

EXPORTS North Atlantic Context Situational Awareness

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Weather Forecast Summary:

Tomorrow (Wednesday 26 May): Cloudy, unsettled, rain. Winds backing SW to S and increasing, 15-20 knots with some higher gusts. Seas 2-2.5 m, mostly W swells with a smaller N component.

Outlook: High pressure will move in until the weekend, when a small cold front from the remnants of Ana (center located near Greenland) will pass through the area (see 96 hr surface forecast map). Models agree on trends but wind magnitudes have a 10 knot range, with the official forecast right in the middle. *Thursday 27 May:* Mostly cloudy, scattered showers, N winds dropping to 10 knots. *Friday 28 May:* Partly cloudy, periods of sun. SW winds increasing to 20 knots, seas building to 3 m by midnight. *Saturday 29 May:* Mostly cloudy, chance of rain before sunrise, SW winds decreasing and veering W, seas decreasing. *Sunday 30 May:* Mostly cloudy. North winds < 10 knots, seas < 2m. *Monday 31 May:* Cloudy, chance rain. Winds max 10-15, periods of calm.

Oceanography Summary: No changes in the surface temperature regime, as the temperature continues between 12.5 and 13 °C across all assets. Daily ocean color imagery is starting to show again some nice filaments and surface expression but mainly South of our study area. Daily Rrs data values seem to have decreased considerably compared to all the previous images for this month. The globCHL zoom over A2 continues to show Chl relative values below ~0.8 mg/m³, with most below ~0.4 mg/m⁴, and the higher concentrations towards the Southwest area. At the PAP station: nitrate concentrations went down from 14 to 12 μM since May 24, chl's values have flattened out around 1 μg/L for the past few days, Oxygen still low, and salinity seems to be going up.

Eddy tracking: Updating the center (EC_002) 3.5 km farther south, to 48.87°N, 14.72°W. We continue to keep getting good eddy center locations from the ship ADCP, and drifters are still (for the most part) tracing a circle around the eddy center. However, AVISO data products suggest that the eddy is becoming less cohesive, and possibly forming a second vertex SW of what we have been treating as an eddy core. Hard to know for sure because of the overall low resolution of AVISO, but it may be a good thing that we only have a few more days of sampling in this eddy!

As a note, we're doing well on data in and around the eddy for the purpose of tracking its evolution. We are low on data to the south of the eddy, and are going to be turning around the Slocum soon, currently on a southward transect, to make sure it gets back in time. Ship runs with ADCP to the south would be appreciated if possible :)

Weather Forecast Details:

Date	Wind (kn) / Dir	Tair (C)	SWH (m)	Clouds (%)	Precip (")	Confidence
W 26 May	15-20 SW-NW	13	2	100	0.2-0.4"	medium
Th 27 May	15-8 N-NW	12	2.5-2	75	0	high
F 28 May	10-25 SW	13	2.5-3	70	T	medium
Sa 29 May	20-0 SW-W	13	3-2.5	100	0.1-0.2"	medium
Su 30 May	2-10 SW	13	1.5-2	80	0	high

Satellite Imagery and other info:

EXPORTS NA Platform positions and data: <https://iop.apl.washington.edu/exports2021/>

Links to the imagery (if on Discovery or Cook pls use rsync): TBD

Eddy tracking image: /context_images/eddytracking/2021_05_25_gamma.png

Composite of past Chl: /context_images/chl/2021_05_24_globChl.png

globChl+currents: /context_images/chl/2021_05_24_globChlcurrents.jpg

Daily chl: /context_images/chl/2021_05_24_dailyChl.png

Daily rrs: /context_images/rrs/2021_05_24_rrs.png

SST (microwave): /context_images/sst/2021_05_25_mwSST.png

SST L2: /context_images/sst/2021_05_24_l2SST.png

Sea Level/Currents: /context_images/sla/2021_05_25_sla.png

Weather: /context_images/weather/2021_05_25_meteogram.png

Forecast map: /context_images/weather/2021_05_25_96hrsfc.gif

Mooring: /context_images/pap/2021_05_25_PAP.png

IOP APL links:

Eddy tracking image:

https://iop.apl.washington.edu/exports2021/context_images/eddytracking/2021_05_25_gamma.png

Composite of past Chl: https://iop.apl.washington.edu/exports2021/context_images/chl/2021_05_24_globChl.png

globChl+currents: https://iop.apl.washington.edu/exports2021/context_images/chl/2021_05_24_globChlcurrents.jpg

Daily chl (L2): https://iop.apl.washington.edu/exports2021/context_images/chl/2021_05_24_dailyChl.png

Daily rrs (L2): https://iop.apl.washington.edu/exports2021/context_images/rrs/2021_05_24_rrs.png

SST (microwave): https://iop.apl.washington.edu/exports2021/context_images/sst/2021_05_25_mwSST.png

SST L2: https://iop.apl.washington.edu/exports2021/context_images/sst/2021_05_24_l2SST.png

Sea Level/Currents: https://iop.apl.washington.edu/exports2021/context_images/sla/2021_05_25_sla.png

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Mooring: https://iop.apl.washington.edu/exports2021/context_images/pap/2021_05_25_PAP.png