

ATOMIC Briefing Summary

1/21/2020

Summary

- This was the first official briefing, and most of the time was dedicated to an overview of what data and forecasts are available to us (as opposed to an actual weather briefing). Our main sources are:

<https://www.esrl.noaa.gov/psd/atomic/briefing/>

<https://observations.ipsl.fr/aeris/eurec4a/#/>

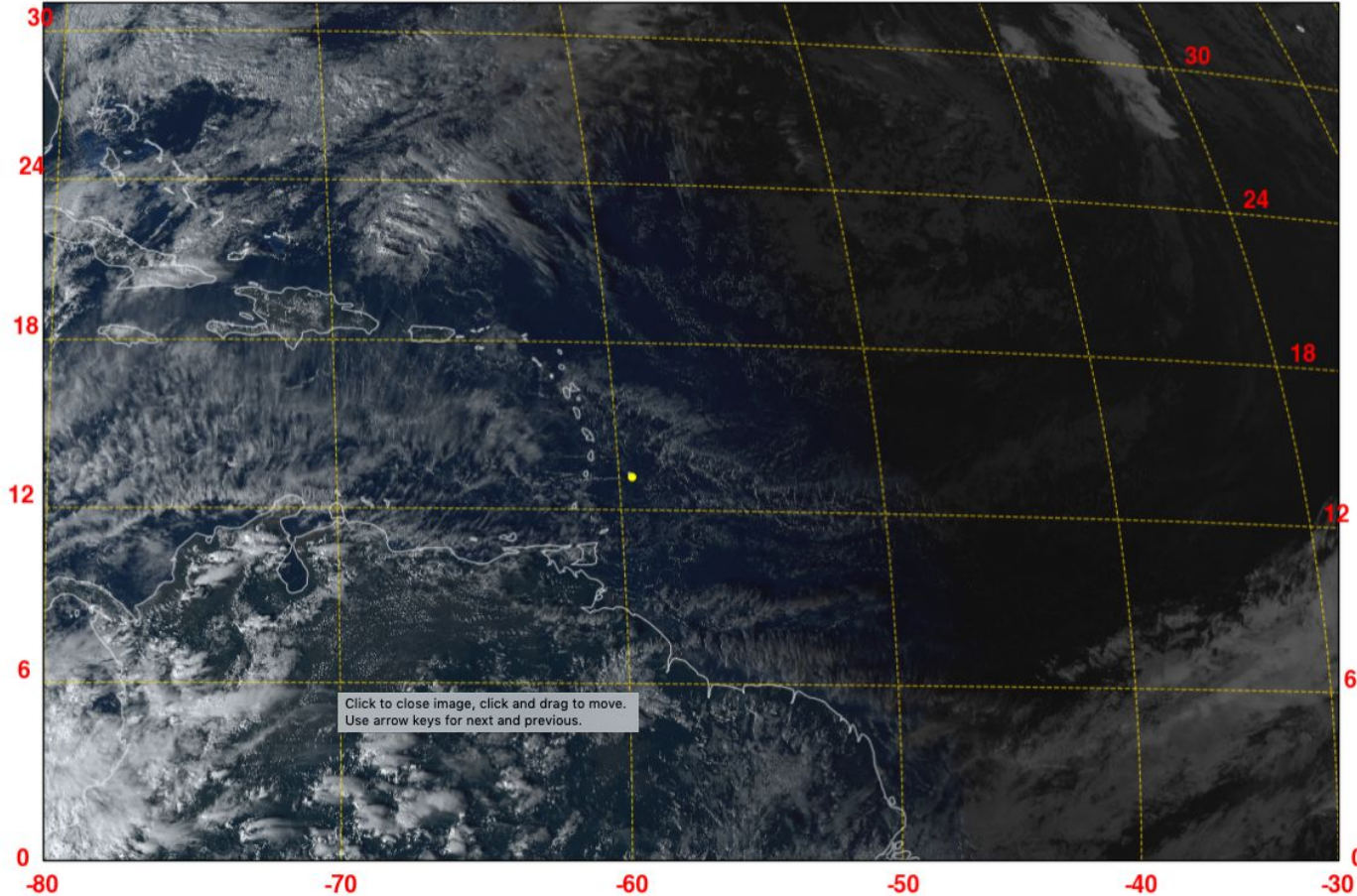
- The next slides show some snapshots of data/forecasts that we looked at, where outlooks were focused on next Thursday (next P3 flight)
- We need to add P3 flight tracks, and comparison of GFS/RHB and GFS/P3 soundings (will probably be working by Thursday)
- Latest ATOMIC weather briefing from Caribbean forecasters can be found here:

http://eurec4a.uk/forecast_testbed/

Today's GOES-16

GOES-16 True Color + IR (ATOMIC regional)

21 January 2020 20:50 UTC



GFS analysis

GFS

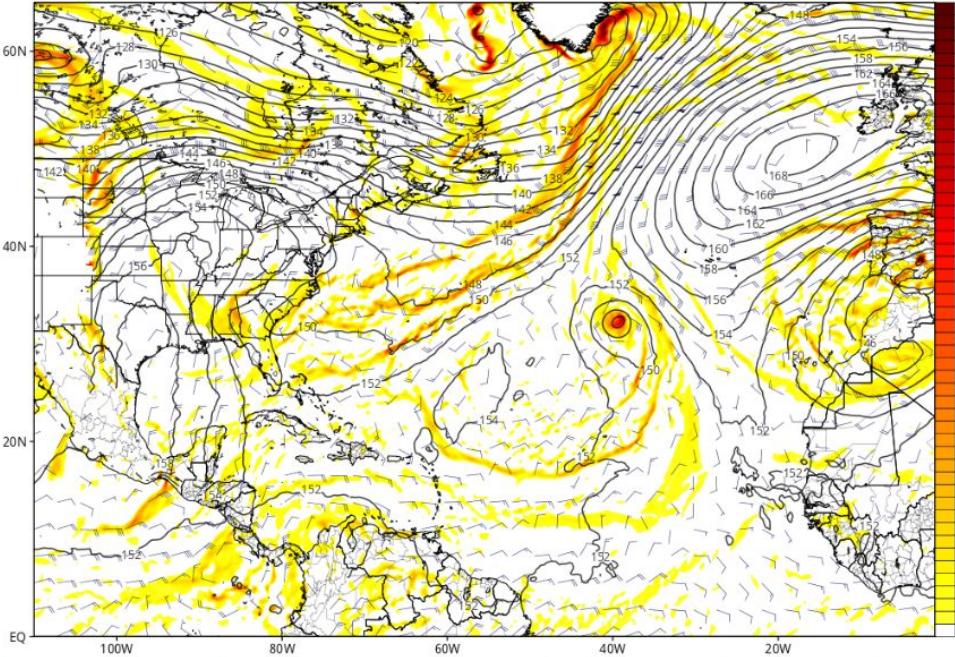
- Global
- Ensemble
- Hurricane
- Mesoscale
- Climate

Navigation controls: back, forward, zoom in (+), zoom out (-), settings (gear), and a 3x3 grid icon. A dropdown menu shows "12z Tuesday, Jan 21".

GFS 850mb Geopotential Height (dam), Cyclonic Vorticity (10^3 s^{-1} , shaded), and Wind (kt)

Init: 12z Jan 21 2020 [Analysis] valid at 12z Tue, Jan 21 2020

TROPICALTIDBITS.COM



Forecast Hour: 0

-72	-66	-60	-54
-48	-42	-36	-30
-24	-18	-12	-06
000	006	012	018
024	030	036	042
048	054	060	066
072	078	084	090
096	102	108	114
120	126	132	138
144	150	156	162
168	174	180	186
192	198	204	210
216	222	228	234
240	246	252	258
264	270	276	282
288	294	300	306
312	318	324	330

REGIONS

Prev. Run ← Next Run →

FORECAST GIF TREND GIF

GFS analysis

Numerical Model Prediction

Support this s

GFS

Global

Ensemble

Hurricane

Mesoscale

Climate

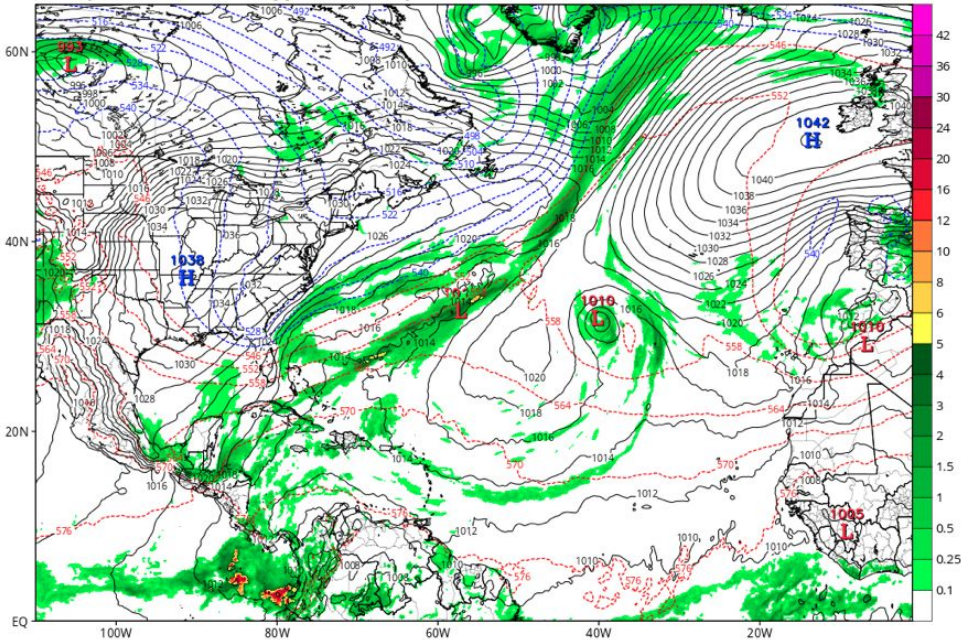


12z Tuesday, Jan 21

GFS 6-hour Averaged Precip Rate (mm/hr), MSLP (hPa) & 1000-500mb Thickness (dam)

Init: 12z Jan 21 2020 Forecast Hour: [6] valid at 18z Tue, Jan 21 2020

TROPICALTIDBITS.COM



Forecast Hour: 6

006	012	018	024
030	036	042	048
054	060	066	072
078	084	090	096
102	108	114	120
126	132	138	144
150	156	162	168
174	180	186	192
198	204	210	216
222	228	234	240
246	252	258	264
270	276	282	288
294	300	306	312
318	324	330	336
342	348	354	360
366	372	378	384

REGIONS

Prev. Run ← Next Run →

FORECAST GIF

TREND GIF

RHB and P3 soundings from 01/17/2020

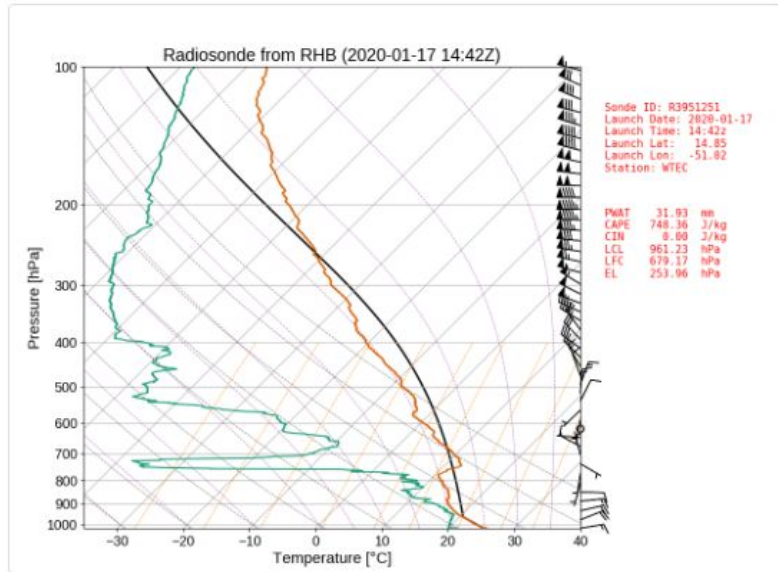
Sounding from NOAA Ship *Ronald H. Brown*

Selected Date & Time:

< Prev

2020-01-17 14:42 UTC

Next >



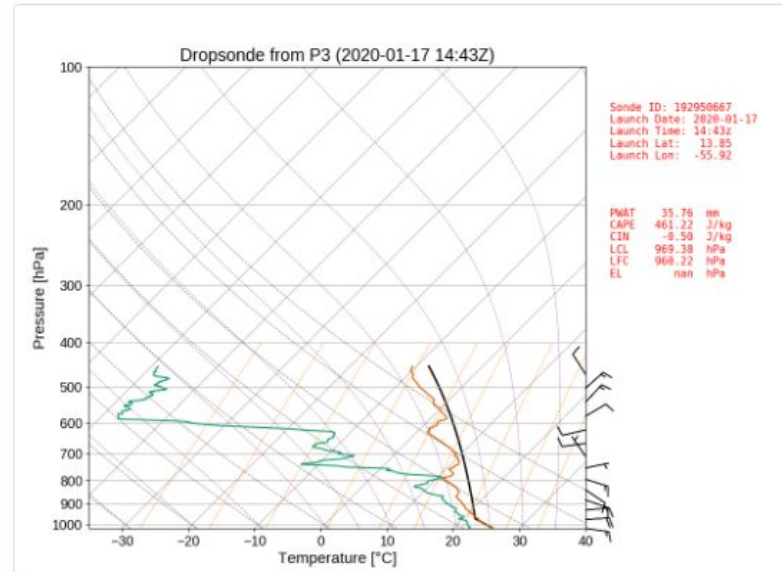
Sounding from NOAA P3

Selected Date & Time:

< Prev

2020-01-17 14:43 UTC

Next >



RHB and P3 soundings from 01/19/2020

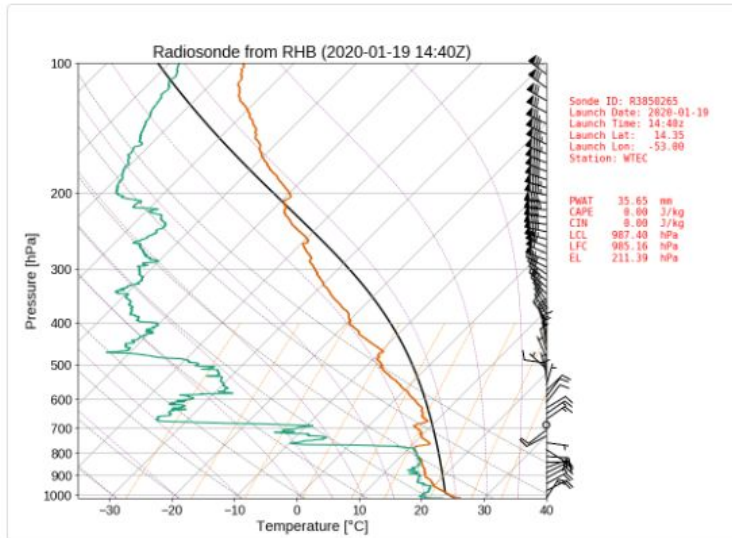
Sounding from NOAA Ship *Ronald H. Brown*

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< Prev

2020-01-19 14:40 UTC

Next >



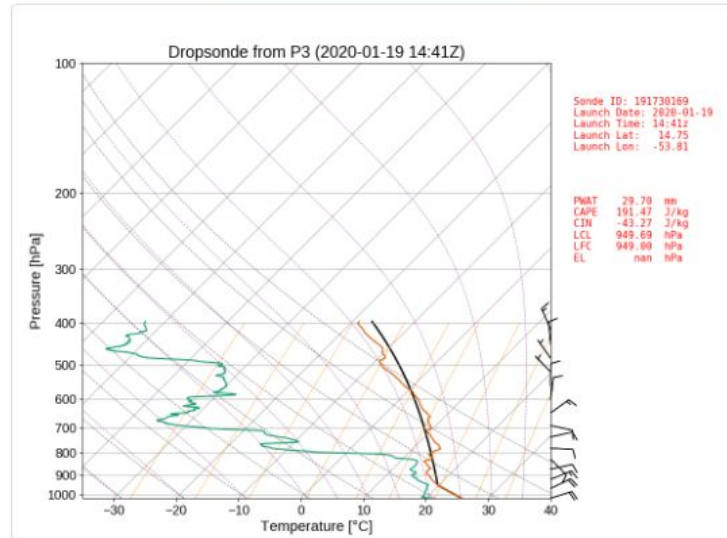
Sounding from NOAA P3

Selected Date & Time:

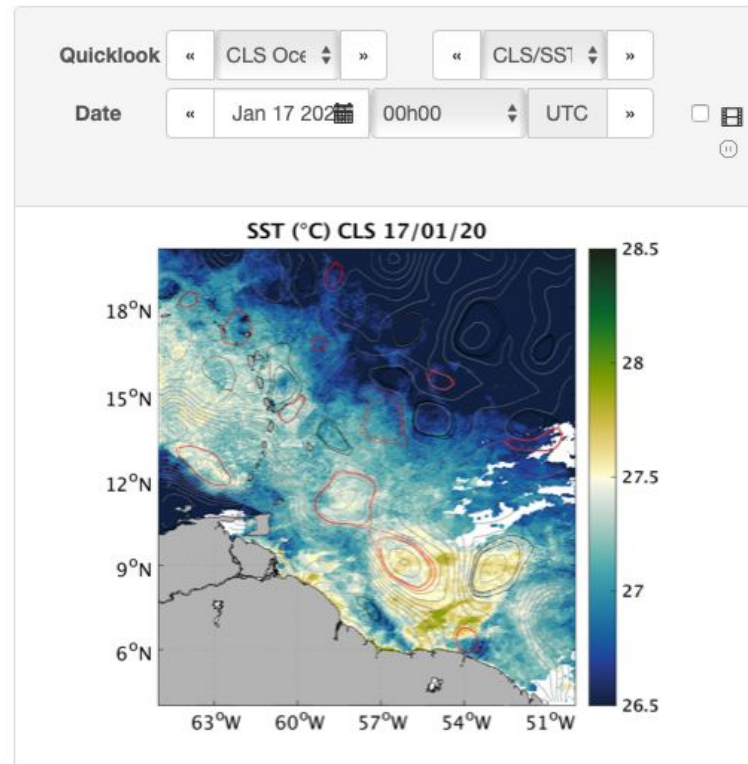
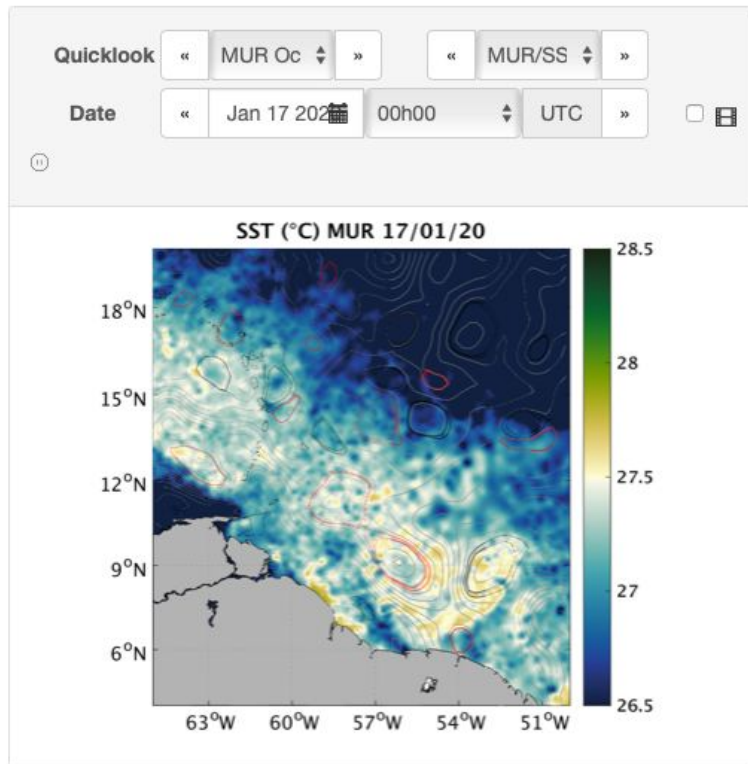
< Prev

2020-01-19 14:41 UTC

Next >



Latest ocean observations: SST & TOEddies



Latest ocean observations:

Descending Sea Surface Salinity and TOEddies

Quicklook « SMOS C » « Descenc »
Date « Jan 17 202 » 00h00 UTC

11

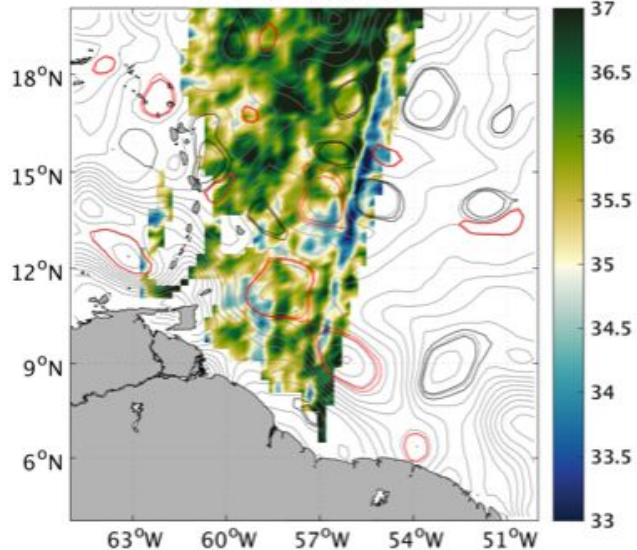
Multi-Field

On



Move

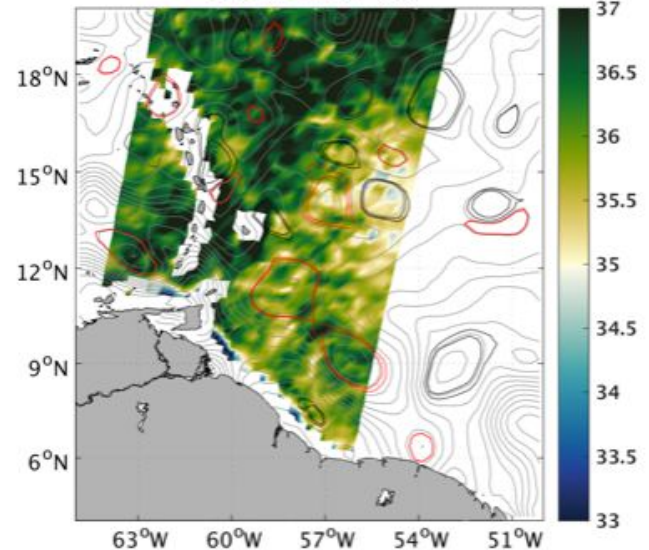
D SMOS L2 17-01



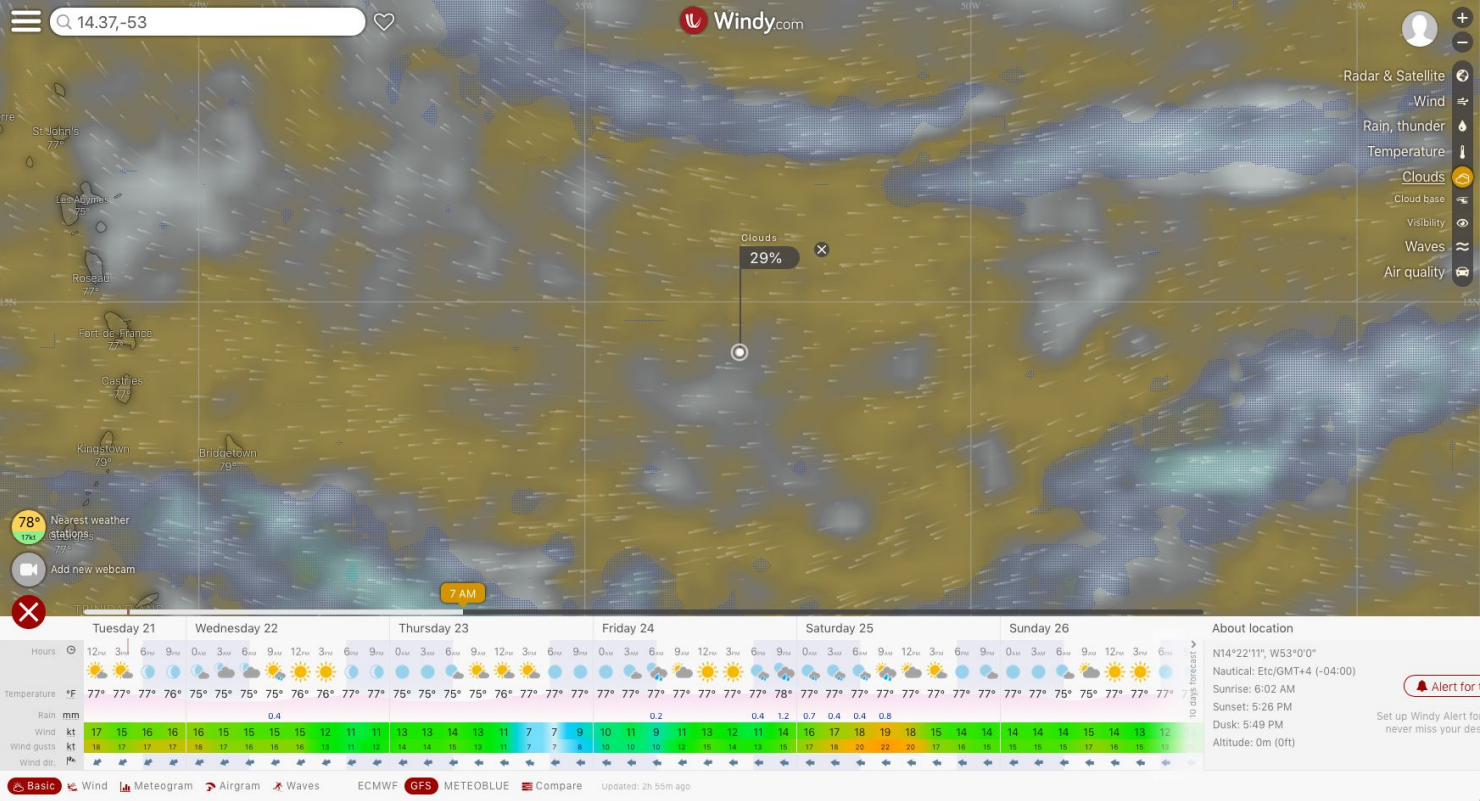
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Date « Jan 17 202 » 00h00 UTC

11

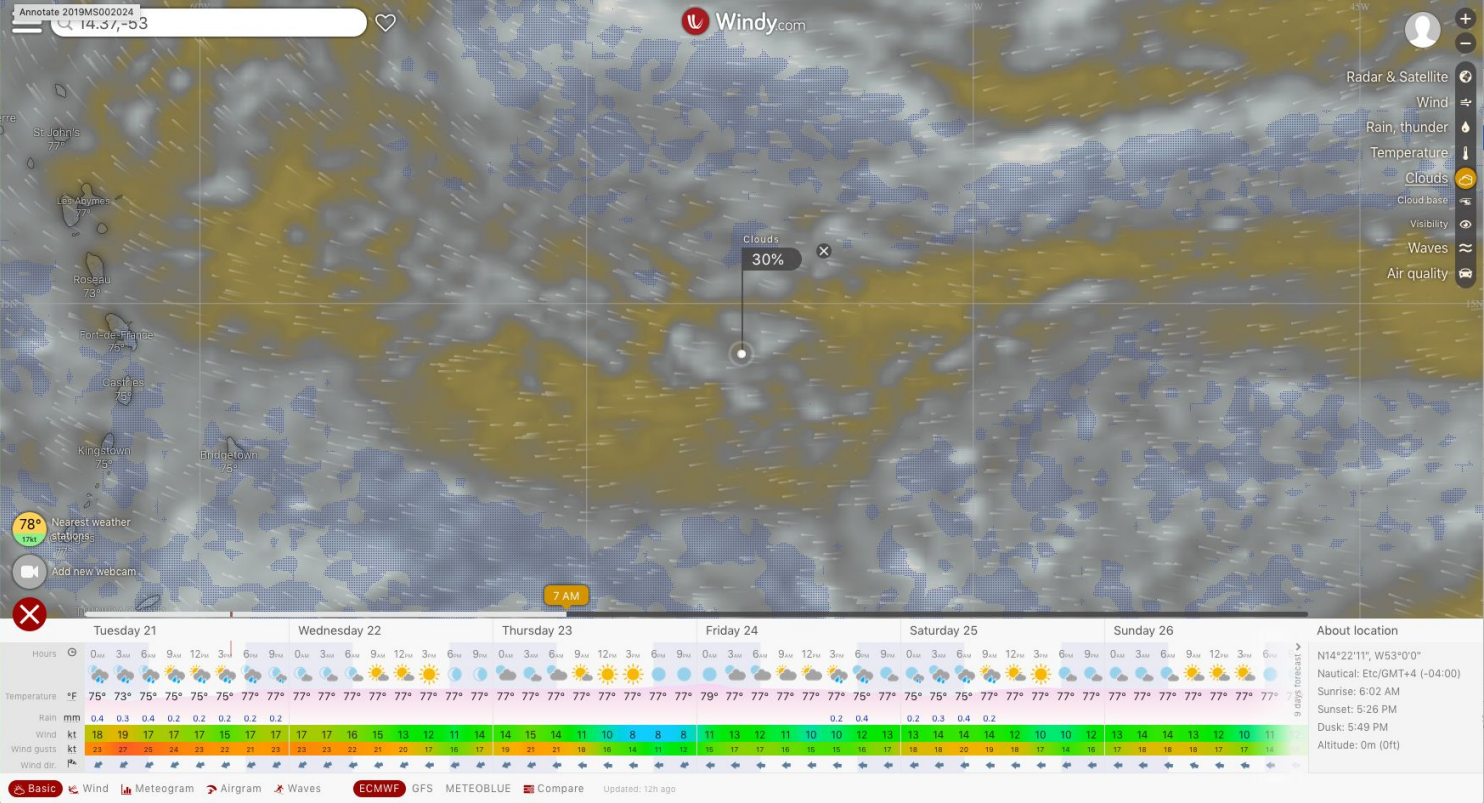
D SMAP L2 17-01



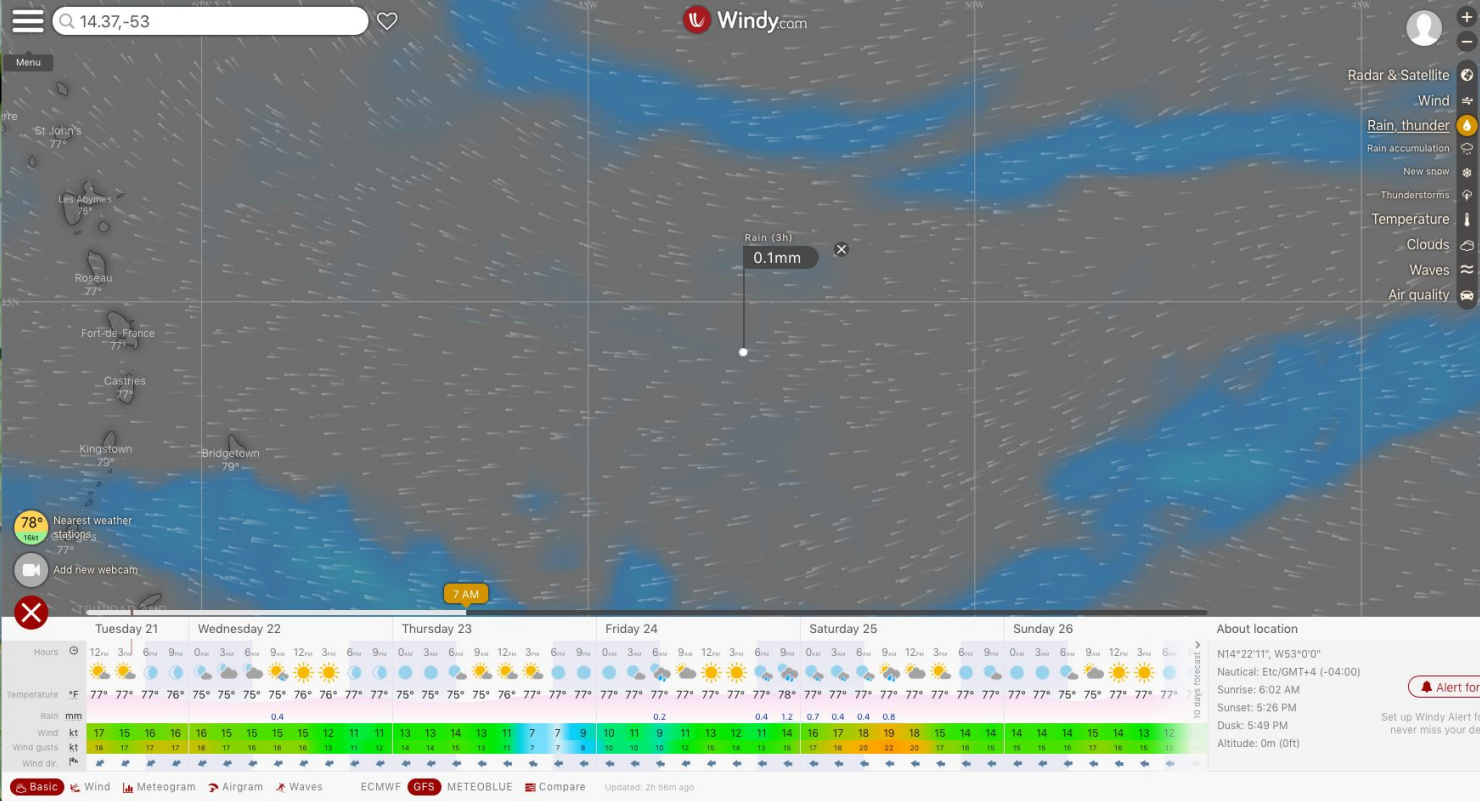
Clouds forecast: GFS



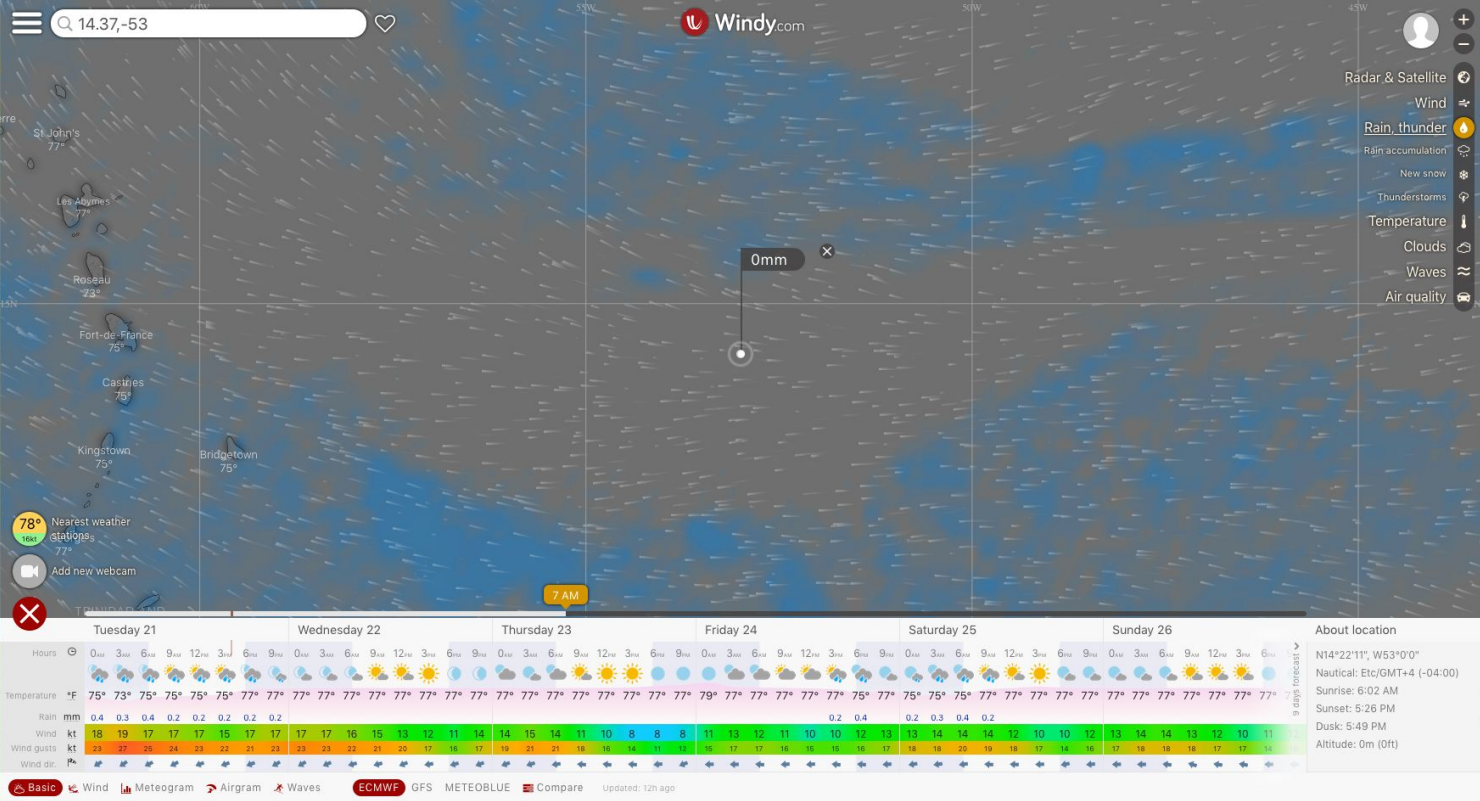
Clouds forecast: ECMWF



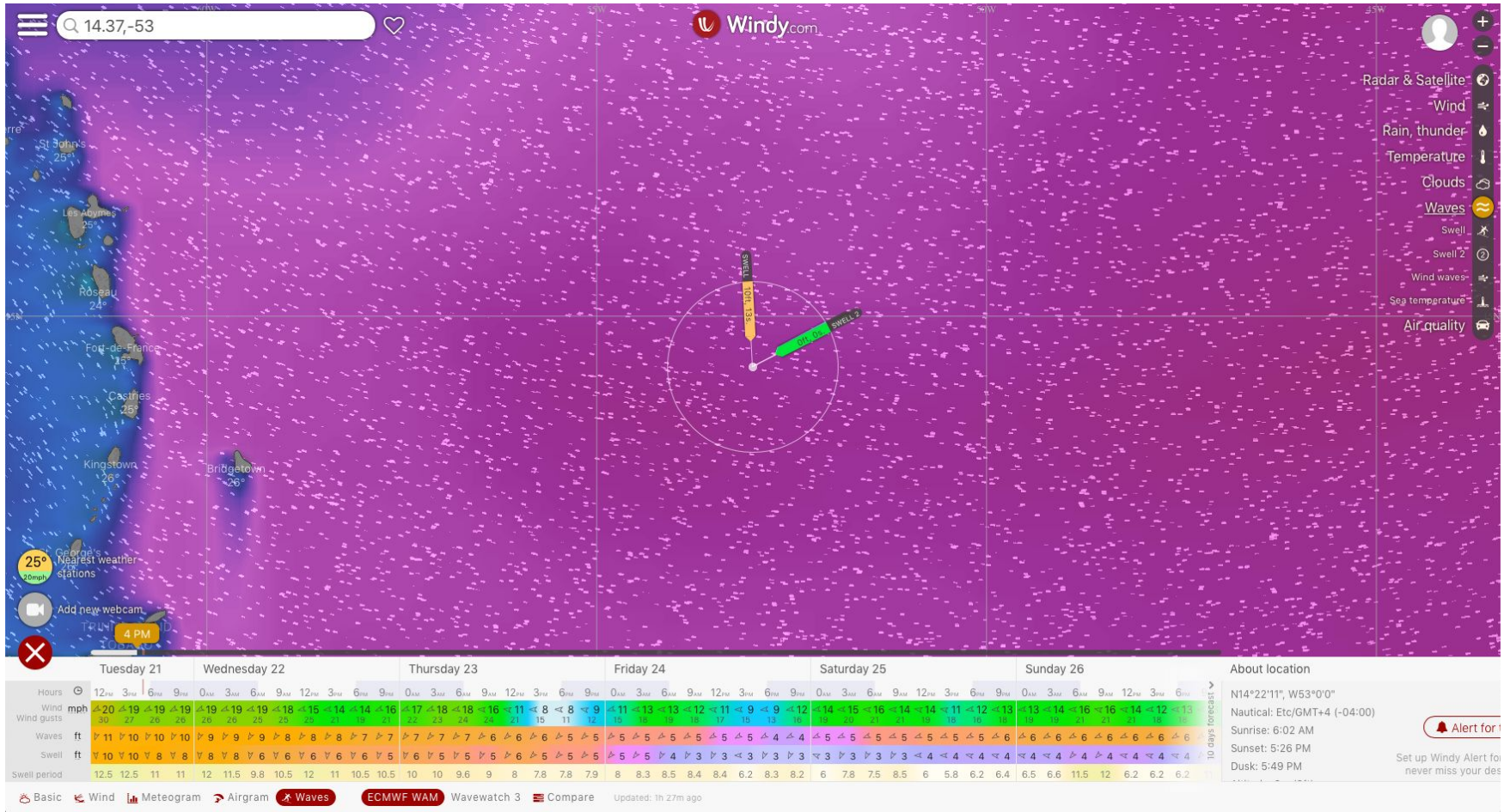
Precipitation forecast: GFS



Precipitation forecast: ECMWF



Waves forecast



Ocean Forecasts

Quicklook « Hycom F » « Sea Surf »

Date « Jan 21 2020 00h00 UTC »

Forecast date « 2020-01-26 00:00 All Forecasts »

ⓘ

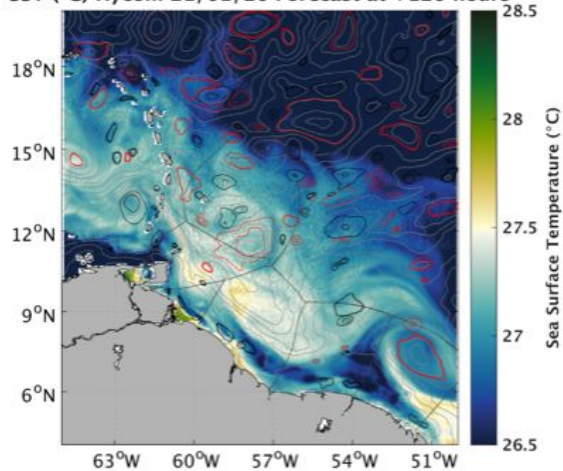
Multi-Field

On



Move

SST (°C) Hycom 21/01/20 Forecast at +120 hours



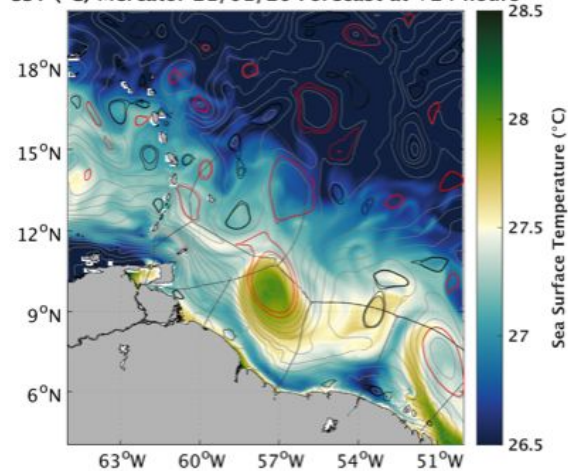
Quicklook « Mercator » « Sea Surf »

Date « Jan 21 2020 00h00 UTC »

Forecast date « 2020-01-22 00:00 »

ⓘ

SST (°C) Mercator 21/01/20 Forecast at +24 hours



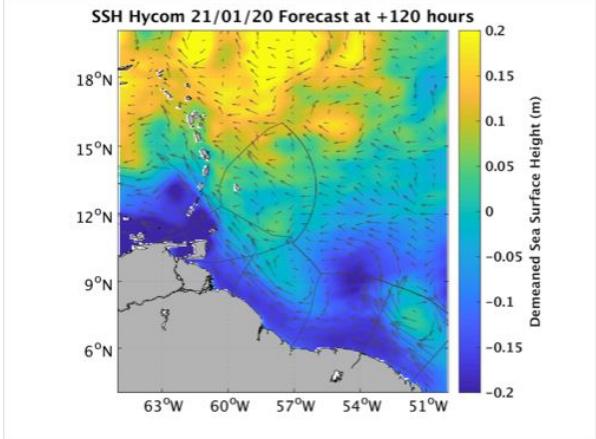
Ocean Forecasts

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Quicklook « Hycom F » « Sea Surf »

Date « Jan 21 2020 » 00h00 « UTC »

Forecast date « 2020-01-26 00:00 » « All Forecasts »



Multi-Field

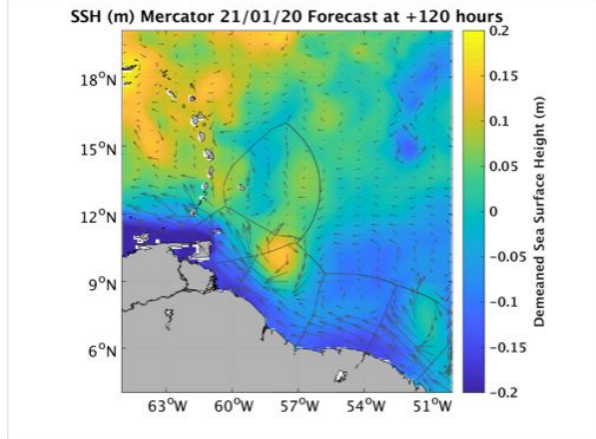
On

Move

Quicklook « Mercator » « Sea Surf »

Date « Jan 21 2020 » 00h00 « UTC »

Forecast date « 2020-01-26 00:00 »



Ocean Forecasts

Quicklook « Hycom F » « Sea Surf »

Date « Jan 21 2020 00h00 UTC »

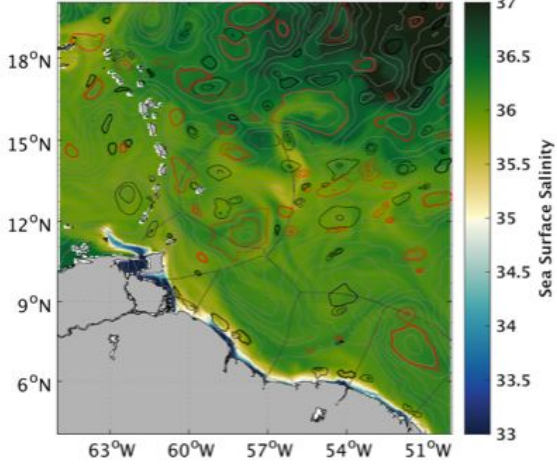
Forecast date « 2020-01-26 00:00 All Forecasts »

Multi-Field

On

Move

SSS Hycom 21/01/20 Forecast at +120 hours



Quicklook « Mercator » « Sea Surf »

Date « Jan 21 2020 00h00 UTC »

Forecast date « 2020-01-26 00:00 »

SSS Mercator 21/01/20 Forecast at +120 hours

