



METEO & OCEANO – Formation

De l'altitude à la surface avec les tempête BABETH-CELINE-CIARAN-DOMINGOS



Objectifs

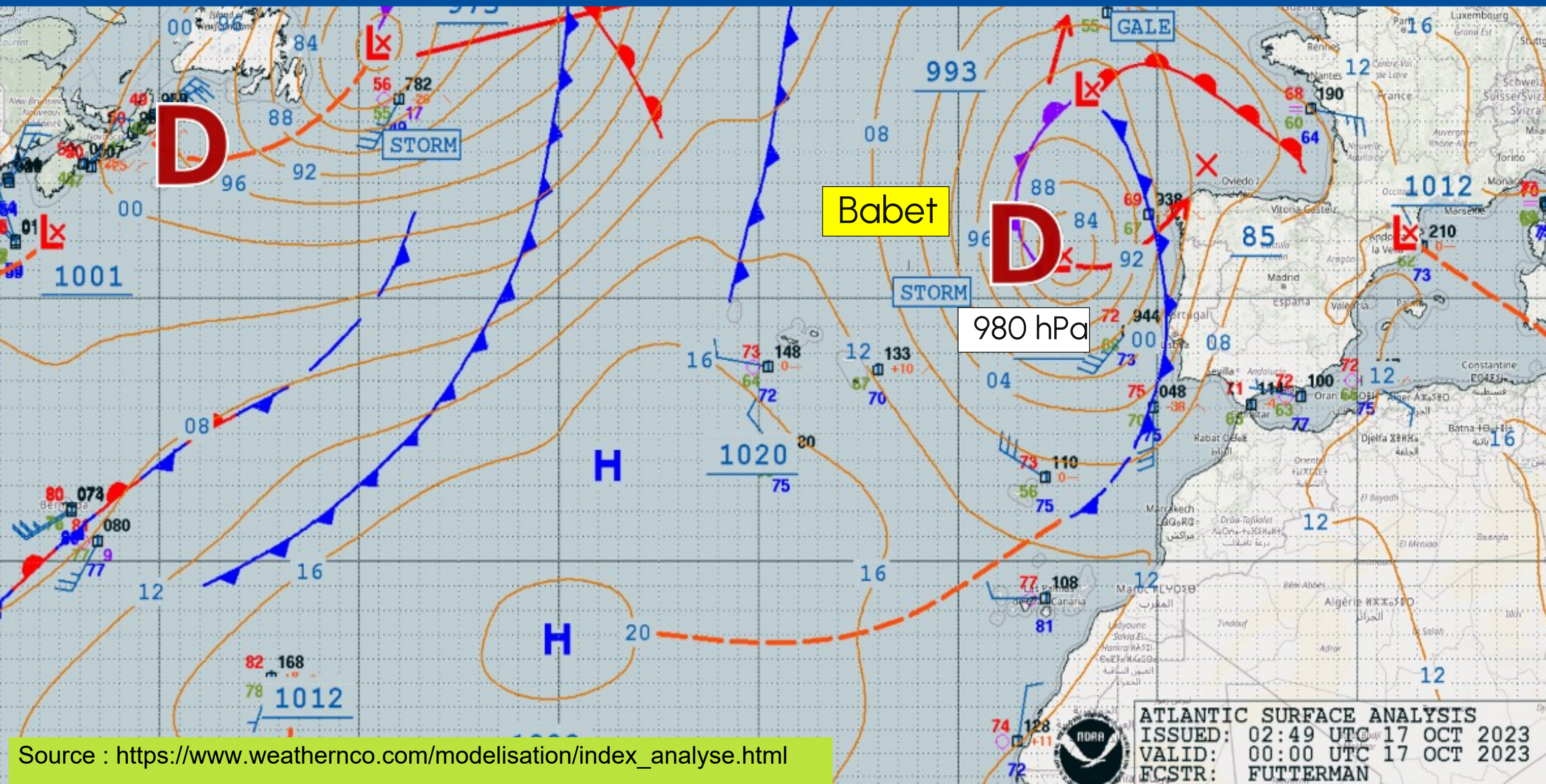
- Maîtriser la relation entre la dynamique d'Altitude et les phénomènes météorologiques de surface

Sommaire

- 1 – Tempête **BABET** 16-22 Oct 2023
- 2 – Tempête **CELINE** 26-29 Oct 2023
- 3 - Tempête **CIARAN** 31 Oct – 02 Nov 2023
- 4 – Tempête **DOMINGOS** 03-05 Nov 2023

1 – Tempête **BABET**
Semaine
16-22 Oct 2023

Analyse – Mardi 17 Oct 2023 at 00H TU

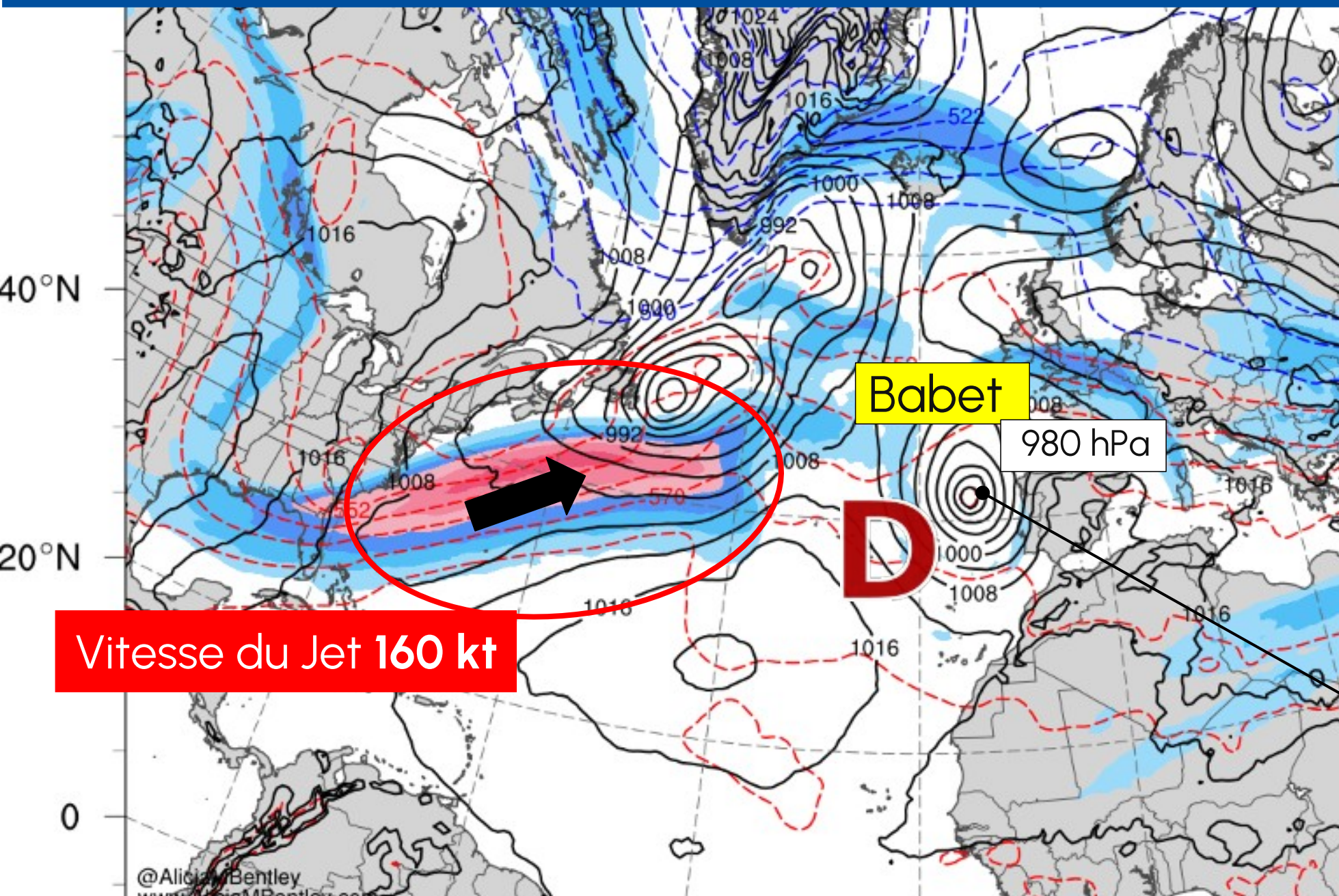


Babet

980 hPa

Source : https://www.weathernc.com/modelisation/index_analyse.html

Situation de surface & jet : Mar 17 Oct 2023 à 00H TU



MSLP – Mean sea level pressure,
Situation isobarique de surface en
noir (4 en 4 hPa).

En couleur vitesse des vents (m/s) à
250 hPa.
Bleu ciel faible --> Rose fort

Vitesse du Jet 160 kt

Babet

980 hPa

40°N

La dépression **Babet**
Sud ouest Corogne
En dehors du circuit du Jet
en altitude..
Donc pas d'influence du Jet
Situation de surface et
altitude sont décorelées.

https://www.atmos.albany.edu/student/abentley/realtime/subtrop.php?domain=atlantic&variable=mslp_jet

80°W

60°W

40°W

20°W

0

30

40

50

60

70

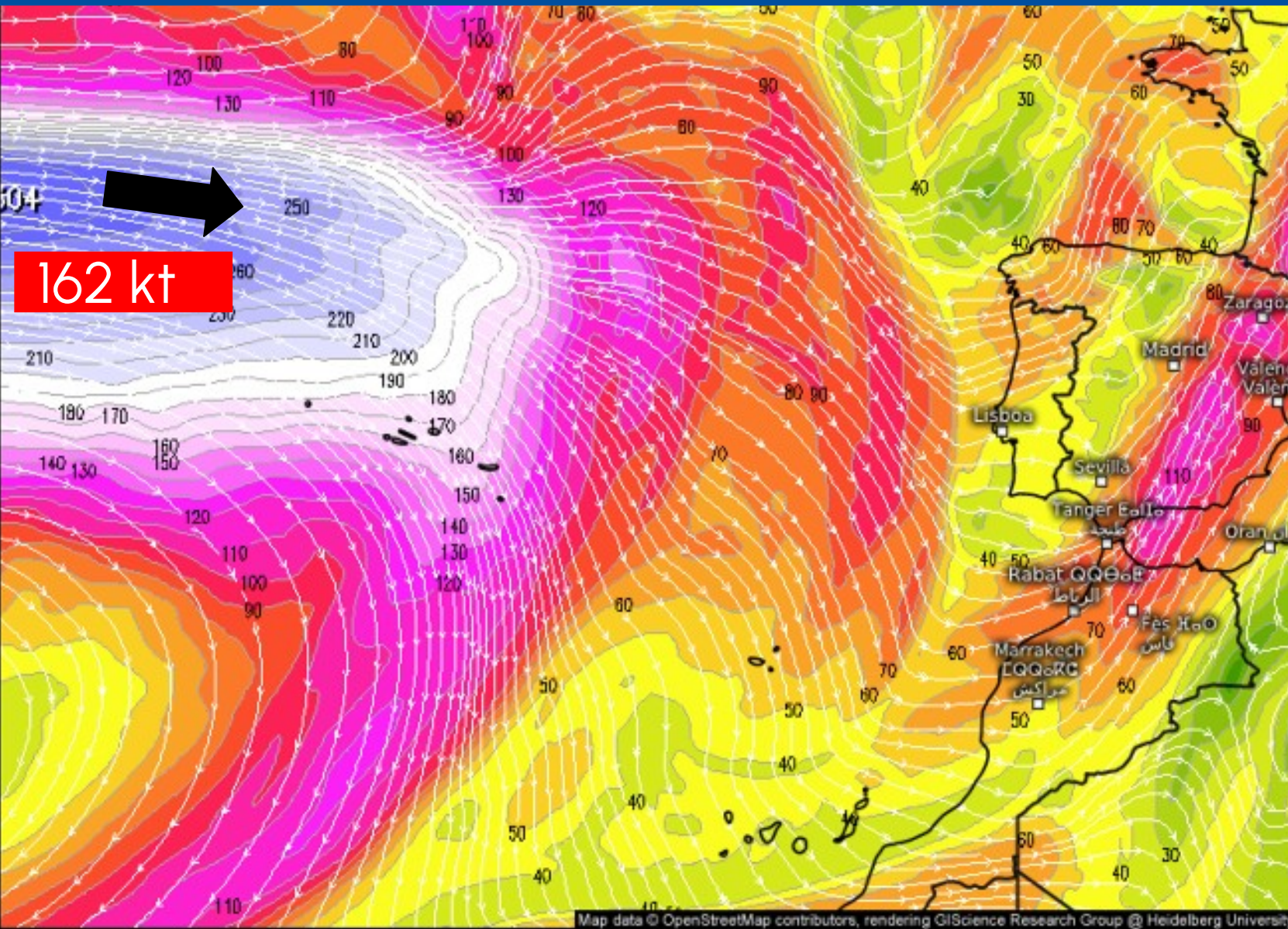
80

90

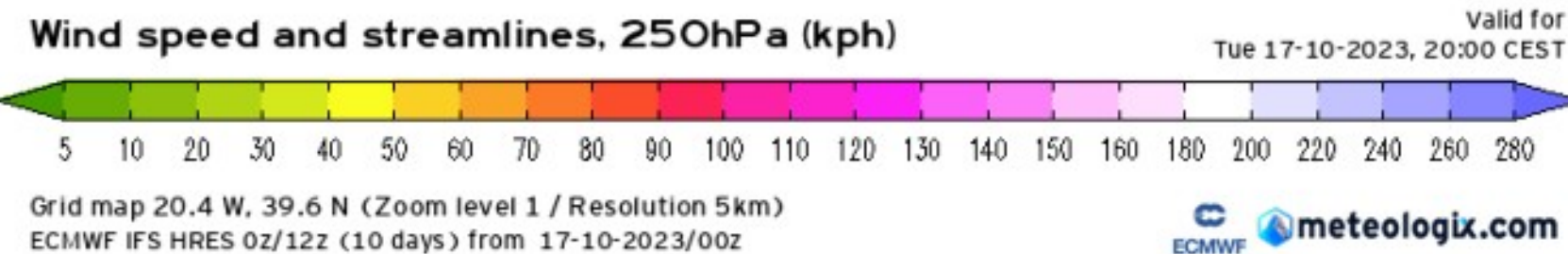
100

110

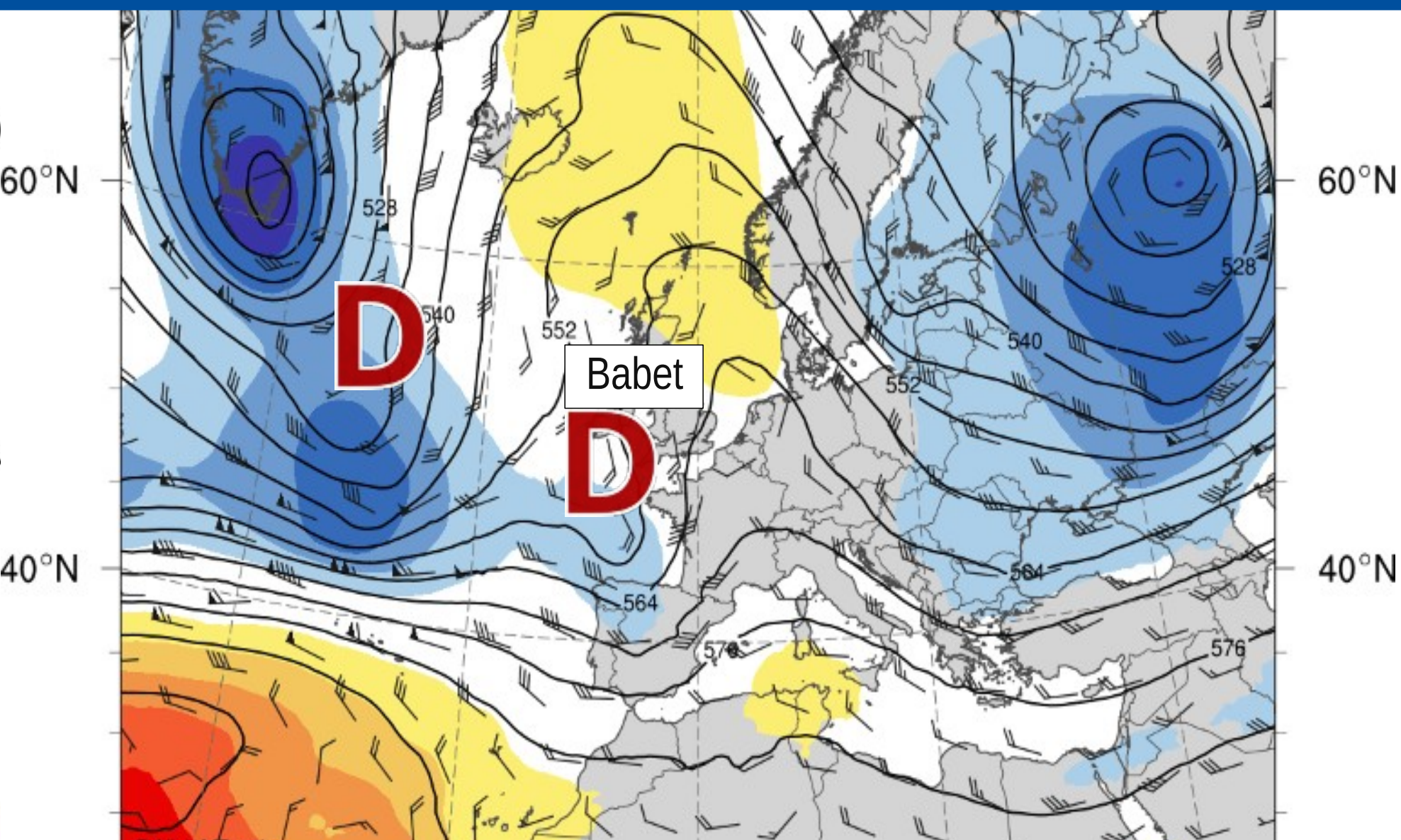
Situation du jet – 250 hPa : Mar 17 Oct à 18H TU



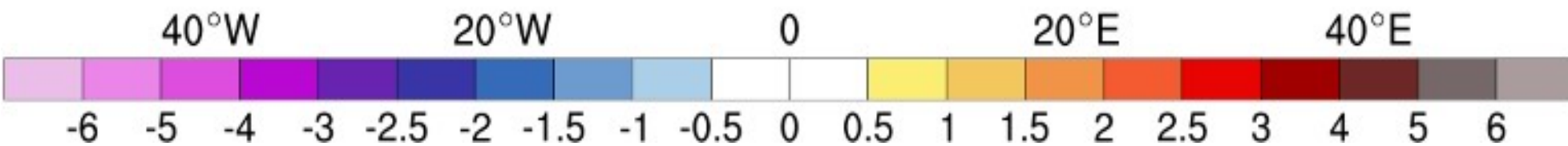
Vitesse du **Jet** à plus de **162 kt**



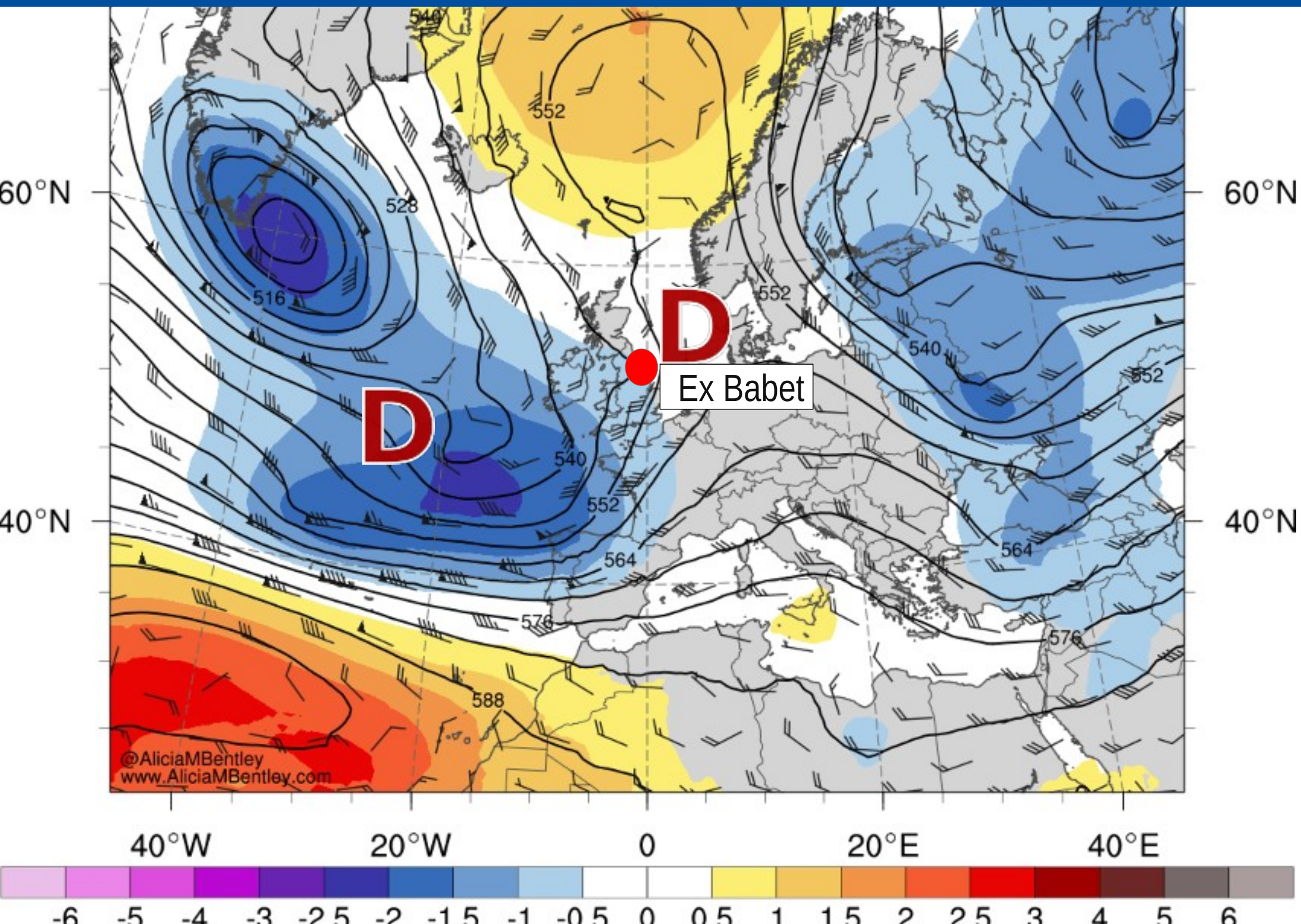
Situation à 500 hPa : Mer 18 Oct à 00H TU

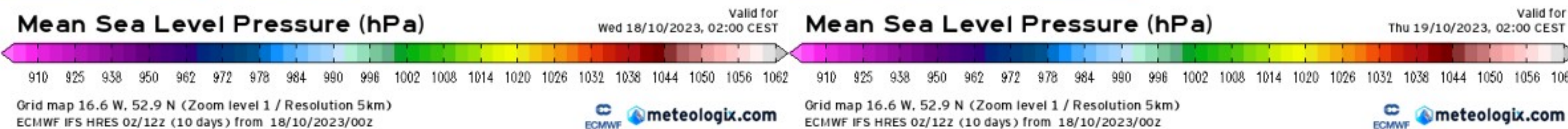


Source : https://www.atmos.albany.edu/student/abentley/realtime/anom.php?domain=europe&variable=500g_anom



Situation à 500 hPa : Jeu 19 Oct à 00H TU

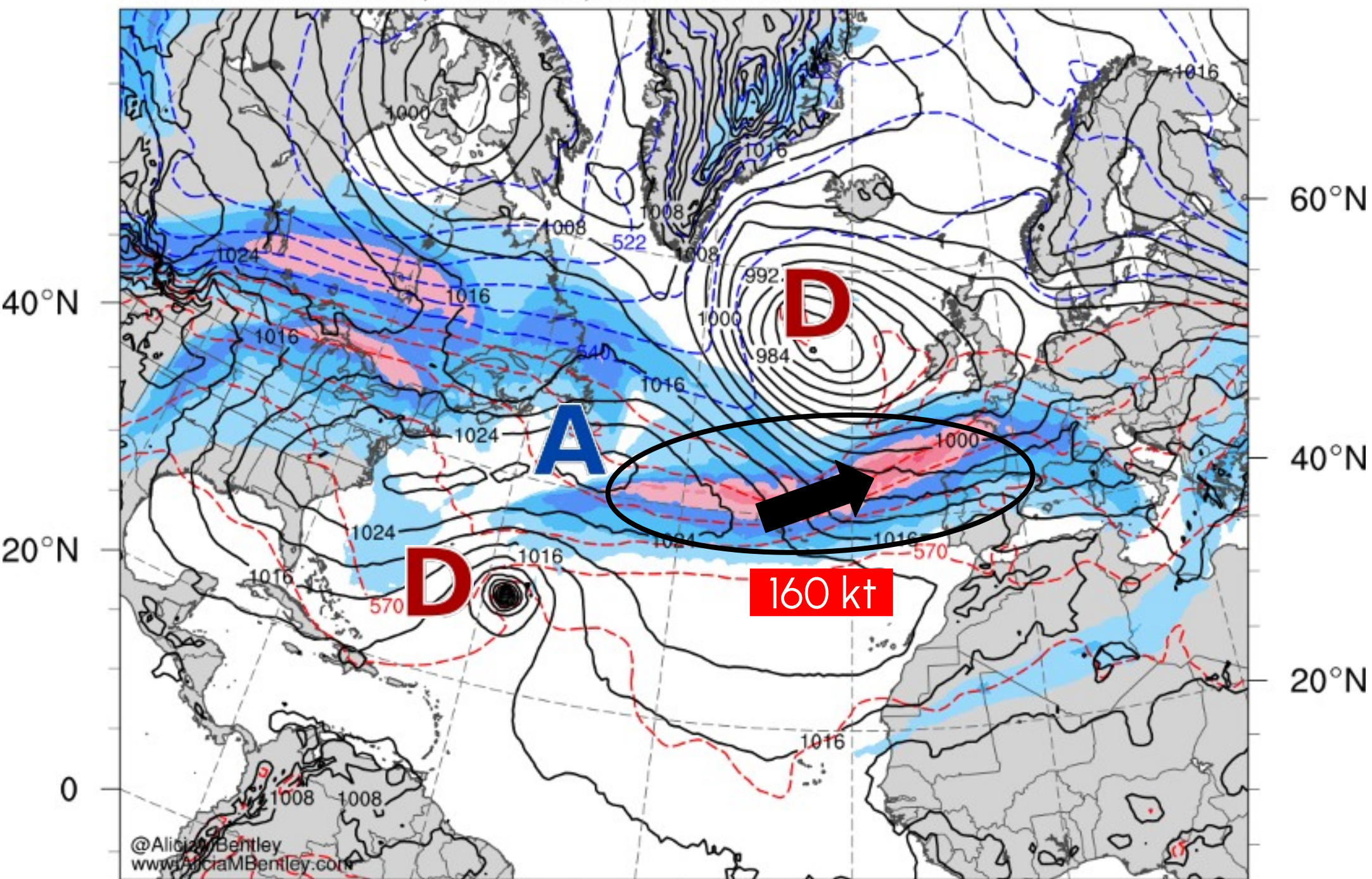




2 – Semaine
26-29 Oct 2023
Tempête **CELINE**

MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 0000 UTC 26 Oct 2023 | Forecast hour: 0 | Valid: 0000 UTC 26 Oct 2023



Superposition

- Altitude Jet
- Situation isobarique de surface (MSLP)



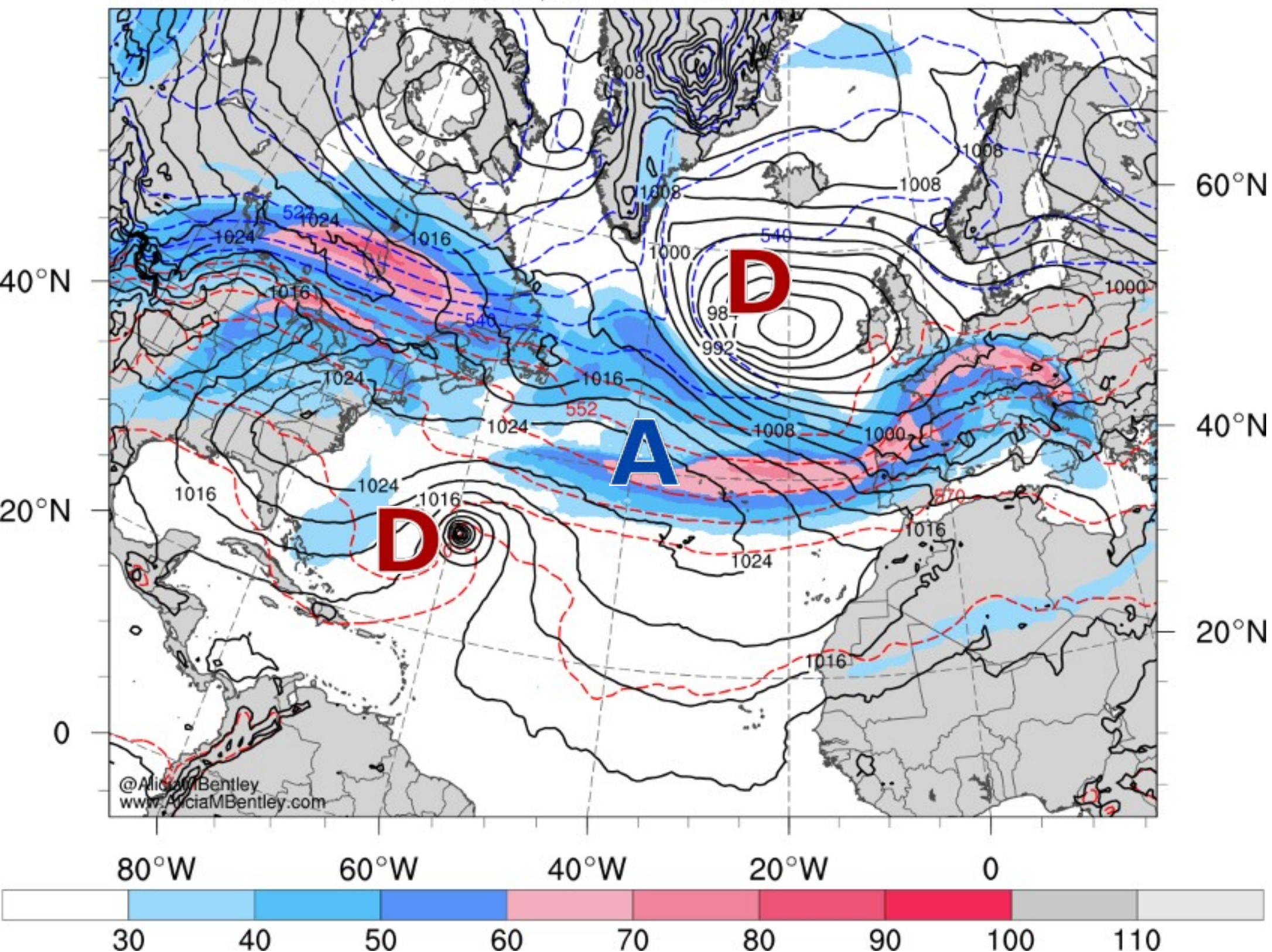
Jet
160 kt

Vitesse du Jet à 250 hPa en m/s

30 40 50 60 70 80 90 100 110

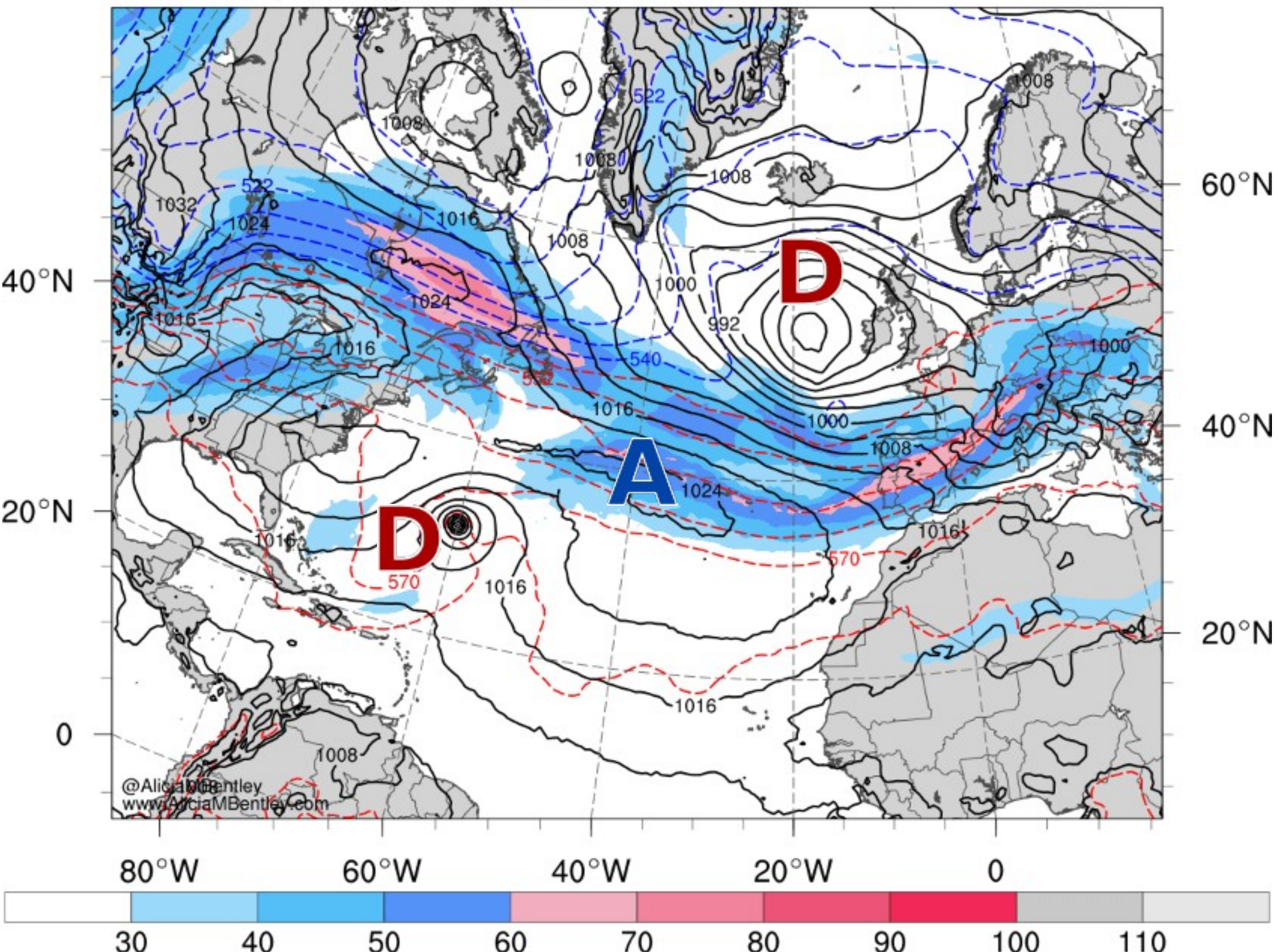
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 1200 UTC 26 Oct 2023 | Forecast hour: 0 | Valid: 1200 UTC 26 Oct 2023



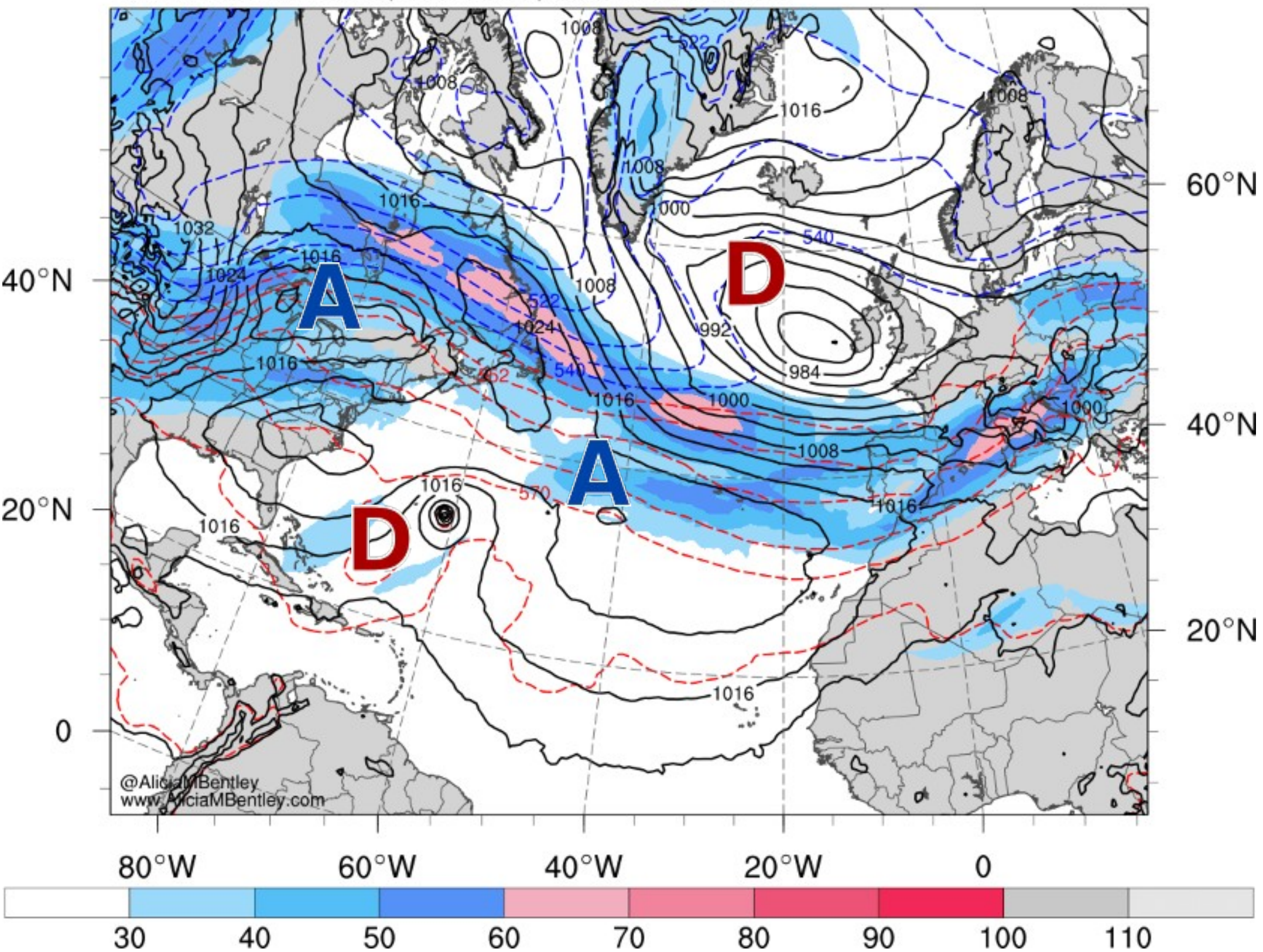
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 0000 UTC 27 Oct 2023 | Forecast hour: 0 | Valid: 0000 UTC 27 Oct 2023



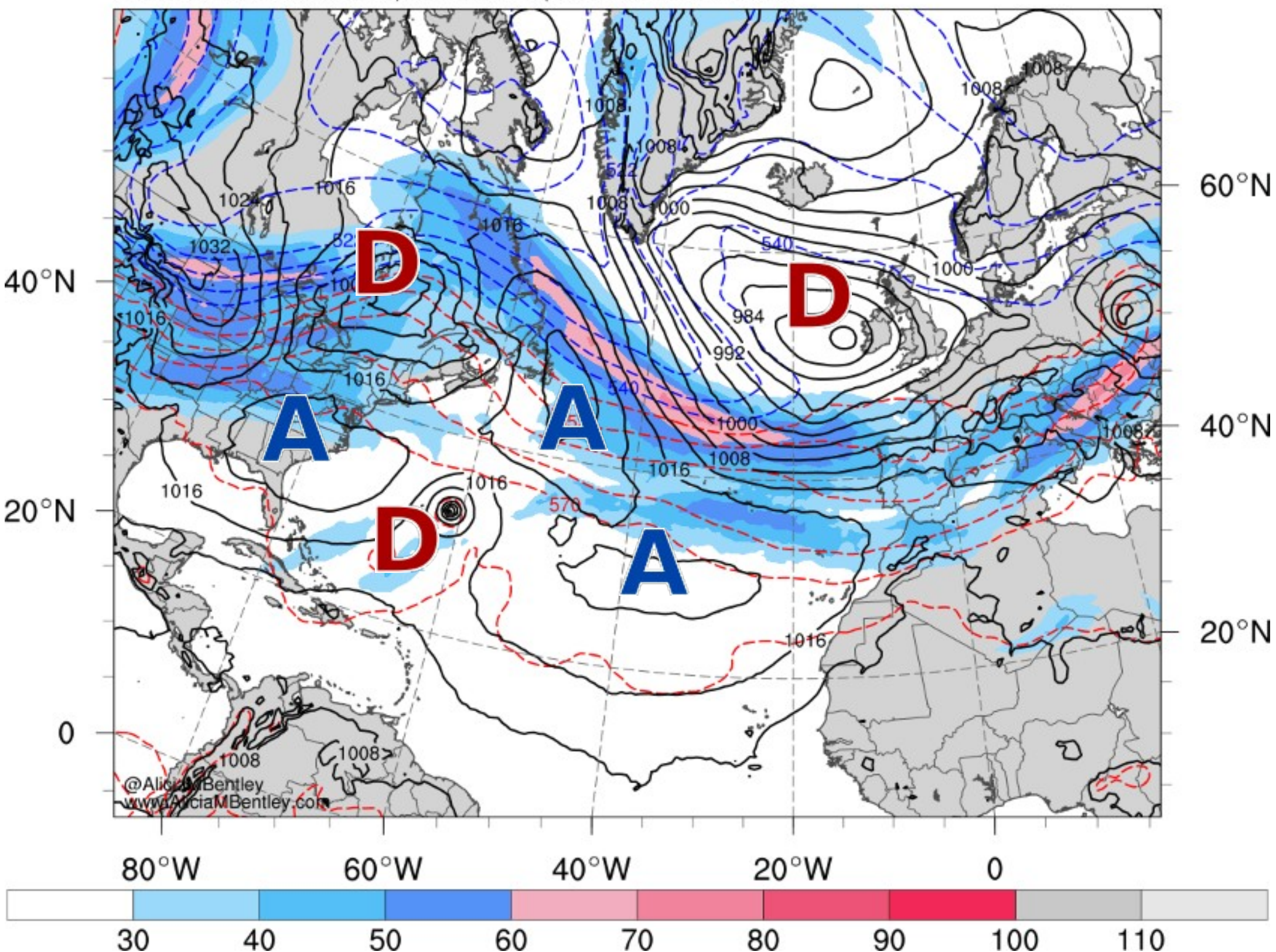
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 1200 UTC 27 Oct 2023 | Forecast hour: 0 | Valid: 1200 UTC 27 Oct 2023



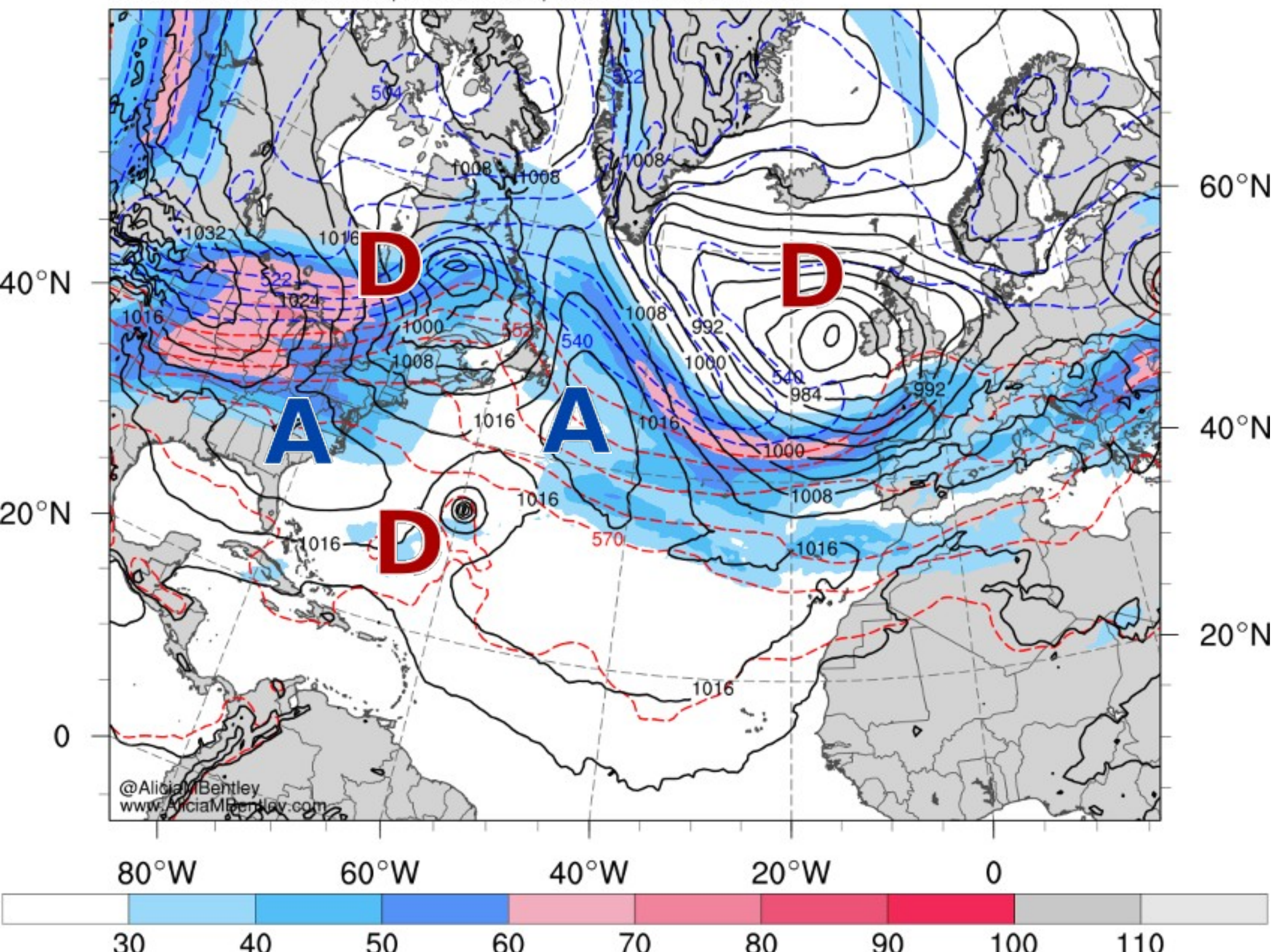
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 0000 UTC 28 Oct 2023 | Forecast hour: 0 | Valid: 0000 UTC 28 Oct 2023



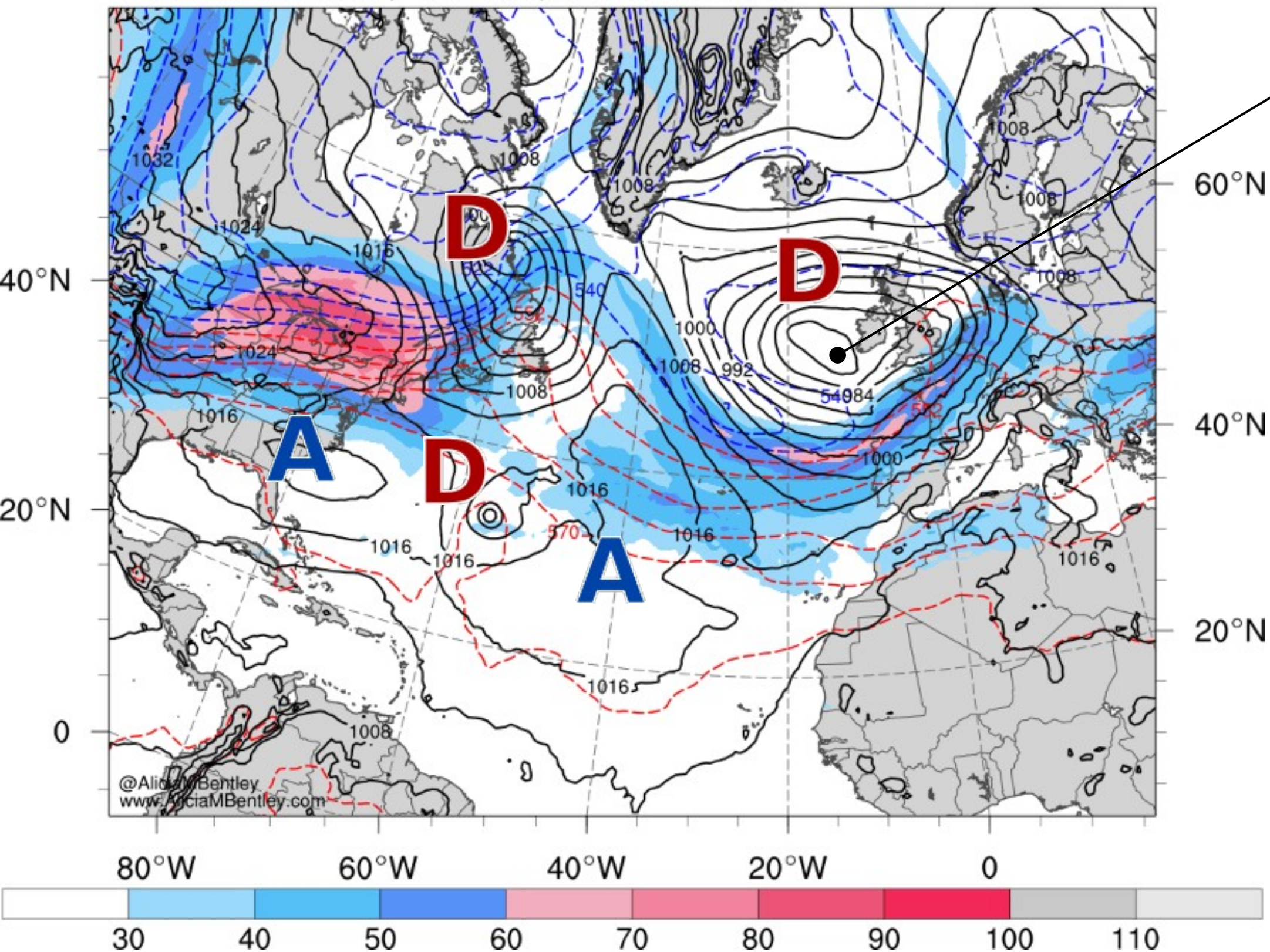
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 1200 UTC 28 Oct 2023 | Forecast hour: 0 | Valid: 1200 UTC 28 Oct 2023



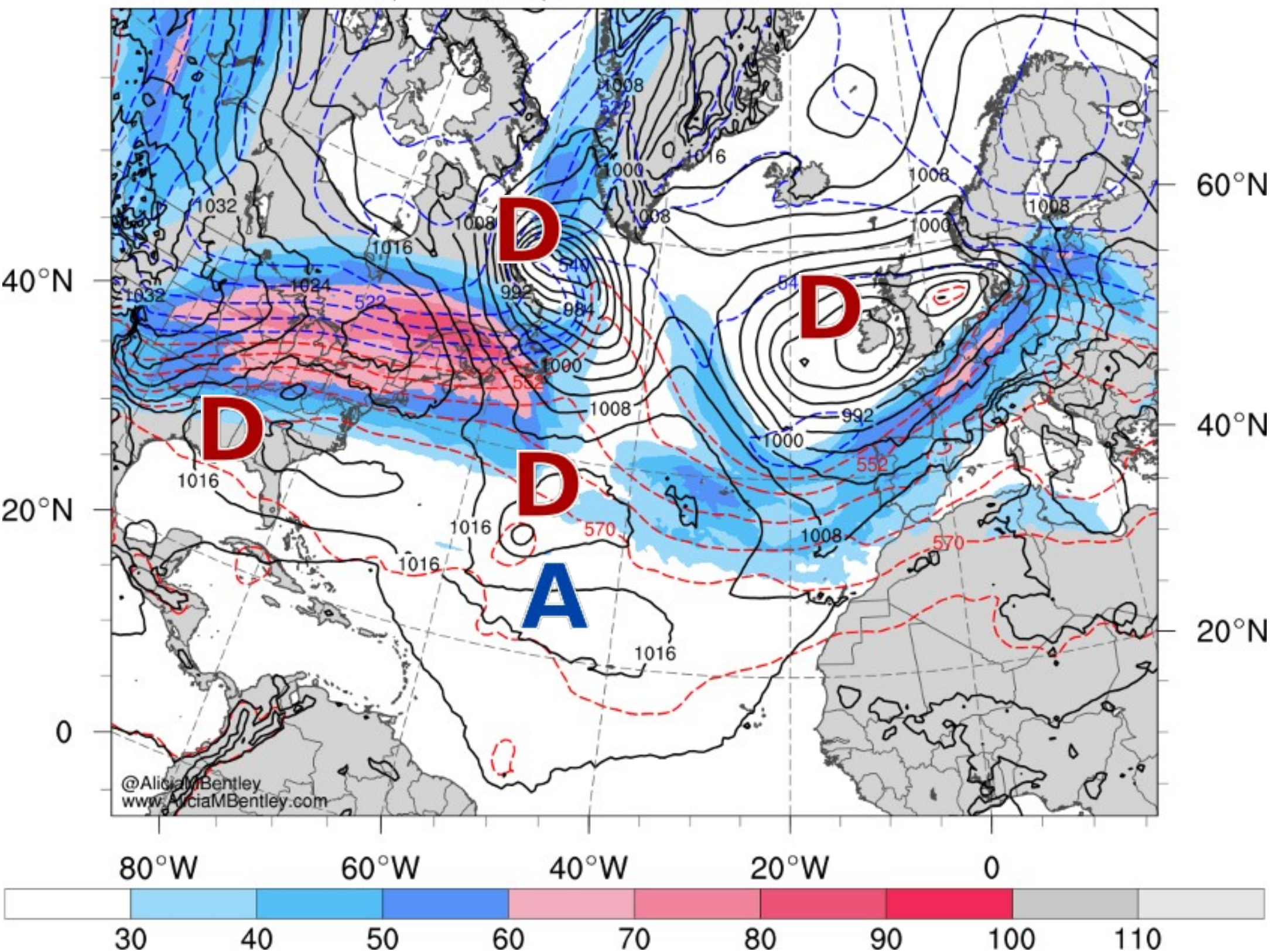
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 0000 UTC 29 Oct 2023 | Forecast hour: 0 | Valid: 0000 UTC 29 Oct 2023



MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

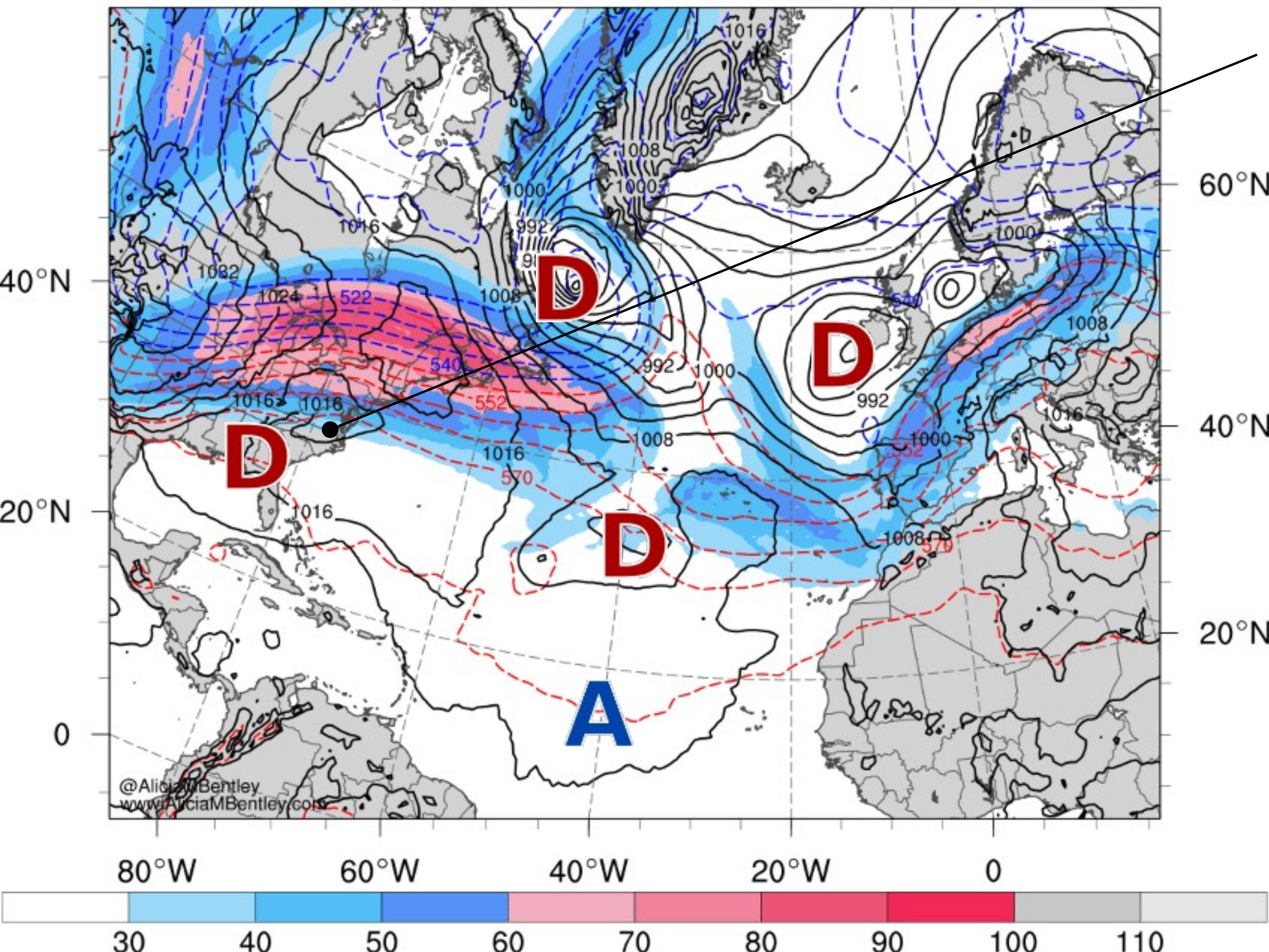
Initialized: 1200 UTC 29 Oct 2023 | Forecast hour: 0 | Valid: 1200 UTC 29 Oct 2023



3 – Tempête **CIARAN**

MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 0000 UTC 30 Oct 2023 | Forecast hour: 0 | Valid: 0000 UTC 30 Oct 2023

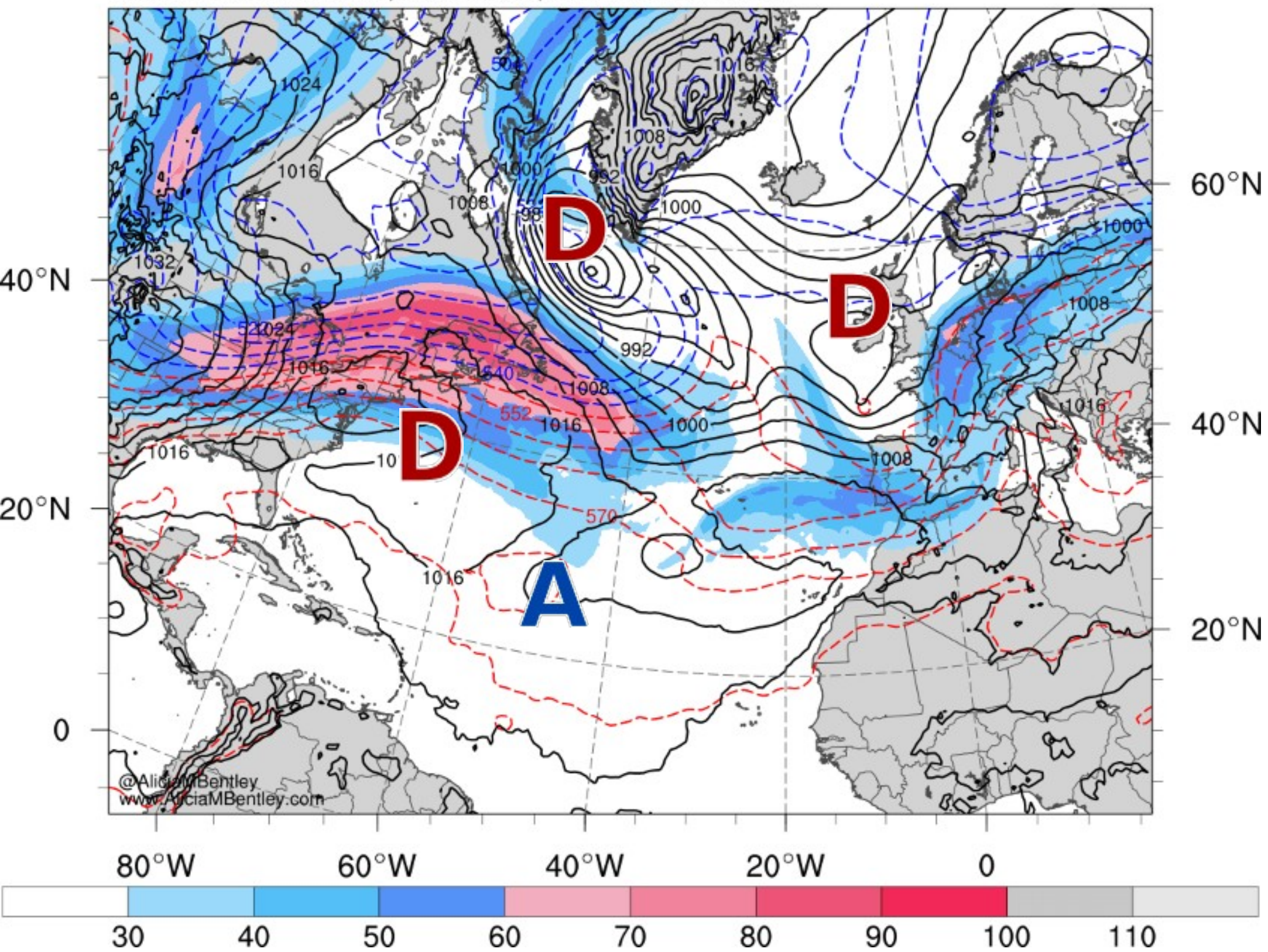


Futur CIARAN
Précurseur de surface
en entrée droite, côté
subtropical

Avant creusement
explosif >24 hPa en
24h en sortie gauche
de jet, côté polaire.

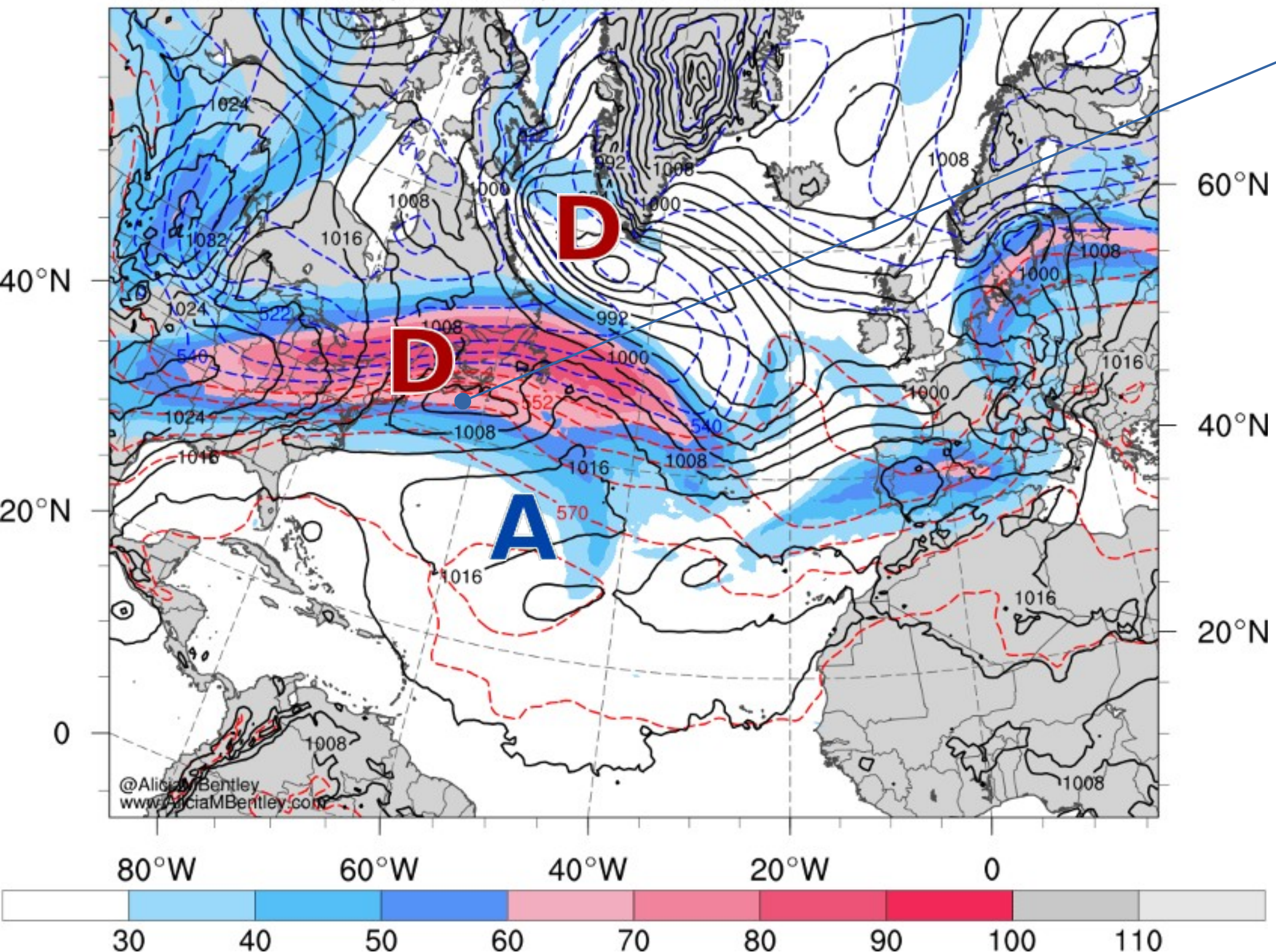
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 1200 UTC 30 Oct 2023 | Forecast hour: 0 | Valid: 1200 UTC 30 Oct 2023



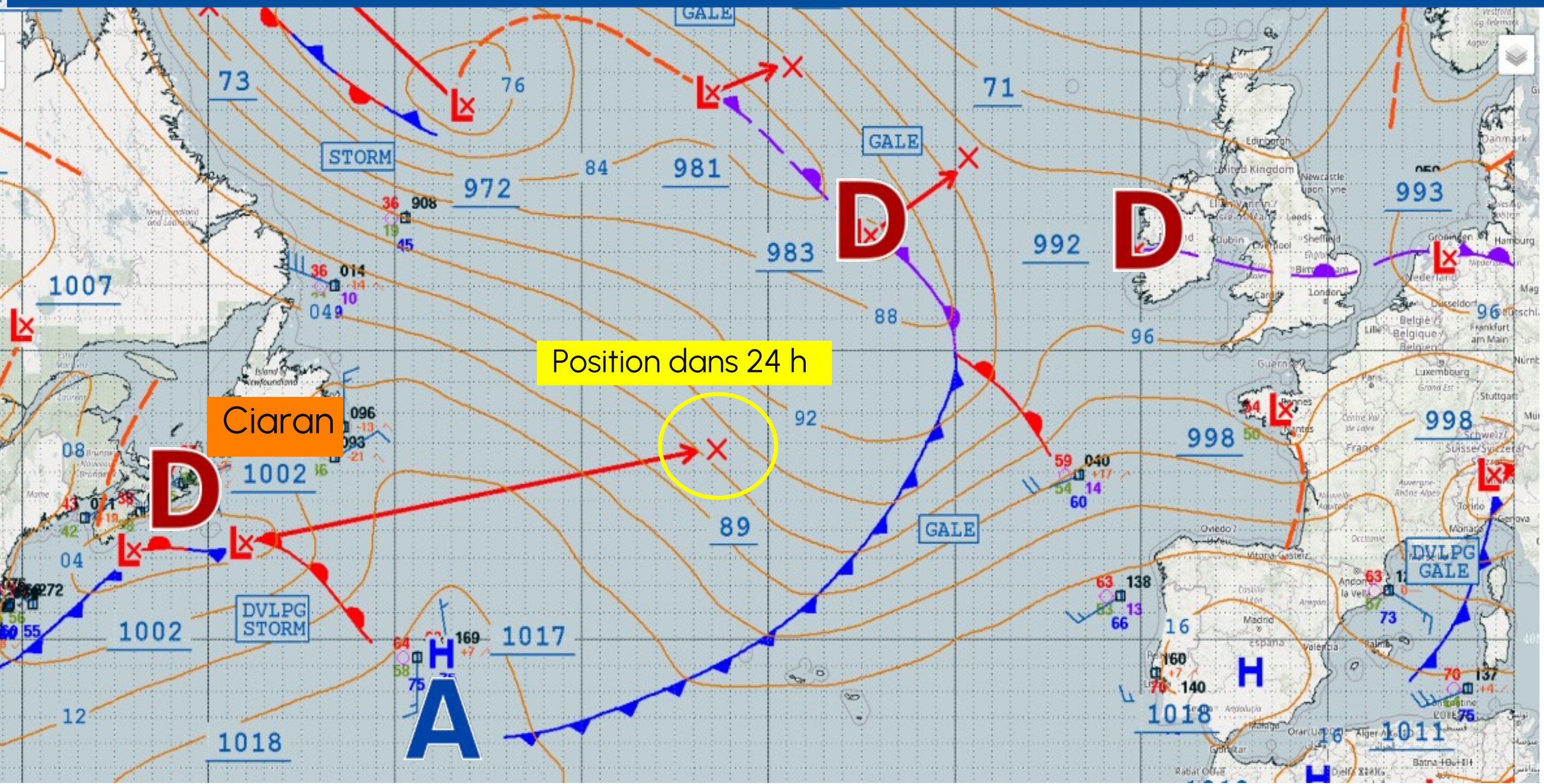
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 0000 UTC 31 Oct 2023 | Forecast hour: 0 | Valid: 0000 UTC 31 Oct 2023



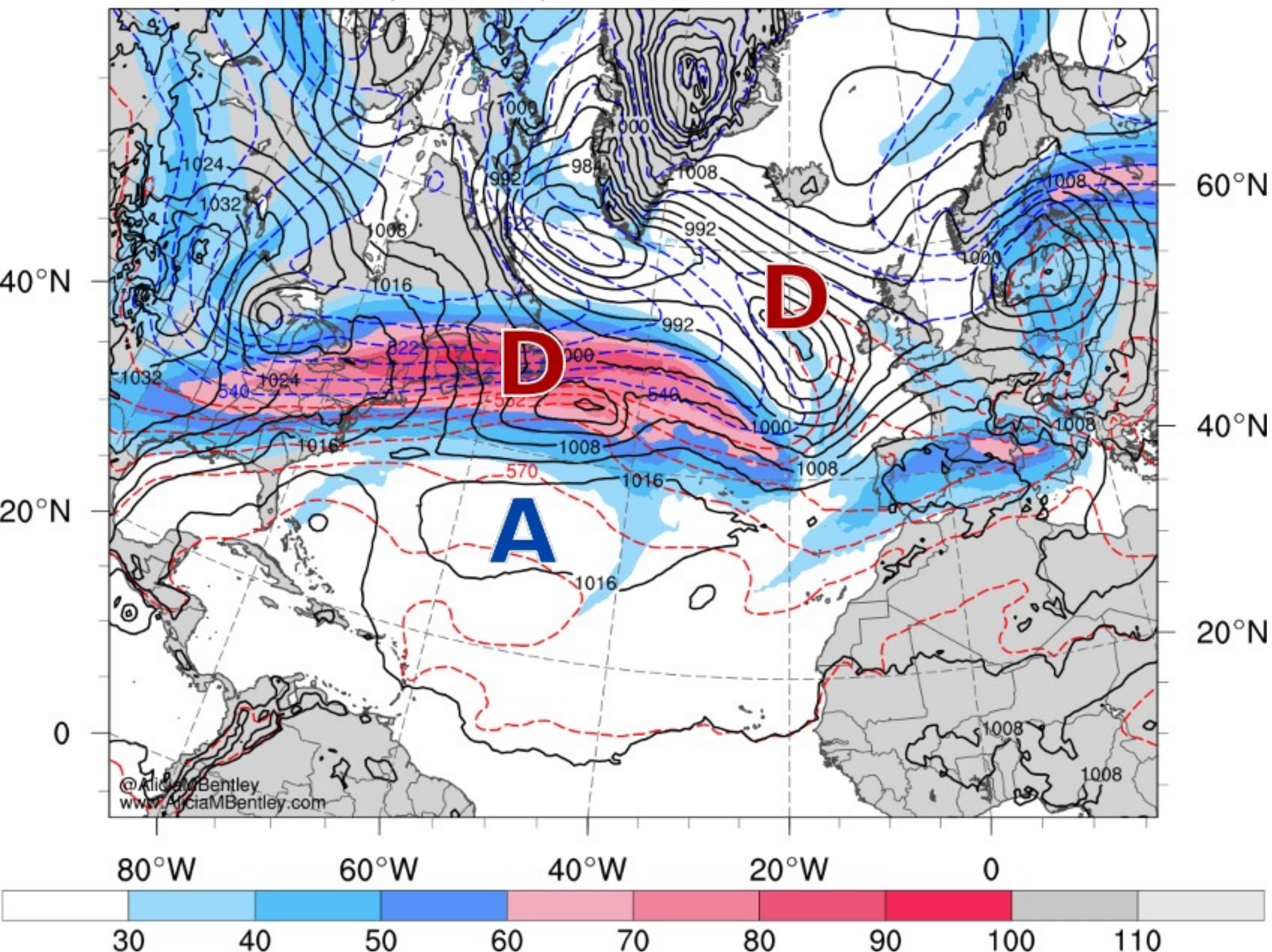
Dépression qui glisse d'ouest en Est sous l'influence du Jet.

Le Jet pilote la dépression de surface



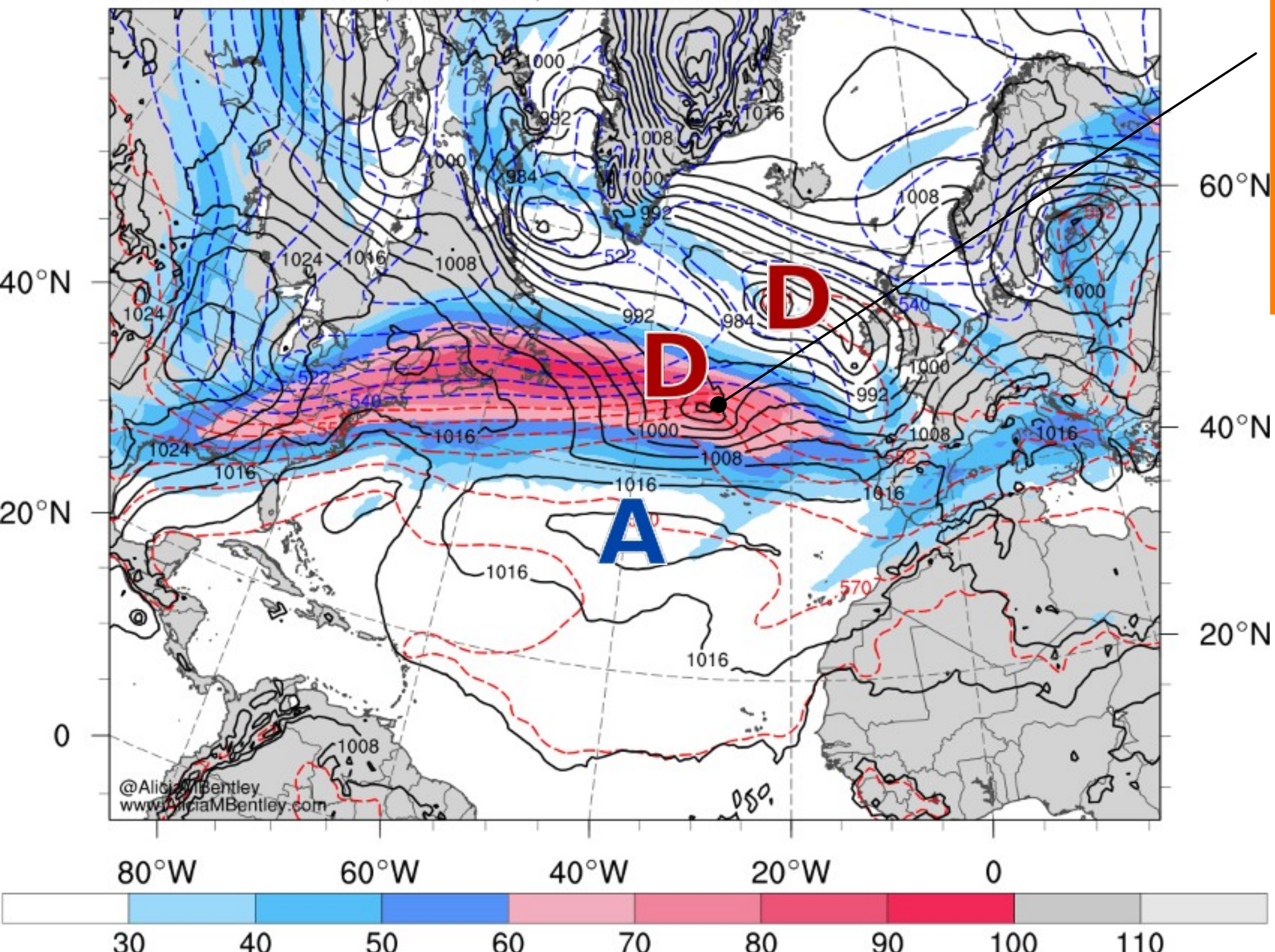
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 1200 UTC 31 Oct 2023 | Forecast hour: 0 | Valid: 1200 UTC 31 Oct 2023



MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 0000 UTC 1 Nov 2023 | Forecast hour: 0 | Valid: 0000 UTC 1 Nov 2023

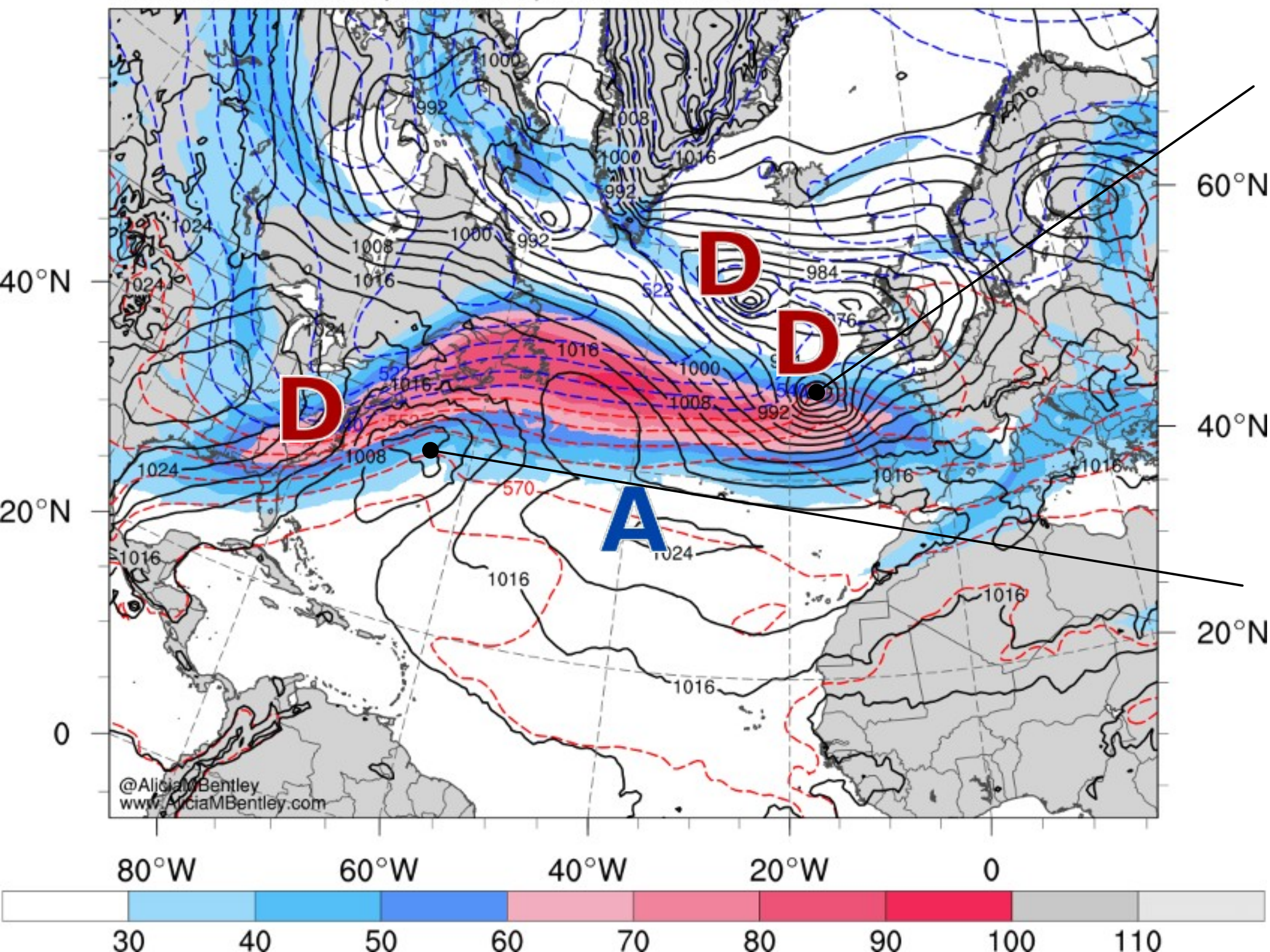


CIARAN

Creusement explosif
>24 hPa en 24h, La
dépression bascule sur
le côté polaire du Jet.

MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 1200 UTC 1 Nov 2023 | Forecast hour: 0 | Valid: 1200 UTC 1 Nov 2023



CIARAN

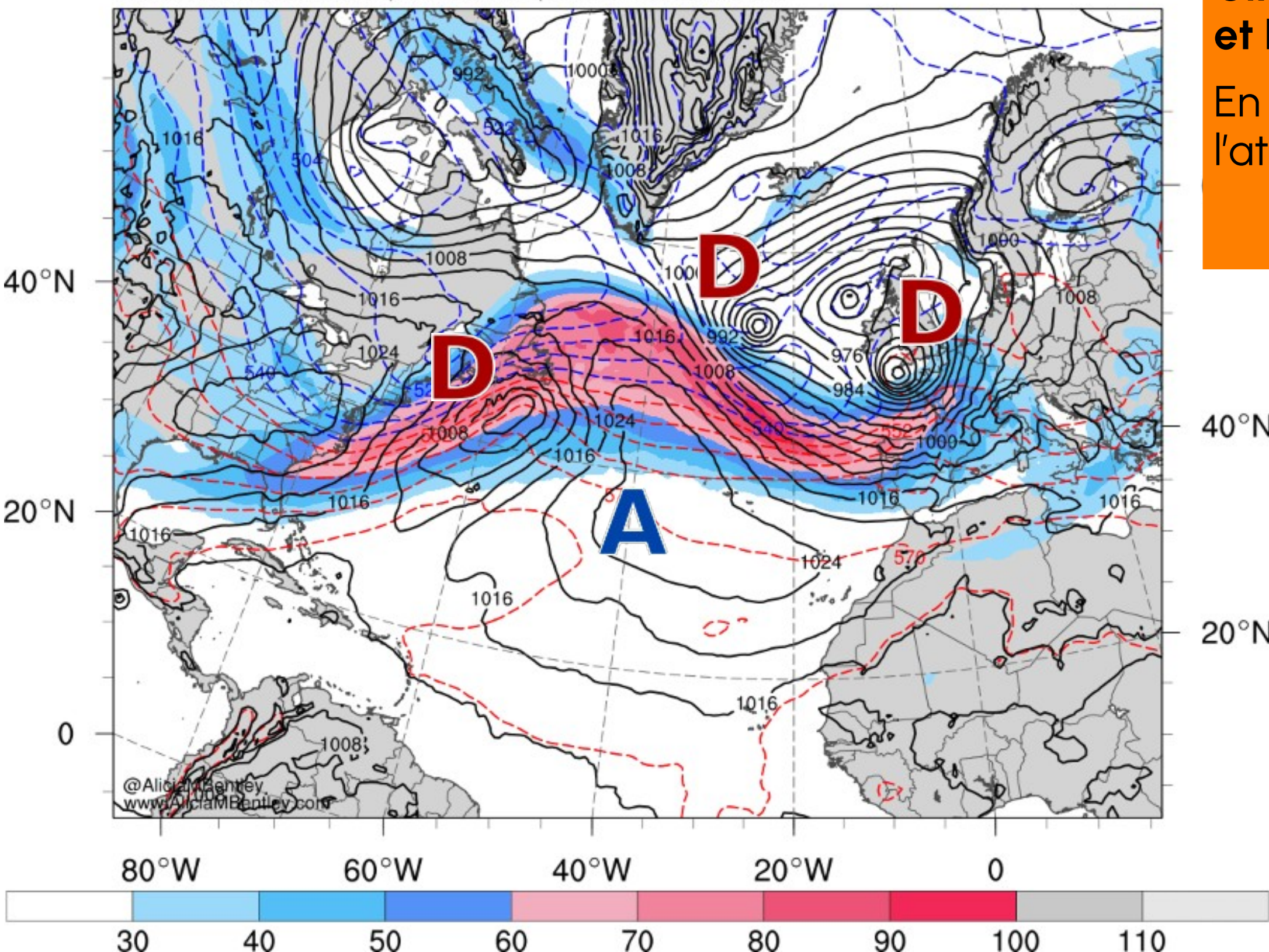
Sortie gauche du Jet,
coté polaire du Jet

Creusement explosif
sous le passage du Jet

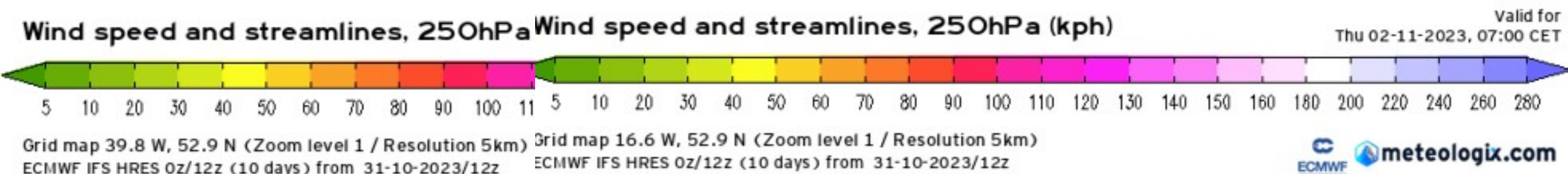
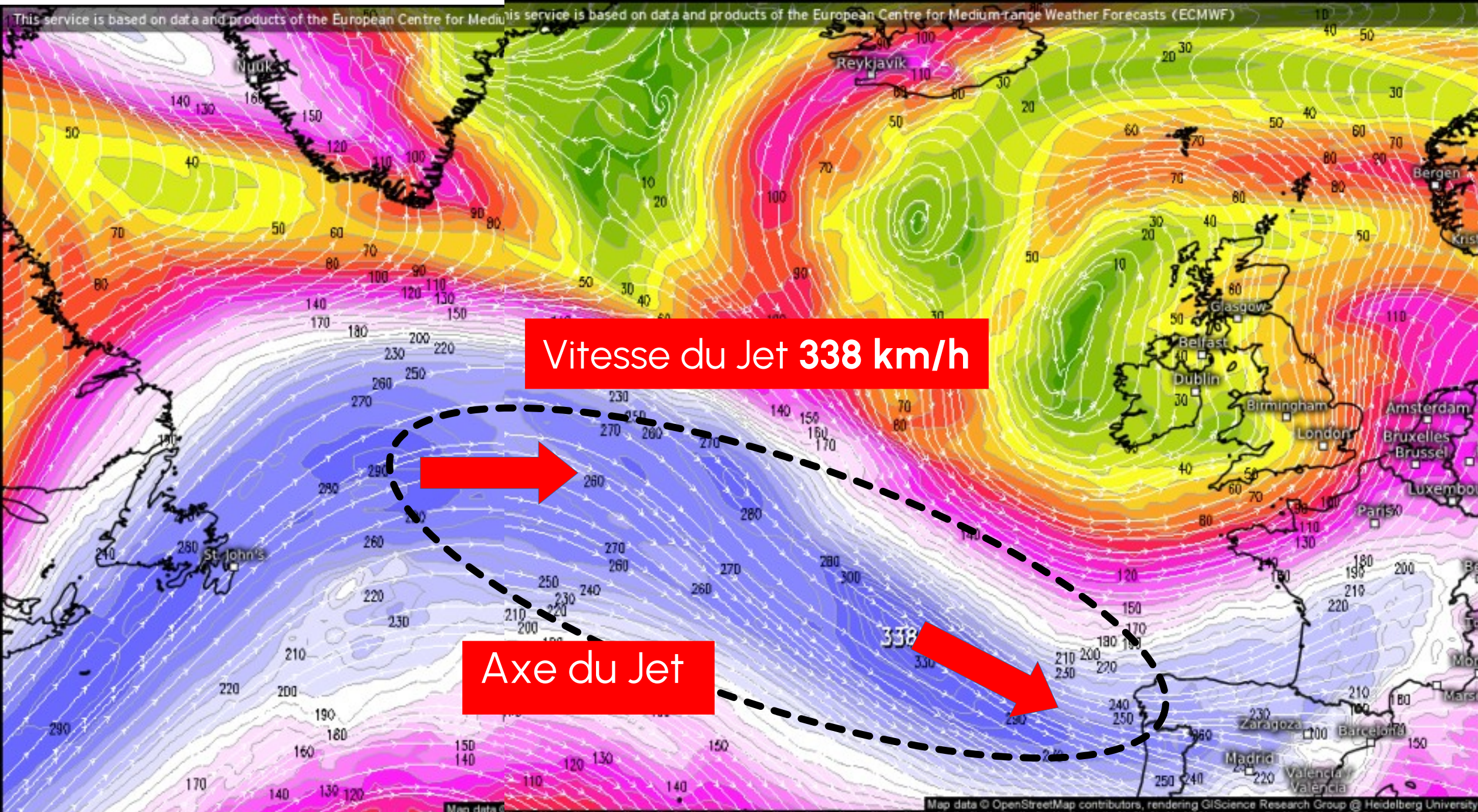
DOMINGOS

Précurseur de
surface à 1004 hPa
en entrée droite,
côté subtropical

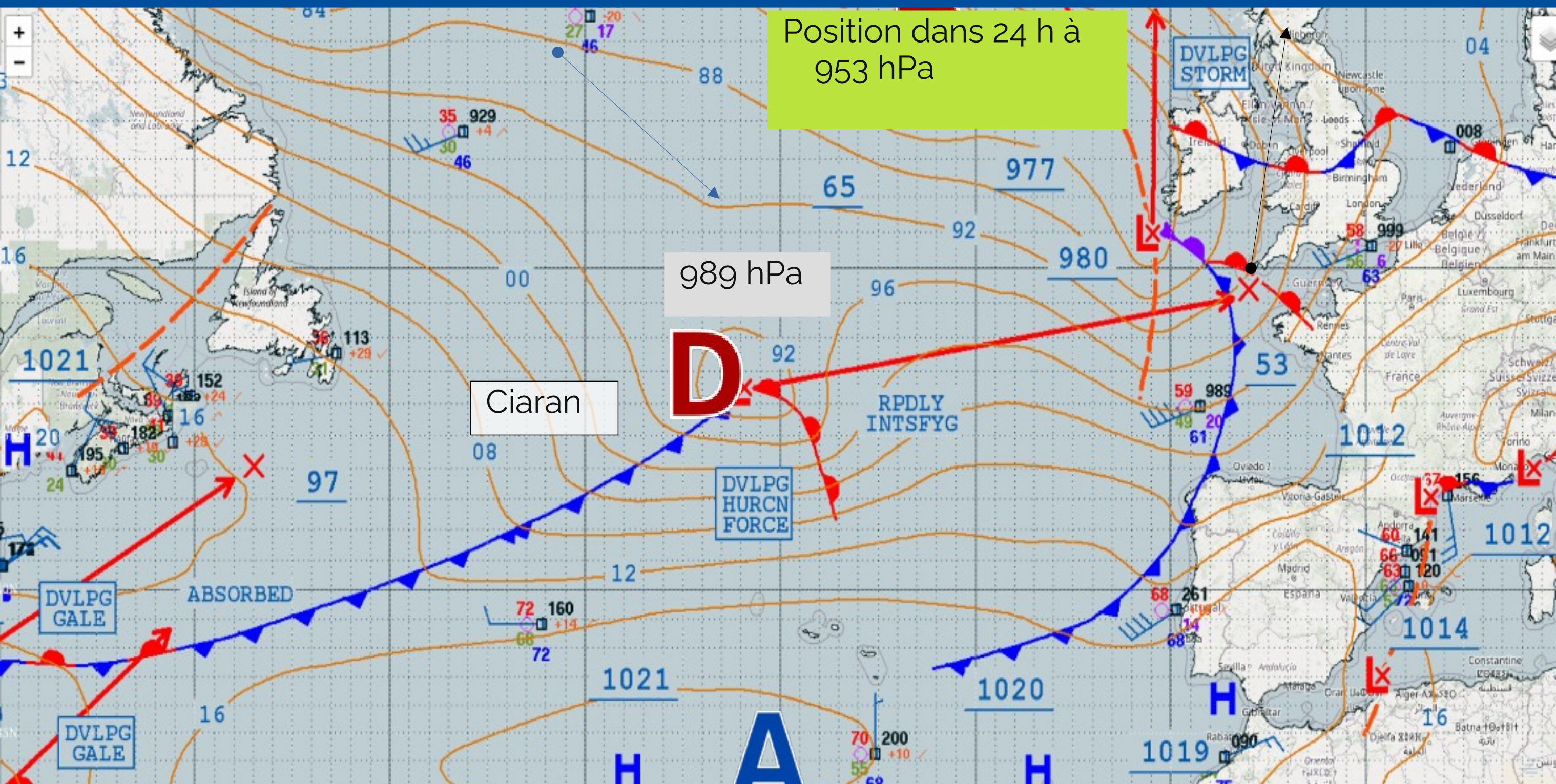
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)
Initialized: 0000 UTC 2 Nov 2023 | Forecast hour: 0 | Valid: 0000 UTC 2 Nov 2023



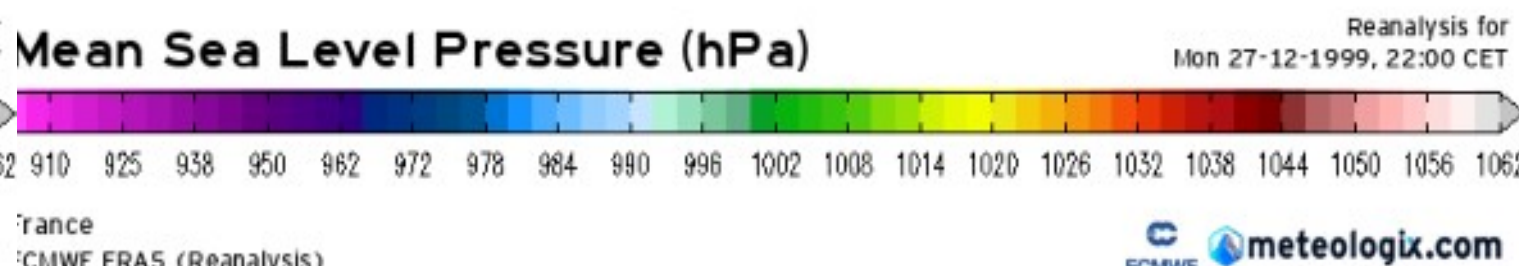
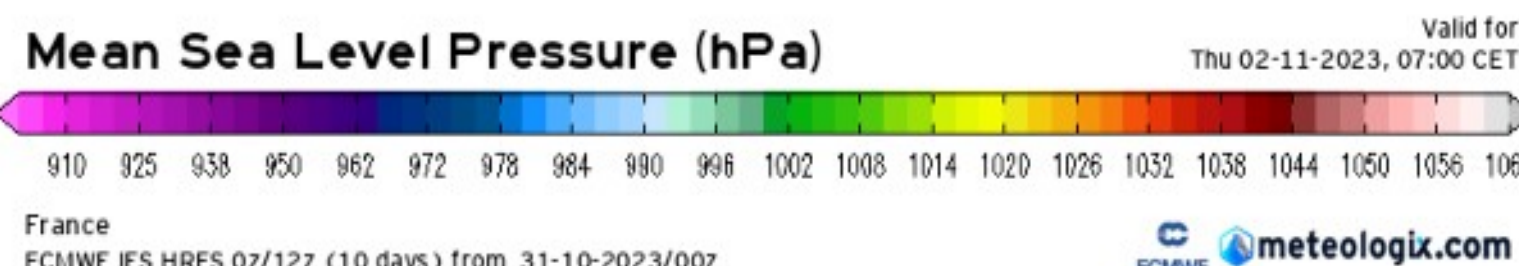
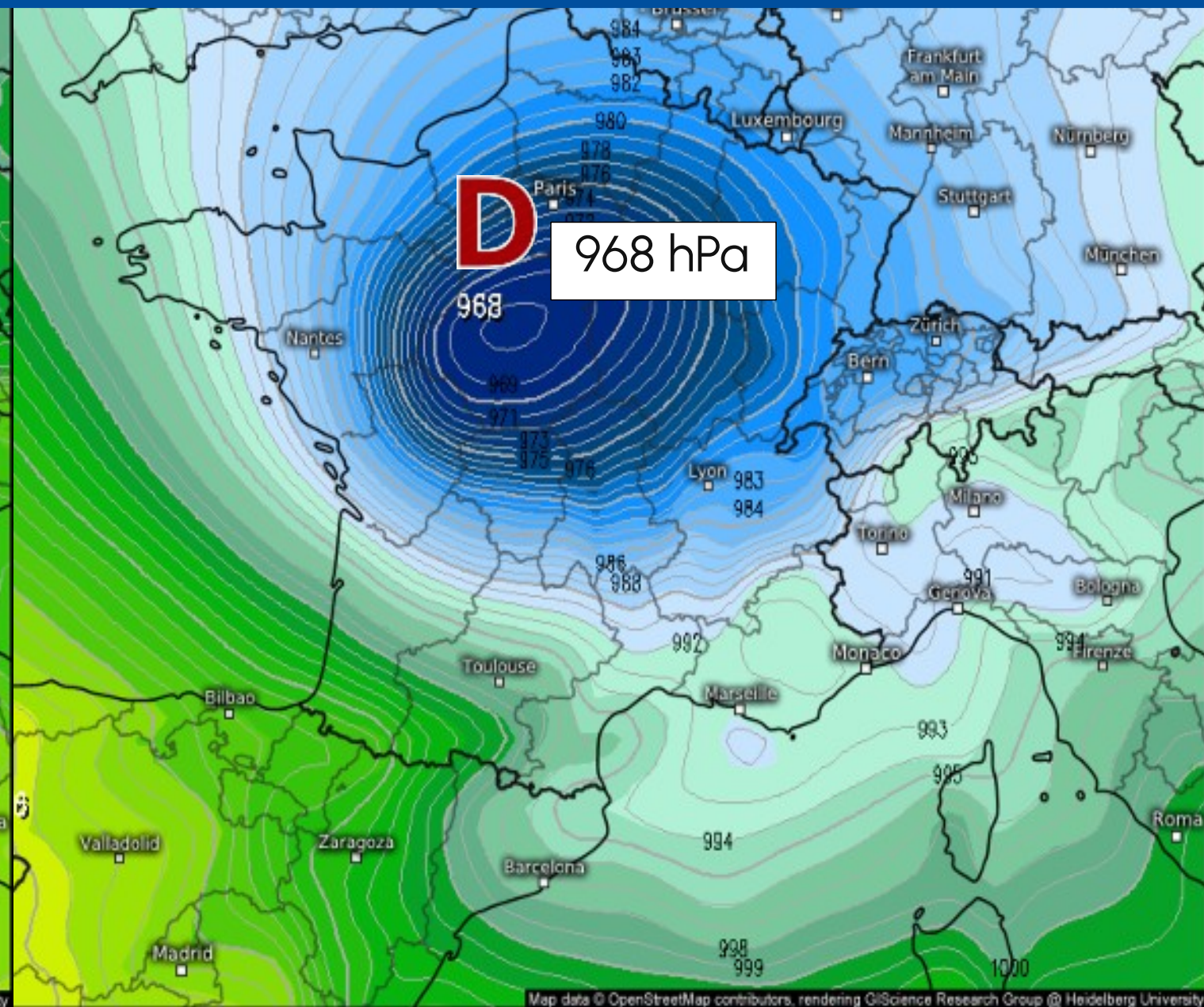
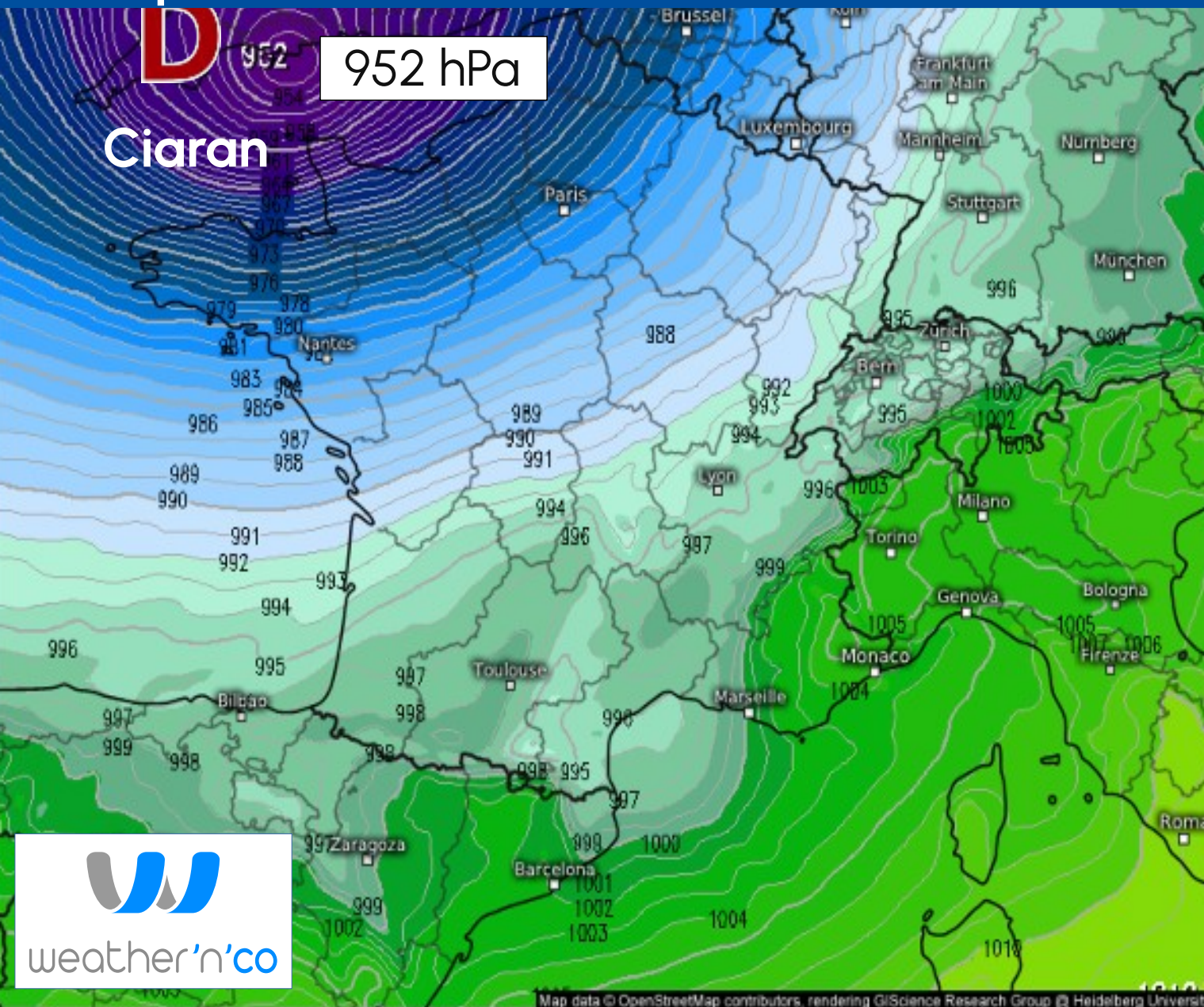
**CIARAN
et DOMINGOS**
En simultanée sur
l'atlantique



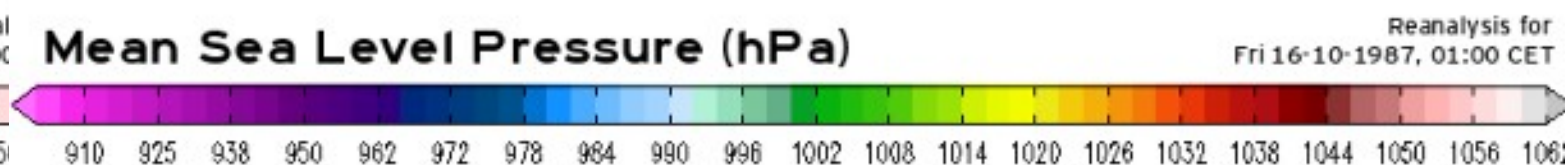
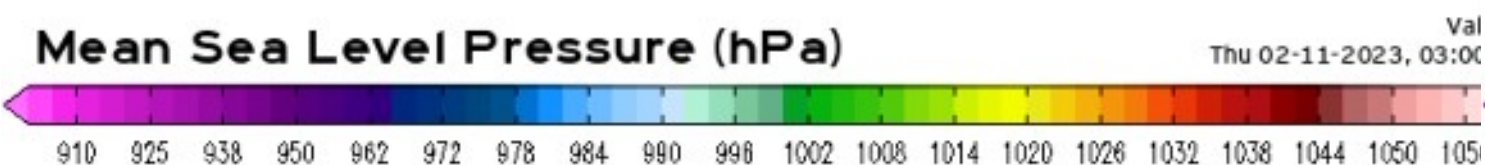
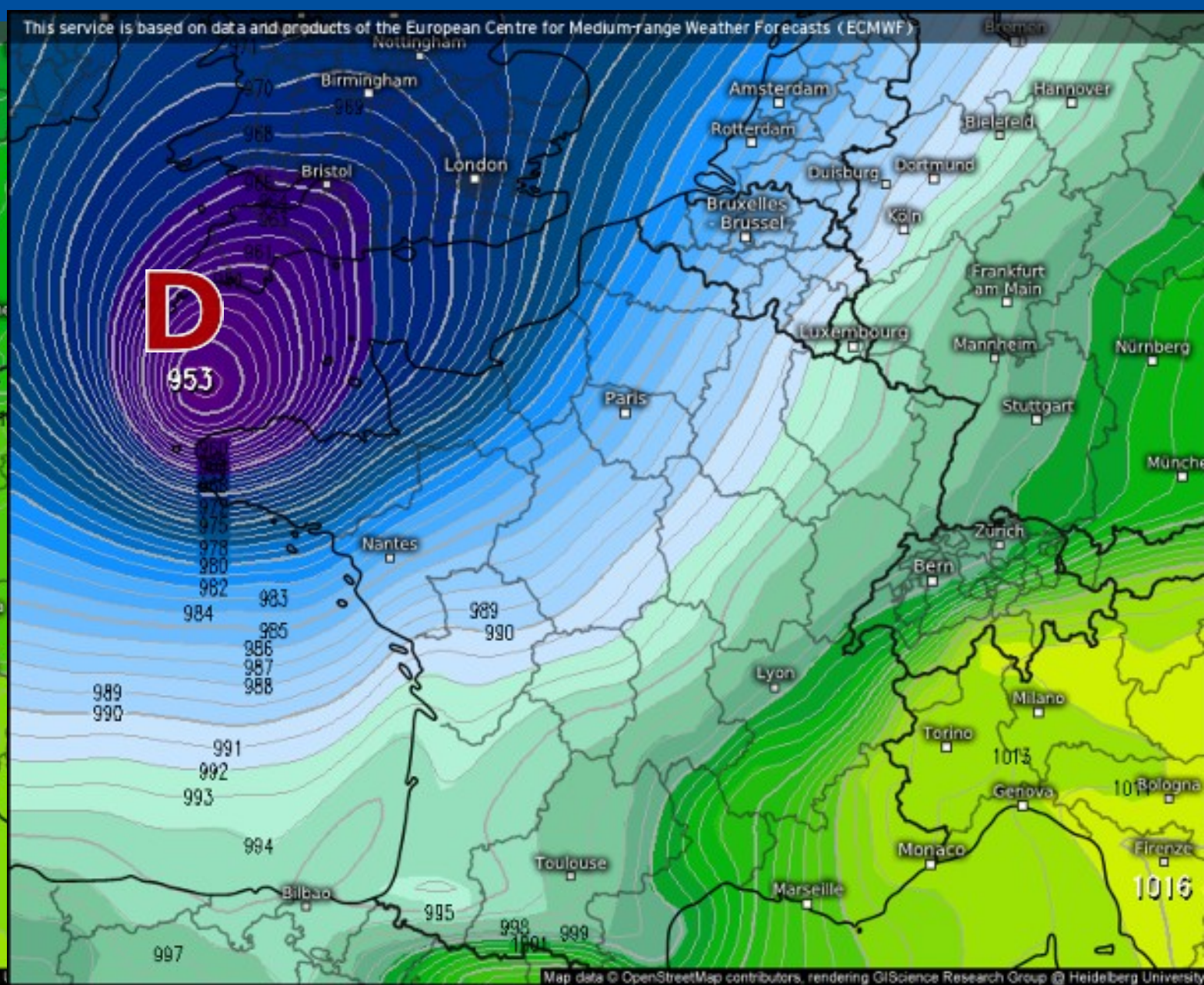
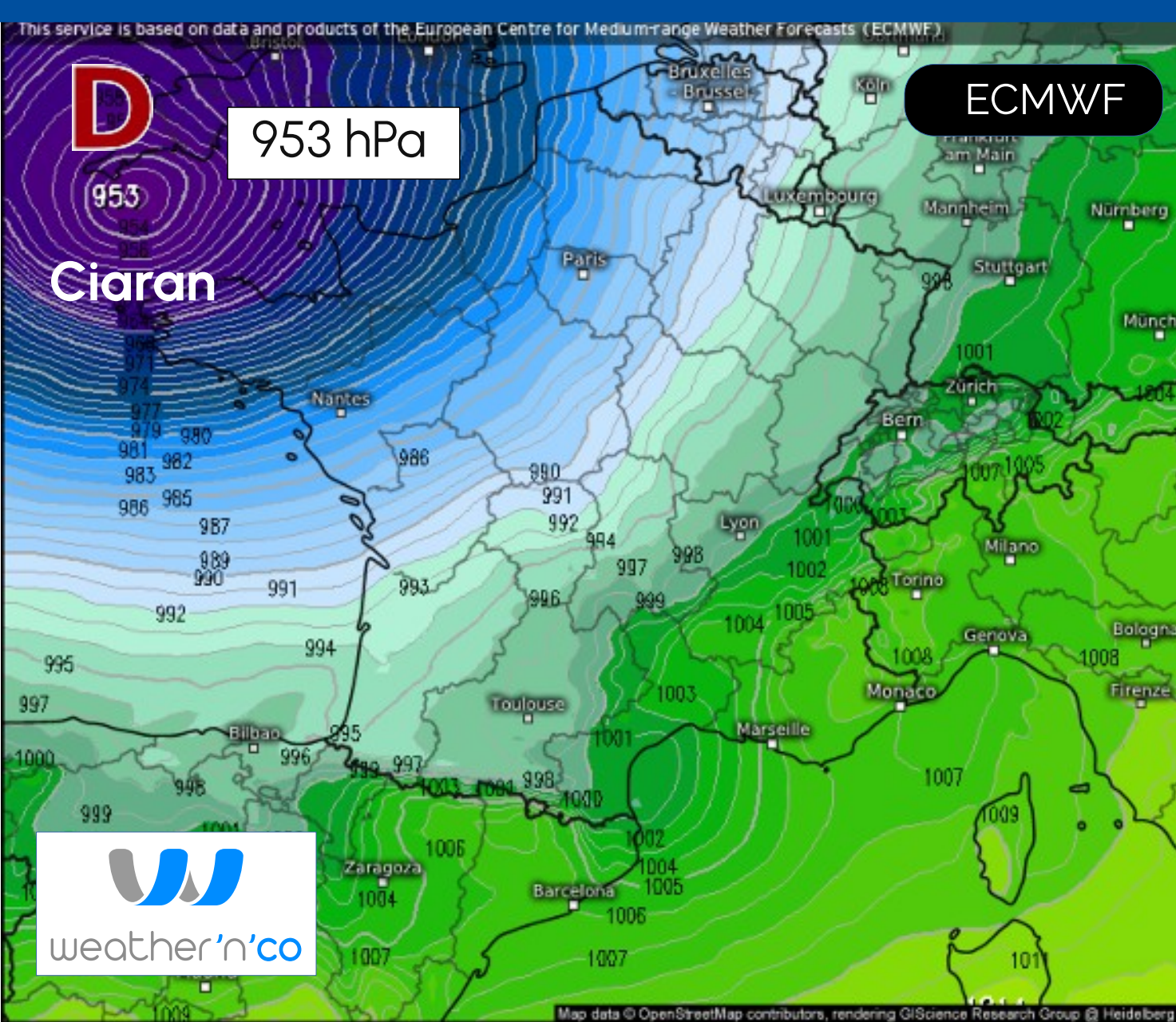
Analyse – Jeudi 02 Novembre 2023 à 00H00 TU



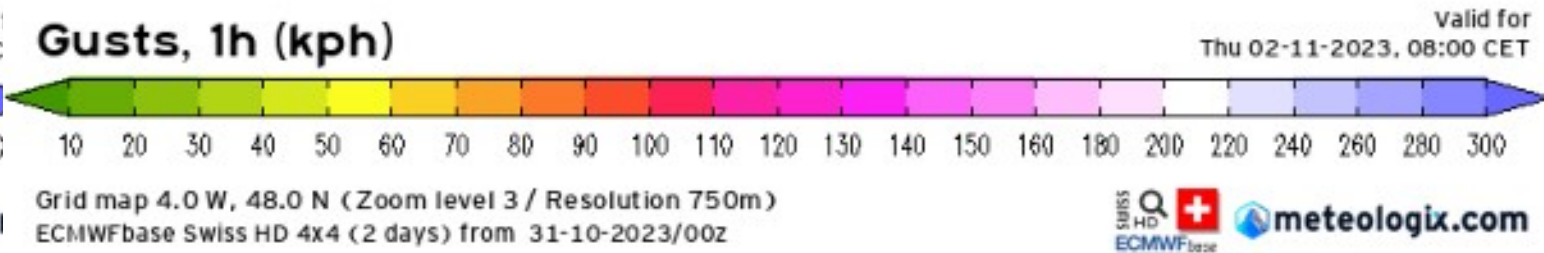
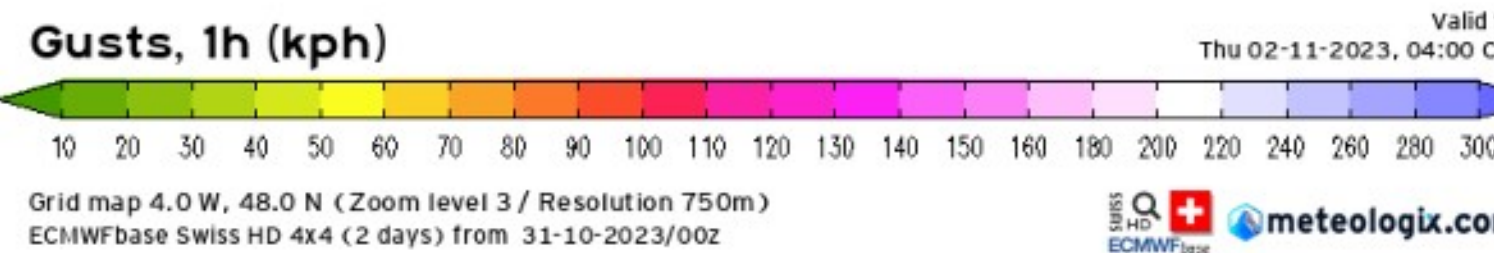
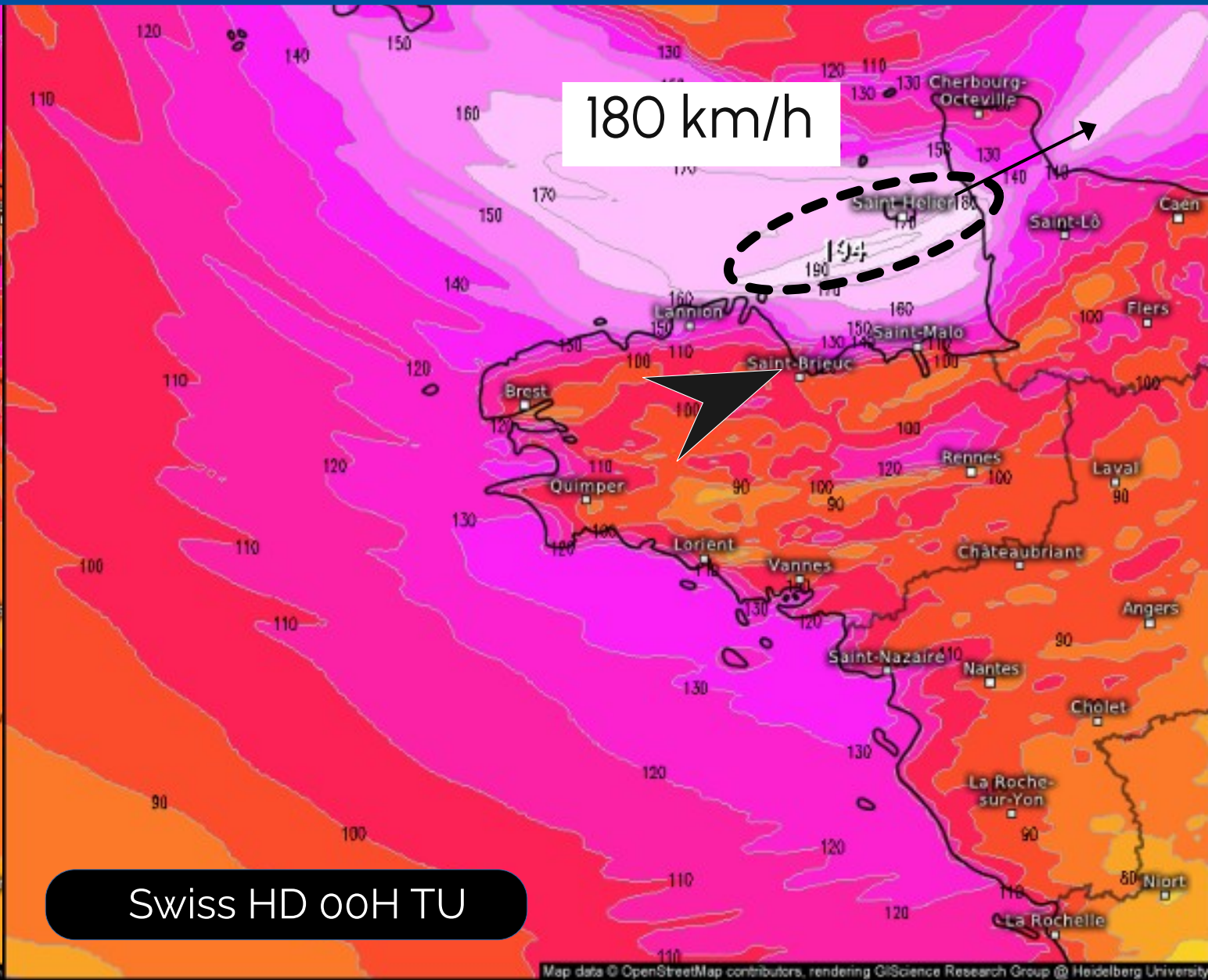
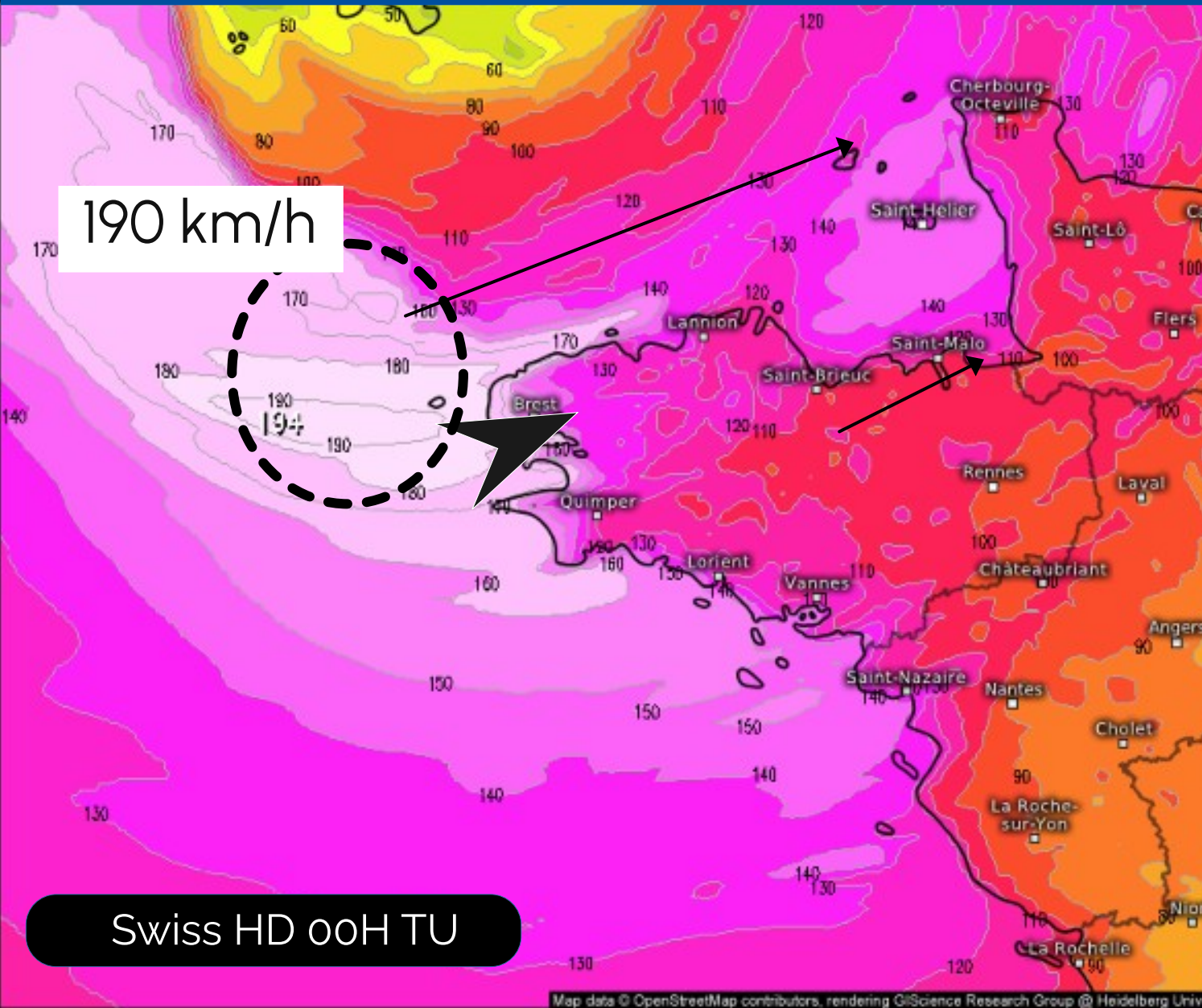
Comparaison Jeu 2 Nov 2023 & Lothar 27 Dec 1999

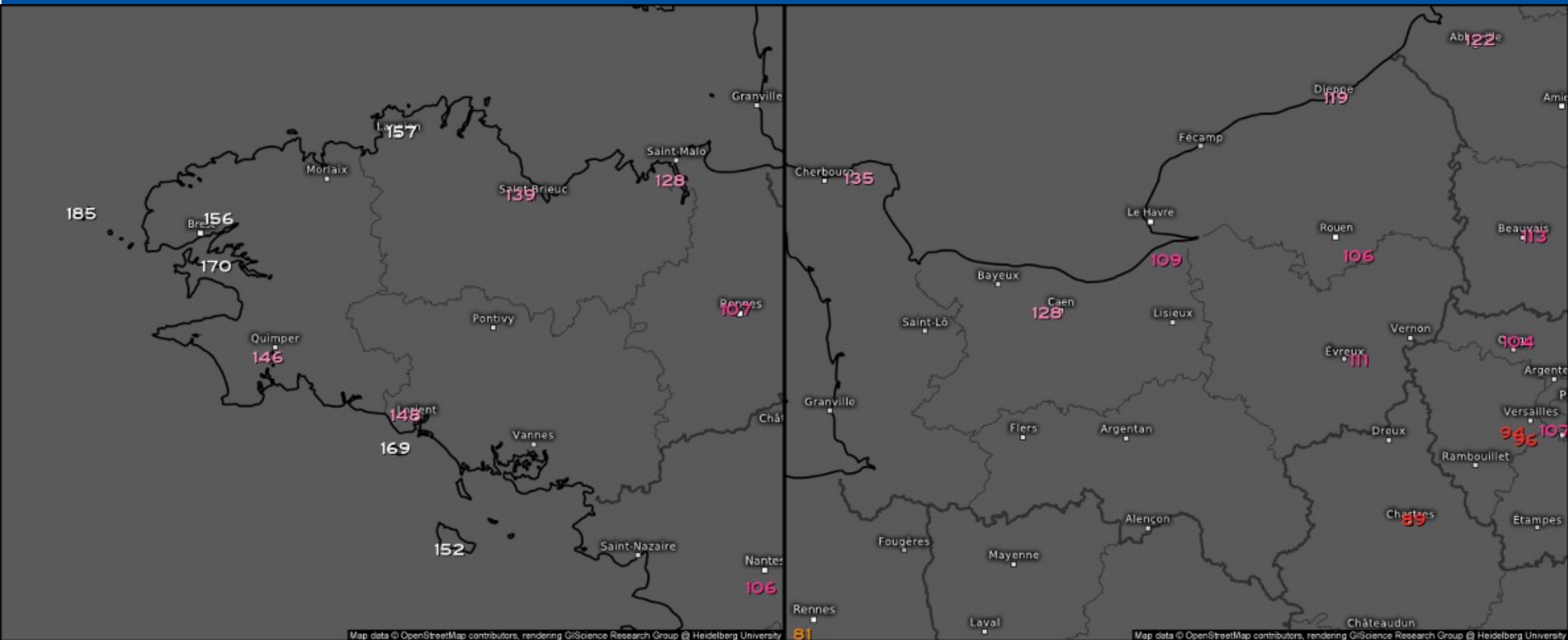


Comparaison Jeu 2 Nov 2023 & Tempête du 16 Oct 1987



Rafales - Jeu 02 Nov 2023 à 00H et 10 Loc





Gusts, 6h (kph)

Thu 02-11-2023, 07:00 CET



3.5 W, 48.1 N, 12 stations within this area

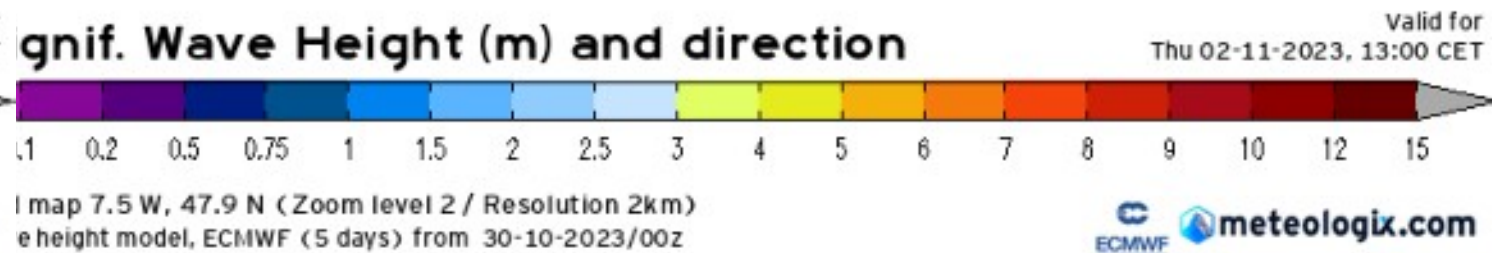
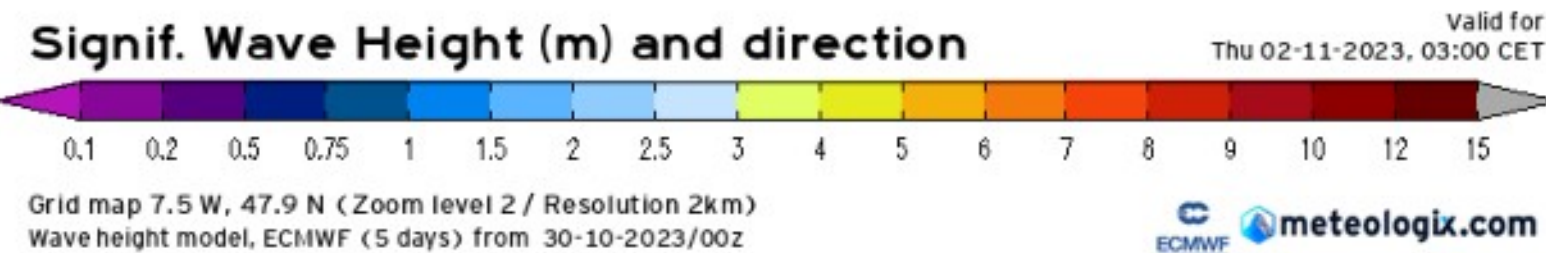
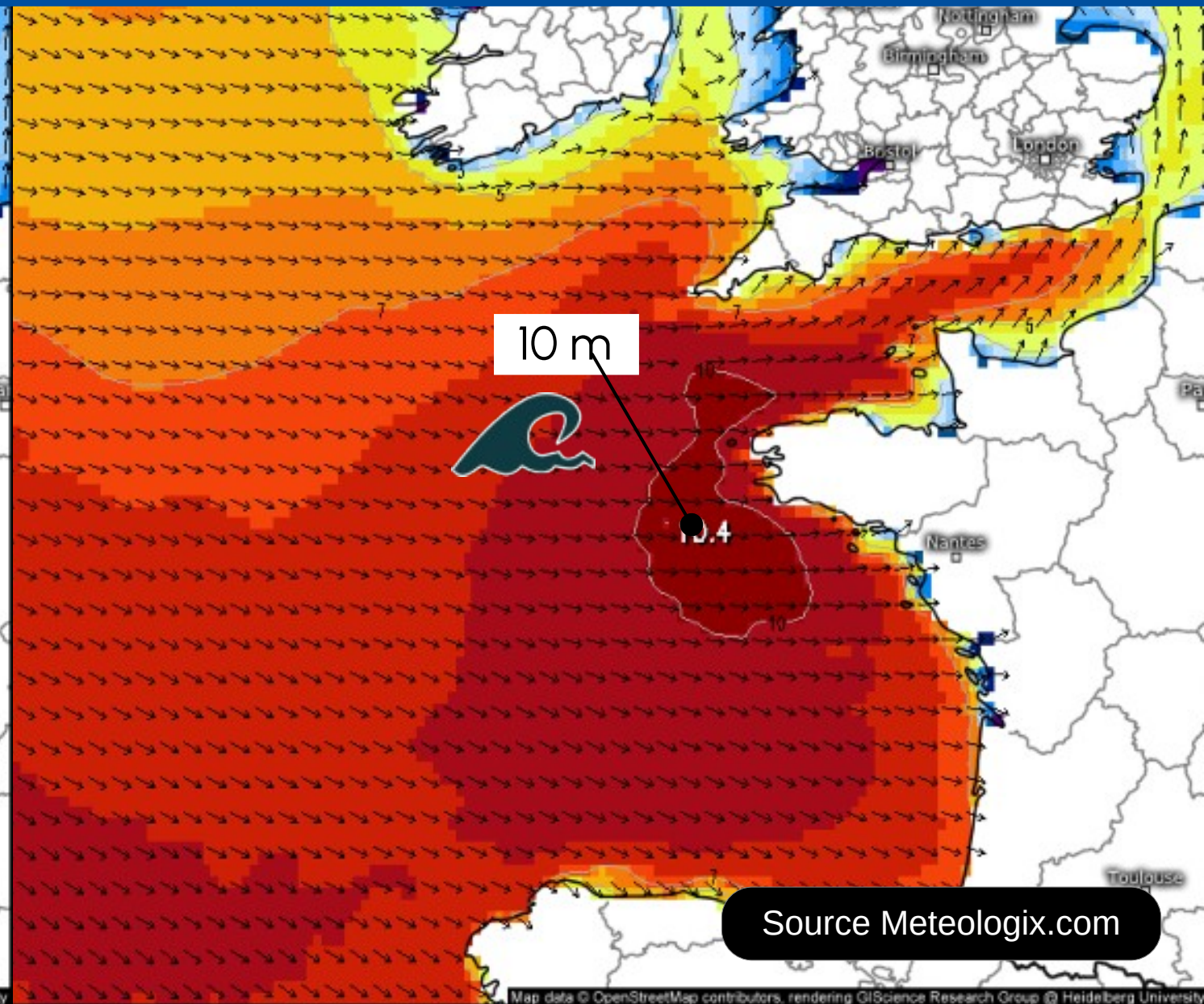
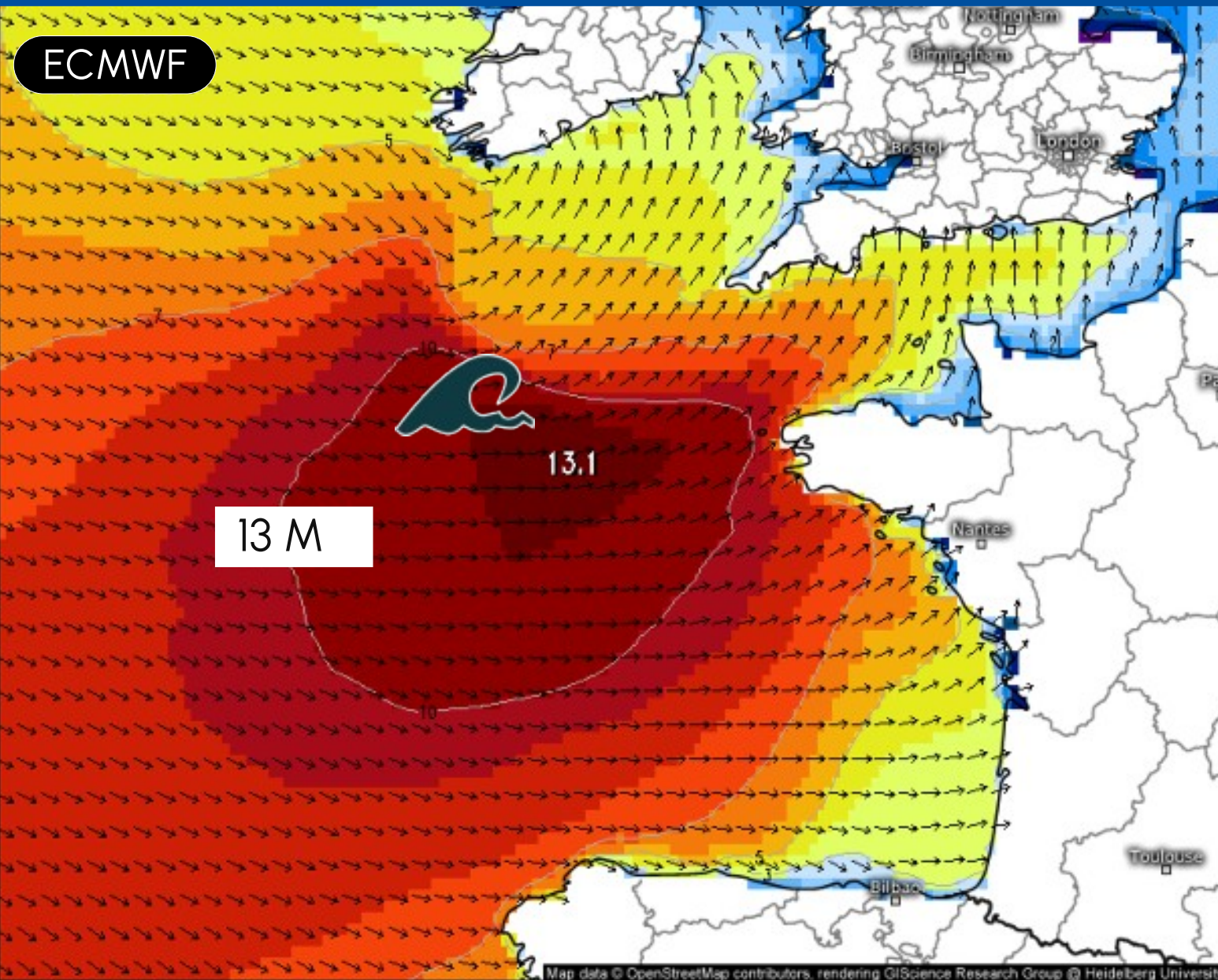
Gusts, 6h (kph)

Thu 02-11-2023, 13:00 CET

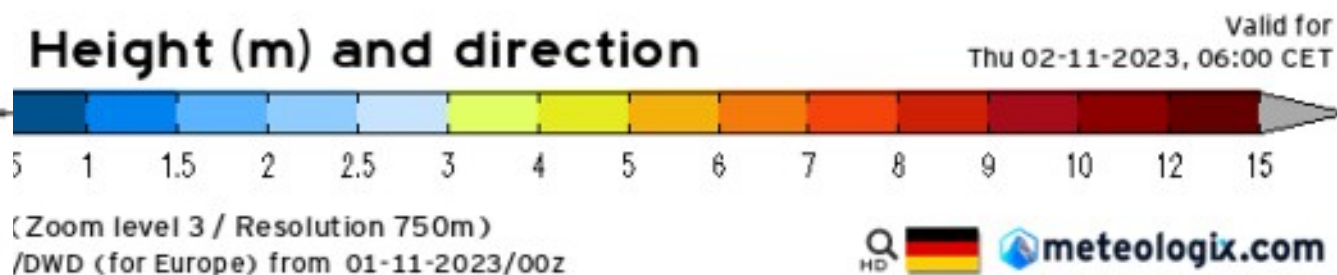
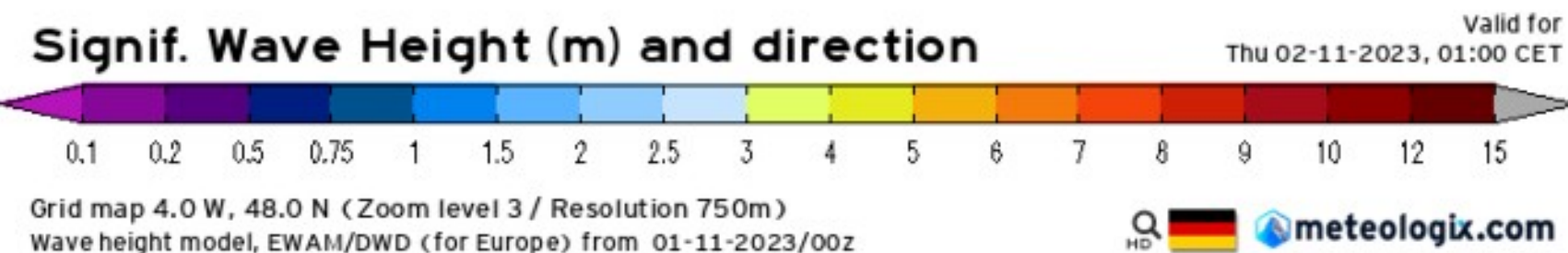
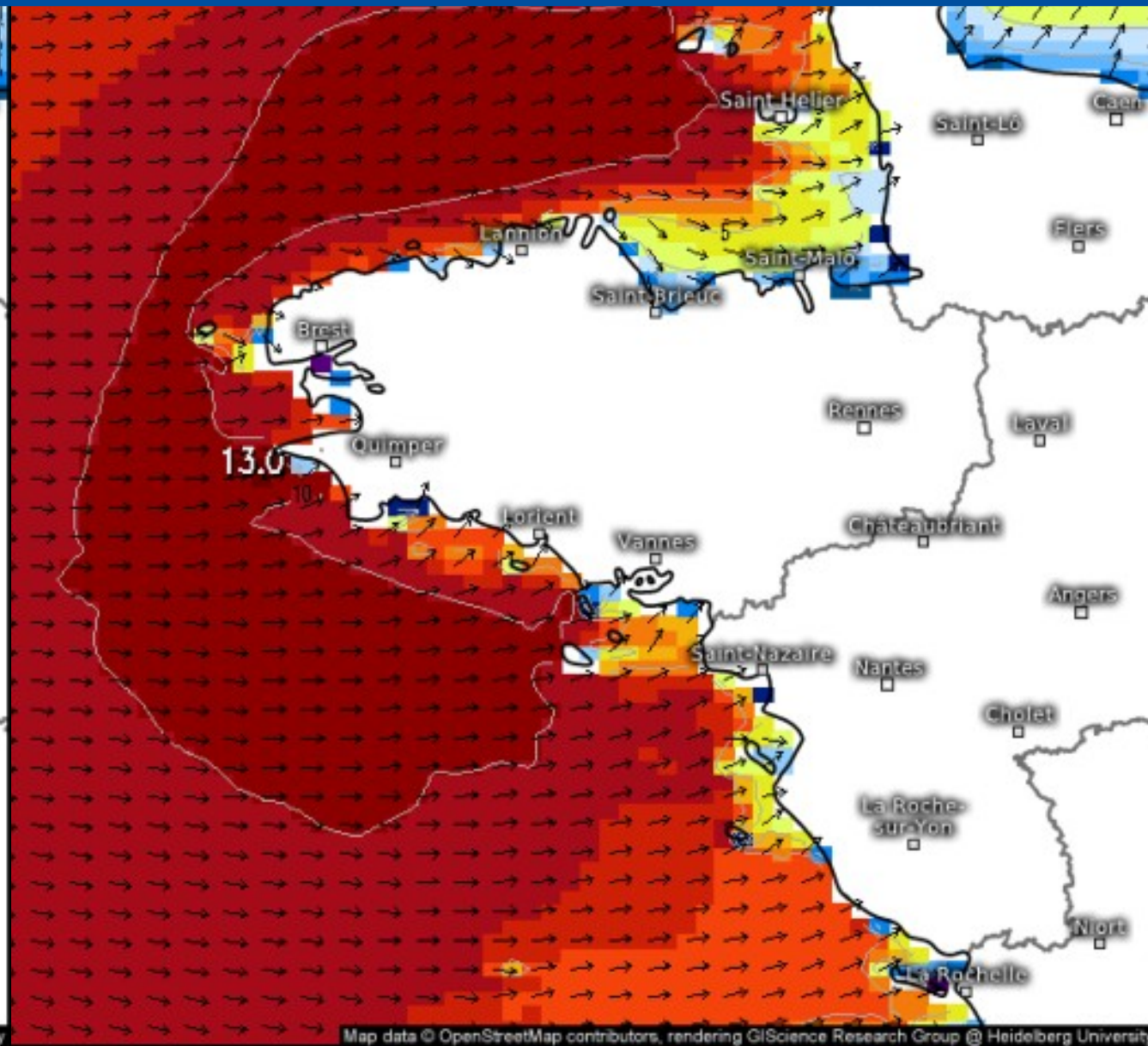
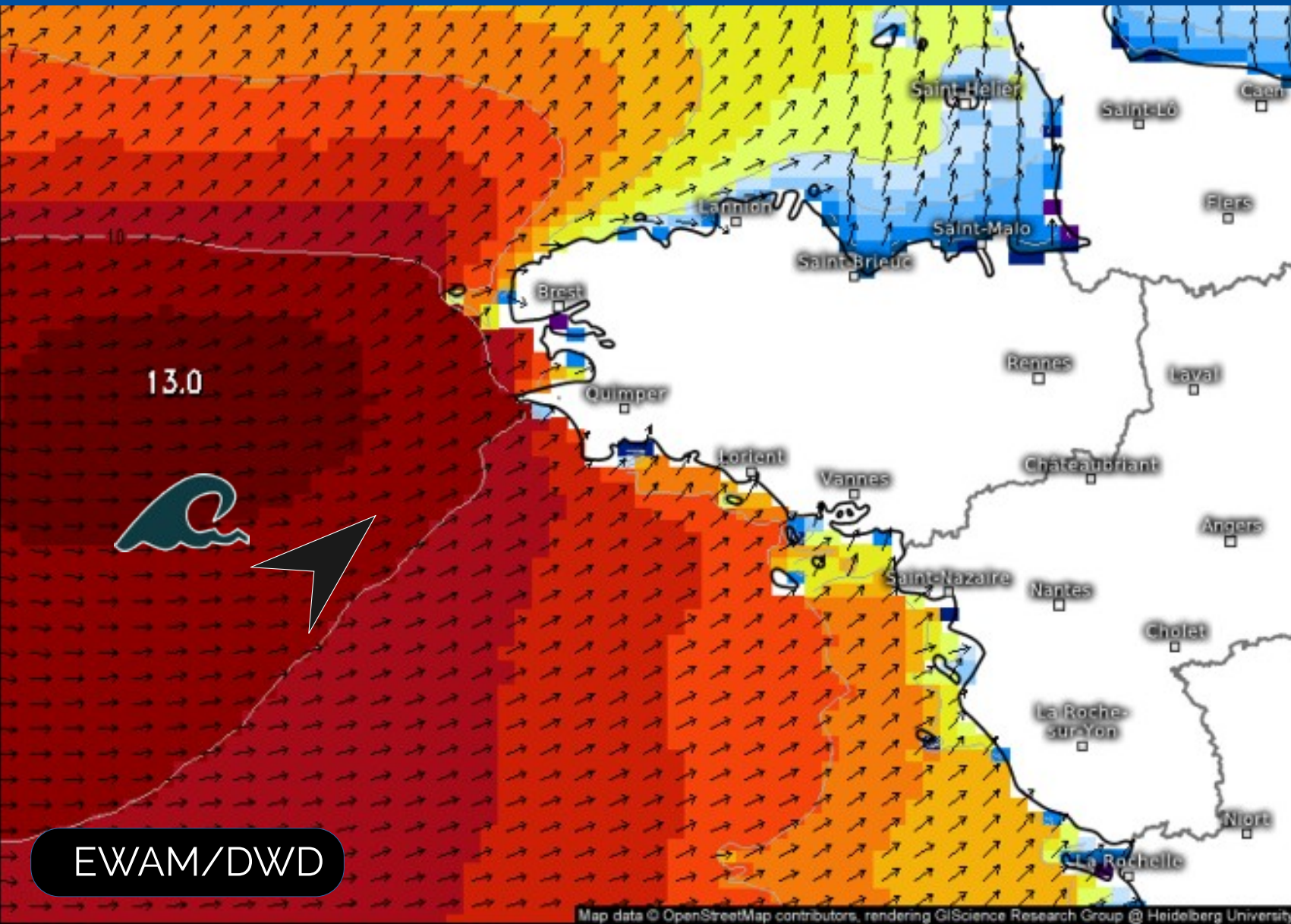


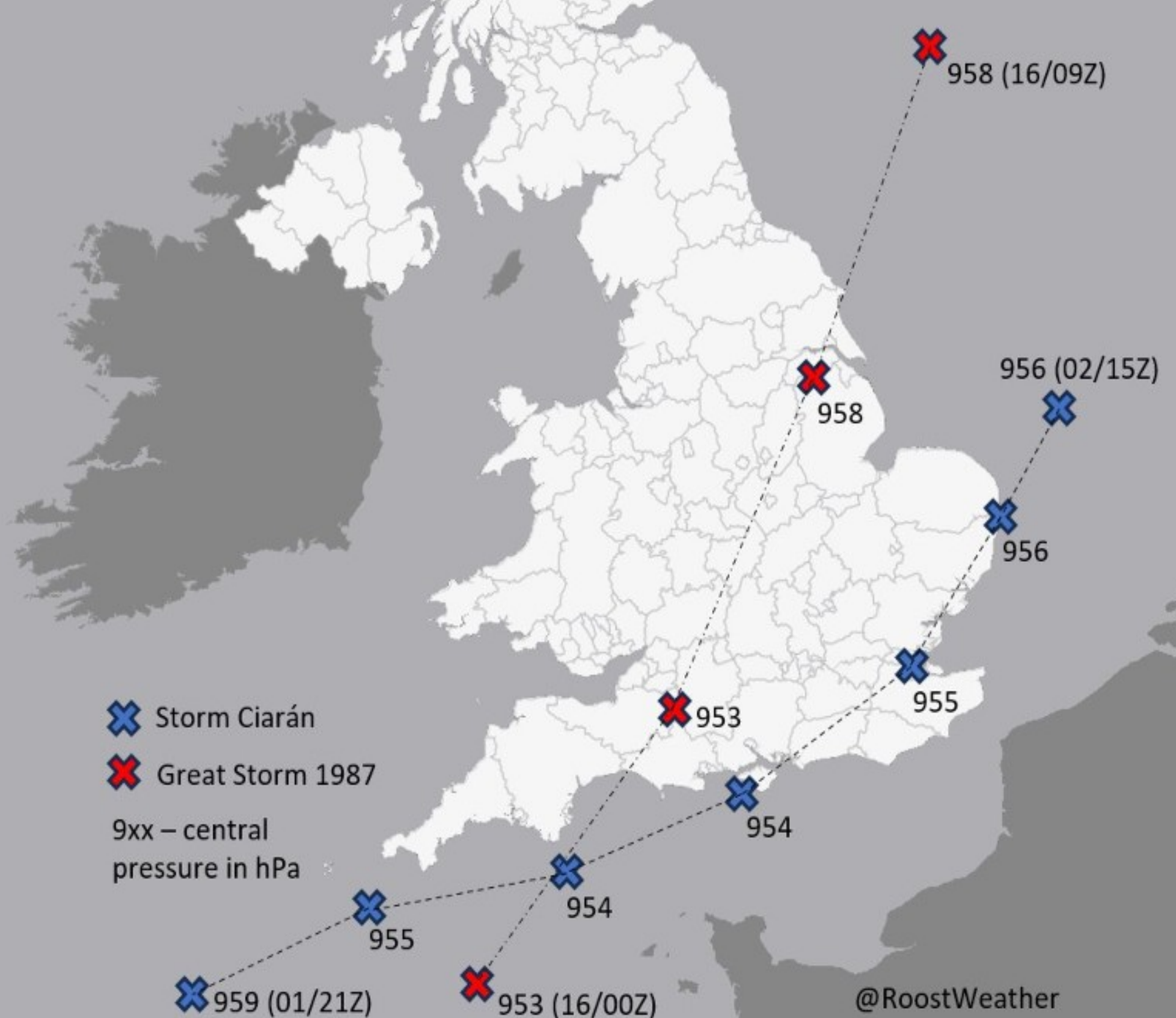
0.2 E, 49.1 N, 14 stations within this area

Vagues Jeudi 02 Nov à 03 & 13H loc



Vagues Jeudi 02 Nov à 01 & 06H loc

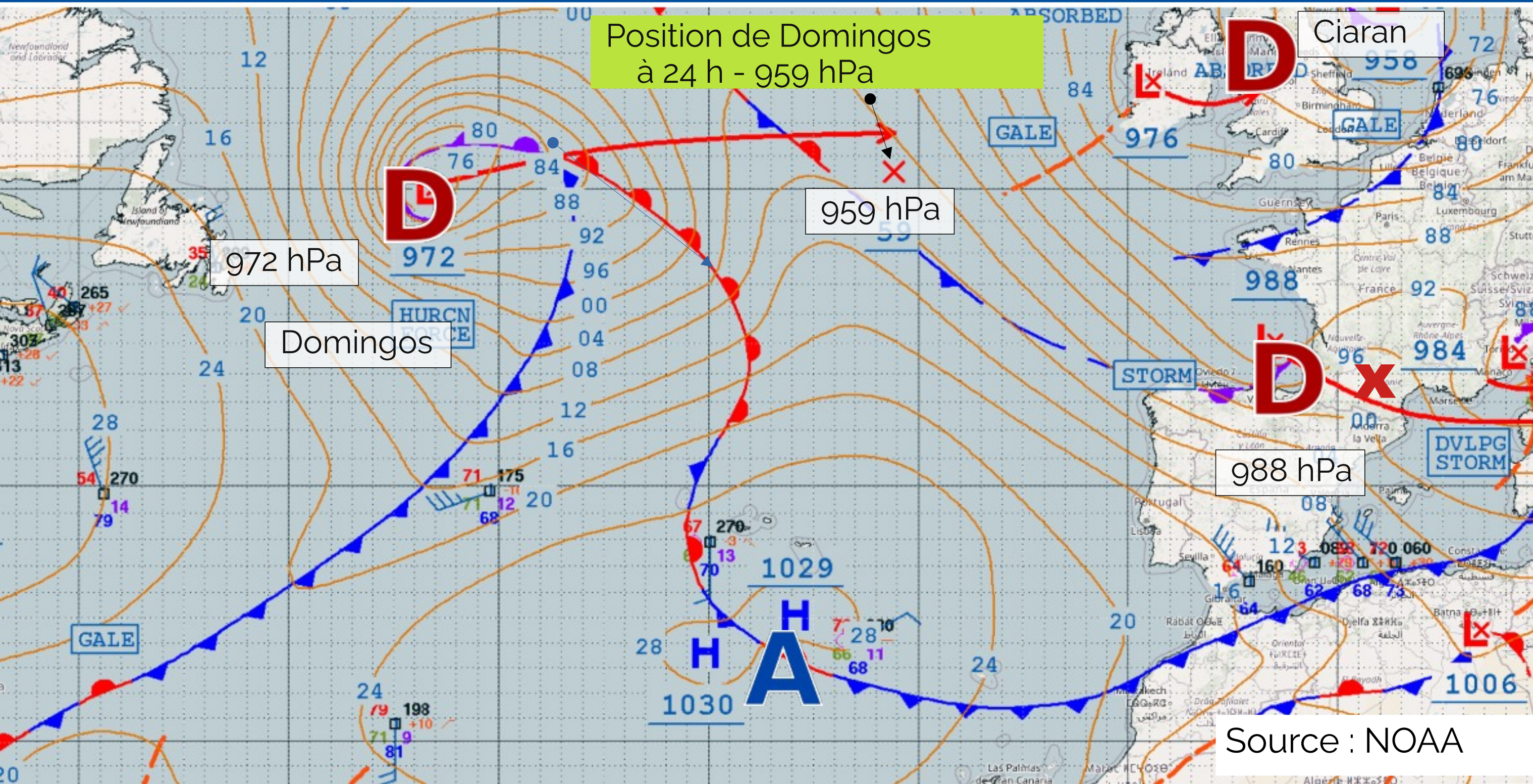




Comparaison
Des trajectoires
- Tempête CIARAN
- Tempête de « 1987 »

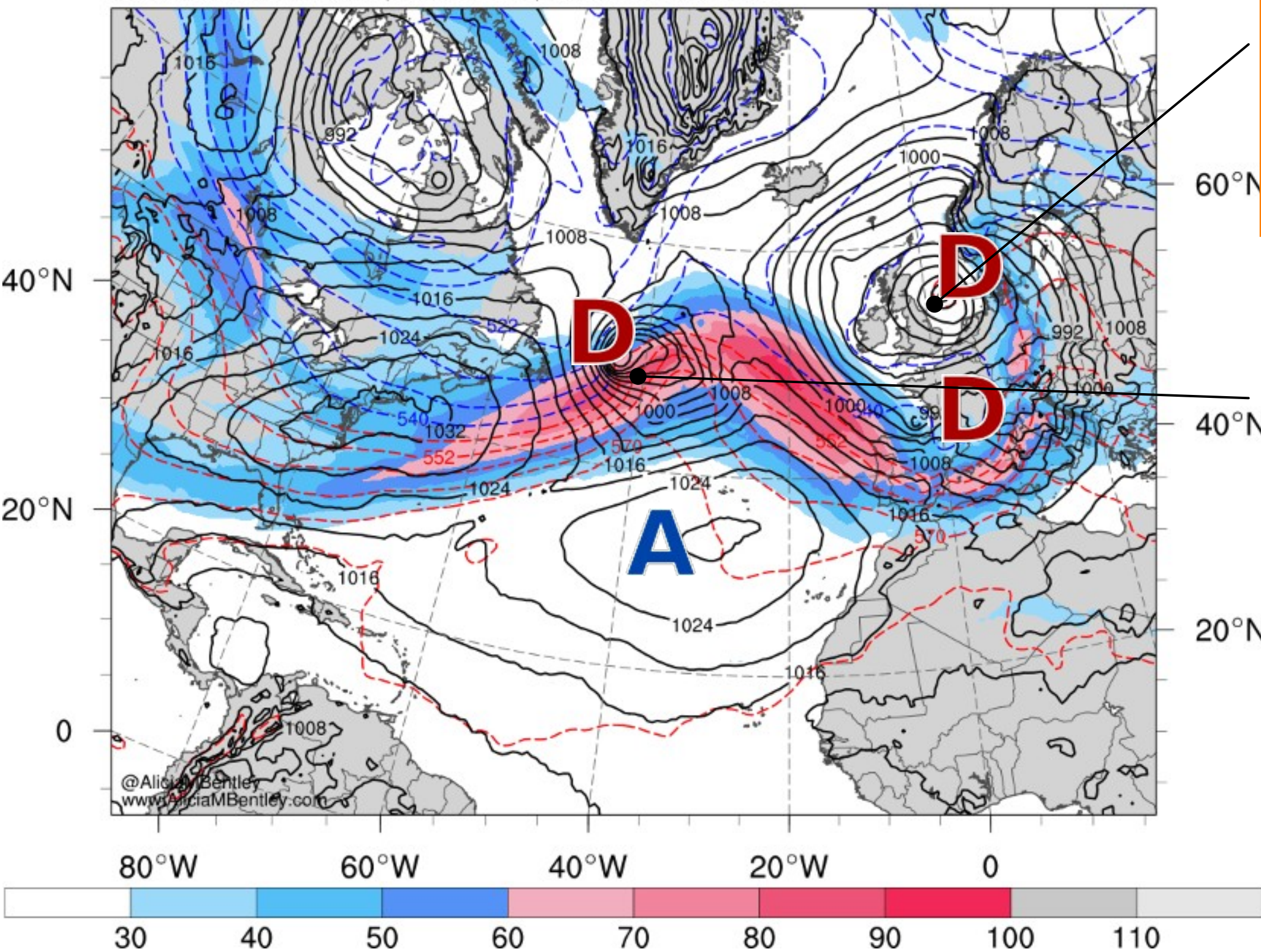
4 – Tempête **DOMINGOS**

Analyse – Vendredi 03 Novembre 2023 à 00H00 TU



MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 0000 UTC 3 Nov 2023 | Forecast hour: 0 | Valid: 0000 UTC 3 Nov 2023



CIARAN

Se comble en mer du nord

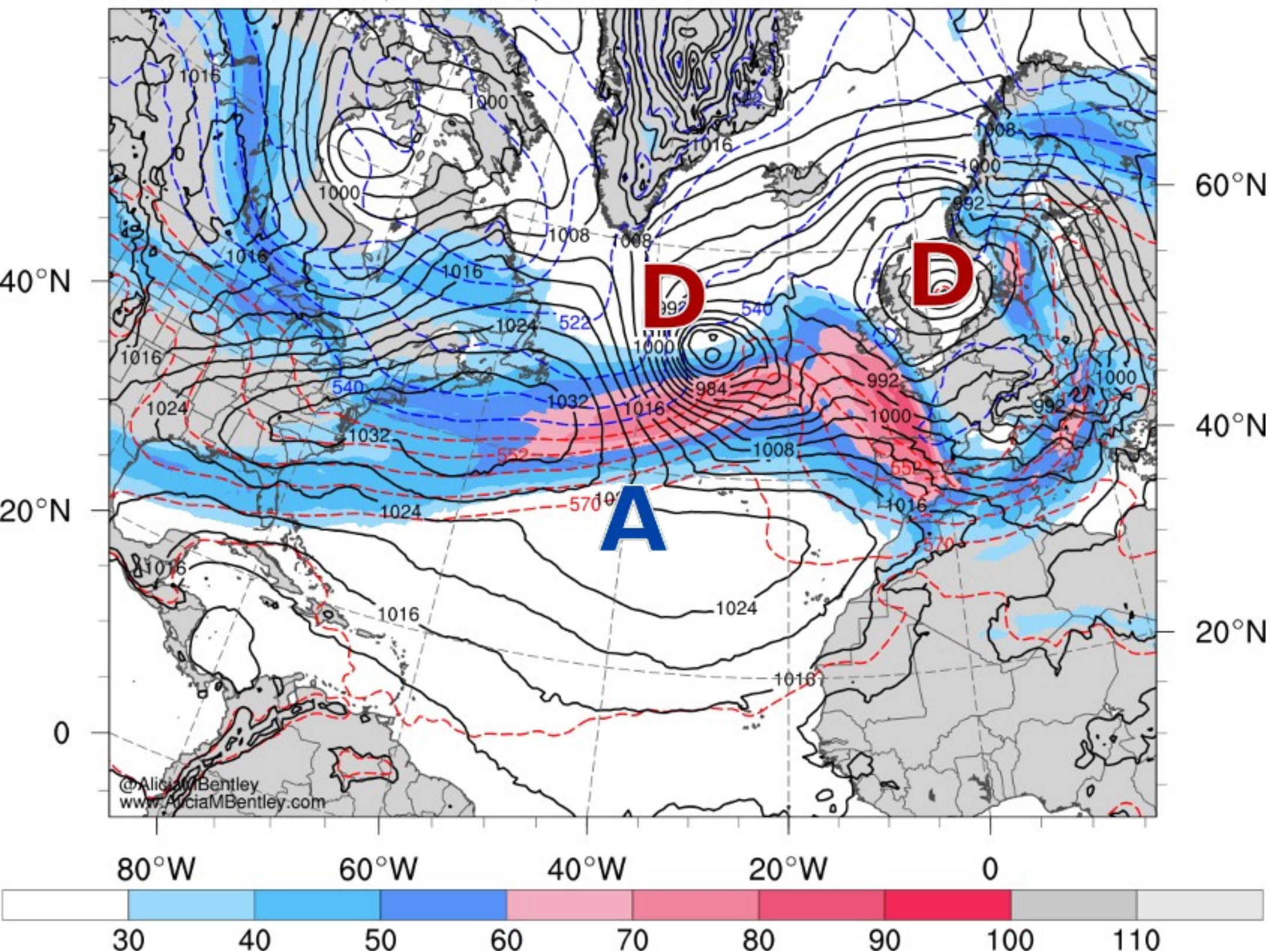
DOMINGOS

Sortie gauche du Jet, coté polaire du Jet, creusement explosif

Dep avec minimum sur l'Aquitaine pas nommé, pas d'intensification car le précurseur est froid

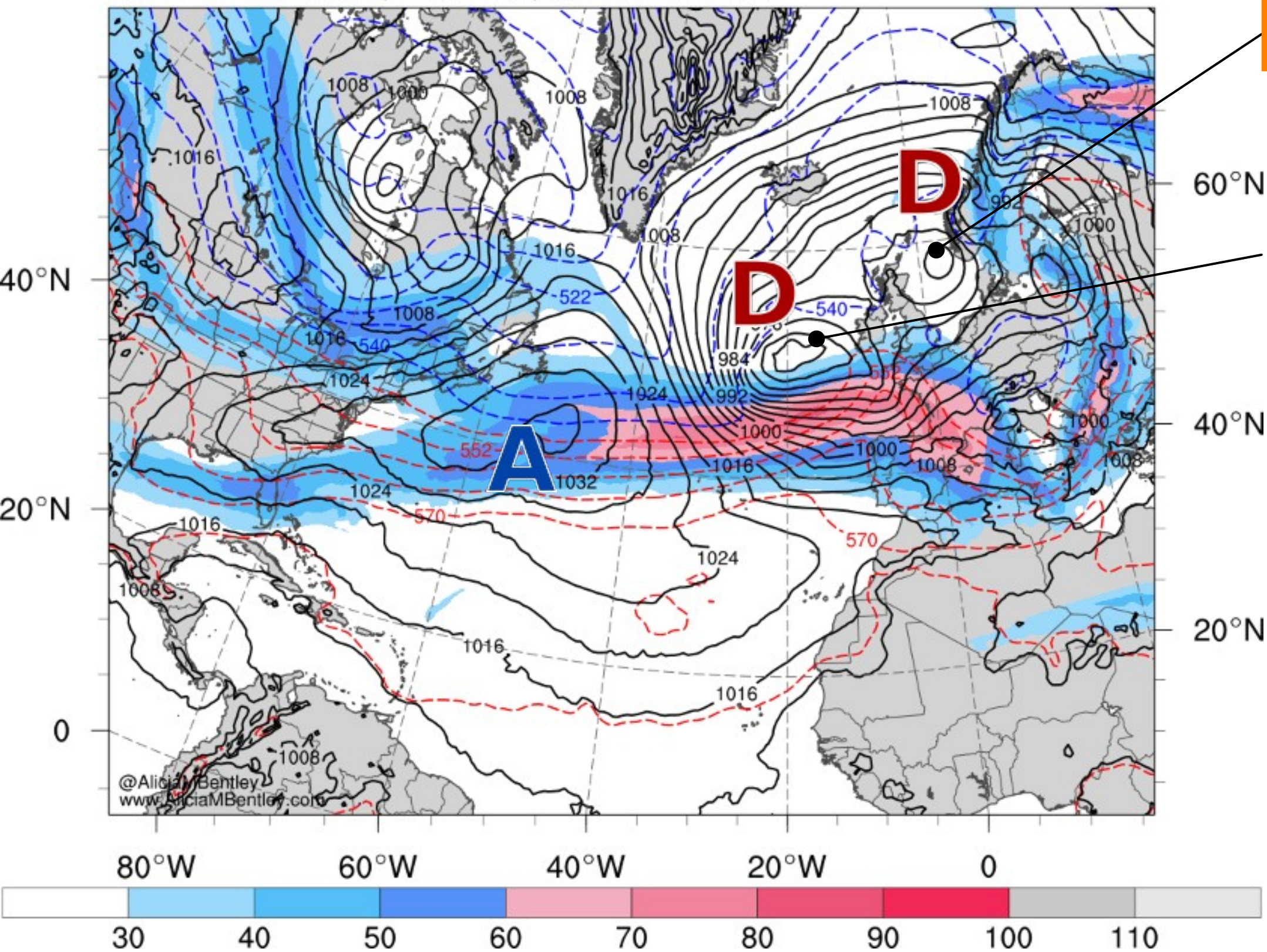
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 1200 UTC 3 Nov 2023 | Forecast hour: 0 | Valid: 1200 UTC 3 Nov 2023



MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 0000 UTC 4 Nov 2023 | Forecast hour: 0 | Valid: 0000 UTC 4 Nov 2023



CIARAN en mer du nord

DOMINGUOS se dirige vers l'Irlande

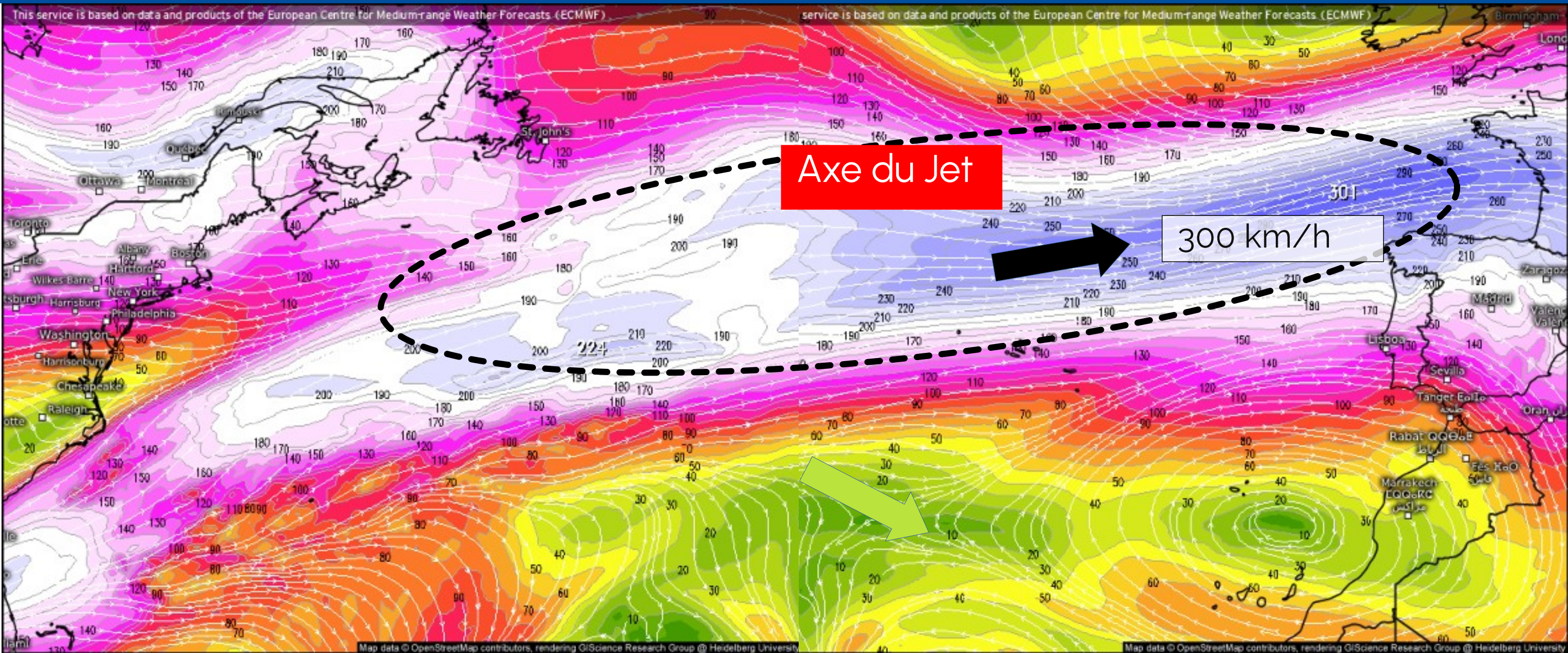
Elle reste coté polaire.

Phase de maturité passée

- 960 hPa sud de l'Irlande

Gradient moins important, la phase explosive n'est plus.

Axe du Jet en altitude Sam 04 Nov 2023

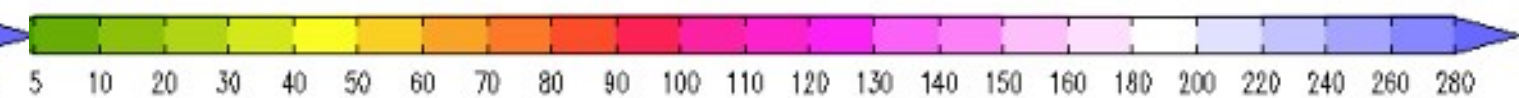
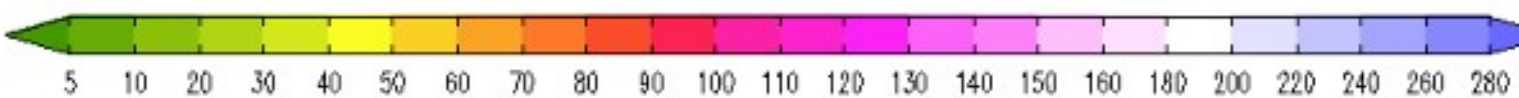


Wind speed and streamlines, 250hPa (kph)

valid for
Sat 04-11-2023, 07:00 CET

Wind speed and streamlines, 250hPa (kph)

valid for
Sat 04-11-2023, 07:00 CET



Grid map 60.1 W, 39.6 N (Zoom level 1 / Resolution 5km)

ECMWF IFS HRES 07/127 (10 days) from 04-11-2023/007

meteologix.com

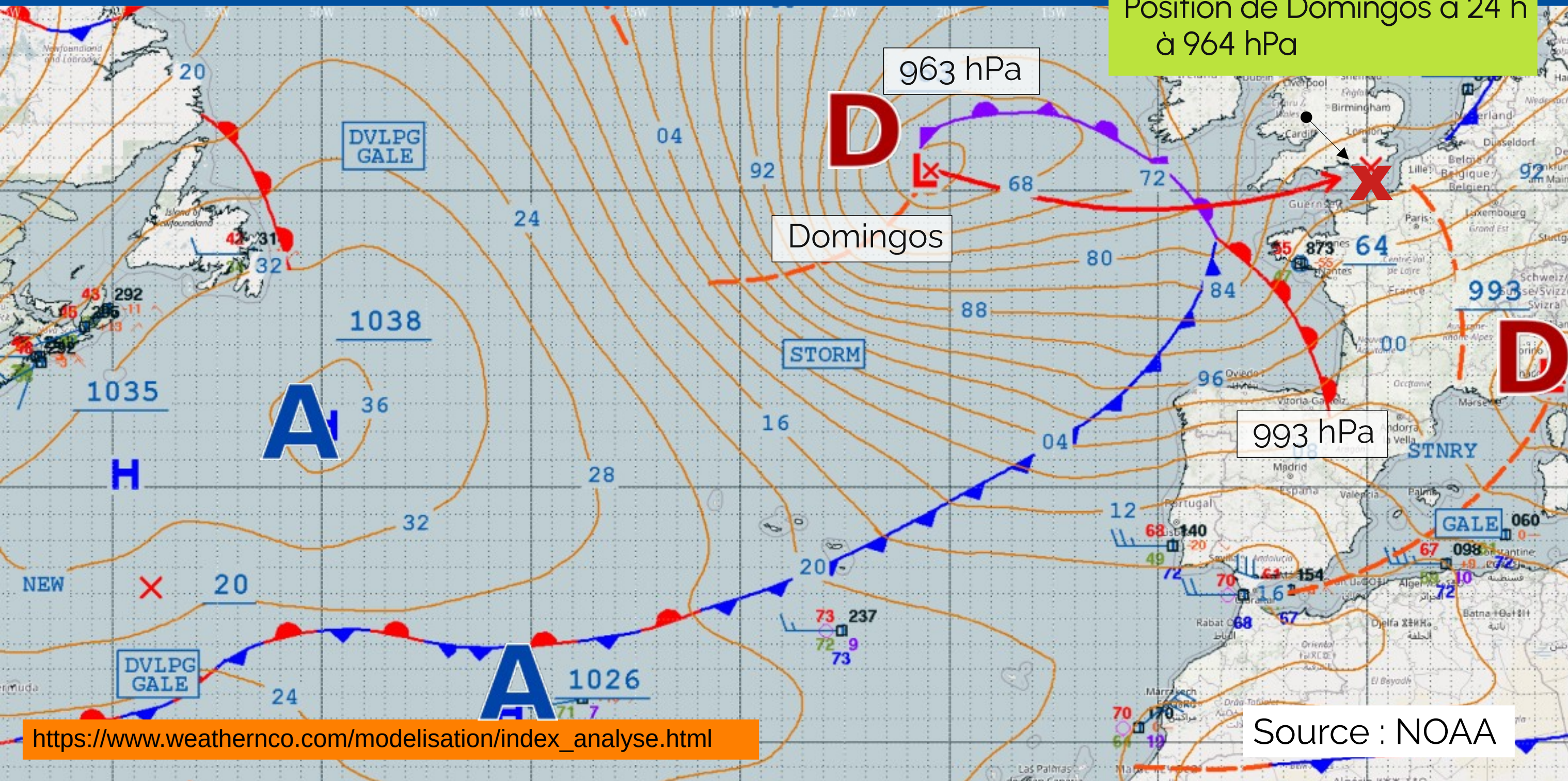
Grid map 20.4 W, 39.6 N (Zoom level 1 / Resolution 5km)

ECMWF IFS HRES 07/127 (10 days) from 03-11-2023/127

meteologix.com

Analyse – Sam 04 Nov 2023 at 00H00 TU

Position de Domingos à 24 h
à 964 hPa

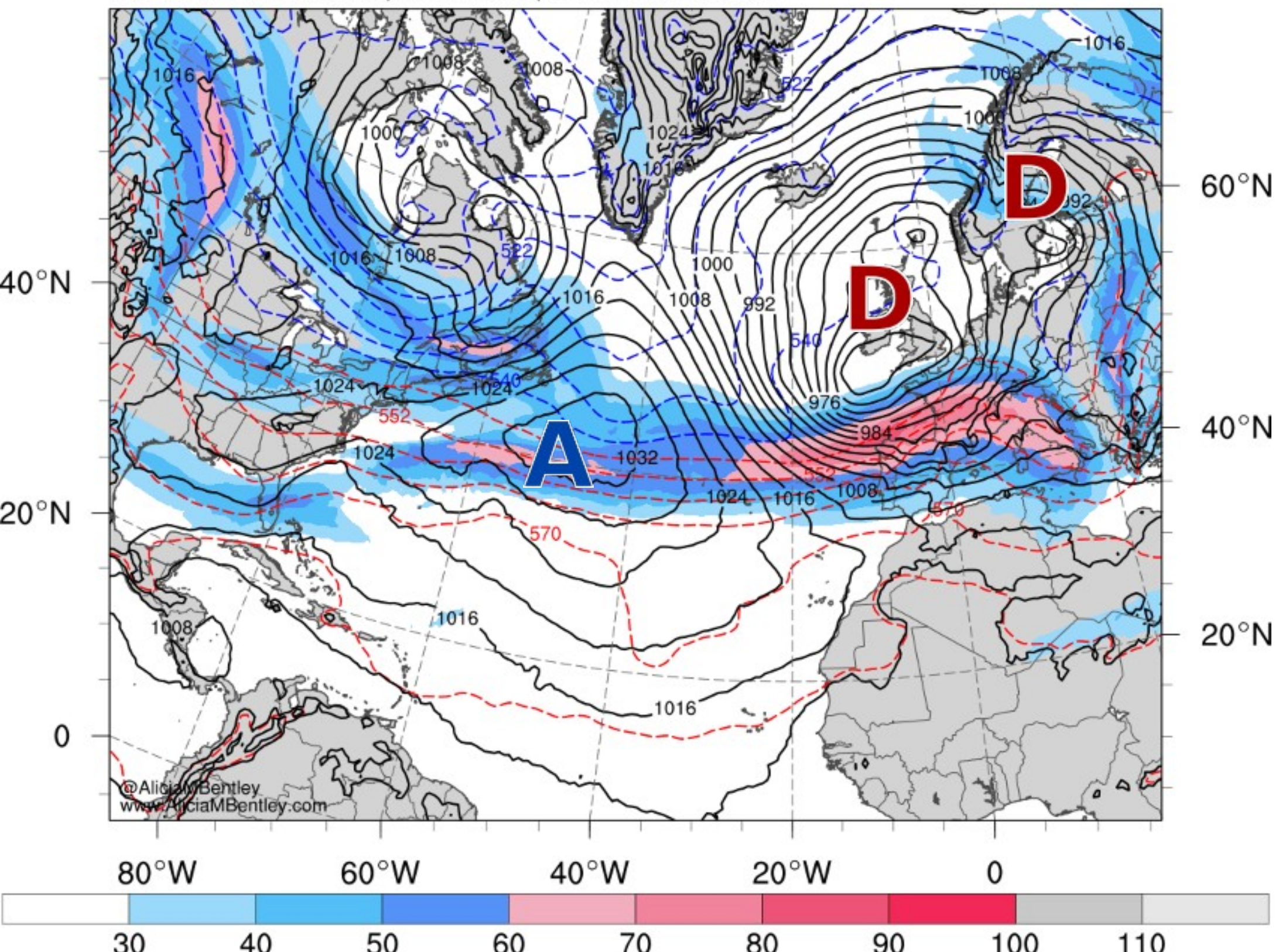


https://www.weatherngo.com/modelisation/index_analyse.html

Source : NOAA

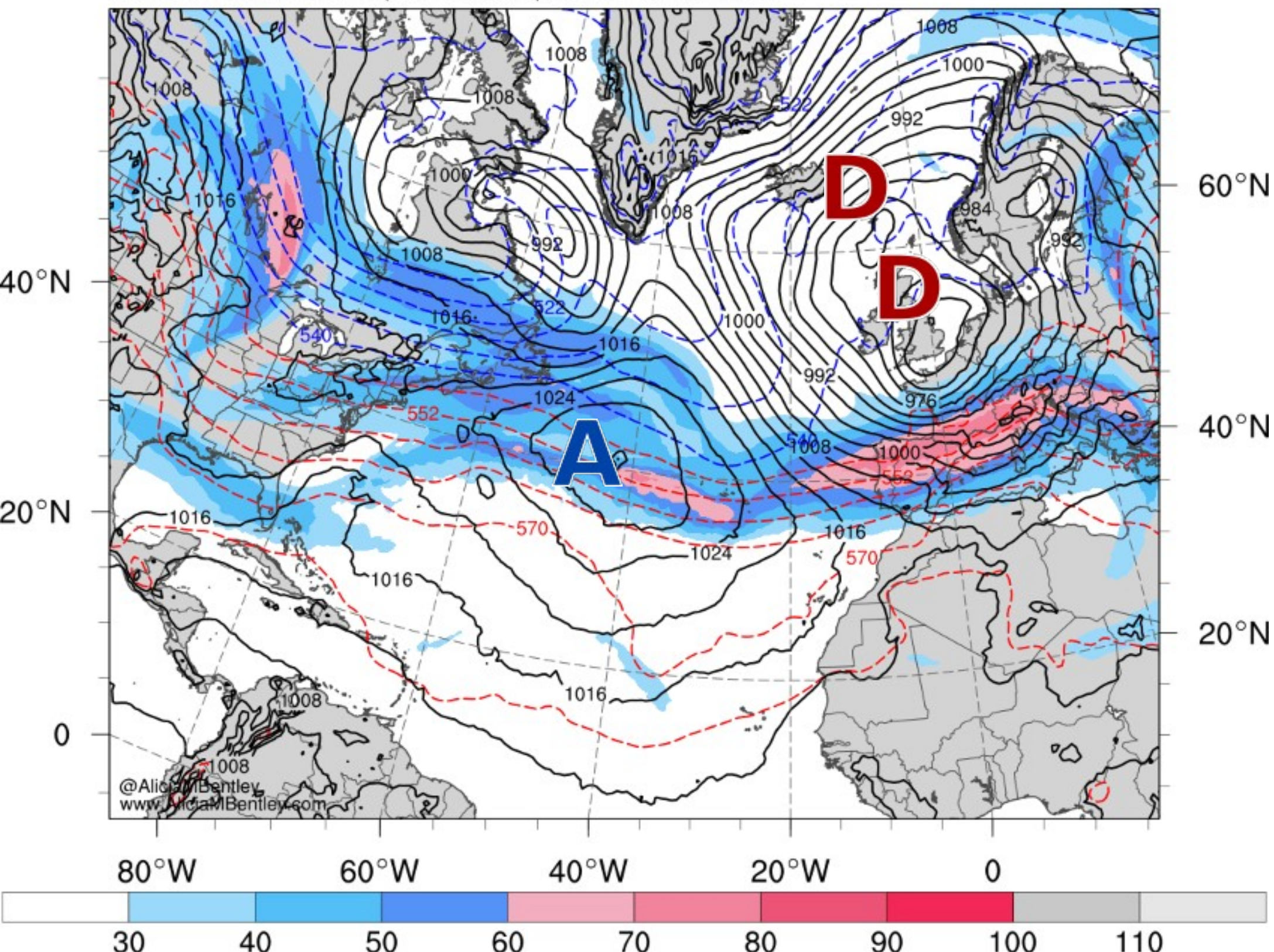
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 1200 UTC 4 Nov 2023 | Forecast hour: 0 | Valid: 1200 UTC 4 Nov 2023



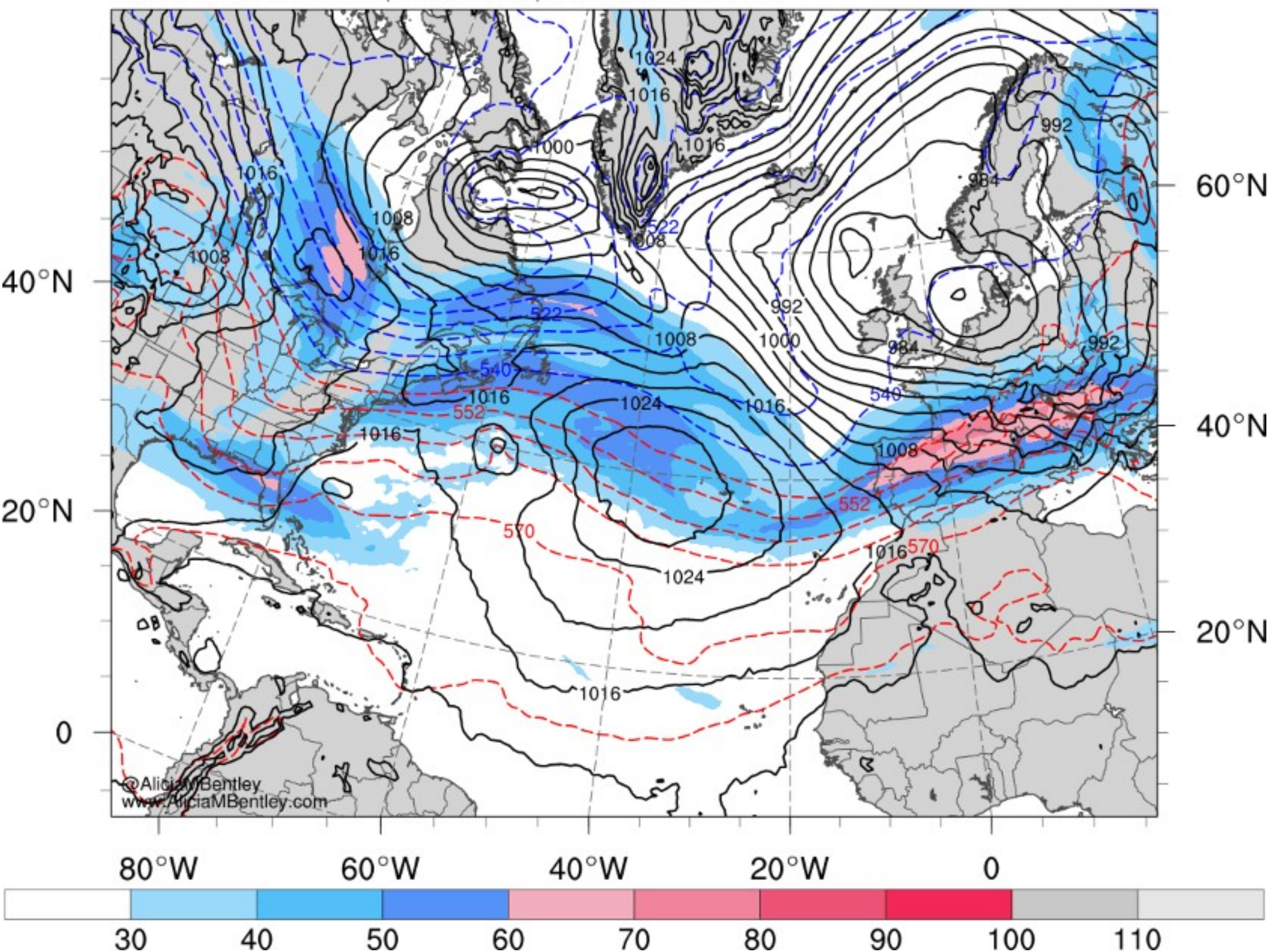
MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

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MSLP (black, hPa), 1000-500-hPa thickness (red/blue, dam), 250-hPa wind speed (shaded, m/s)

Initialized: 1200 UTC 5 Nov 2023 | Forecast hour: 0 | Valid: 1200 UTC 5 Nov 2023





Une question, une suggestion à propos de ces pages?
N'hésitez pas à m'envoyer un mail ou me contacter sur Twitter !

Contact

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Personnal Email : yann@weathernco.com

Support Email : support@weathernco.com

