

# DRAFT SUMMARY MAESTRO

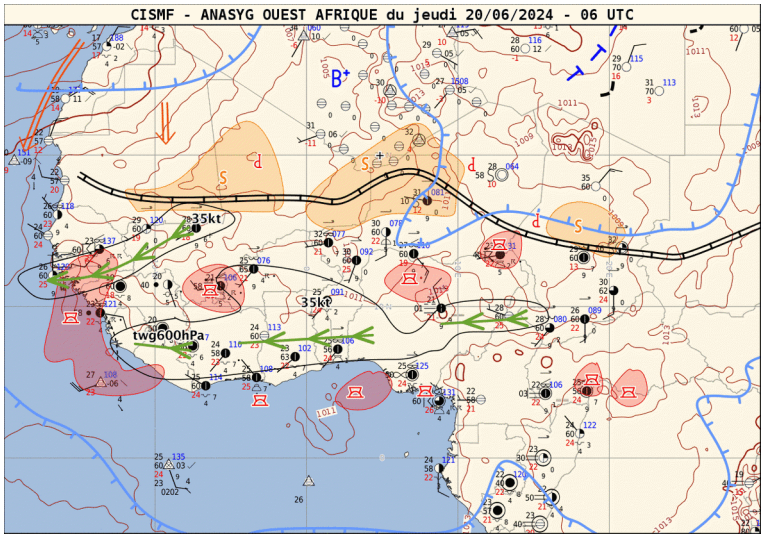
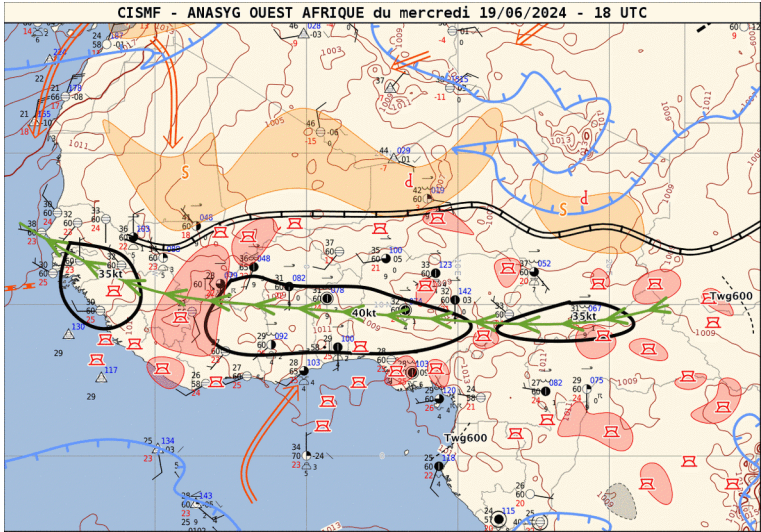
Four parts :

- evaluation J-1
- short term forecast J-J+36h
- week forecast J-J+7
- subseasonal forecast (a few weeks) : updated once a week

# Evaluation Day-1

- West Africa ANASYG + satellite image (feedback to improve our experience)
- DIRAG ANASYG
- Precipitable Water, Meridional Transport J-1
- Carte PW + FFT waves J-1

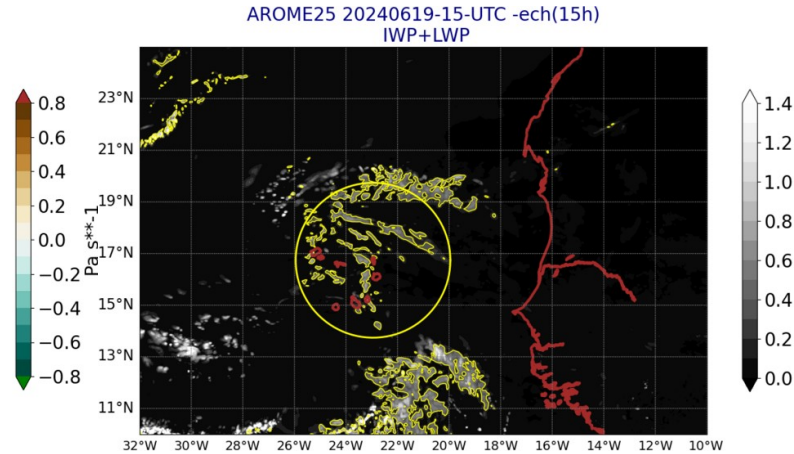
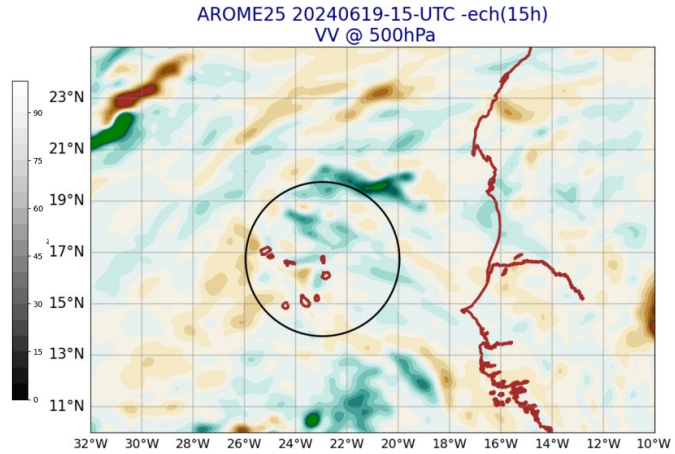
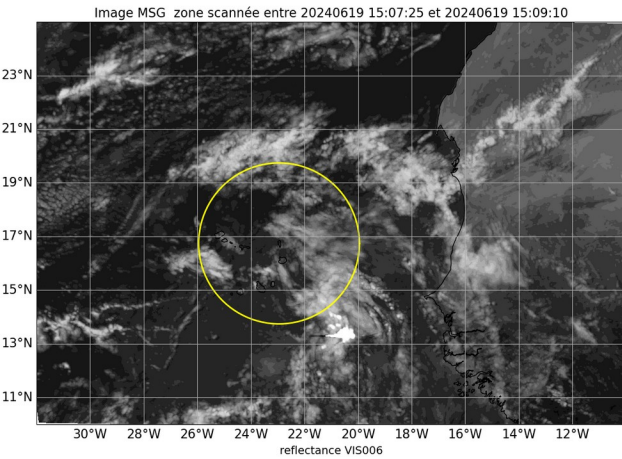
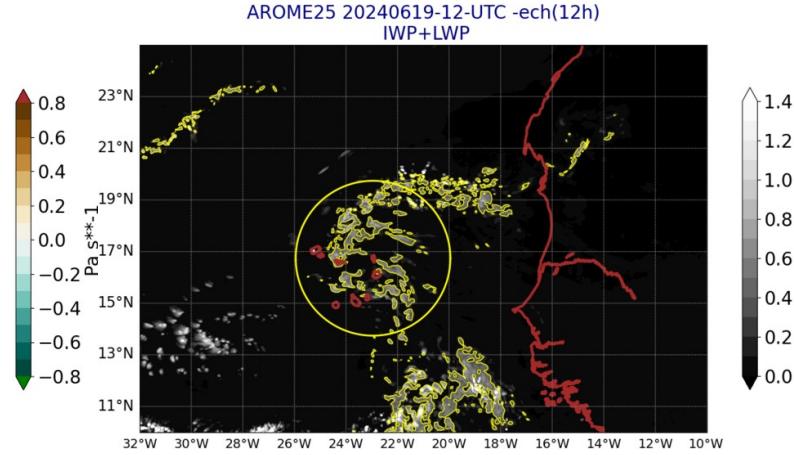
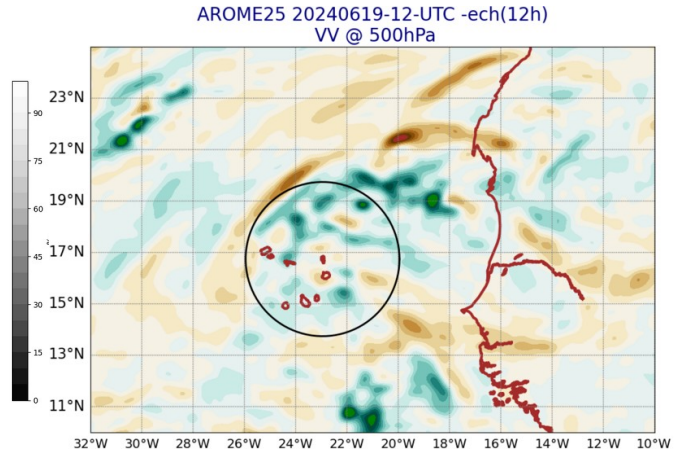
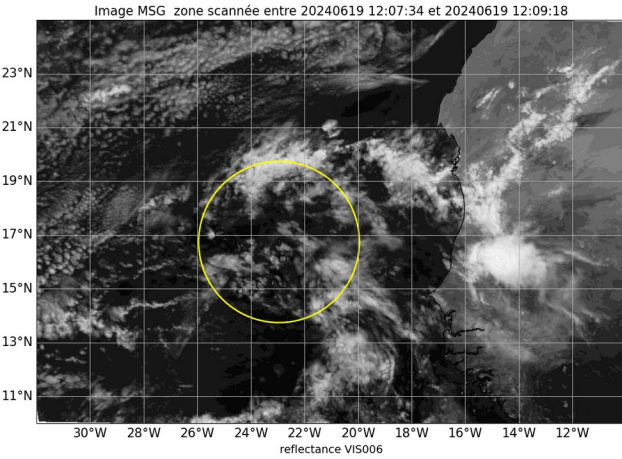
# Anasyg J-1 18UTC et J 06UTC



- + anasyg dirag

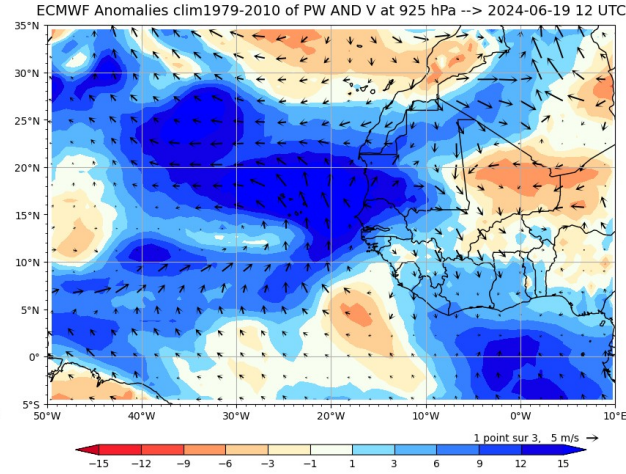
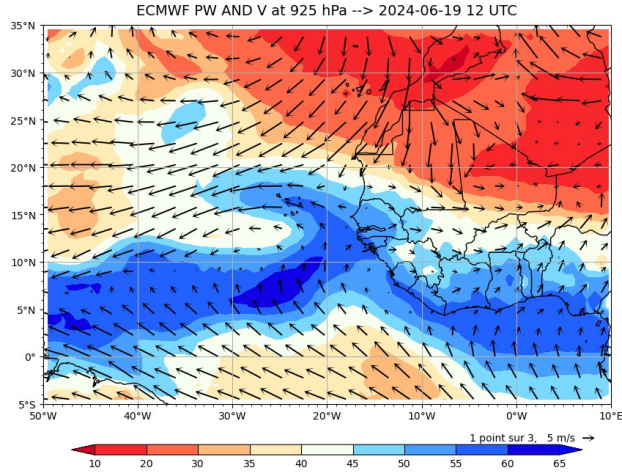
# Image MSG Visible J-1 12 and 15 UTC

# Arome J-1 12 and 15 UTC

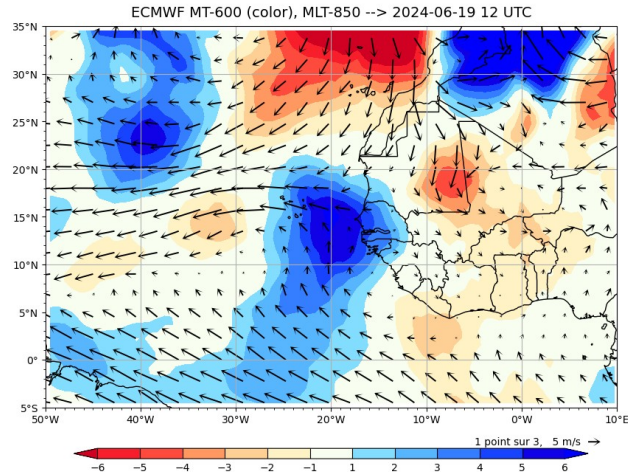




# Precipitable Water - Merid. Transport - Waves J-1



Ajouter ondes J-1

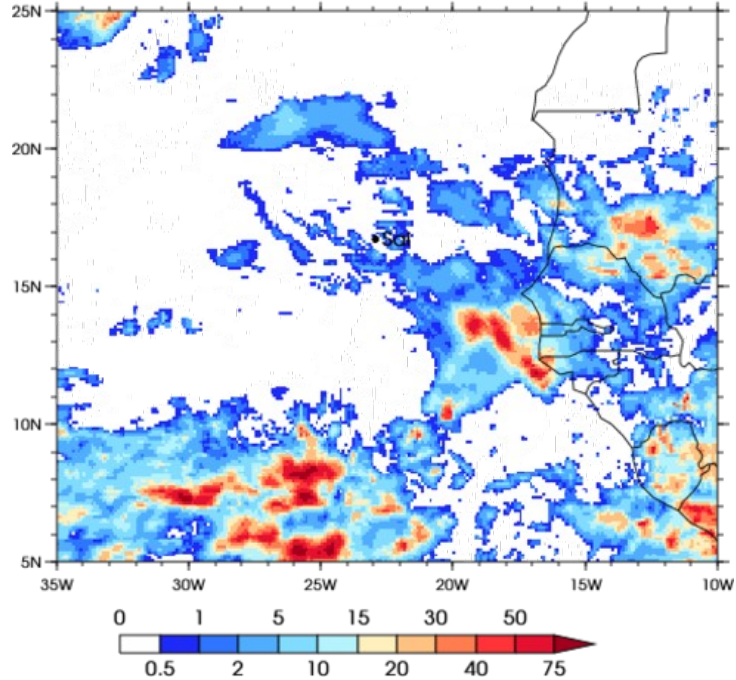


# Precipitation IMERG and AROME J-1

3IMERGHHE GPM IMERG Early Precipitation

Daily accumulated: 2024-06-19

Units: mm/day

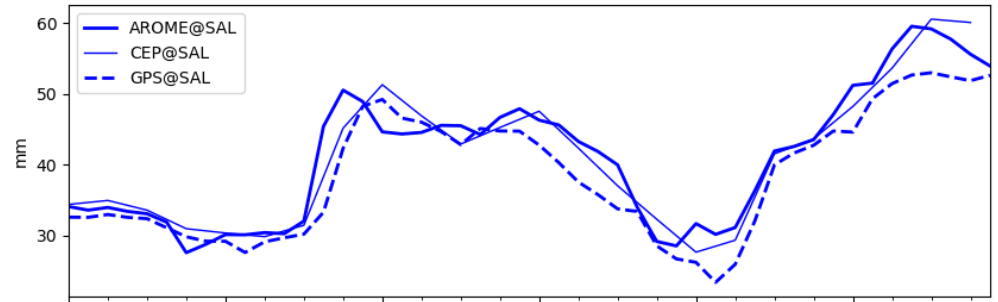


# OBSERVATIONS J-1

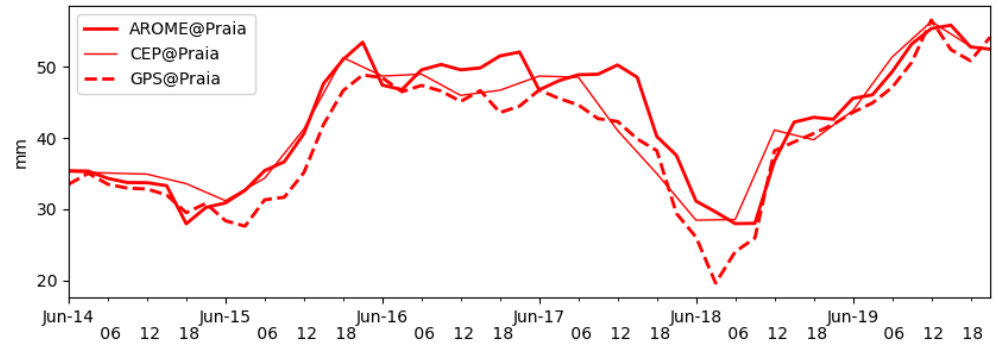
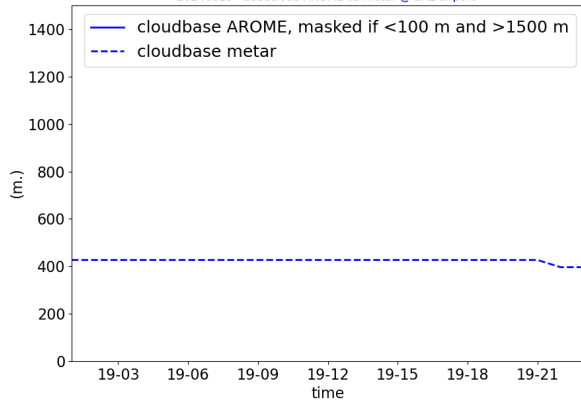
Lidar@ mindelo  
metar@sal

GPS @ Sal  
GPS @ Praia

PW AROME & CEP (fct 0-23h) vs GPS  
20240614 - 20240619



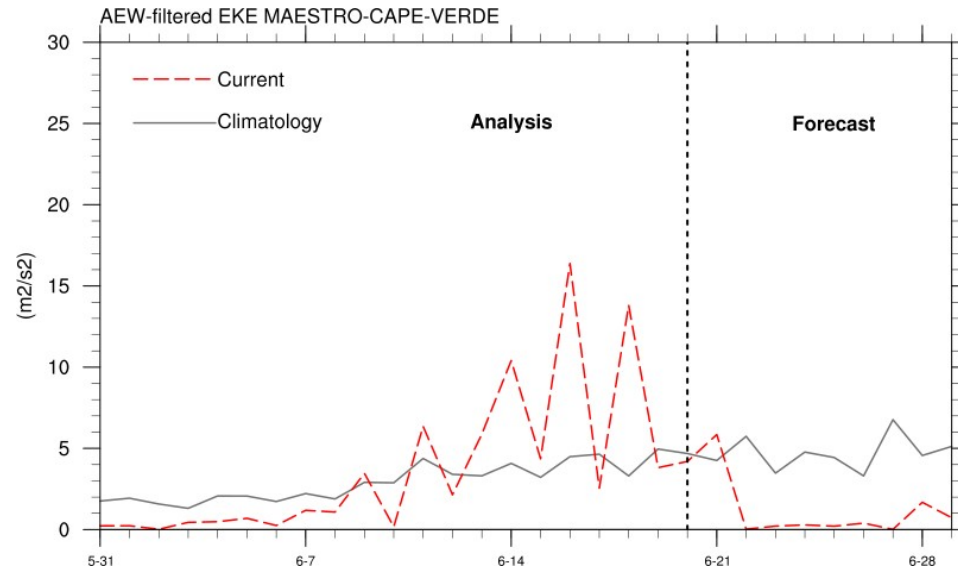
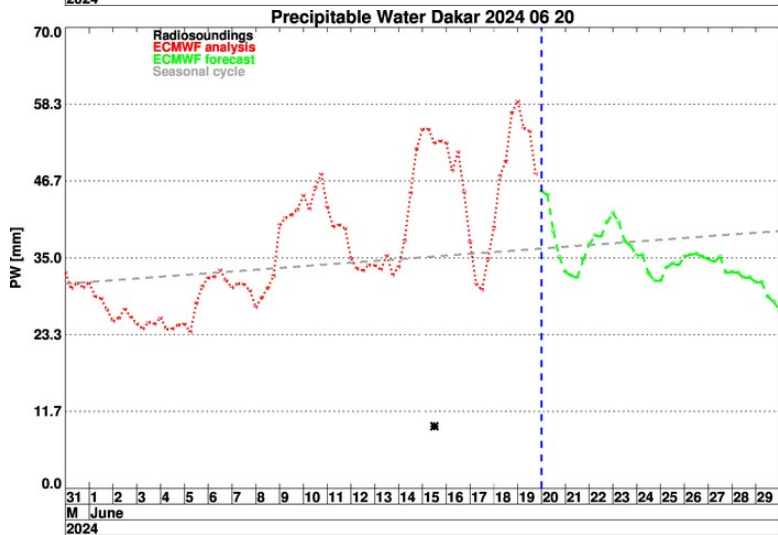
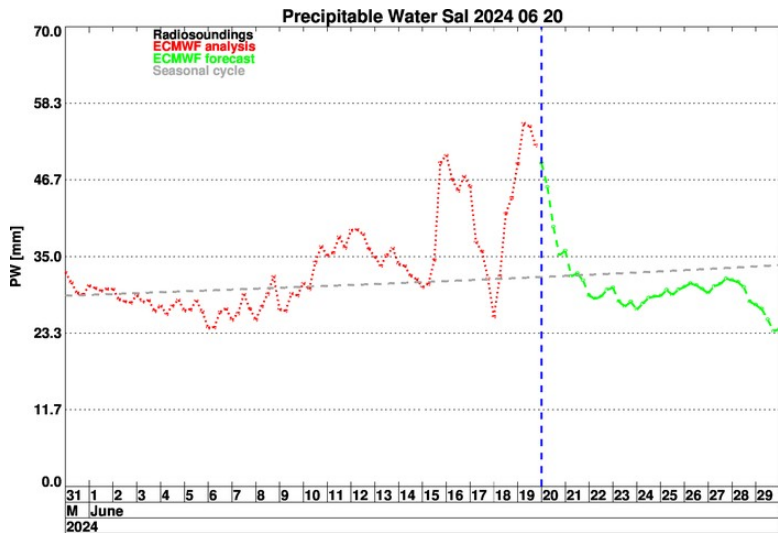
20240619 - basecloud AROME vs metar @ SAL airport



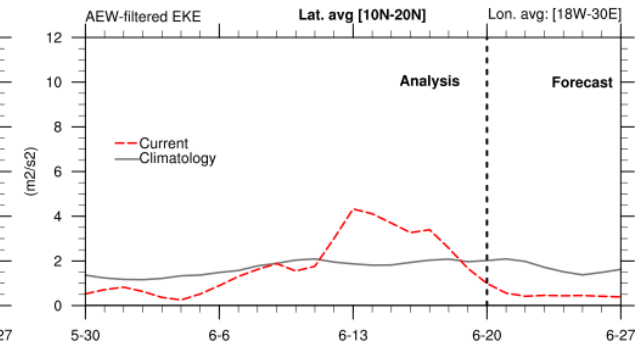
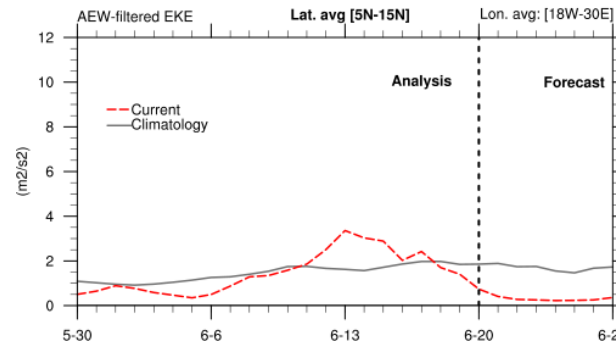
Short term forecast J- J+36h



# Temporal evolution PW Sal et Dakar + EKE



AEW wind index



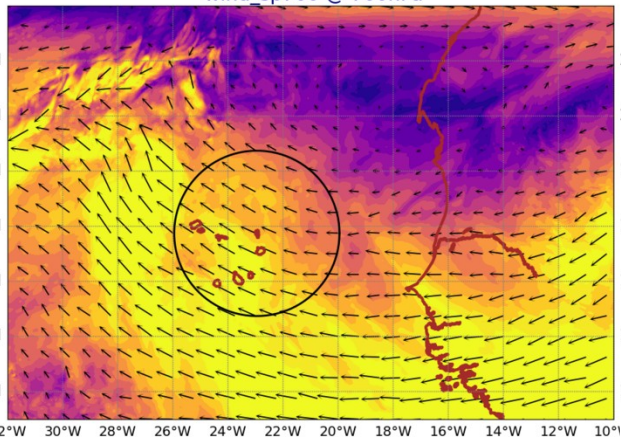
# FIGURES AROME

- PW J-J+36h 850 hPa ?
- Pbl height
- Avoir une coupe zonale / meridienne de  $qv$  ?

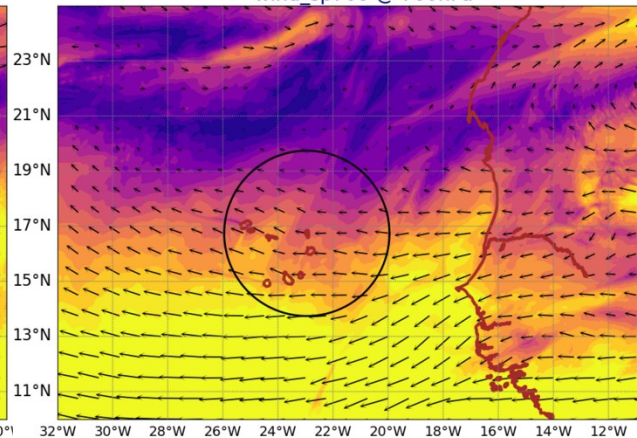
# AROME Wind @ 700 hPa

## AROME Wind @ 920 hPa

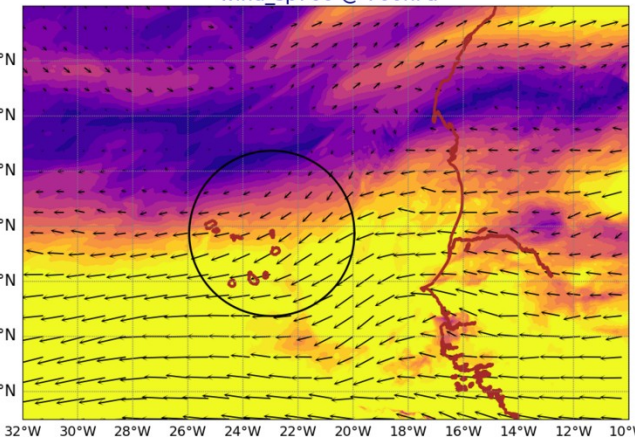
AROME25 20240620-12-UTC -ech(12h)  
wind\_sp700 @ 700hPa



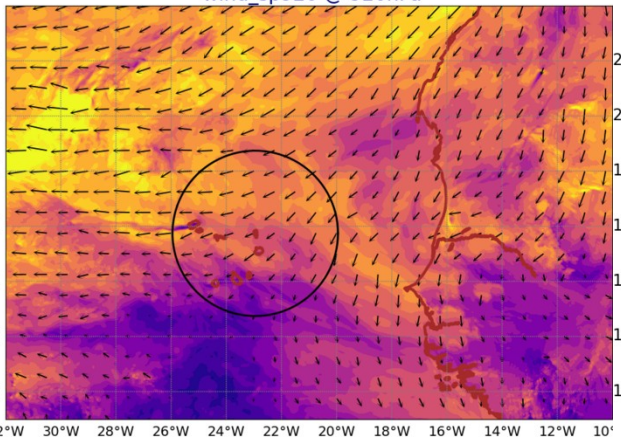
AROME25 20240621-12-UTC -ech(36h)  
wind\_sp700 @ 700hPa



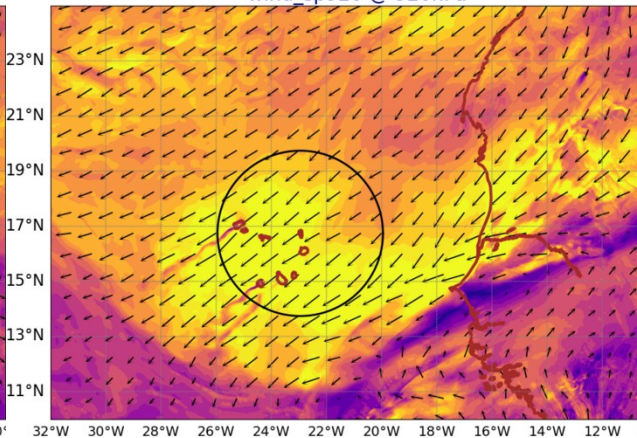
AROME25 20240622-12-UTC -ech(60h)  
wind\_sp700 @ 700hPa



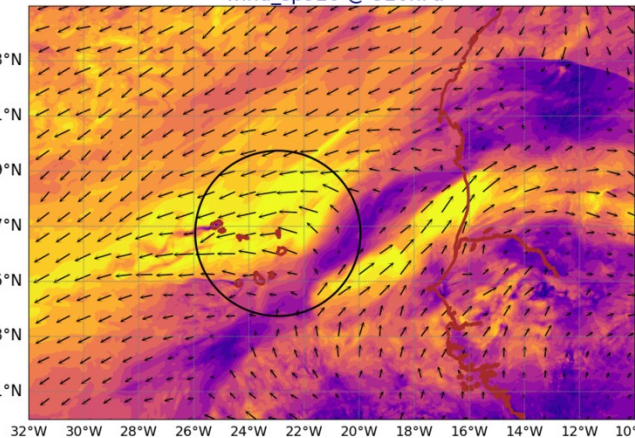
AROME25 20240620-12-UTC -ech(12h)  
wind\_sp920 @ 920hPa



AROME25 20240621-12-UTC -ech(36h)  
wind\_sp920 @ 920hPa



AROME25 20240622-12-UTC -ech(60h)  
wind\_sp920 @ 920hPa





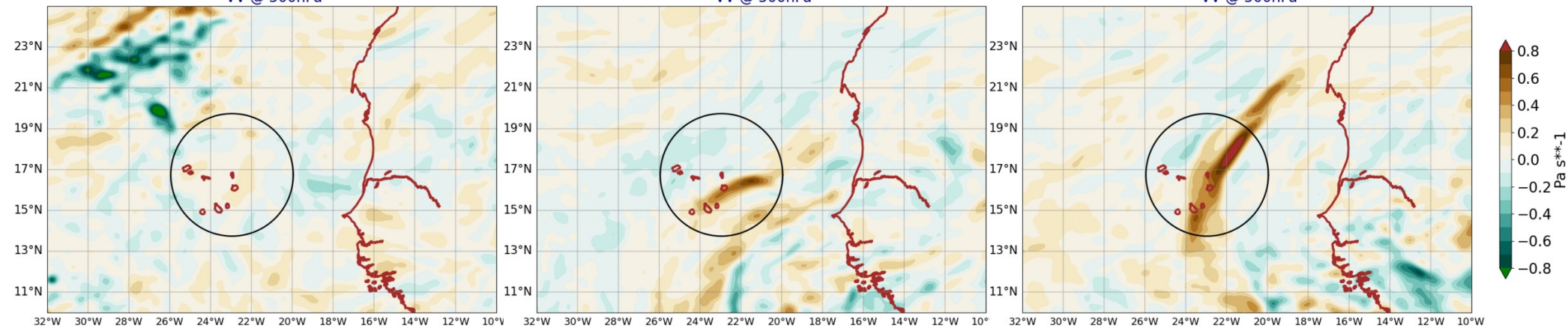
# AROME VV @ 500hPa

## AROME LWP+IWP

AROME25 20240620-12-UTC -ech(12h)  
VV @ 500hPa

AROME25 20240621-12-UTC -ech(36h)  
VV @ 500hPa

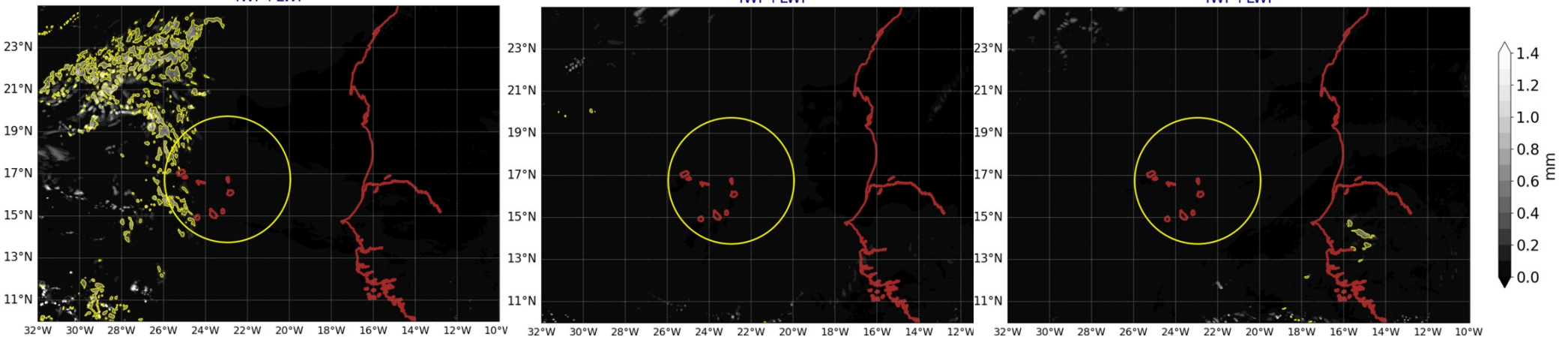
AROME25 20240622-12-UTC -ech(60h)  
VV @ 500hPa



AROME25 20240620-12-UTC -ech(12h)  
IWP+LWP

AROME25 20240621-12-UTC -ech(36h)  
IWP+LWP

AROME25 20240622-12-UTC -ech(60h)  
IWP+LWP

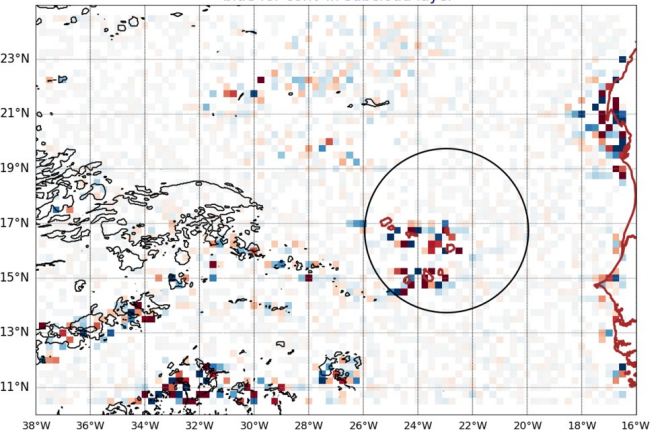




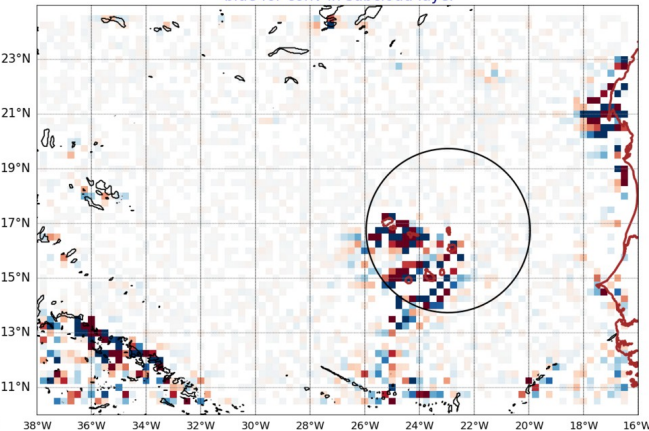
# Smoc

-blue for conv in subcloud layer-  
dark isoline for low cloud cover

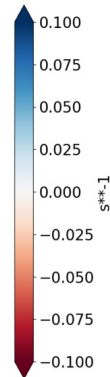
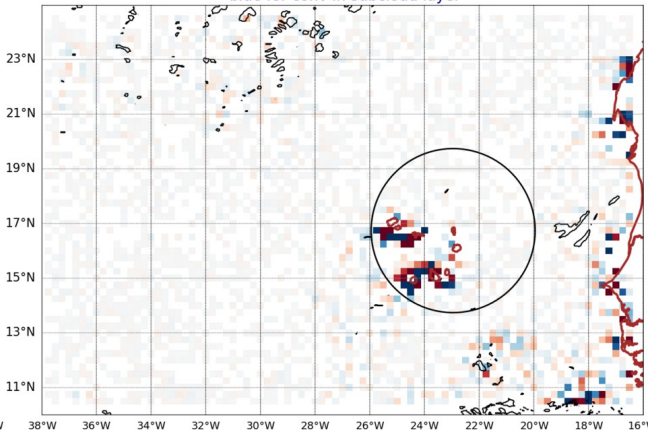
AROME25 regrid 0.25  
20240620-12-UTC -ech(12h)  
blue for conv in subcloud layer



AROME25 regrid 0.25  
20240621-12-UTC -ech(36h)  
blue for conv in subcloud layer



AROME25 regrid 0.25  
20240622-12-UTC -ech(60h)  
blue for conv in subcloud layer

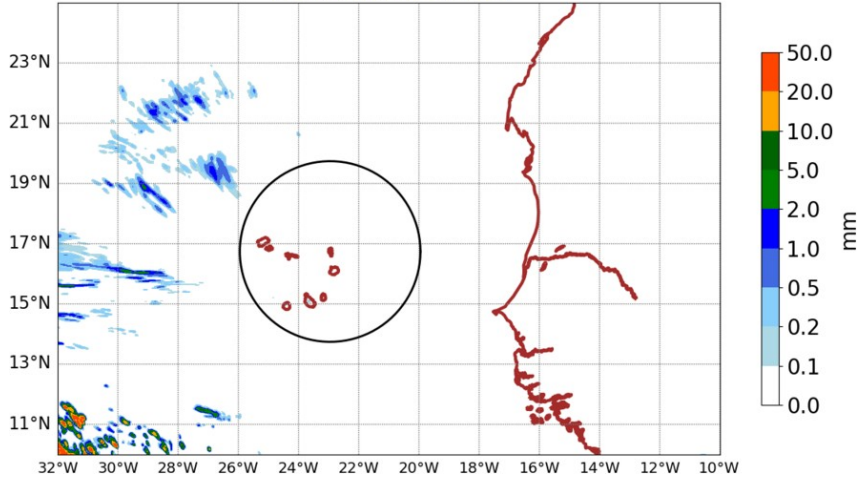


over 6h ech 12h and 15h

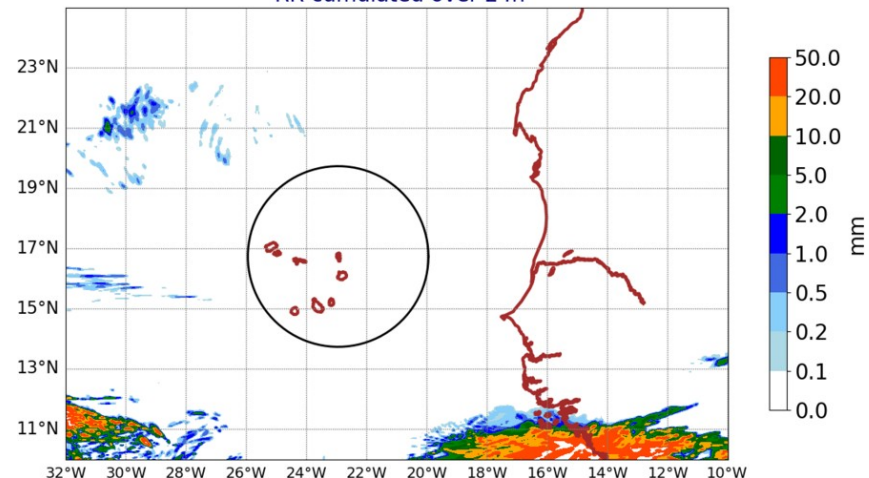
# AROME precipitation

over 24h ech 36h and 60h

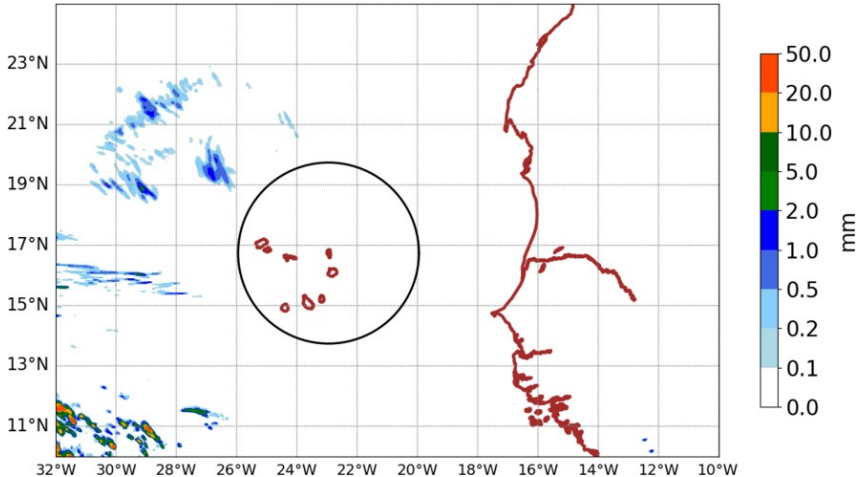
AROME25 20240620-12-UTC -ech(12h)  
RR cumulated over 6h



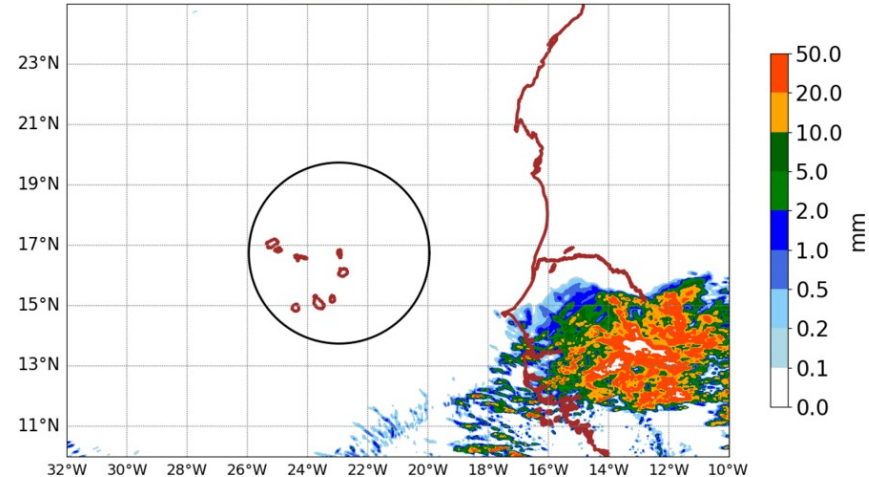
AROME25 20240621-12-UTC -ech(36h)  
RR cumulated over 24h



AROME25 20240620-15-UTC -ech(15h)  
RR cumulated over 6h

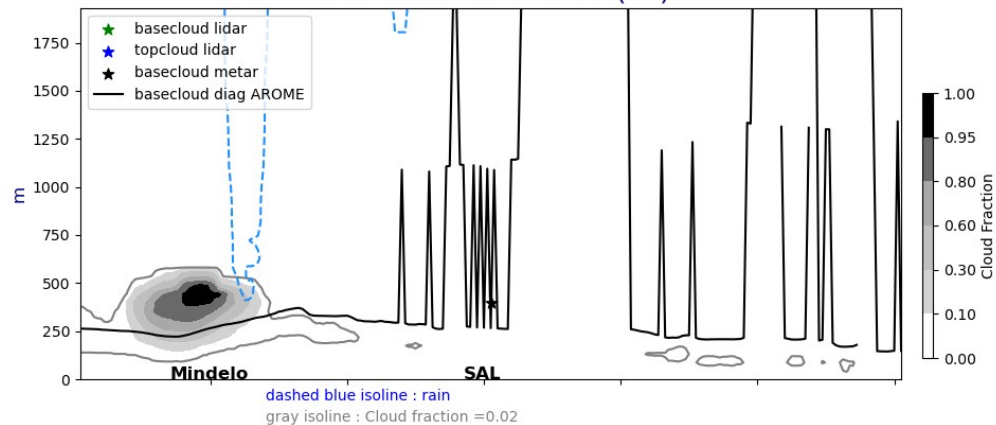


AROME25 20240622-12-UTC -ech(60h)  
RR cumulated over 24h

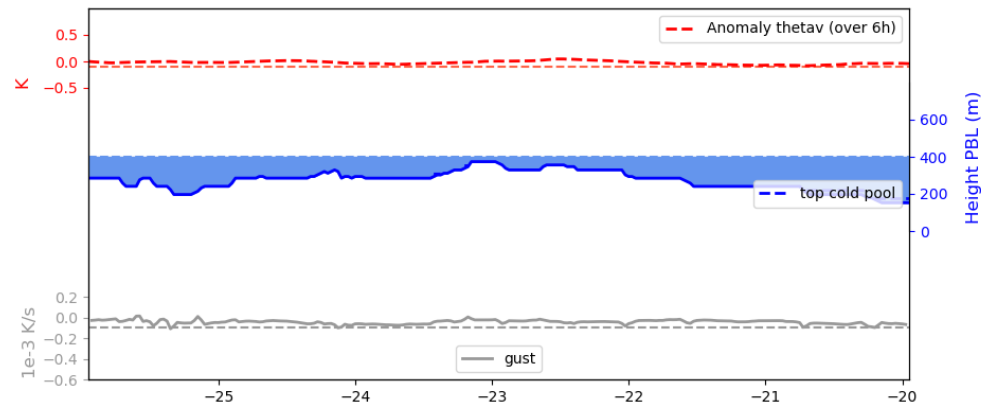
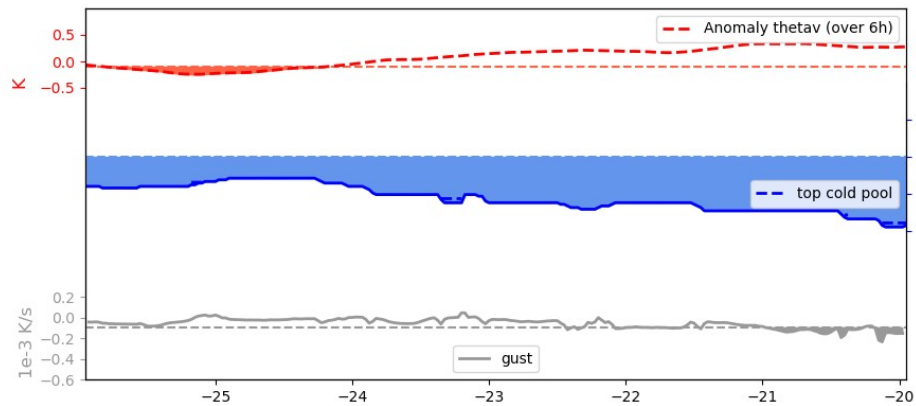
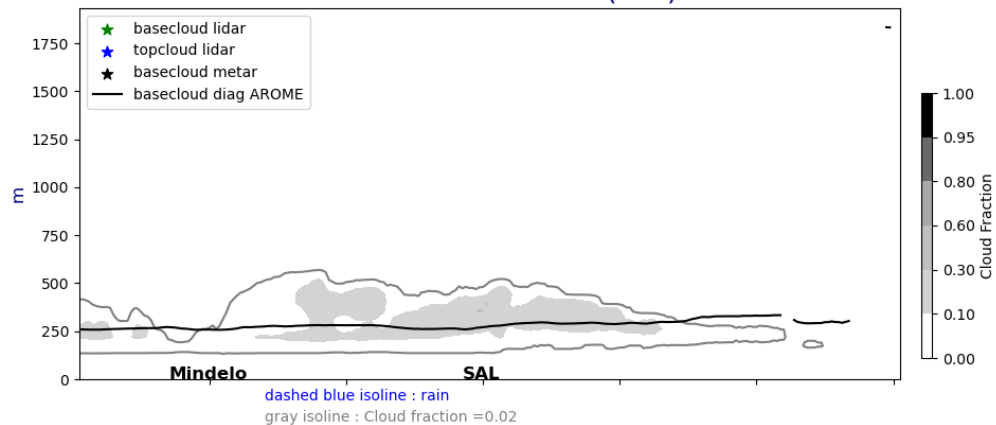


# Lat. cross section @17°5N fct : 01UTC, 12UTC

Cross section E/W @ 17.5N  
20240620-01-UTC ech(1h)

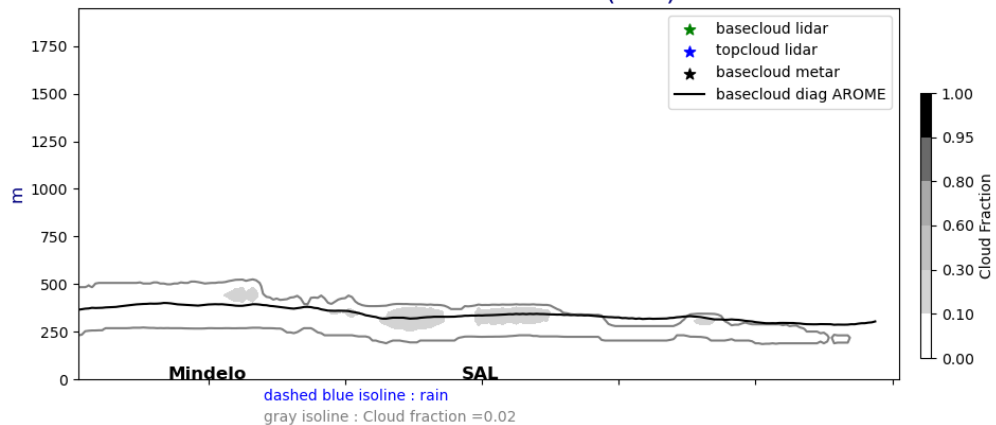


Cross section E/W @ 17.5N  
20240620-12-UTC ech(12h)

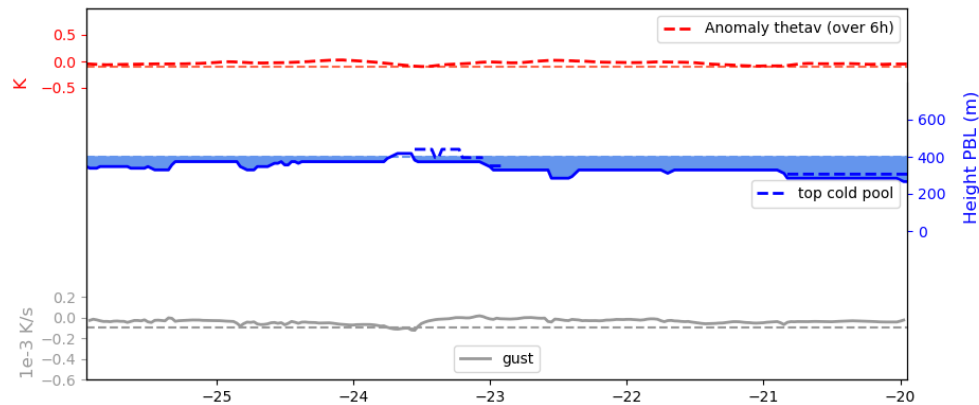
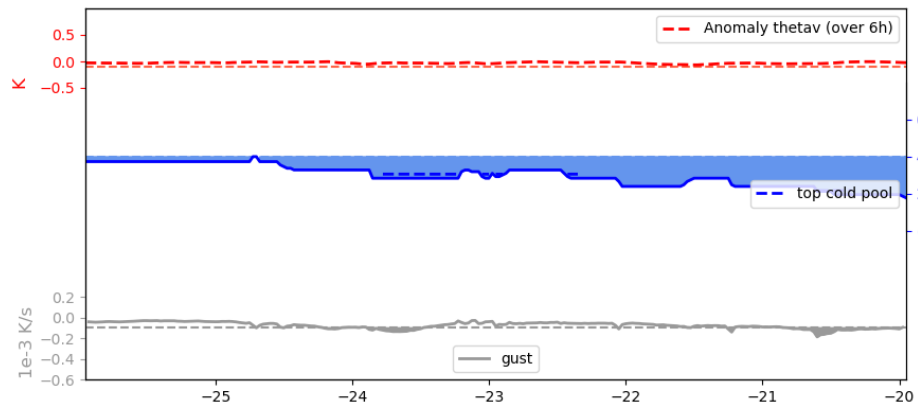
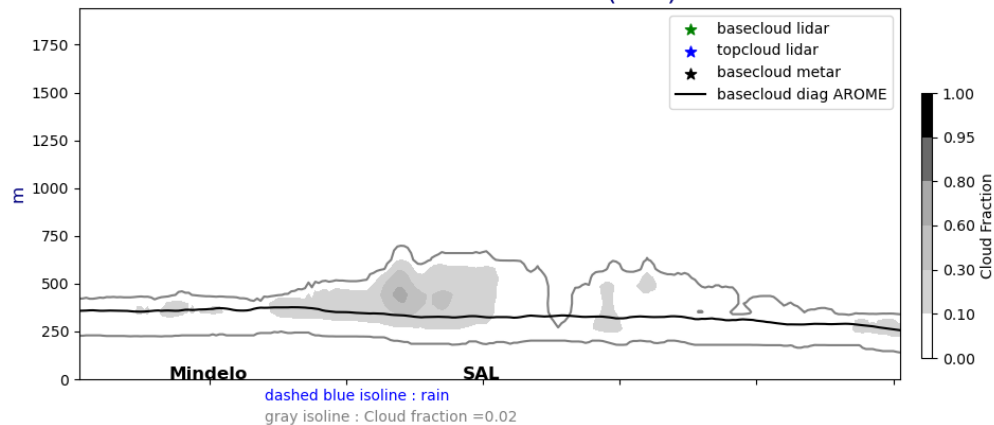


# Lat. cross section @17°5N fct : J+1 and J+2 @ 12UTC

Cross section E/W @ 17.5N  
20240621-12-UTC ech(36h)



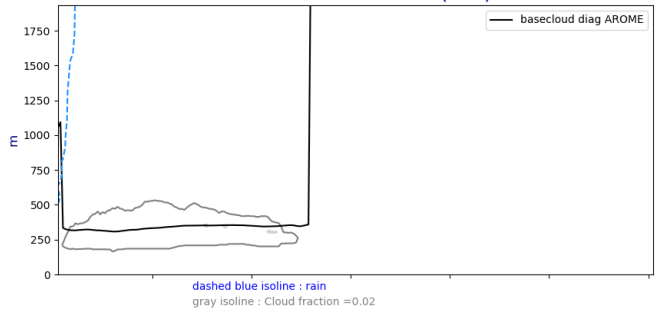
Cross section E/W @ 17.5N  
20240622-12-UTC ech(60h)



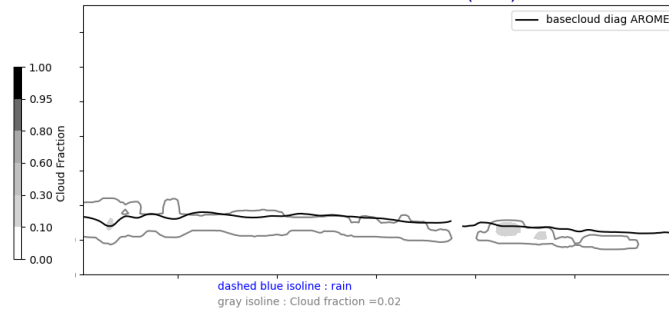


# Lat. cross section @ 19°5N ech : J, J+1, J+2 @ 12 UTC

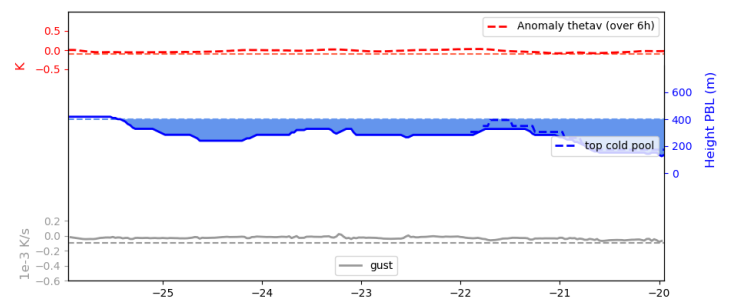
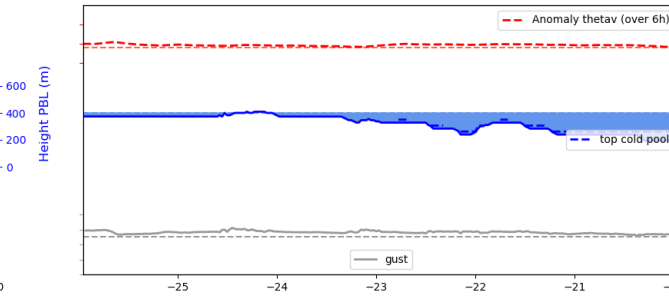
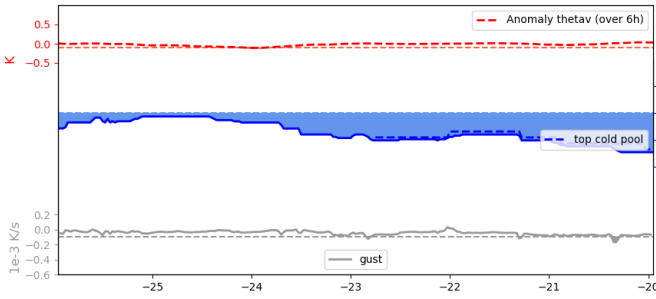
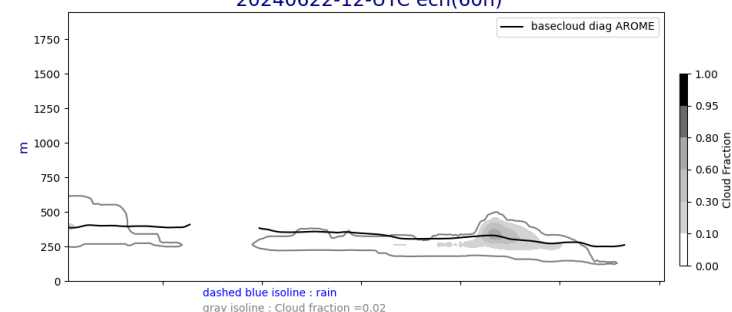
Cross section E/W @ 19.5N  
20240620-12-UTC ech(12h)



Cross section E/W @ 19.5N  
20240621-12-UTC ech(36h)

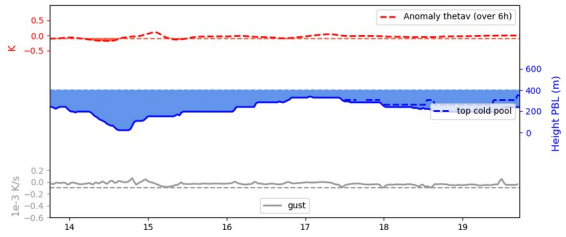
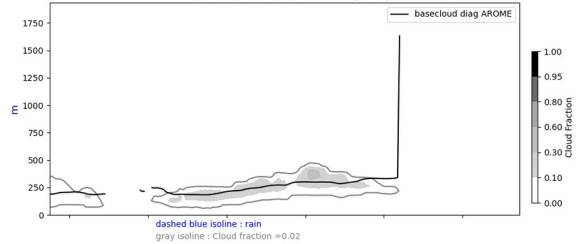


Cross section E/W @ 19.5N  
20240622-12-UTC ech(60h)

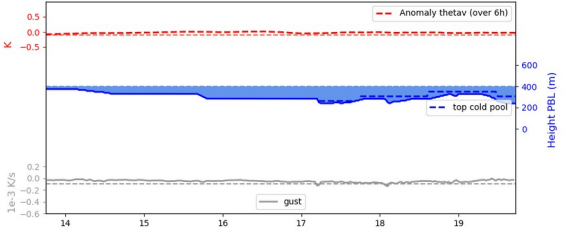
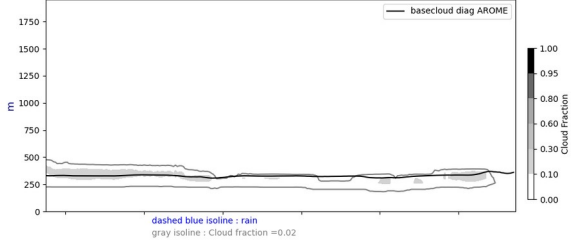


# Lon. cross section @22W & 26W fct : J,J+1, J+2 @ 12 UTC

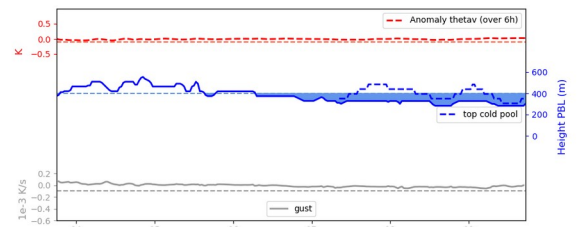
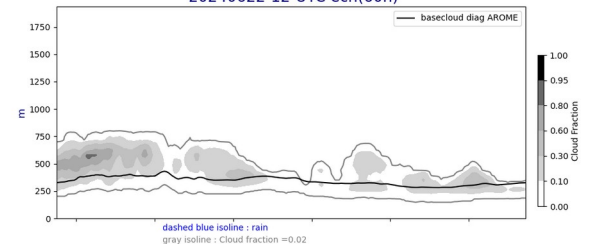
Cross section S/N @ -22W  
20240620-12-UTC ech(12h)



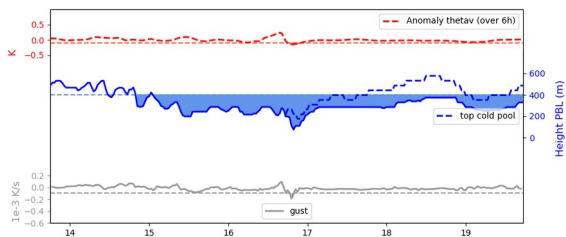
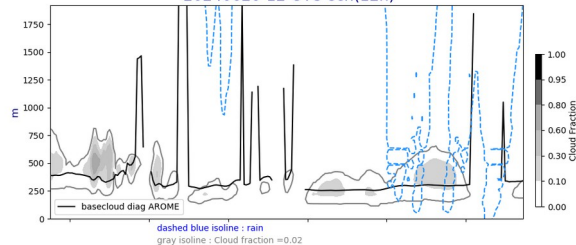
Cross section S/N @ -22W  
20240621-12-UTC ech(36h)



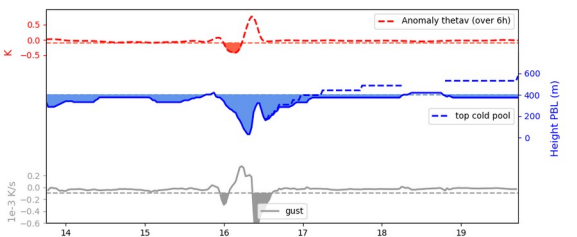
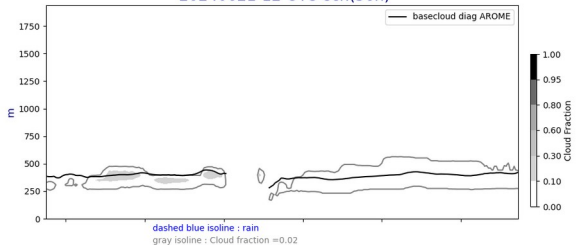
Cross section S/N @ -22W  
20240622-12-UTC ech(60h)



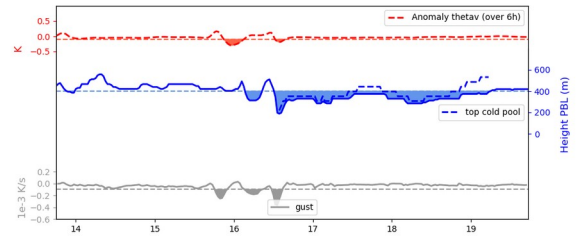
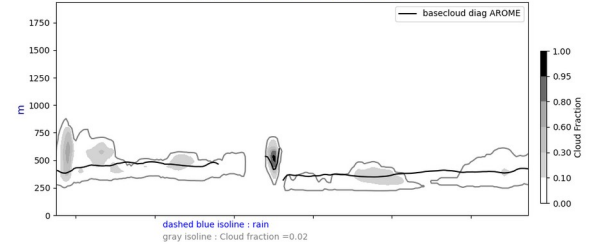
Cross section S/N @ -26W  
20240620-12-UTC ech(12h)



Cross section S/N @ -26W  
20240621-12-UTC ech(36h)

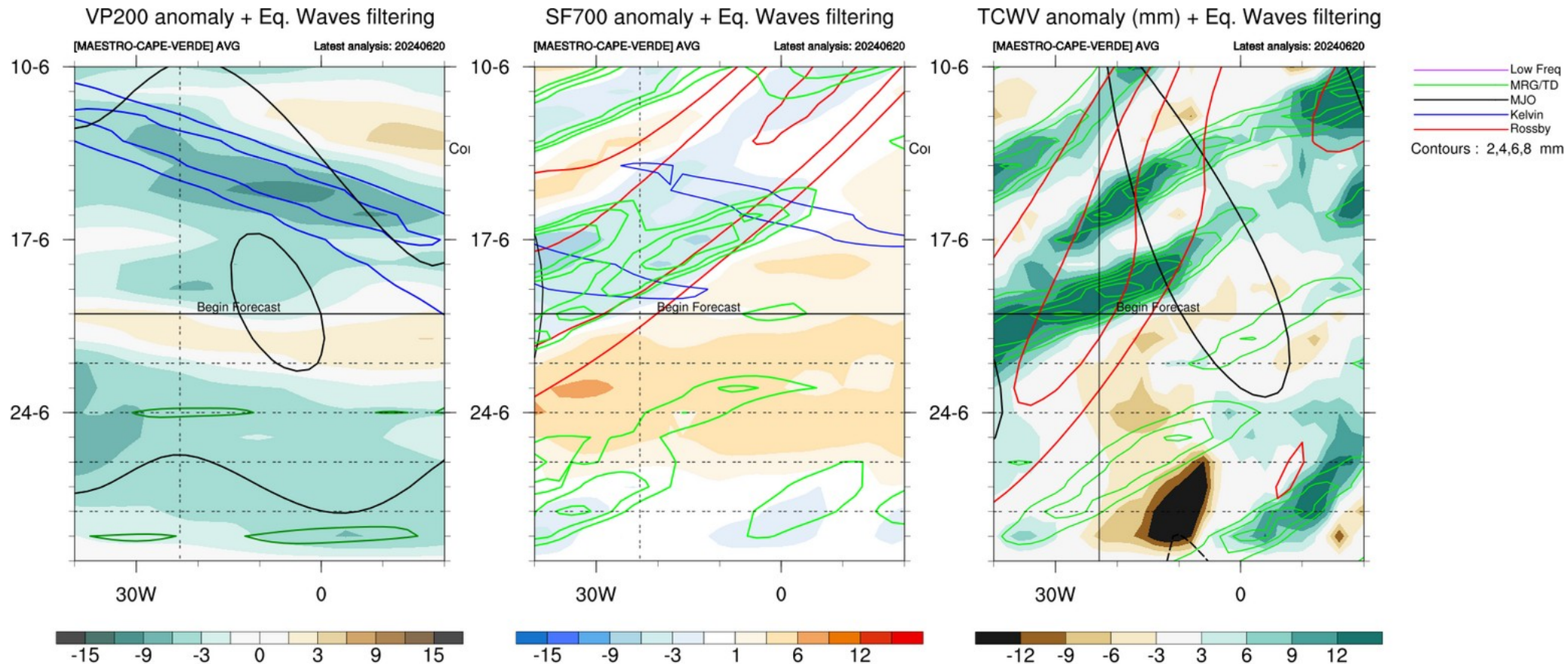


Cross section S/N @ -26W  
20240622-12-UTC ech(60h)



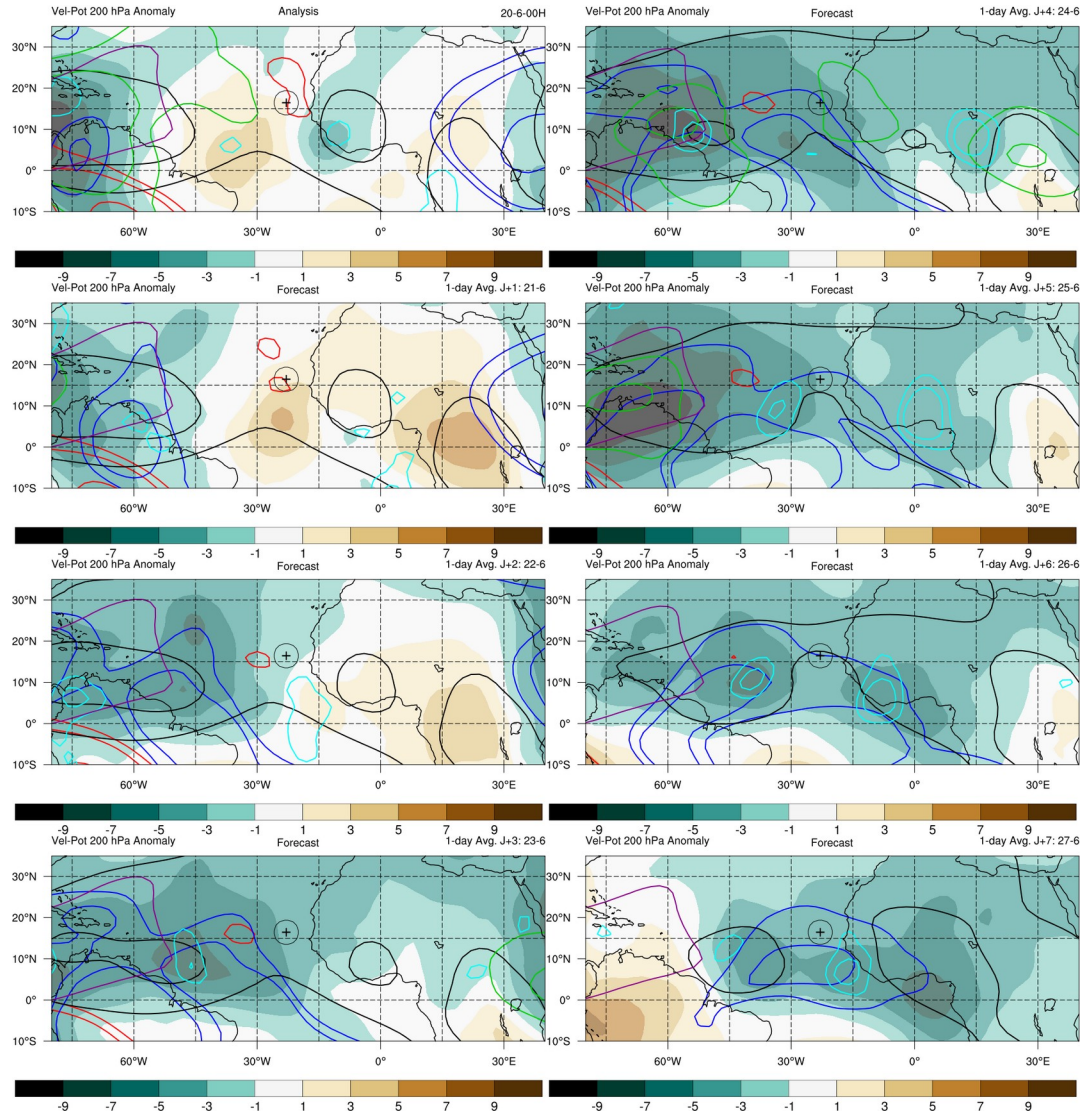
Week forecast J - J+7

# Equatorial Waves filtering hovmollers



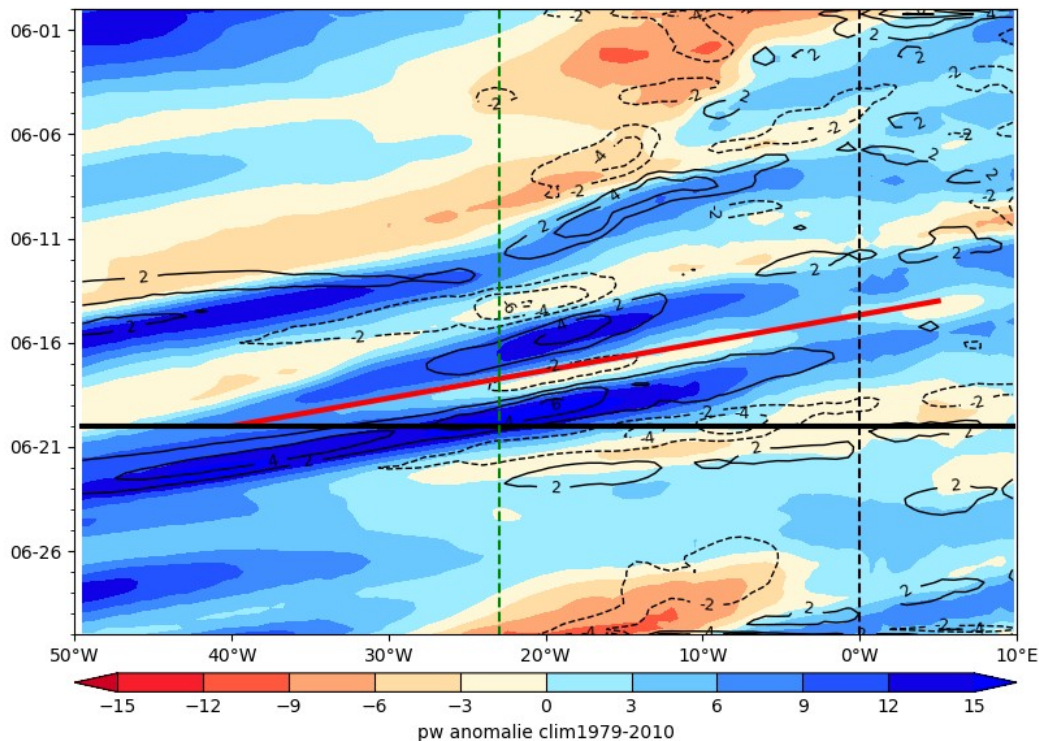


# Waves : Velocity potential @ 200 hPa, day J to J+7

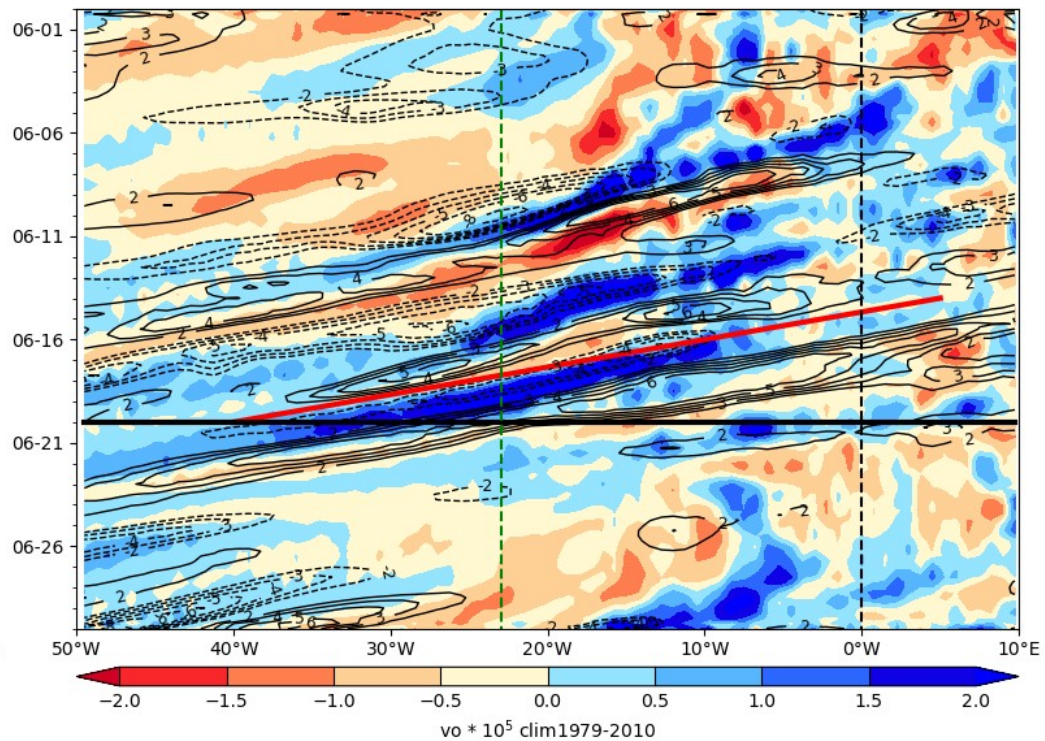


# Hovmoller anomaly

ECMWF PW (color) AND V at 925 hPa 2024-06-20

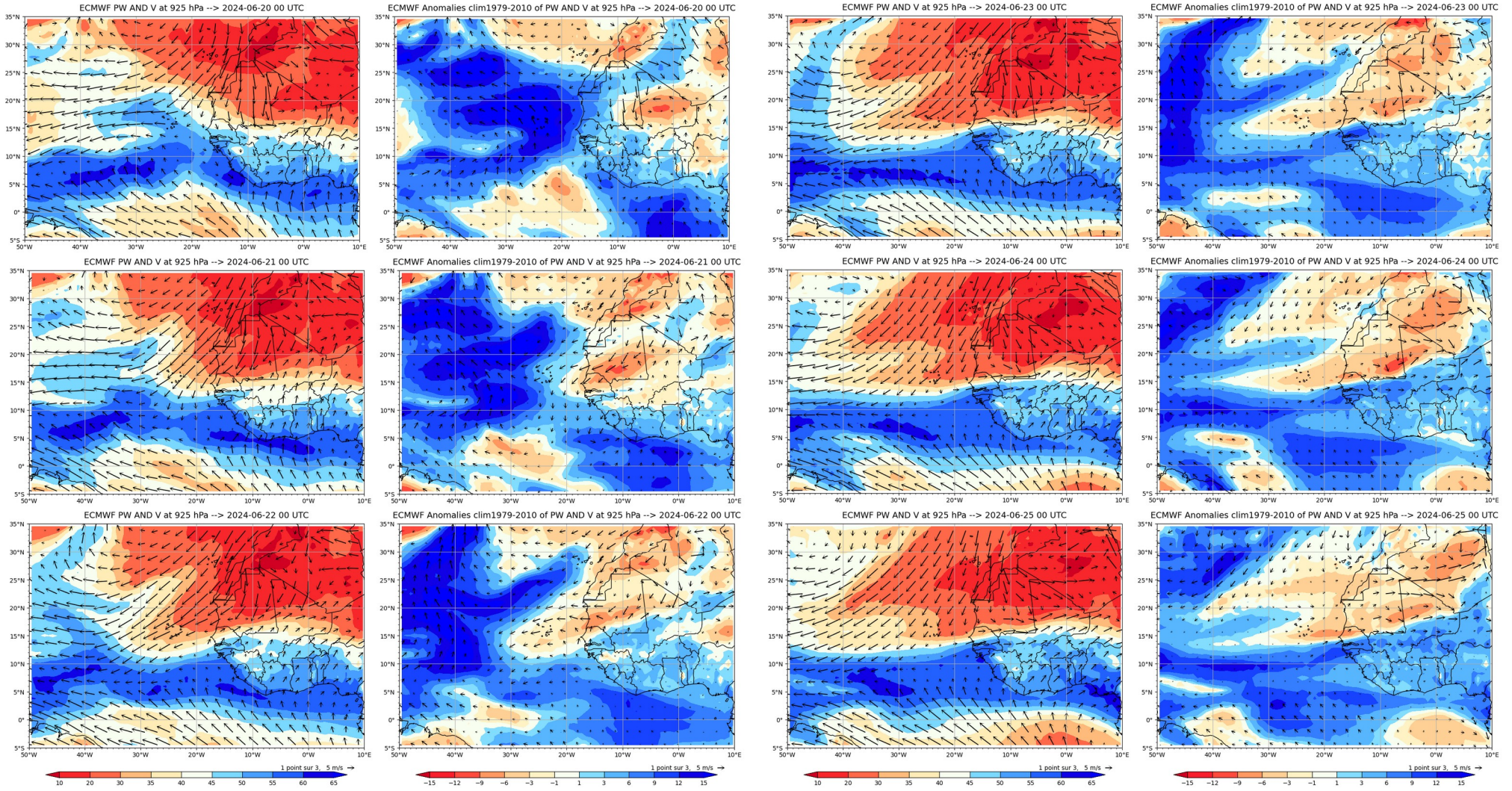


ECMWF Vorticity 850 hPa (color), V-700 hPa 2024-06-20



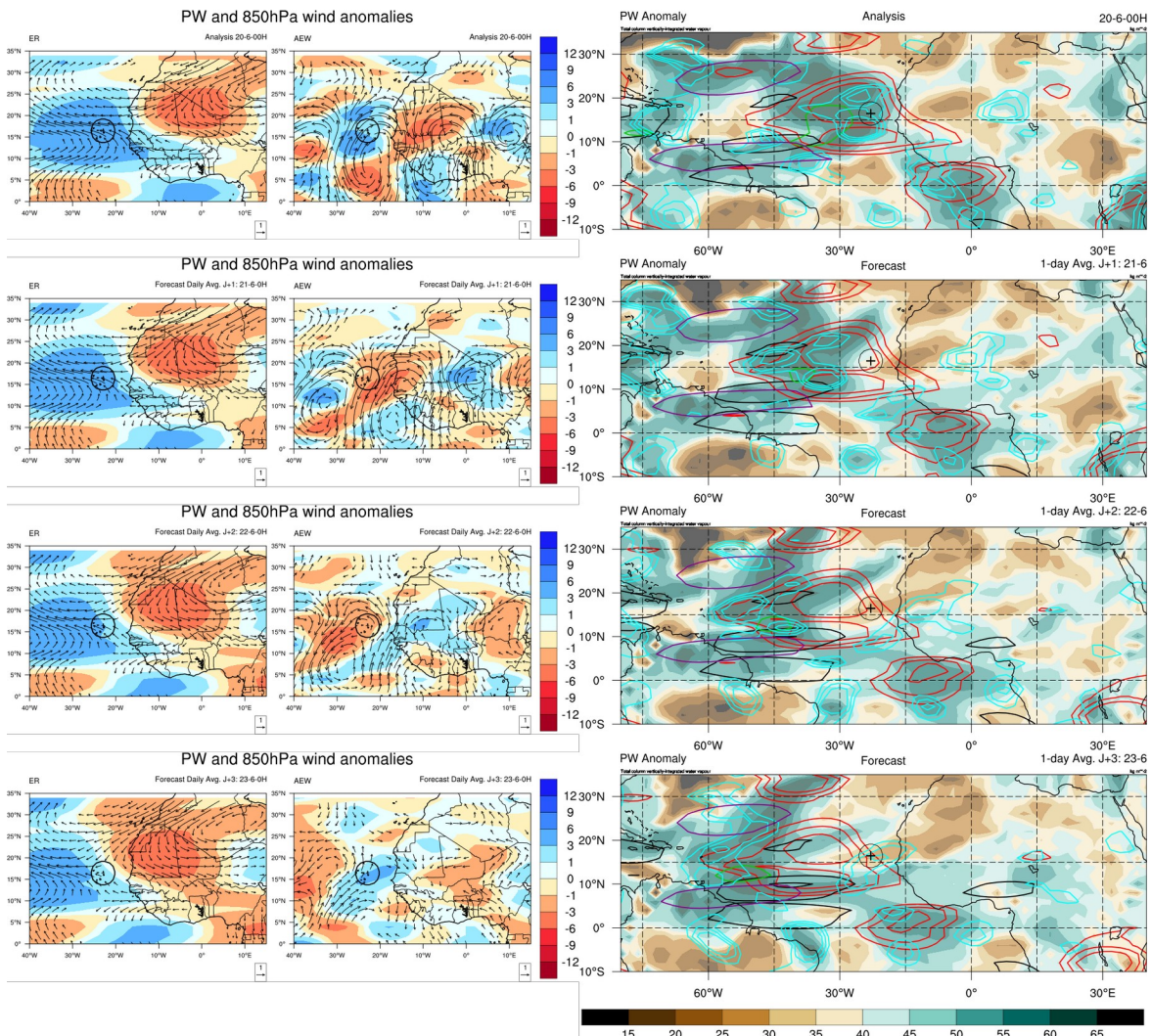


# Daily PW and wind @ 925 hPa – total and anomalies



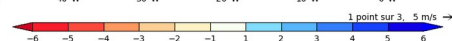
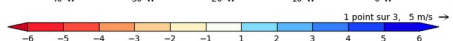
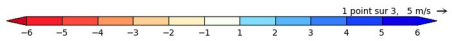
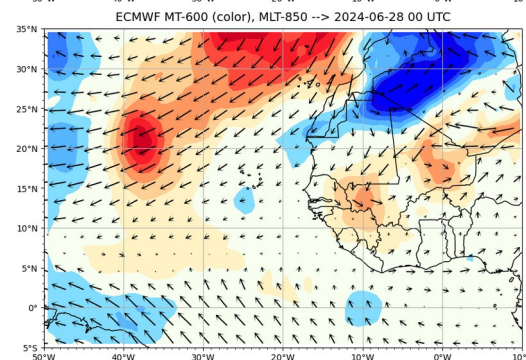
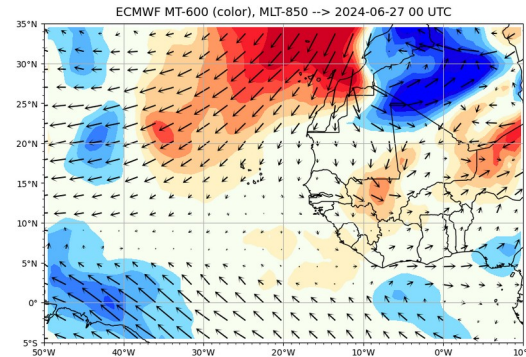
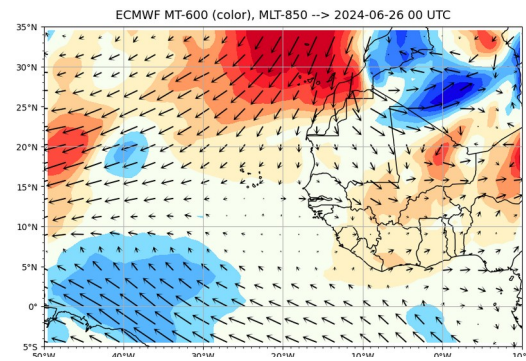
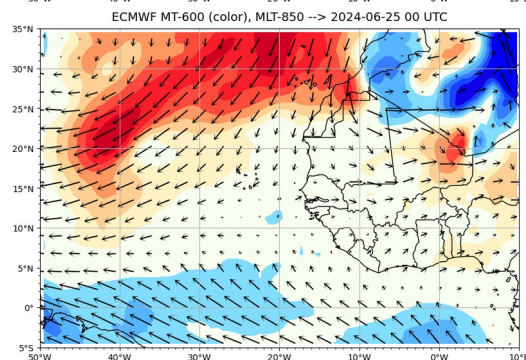
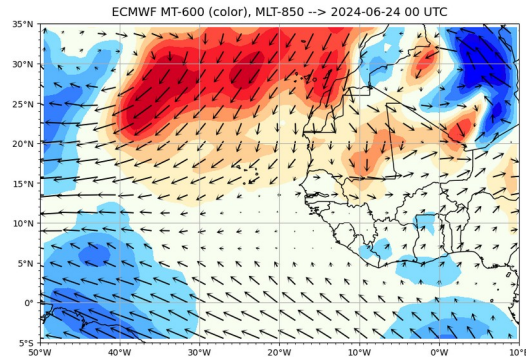
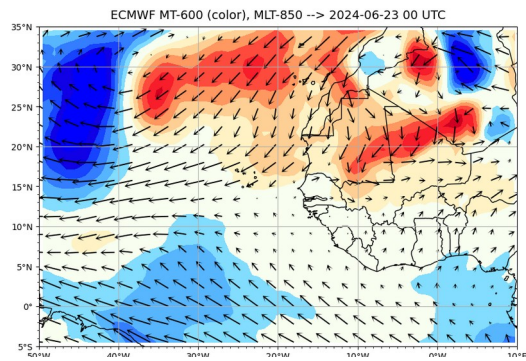
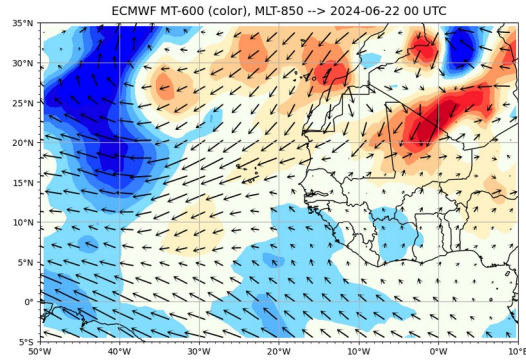
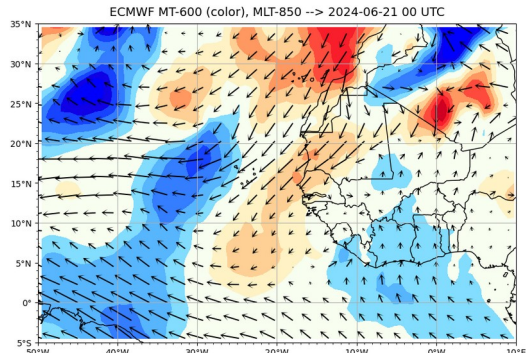
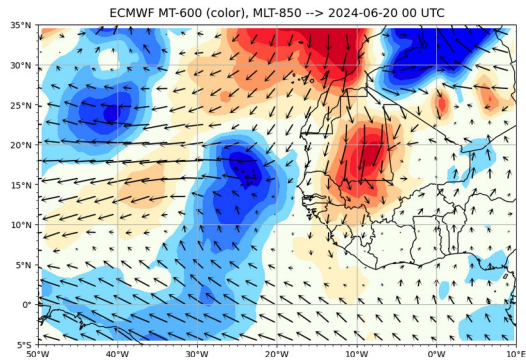


# Decomposition PW/Wind and Waves contours





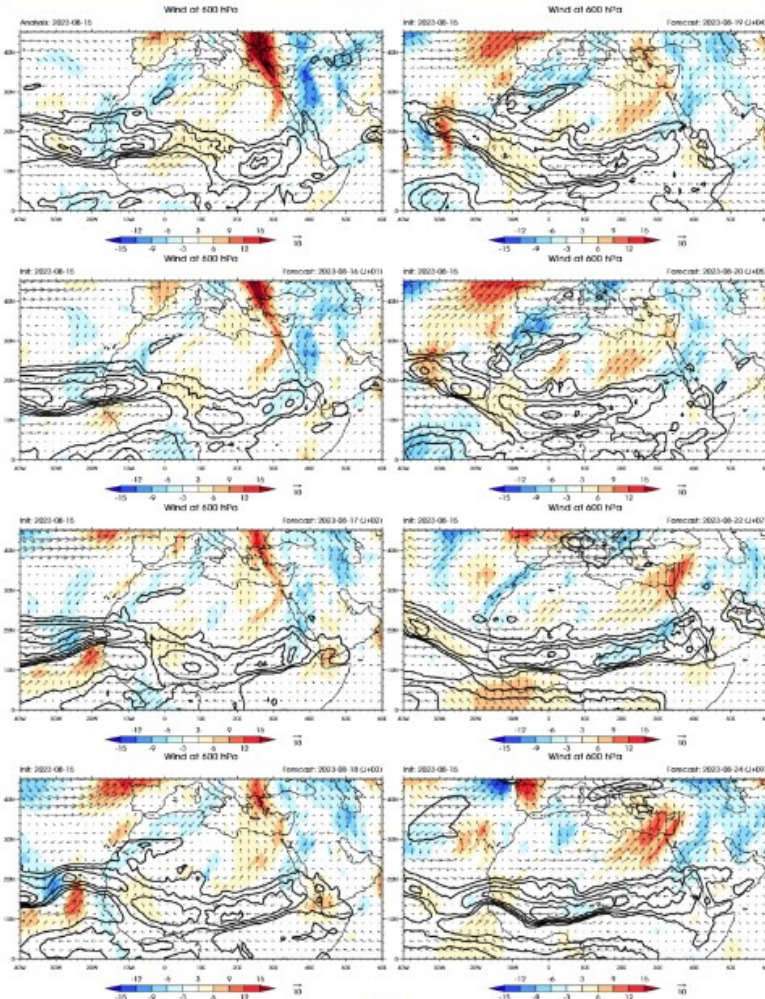
# Monsoon Flow





## Cartes à 600 hPa

15 août 2023



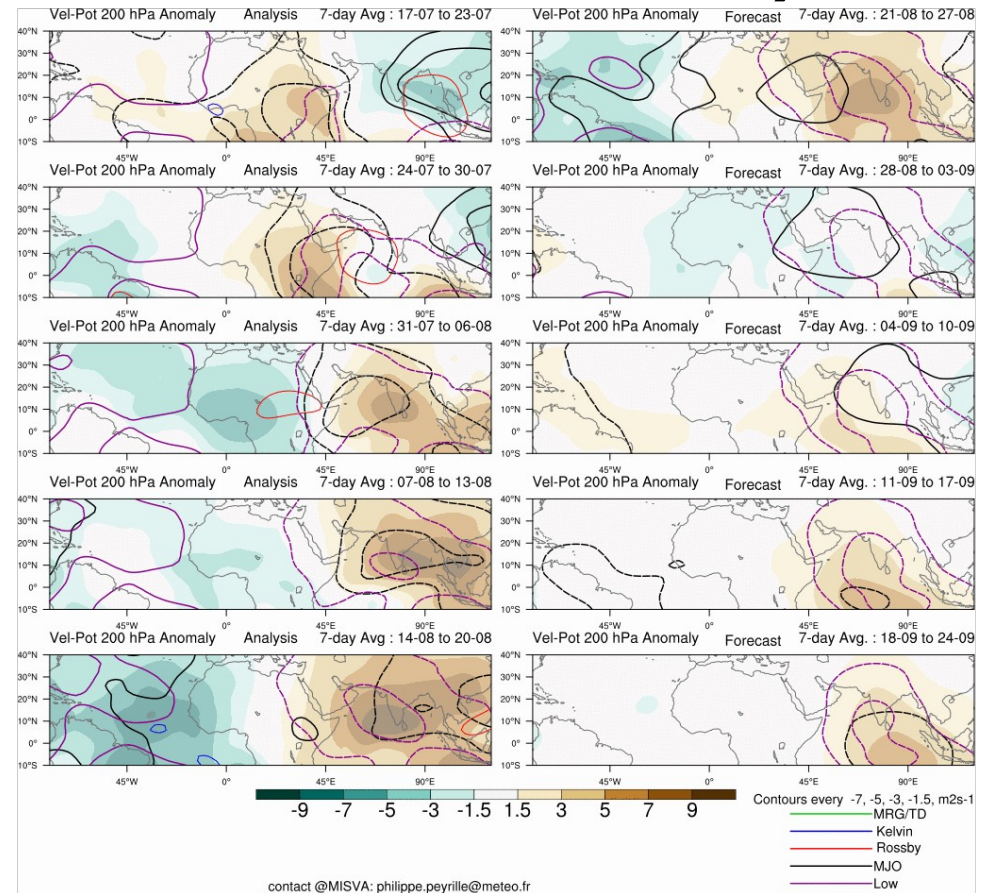
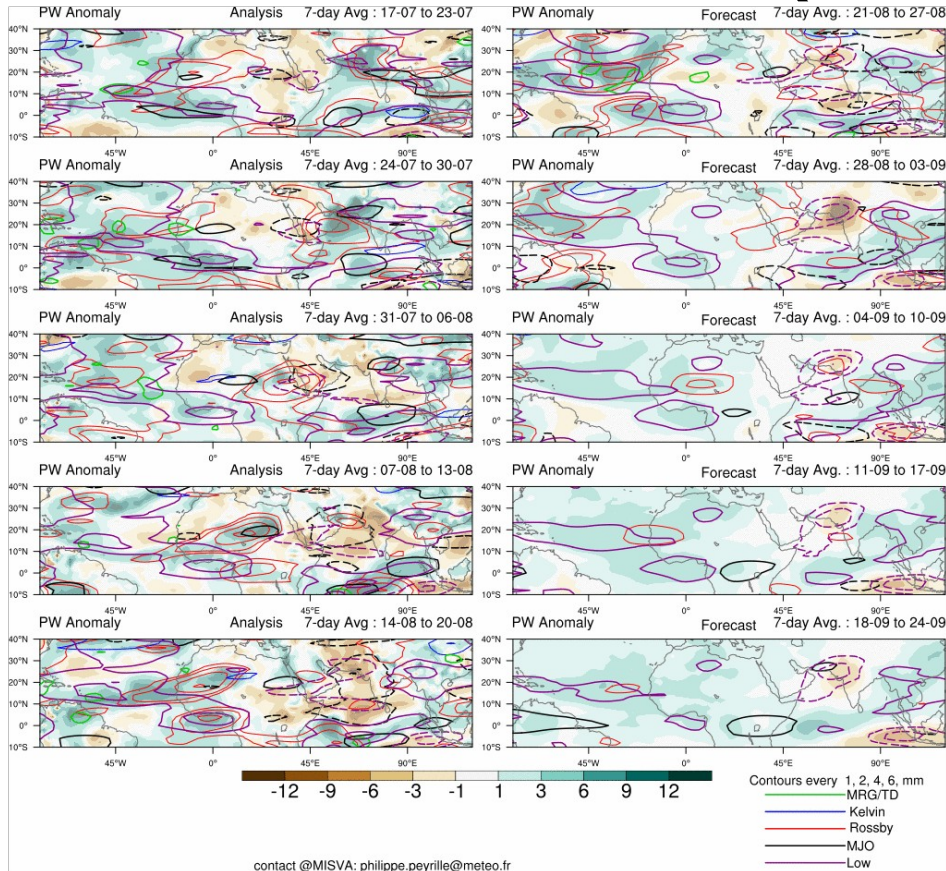
# À centrer sur SAL

- To identify the African Easterly Jet (JEA)

Subseasonal forecast  
(updated once a week)

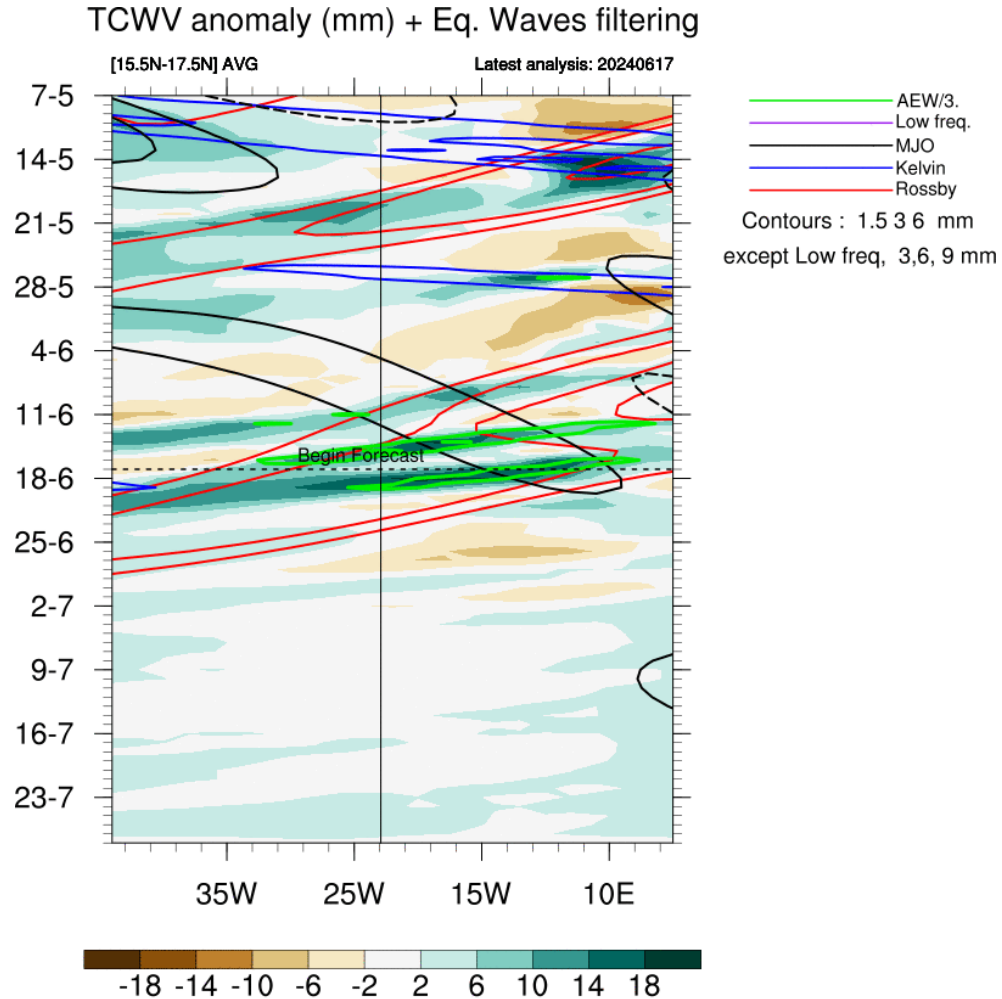
# 4 weeks forecast

## PW et VP200 (à zoomer sur SAL)

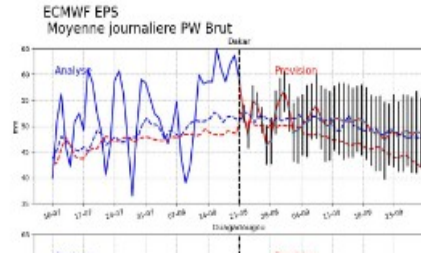
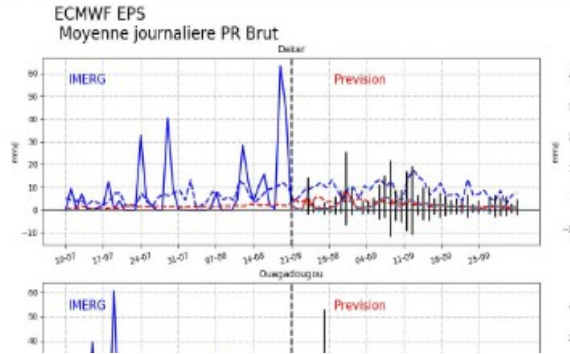




# Hovmoller forecast PW over 4 weeks

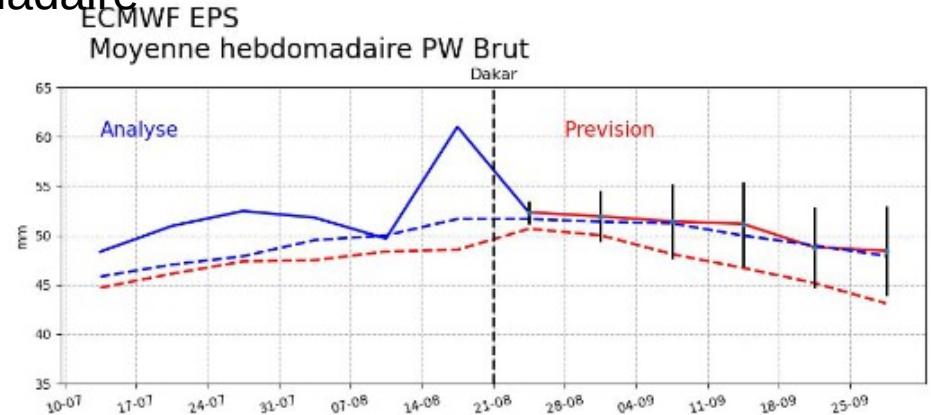
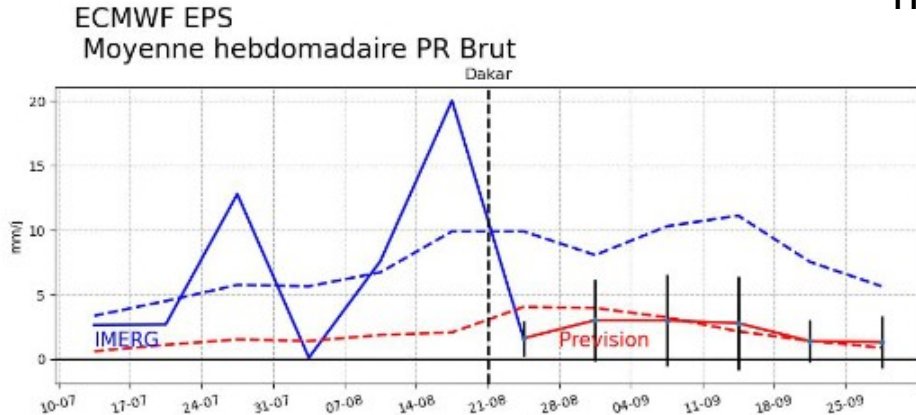


# Temporal evolution PW, PR centrer sur SAL (+ EKE)



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## Summary

Param	J	J+1	J+2	J+3	J+4	J+5	Wave
PW/ PW*							
VP200							
VV 500							
vorticity							
Wind @ 700 hPa (m/s)							
PBL height (m)							
Base cloud (m)							
Orga cloud							

