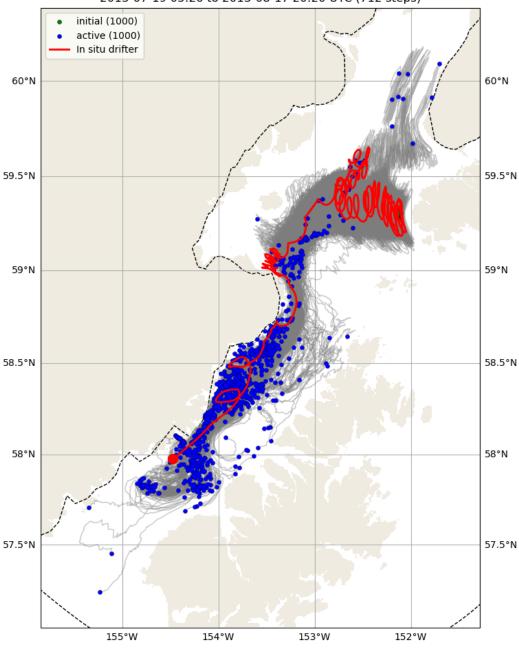


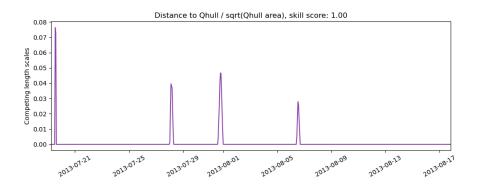


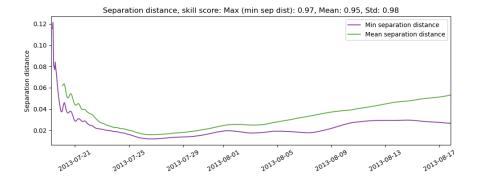


CIOFS

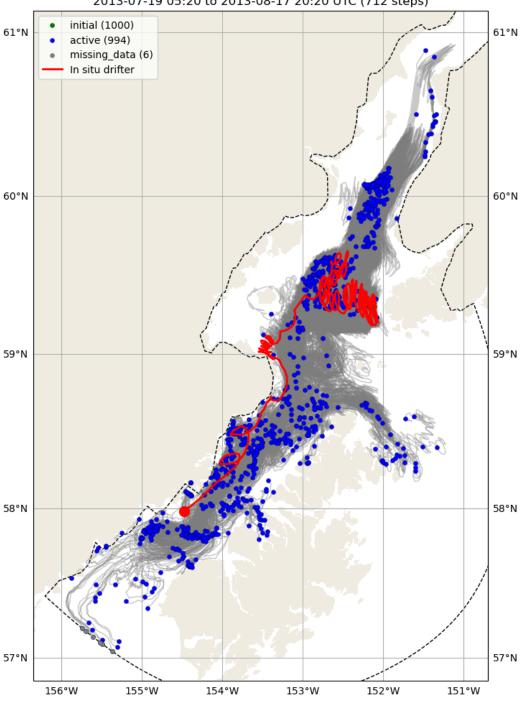
OpenDrift - OceanDrift 2013-07-19 05:20 to 2013-08-17 20:20 UTC (712 steps)

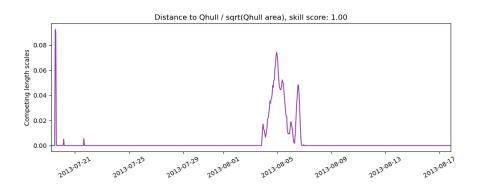


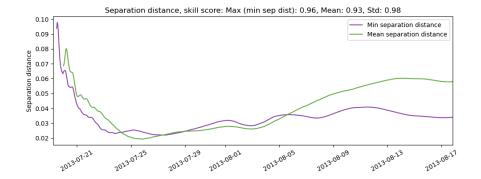




OpenDrift - OceanDrift 2013-07-19 05:20 to 2013-08-17 20:20 UTC (712 steps)

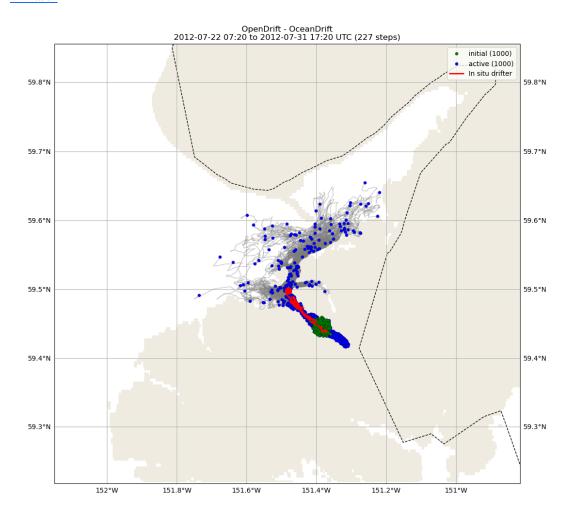


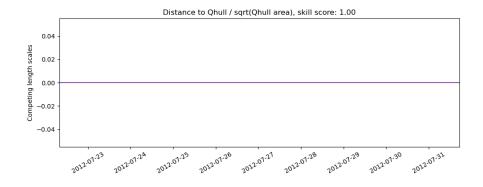


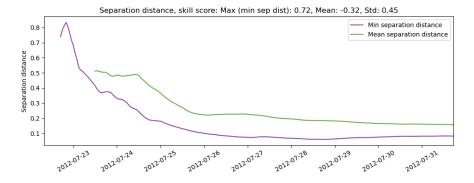


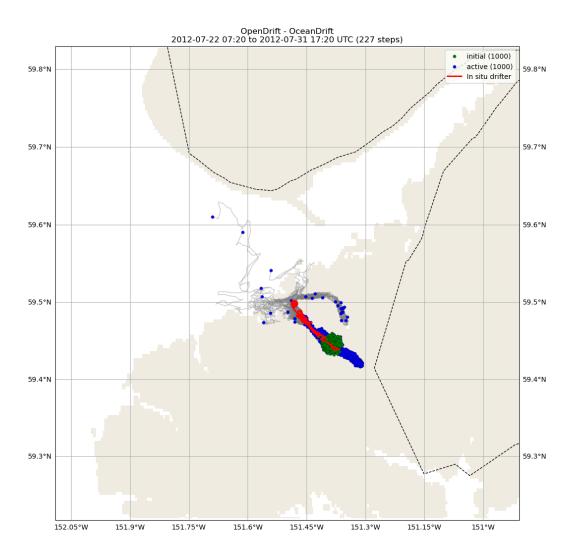
CIDrifter0015Y2012_SubsurfaceDrogueAt15M_deployment1

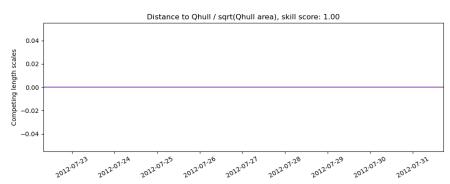
CIOFS

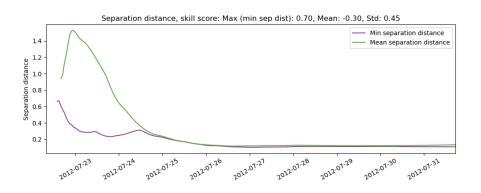






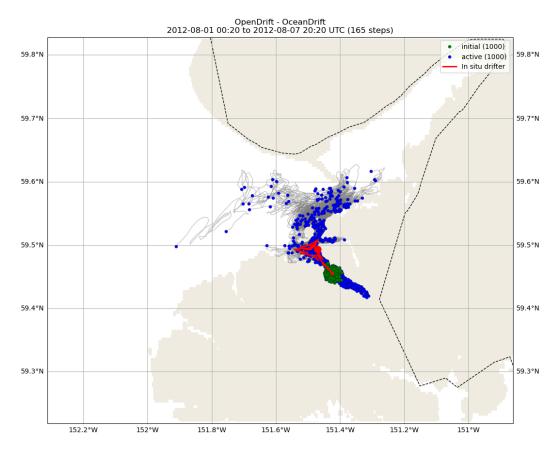


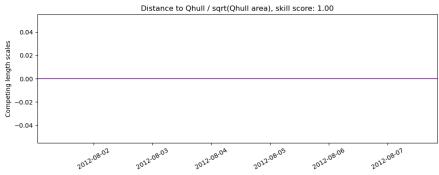


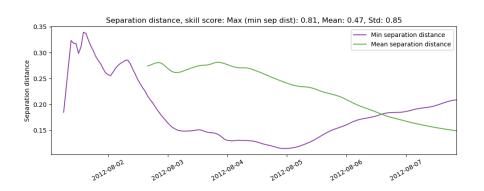


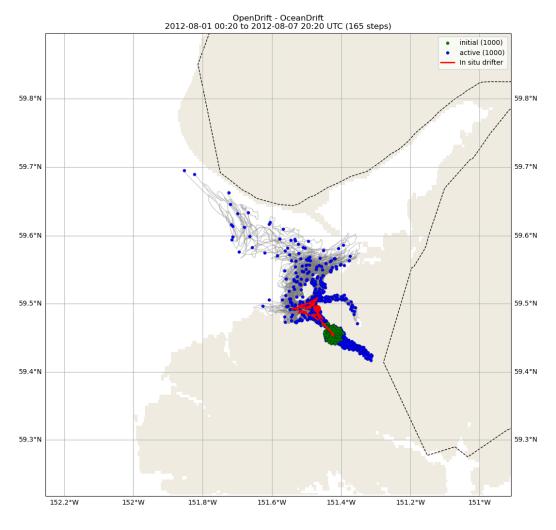
$CID rifter 0015Y2012_Subsurface Drogue At 15M_deployment 2$

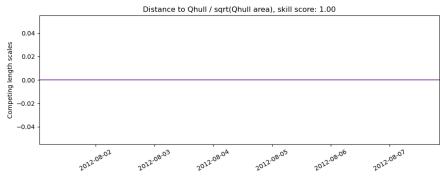
CIOFS

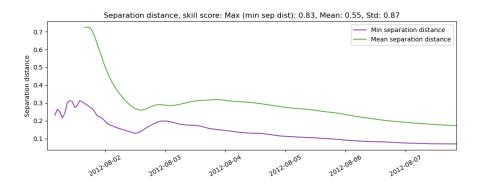




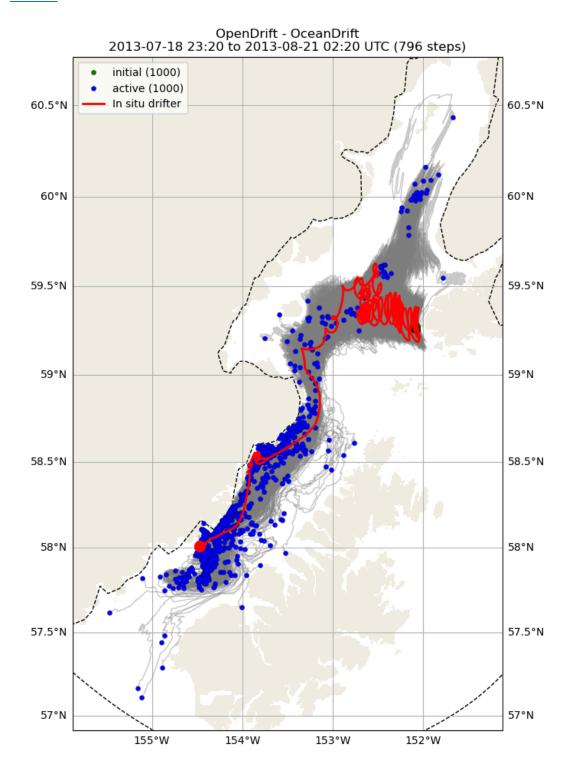


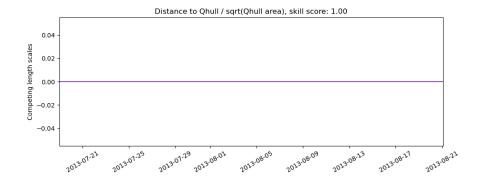


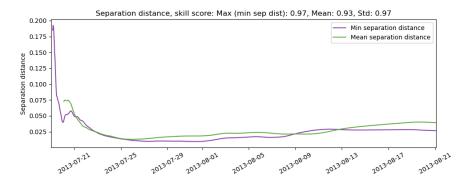




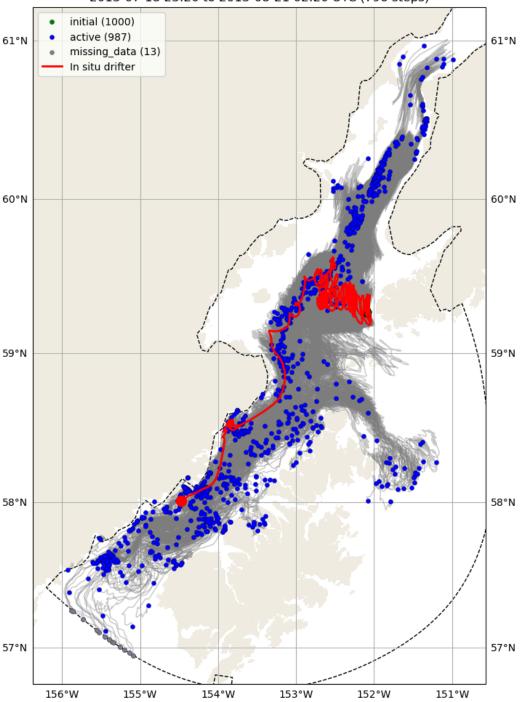
CIOFS

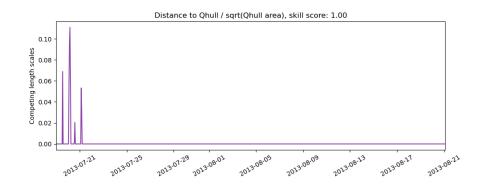


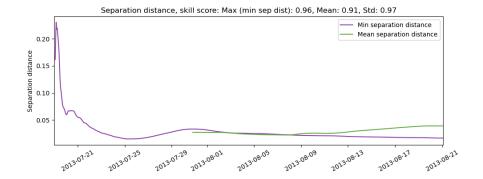




OpenDrift - OceanDrift 2013-07-18 23:20 to 2013-08-21 02:20 UTC (796 steps)



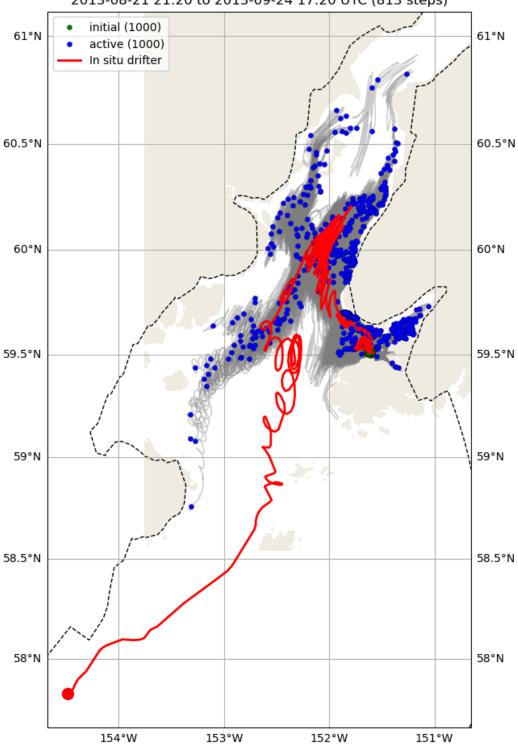


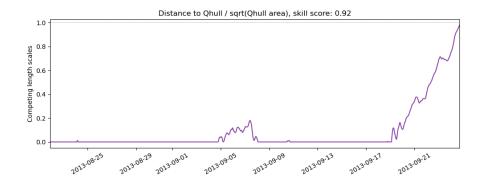


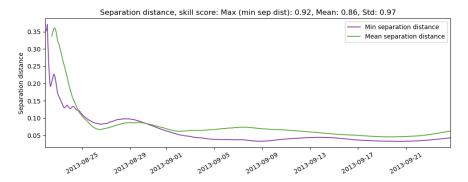
$CIDrifter 0017Y2013_Subsurface Drogue At 15M_deployment 1$

CIOFS

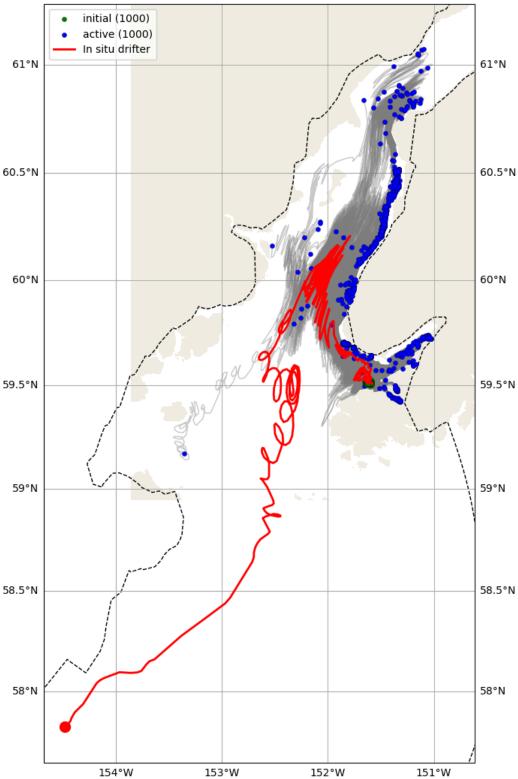
OpenDrift - OceanDrift 2013-08-21 21:20 to 2013-09-24 17:20 UTC (813 steps)

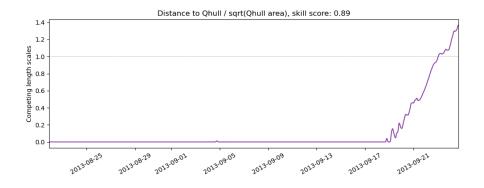


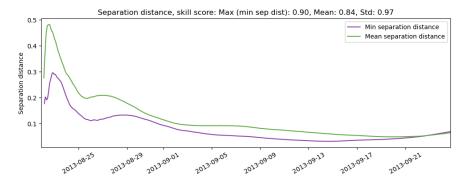




OpenDrift - OceanDrift 2013-08-21 21:20 to 2013-09-24 17:20 UTC (813 steps)



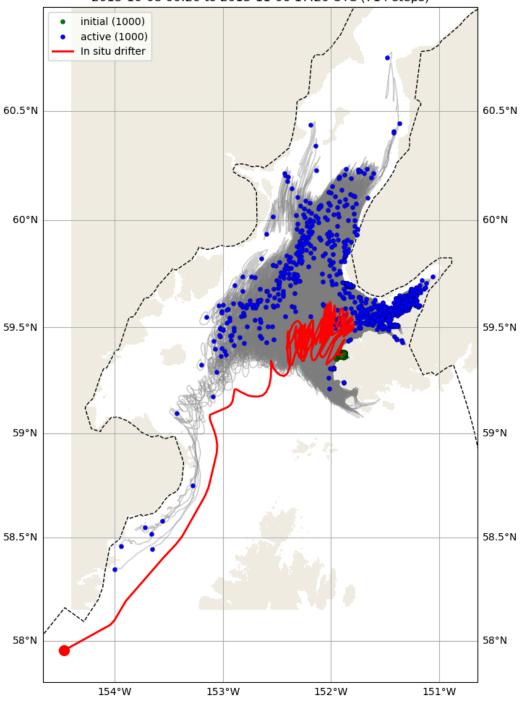


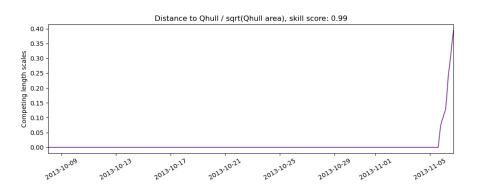


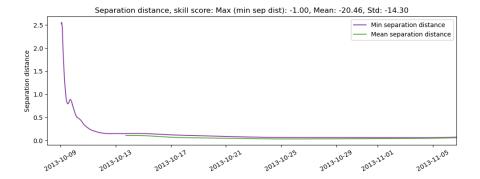
$CID rifter 0018Y2013_Subsurface Drogue At 15 M_deployment 1$

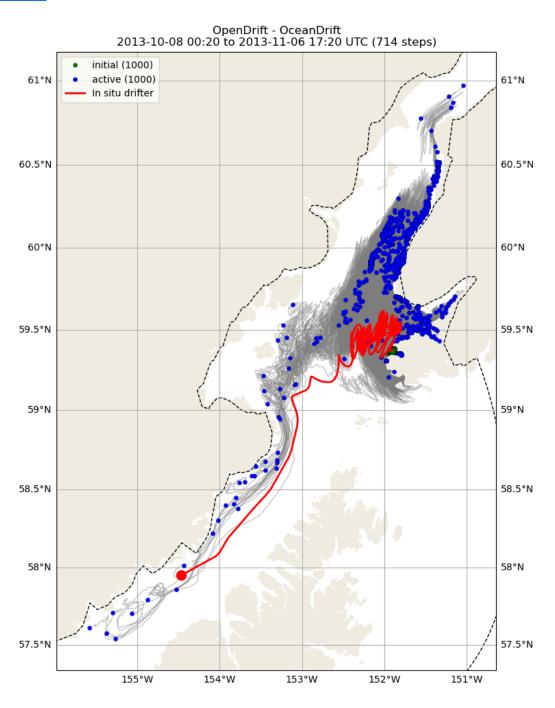
CIOFS

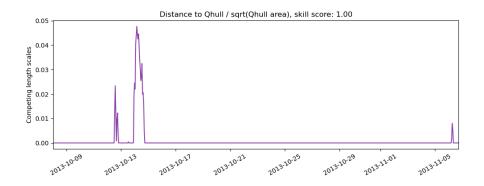
OpenDrift - OceanDrift 2013-10-08 00:20 to 2013-11-06 17:20 UTC (714 steps)

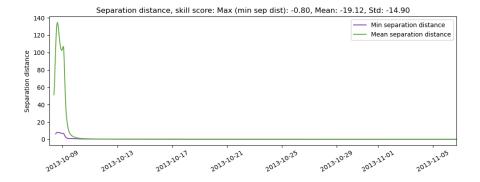








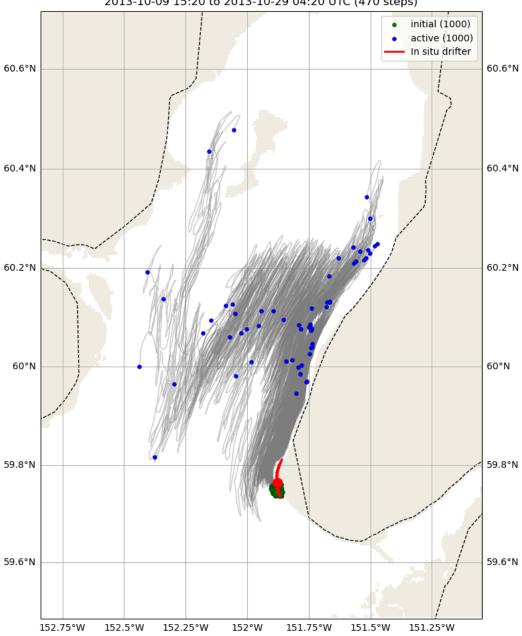


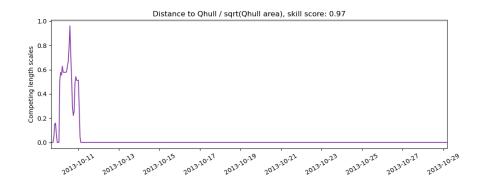


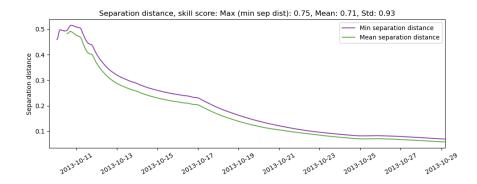
$CID rifter 0019Y2013_Subsurface Drogue At 15 M_deployment 1$

CIOFS

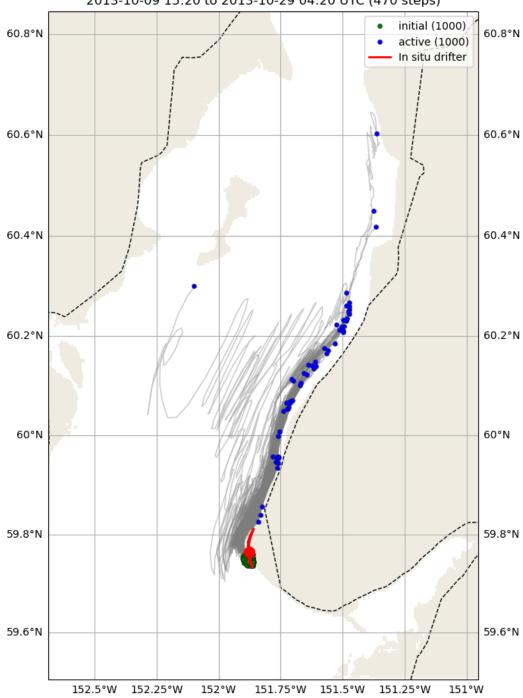
OpenDrift - OceanDrift 2013-10-09 15:20 to 2013-10-29 04:20 UTC (470 steps)

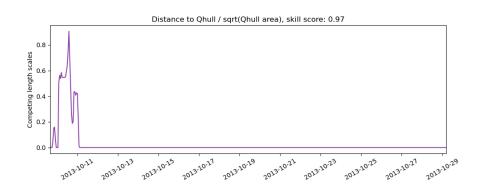


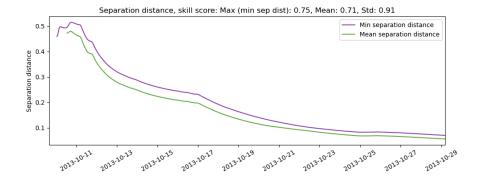




OpenDrift - OceanDrift 2013-10-09 15:20 to 2013-10-29 04:20 UTC (470 steps)



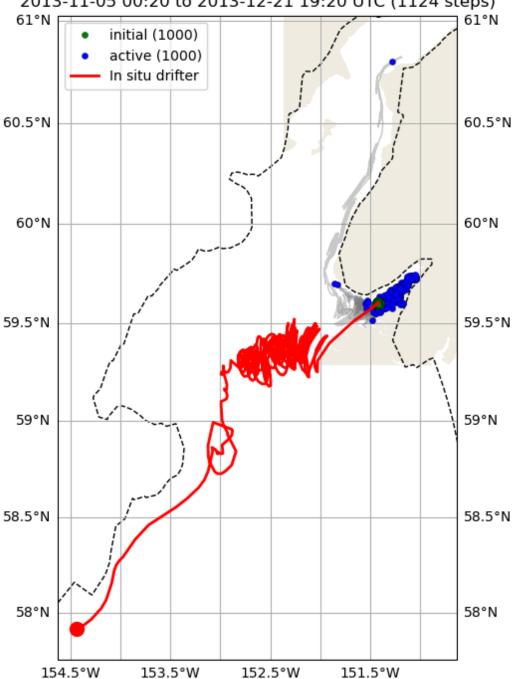


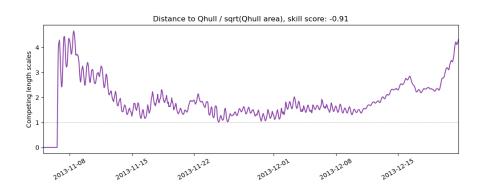


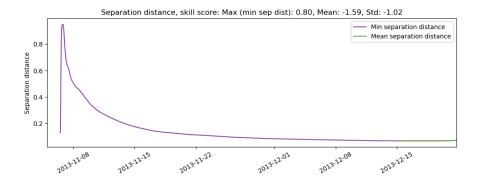
$CID rifter 0019Y2013_Subsurface Drogue At 15 M_deployment 2$

CIOFS

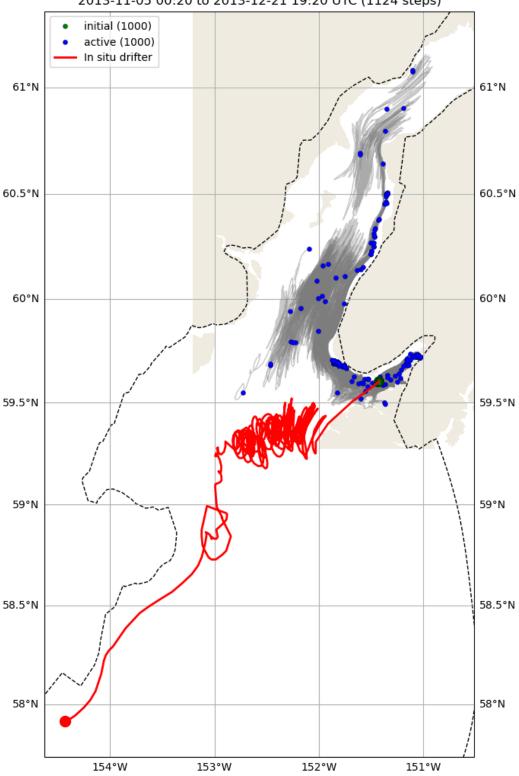
OpenDrift - OceanDrift 2013-11-05 00:20 to 2013-12-21 19:20 UTC (1124 steps)

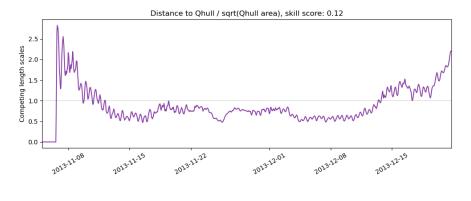


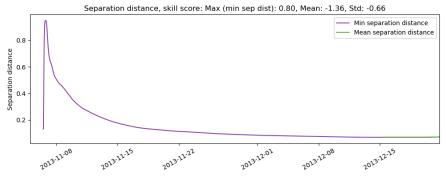




OpenDrift - OceanDrift 2013-11-05 00:20 to 2013-12-21 19:20 UTC (1124 steps)



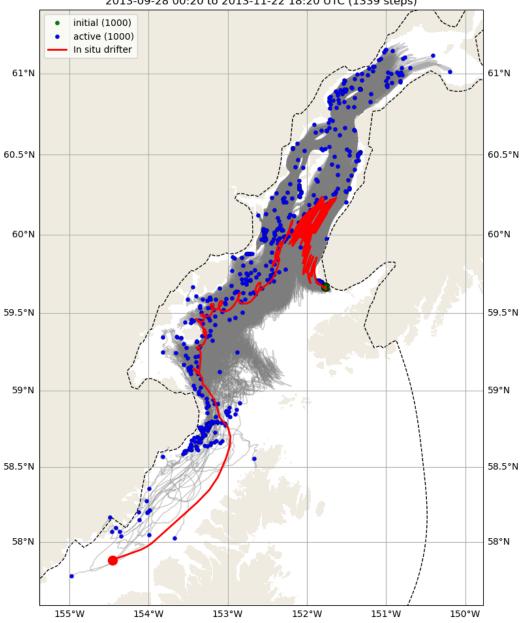


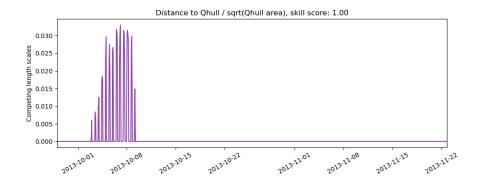


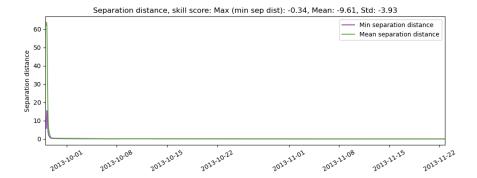
$CID rifter 0020 Y2013_Subsurface Drogue At 15 M_deployment 1$

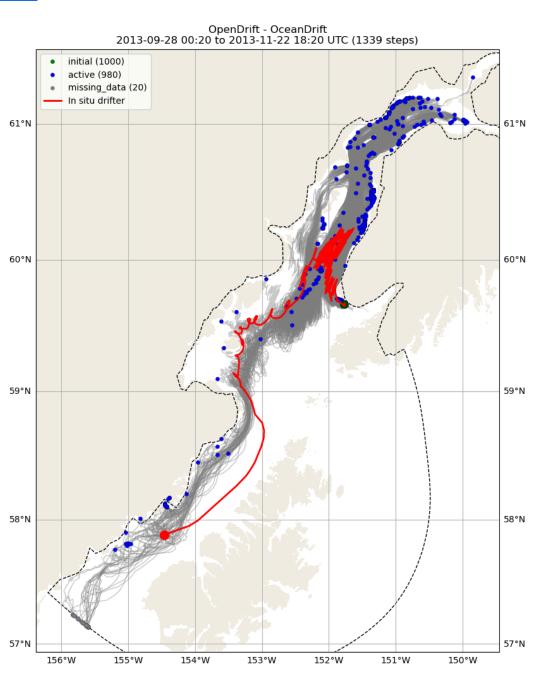
CIOFS

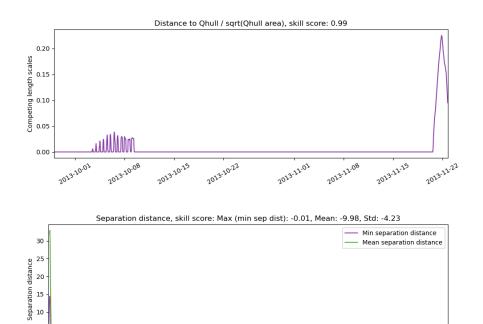
OpenDrift - OceanDrift 2013-09-28 00:20 to 2013-11-22 18:20 UTC (1339 steps)











2013-11-15

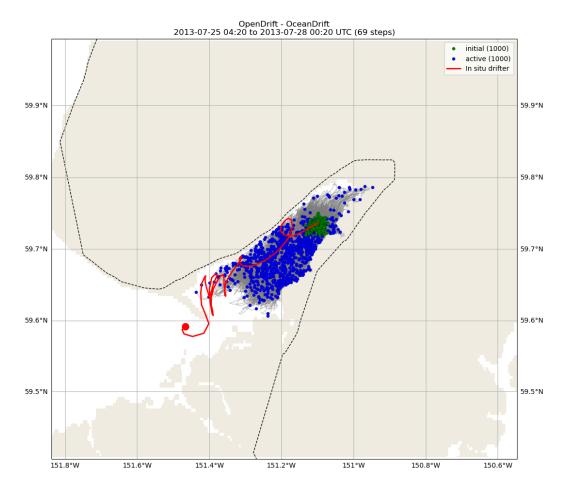
2013-11-22

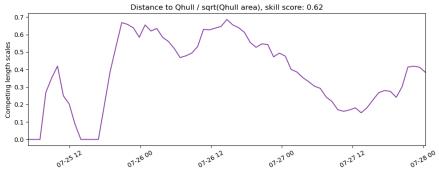
$CID rifter 0021Y2013_Microstar Surface At 1M_deployment 1$

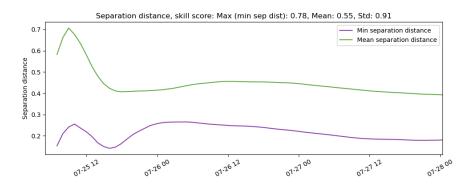
2013-10-15

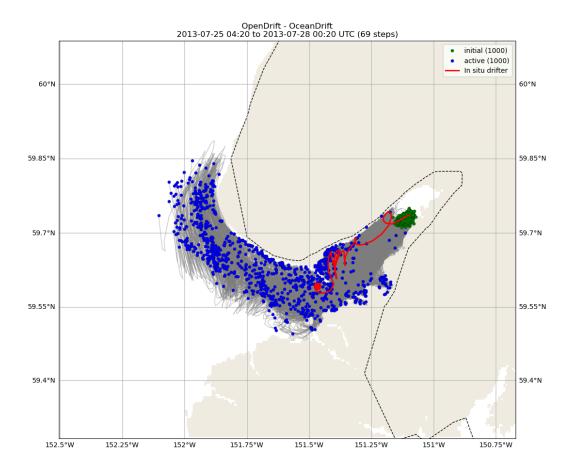
2013:10-22

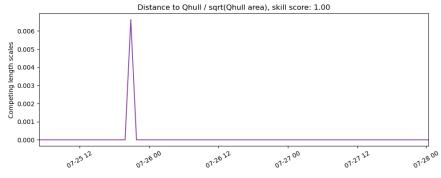
CIOFS

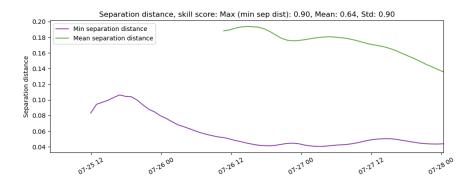






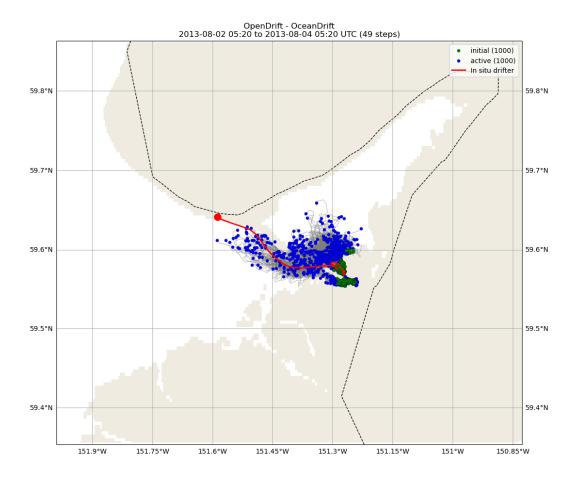


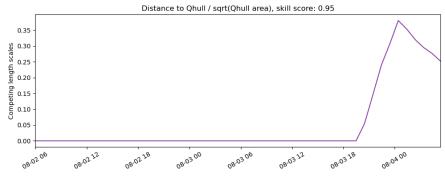


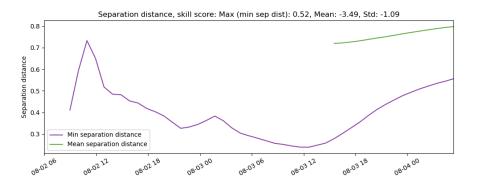


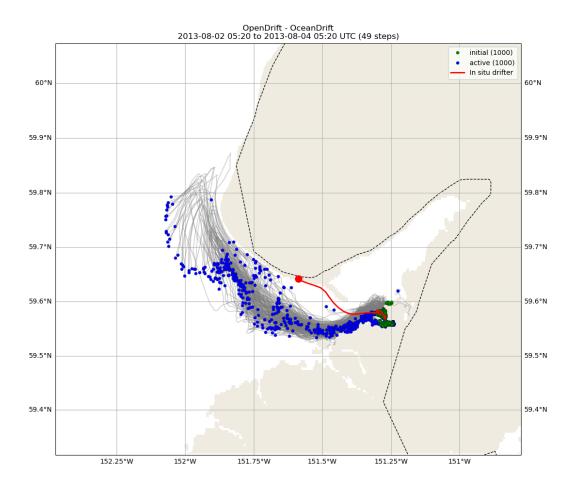
$CID rifter 0021Y2013_Microstar Surface At 1M_deployment 2$

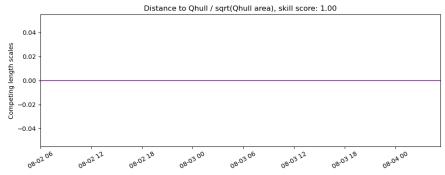
CIOFS

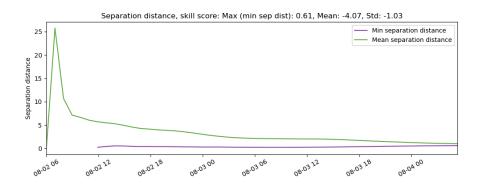






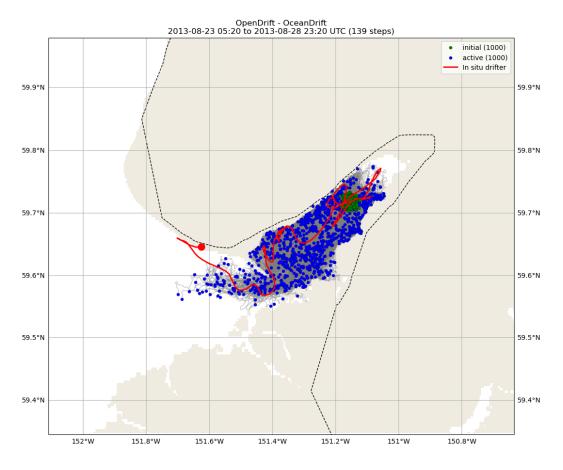


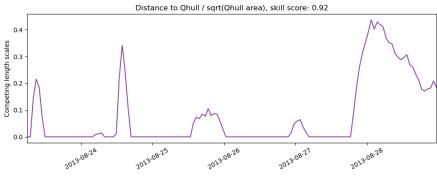


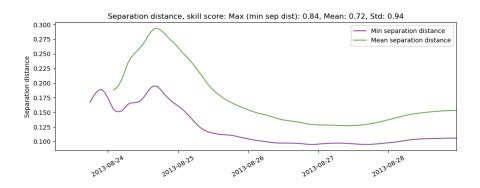


 $CID rifter 0021Y2013_Microstar Surface At 1M_deployment 3$

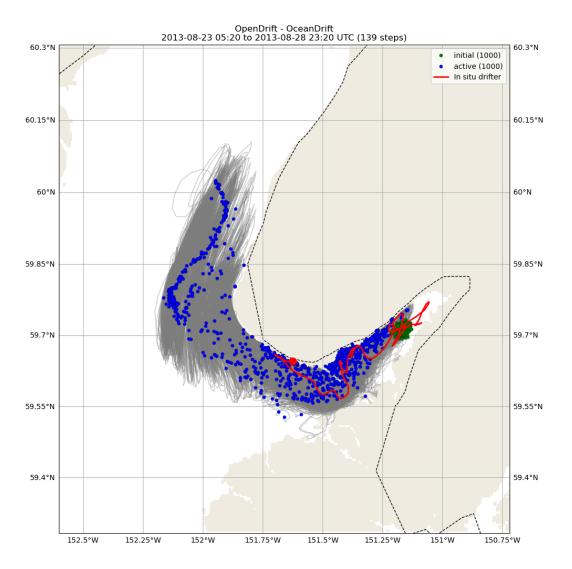
• Animation

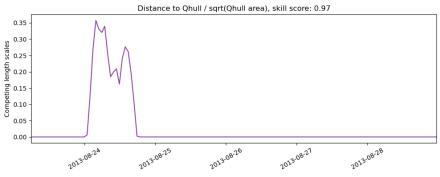


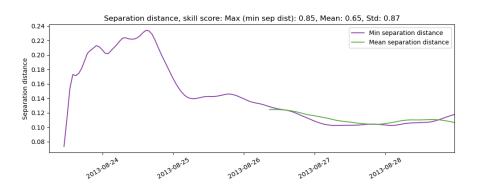




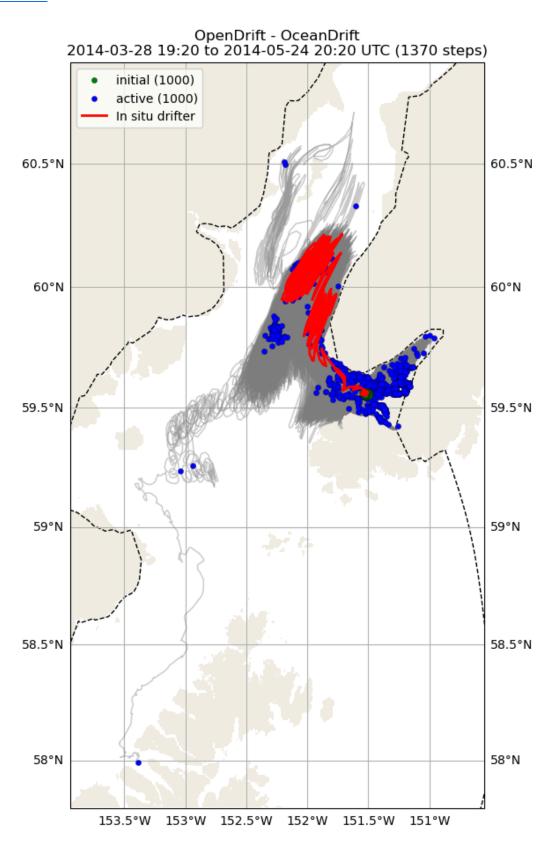
CIOFSFRESH

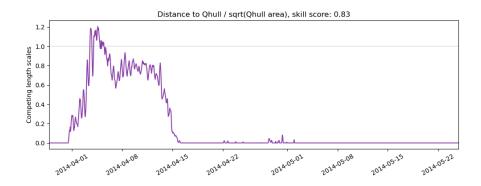


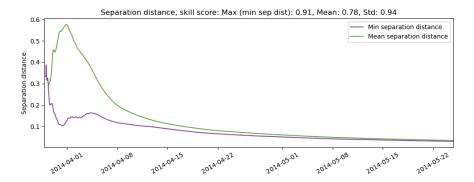




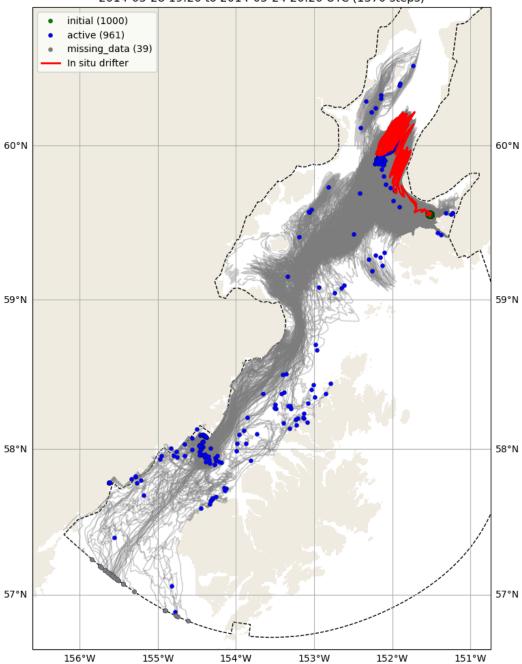
CIOFS

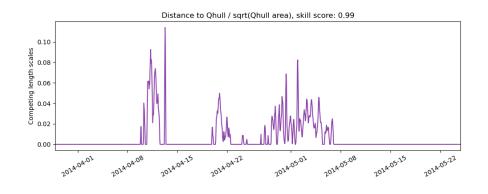


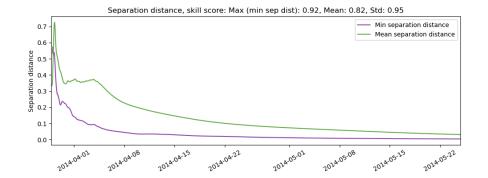




OpenDrift - OceanDrift 2014-03-28 19:20 to 2014-05-24 20:20 UTC (1370 steps)

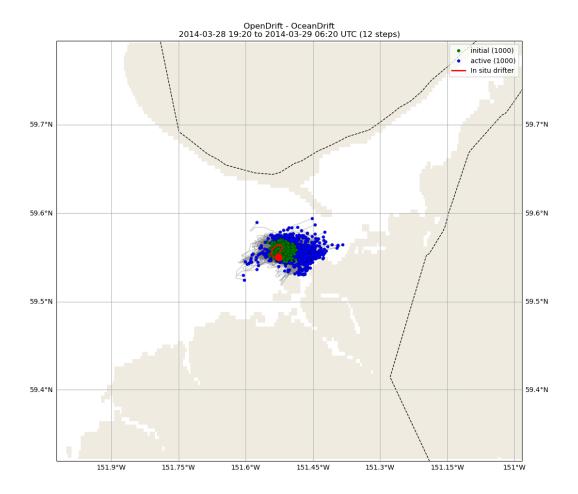


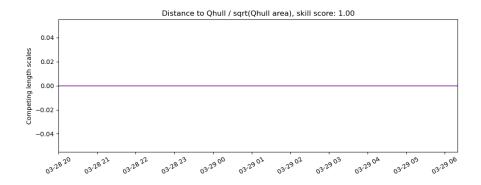


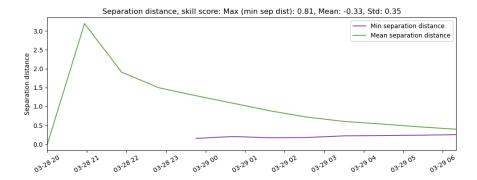


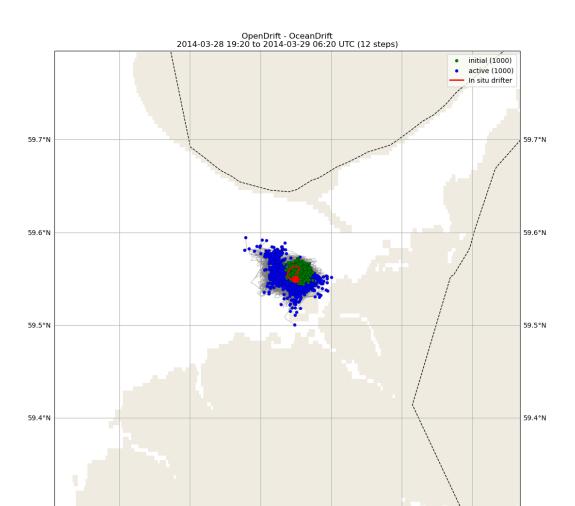
CIDrifter0023Y2014_MicrostarSurfaceAt1M_deployment1

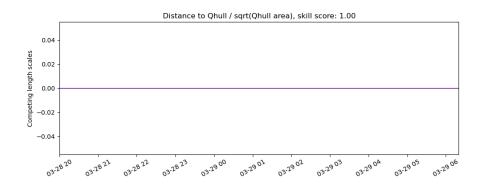
CIOFS











151.6°W

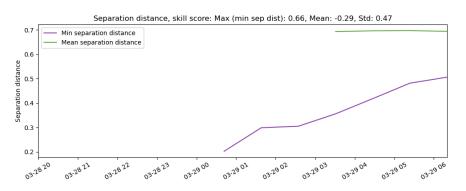
151.45°W

151.3°W

151.15°W

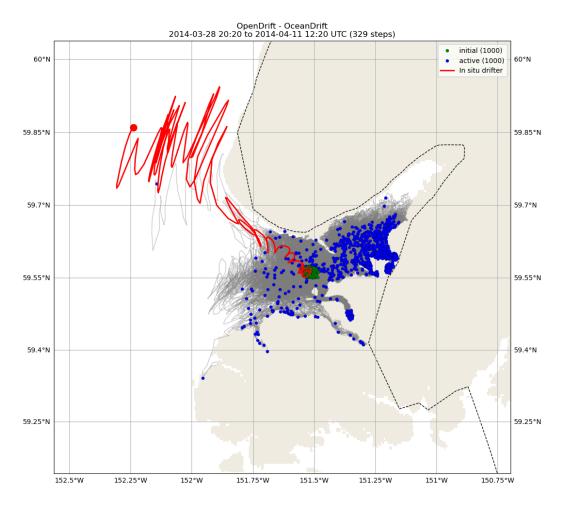
151.9°W

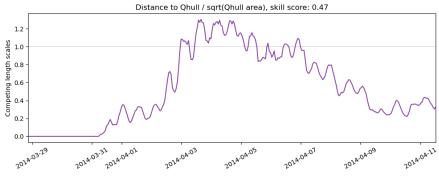
151.75°W

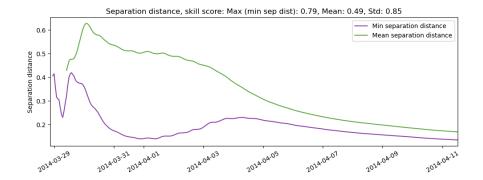


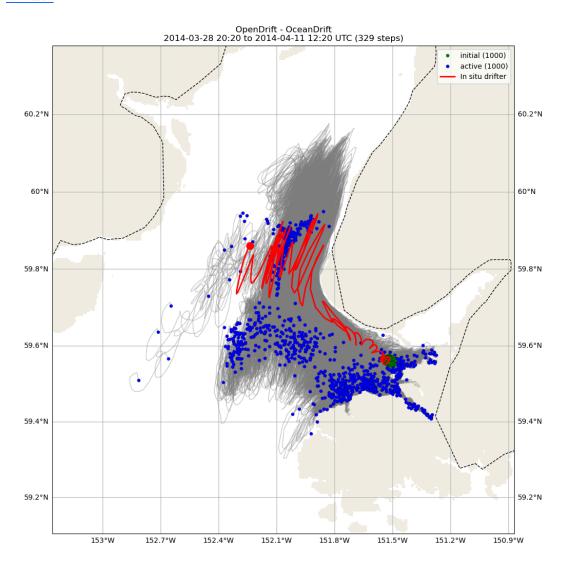
$CID rifter 0024Y2014_Microstar Surface At 1M_deployment 1$

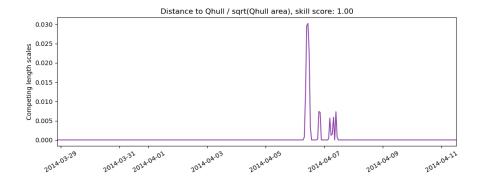
CIOFS

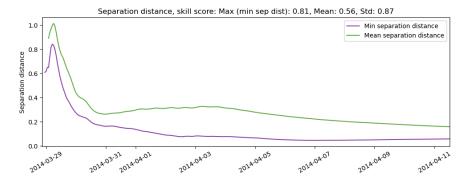








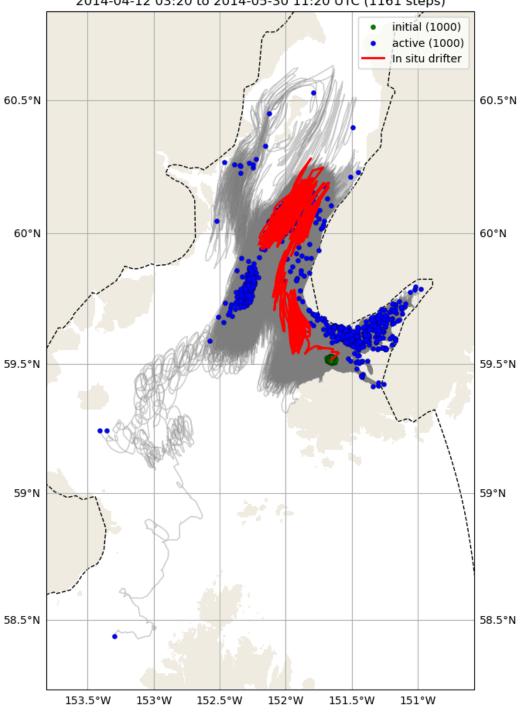


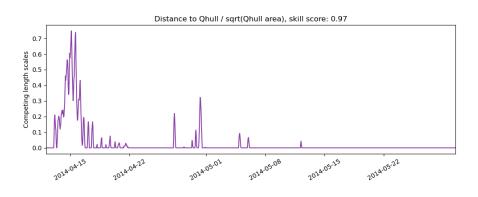


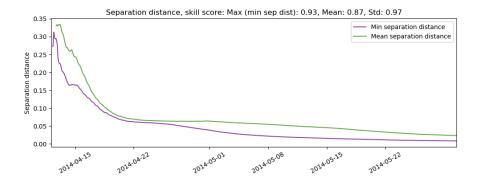
$CID rifter 0024Y2014_Microstar Surface At 1M_deployment 2$

CIOFS

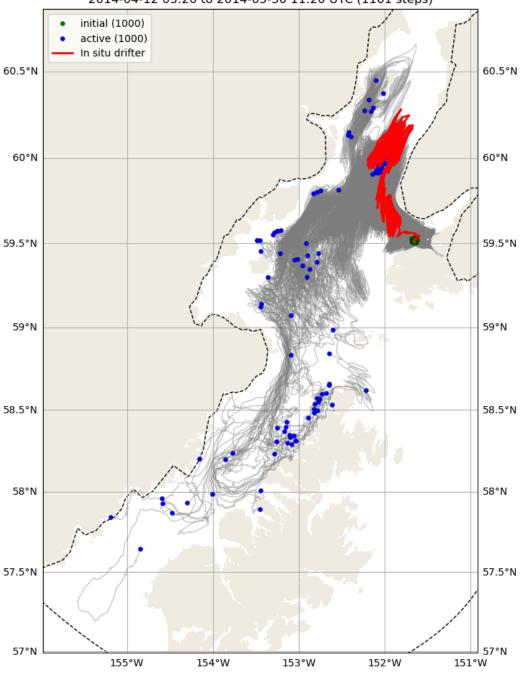
OpenDrift - OceanDrift 2014-04-12 03:20 to 2014-05-30 11:20 UTC (1161 steps)

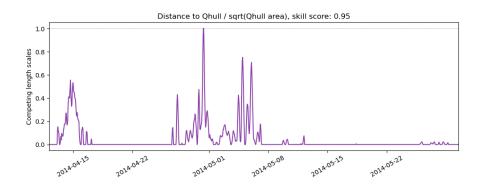


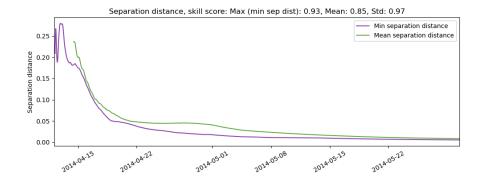




OpenDrift - OceanDrift 2014-04-12 03:20 to 2014-05-30 11:20 UTC (1161 steps)



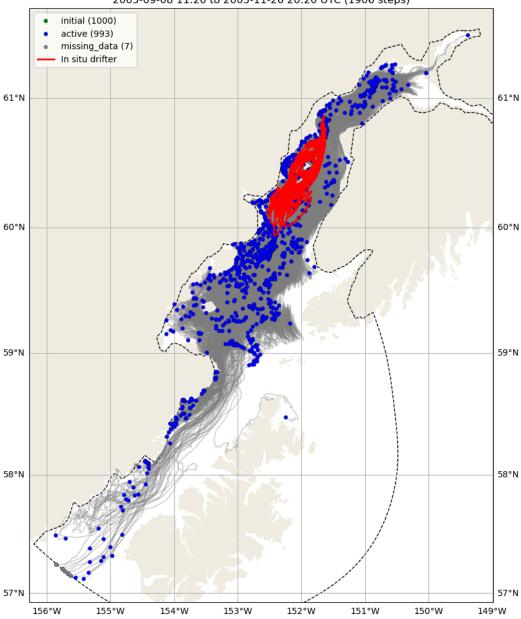


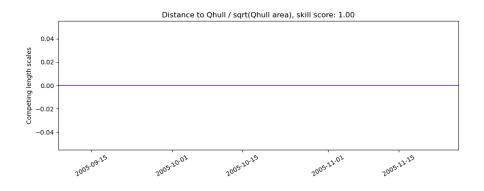


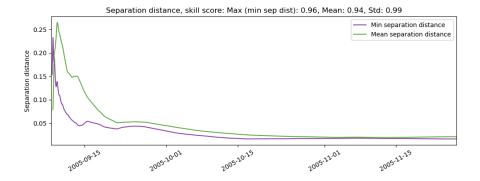
CIDrifter0190Y2005_SubsurfaceDrogueAt5M_deployment1

CIOFS

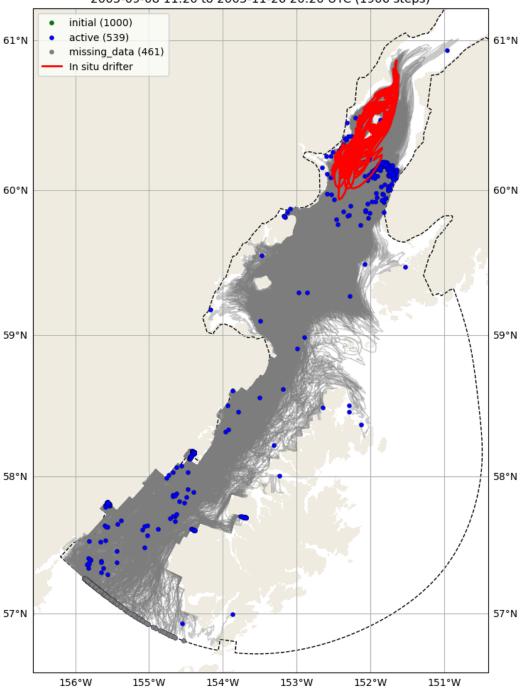
OpenDrift - OceanDrift 2005-09-08 11:20 to 2005-11-26 20:20 UTC (1906 steps)

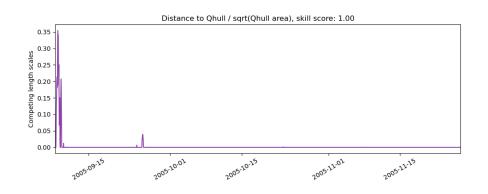


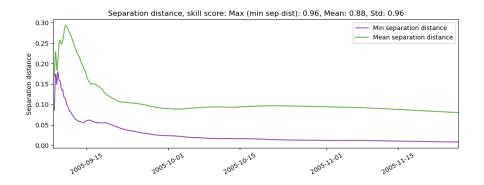




OpenDrift - OceanDrift 2005-09-08 11:20 to 2005-11-26 20:20 UTC (1906 steps)

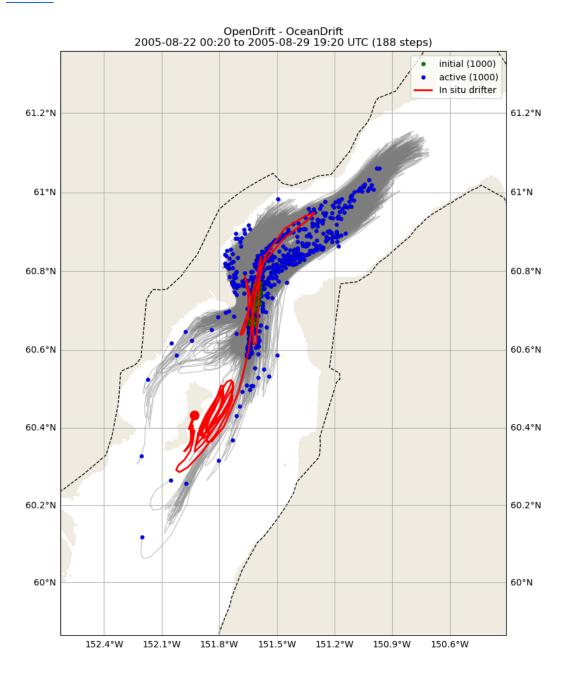


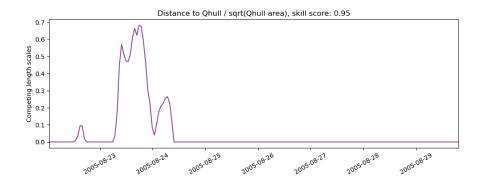


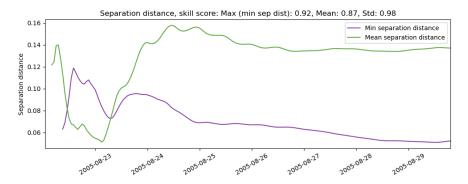


$CID rifter 0192Y2005_Subsurface Drogue At 5M_deployment 1$

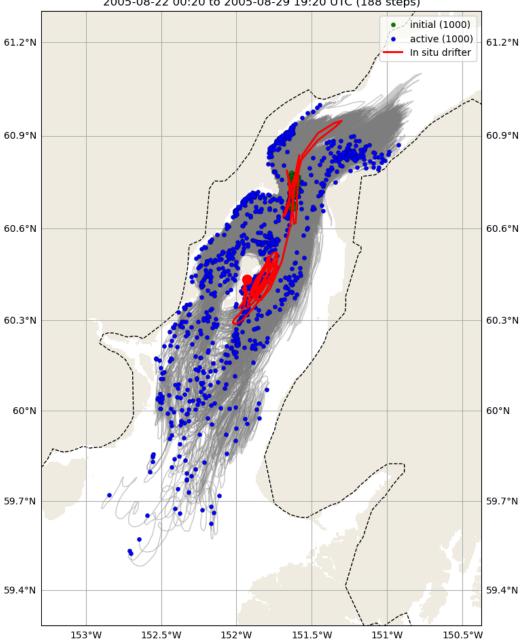
CIOFS

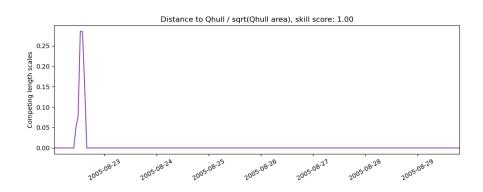


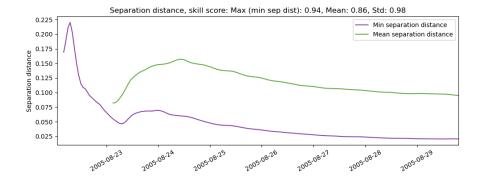




OpenDrift - OceanDrift 2005-08-22 00:20 to 2005-08-29 19:20 UTC (188 steps)



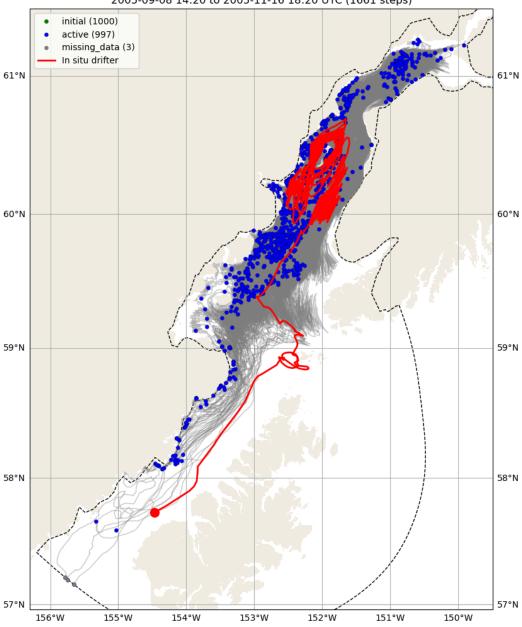


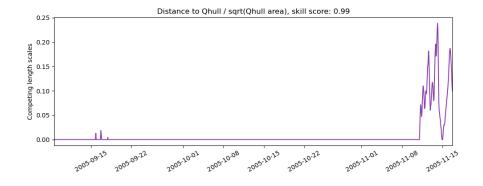


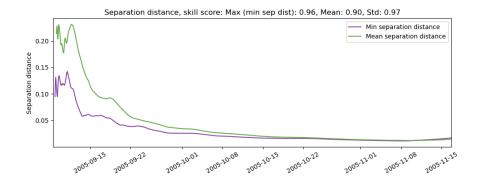
$CID rifter 0193Y2005_Subsurface Drogue At 5M_deployment 1$

CIOFS

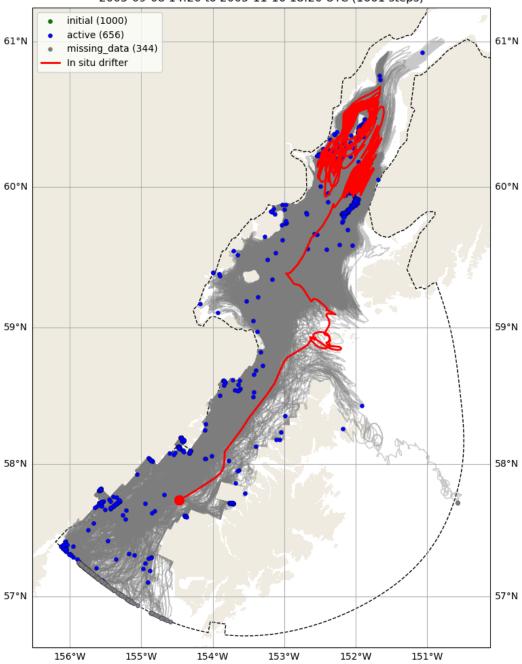
OpenDrift - OceanDrift 2005-09-08 14:20 to 2005-11-16 18:20 UTC (1661 steps)

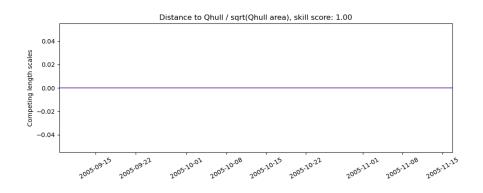


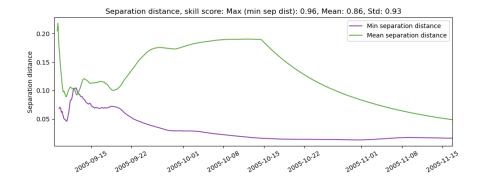




OpenDrift - OceanDrift 2005-09-08 14:20 to 2005-11-16 18:20 UTC (1661 steps)



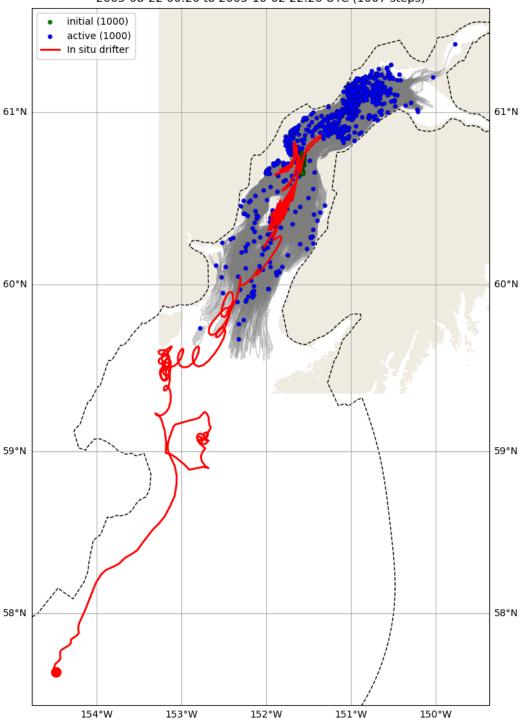


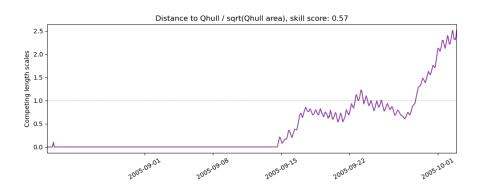


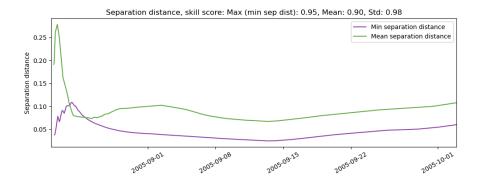
CIDrifter0197Y2005_SubsurfaceDrogueAt5M_deployment1

CIOFS

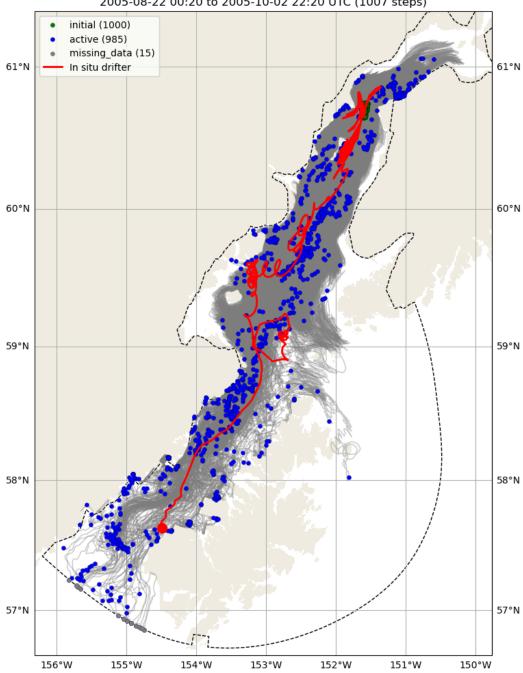
OpenDrift - OceanDrift 2005-08-22 00:20 to 2005-10-02 22:20 UTC (1007 steps)

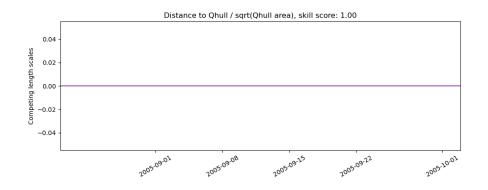


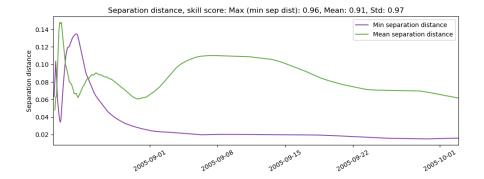




OpenDrift - OceanDrift 2005-08-22 00:20 to 2005-10-02 22:20 UTC (1007 steps)



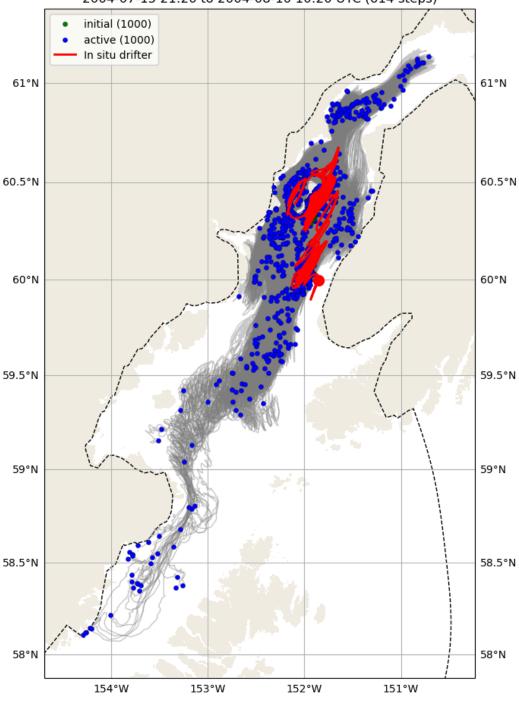


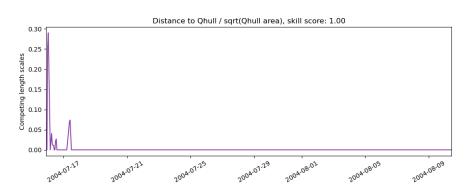


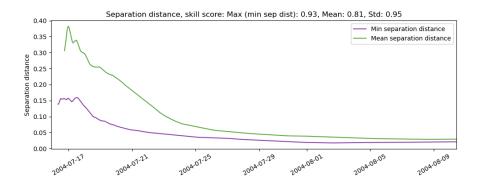
CIDrifter0227Y2004_SubsurfaceDrogueAt5M_deployment1

CIOFS

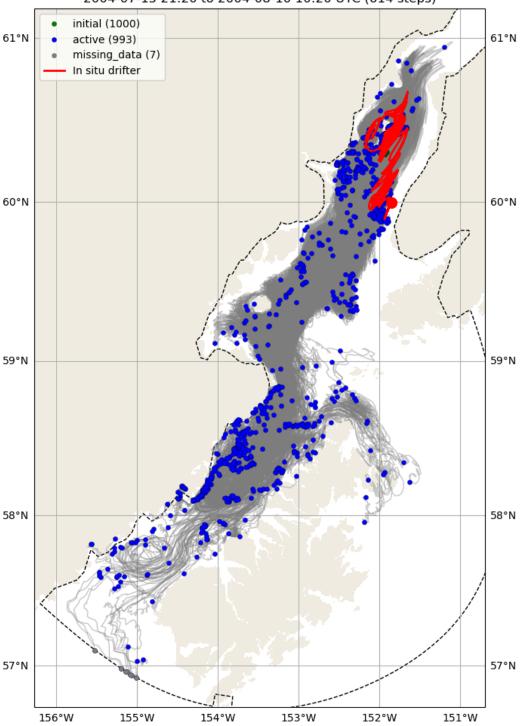
OpenDrift - OceanDrift 2004-07-15 21:20 to 2004-08-10 10:20 UTC (614 steps)

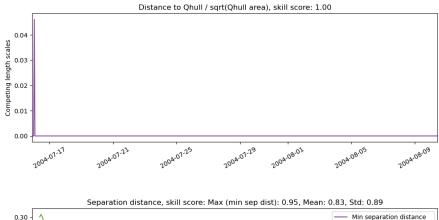


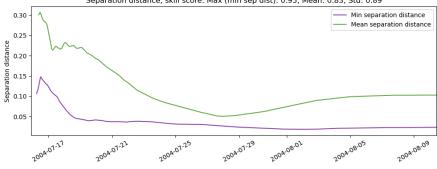




OpenDrift - OceanDrift 2004-07-15 21:20 to 2004-08-10 10:20 UTC (614 steps)



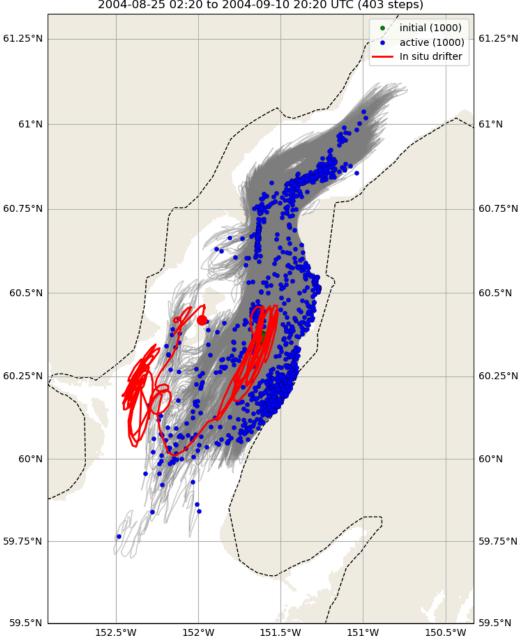


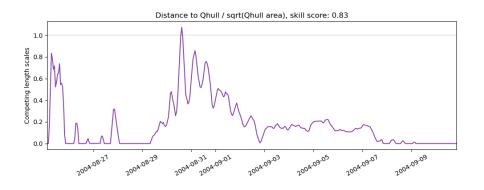


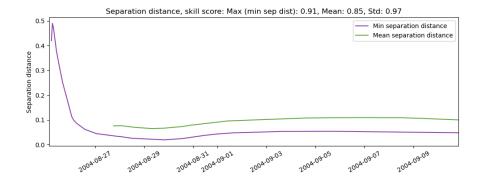
$CID rifter 0227Y2004_Subsurface Drogue At 5M_deployment 2$

CIOFS

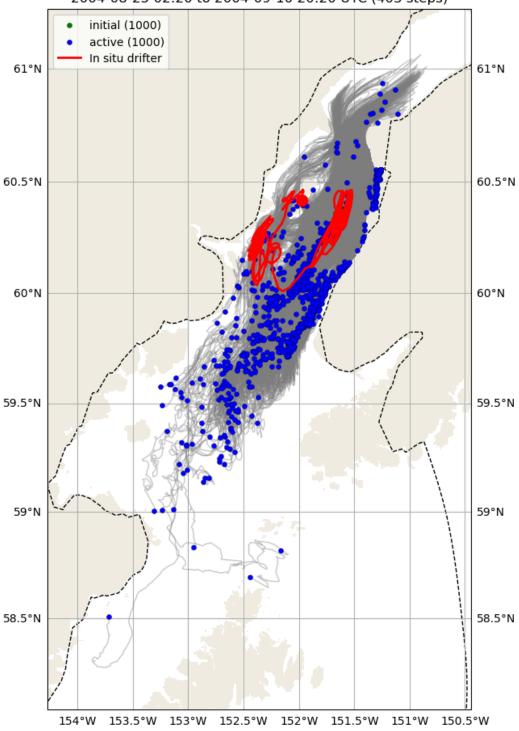
OpenDrift - OceanDrift 2004-08-25 02:20 to 2004-09-10 20:20 UTC (403 steps)

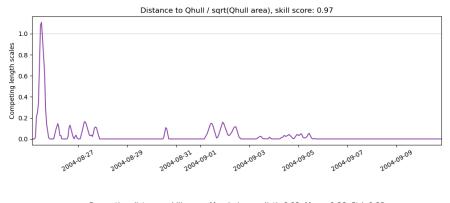


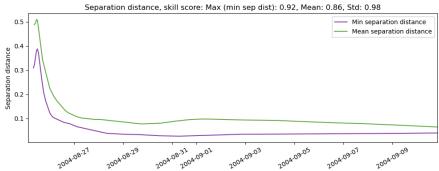




OpenDrift - OceanDrift 2004-08-25 02:20 to 2004-09-10 20:20 UTC (403 steps)



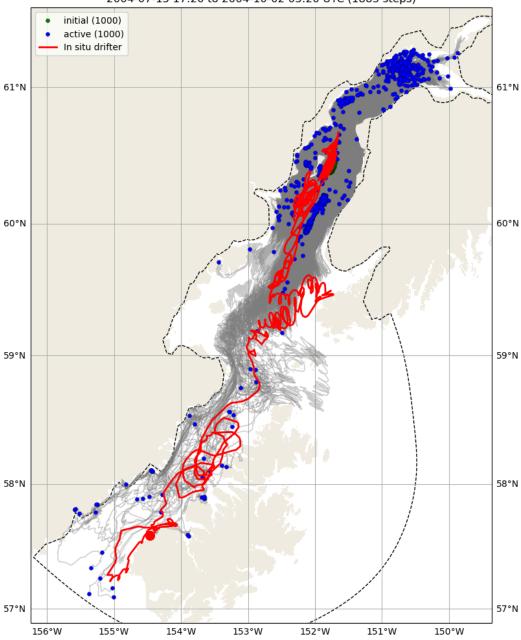


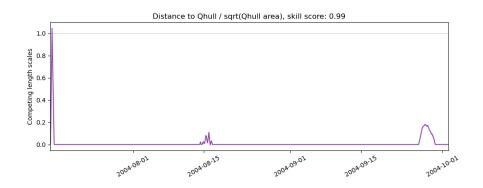


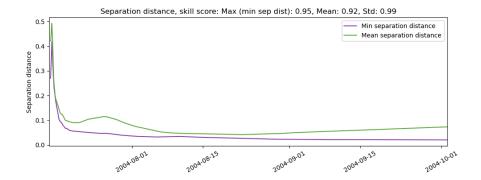
$CID rifter 0229Y2004_Subsurface Drogue At 5M_deployment 1$

CIOFS

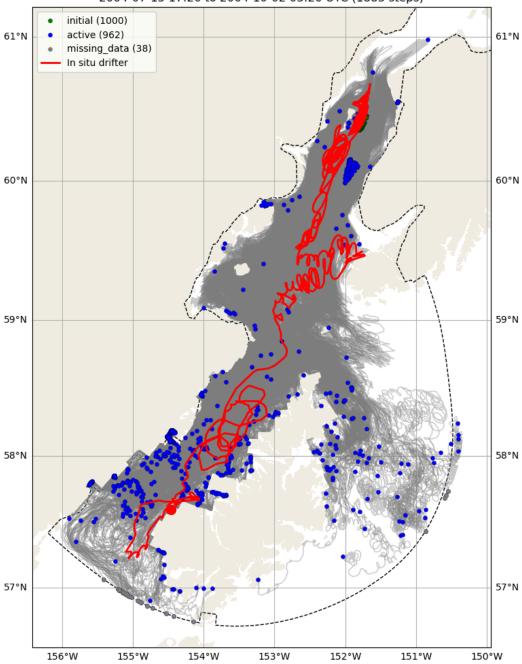
OpenDrift - OceanDrift 2004-07-15 17:20 to 2004-10-02 03:20 UTC (1883 steps)

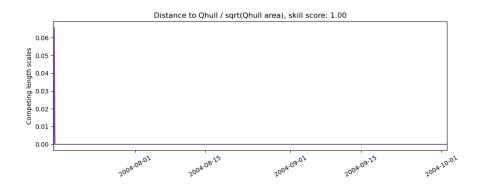


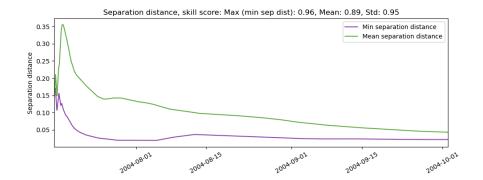




OpenDrift - OceanDrift 2004-07-15 17:20 to 2004-10-02 03:20 UTC (1883 steps)



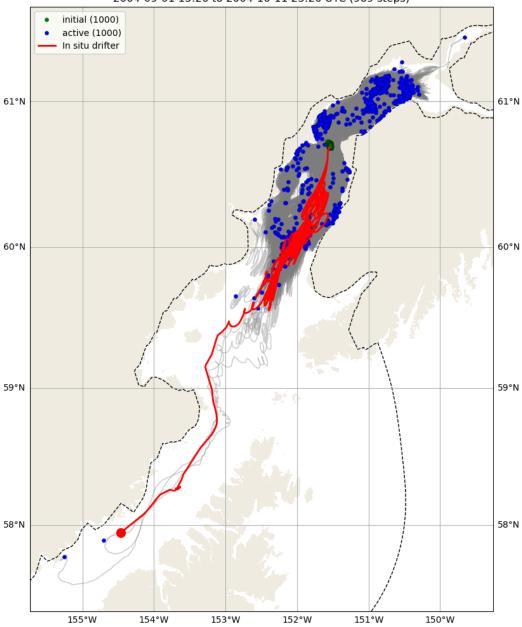


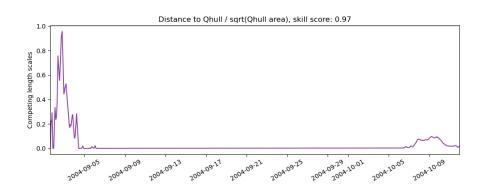


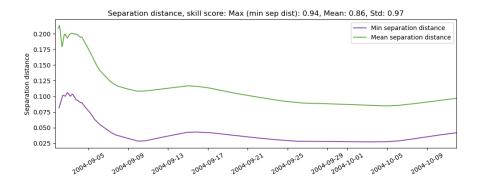
CIDrifter0230Y2004_SubsurfaceDrogueAt5M_deployment1

CIOFS

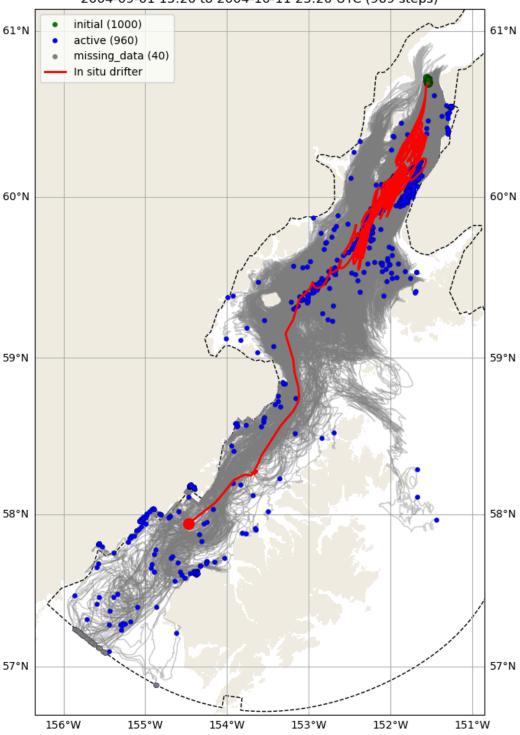
OpenDrift - OceanDrift 2004-09-01 15:20 to 2004-10-11 23:20 UTC (969 steps)

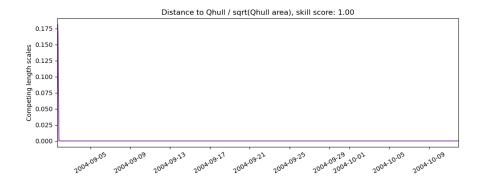


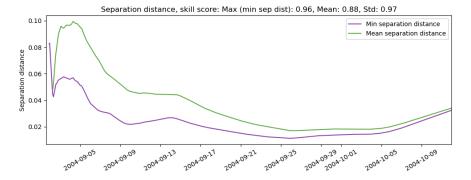




OpenDrift - OceanDrift 2004-09-01 15:20 to 2004-10-11 23:20 UTC (969 steps)



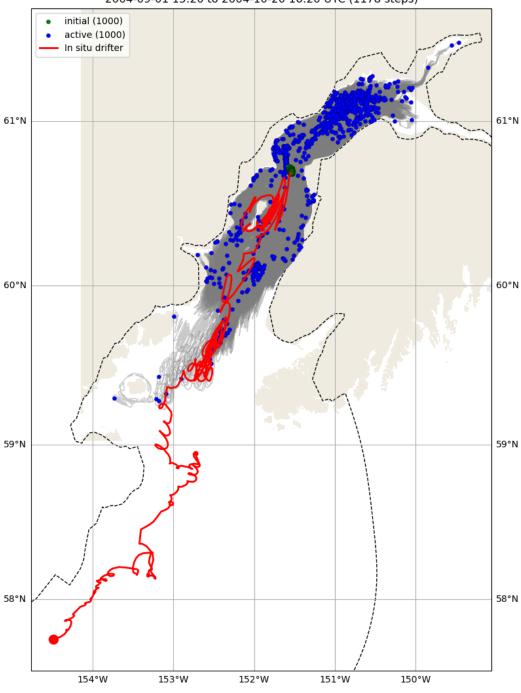


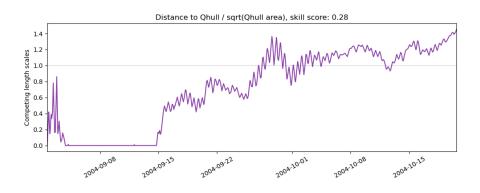


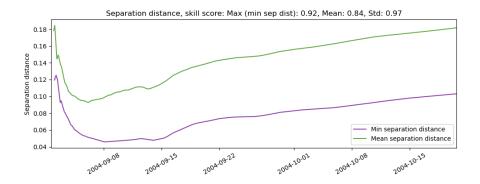
$CID rifter 0236Y2004_Subsurface Drogue At 5M_deployment 1$

CIOFS

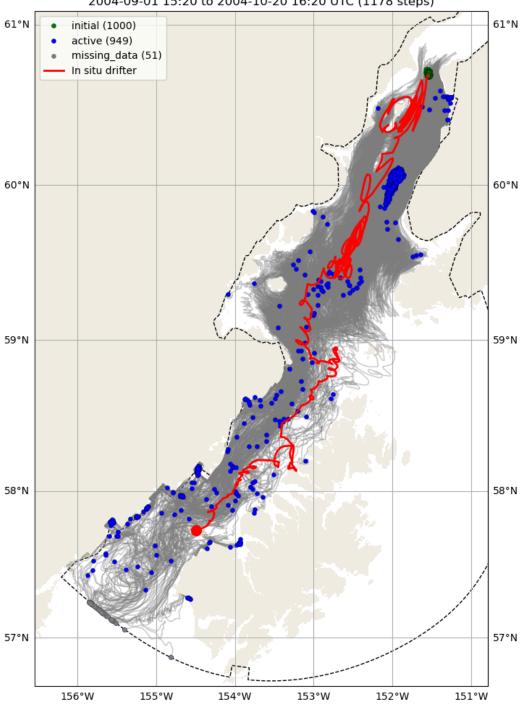
OpenDrift - OceanDrift 2004-09-01 15:20 to 2004-10-20 16:20 UTC (1178 steps)

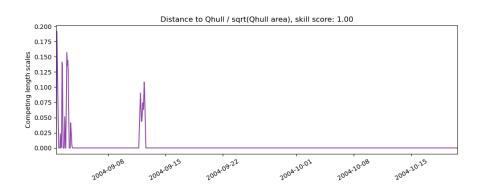


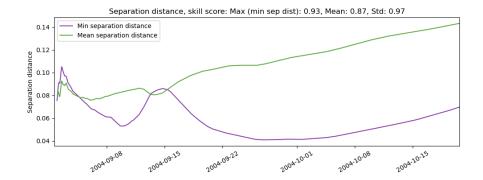




OpenDrift - OceanDrift 2004-09-01 15:20 to 2004-10-20 16:20 UTC (1178 steps)



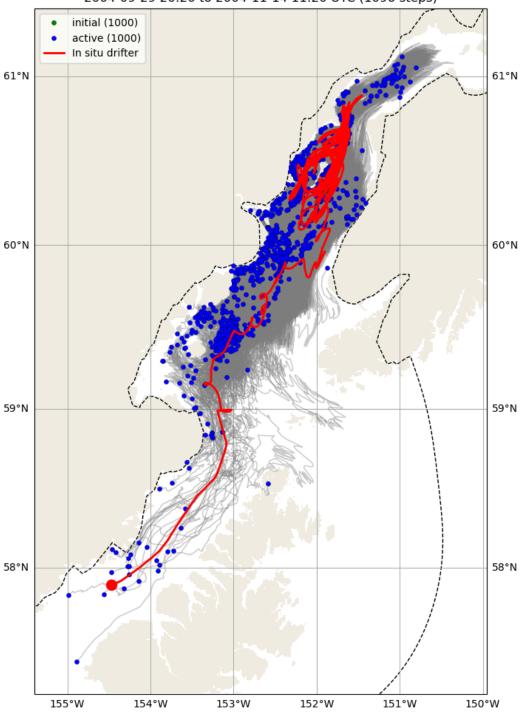


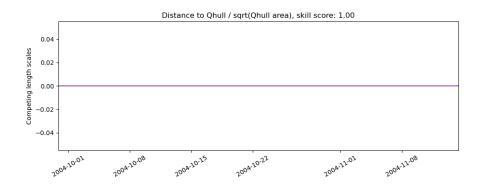


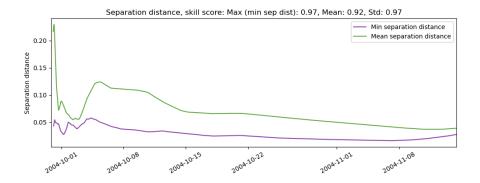
CIDrifter0237Y2004_SubsurfaceDrogueAt5M_deployment1

CIOFS

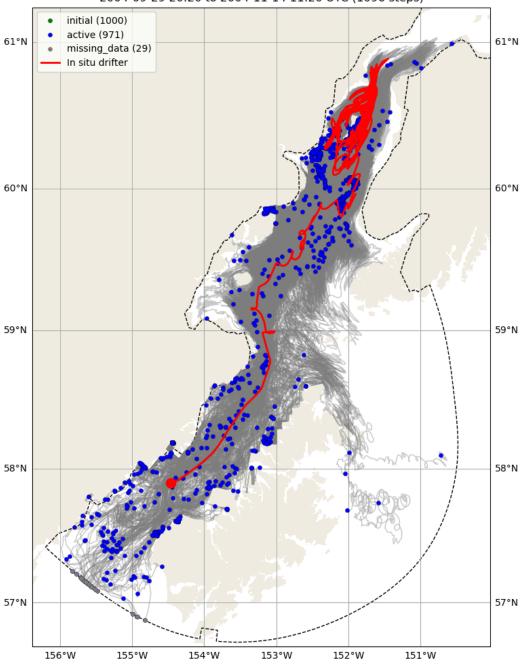
OpenDrift - OceanDrift 2004-09-29 20:20 to 2004-11-14 11:20 UTC (1096 steps)

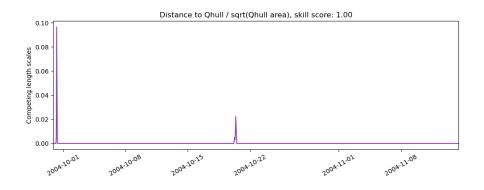


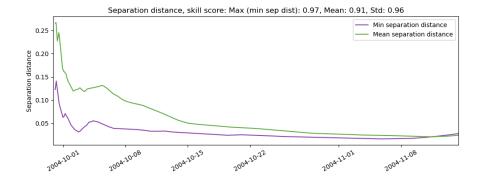




OpenDrift - OceanDrift 2004-09-29 20:20 to 2004-11-14 11:20 UTC (1096 steps)



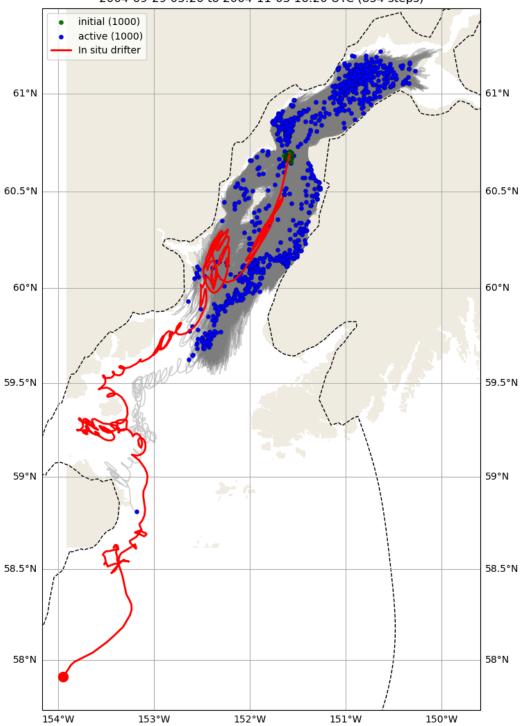


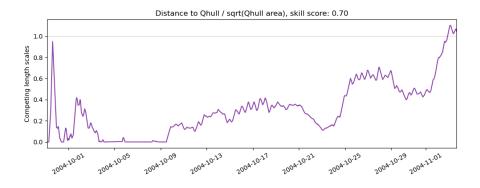


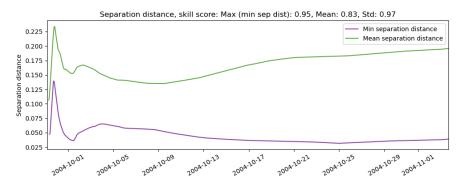
CIDrifter0246Y2004_SubsurfaceDrogueAt5M_deployment1

CIOFS

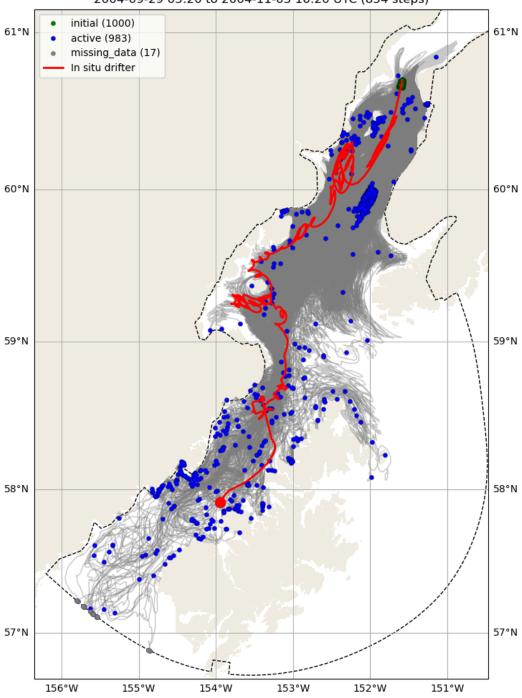
OpenDrift - OceanDrift 2004-09-29 03:20 to 2004-11-03 16:20 UTC (854 steps)

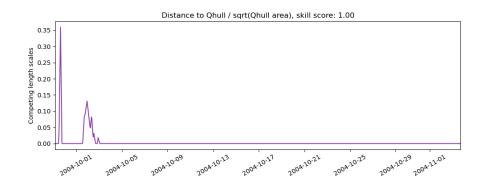


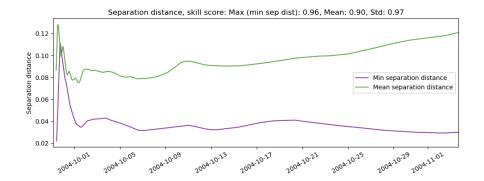




OpenDrift - OceanDrift 2004-09-29 03:20 to 2004-11-03 16:20 UTC (854 steps)



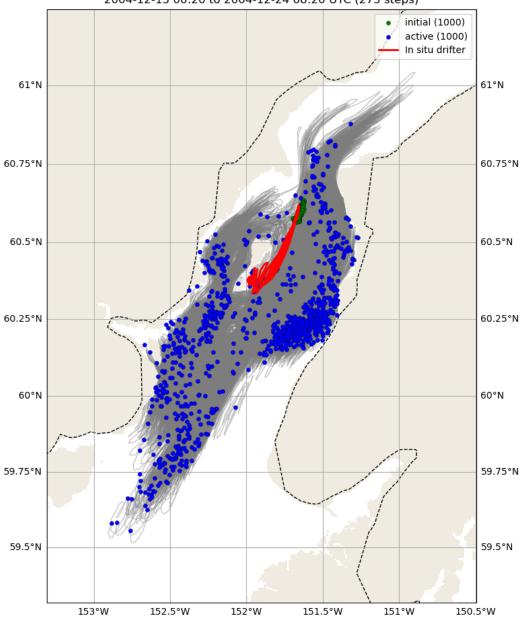


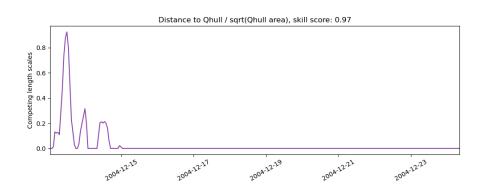


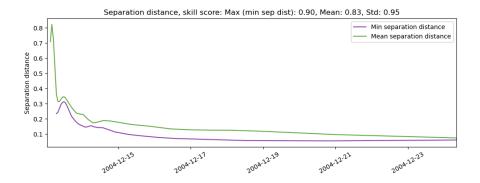
$CID rifter 0247Y2004_Subsurface Drogue At 5M_deployment 1$

CIOFS

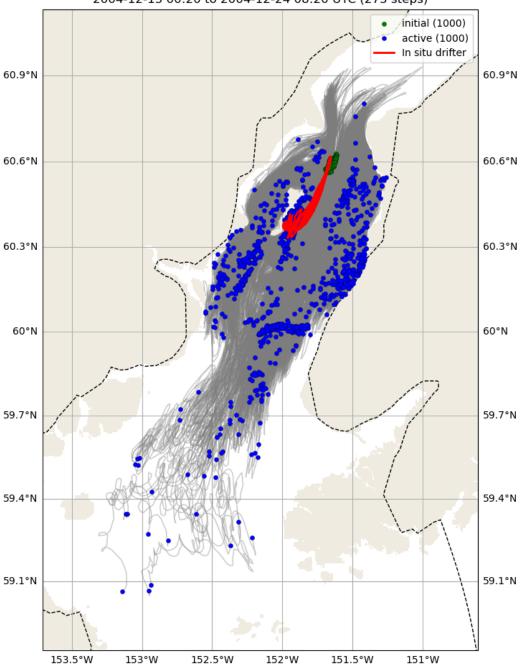
OpenDrift - OceanDrift 2004-12-13 00:20 to 2004-12-24 08:20 UTC (273 steps)

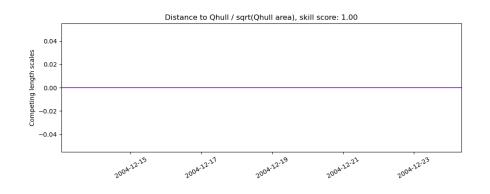


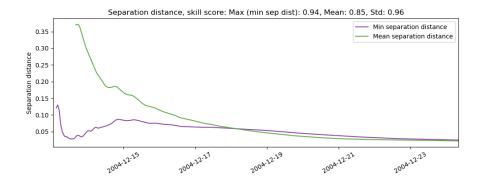




OpenDrift - OceanDrift 2004-12-13 00:20 to 2004-12-24 08:20 UTC (273 steps)



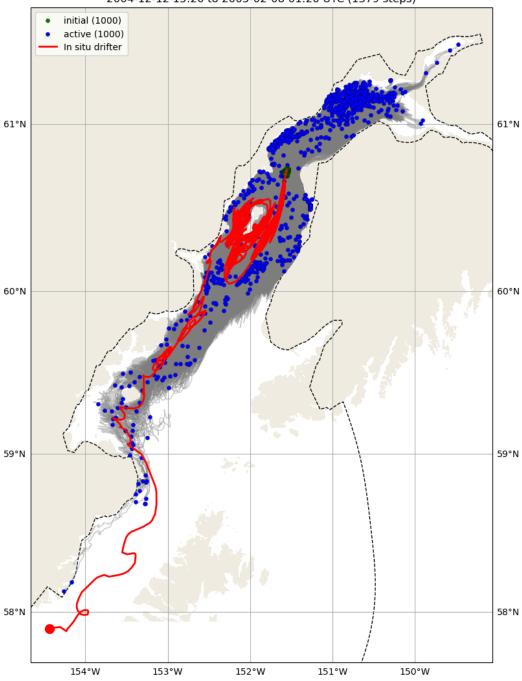


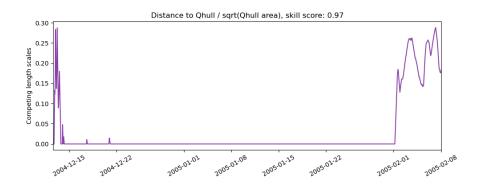


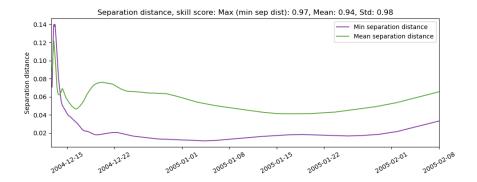
$CID rifter 0248 Y2004_Subsurface Drogue At 5M_deployment 1$

CIOFS

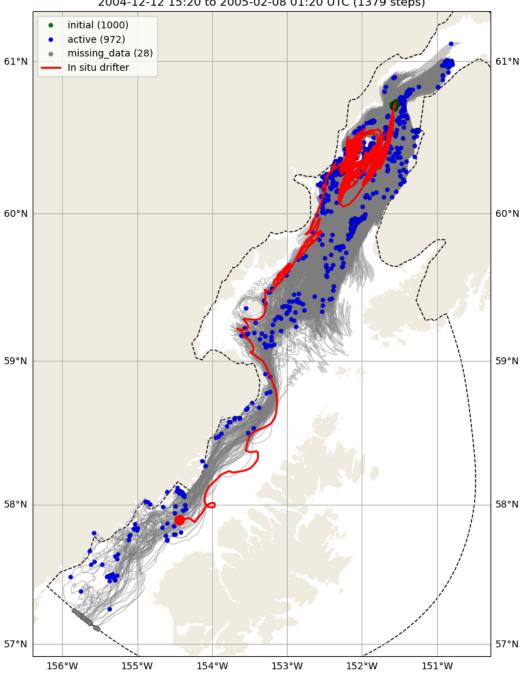
OpenDrift - OceanDrift 2004-12-12 15:20 to 2005-02-08 01:20 UTC (1379 steps)

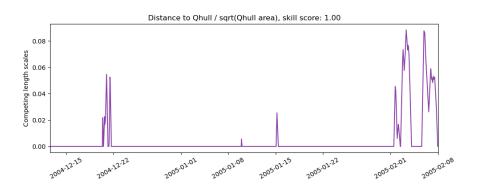


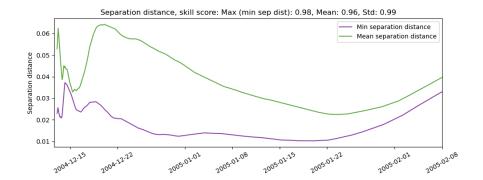




OpenDrift - OceanDrift 2004-12-12 15:20 to 2005-02-08 01:20 UTC (1379 steps)

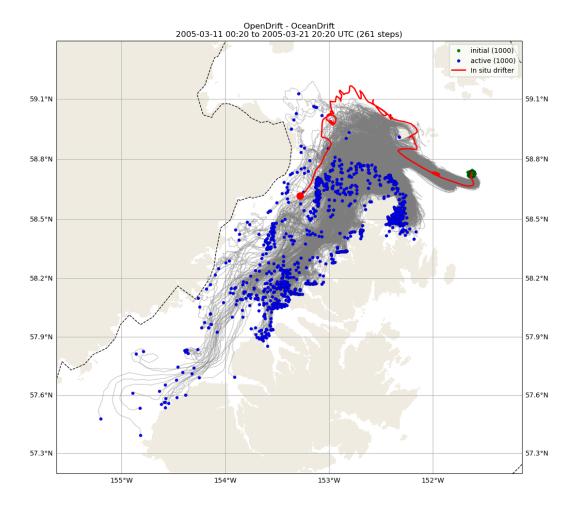


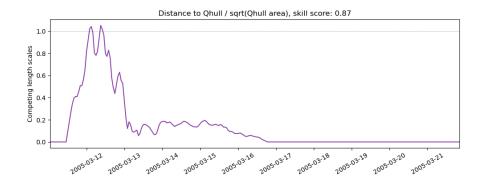


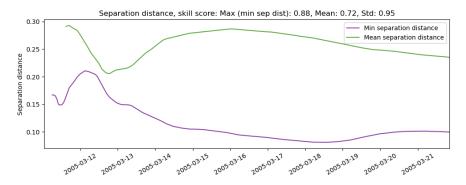


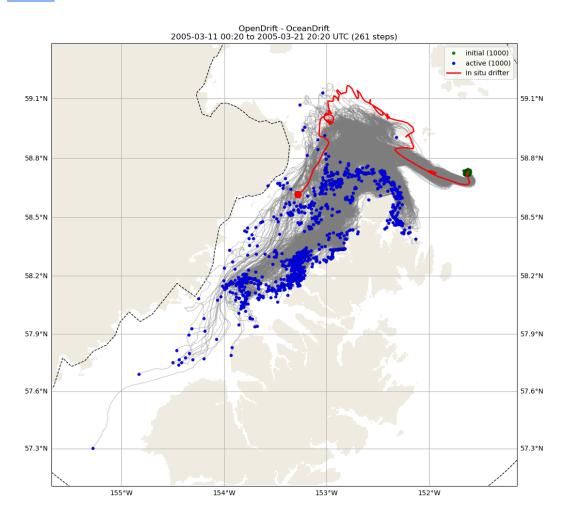
CIDrifter0248Y2004_SubsurfaceDrogueAt5M_deployment2

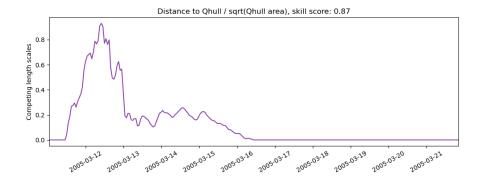
CIOFS

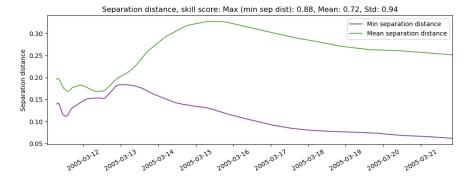








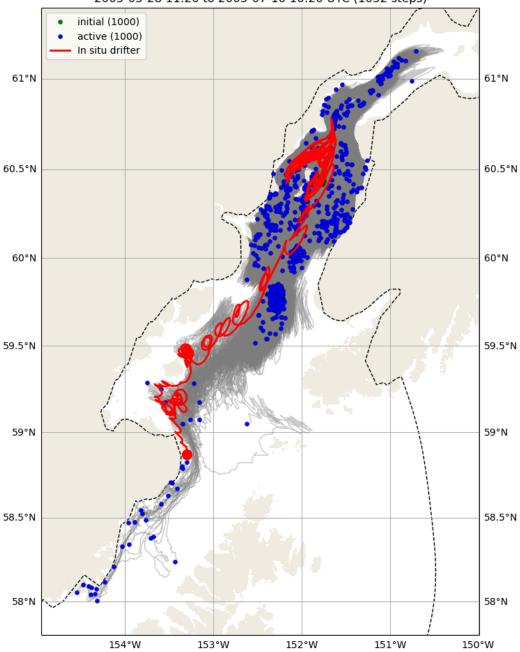


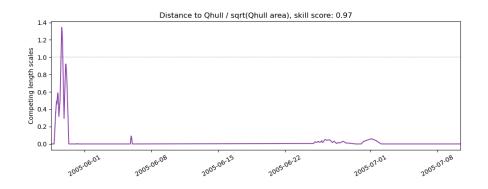


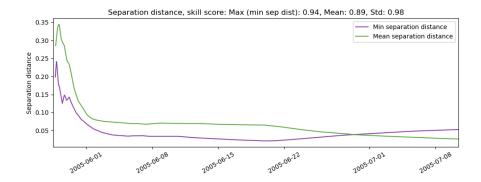
$CID rifter 0627Y2005_Subsurface Drogue At 5M_deployment 1$

CIOFS

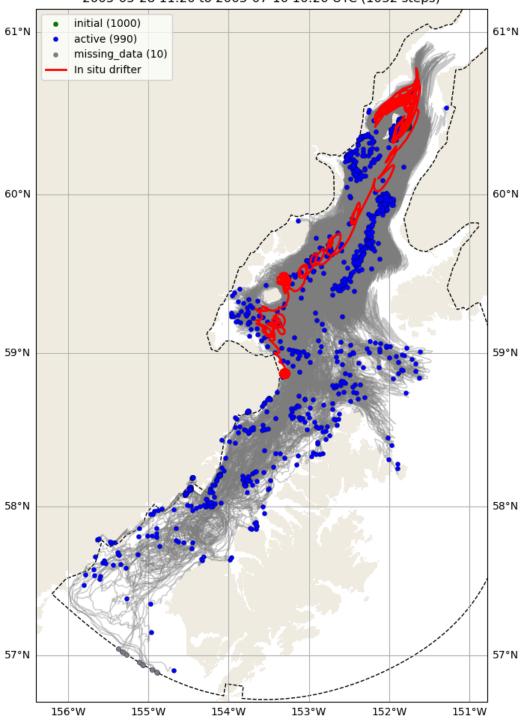
OpenDrift - OceanDrift 2005-05-28 11:20 to 2005-07-10 10:20 UTC (1032 steps)

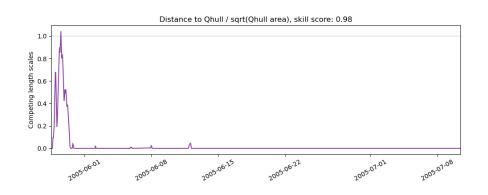


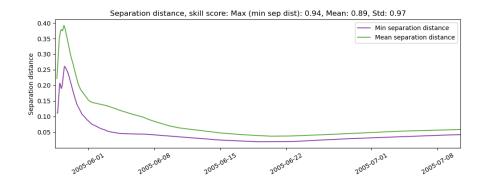




OpenDrift - OceanDrift 2005-05-28 11:20 to 2005-07-10 10:20 UTC (1032 steps)

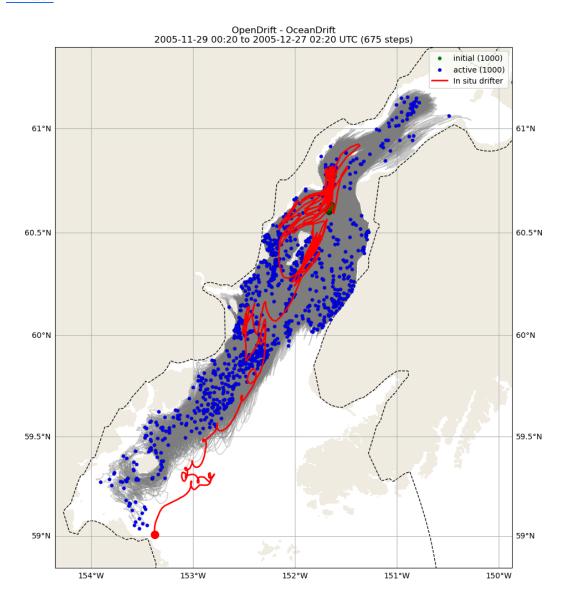


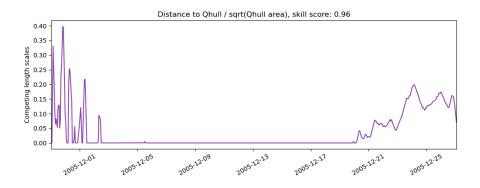


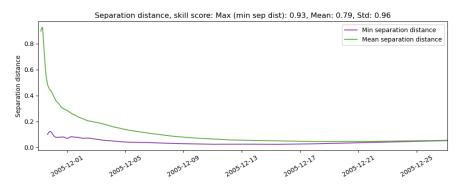


CIDrifter0628Y2005_SubsurfaceDrogueAt5M_deployment1

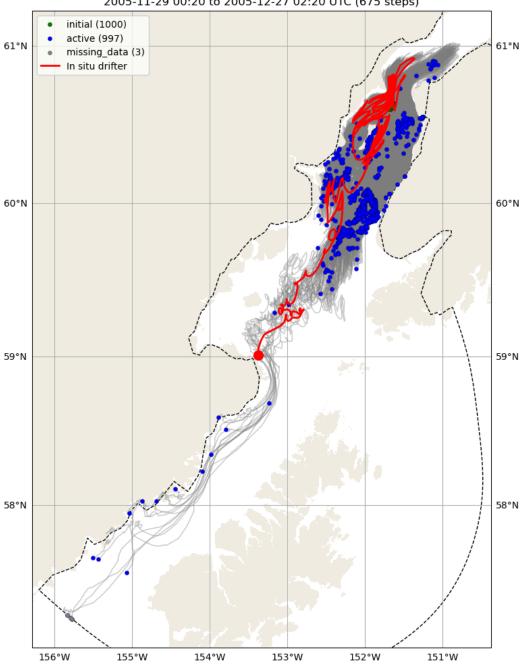
CIOFS

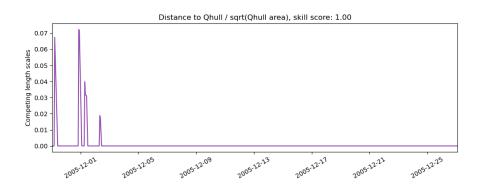


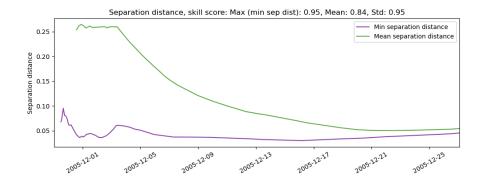




OpenDrift - OceanDrift 2005-11-29 00:20 to 2005-12-27 02:20 UTC (675 steps)

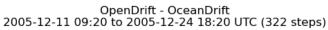


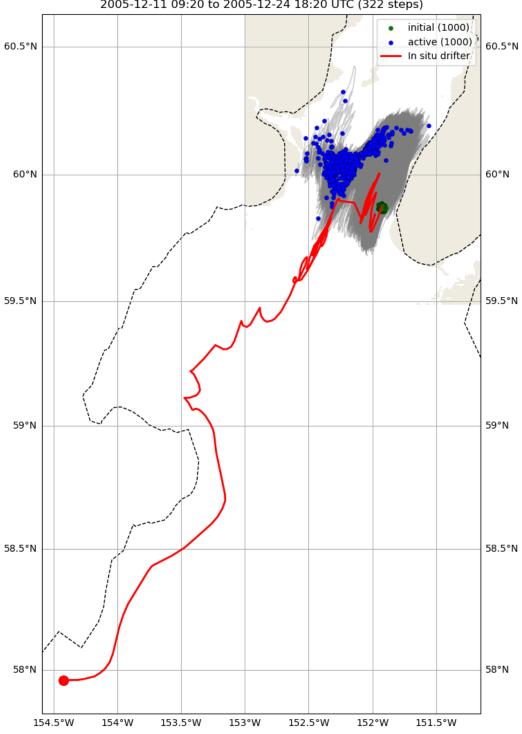


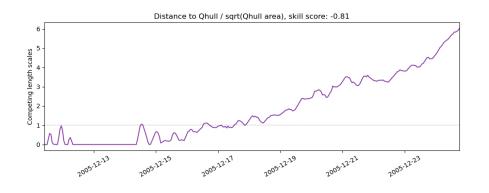


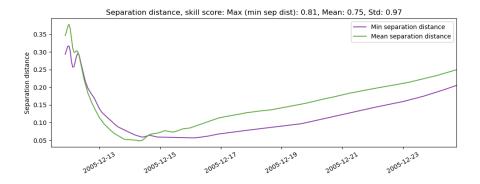
CIDrifter0629Y2005_SubsurfaceDrogueAt5M_deployment1

CIOFS

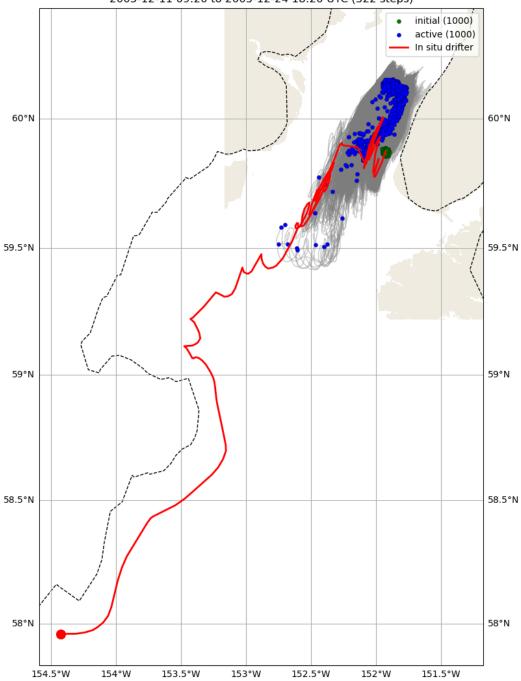


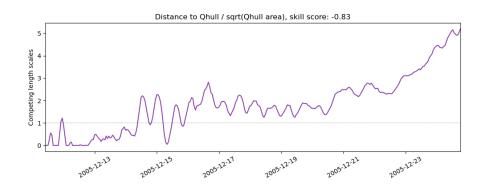


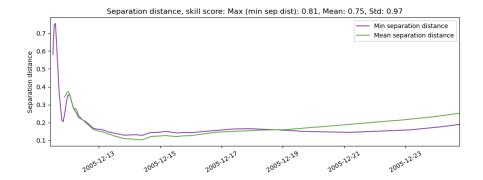




OpenDrift - OceanDrift 2005-12-11 09:20 to 2005-12-24 18:20 UTC (322 steps)

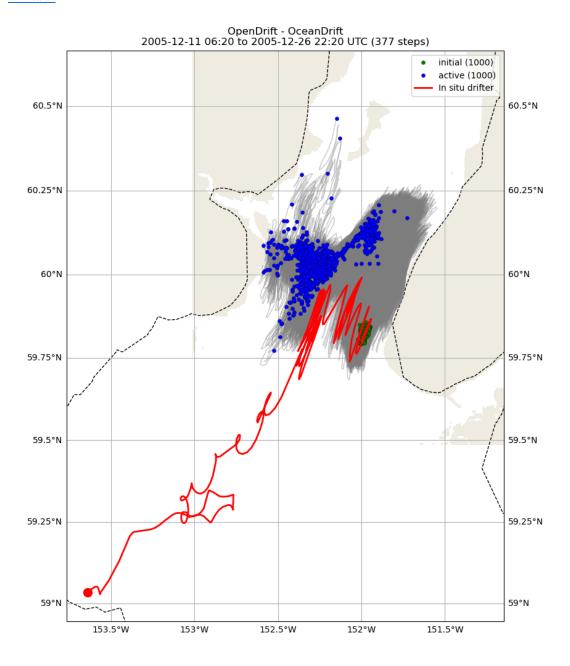


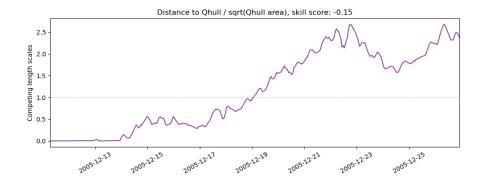


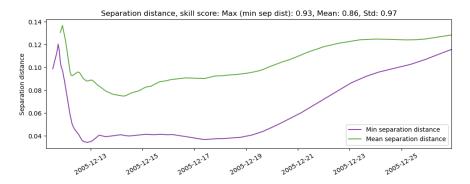


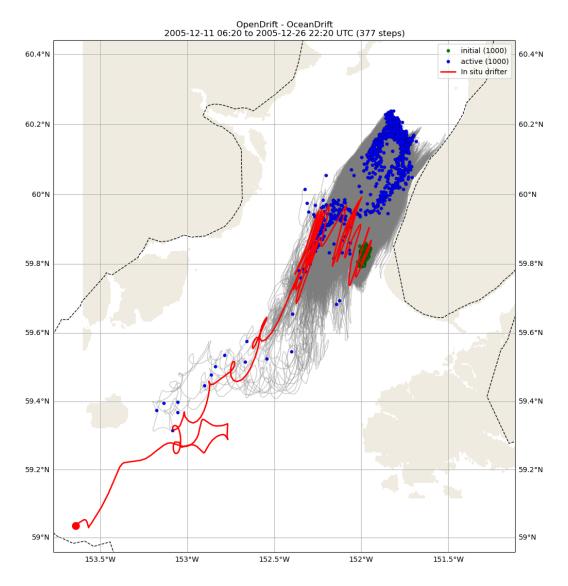
CIDrifter0630Y2005_SubsurfaceDrogueAt5M_deployment1

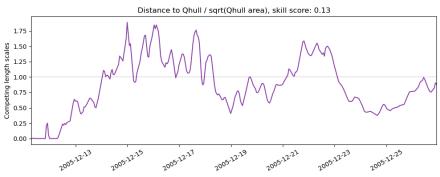
CIOFS

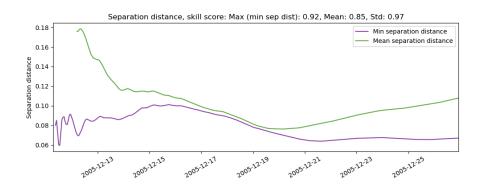






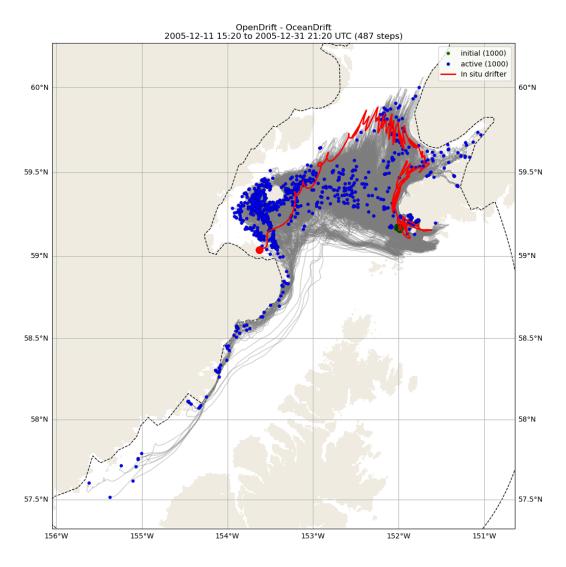


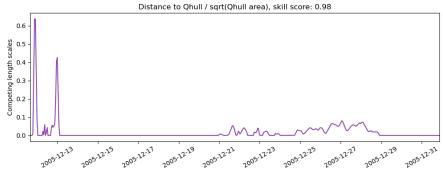


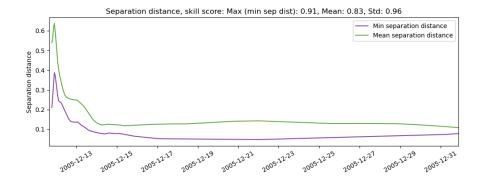


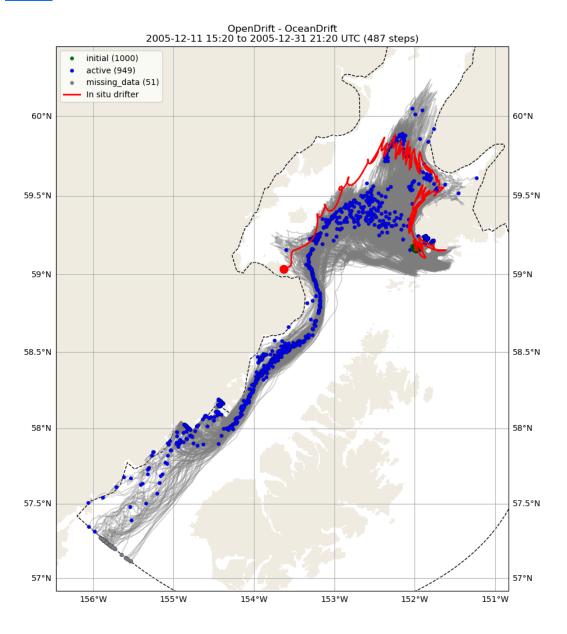
$CID rifter 0631Y2005_Subsurface Drogue At 5M_deployment 1$

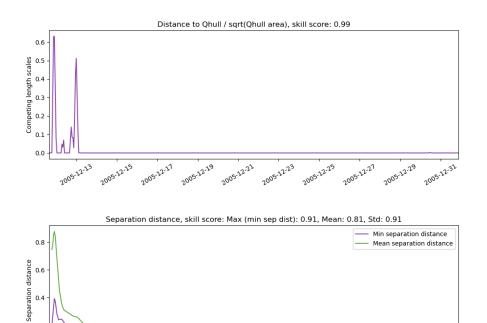
CIOFS











$CID rifter 0632Y2006_Subsurface Drogue At 5M_deployment 1$

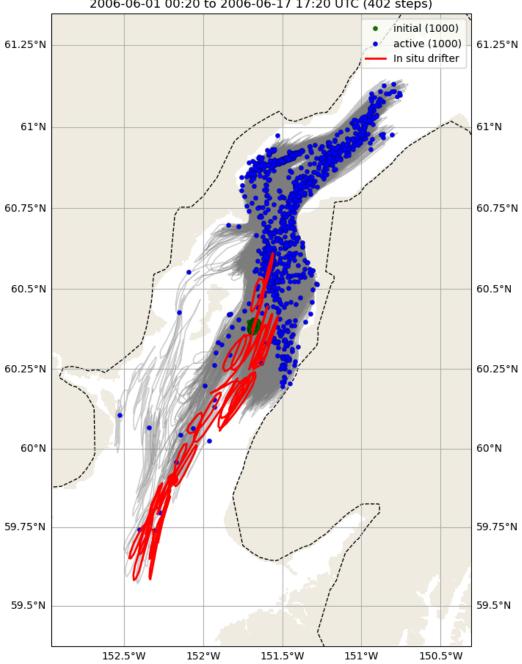
CIOFS

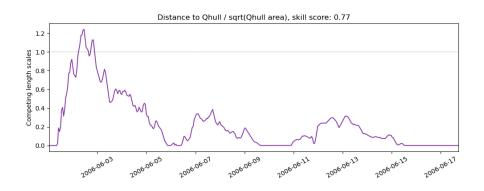
• Animation

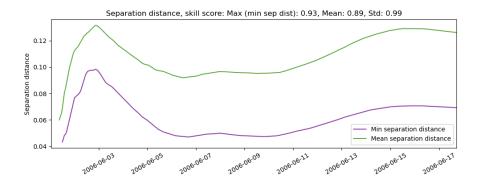
0.2

0.0

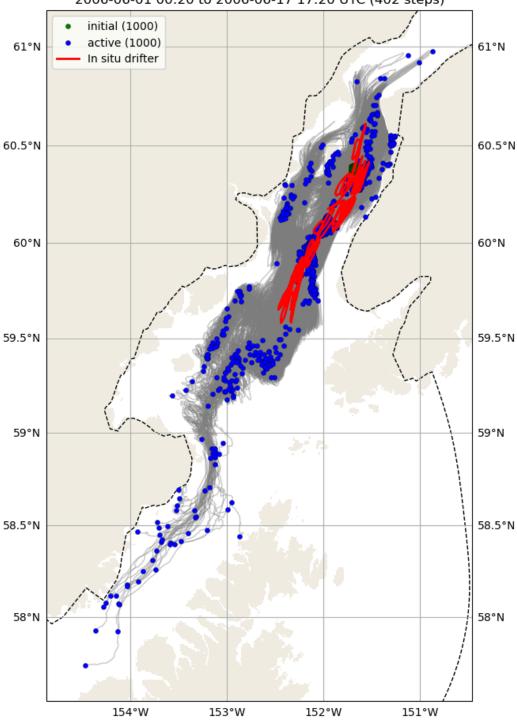
OpenDrift - OceanDrift 2006-06-01 00:20 to 2006-06-17 17:20 UTC (402 steps)

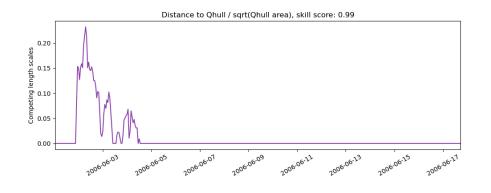


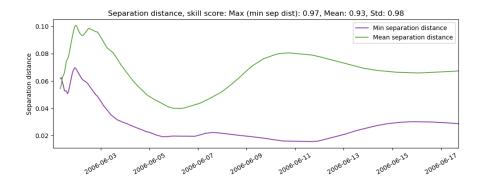




OpenDrift - OceanDrift 2006-06-01 00:20 to 2006-06-17 17:20 UTC (402 steps)

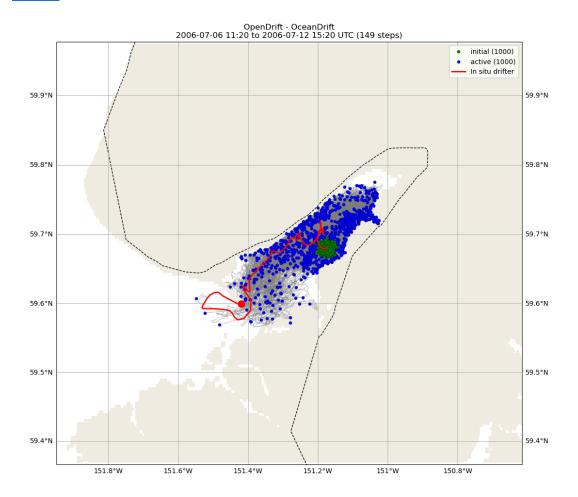


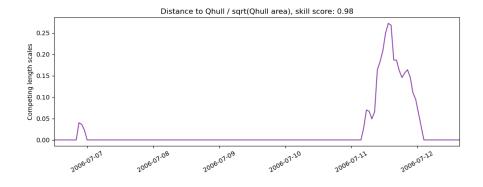


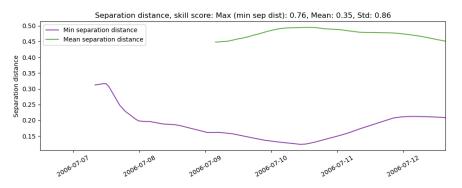


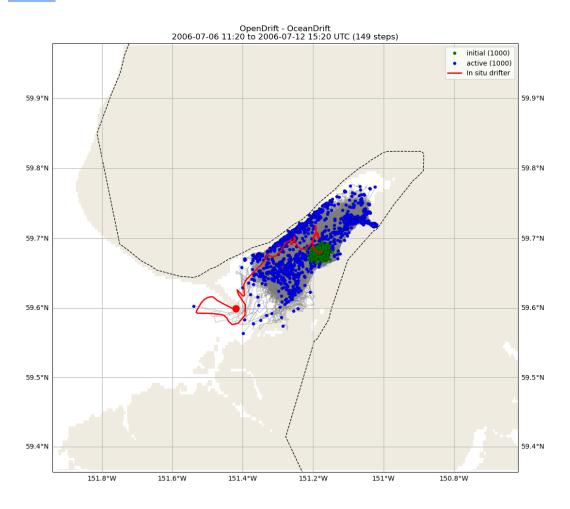
CIDrifter0632Y2006_SubsurfaceDrogueAt5M_deployment2

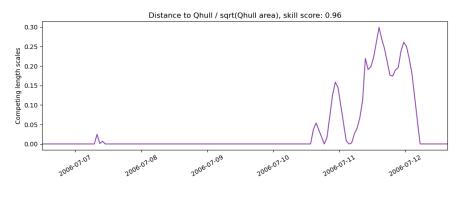
CIOFS

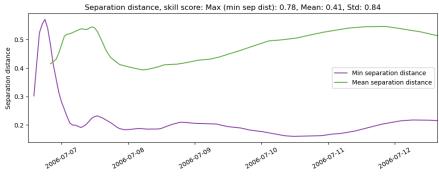








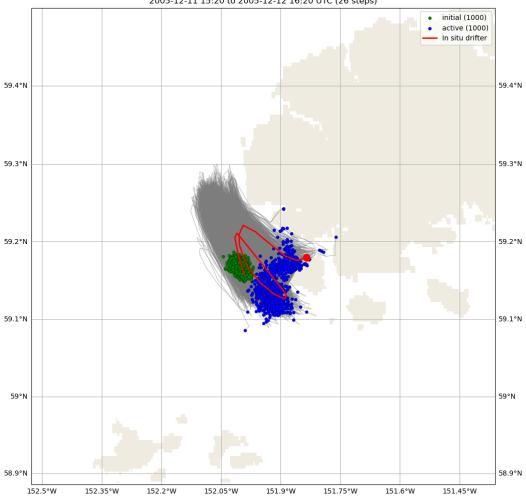


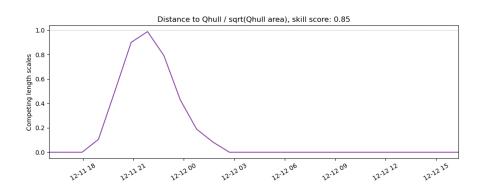


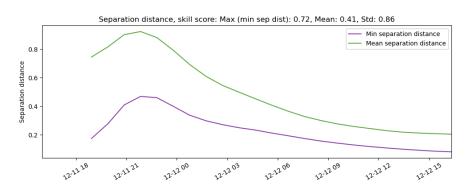
$CID rifter 0633Y2005_Subsurface Drogue At 5M_deployment 1$

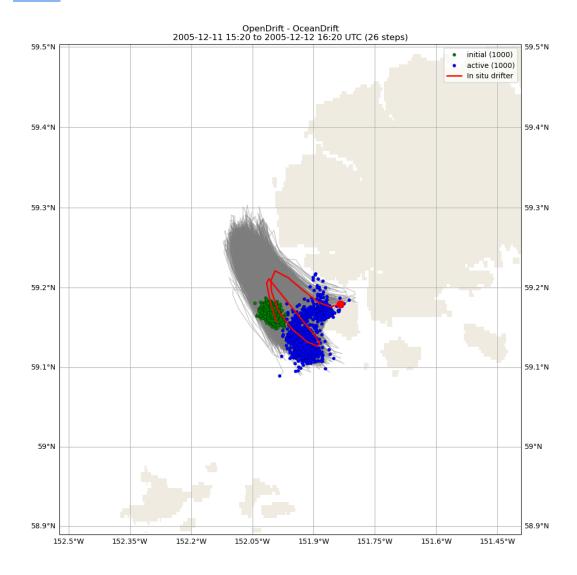
CIOFS

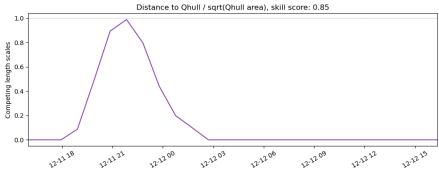
OpenDrift - OceanDrift 2005-12-11 15:20 to 2005-12-12 16:20 UTC (26 steps)

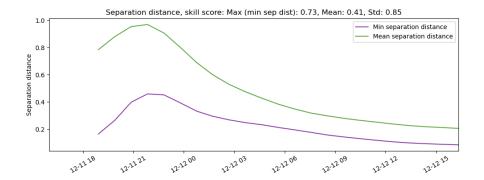








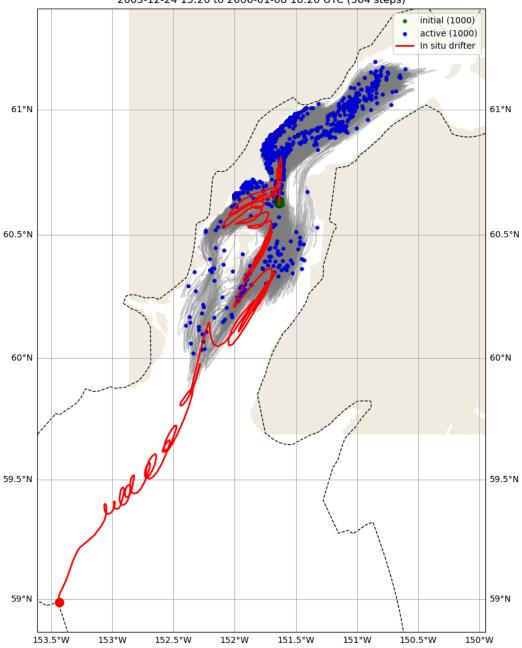


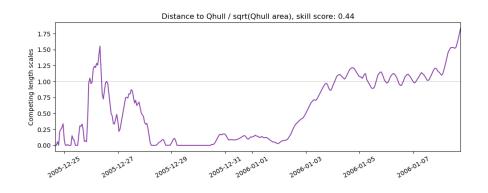


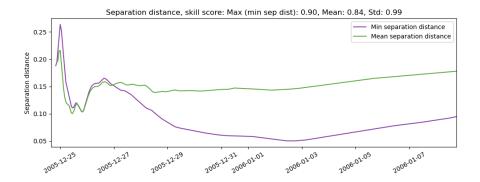
CIDrifter0634Y2005_SubsurfaceDrogueAt5M_deployment1

CIOFS

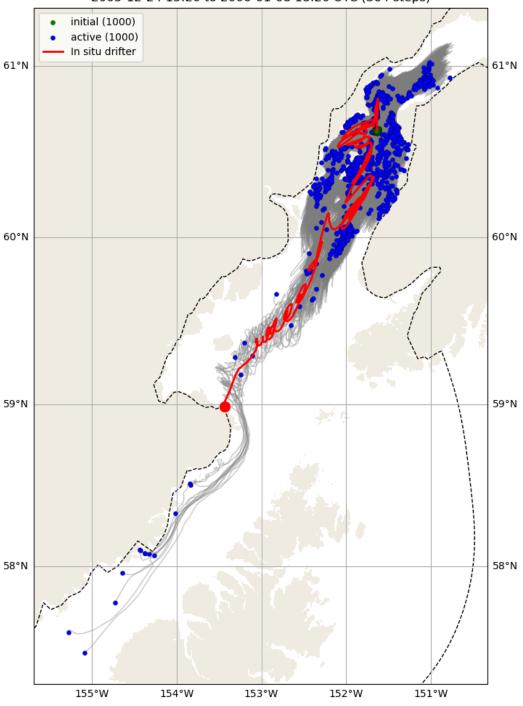
OpenDrift - OceanDrift 2005-12-24 15:20 to 2006-01-08 18:20 UTC (364 steps)

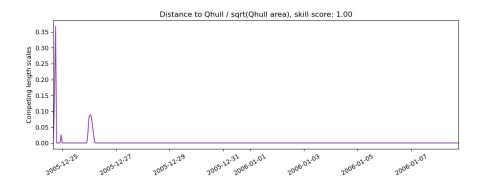


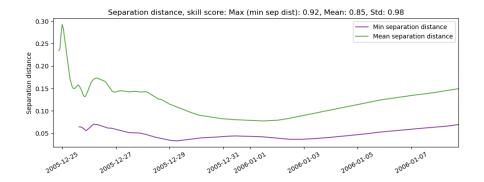




OpenDrift - OceanDrift 2005-12-24 15:20 to 2006-01-08 18:20 UTC (364 steps)

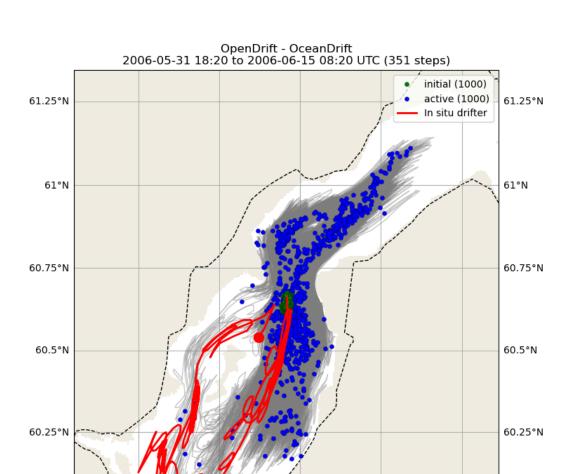






CIDrifter0635Y2006_SubsurfaceDrogueAt5M_deployment1

CIOFS



60°N

59.75°N

59.5°N

152.5°W

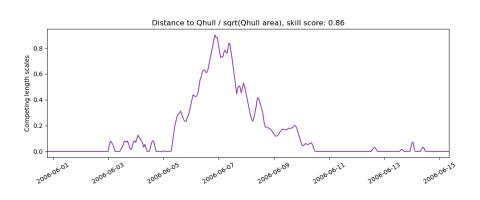
152°W

60°N

59.75°N

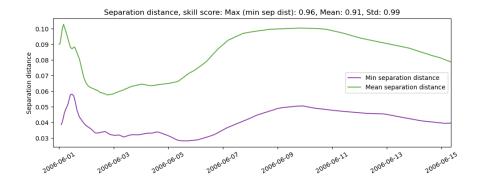
59.5°N

150.5°W

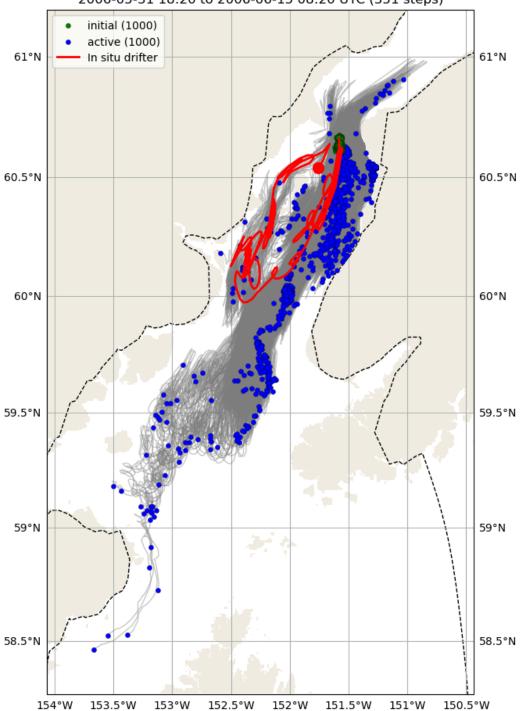


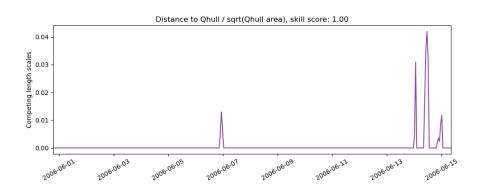
151.5°W

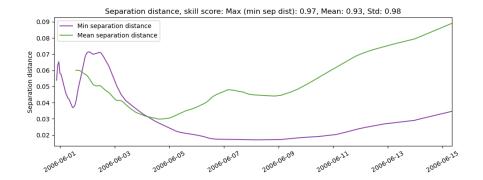
151°W



OpenDrift - OceanDrift 2006-05-31 18:20 to 2006-06-15 08:20 UTC (351 steps)

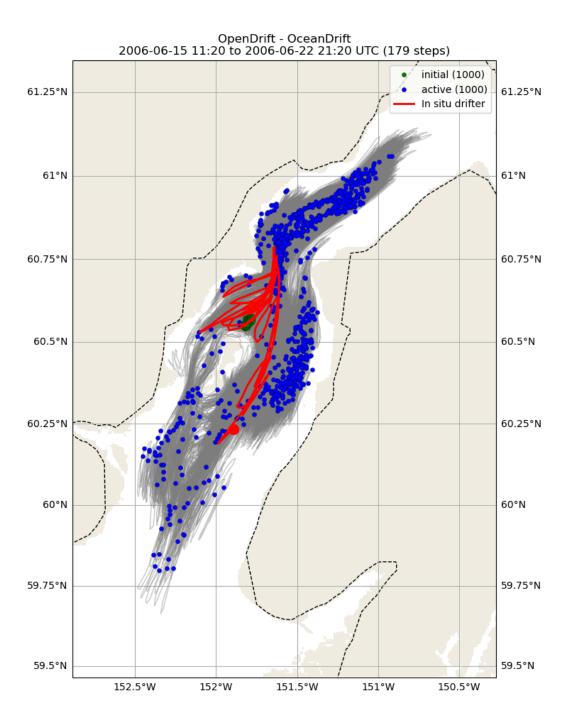


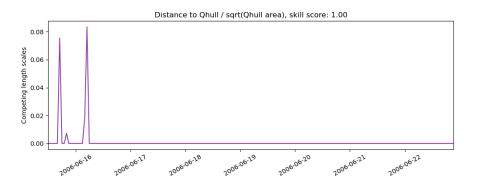


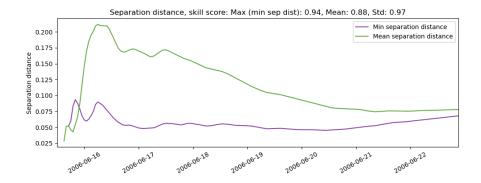


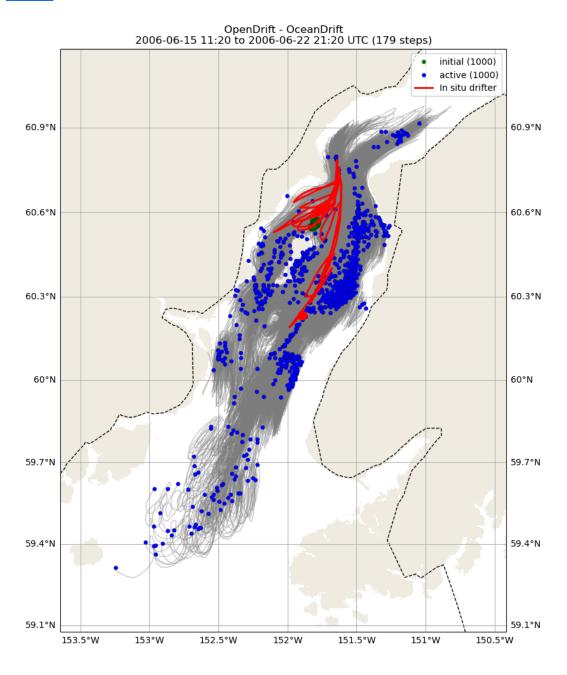
$CID rifter 0635Y2006_Subsurface Drogue At 5M_deployment 2$

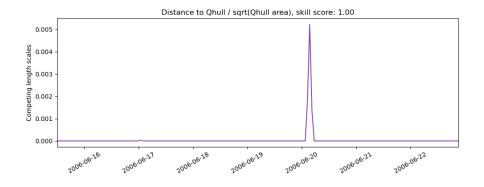
CIOFS

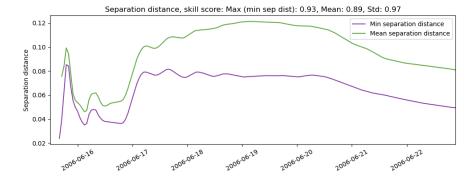






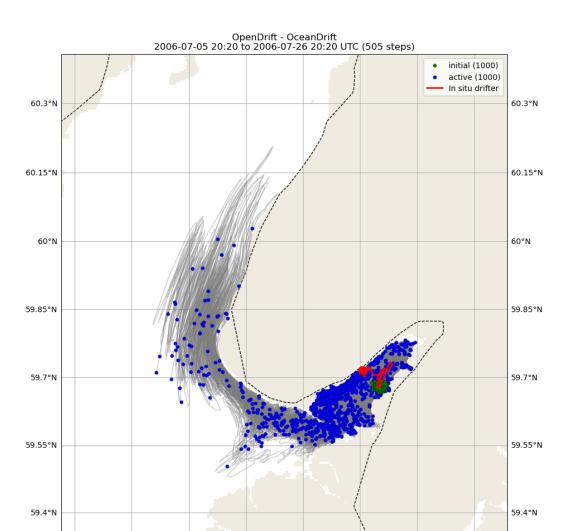


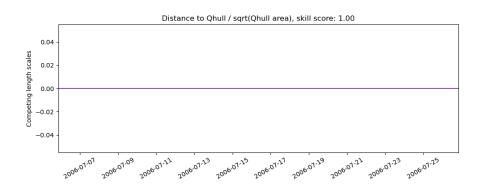




$CID rifter 0635Y2006_Subsurface Drogue At 5M_deployment 3$

CIOFS





151.5°W

151.25°W

151°W

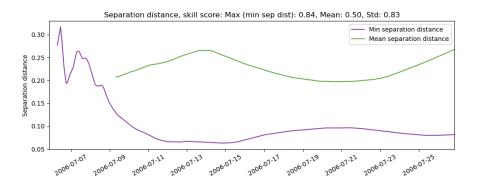
150.75°W

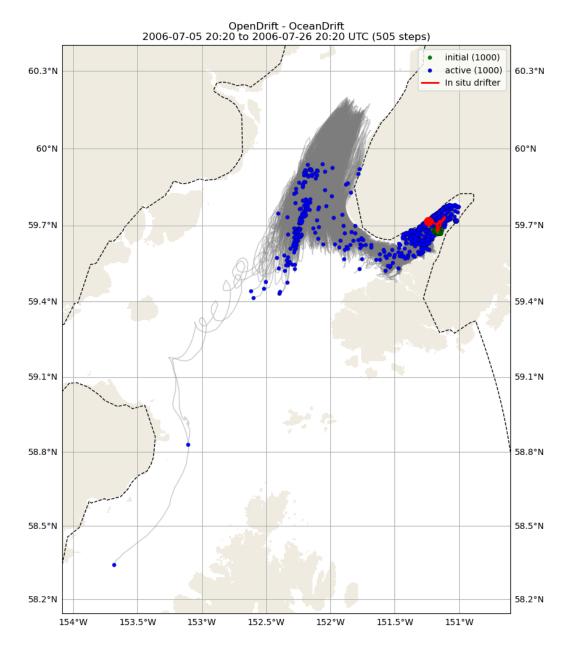
152.5°W

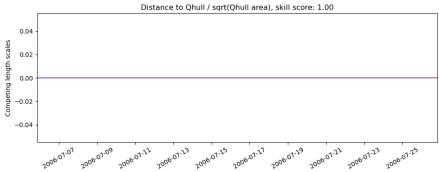
152.25°W

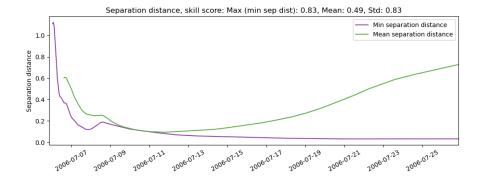
152°W

151.75°W





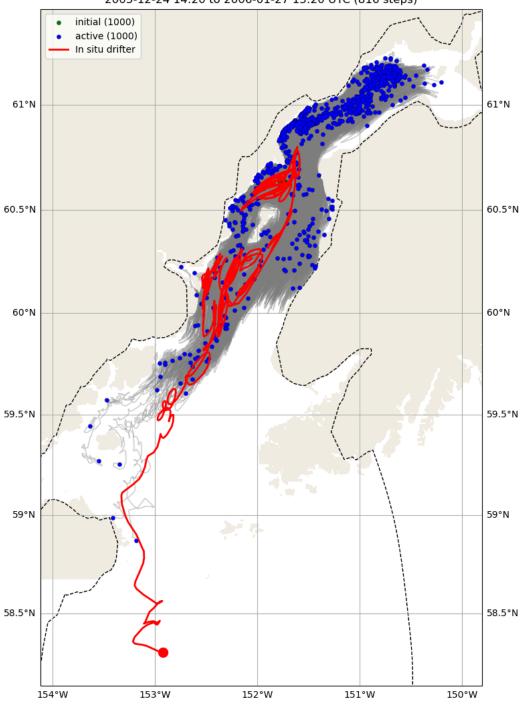


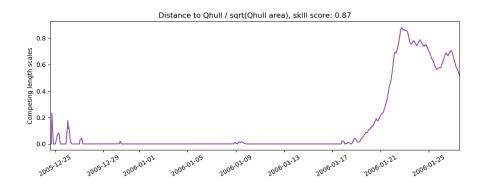


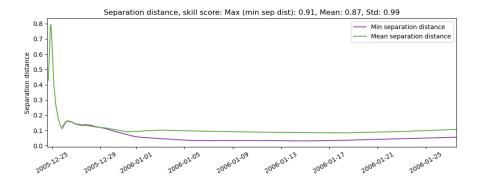
$CID rifter 0636 Y2005_Subsurface Drogue At 5M_deployment 1$

CIOFS

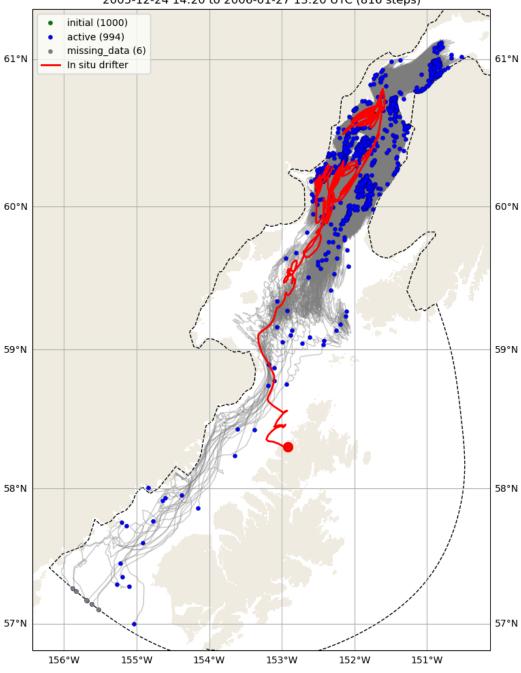
OpenDrift - OceanDrift 2005-12-24 14:20 to 2006-01-27 13:20 UTC (816 steps)

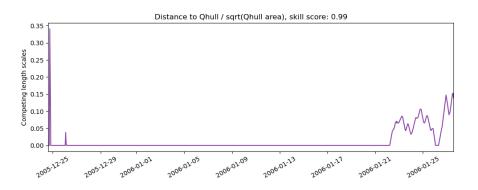


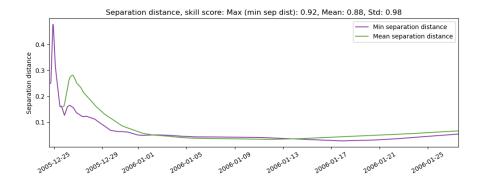




OpenDrift - OceanDrift 2005-12-24 14:20 to 2006-01-27 13:20 UTC (816 steps)



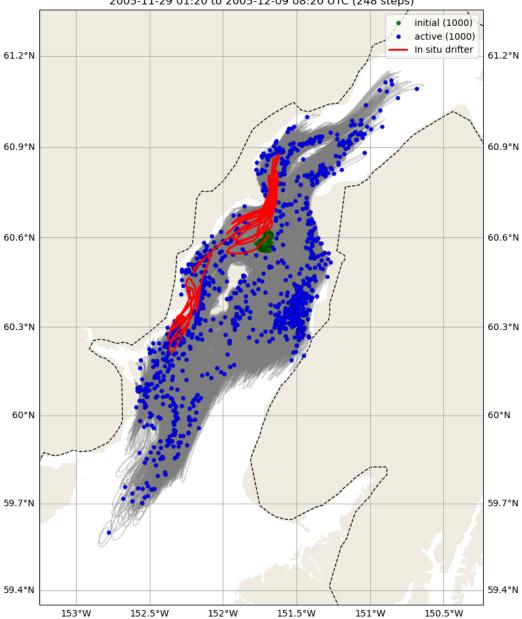


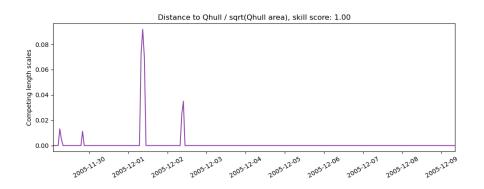


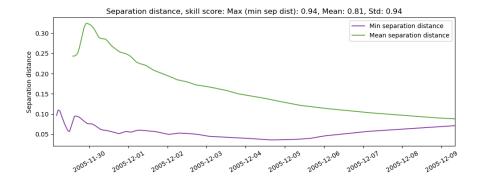
$CID rifter 0637Y2005_Subsurface Drogue At 5M_deployment 1$

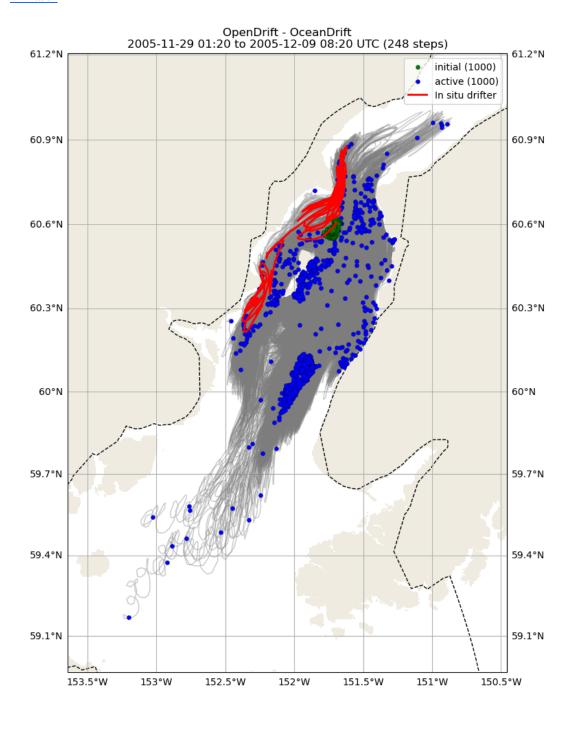
CIOFS

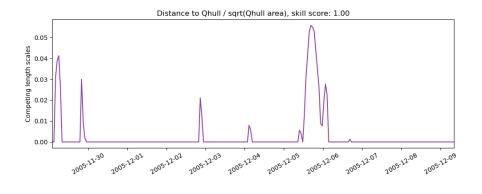
OpenDrift - OceanDrift 2005-11-29 01:20 to 2005-12-09 08:20 UTC (248 steps)

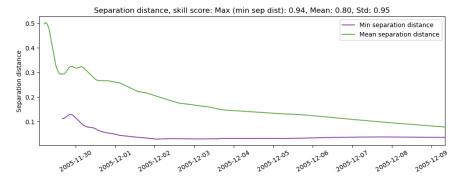








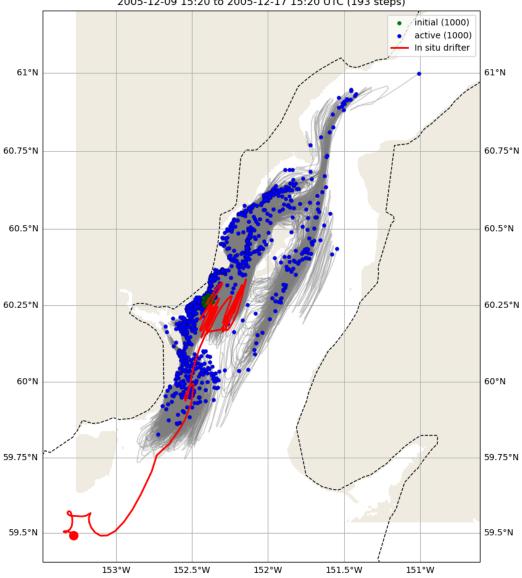


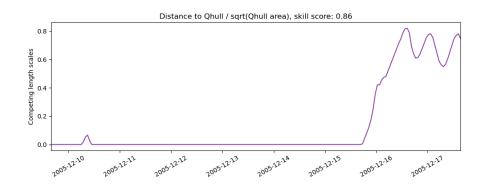


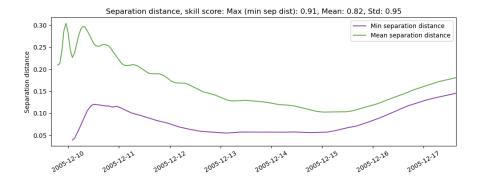
$CID rifter 0637Y2005_Subsurface Drogue At 5M_deployment 2$

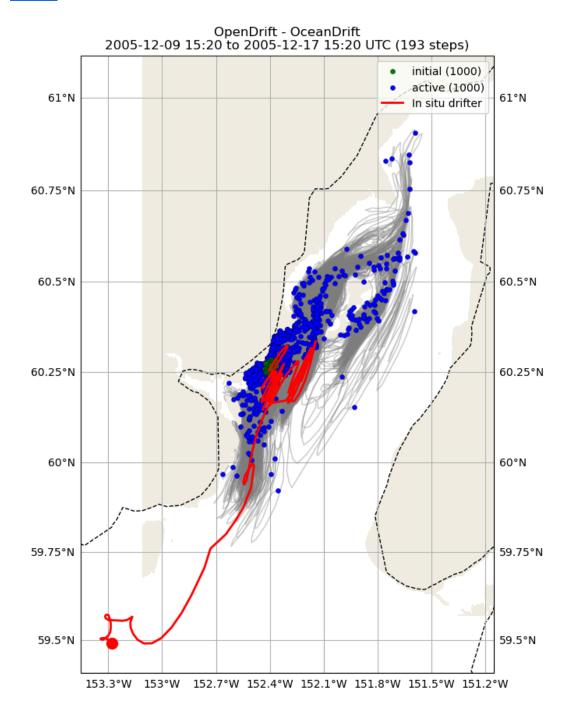
CIOFS

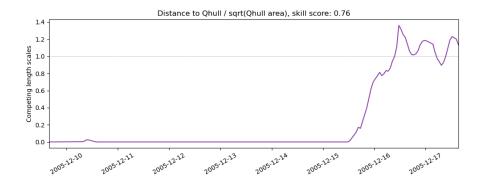
OpenDrift - OceanDrift 2005-12-09 15:20 to 2005-12-17 15:20 UTC (193 steps)

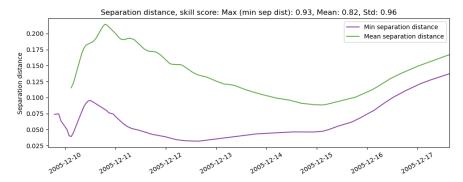








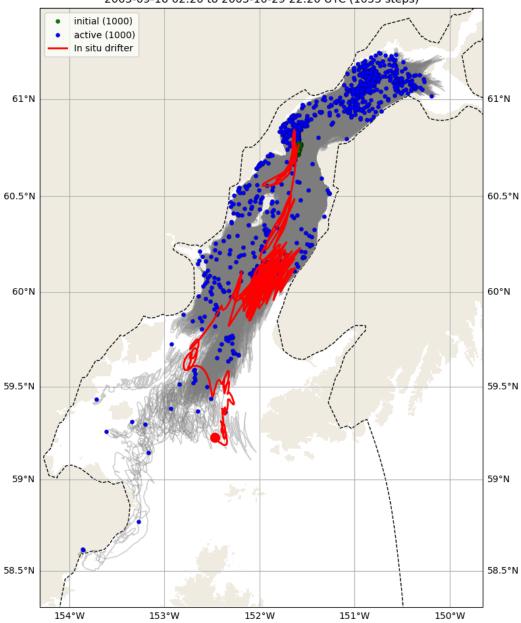


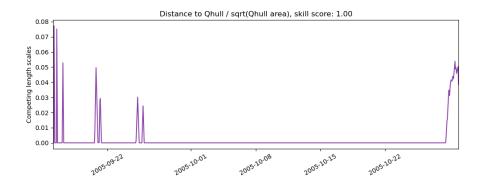


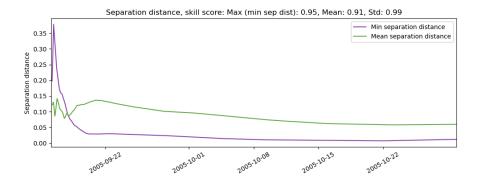
$CID rifter 0638Y2005_Subsurface Drogue At 5M_deployment 1$

CIOFS

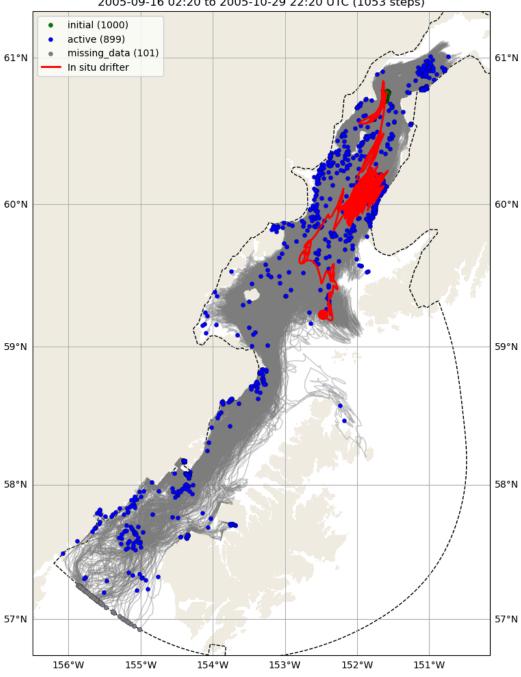
OpenDrift - OceanDrift 2005-09-16 02:20 to 2005-10-29 22:20 UTC (1053 steps)

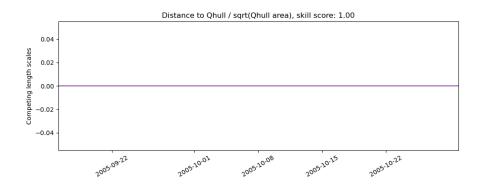


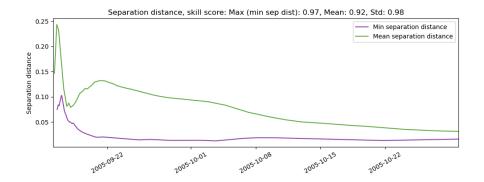




OpenDrift - OceanDrift 2005-09-16 02:20 to 2005-10-29 22:20 UTC (1053 steps)

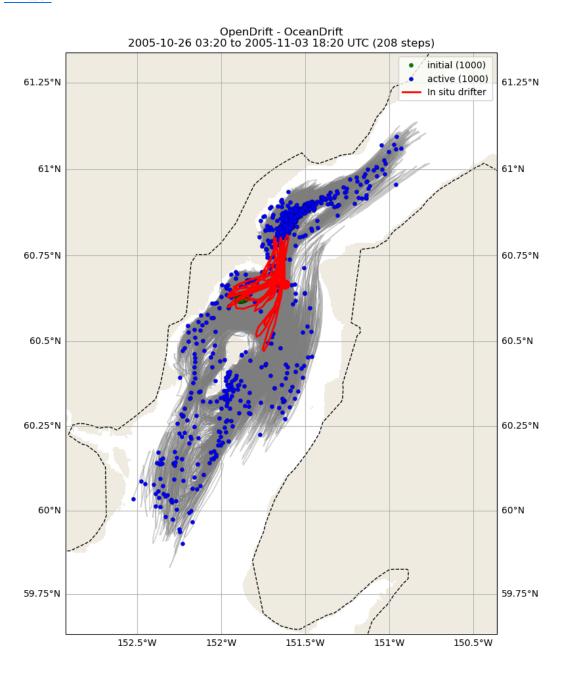


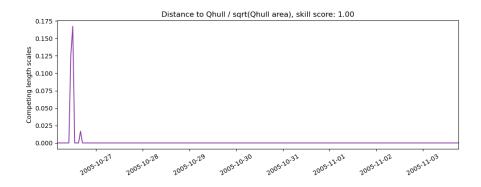


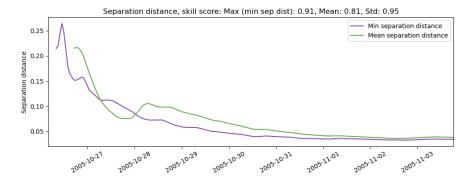


CIDrifter0639Y2005_SubsurfaceDrogueAt5M_deployment1

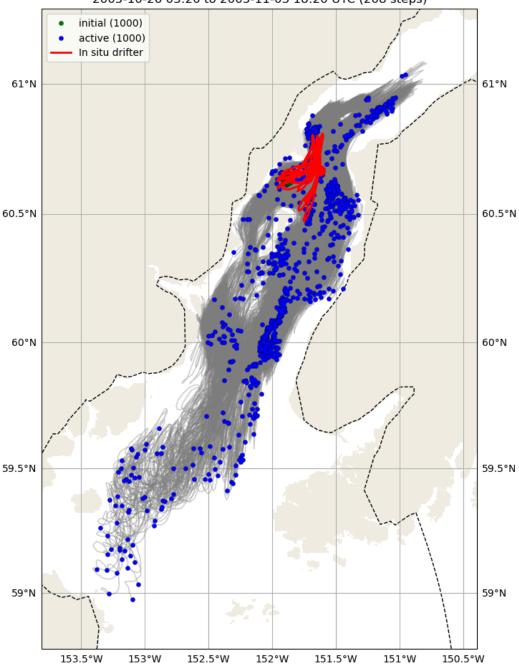
CIOFS

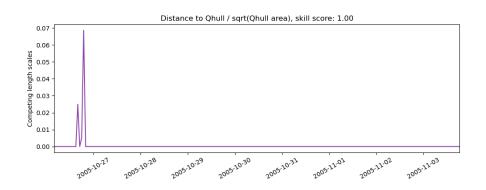


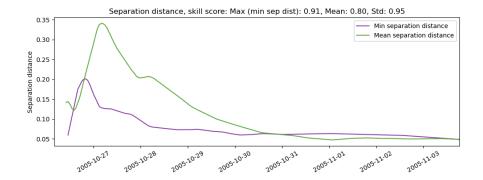




OpenDrift - OceanDrift 2005-10-26 03:20 to 2005-11-03 18:20 UTC (208 steps)



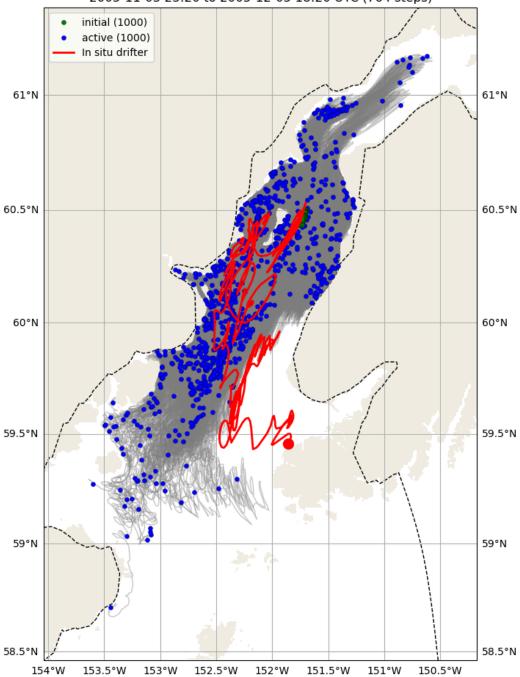


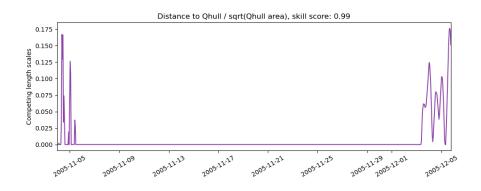


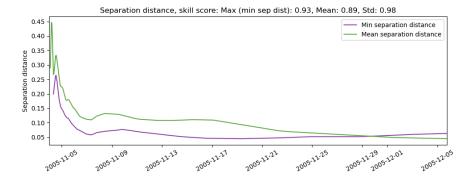
$CID rifter 0639Y2005_Subsurface Drogue At 5M_deployment 2$

CIOFS

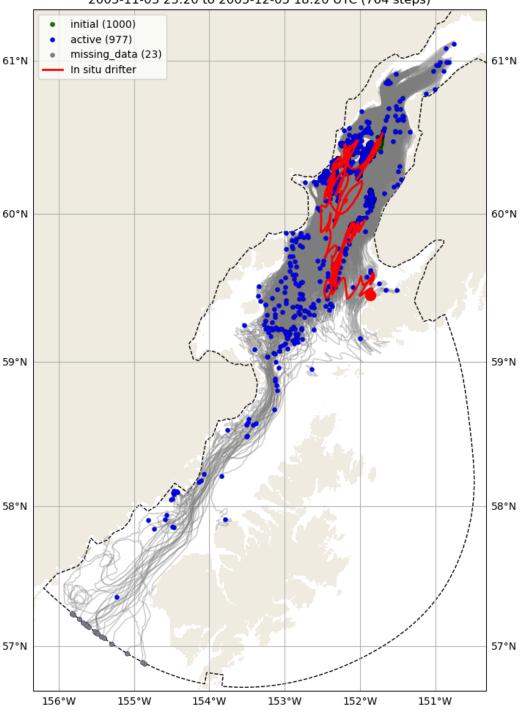
OpenDrift - OceanDrift 2005-11-03 23:20 to 2005-12-05 18:20 UTC (764 steps)

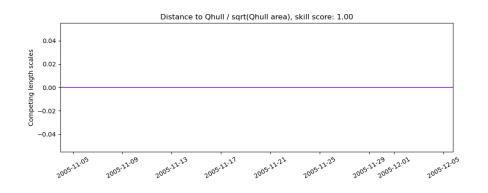


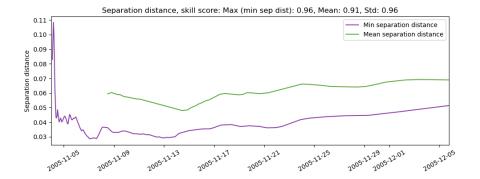




OpenDrift - OceanDrift 2005-11-03 23:20 to 2005-12-05 18:20 UTC (764 steps)



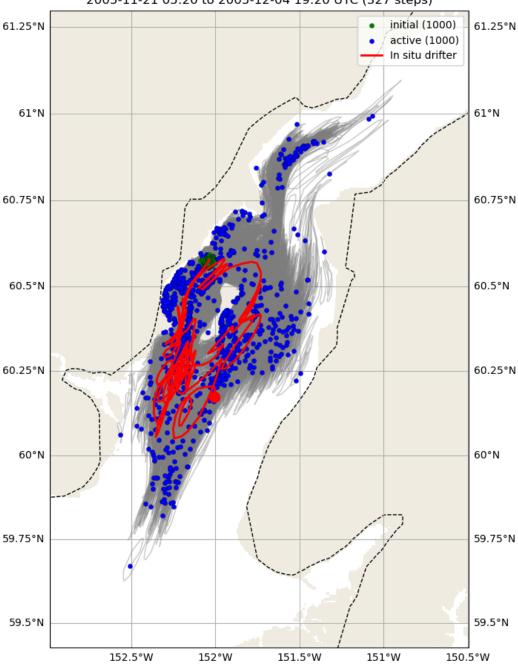


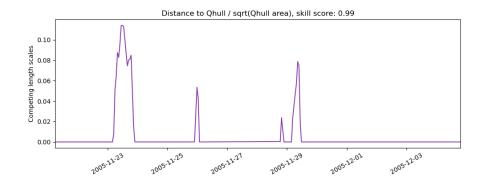


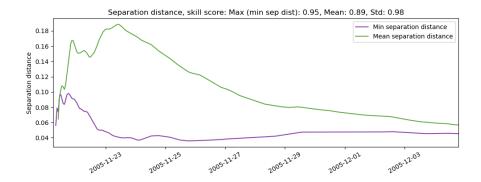
$CID rifter 0640 Y2005_Subsurface Drogue At 5M_deployment 1$

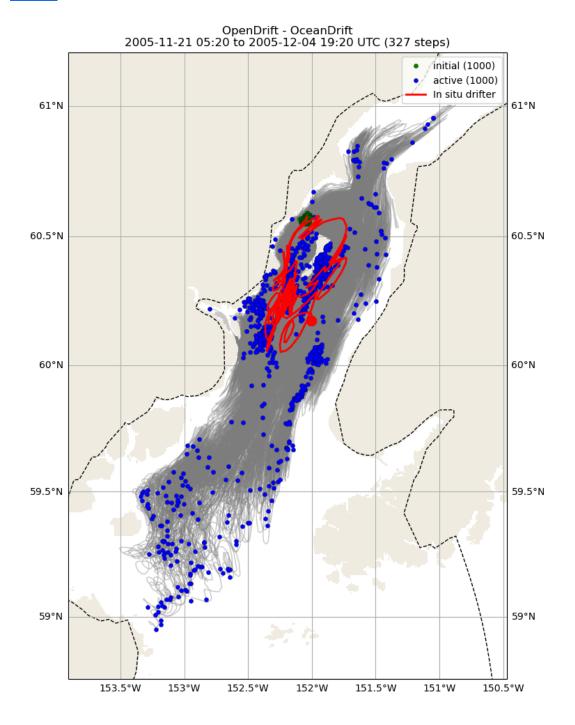
CIOFS

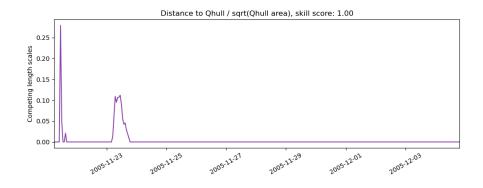
OpenDrift - OceanDrift 2005-11-21 05:20 to 2005-12-04 19:20 UTC (327 steps)

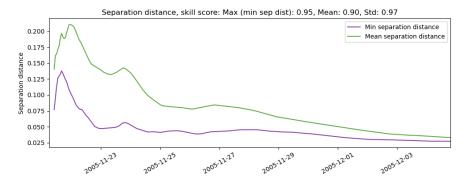








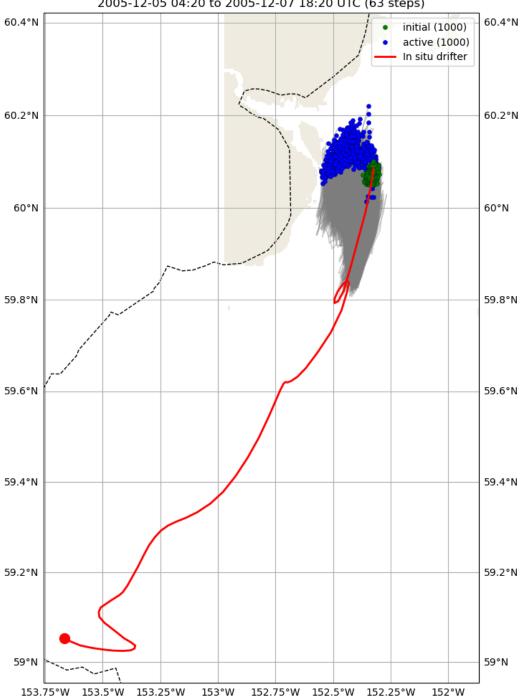


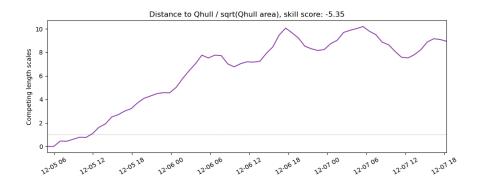


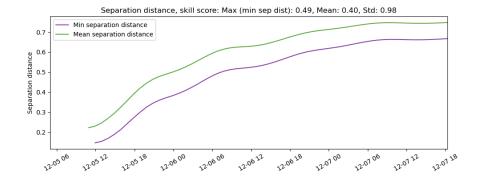
$CID rifter 0640Y2005_Subsurface Drogue At 5M_deployment 2$

CIOFS

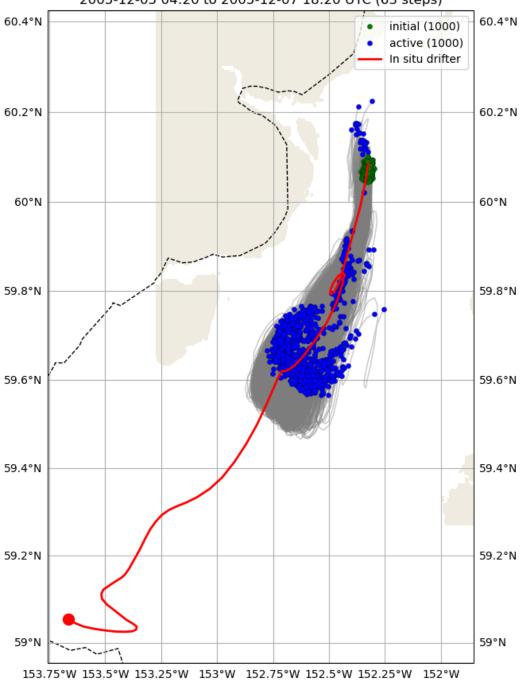
OpenDrift - OceanDrift 2005-12-05 04:20 to 2005-12-07 18:20 UTC (63 steps)

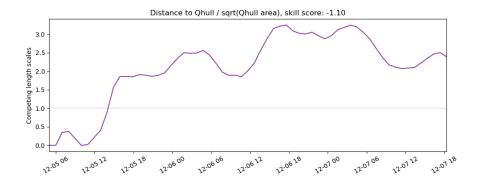


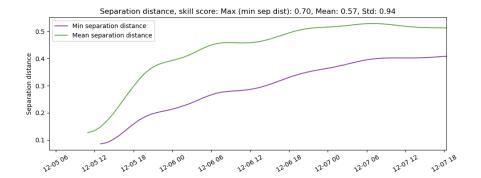




OpenDrift - OceanDrift 2005-12-05 04:20 to 2005-12-07 18:20 UTC (63 steps)



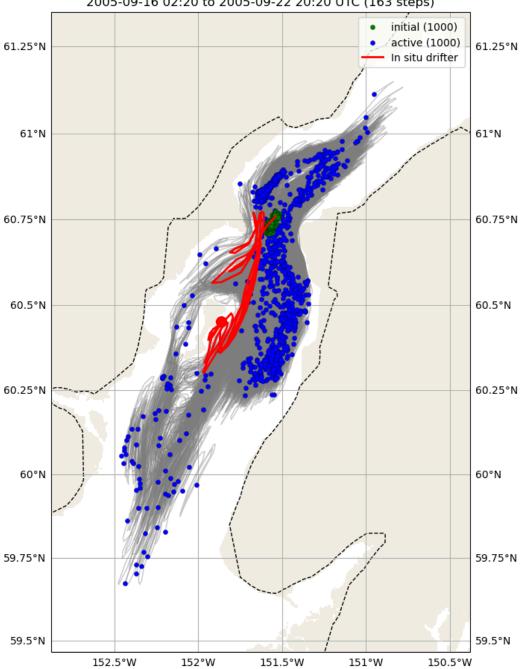


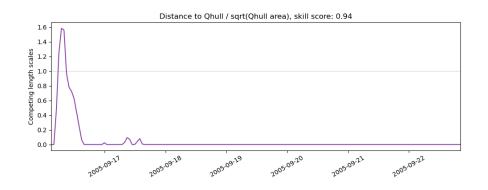


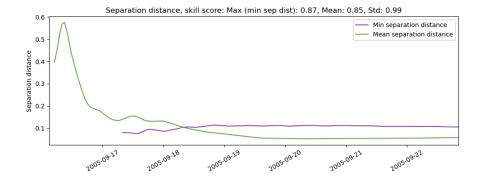
CIDrifter0641Y2005_SubsurfaceDrogueAt5M_deployment1

CIOFS

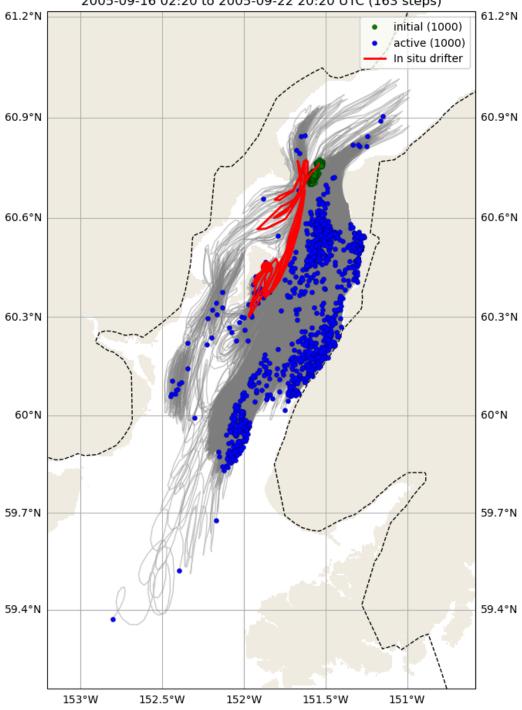
OpenDrift - OceanDrift 2005-09-16 02:20 to 2005-09-22 20:20 UTC (163 steps)

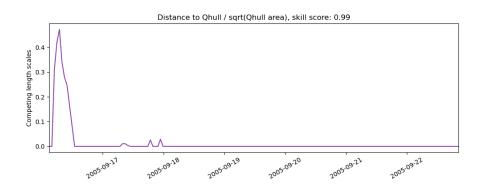


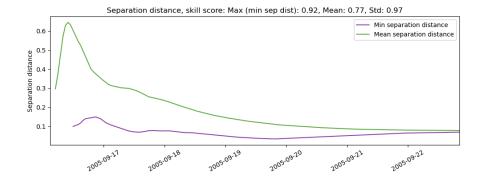




OpenDrift - OceanDrift 2005-09-16 02:20 to 2005-09-22 20:20 UTC (163 steps)

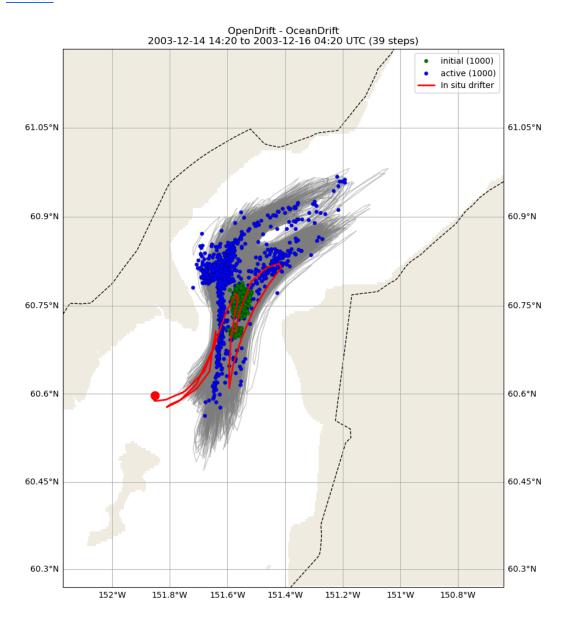


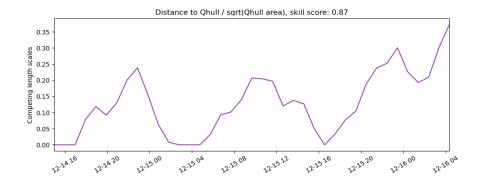


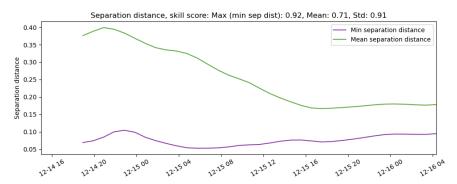


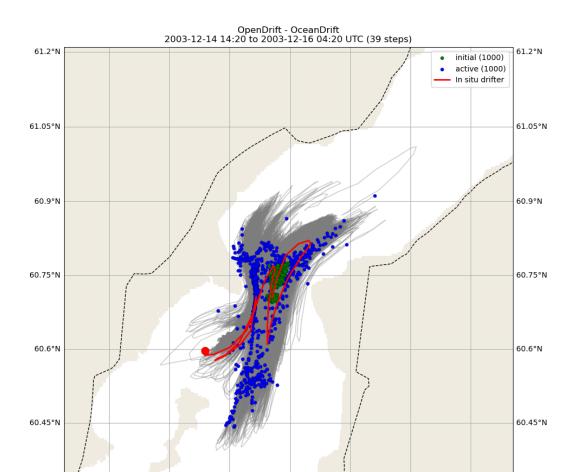
CIDrifter0907Y2003_SubsurfaceDrogueAt7p5M_deployment1

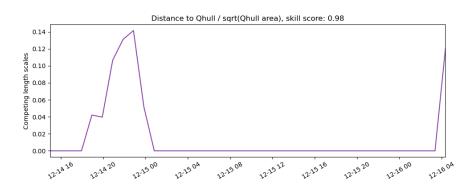
CIOFS











151.5°W

151.25°W

151°W

150.75°W

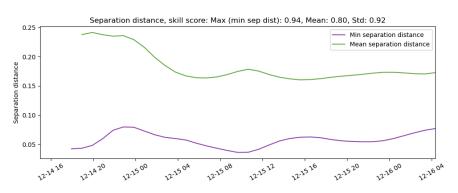
60.3°N

60.3°N

152.25°W

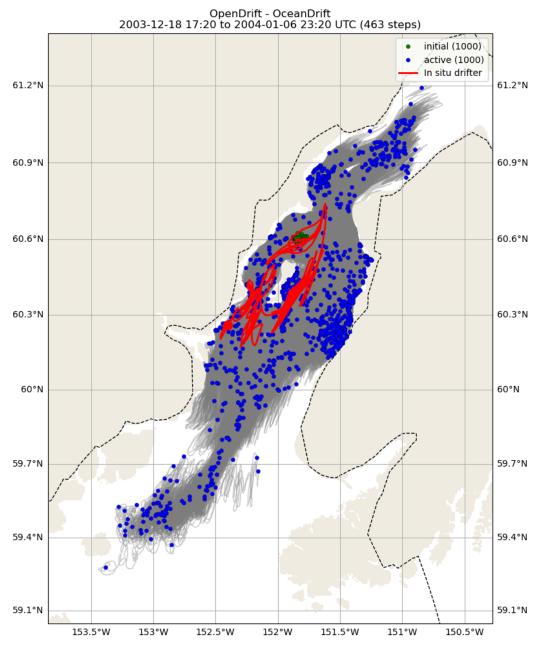
152°W

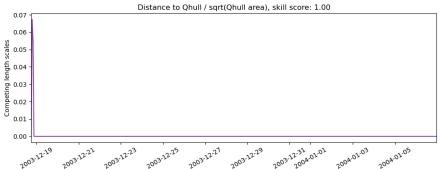
151.75°W

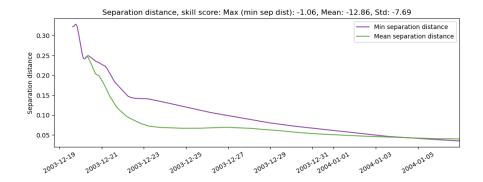


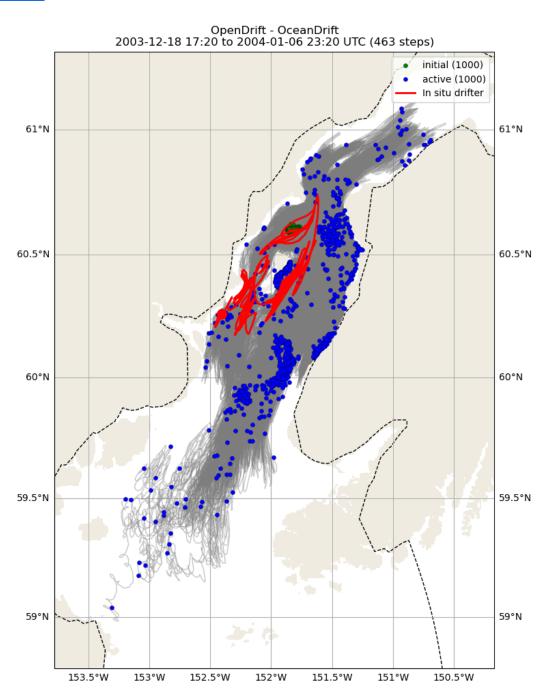
CIDrifter0907Y2003_SubsurfaceDrogueAt7p5M_deployment2

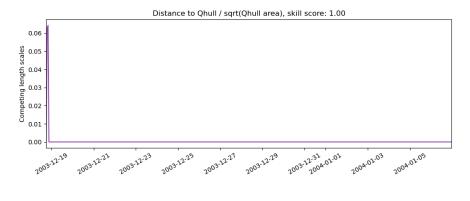
CIOFS

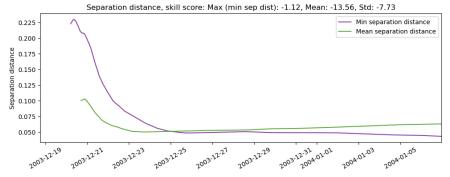








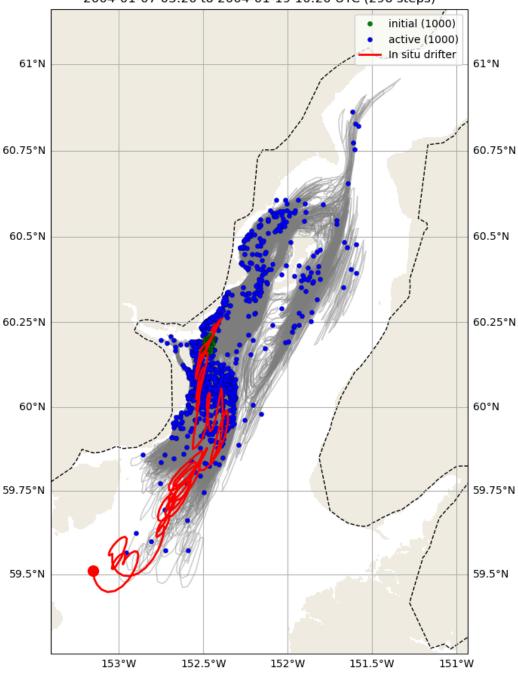


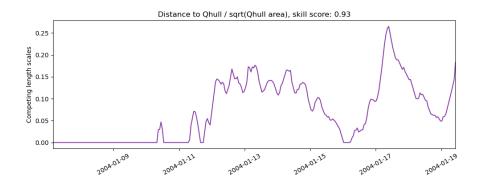


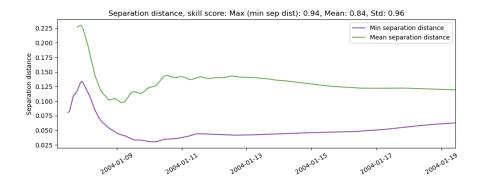
$CID rifter 0907Y2003_Subsurface Drogue At7p5 M_deployment3$

CIOFS

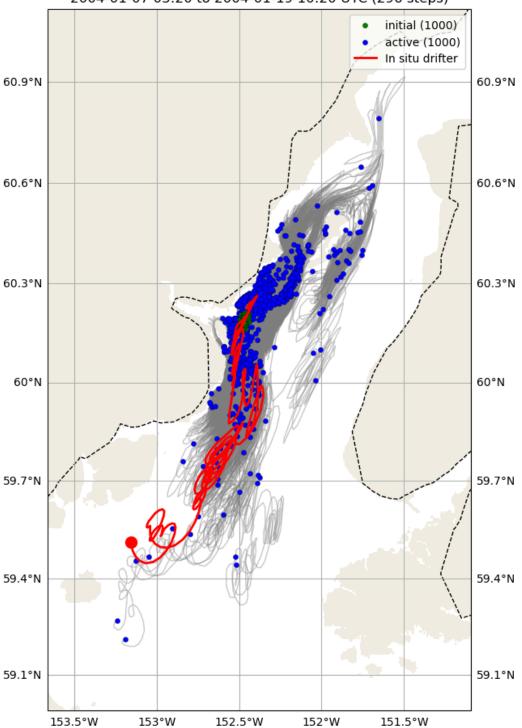
OpenDrift - OceanDrift 2004-01-07 03:20 to 2004-01-19 10:20 UTC (296 steps)

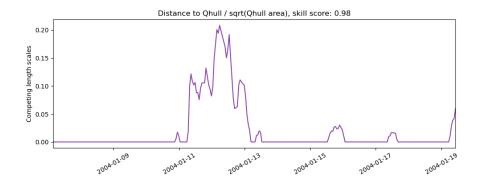


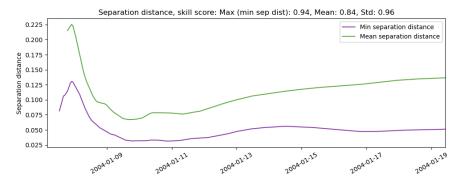




OpenDrift - OceanDrift 2004-01-07 03:20 to 2004-01-19 10:20 UTC (296 steps)



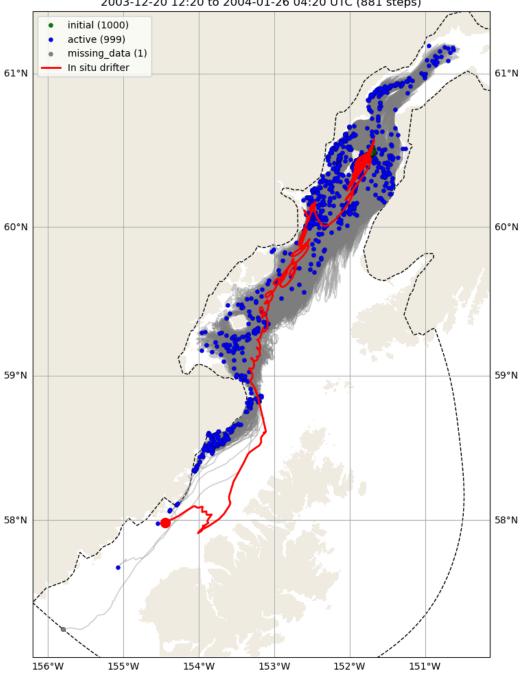


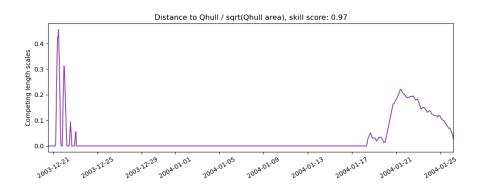


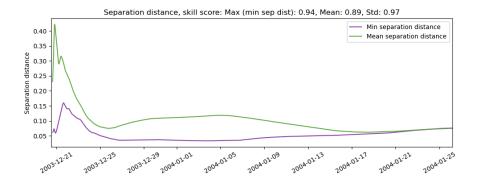
$CID rifter 0908Y2003_Subsurface Drogue At7p5 M_deployment 1$

CIOFS

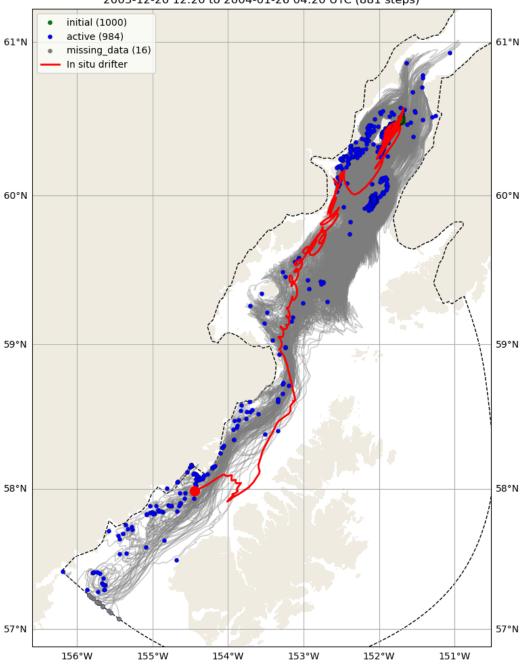
OpenDrift - OceanDrift 2003-12-20 12:20 to 2004-01-26 04:20 UTC (881 steps)

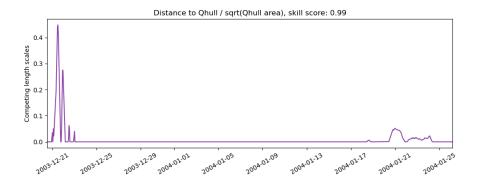


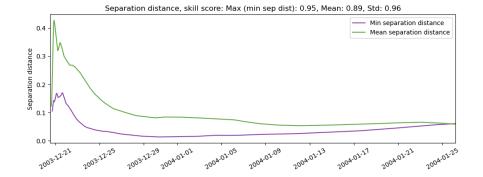




OpenDrift - OceanDrift 2003-12-20 12:20 to 2004-01-26 04:20 UTC (881 steps)



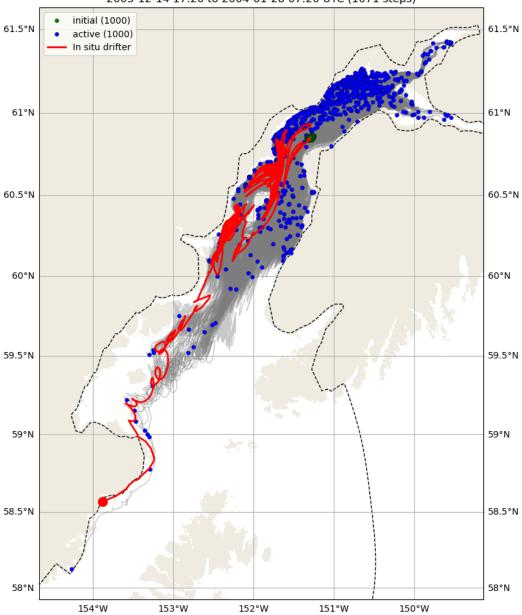


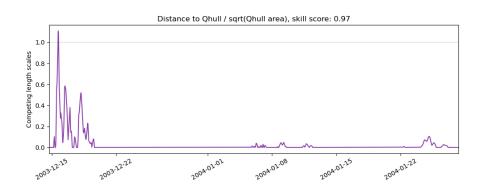


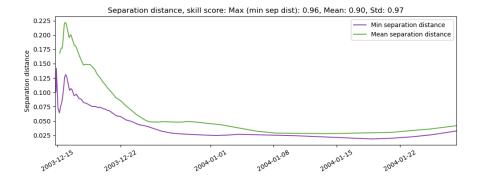
CIDrifter0909Y2003_SubsurfaceDrogueAt7p5M_deployment1

CIOFS

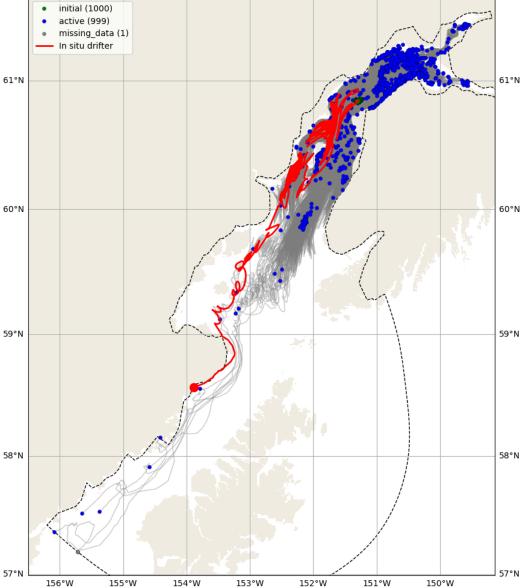
OpenDrift - OceanDrift 2003-12-14 17:20 to 2004-01-28 07:20 UTC (1071 steps)

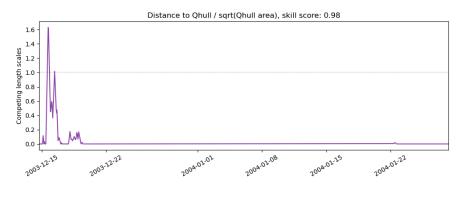


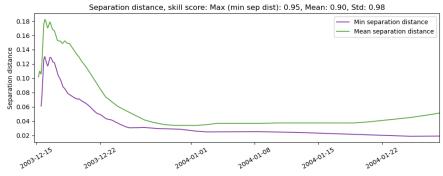






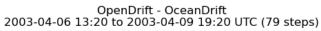


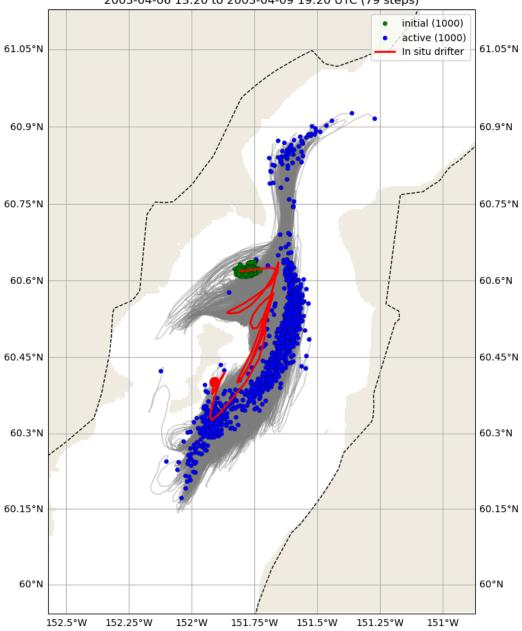


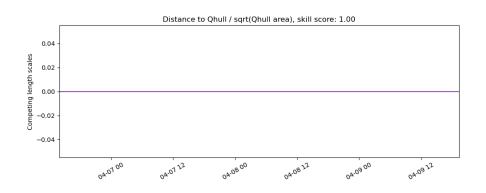


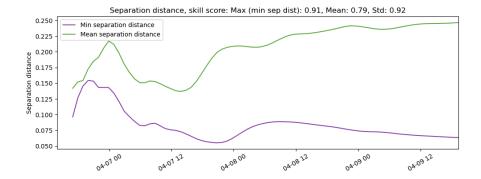
$CID rifter 0910Y2003_Subsurface Drogue At7p5 M_deployment 1$

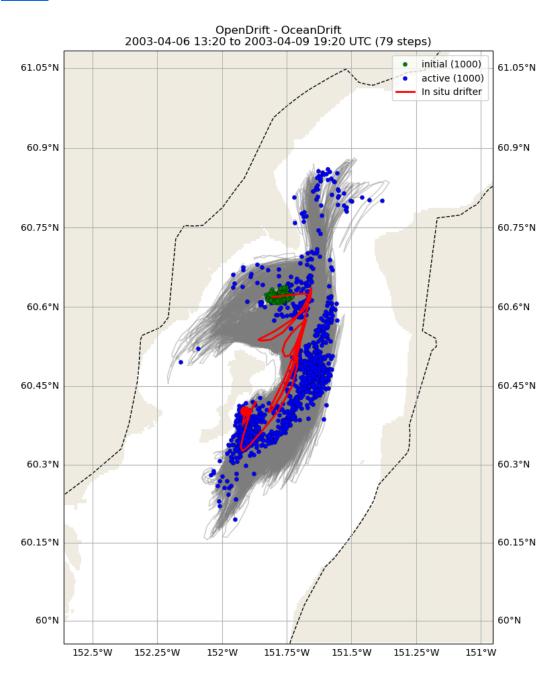
CIOFS

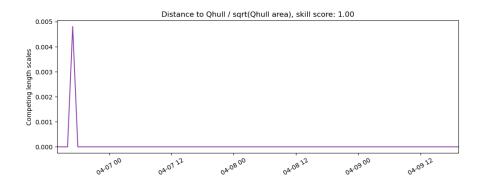


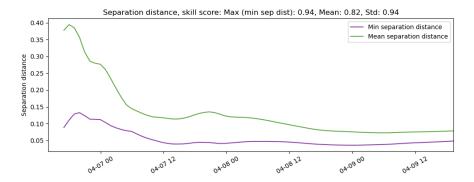






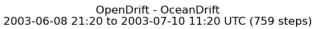


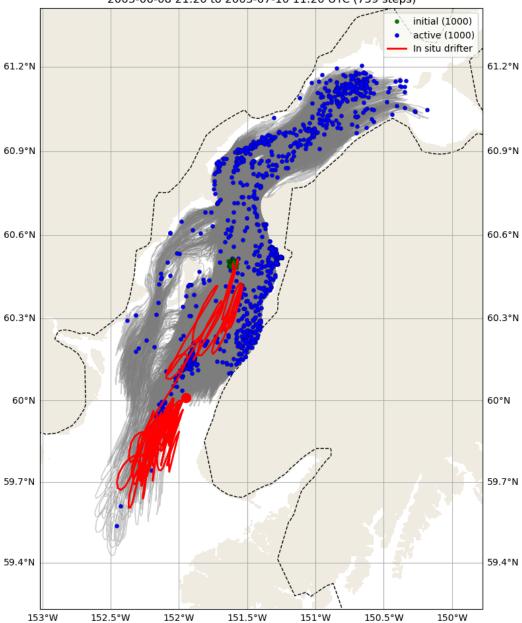


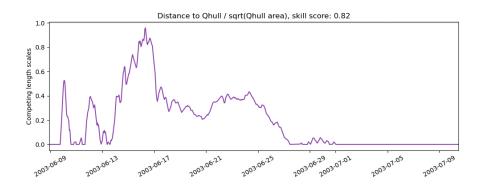


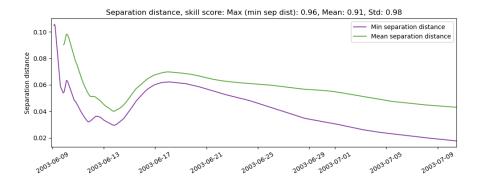
$CID rifter 0910Y2003_Subsurface Drogue At7p5 M_deployment2$

CIOFS

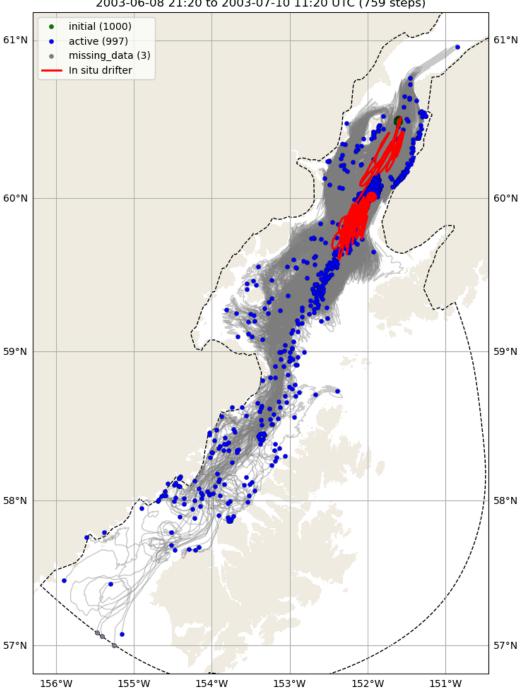


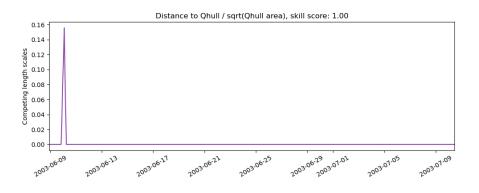


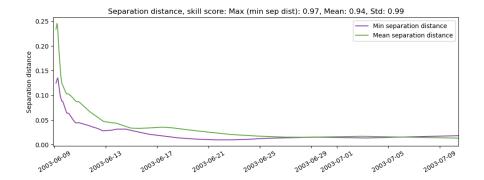




OpenDrift - OceanDrift 2003-06-08 21:20 to 2003-07-10 11:20 UTC (759 steps)

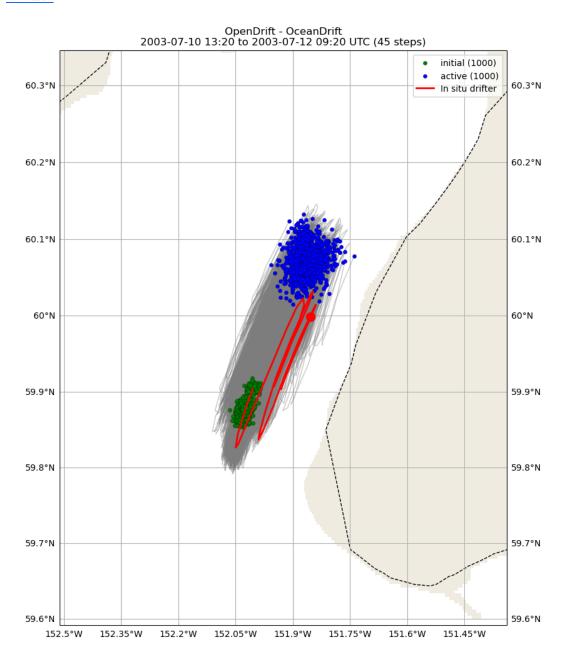


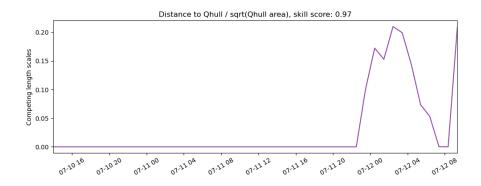


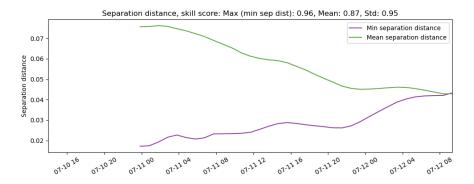


CIDrifter0910Y2003_SubsurfaceDrogueAt7p5M_deployment3

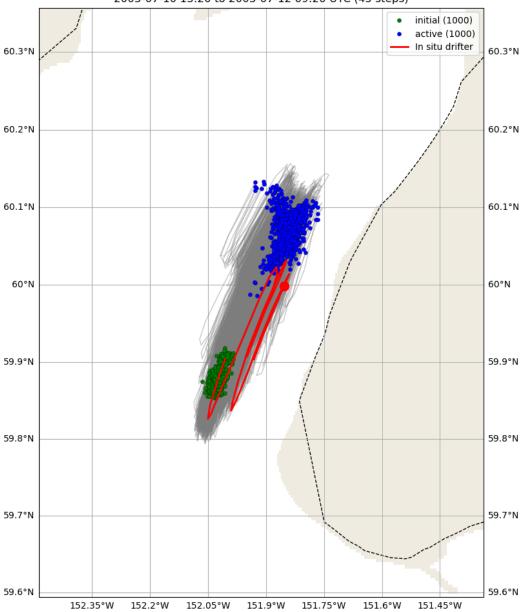
CIOFS

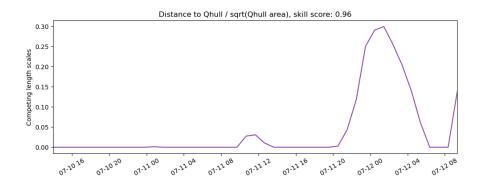


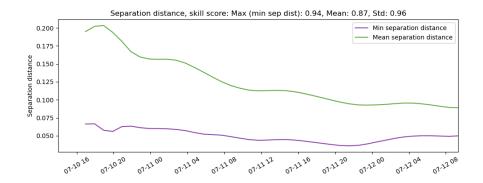




OpenDrift - OceanDrift 2003-07-10 13:20 to 2003-07-12 09:20 UTC (45 steps)

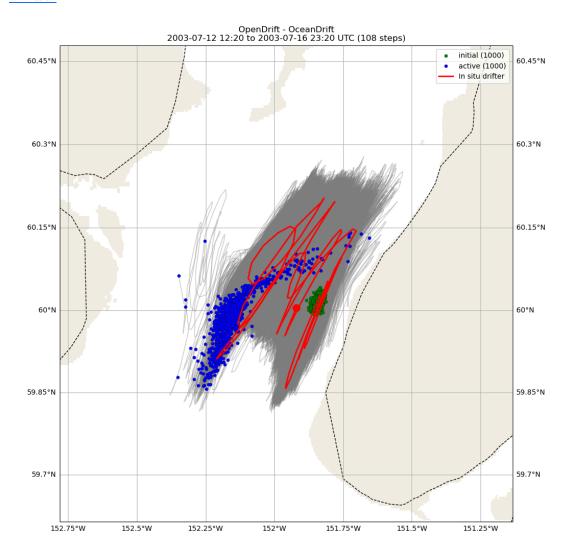


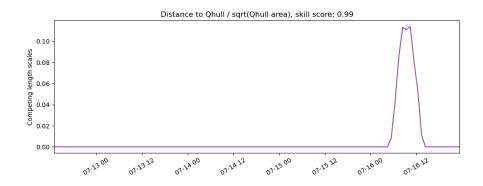


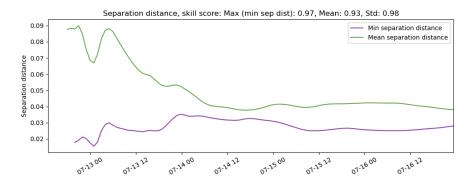


CIDrifter0910Y2003_SubsurfaceDrogueAt7p5M_deployment4

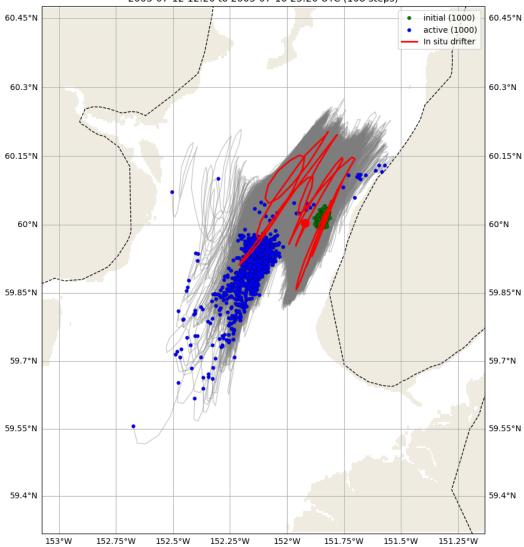
CIOFS

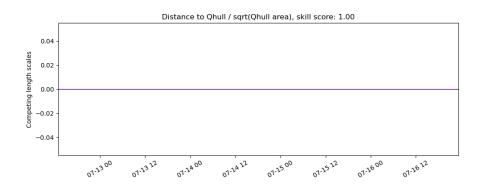


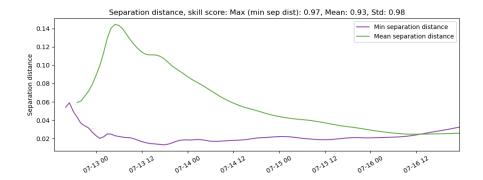








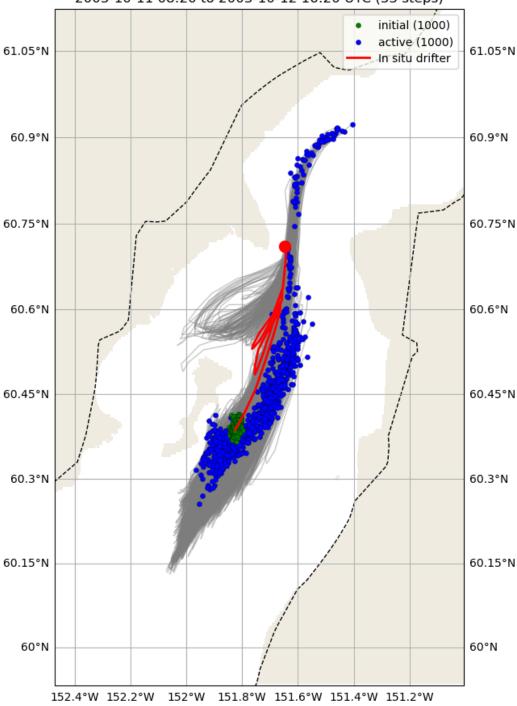


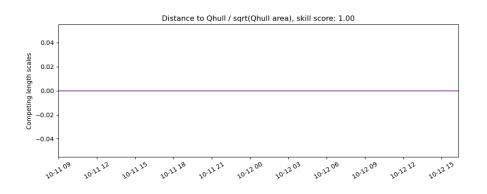


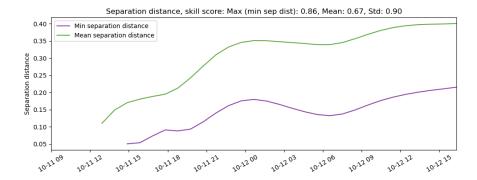
$CID rifter 0910Y2003_Subsurface Drogue At7p5 M_deployment5$

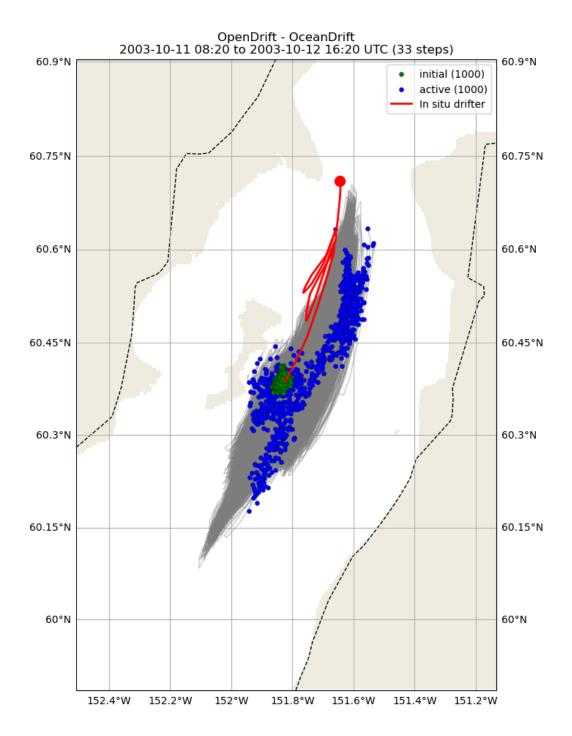
CIOFS

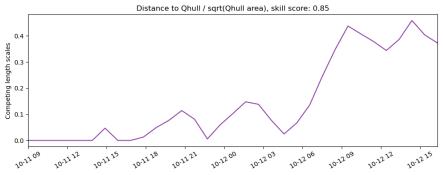
OpenDrift - OceanDrift 2003-10-11 08:20 to 2003-10-12 16:20 UTC (33 steps)

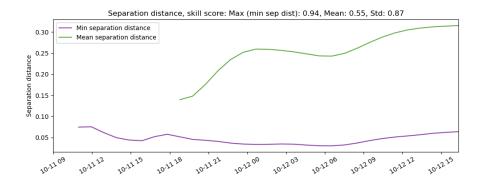






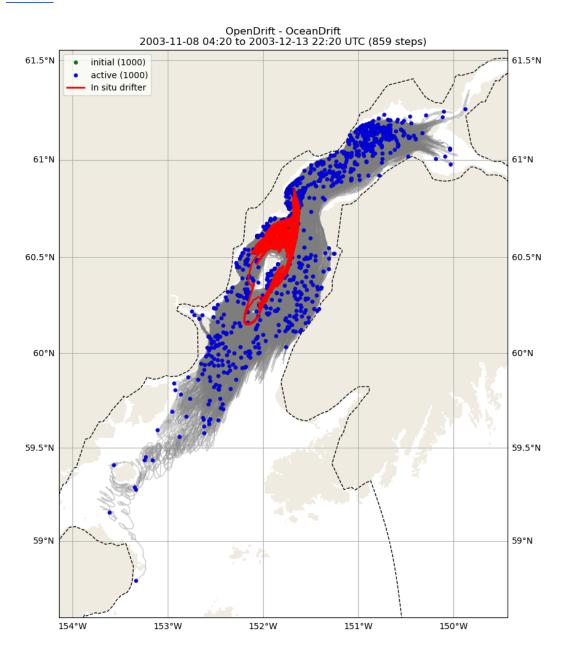


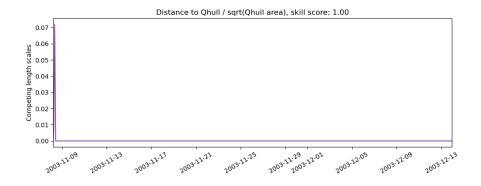


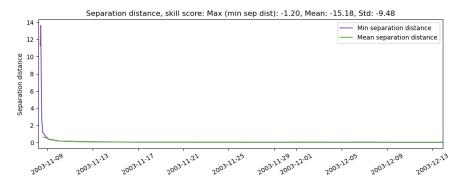


$CID rifter 0910Y2003_Subsurface Drogue At7p5 M_deployment 6$

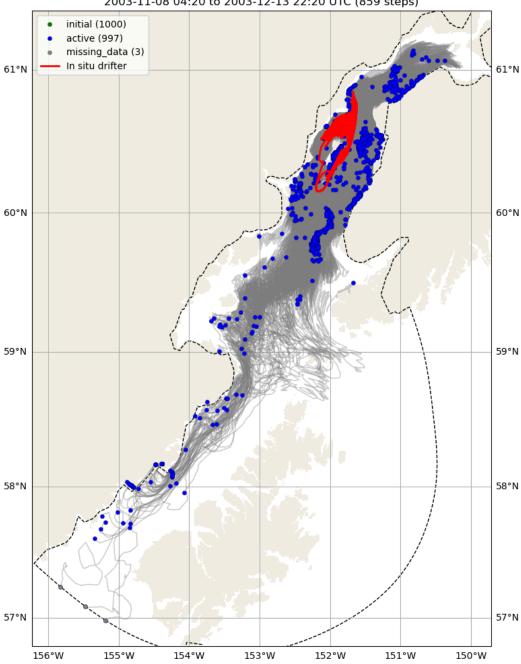
CIOFS

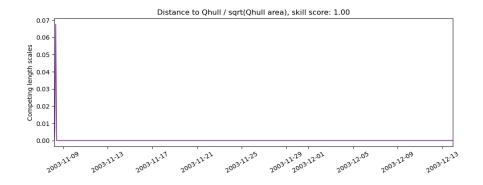


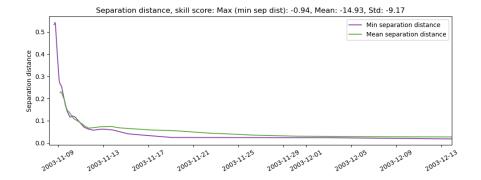




OpenDrift - OceanDrift 2003-11-08 04:20 to 2003-12-13 22:20 UTC (859 steps)



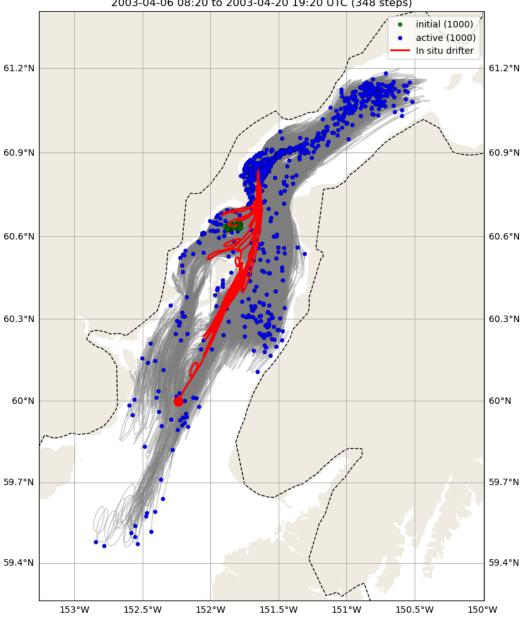


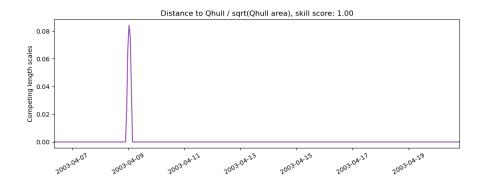


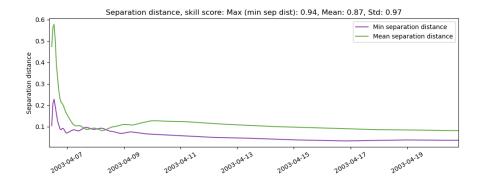
$CID rifter 0912Y2003_Subsurface Drogue At7p5 M_deployment 1$

CIOFS

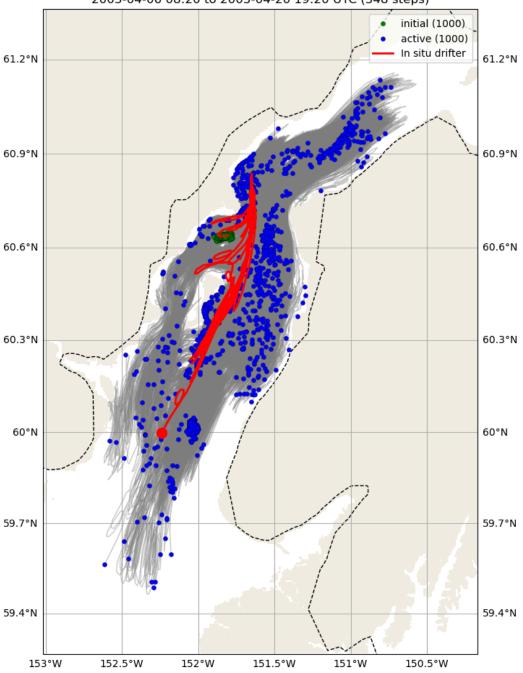
OpenDrift - OceanDrift 2003-04-06 08:20 to 2003-04-20 19:20 UTC (348 steps)

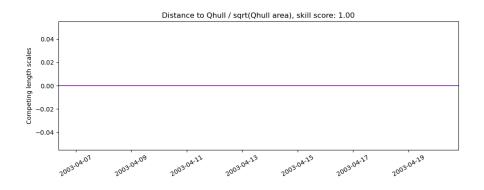


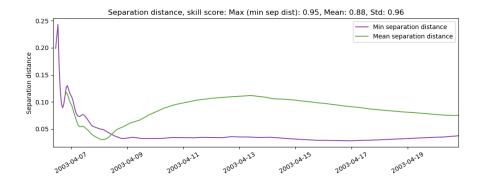




OpenDrift - OceanDrift 2003-04-06 08:20 to 2003-04-20 19:20 UTC (348 steps)



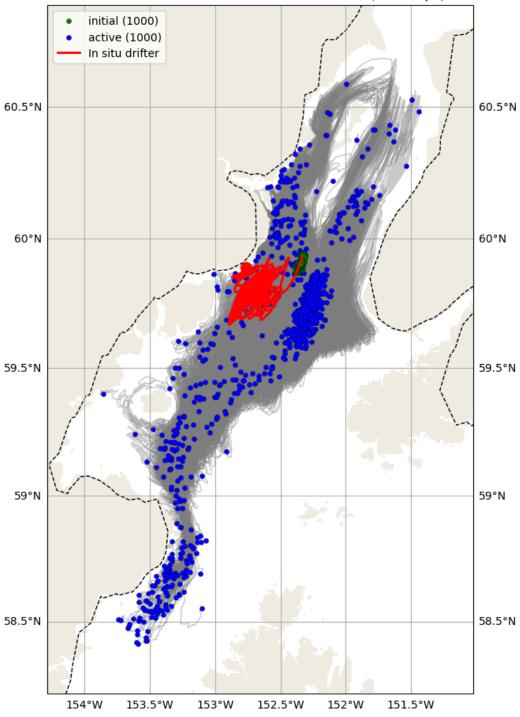


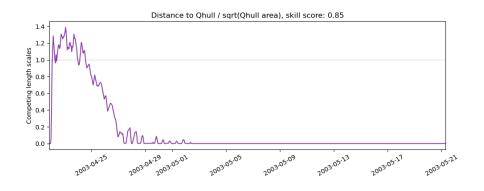


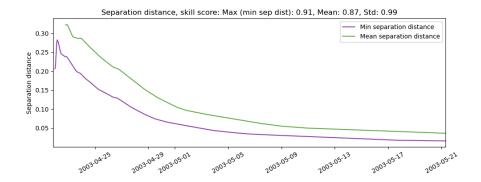
$CID rifter 0912Y2003_Subsurface Drogue At7p5 M_deployment2$

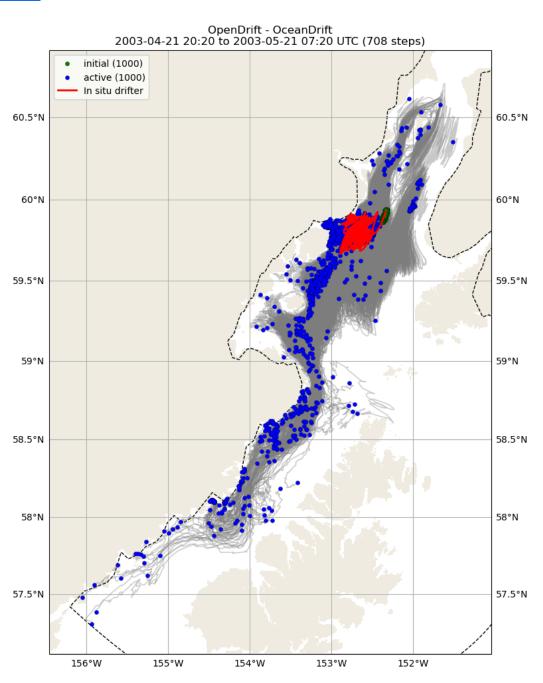
CIOFS

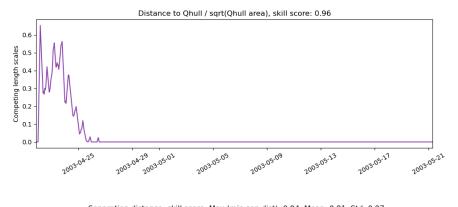
OpenDrift - OceanDrift 2003-04-21 20:20 to 2003-05-21 07:20 UTC (708 steps)

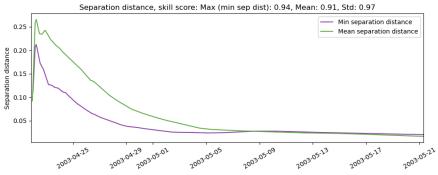








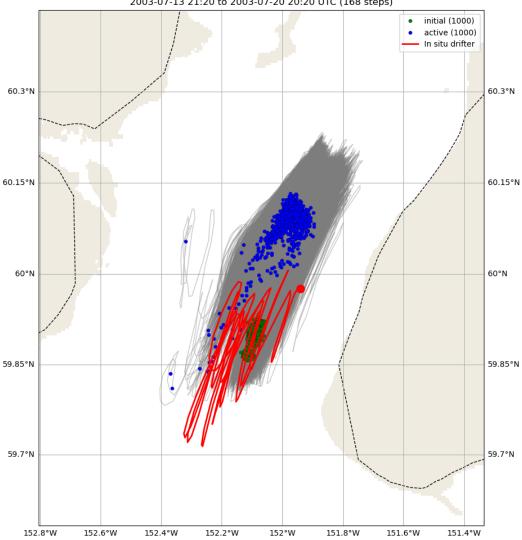


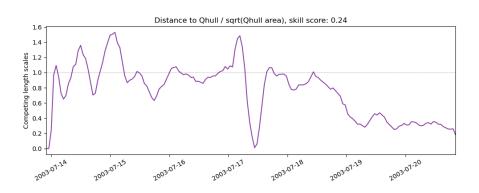


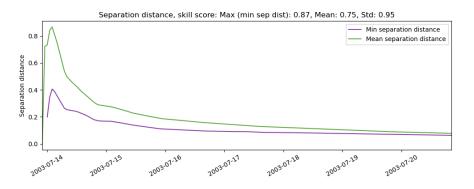
$CID rifter 0912Y2003_Subsurface Drogue At7p5 M_deployment3$

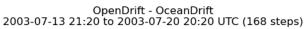
CIOFS

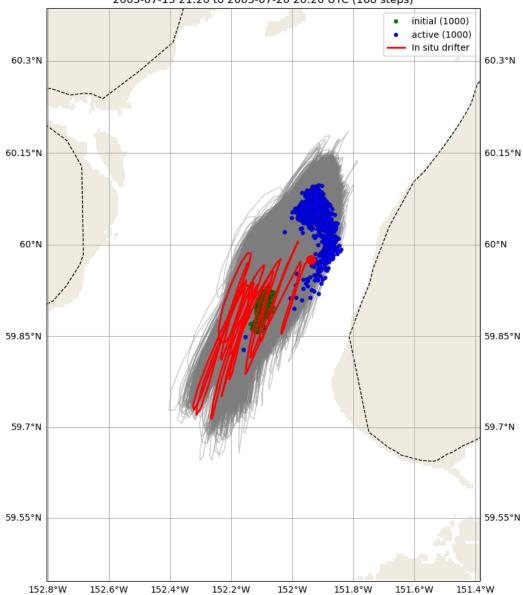
OpenDrift - OceanDrift 2003-07-13 21:20 to 2003-07-20 20:20 UTC (168 steps)

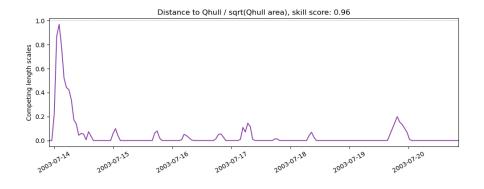


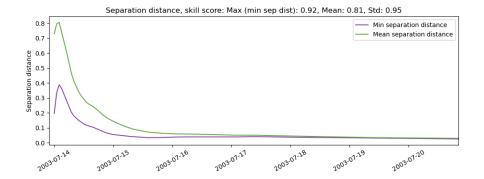






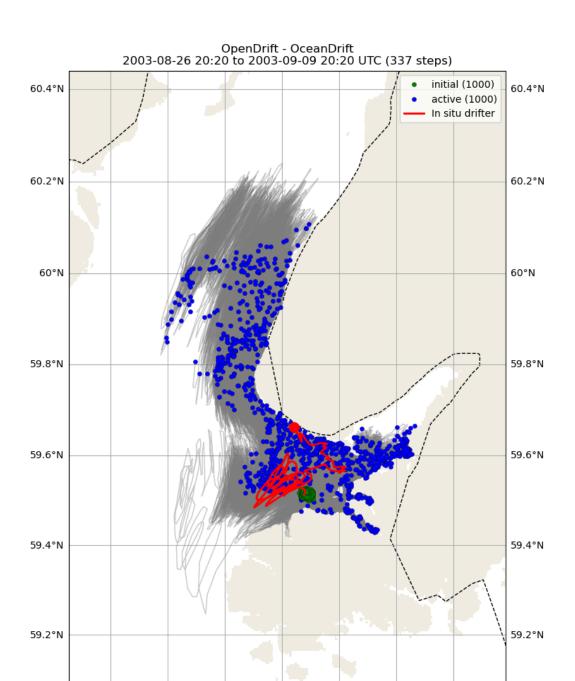


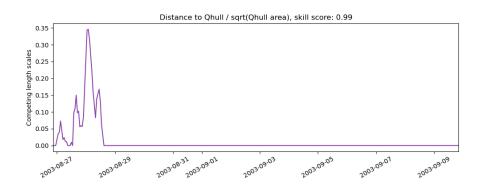




CIDrifter0912Y2003_SubsurfaceDrogueAt7p5M_deployment4

CIOFS





151.75°W

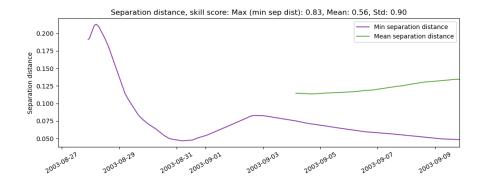
151.5°W

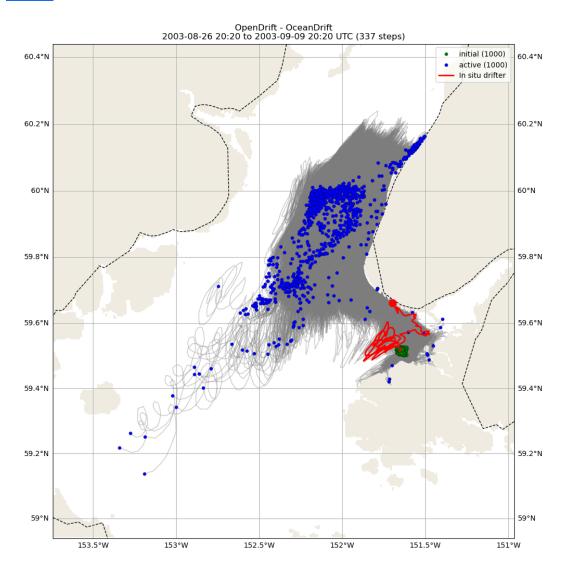
151.25°W

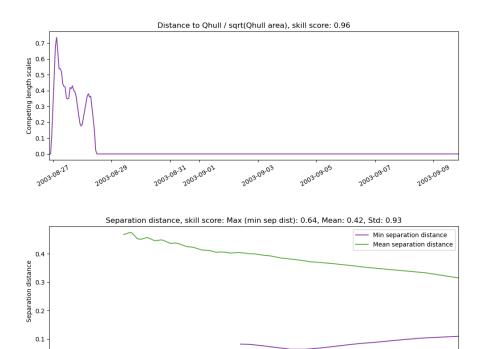
151°W

152.5°W 152.25°W

152°W







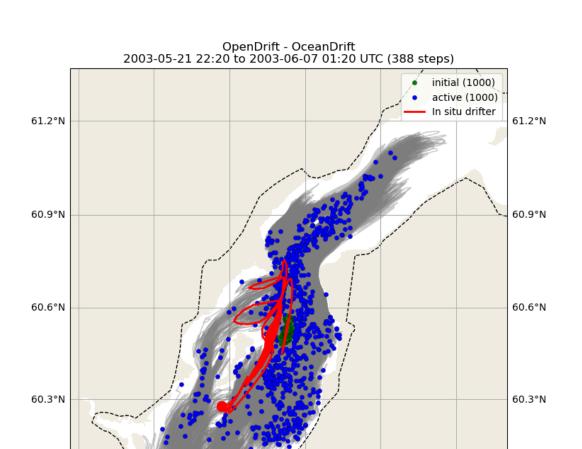
2003.09.09

 $CID rifter 0913Y2003_Subsurface Drogue At7p5 M_deployment 1$

2003-09-01

2003.08.29

CIOFS



60°N

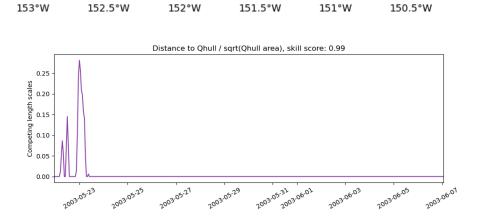
59.7°N

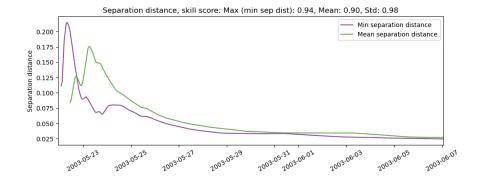
59.4°N

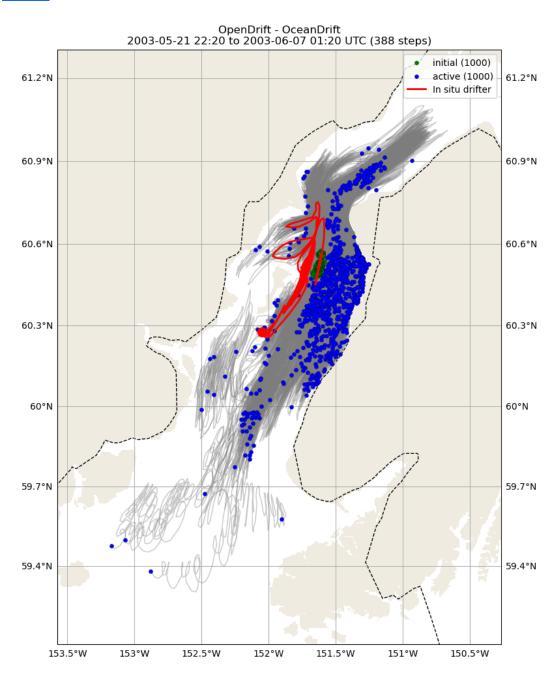
60°N

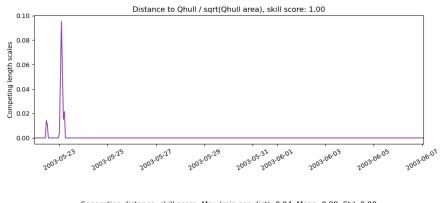
59.7°N

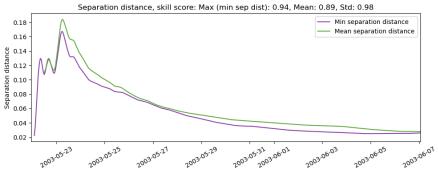
59.4°N





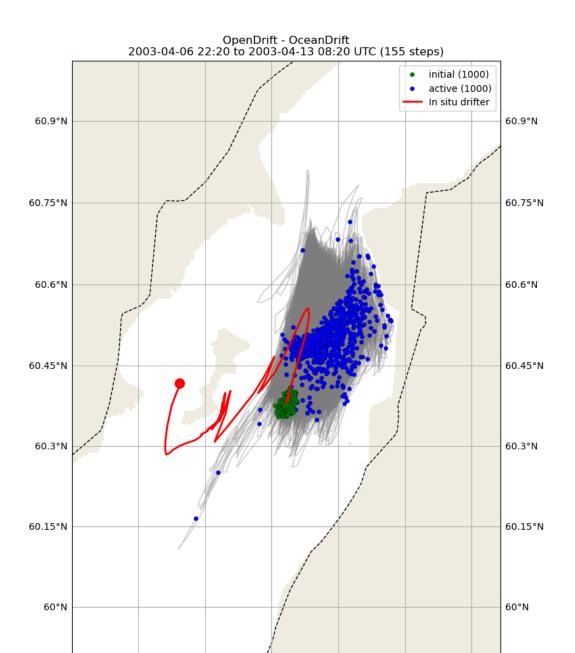


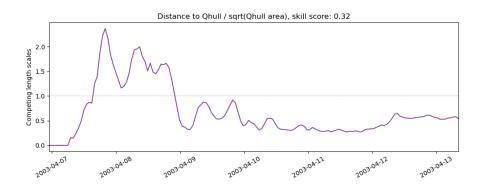




$CID rifter 0914Y2003_Subsurface Drogue At7p5 M_deployment 1$

CIOFS





151.75°W

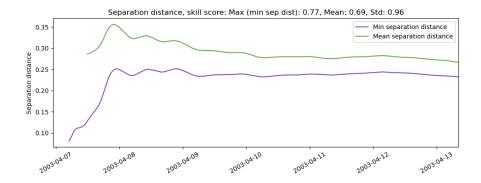
151.5°W

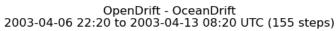
151.25°W

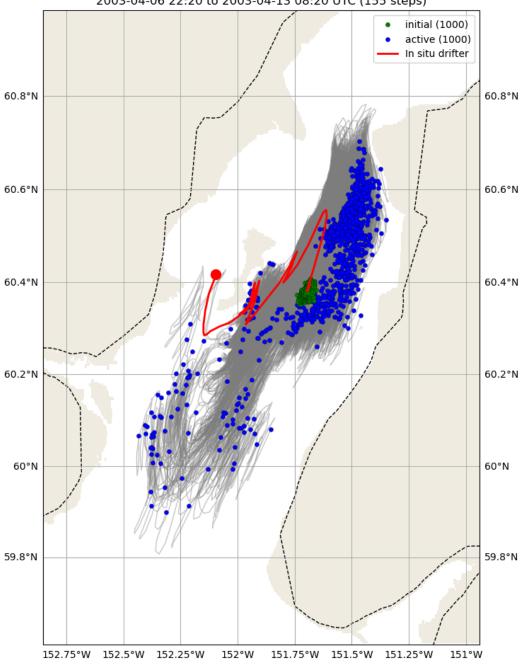
151°W

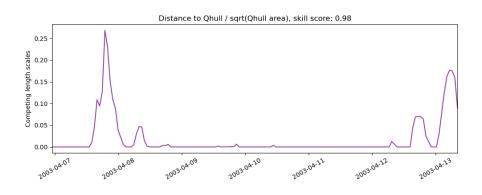
152.25°W

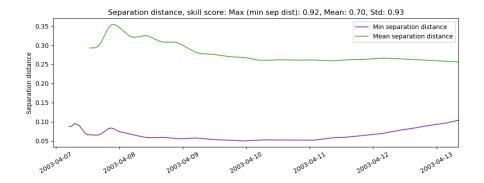
152°W





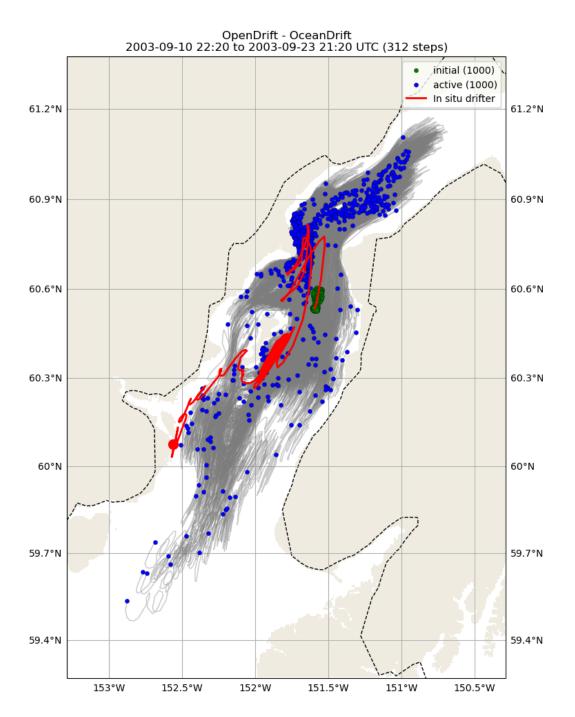


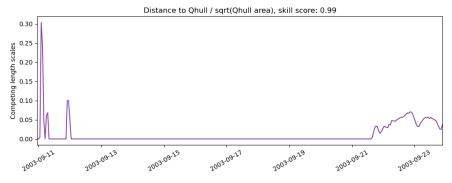


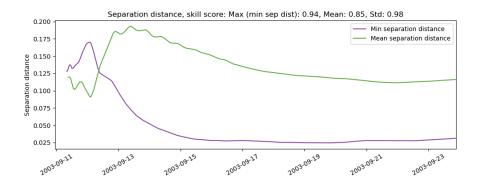


$CID rifter 0991Y2003_Subsurface Drogue At7p5 M_deployment 1$

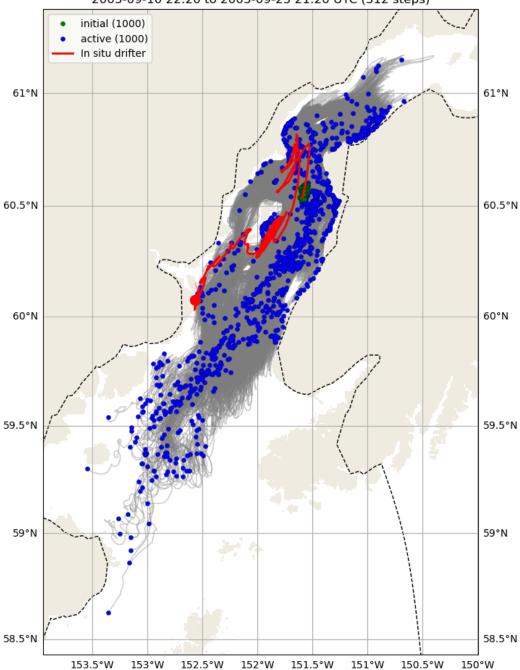
CIOFS

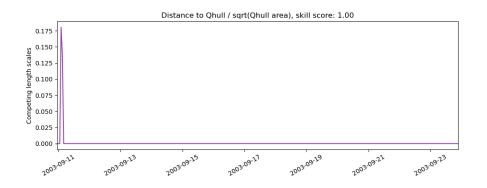


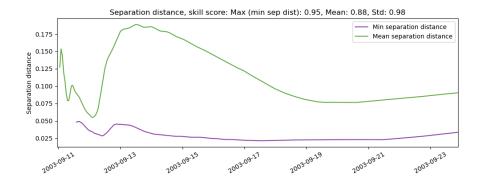




OpenDrift - OceanDrift 2003-09-10 22:20 to 2003-09-23 21:20 UTC (312 steps)

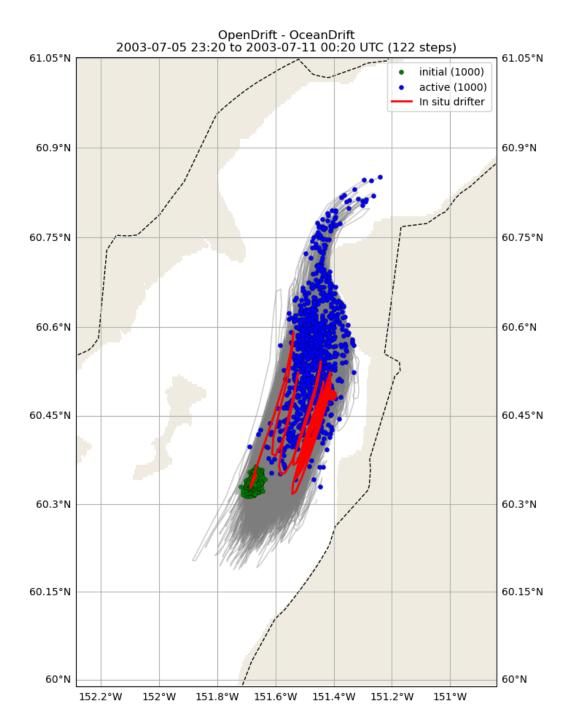


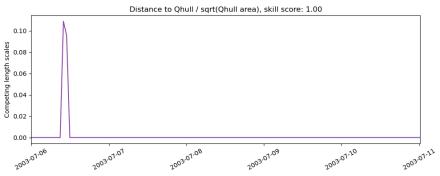


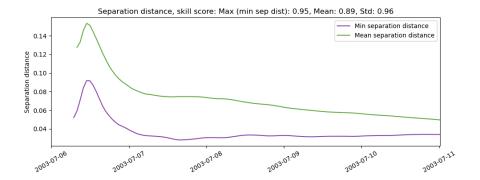


$CID rifter 0994Y2003_Subsurface Drogue At7p5 M_deployment 1$

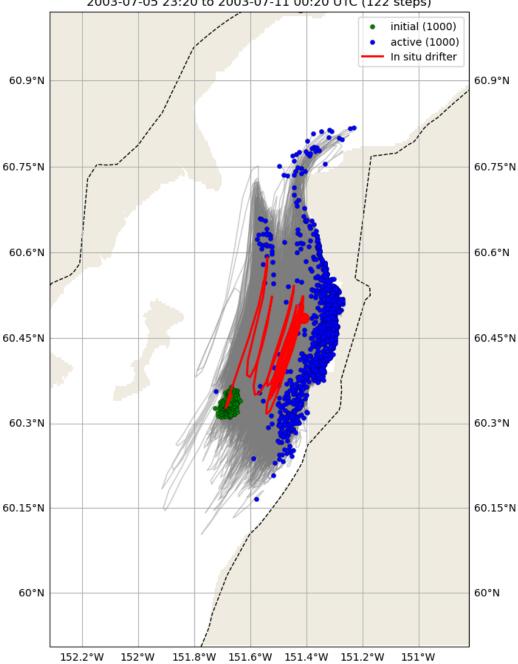
CIOFS

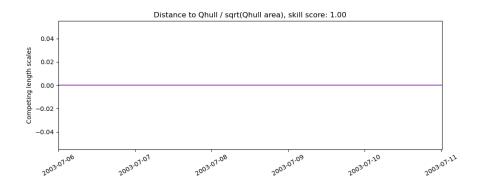


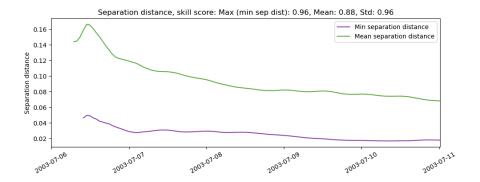




OpenDrift - OceanDrift 2003-07-05 23:20 to 2003-07-11 00:20 UTC (122 steps)



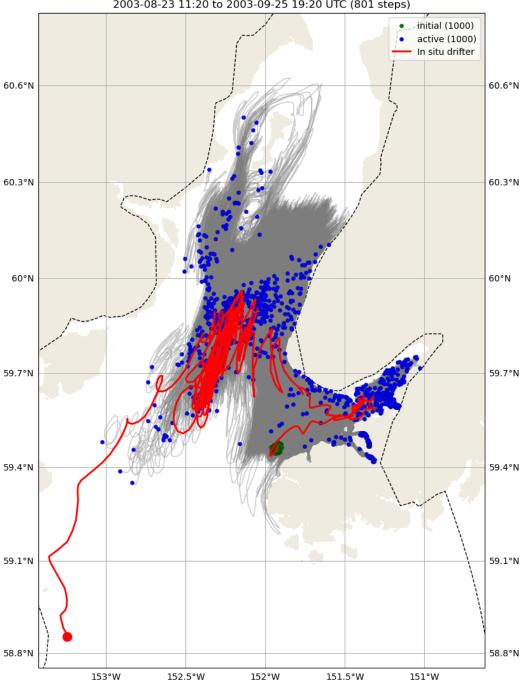


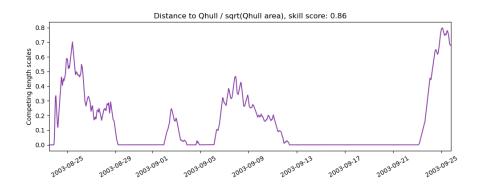


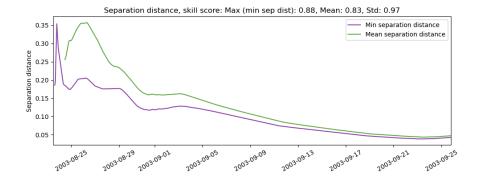
$CID rifter 0994Y2003_Subsurface Drogue At7p5 M_deployment2$

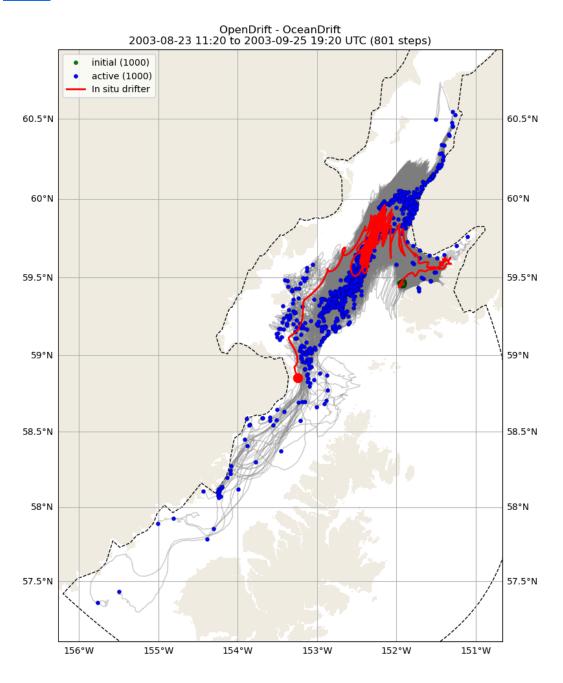
CIOFS

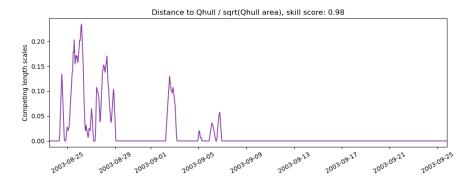
OpenDrift - OceanDrift 2003-08-23 11:20 to 2003-09-25 19:20 UTC (801 steps)

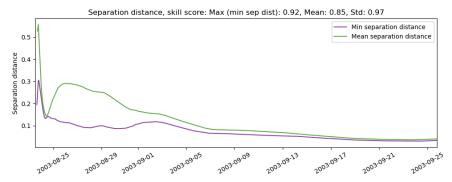








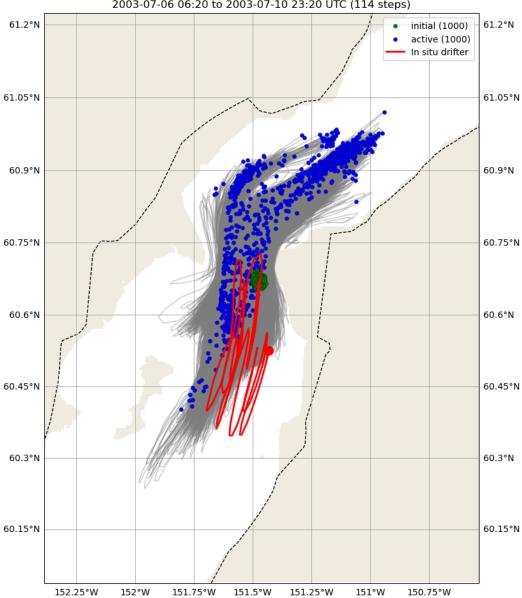


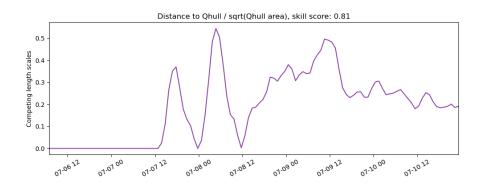


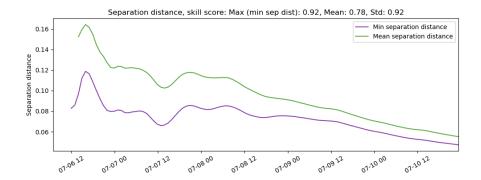
$CID rifter 0995 Y2003_Subsurface Drogue At 7p5 M_deployment 1$

CIOFS

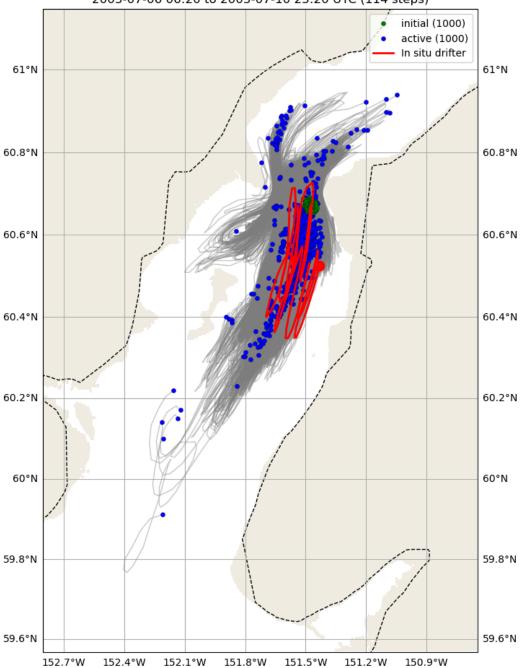
OpenDrift - OceanDrift 2003-07-06 06:20 to 2003-07-10 23:20 UTC (114 steps)

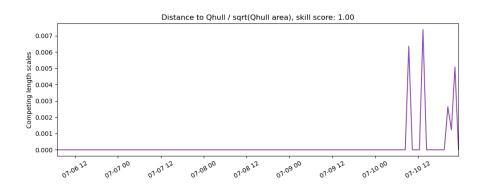


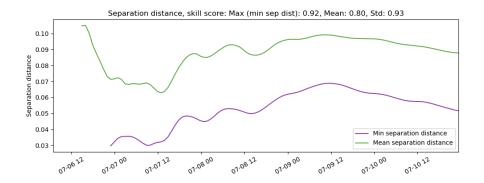




OpenDrift - OceanDrift 2003-07-06 06:20 to 2003-07-10 23:20 UTC (114 steps)



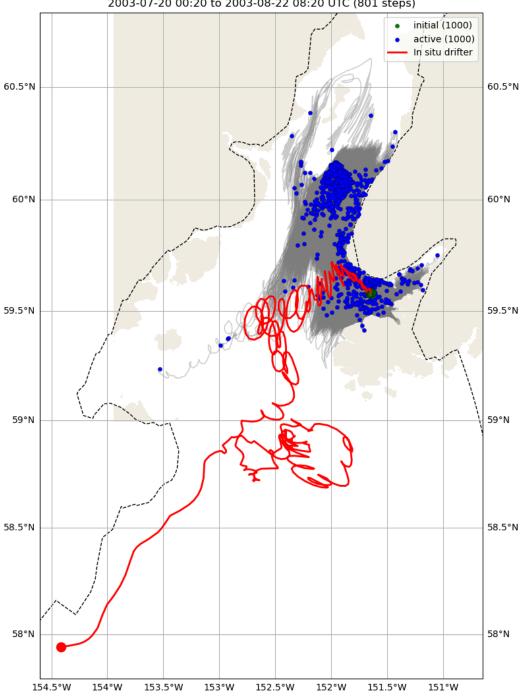


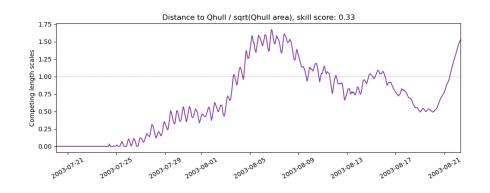


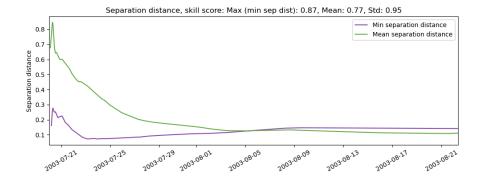
$CID rifter 0995 Y2003_Subsurface Drogue At7 p5 M_deployment2$

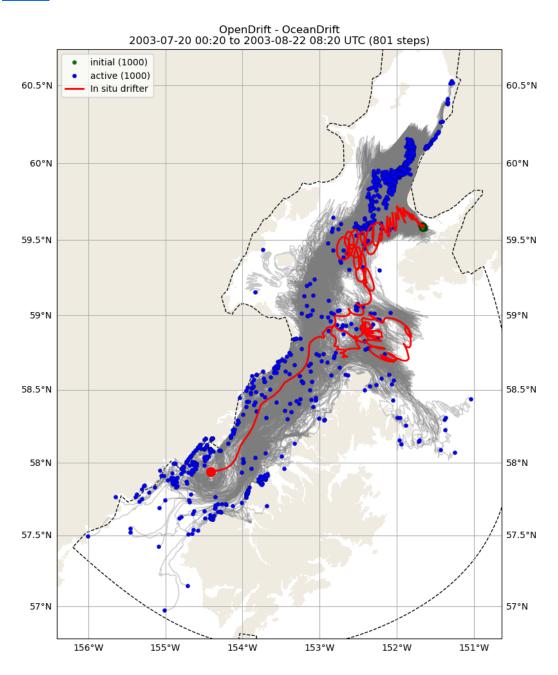
CIOFS

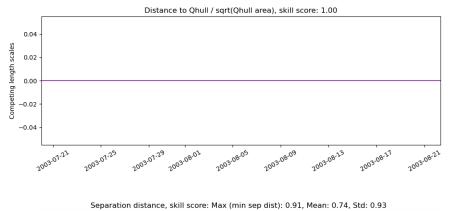
OpenDrift - OceanDrift 2003-07-20 00:20 to 2003-08-22 08:20 UTC (801 steps)

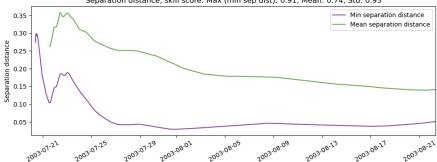








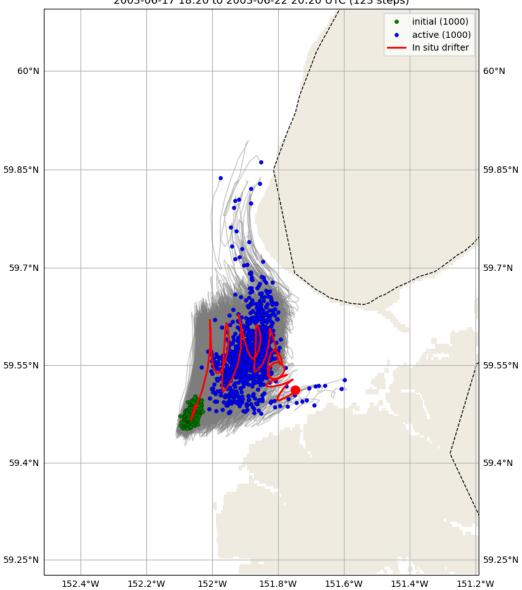


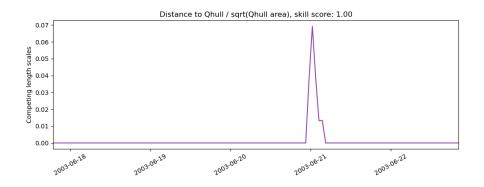


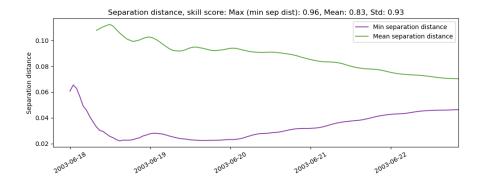
$CID rifter 0996 Y2003_Subsurface Drogue At 7p5 M_deployment 1$

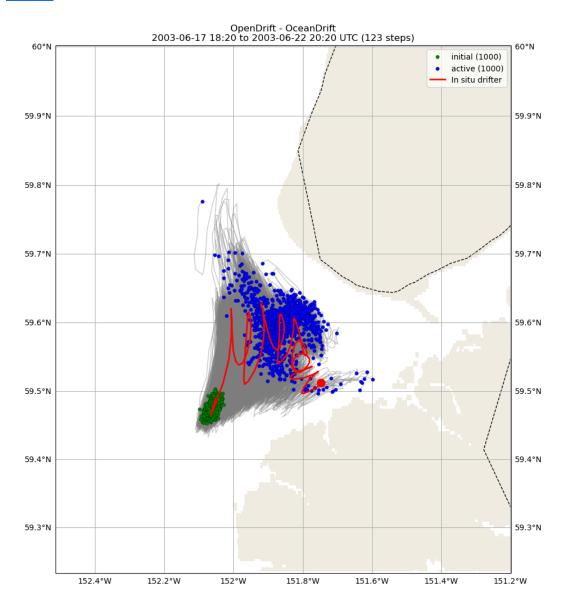
CIOFS

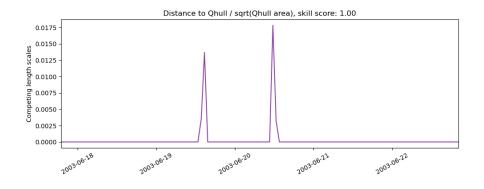
OpenDrift - OceanDrift 2003-06-17 18:20 to 2003-06-22 20:20 UTC (123 steps)

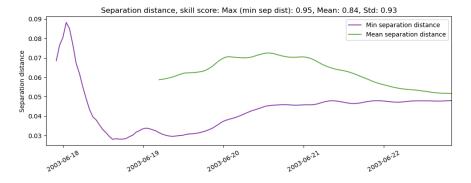






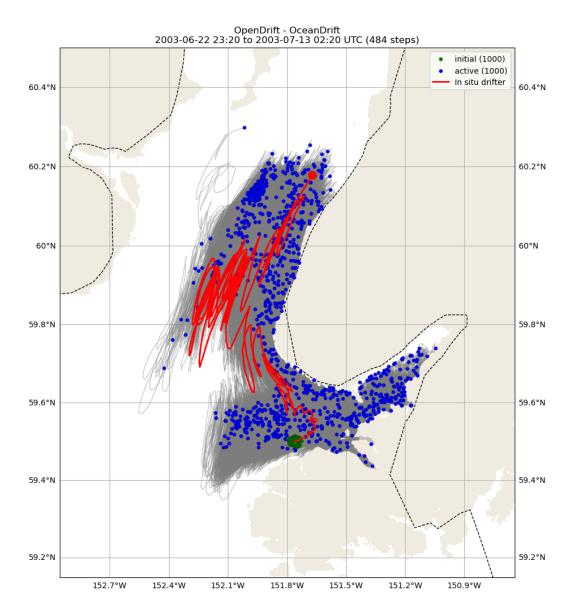


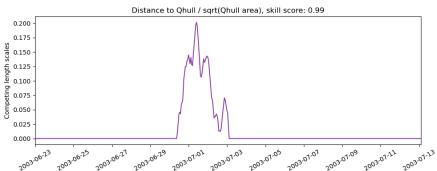


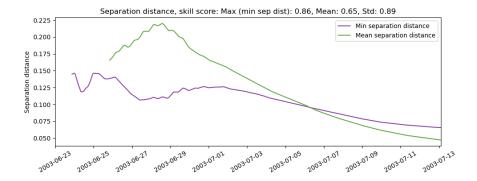


$CID rifter 0996 Y2003_Subsurface Drogue At 7p5 M_deployment 2$

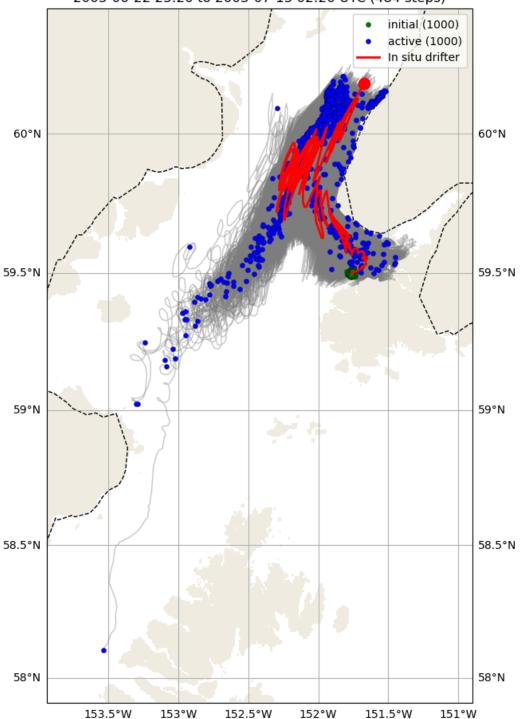
CIOFS

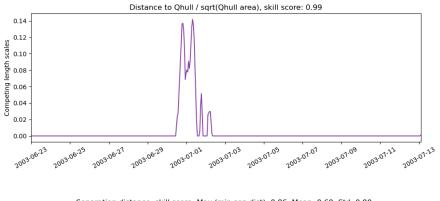


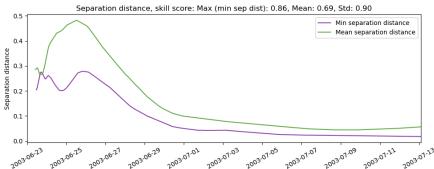




OpenDrift - OceanDrift 2003-06-22 23:20 to 2003-07-13 02:20 UTC (484 steps)



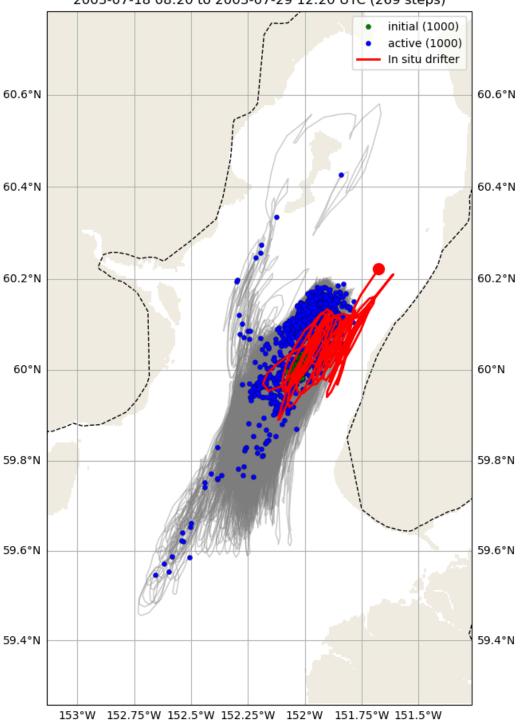


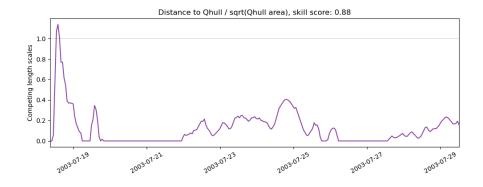


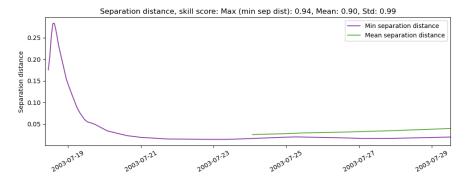
$CID rifter 0996 Y2003_Subsurface Drogue At 7p5 M_deployment 3$

CIOFS

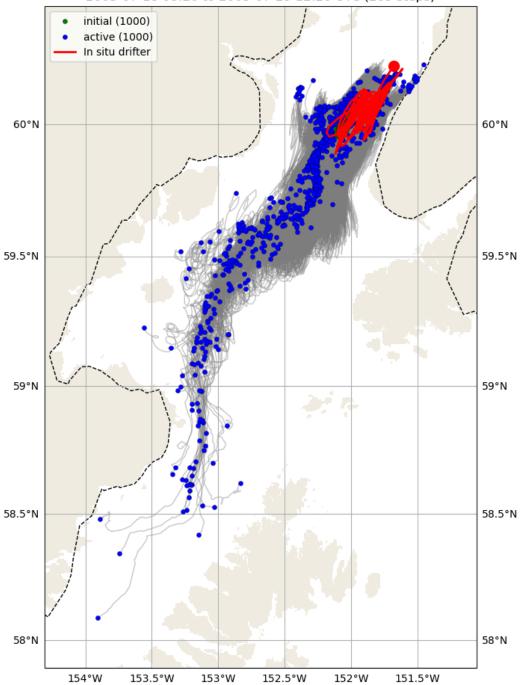
OpenDrift - OceanDrift 2003-07-18 08:20 to 2003-07-29 12:20 UTC (269 steps)

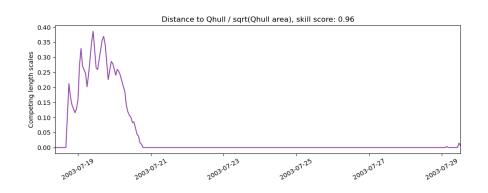


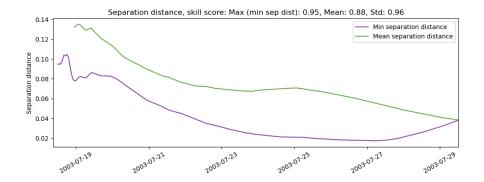




OpenDrift - OceanDrift 2003-07-18 08:20 to 2003-07-29 12:20 UTC (269 steps)



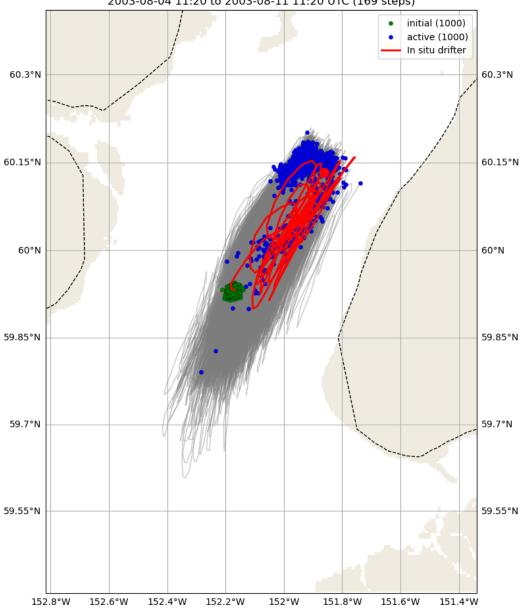


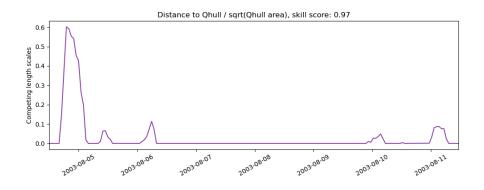


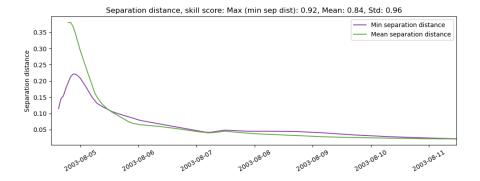
CIDrifter0996Y2003_SubsurfaceDrogueAt7p5M_deployment4

CIOFS

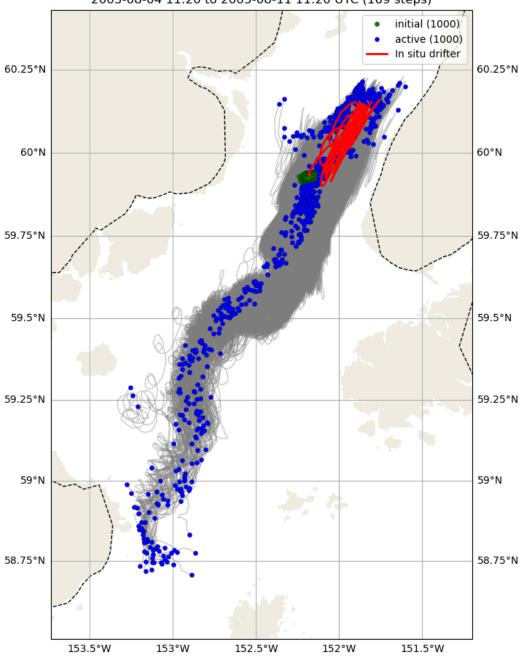
OpenDrift - OceanDrift 2003-08-04 11:20 to 2003-08-11 11:20 UTC (169 steps)

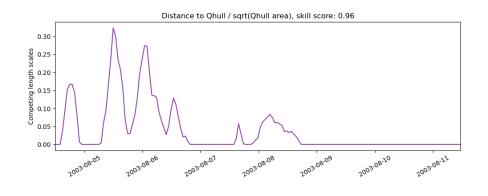


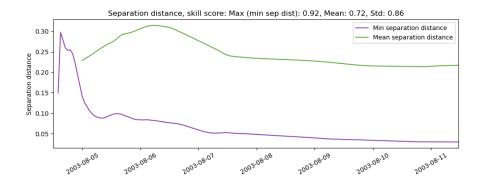




OpenDrift - OceanDrift 2003-08-04 11:20 to 2003-08-11 11:20 UTC (169 steps)

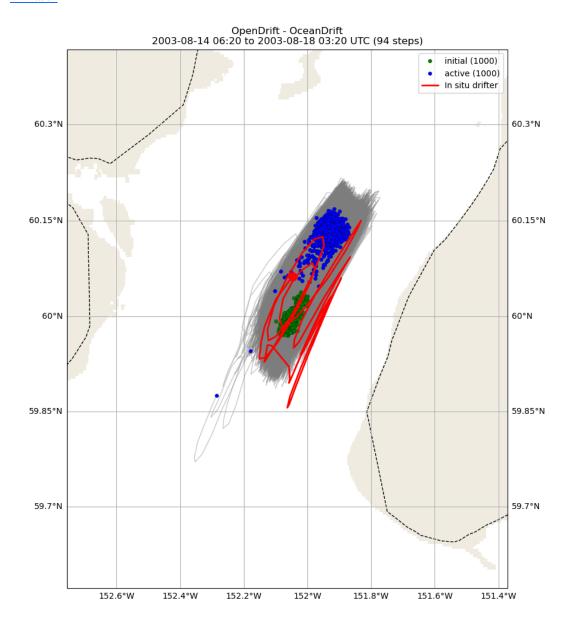


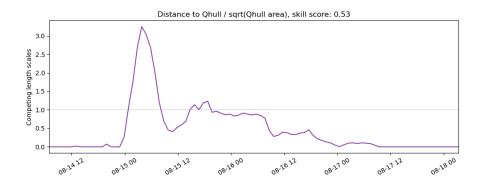


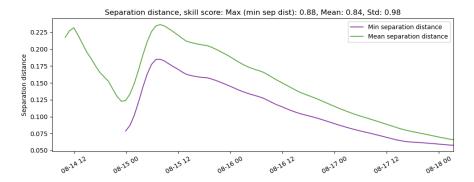


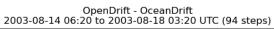
CIDrifter0996Y2003_SubsurfaceDrogueAt7p5M_deployment5

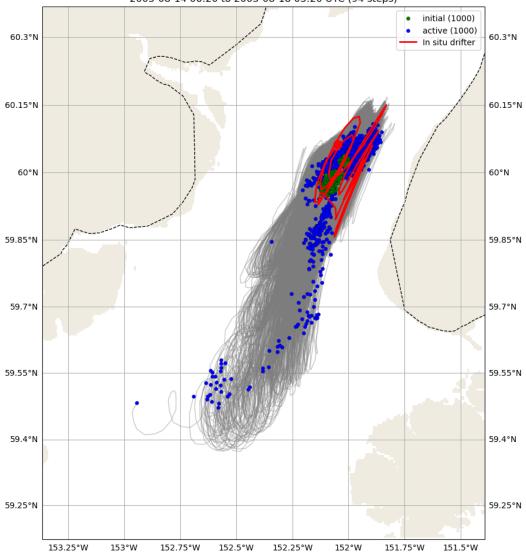
CIOFS

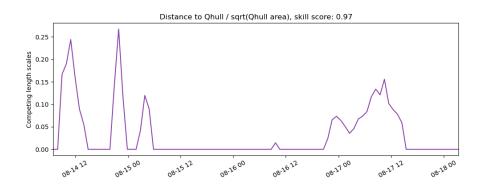


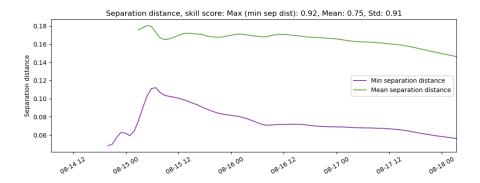






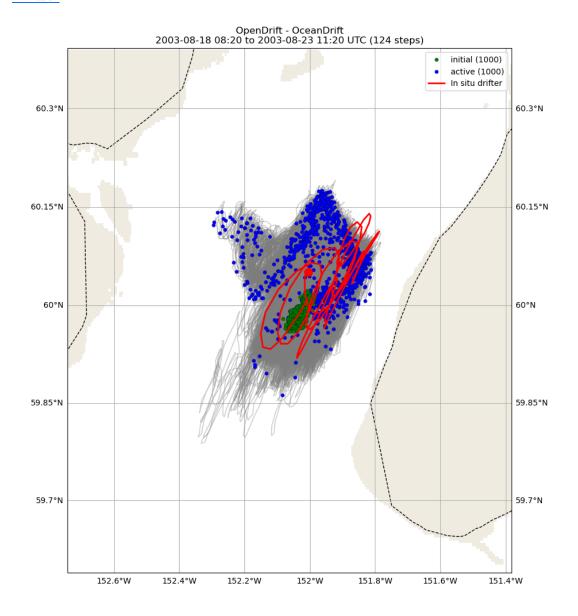


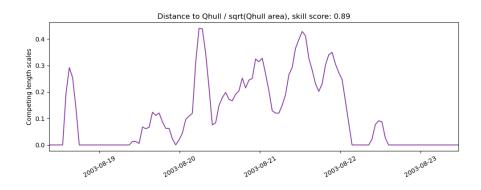


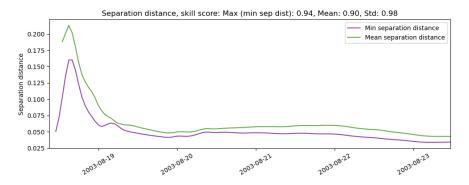


CIDrifter0996Y2003_SubsurfaceDrogueAt7p5M_deployment6

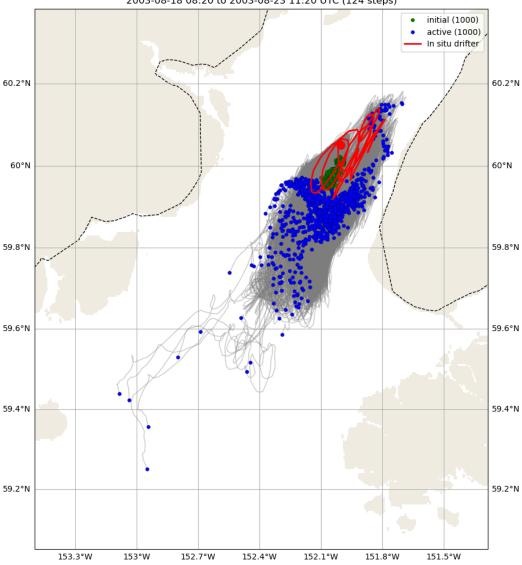
CIOFS

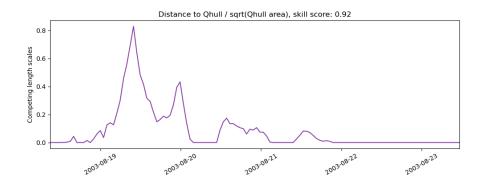


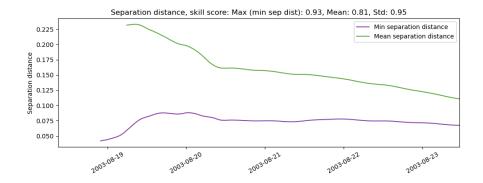




OpenDrift - OceanDrift 2003-08-18 08:20 to 2003-08-23 11:20 UTC (124 steps)



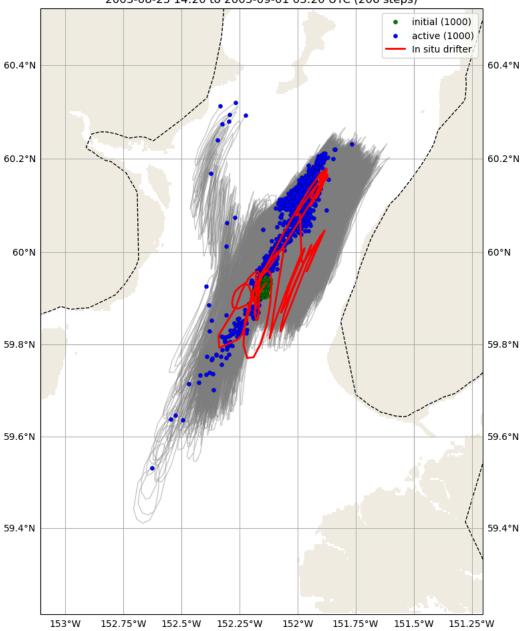


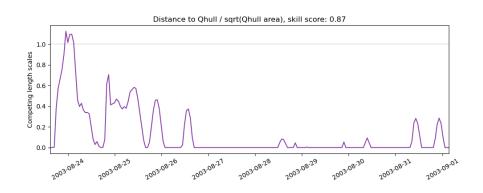


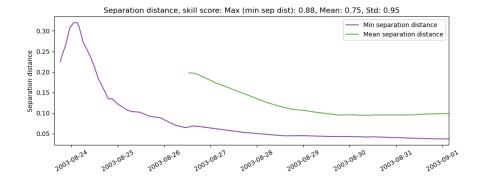
$CID rifter 0996 Y2003_Subsurface Drogue At 7p5 M_deployment 7$

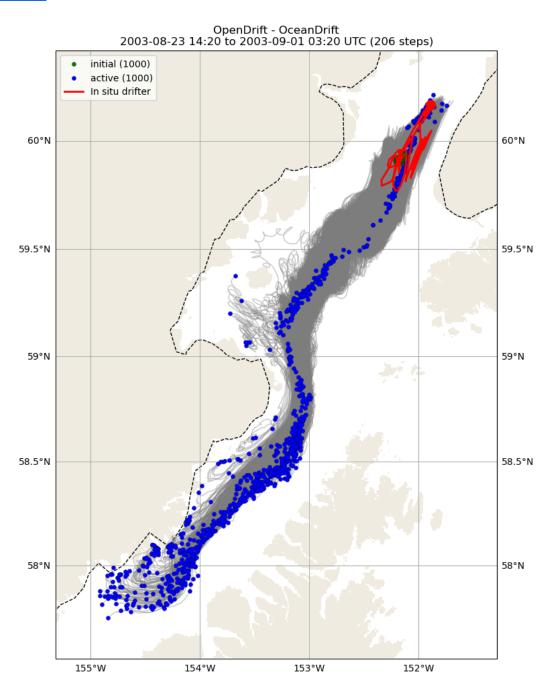
CIOFS

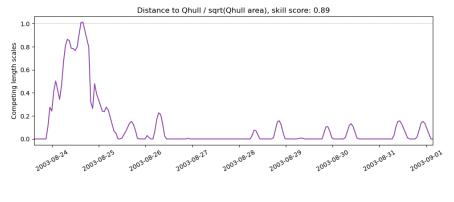
OpenDrift - OceanDrift 2003-08-23 14:20 to 2003-09-01 03:20 UTC (206 steps)

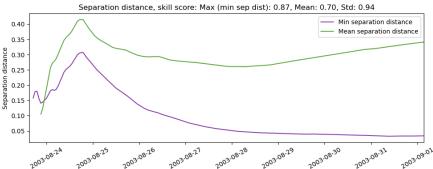






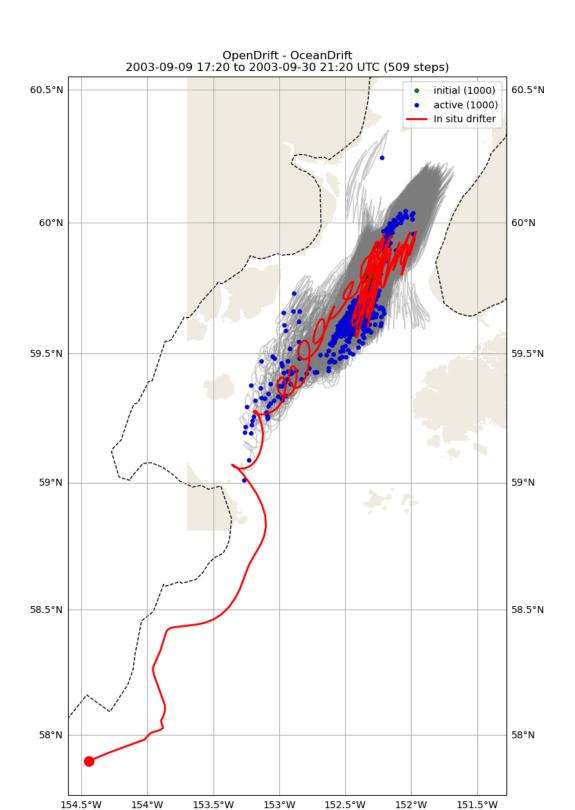


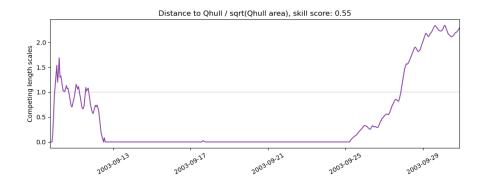


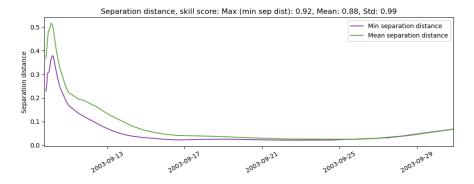


$CID rifter 0996 Y2003_Subsurface Drogue At 7p5 M_deployment 8$

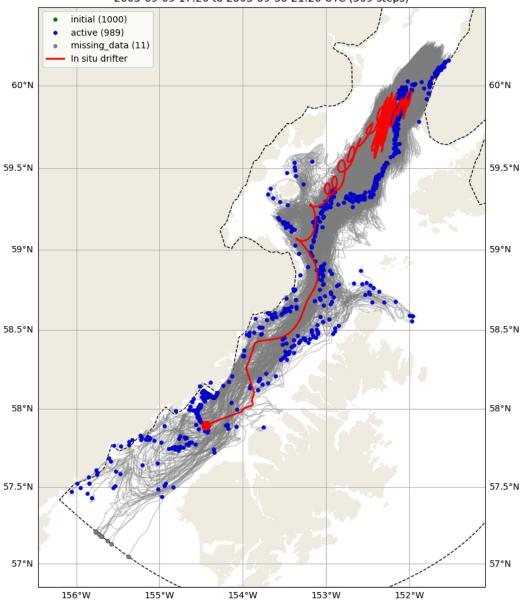
CIOFS

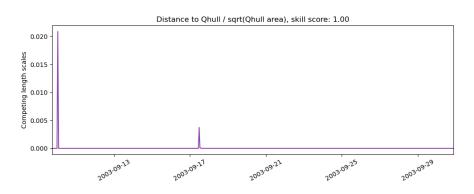


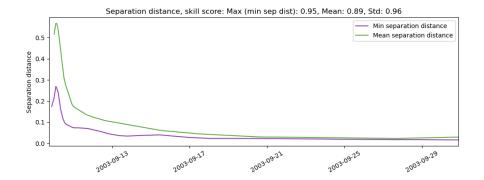




OpenDrift - OceanDrift 2003-09-09 17:20 to 2003-09-30 21:20 UTC (509 steps)

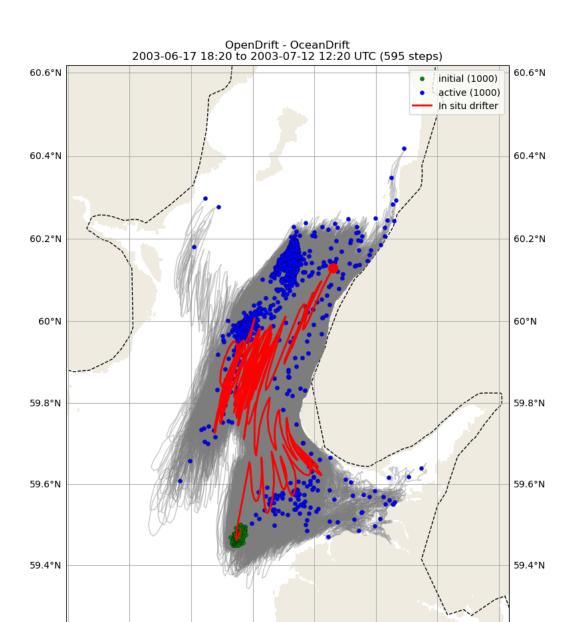


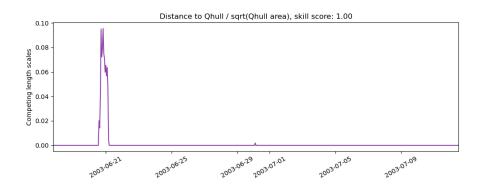




CIDrifter0997Y2003_SubsurfaceDrogueAt7p5M_deployment1

CIOFS





151.8°W

151.5°W

151.2°W

152.1°W

59.2°N

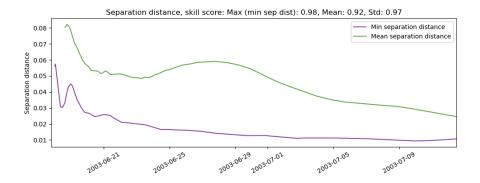
150.9°W

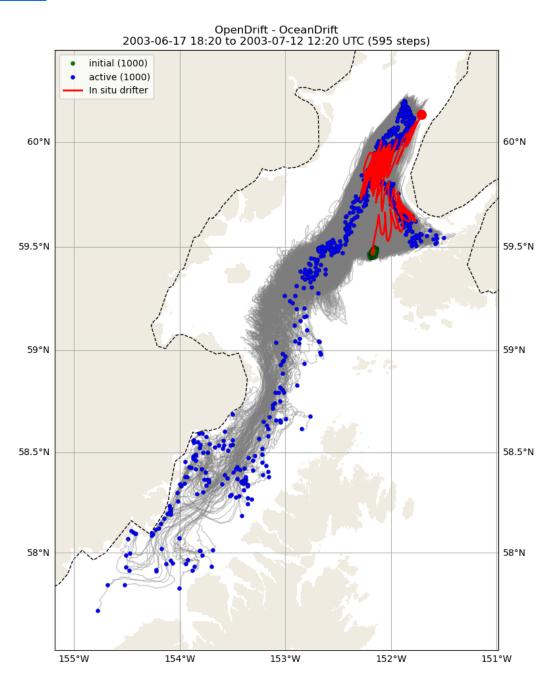
59.2°N

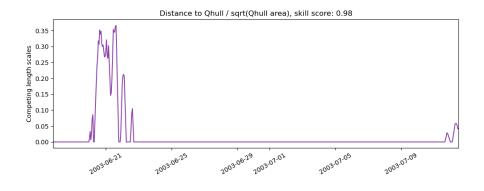
153°W

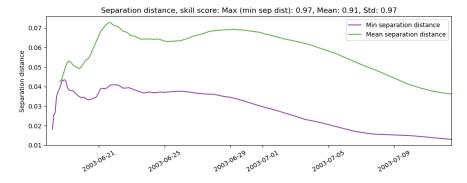
152.7°W

152.4°W





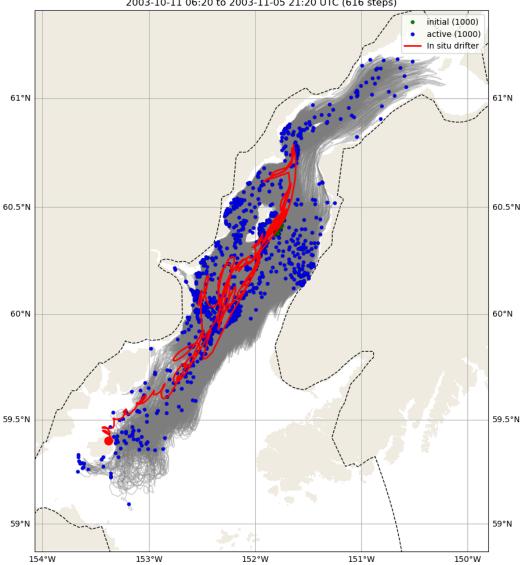


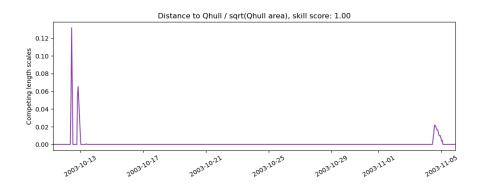


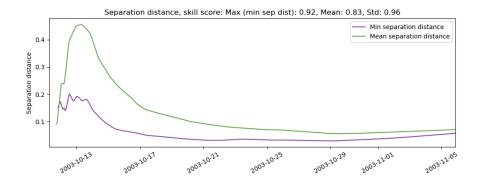
$CID rifter 0997Y2003_Subsurface Drogue At7p5 M_deployment2$

CIOFS

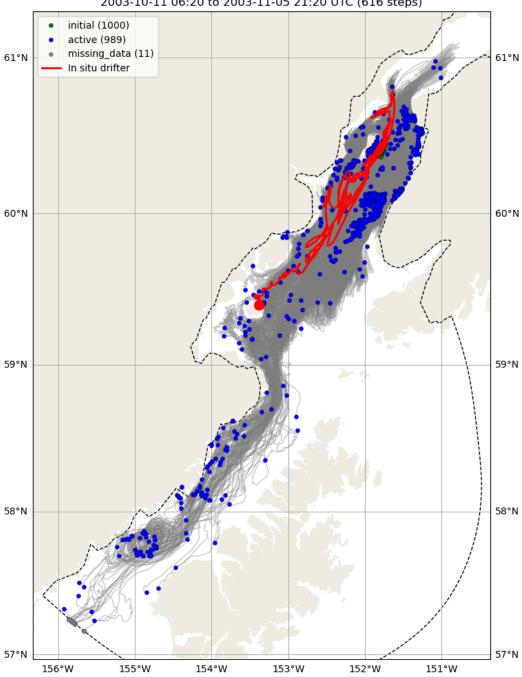
OpenDrift - OceanDrift 2003-10-11 06:20 to 2003-11-05 21:20 UTC (616 steps)

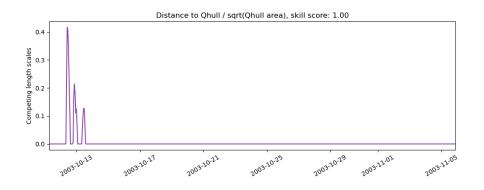


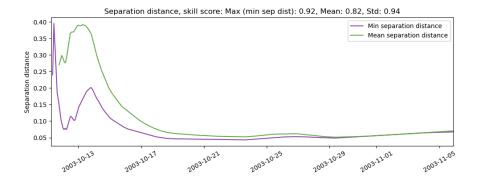




OpenDrift - OceanDrift 2003-10-11 06:20 to 2003-11-05 21:20 UTC (616 steps)



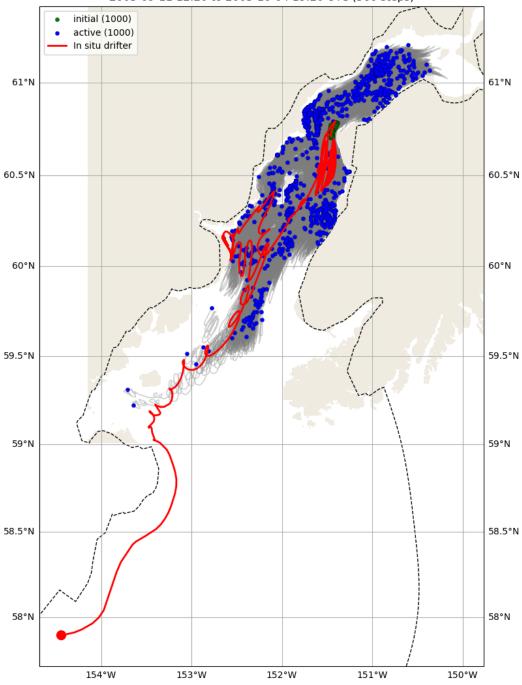


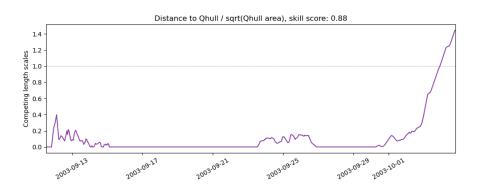


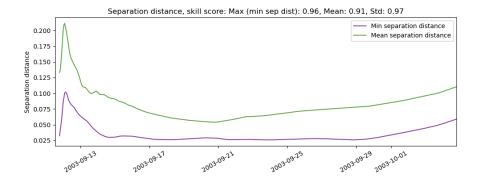
$CID rifter 0998Y2003_Subsurface Drogue At7p5 M_deployment 1$

CIOFS

OpenDrift - OceanDrift 2003-09-11 12:20 to 2003-10-04 19:20 UTC (560 steps)







OpenDrift - OceanDrift 2003-09-11 12:20 to 2003-10-04 19:20 UTC (560 steps)

