

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 12 UTC et J 00 UTC

Anasyg J-1 18 UTC et J 06 UTC

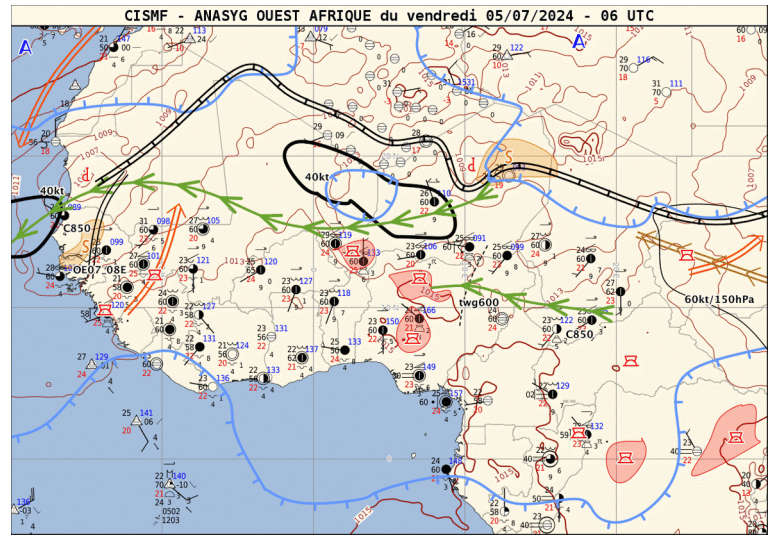
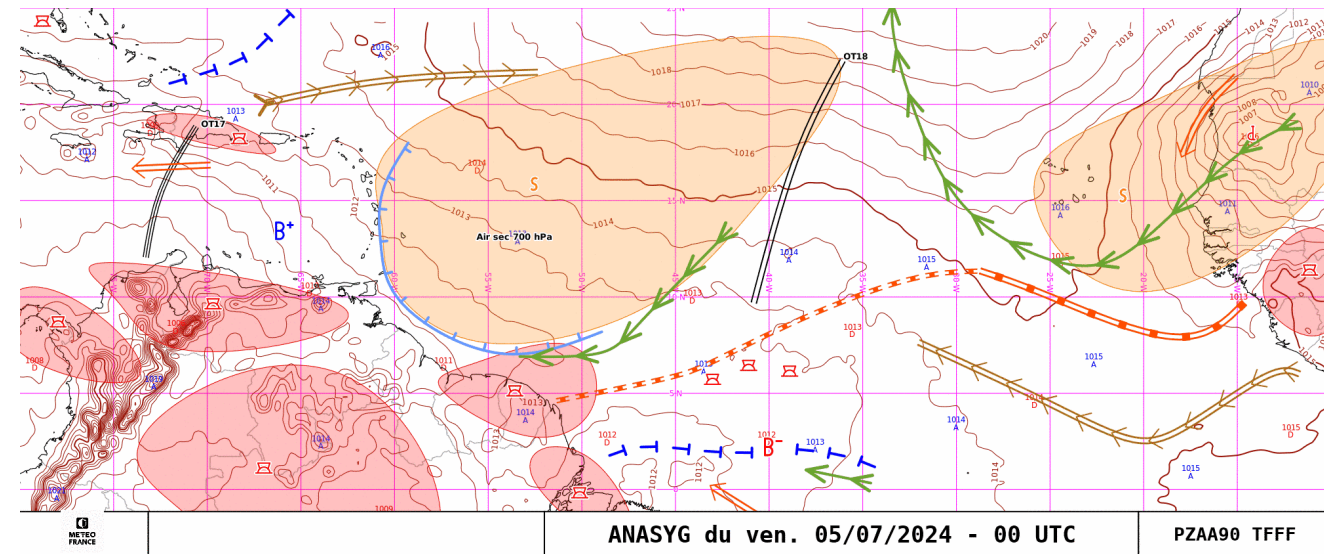
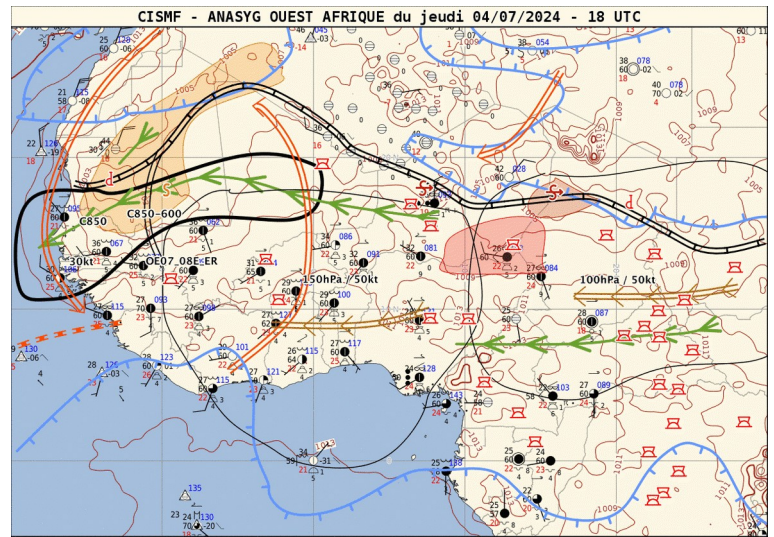
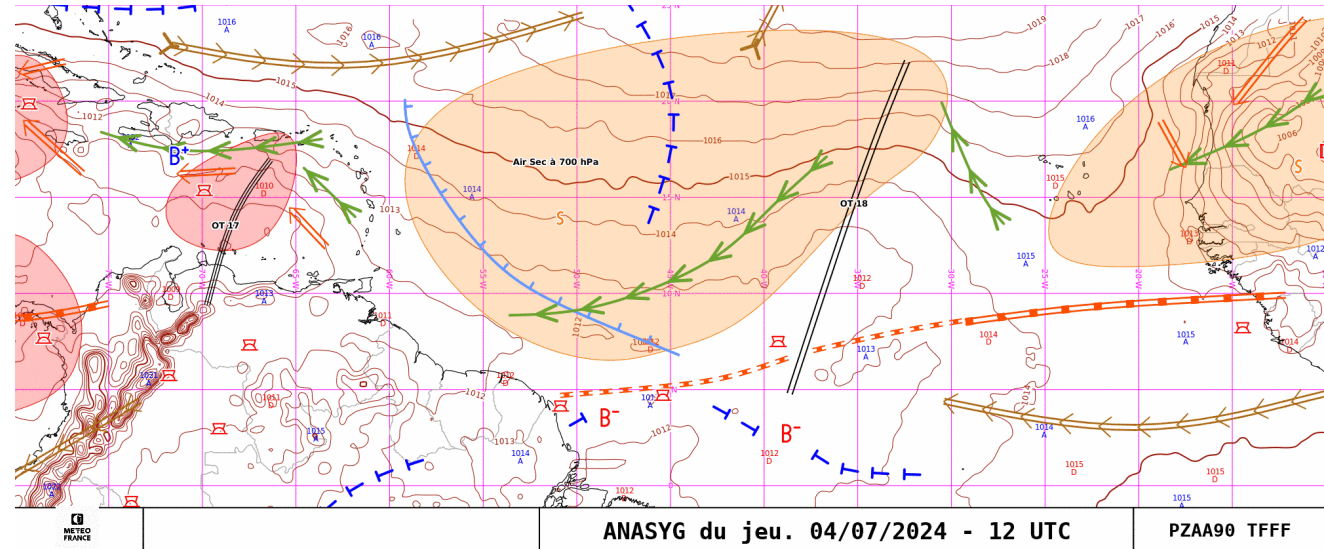
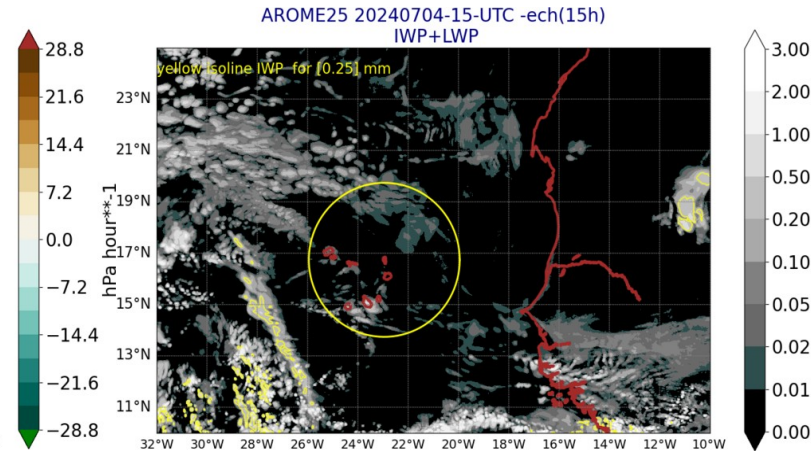
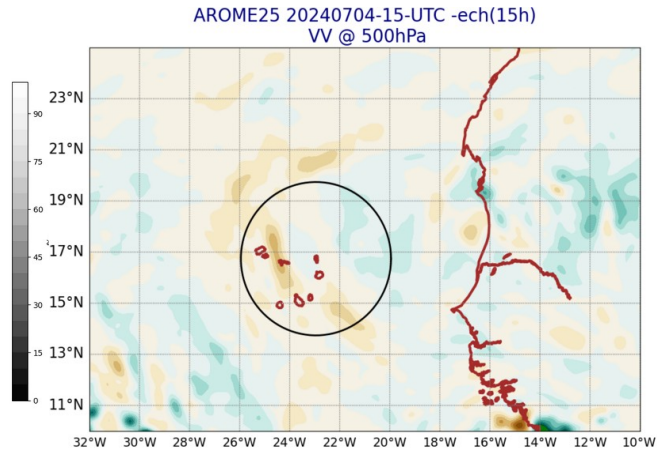
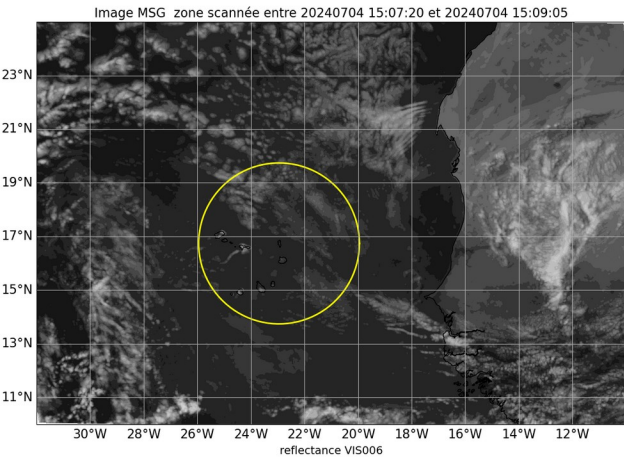
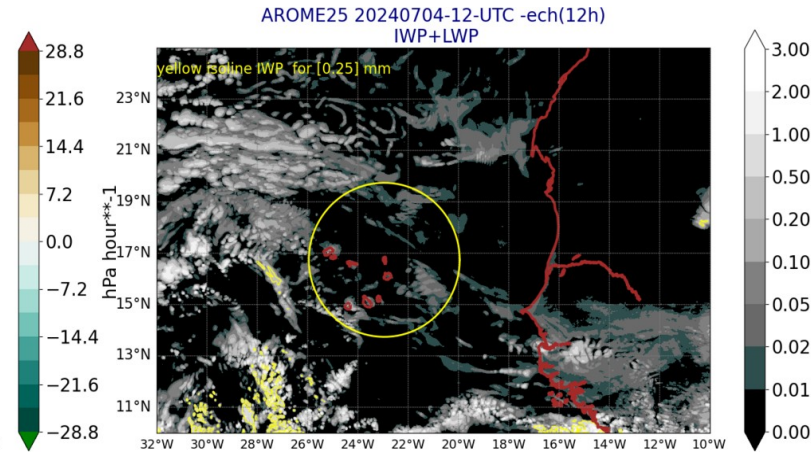
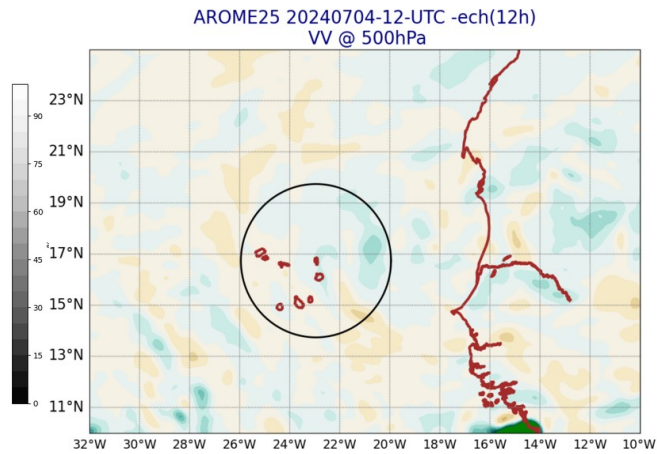
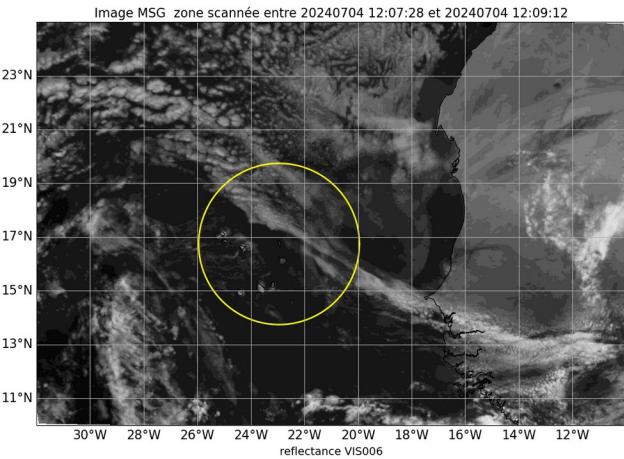


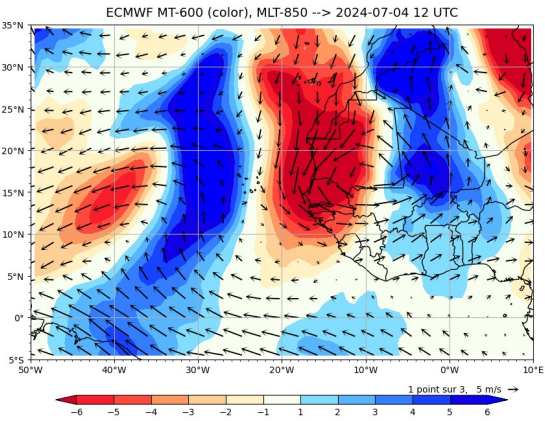
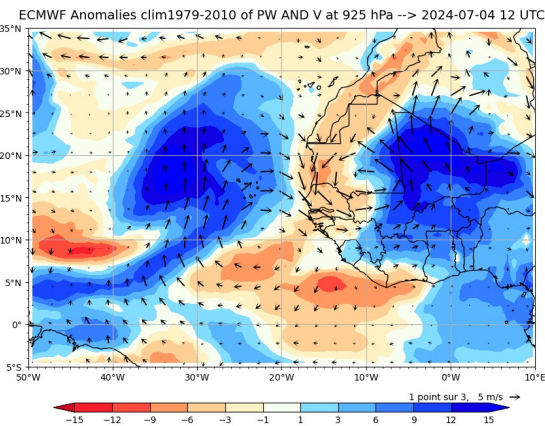
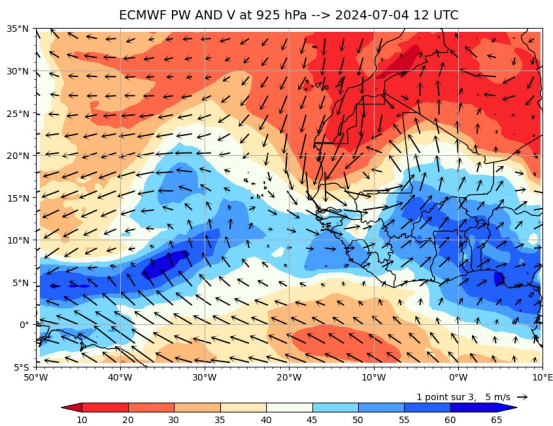
Image MSG Visible J-1 12 and 15 UTC

Arome J-1 12 and 15 UTC

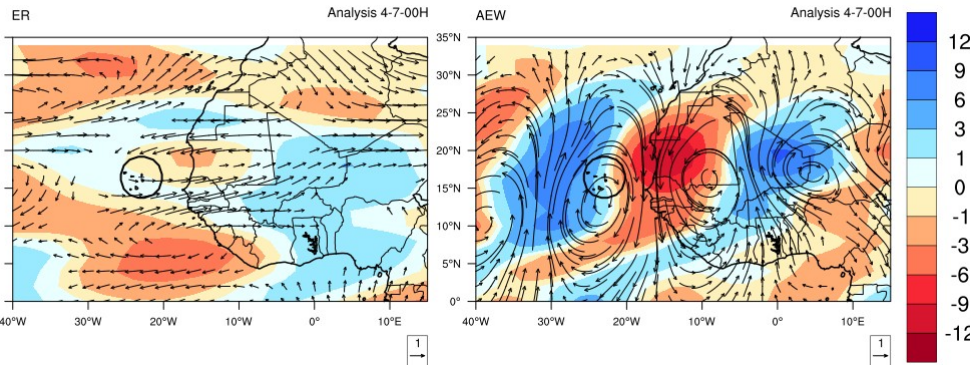


Precipitable Water - Merid. Transport J-1 12UTC

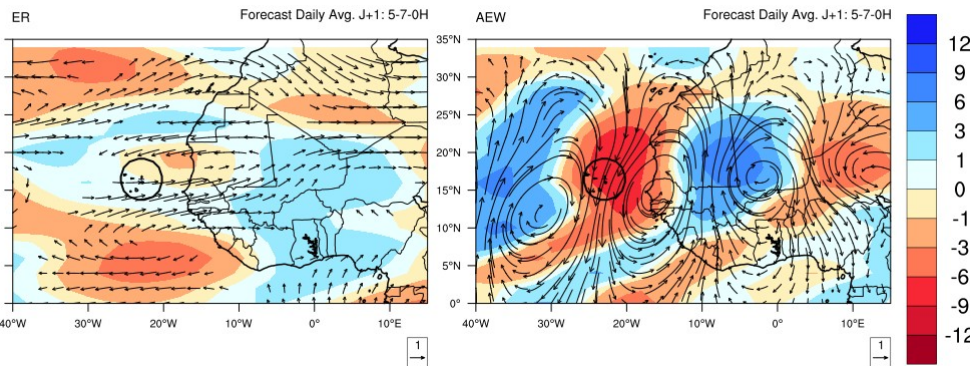
Waves J-1 00 UTC and J 00UTC



PW and 850hPa wind anomalies



PW and 850hPa wind anomalies

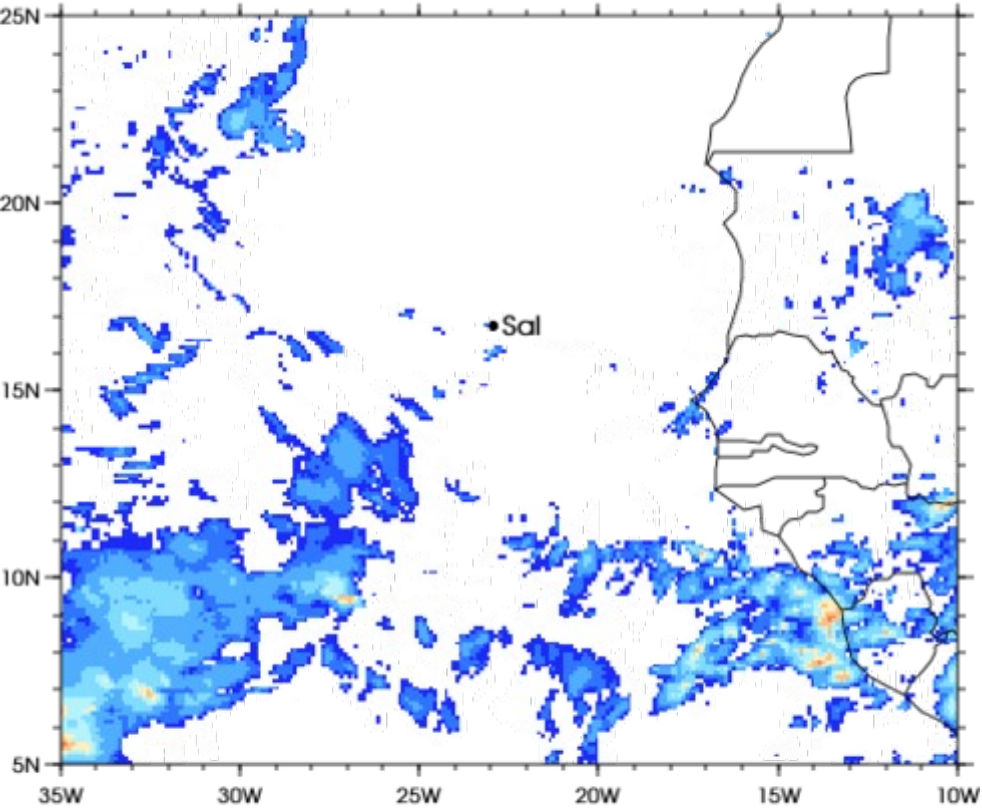


Precipitation IMERG and AROME J-1

3IMERGHHE GPM IMERG Early Precipitation

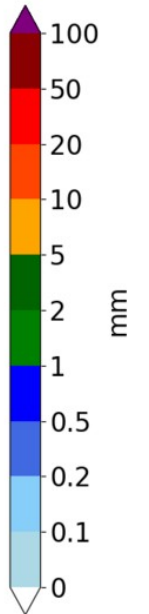
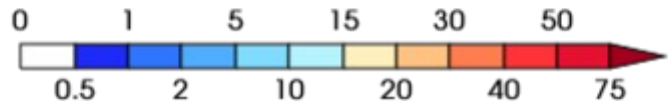
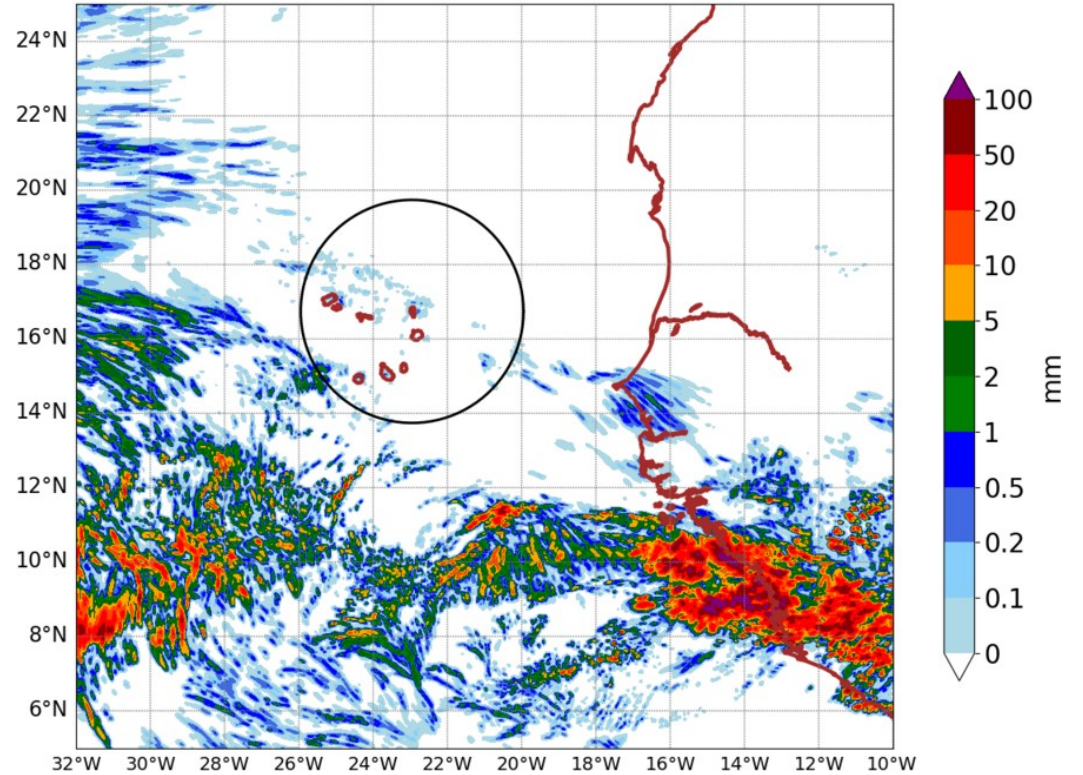
Daily accumulated: 2024-07-04

Units: mm/day



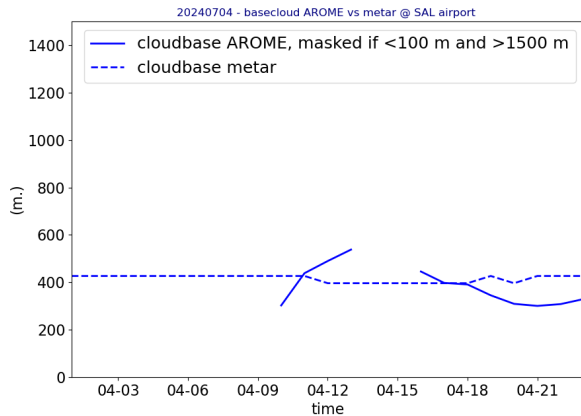
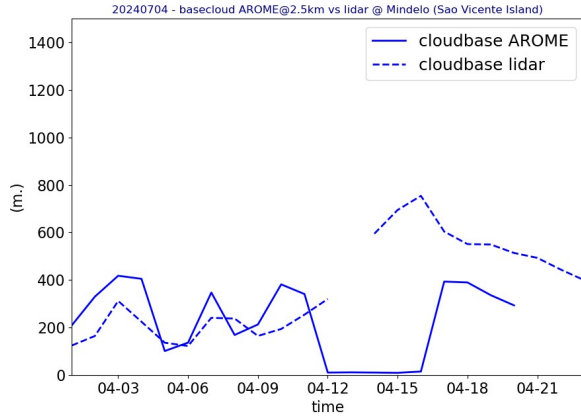
AROME25 20240705-00-UTC -ech(24h)

RR cumulated over 24h

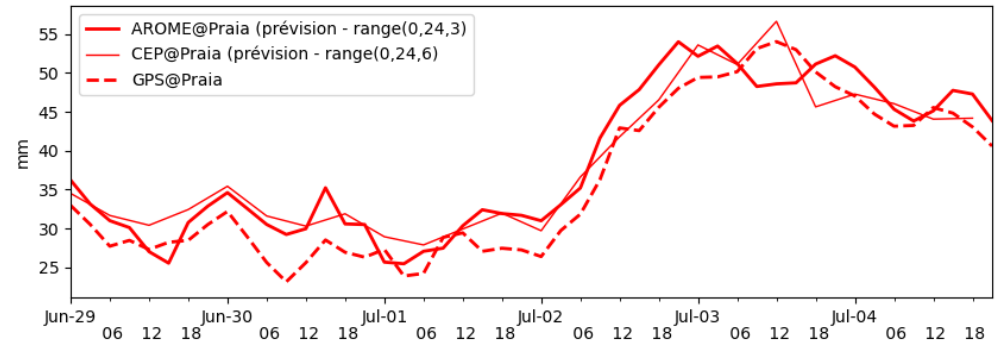
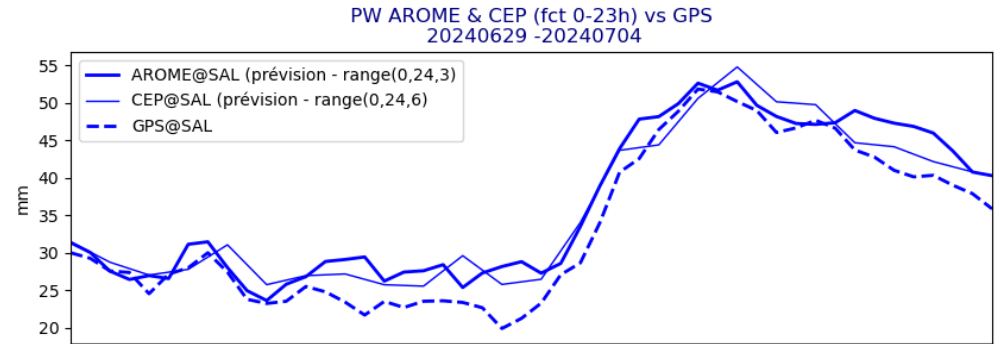


OBSERVATIONS J-1

Lidar@ mindelo
metar@sal

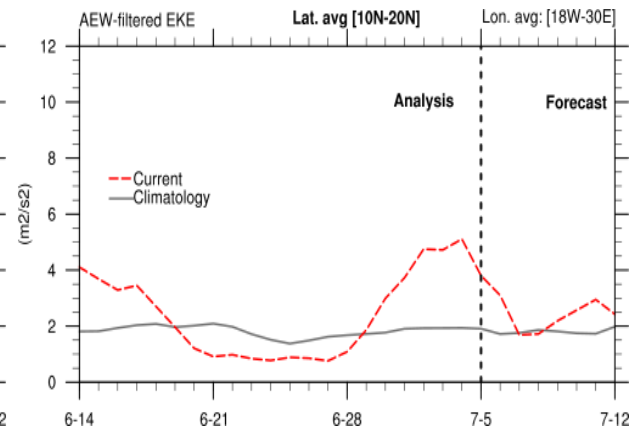
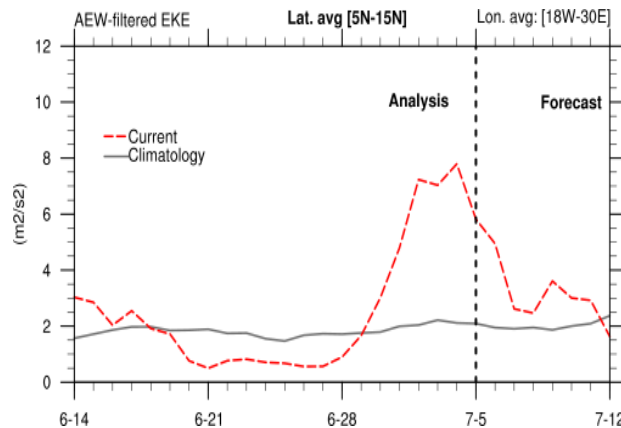
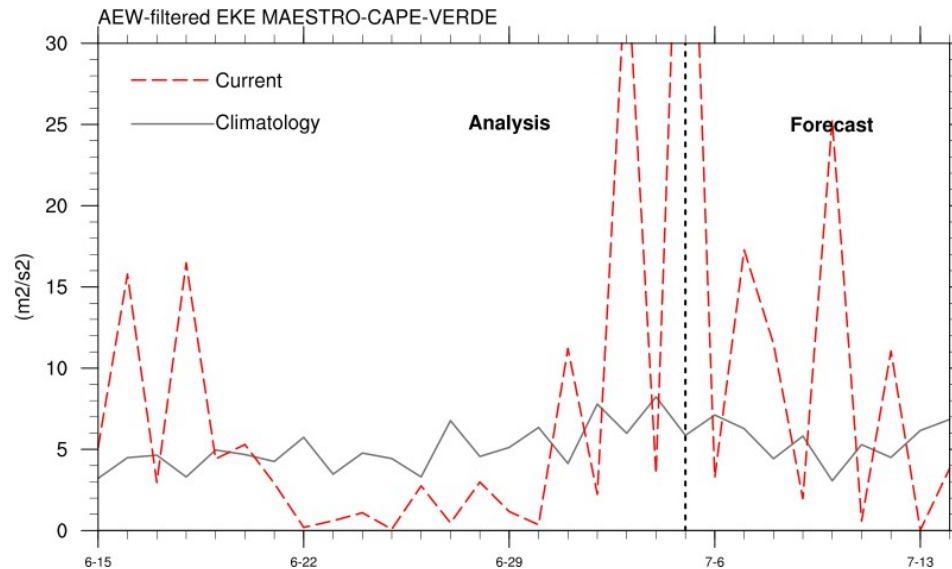
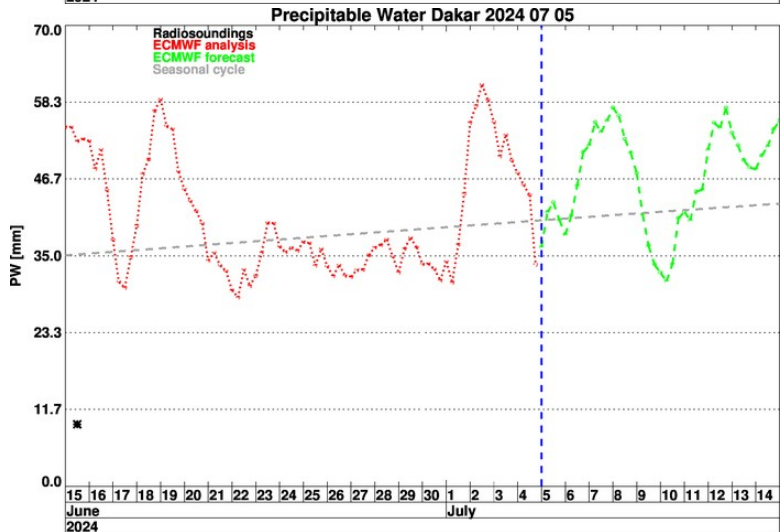
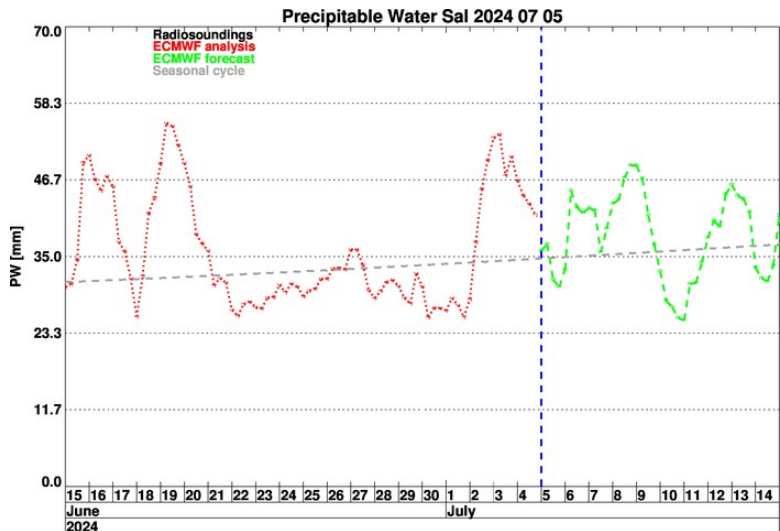


GPS @ Sal
GPS @ Praia



Short term forecast J - J+36h

Temporal evolution PW Sal et Dakar + EKE



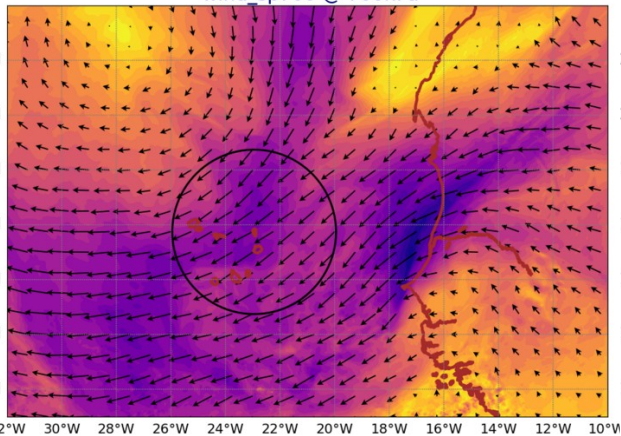
Forecast AROME

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

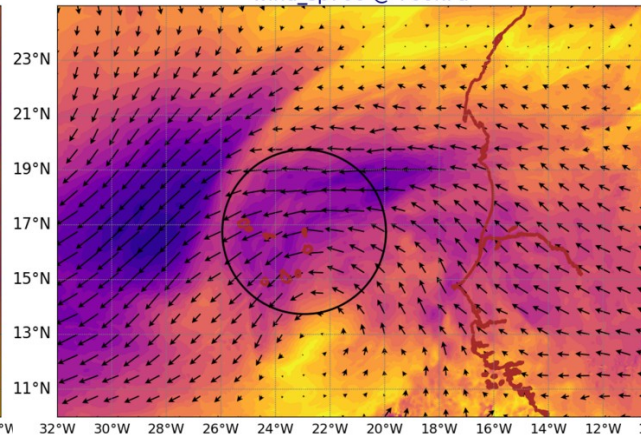
AROME Wind @ 700 hPa

AROME Wind @ 920 hPa

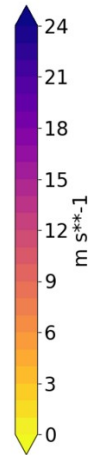
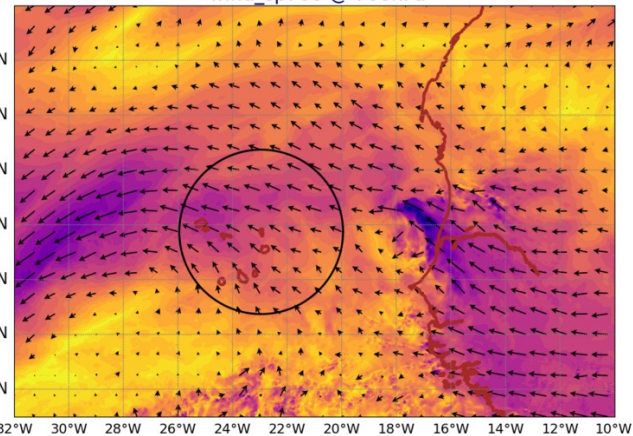
AROME25 20240705-12-UTC -ech(12h)
wind_sp700 @ 700hPa



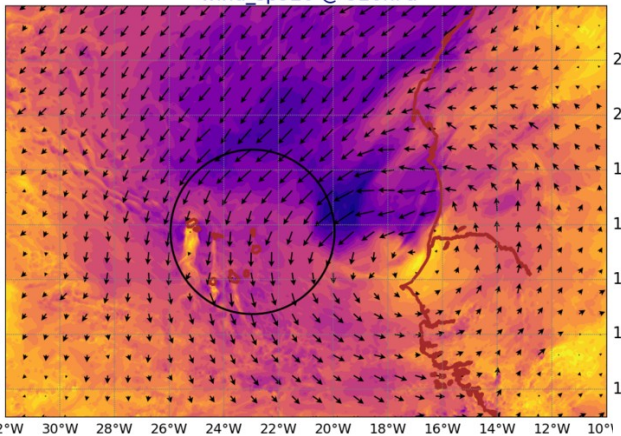
AROME25 20240706-12-UTC -ech(36h)
wind_sp700 @ 700hPa



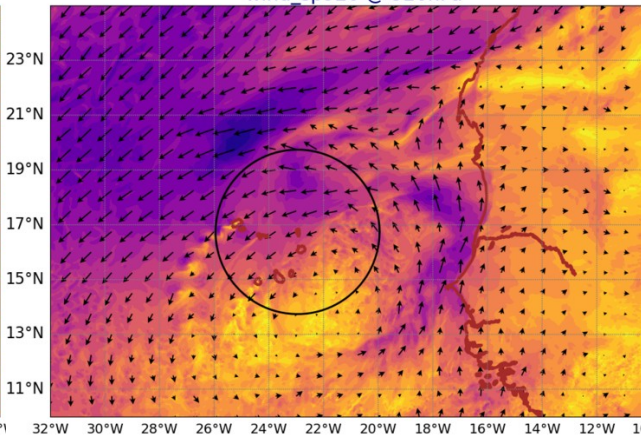
AROME25 20240707-12-UTC -ech(60h)
wind_sp700 @ 700hPa



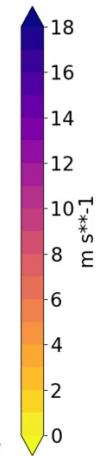
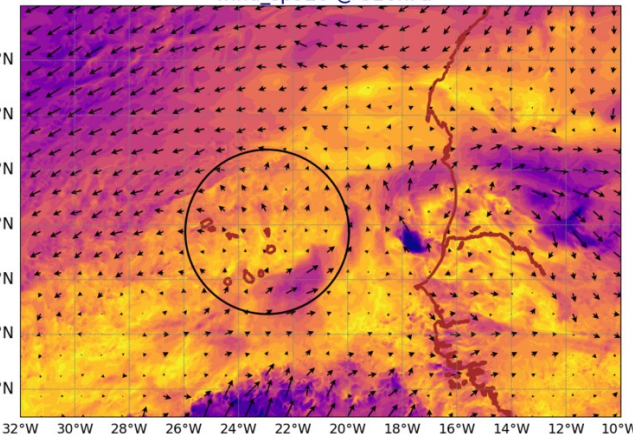
AROME25 20240705-12-UTC -ech(12h)
wind_sp920 @ 920hPa



AROME25 20240706-12-UTC -ech(36h)
wind_sp920 @ 920hPa



AROME25 20240707-12-UTC -ech(60h)
wind_sp920 @ 920hPa



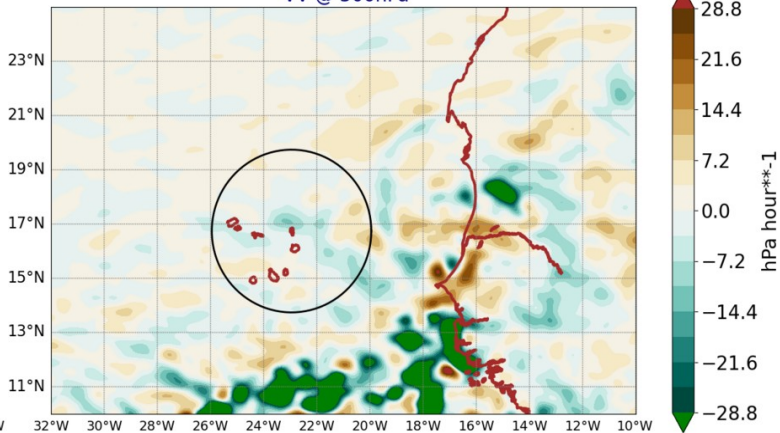
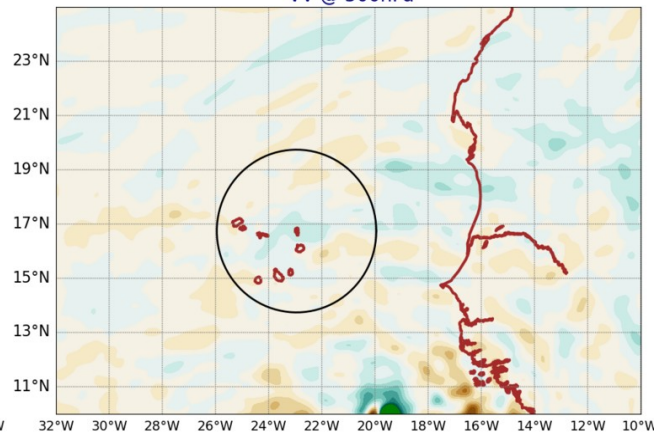
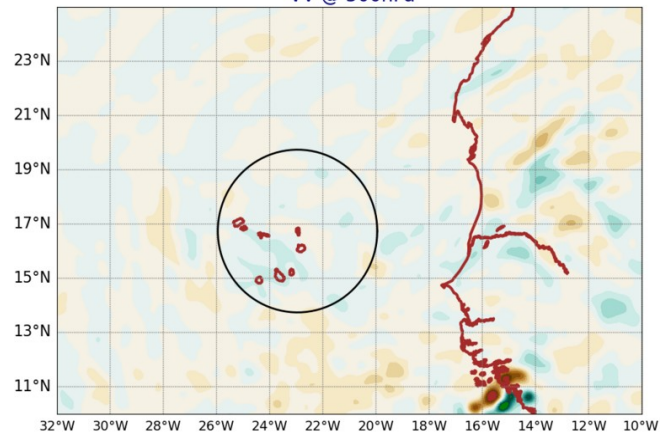
AROME VV @ 500hPa

AROME LWP+IWP

AROME25 20240705-12-UTC -ech(12h)
VV @ 500hPa

AROME25 20240706-12-UTC -ech(36h)
VV @ 500hPa

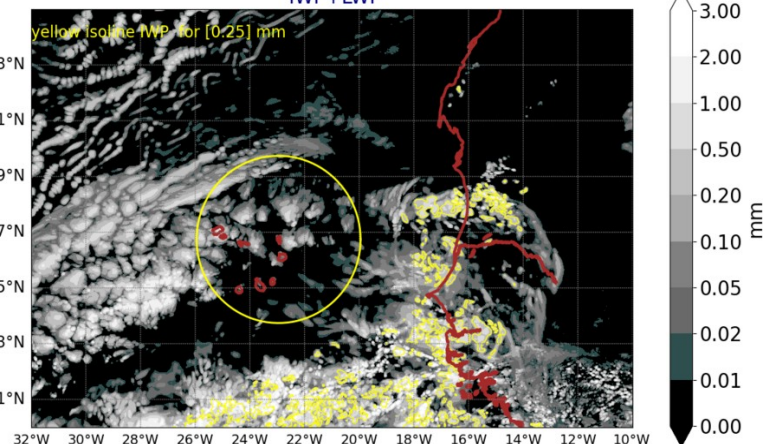
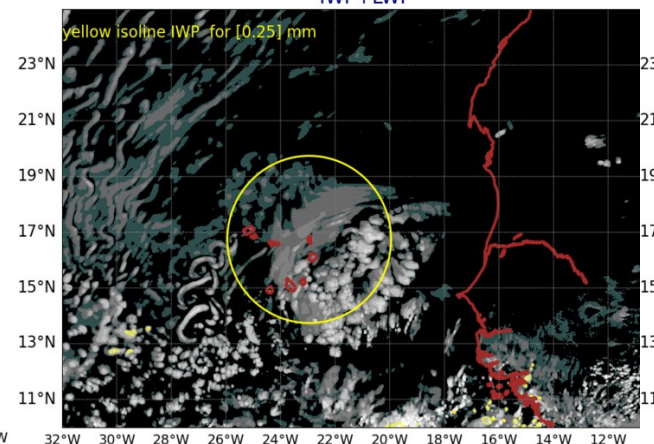
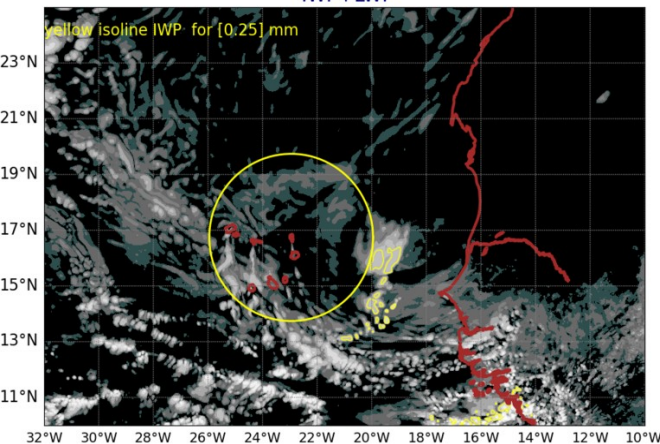
AROME25 20240707-12-UTC -ech(60h)
VV @ 500hPa



AROME25 20240705-12-UTC -ech(12h)
IWP+LWP

AROME25 20240706-12-UTC -ech(36h)
IWP+LWP

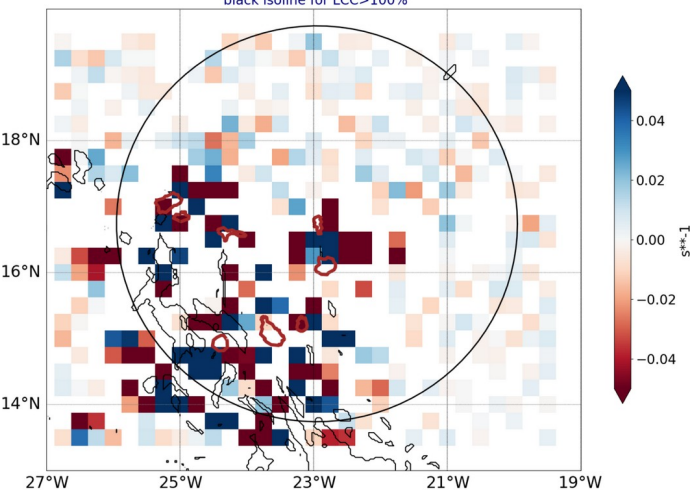
AROME25 20240707-12-UTC -ech(60h)
IWP+LWP



Smoc

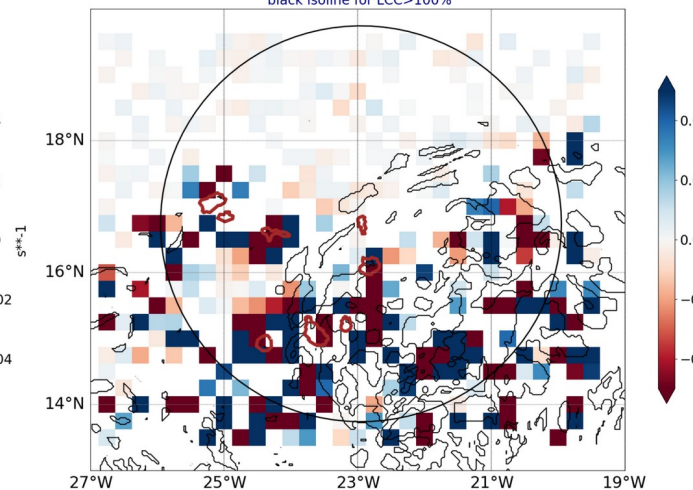
-blue for conv in subcloud layer-
dark isoline for low cloud cover

AROME25 regrid 0.25
20240705-12-UTC -ech(12h)
blue for conv in subcloud layer
black isoline for LCC>100%



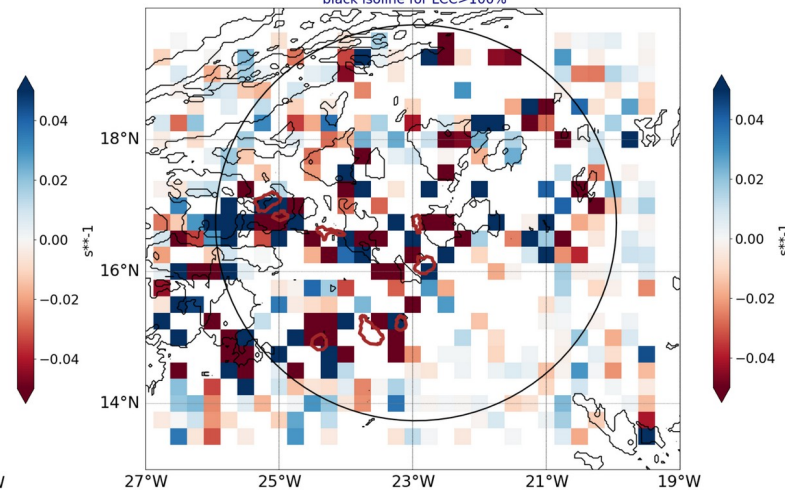
white box where subcloud and cloud layer have same sign of div

AROME25 regrid 0.25
20240706-12-UTC -ech(36h)
blue for conv in subcloud layer
black isoline for LCC>100%



white box where subcloud and cloud layer have same sign of div

AROME25 regrid 0.25
20240707-12-UTC -ech(60h)
blue for conv in subcloud layer
black isoline for LCC>100%



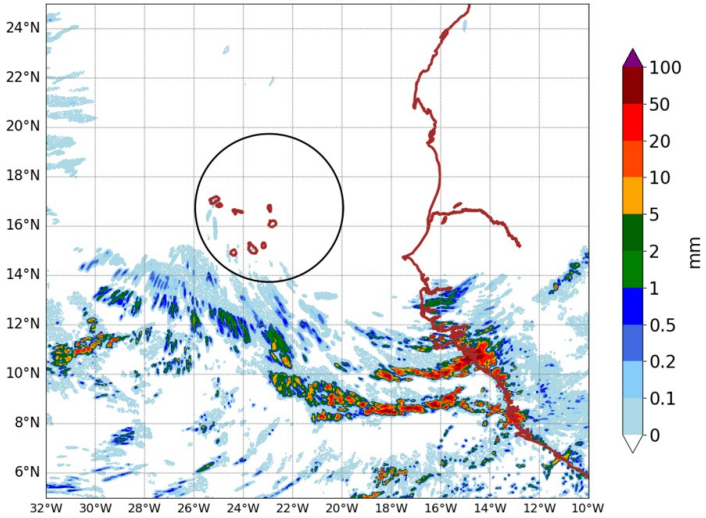
white box where subcloud and cloud layer have same sign of div

over 6h ech 12h and 15h

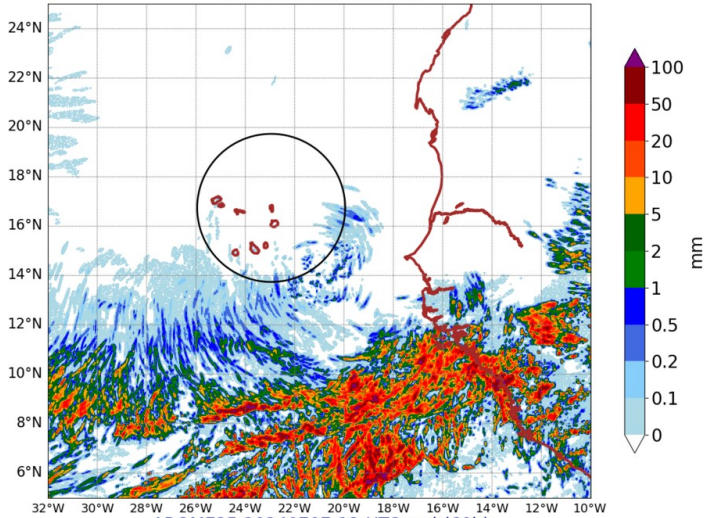
AROME precipitation

over 24h ech 36h and 60h

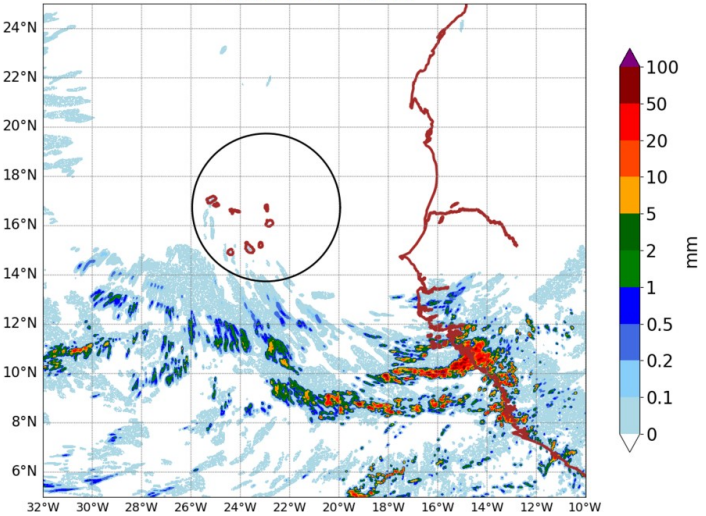
AROME25 20240705-12-UTC -ech(12h)
RR cumulated over 6h



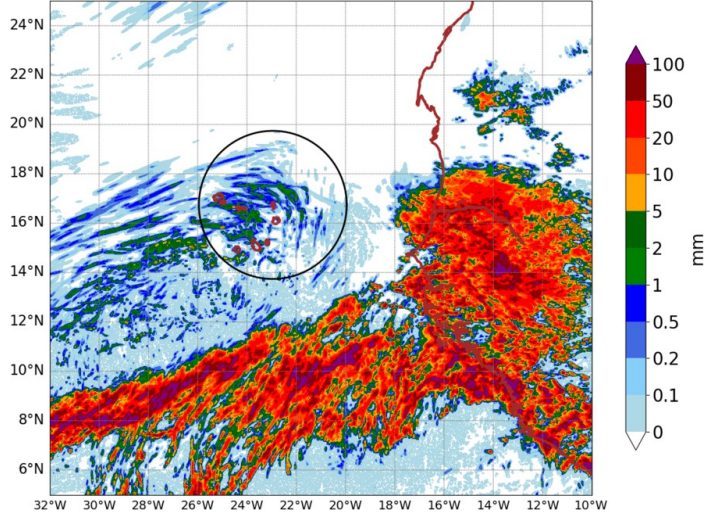
AROME25 20240706-12-UTC -ech(36h)
RR cumulated over 24h



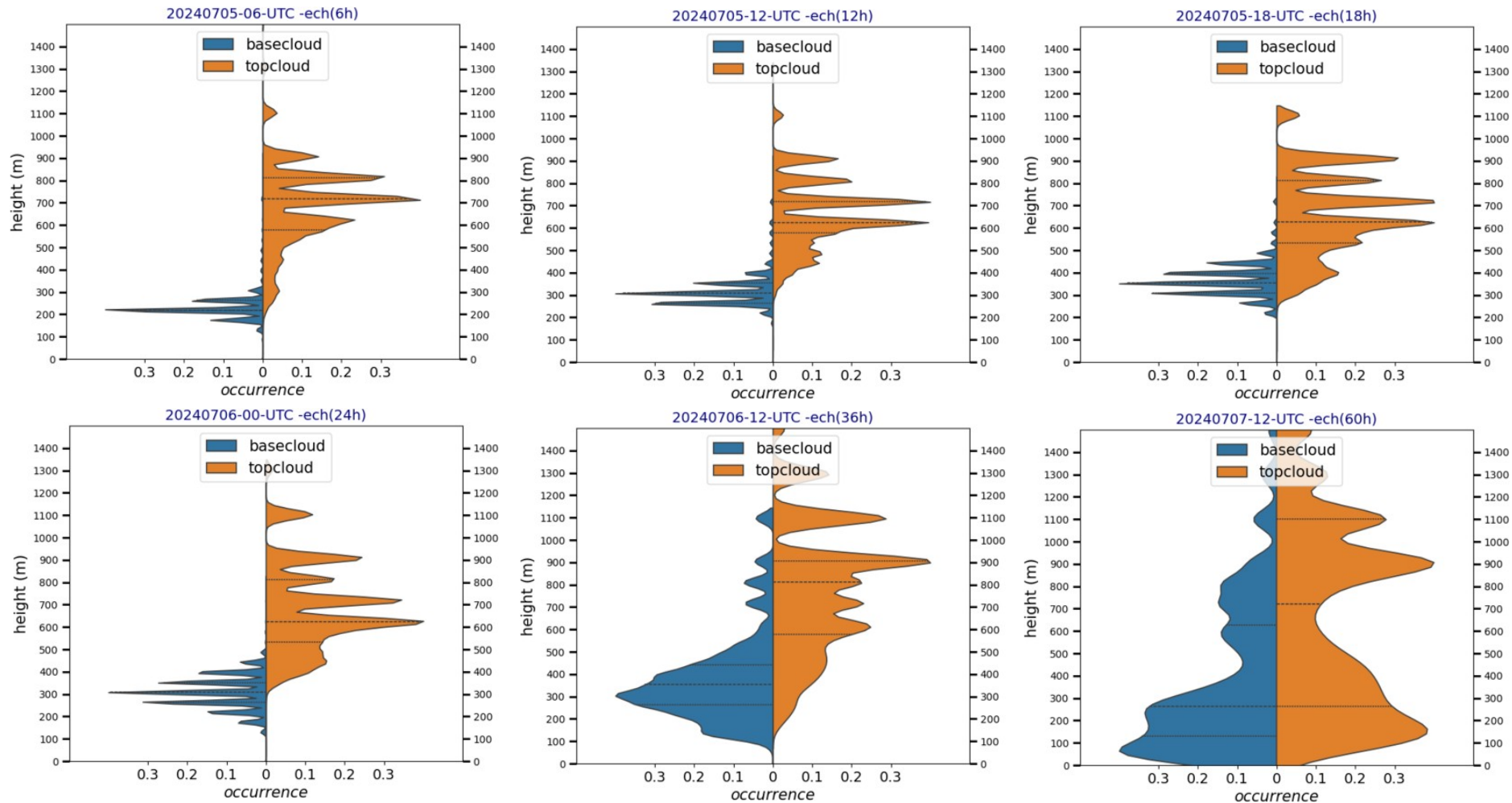
AROME25 20240705-15-UTC -ech(15h)
RR cumulated over 6h



AROME25 20240707-12-UTC -ech(60h)
RR cumulated over 24h

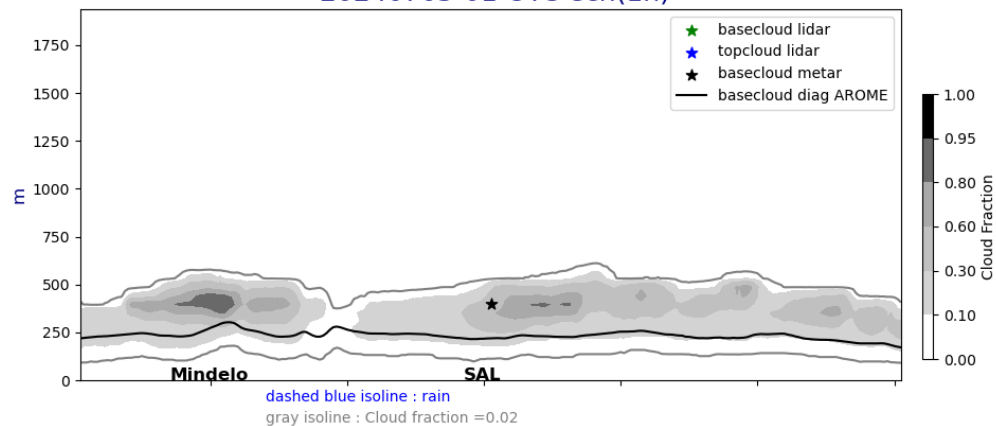


AROME base and top cloud (mean in the 3° circle)

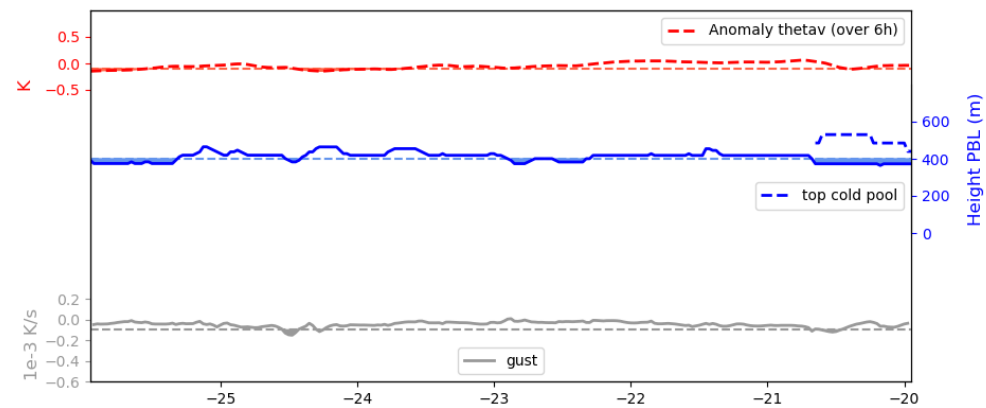
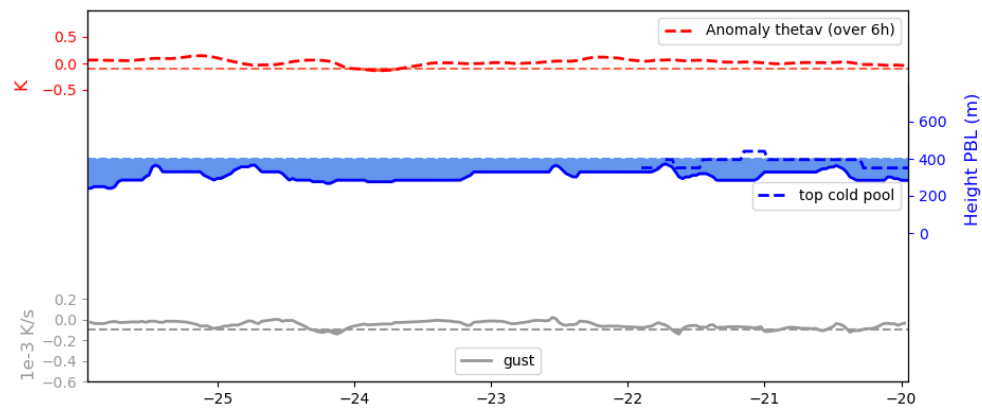
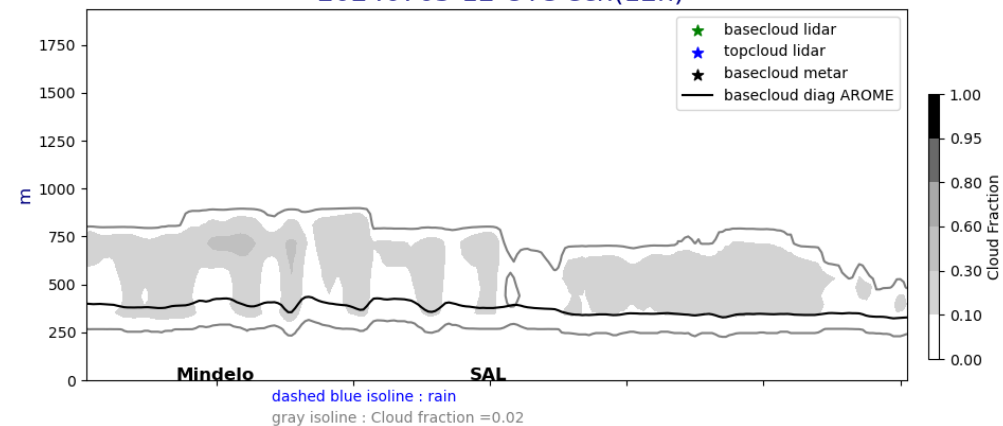


Lat. cross section @17°5N fct : 01UTC, 12UTC

Cross section E/W @ 17.5N
20240705-01-UTC ech(1h)

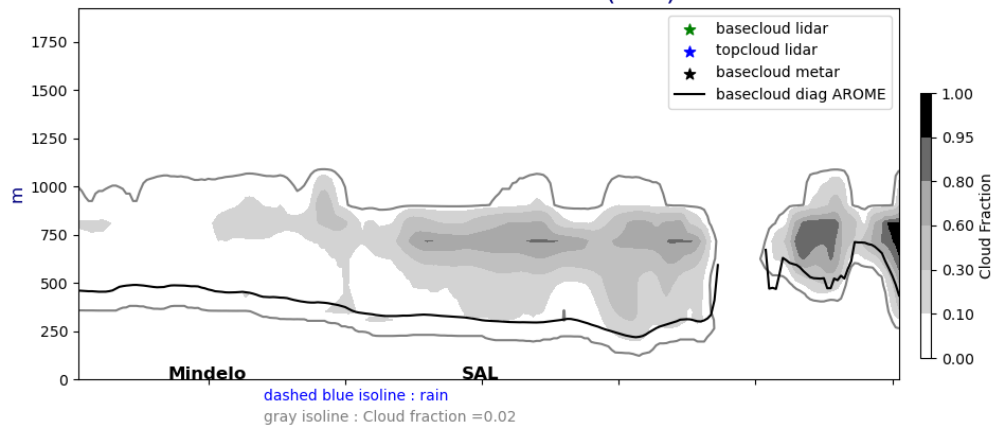


Cross section E/W @ 17.5N
20240705-12-UTC ech(12h)

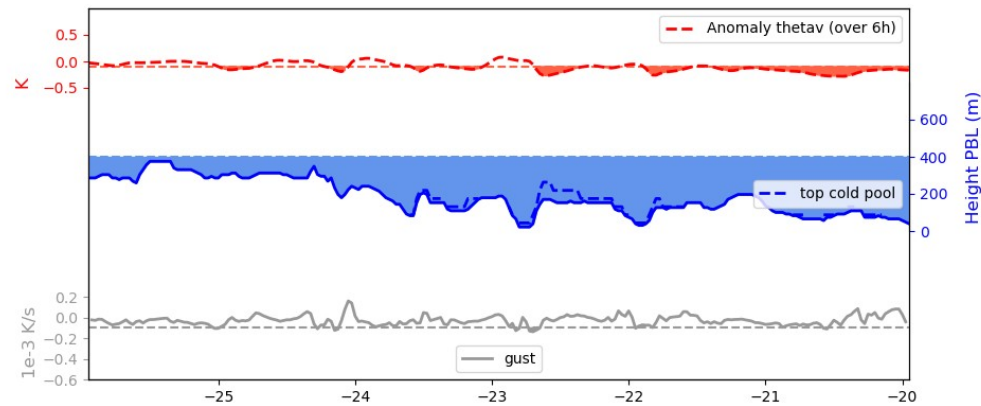
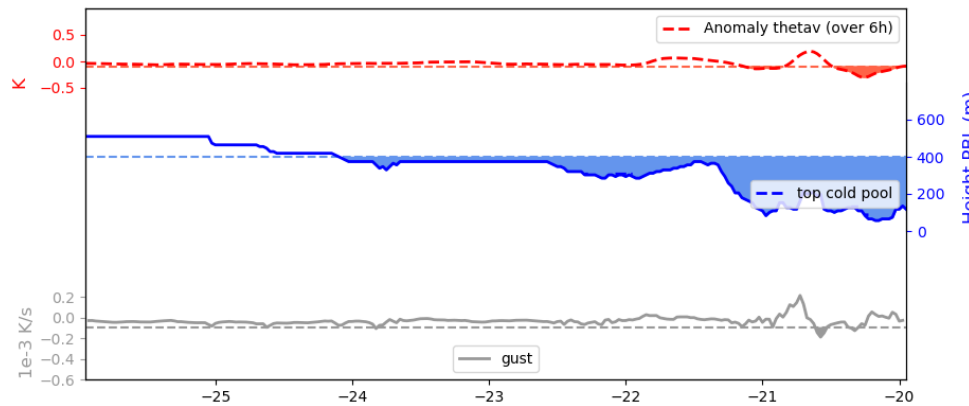
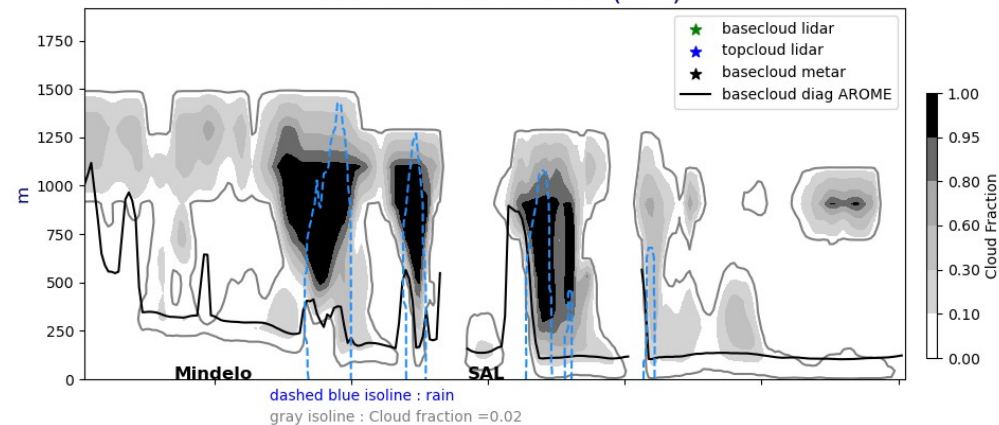


Lat. cross section @17°5N fct : J+1 and J+2 @ 12UTC

Cross section E/W @ 17.5N
20240706-12-UTC ech(36h)

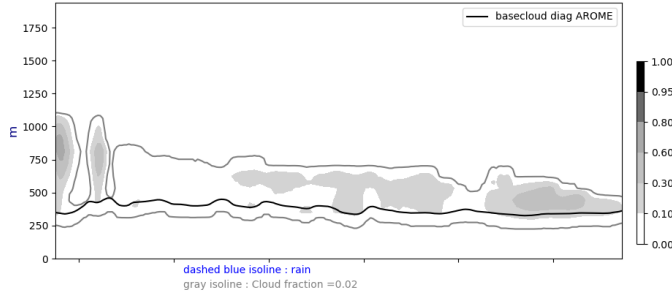


Cross section E/W @ 17.5N
20240707-12-UTC ech(60h)

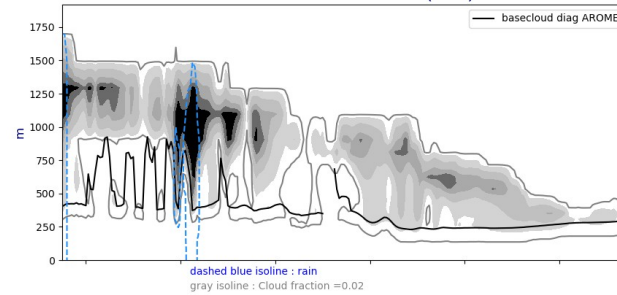


Lon. cross section @22W fct : J,J+1, J+2 @ 12 UTC

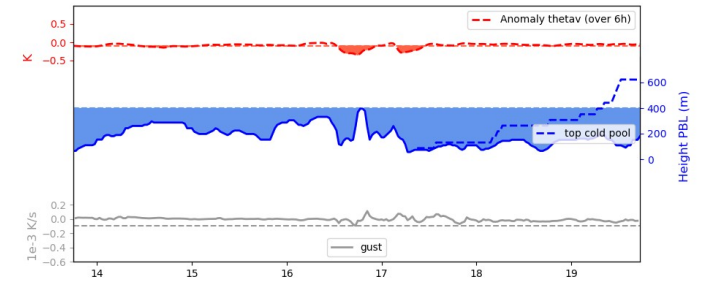
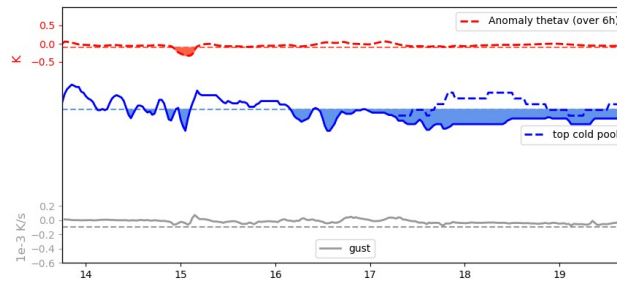
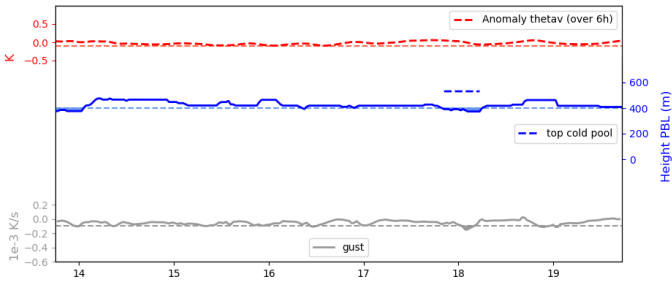
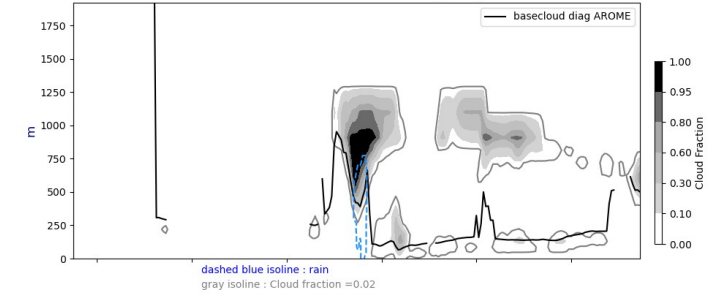
Cross section S/N @ -22W
20240705-12-UTC ech(12h)



Cross section S/N @ -22W
20240706-12-UTC ech(36h)

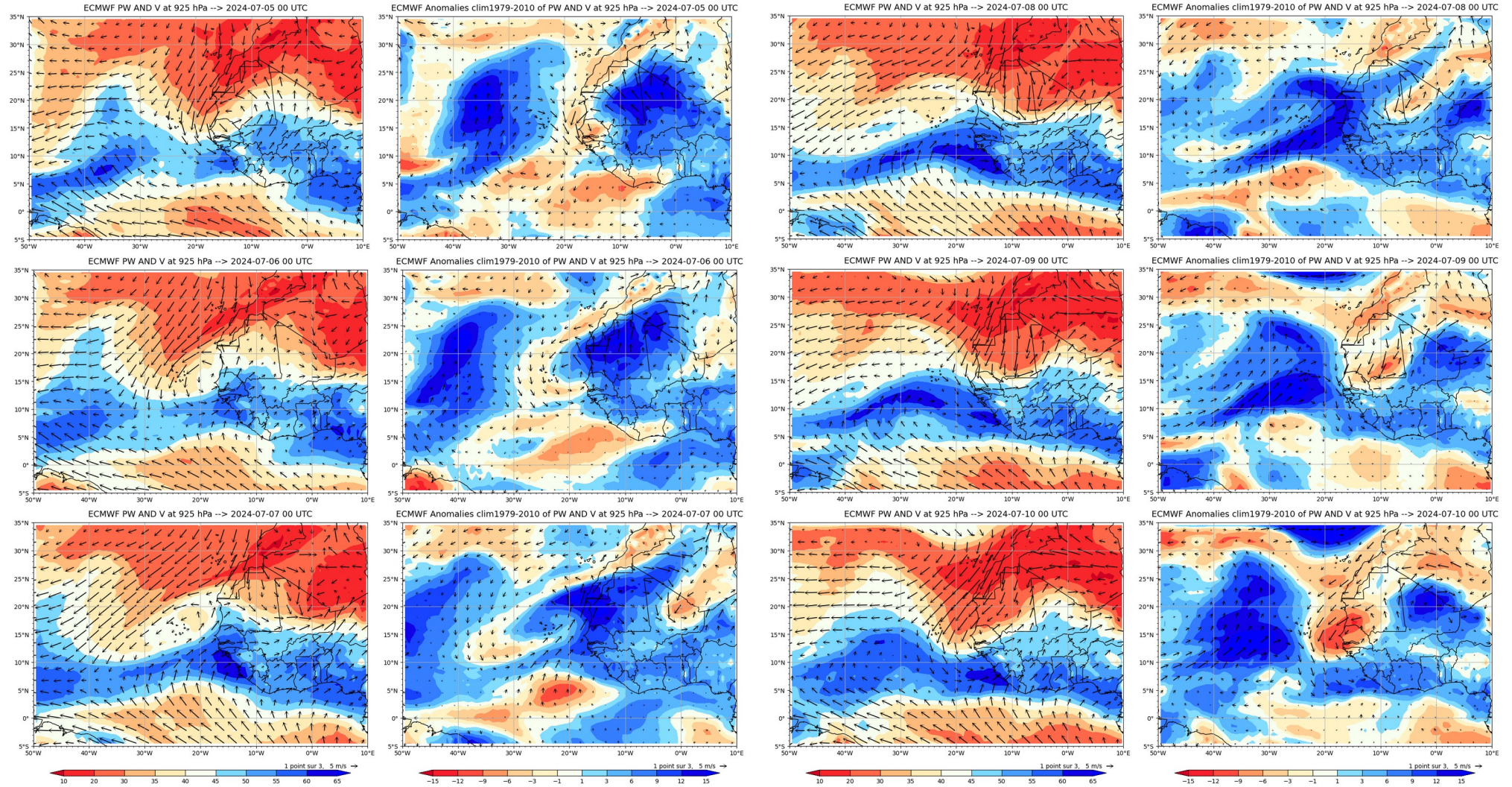


Cross section S/N @ -22W
20240707-12-UTC ech(60h)

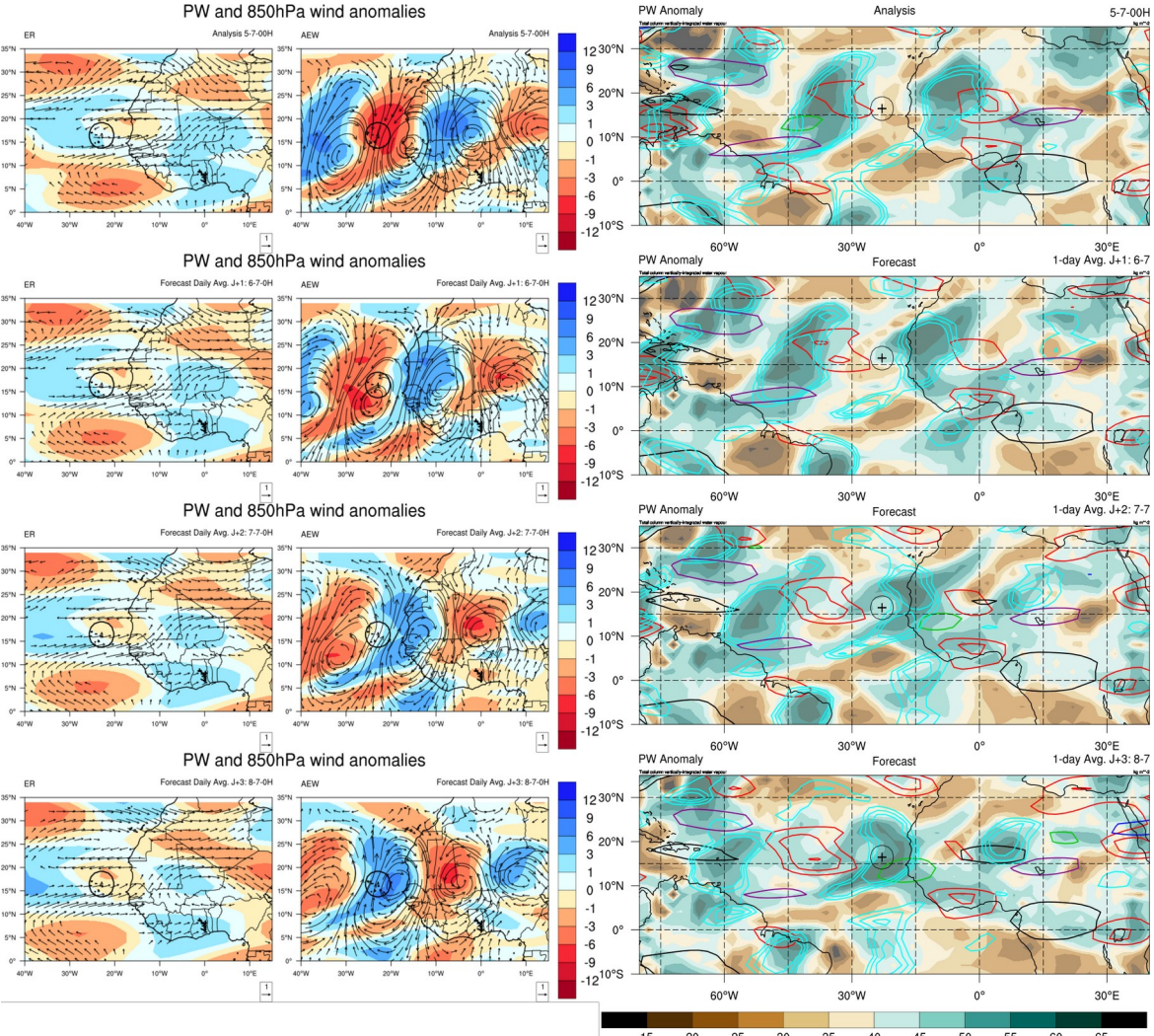


Week forecast J - J+7

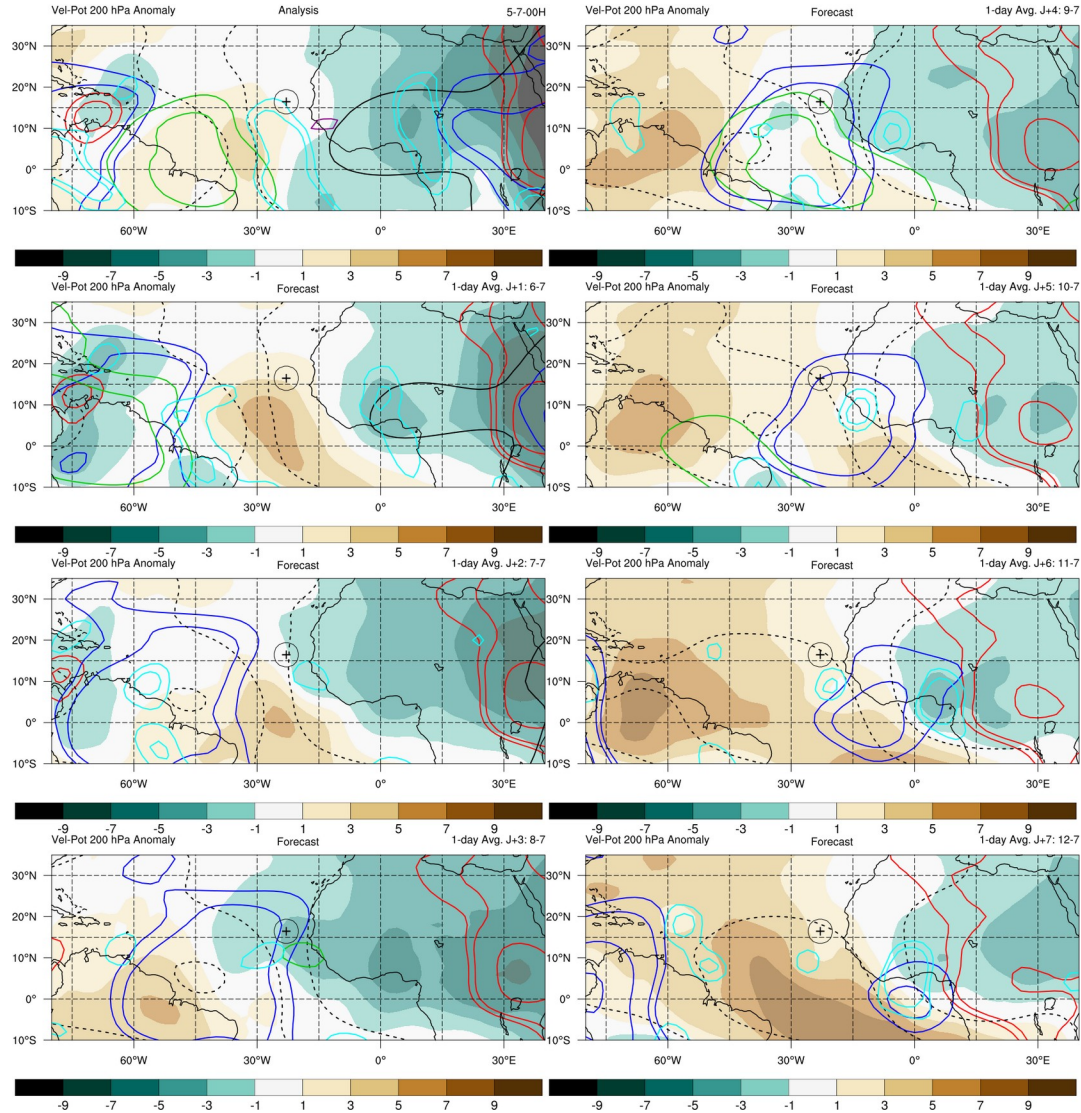
Daily PW and wind @ 925 hPa – total and anomalies



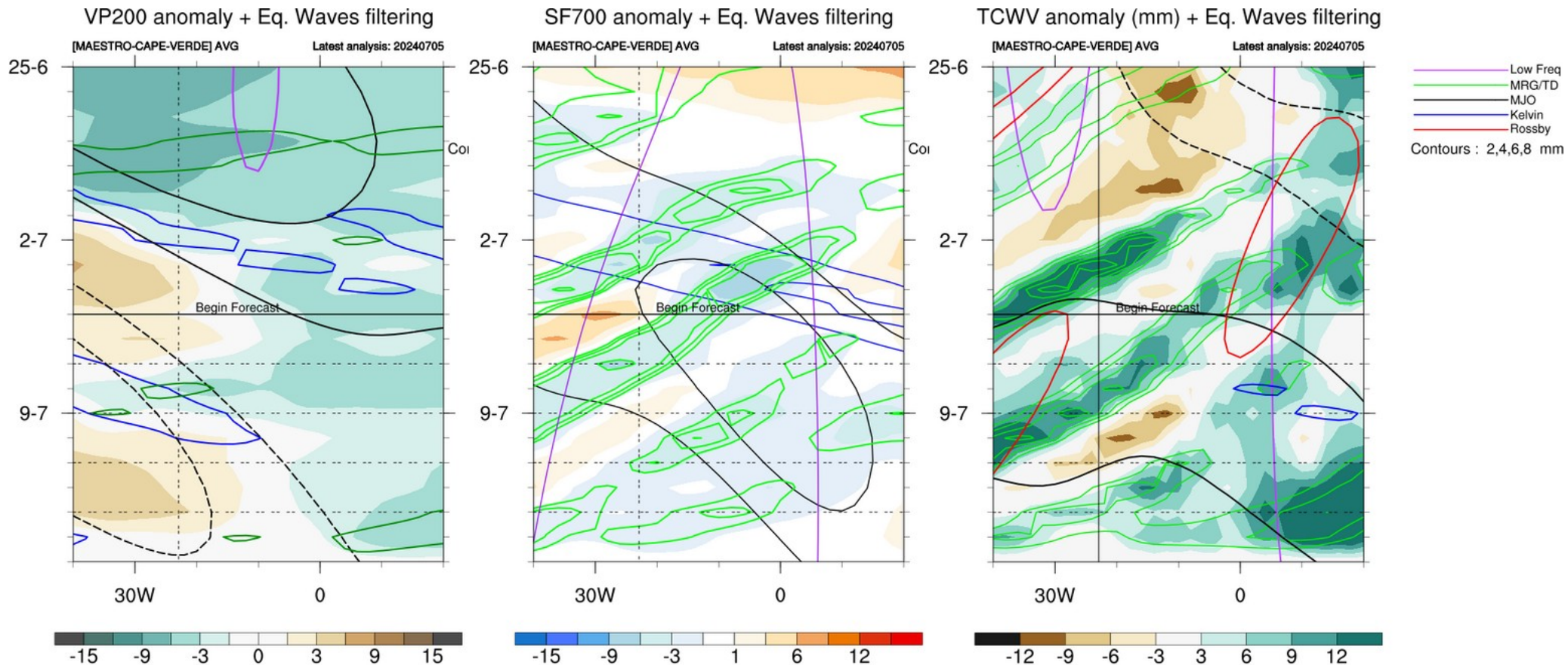
Decomposition PW/Wind and Waves contours J to J+3



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

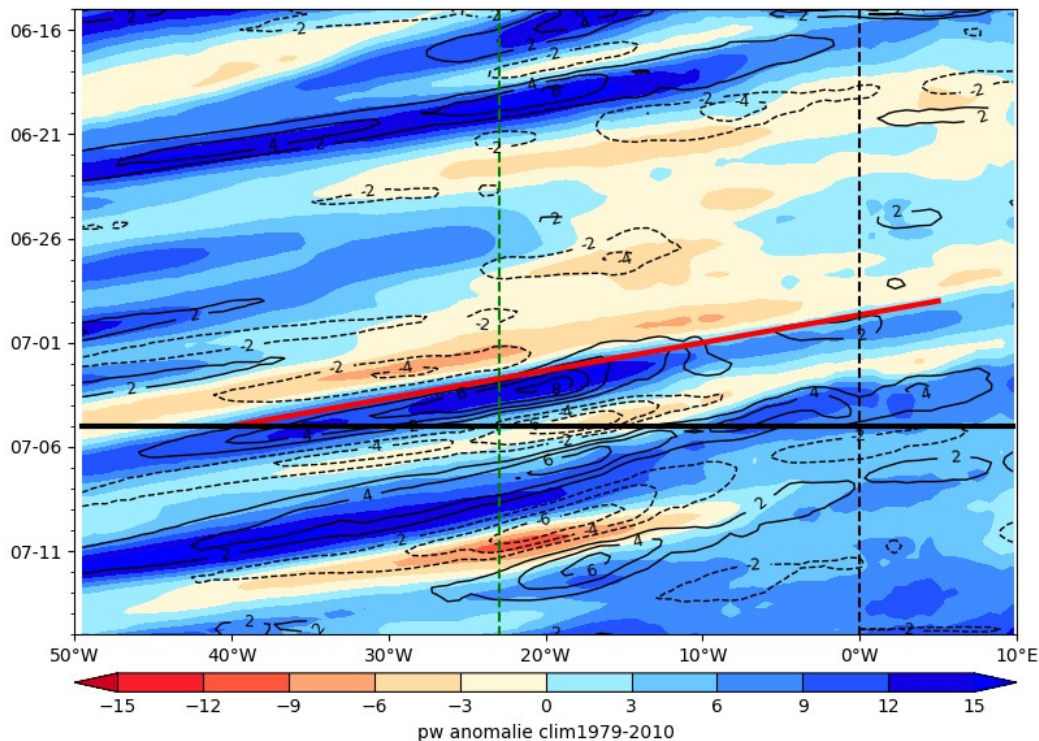


Equatorial Waves filtering hovmollers

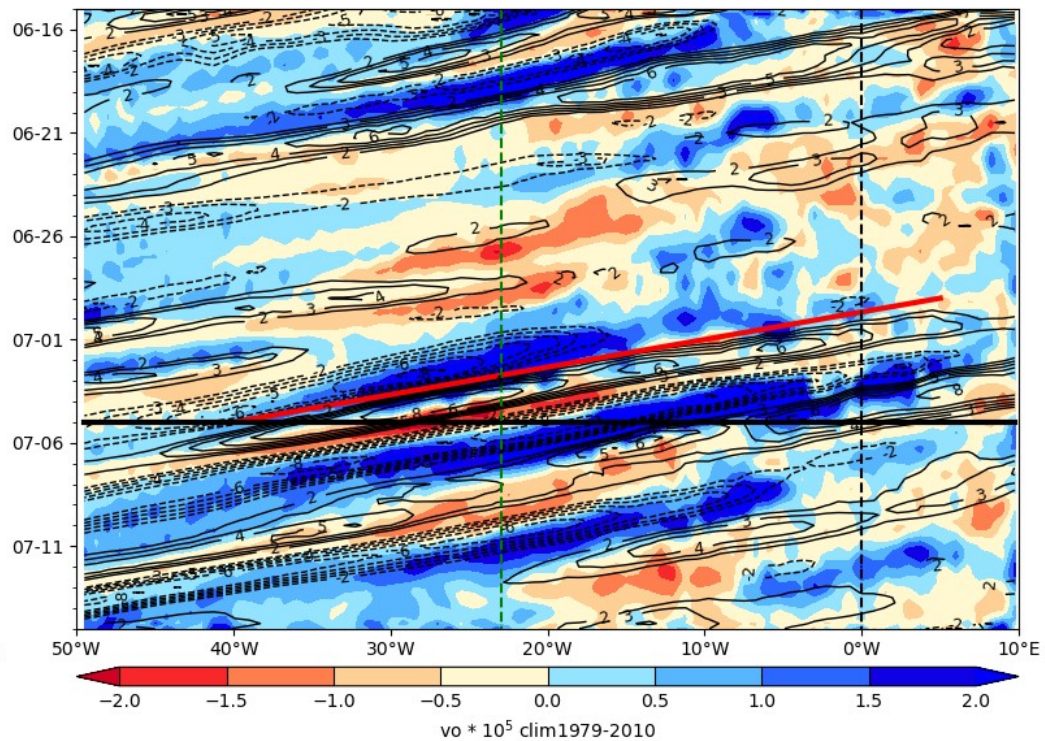


Hovmoller anomaly

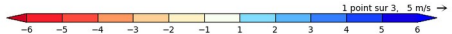
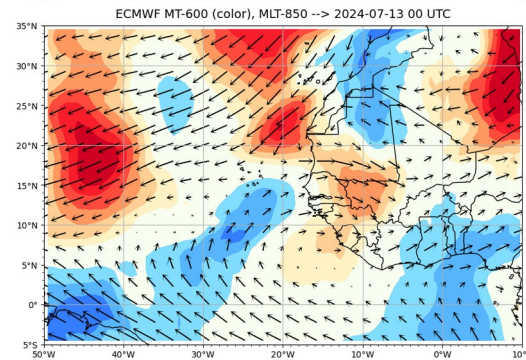
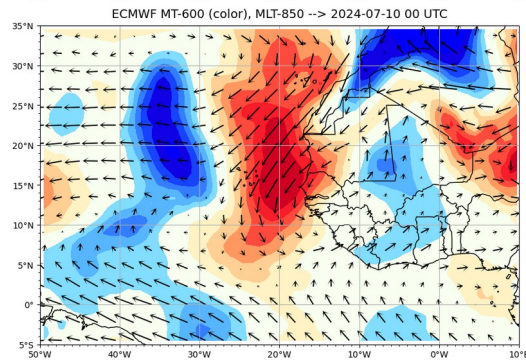
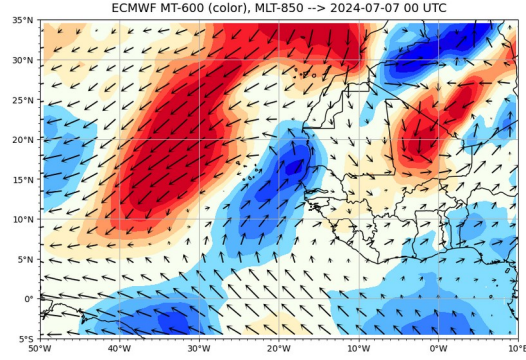
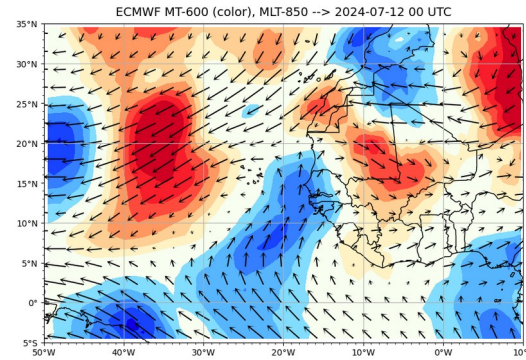
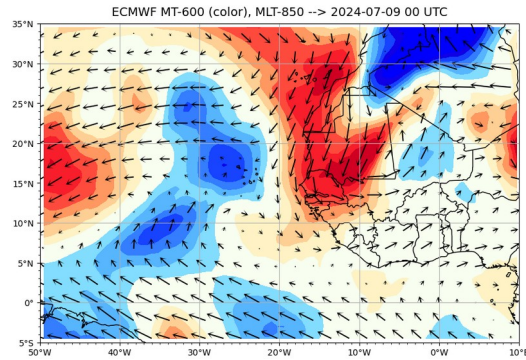
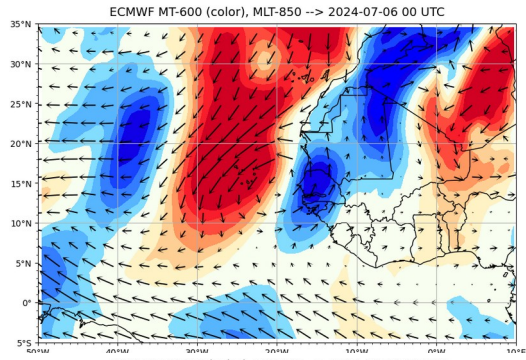
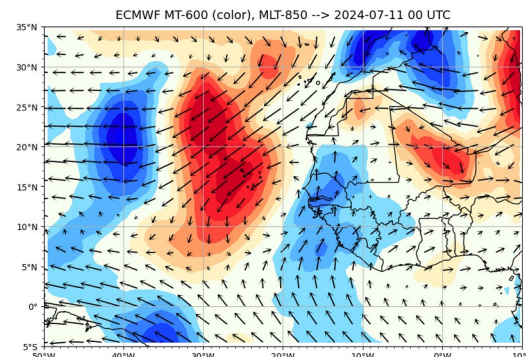
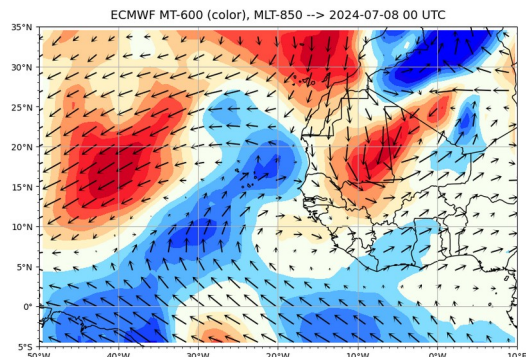
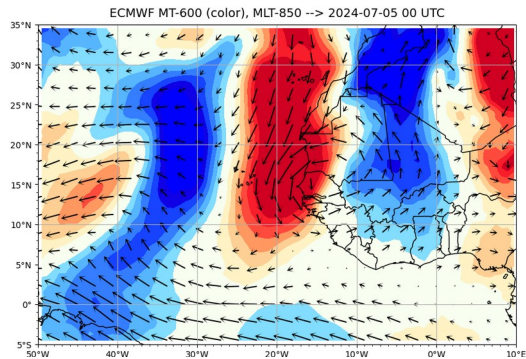
ECMWF PW (color) AND V at 925 hPa 2024-07-05

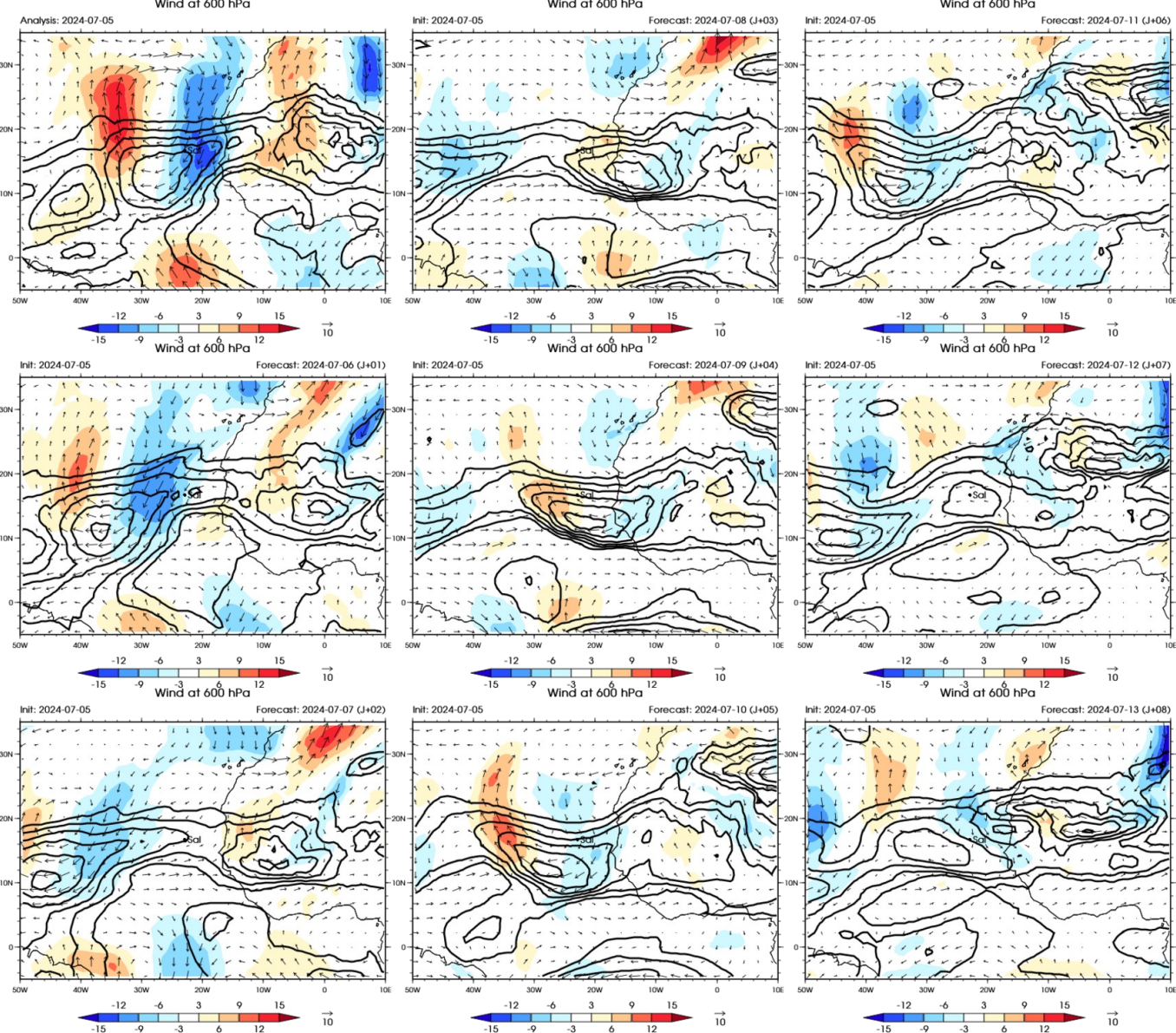


ECMWF Vorticity 850 hPa (color), V-700 hPa 2024-07-05



Monsoon Flow

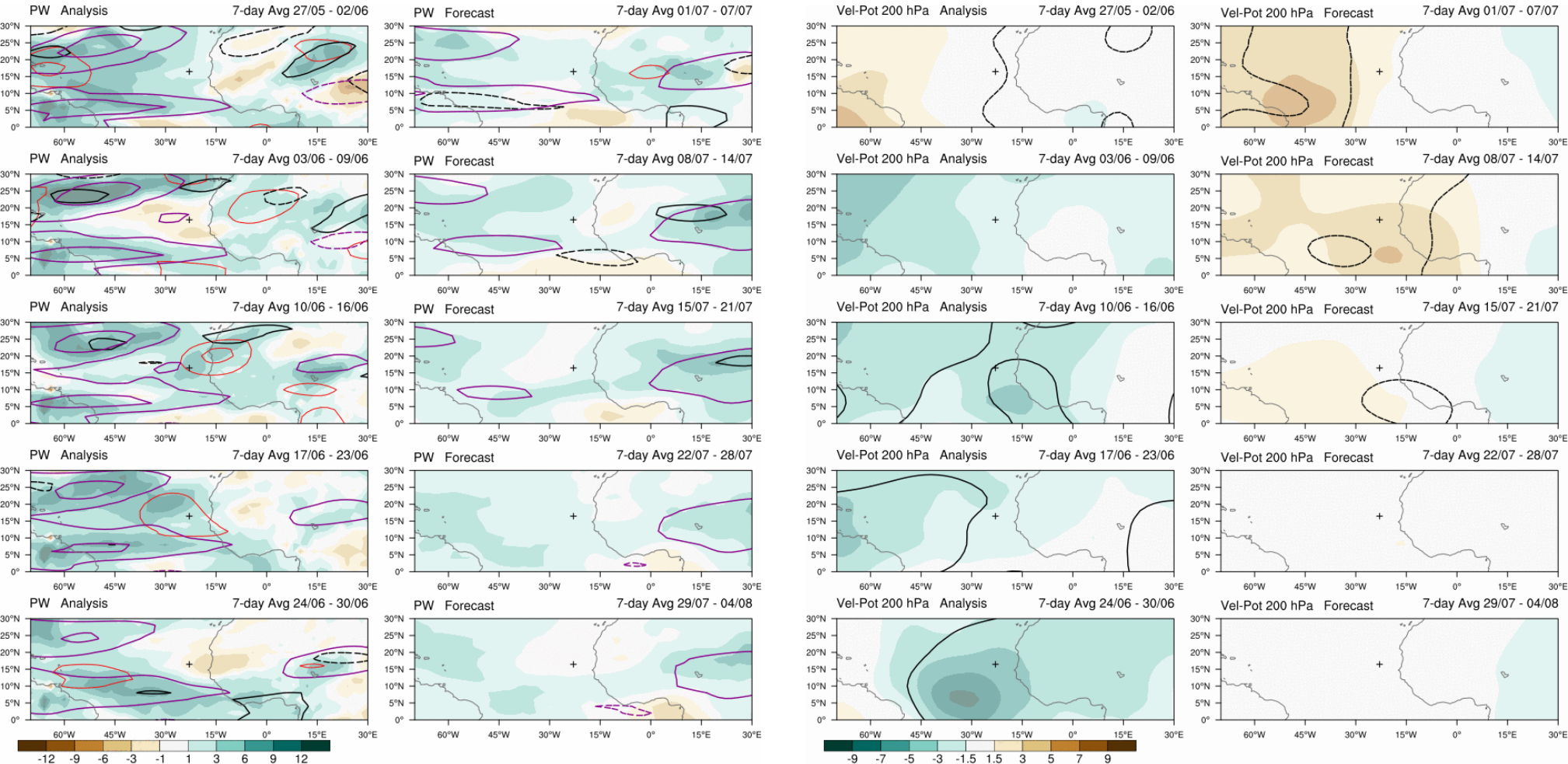




African Easterly Jet wind 600 hPa

Subseasonal forecast
(updated once a week)

4 weeks forecast PW et VP200



Contours: 2.5, 5, 10, mm
 — MRG/TD
 — Kelvin
 — Rossby
 — MJO
 — Low

contact: Philippe Peyrille
 philippe.peyrille@meteo.fr

Contours: -6, -4, -2, m2s-1
 — MRG/TD
 — Kelvin
 — Rossby
 — MJO
 — Low

contact: Philippe Peyrille
 philippe.peyrille@meteo.fr

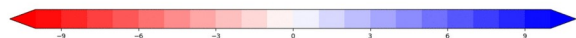
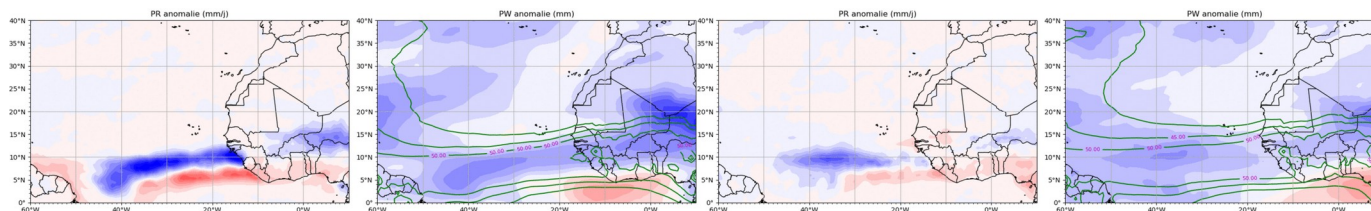
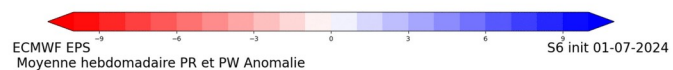
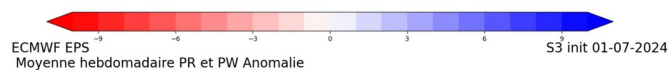
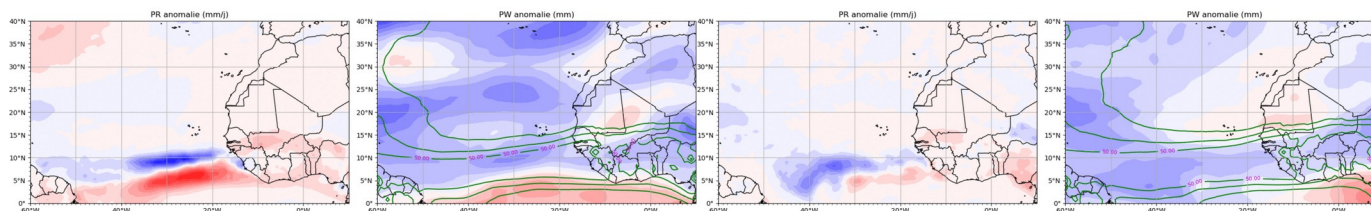
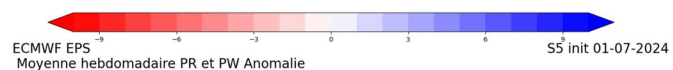
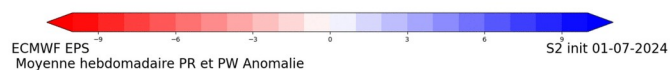
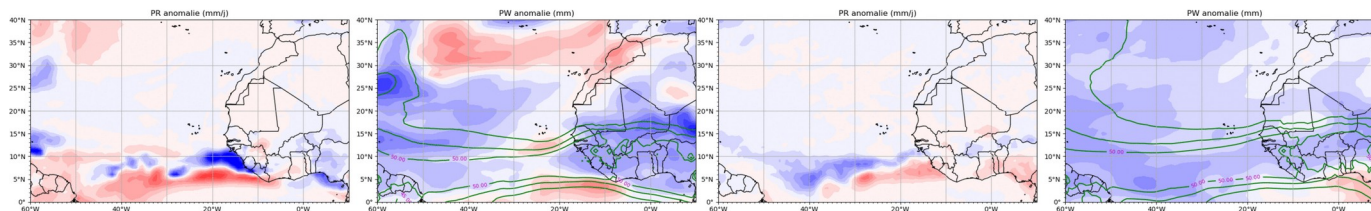
PR PW Weekly anomaly

ECMWF EPS
Moyenne hebdomadaire PR et PW Anomalie

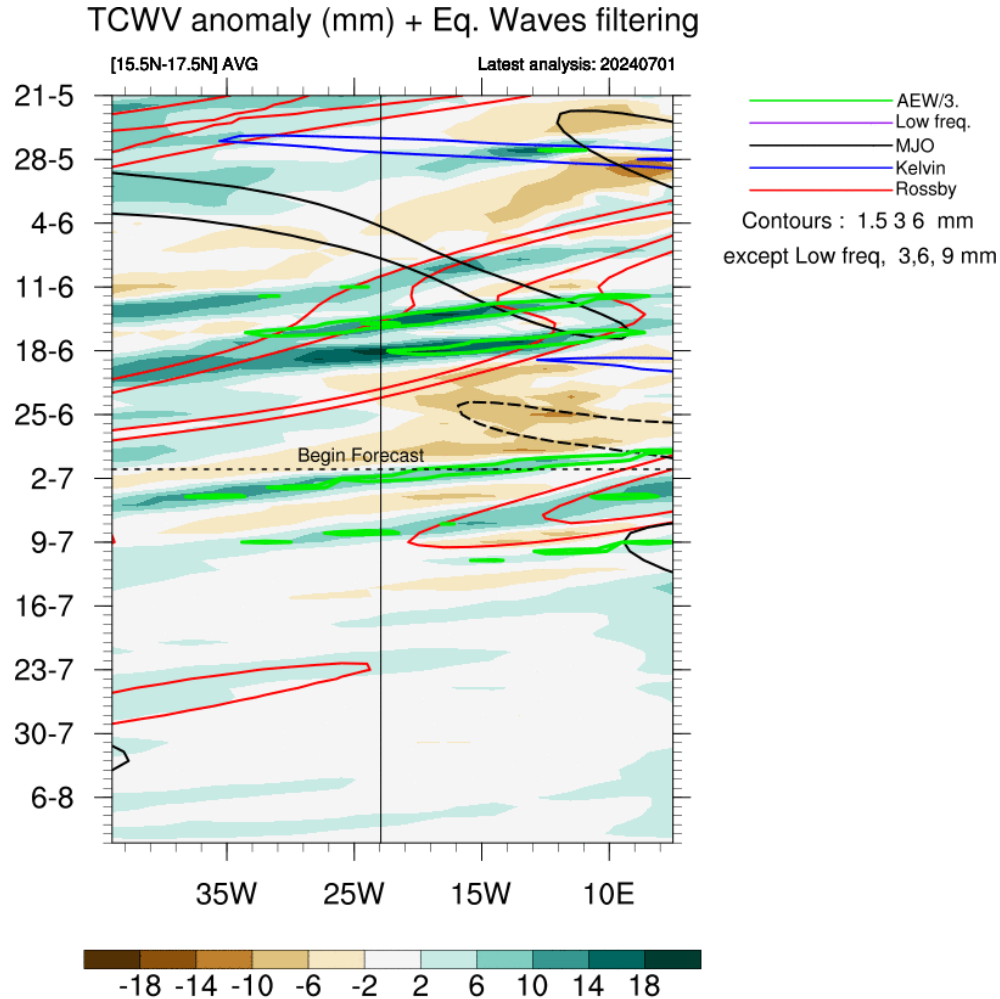
S1 init 01-07-2024

ECMWF EPS
Moyenne hebdomadaire PR et PW Anomalie

S4 init 01-07-2024



Hovmoller forecast PW over 4 weeks

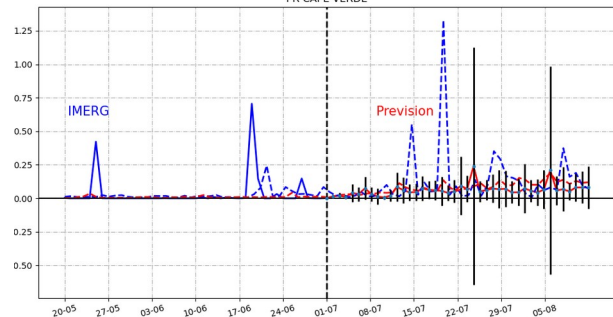


Temporal evolution PR, PW (+ EKE)

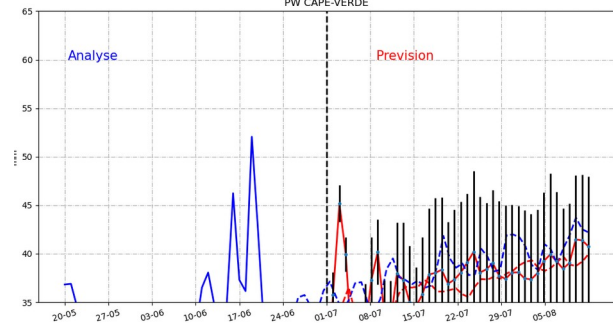
journalier

ECMWF EPS
init 01-07
Moyenne journaliere PR,PW Bruts

PR CAPE-VERDE



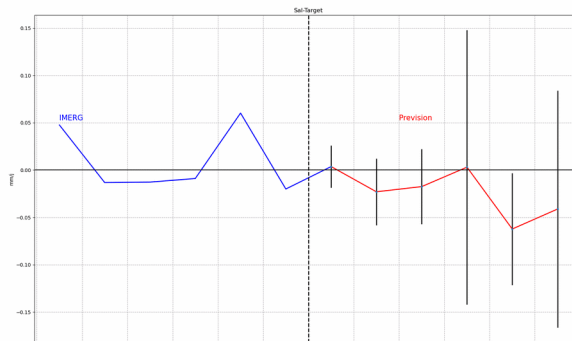
PW CAPE-VERDE



hebdomadaire

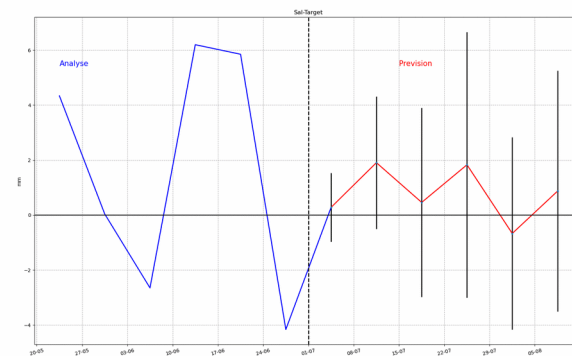
ECMWF EPS
Moyenne hebdomadaire PR Anomalie

init 01-07



ECMWF EPS
Moyenne hebdomadaire PW Anomalie

init 01-07



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							

