

EXPORTS North Atlantic Context Situational Awareness

Date: 2021-05-15

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Weather Forecast Summary:

Tomorrow (Sunday 16 May): Cloudy, rain up to 1/4" likely before evening. Winds decreasing from 25 to 20 knots as the low pressure system passes to the north, seas decreasing from 4 m down to 3m, primarily north swell.

Outlook: Models mostly agree on trends and wind direction until Wednesday, but there is still a 10 knot spread in the forecast winds until then. Currently the low approaching the area is not forecast to have any impact on the site until Thursday, so the week looks to be mostly good. *Monday 17 May:* Mostly cloudy. Thunderstorms possible. Seas down to less than 2 m, winds dropping below 20 knots. *Tuesday 18 May:* Cloudy, only trace rain forecast. Periods of calm possible, SWH down to 2m. *Wednesday 19 May:* Mostly cloudy, rain likely in the middle of the day, winds may come up to 30 knots but seas will stay down less than 2m. *Thursday 20 May:* Low pressure passing south of the site may bring some moderate weather bands. 96 hr forecast map shows the developing storm passing through the study area but slightly to the south. Mostly cloudy. Wind 20-25 knots. Chance of light rain. Seas ca. 2m. *Friday 21 May:* Mostly cloudy, chance rain, sea state similar to Thursday.

Oceanography Summary: Gods of ocean color were not nice to us so we have no view of the beautiful chlorophyll swirls you are currently experiencing in situ. Microwave STT is showing increased patchiness around the area - something that might not last through the storm - we will see. All autonomous vehicles are seeing insane vertical structures in physics and bGC, and spikes galore. Mooring nitrate concentrations seem to support new growth? or it is just a new filament or high chlorophyll waters. Early results from LF shared by Eric D'A yesterday seem to offer a nice view of evolution of the bloom, storm associated dilution/loss, post storm recovery of the productivity in the eddy - check it out in the first light chat.

Eddy tracking: Eddy A2 remains strong and circular. ADCP from ships clearly show eddy center position, which has not significantly changed from yesterday. Velocities on the western edge may easily reach 30 cm/s. Godspeed to the gliders trying to punch through.

Weather Forecast Details:

Date	Wind (kn) / Dir	Tair (C)	SWH (m)	Clouds (%)	Precip (")	Confidence
Su 16 May	35-20 NW	12	4.5-3	90	0.1-0.2"	medium

M 17 May	15-25 W-NW	12	2.5	90	0-0.2"*	medium
Tu 18 May	2-15 N-NW	12	2	70	T	medium
W 19 May	10-20 W-NW	12	2-1.5	100	0.4-0.8"	low
Th 20 May	20-25 W-NW	12	3-2.5	80	T	low

*: Thunderstorms possible

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_15_gamma.png

Composite of past Chl: no image available

Daily chl: no image available

Daily rrs: no image available

SST (microwave): /context_images/sst/2021_05_15_mwSST.png

SST L2: no image available

Sea Level/Currents: /context_images/sla/2021_05_15_sla.png

Weather: /context_images/weather/2021_05_15_meteogram.png

Forecast Map: /context_images/weather/2021_05_15_96hrsfc.gif

Mooring: /context_images/PAP/2021_05_15_PAP.png

IOP APL links:

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