

VARIABILITY OF THE LOW LEVEL  
JET AND METEOROLOGICAL  
SYSTEMS OVER SOUTH AMERICA  
DURING THE SALLJEX  
JANUARY 2003

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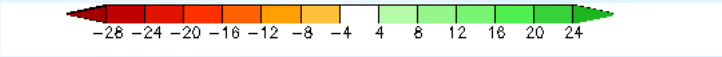
# TYPICAL EVENTS DURING THE PERIOD

- CCM
- SHORT WAVE DISTURBANCE
- SACZ
- ULCV
- FRONTAL SYSTEMS

# ANALYSIS AND FORECAST

- GLOBAL MODELS  
CPTEC, NCEP
- REGIONAL MODELS  
ETA, RAMS

- MERIDIONAL WIND VARIABILITY IN THE LLJ REGION
- VARIABILITY OF SACZ, ULCV, MCS
- FORECAST FROM MODELS

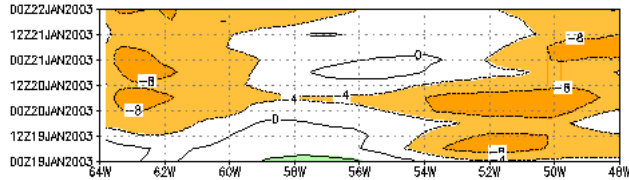


# ETA CPTEC

40 km

Diagrama de Hovmoller con latitud fija  
velocidad meridional en 850 hPa.

18S



**19-22 JAN**

22S

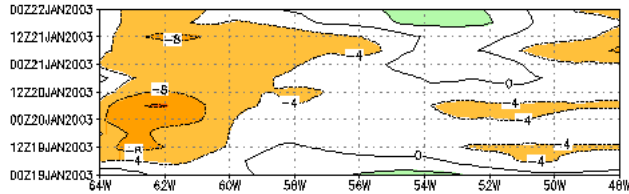
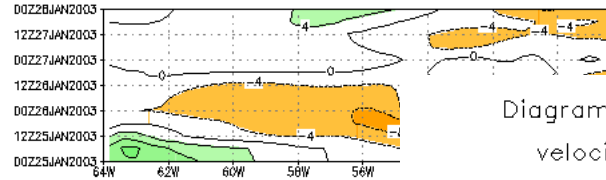


Diagrama de Hovmoller con latitud fija  
velocidad meridional en 850 hPa.

18S



**25-27 JAN**

22S

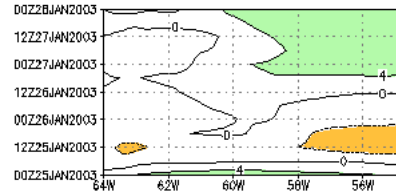
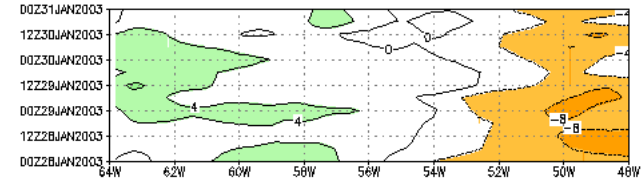


Diagrama de Hovmoller con latitud fija  
velocidad meridional en 850 hPa.

18S



**26-31 JAN**

22S

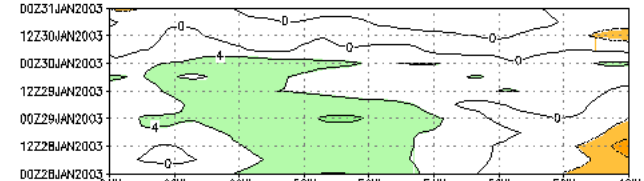
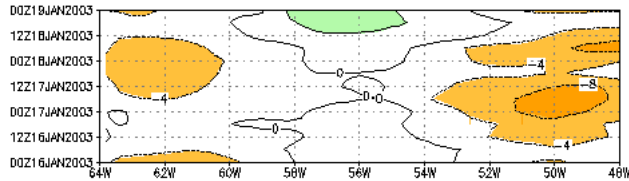


Diagrama de Hovmoller con latitud fija  
velocidad meridional en 850 hPa.

18S



**16-19 JAN**

22S

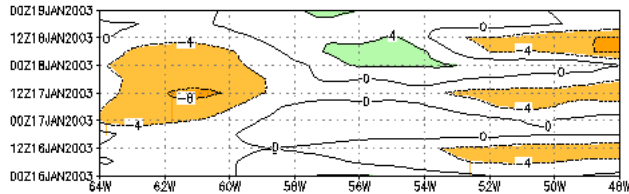
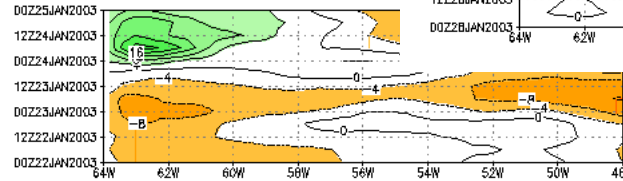


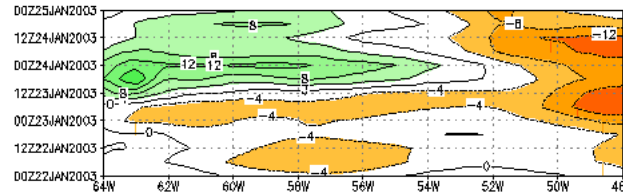
Diagrama de Hovmoller  
velocidad meridional

18S

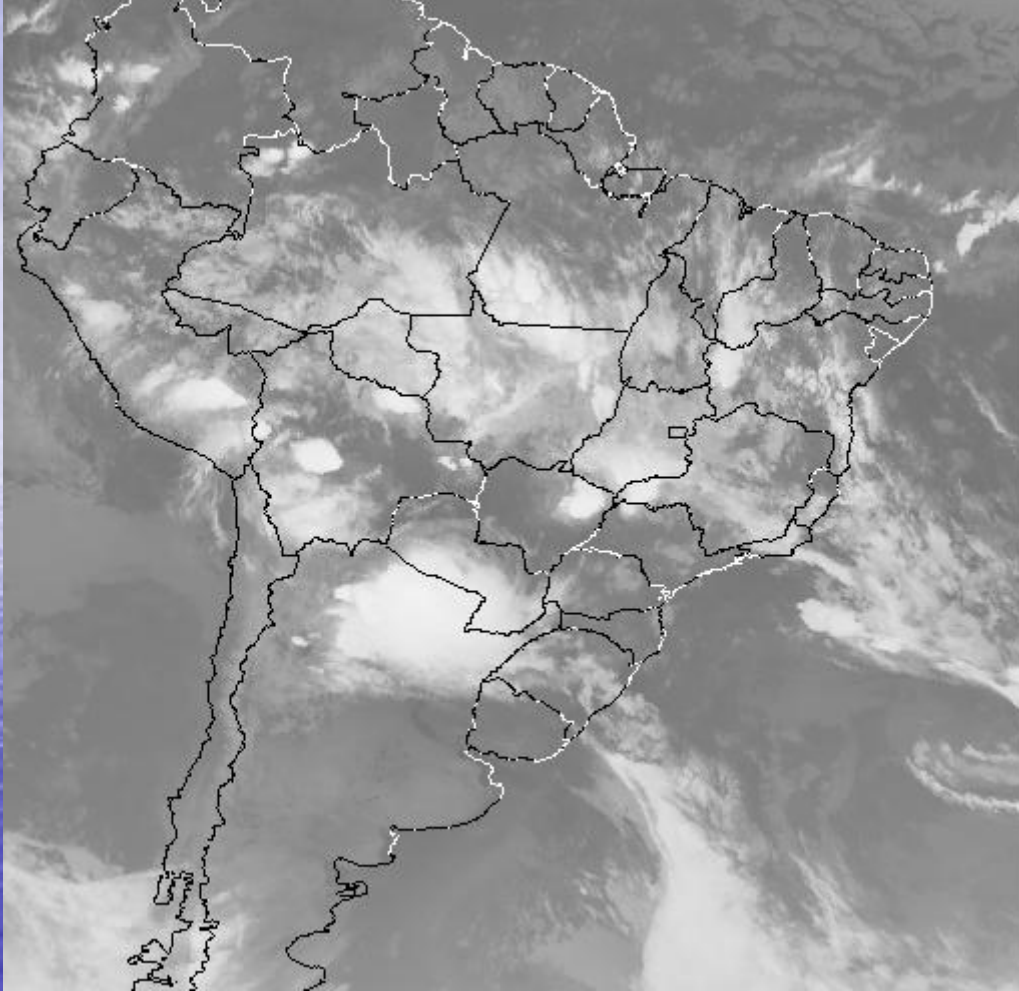


**22-25 JAN**

22S



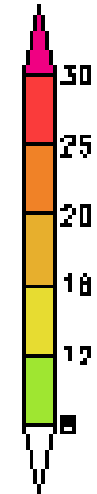
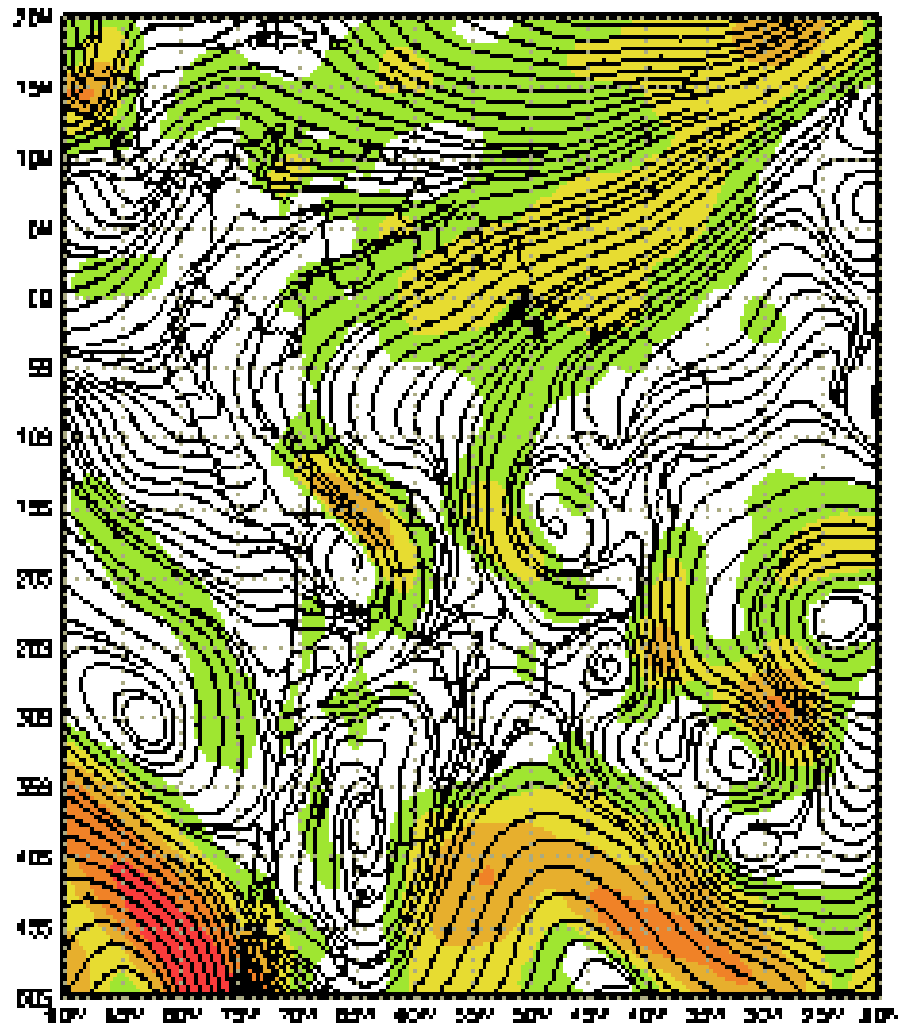
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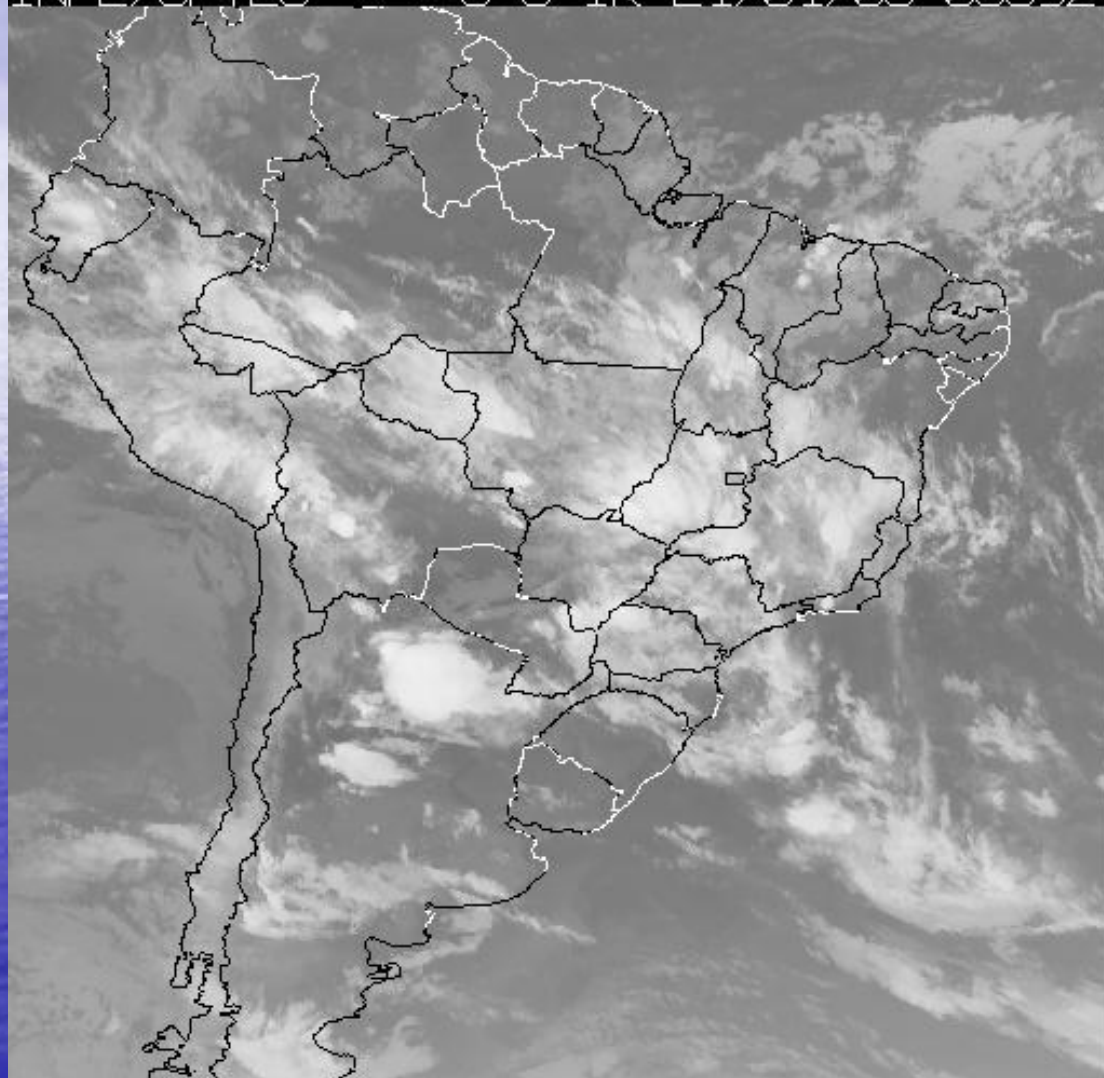
18 JAN 06:09  
GMT

- Strong Mesoscale
- Convective System

# V 850 mb - T126L28 - Jan 18 06Z - SALLJEX



INPE/CPTEC G-8 IR 21/01/03 0339Z

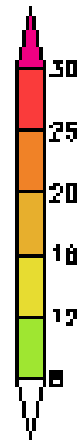
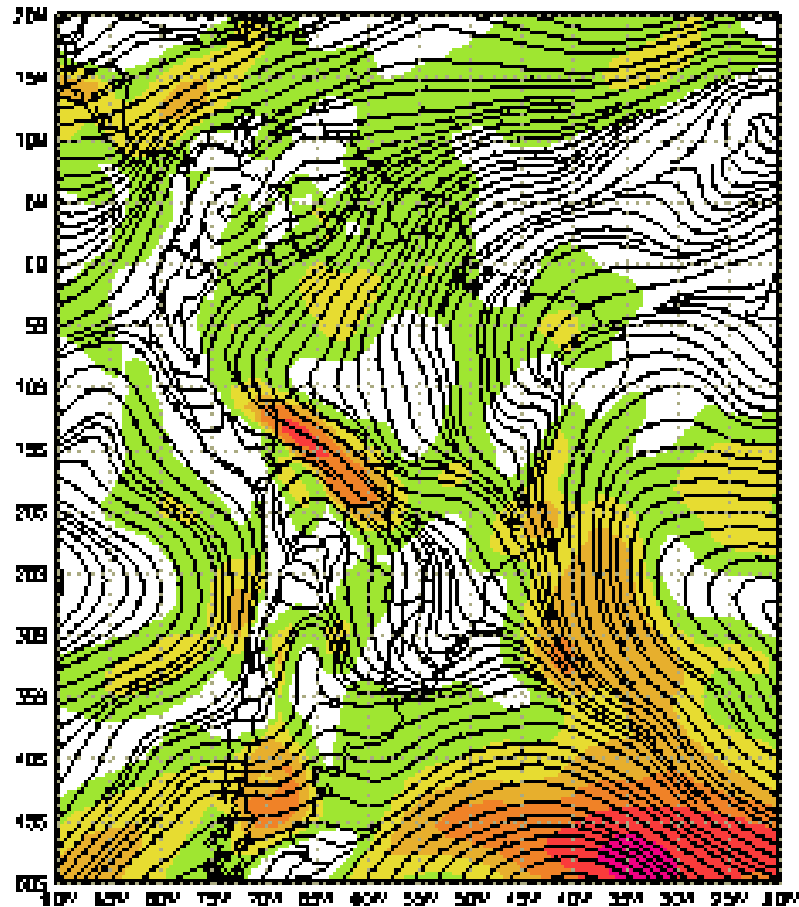


21 JAN  
03:39GMT

CCM



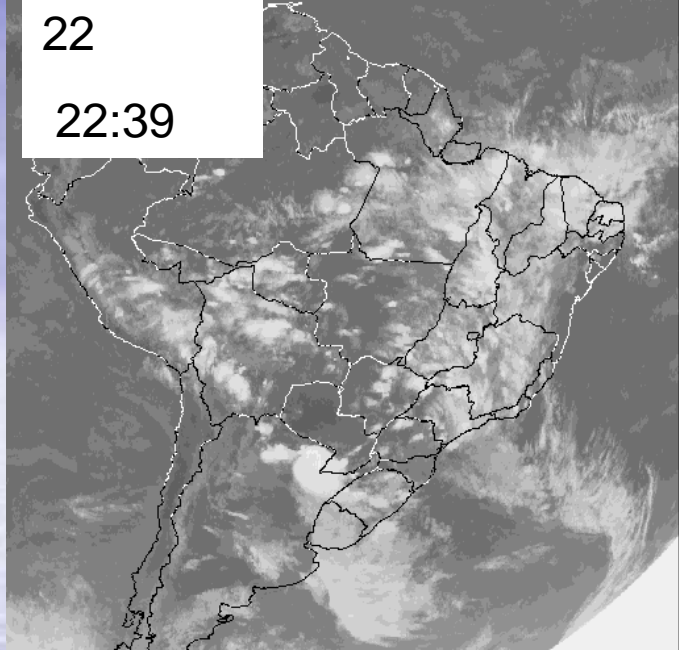
V 850 mb - T126L28 - Jan 21 06Z - SALLJEX



INPE/CPTec G-8 IR 22/01/03 2239Z

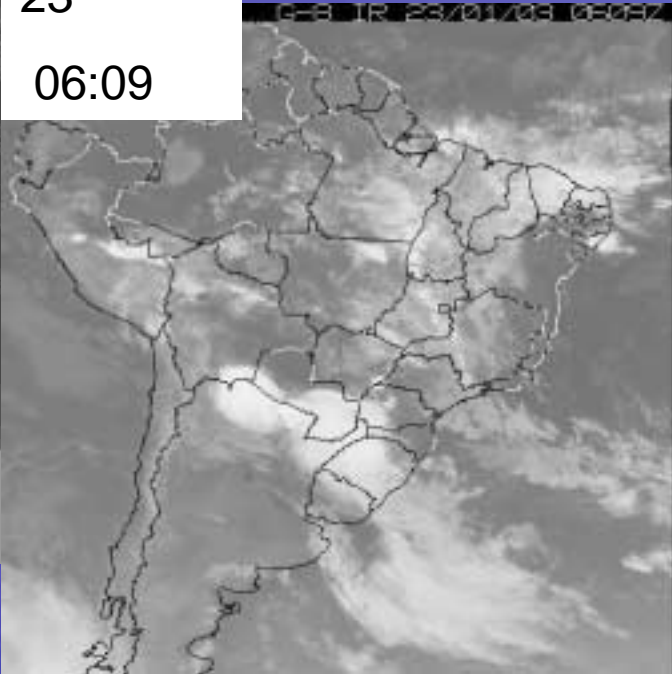
22

22:39



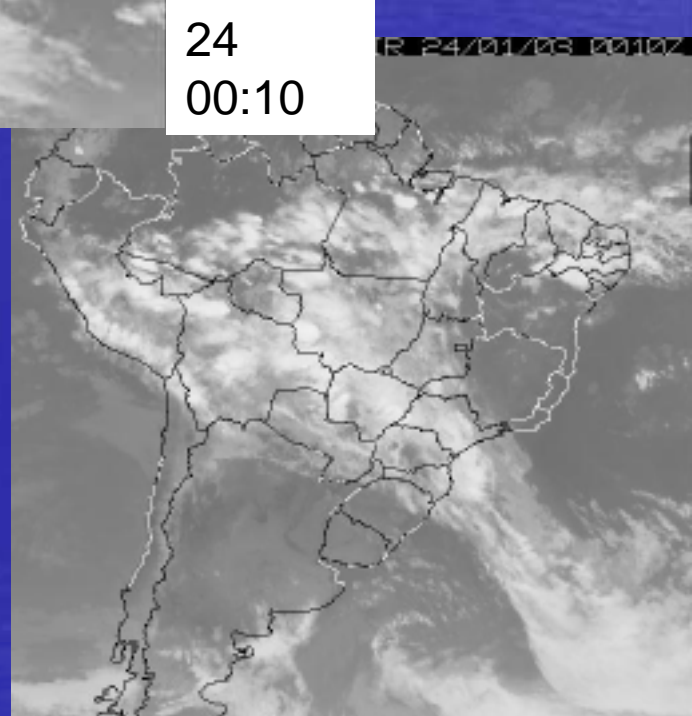
23

06:09

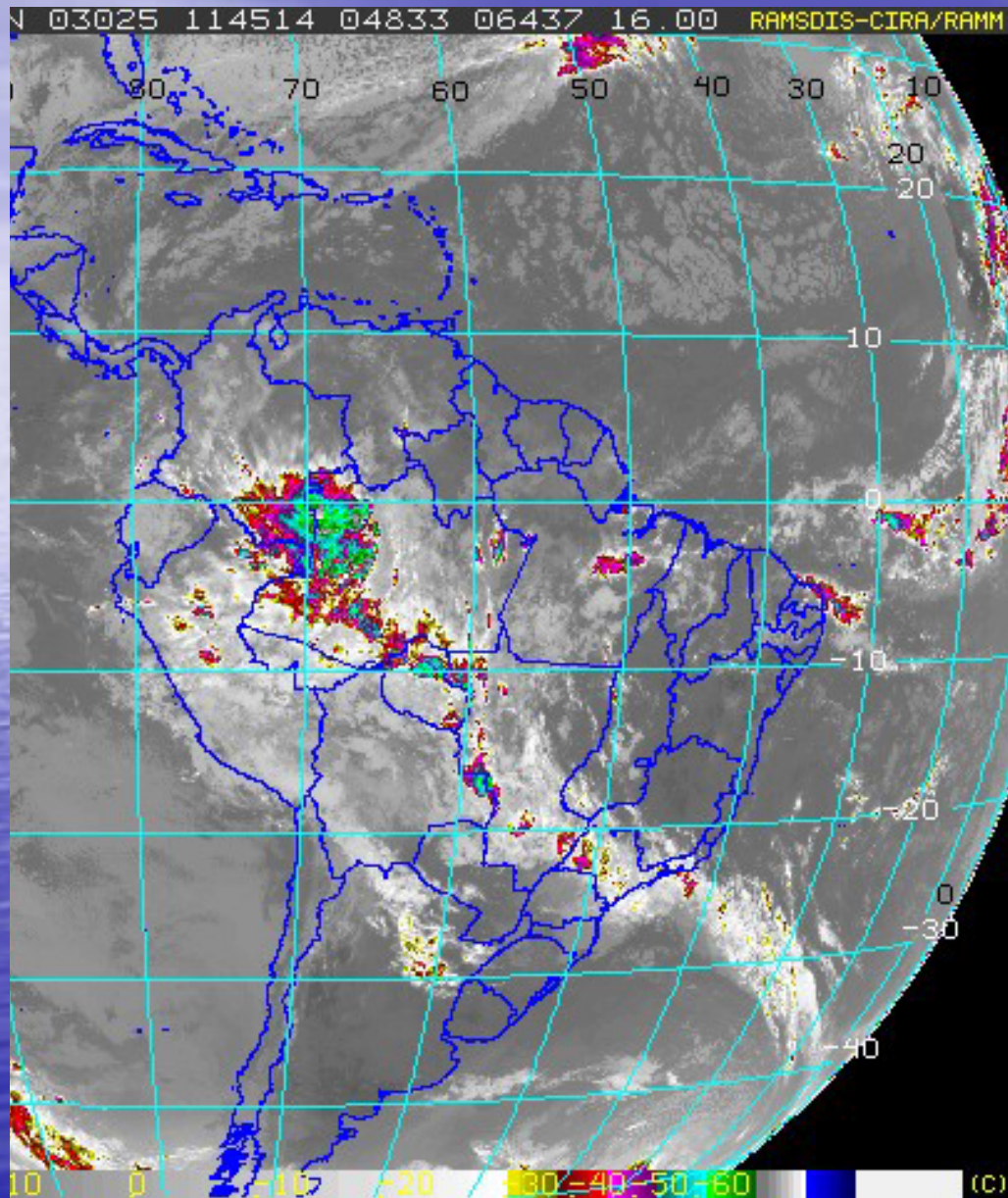


24

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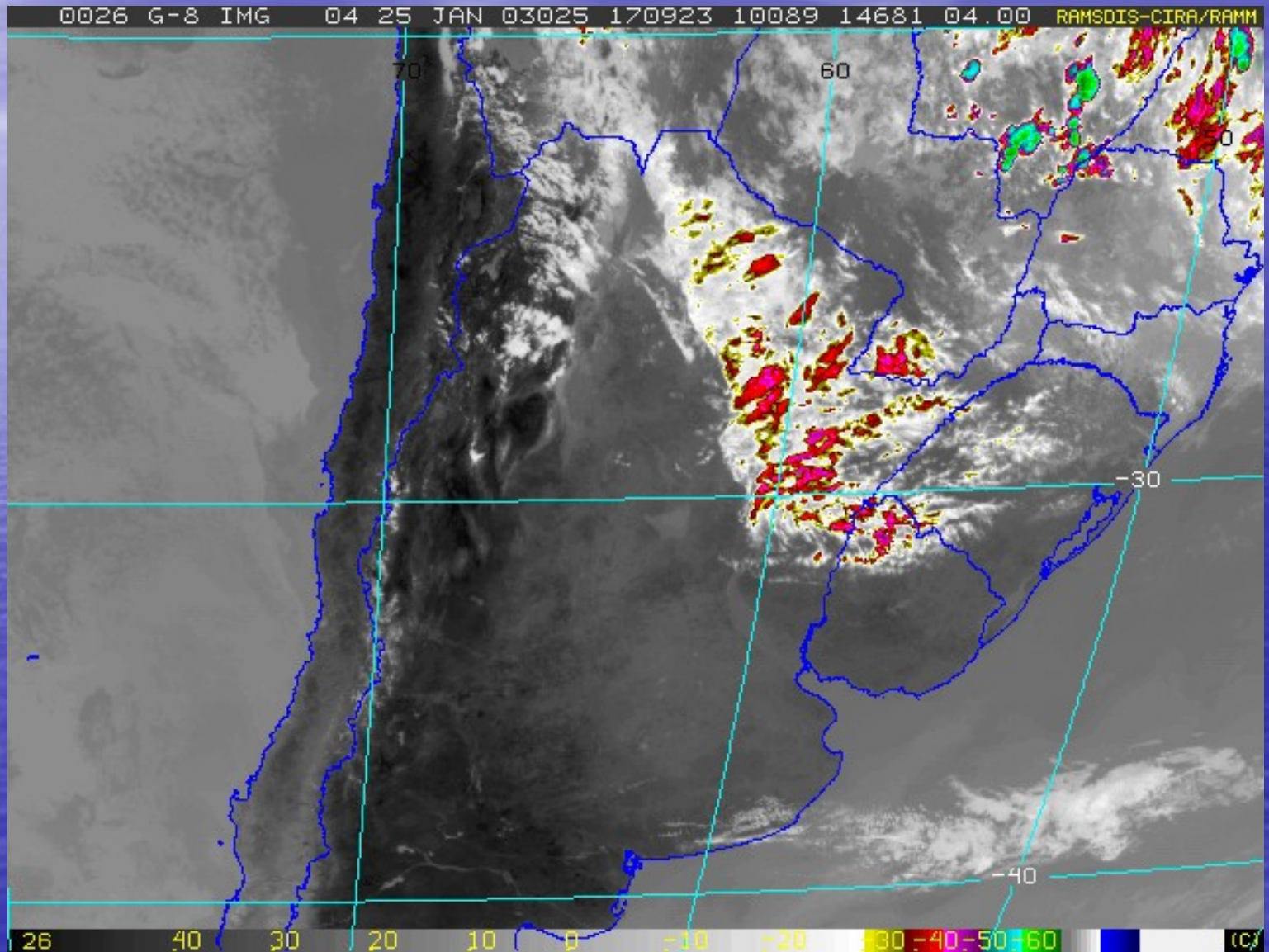


25 JANUARY 11:45 GMT



**SHORT WAVE  
DISTURBANCE**

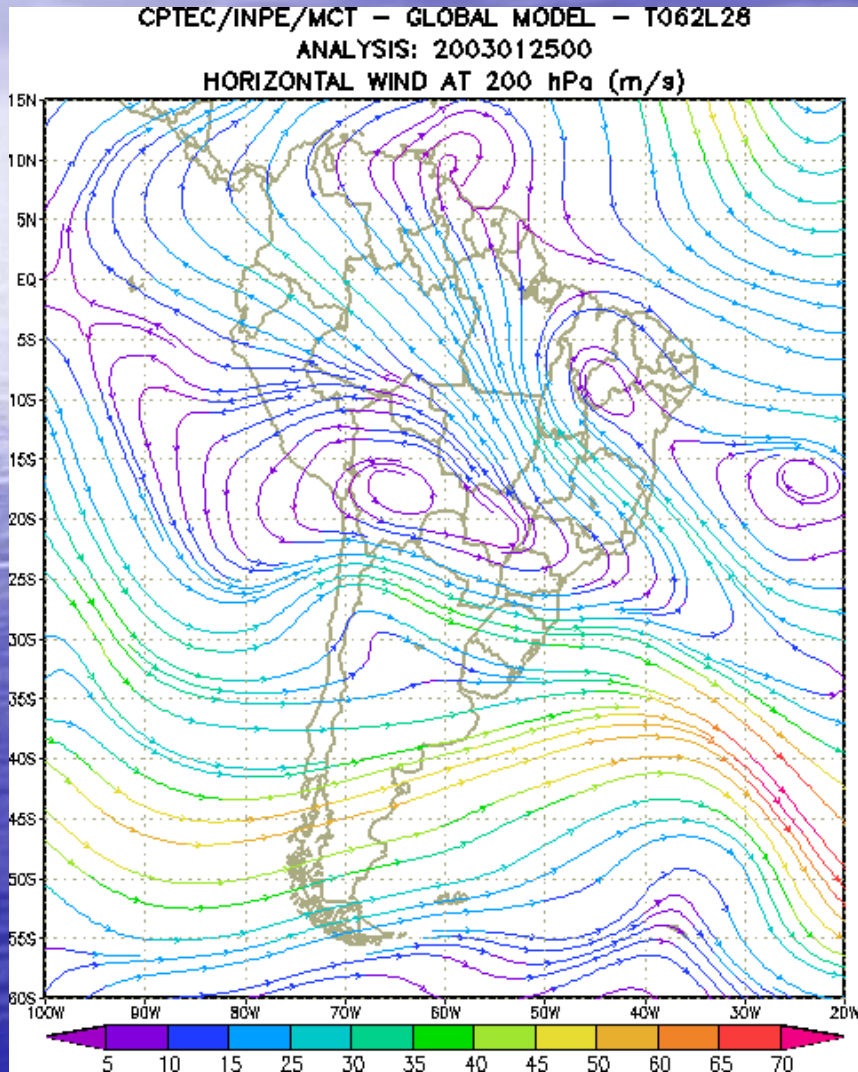
25 JANUARY 17:09 GMT



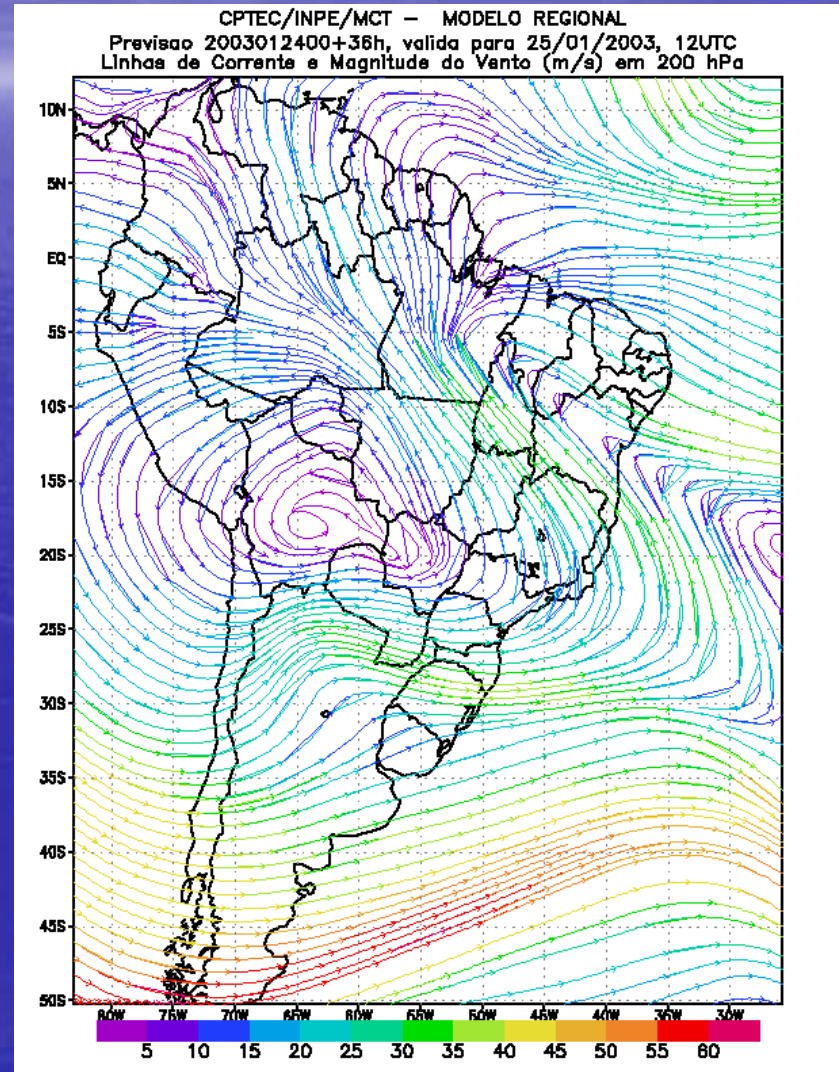
200 hPa

# ANALYSIS

## 25 JANUARY

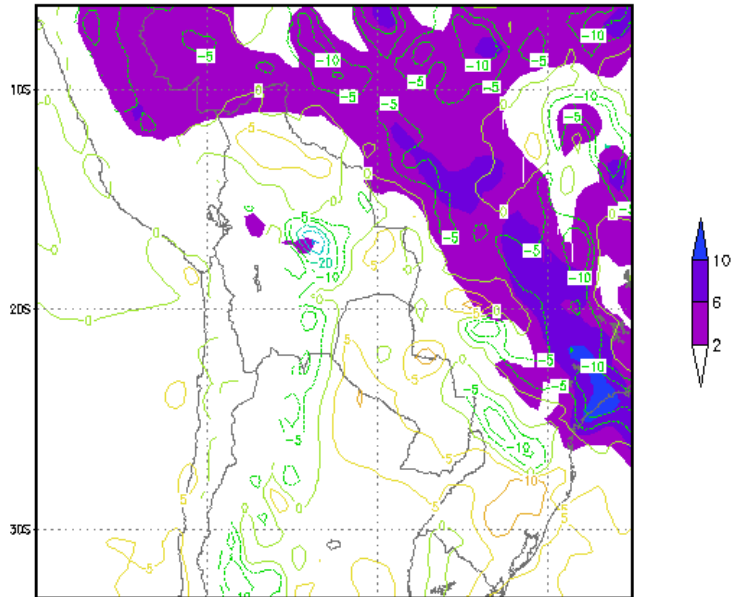


## FORECAST 24 TO 25 JAN

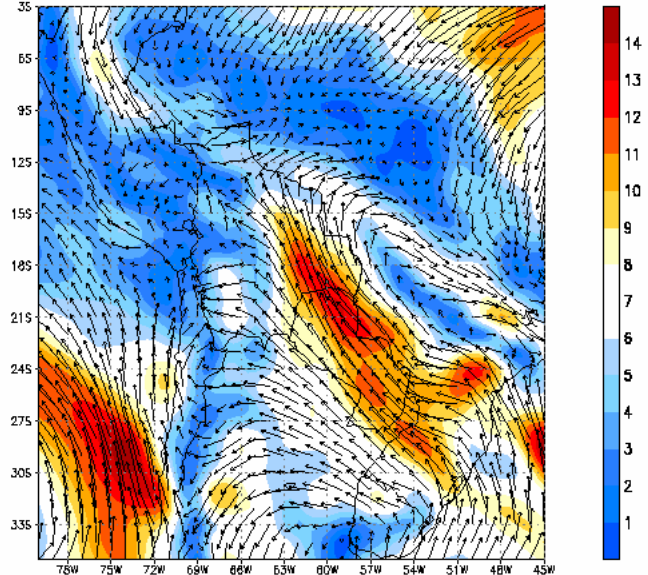


# FORECAST 27 TO 29

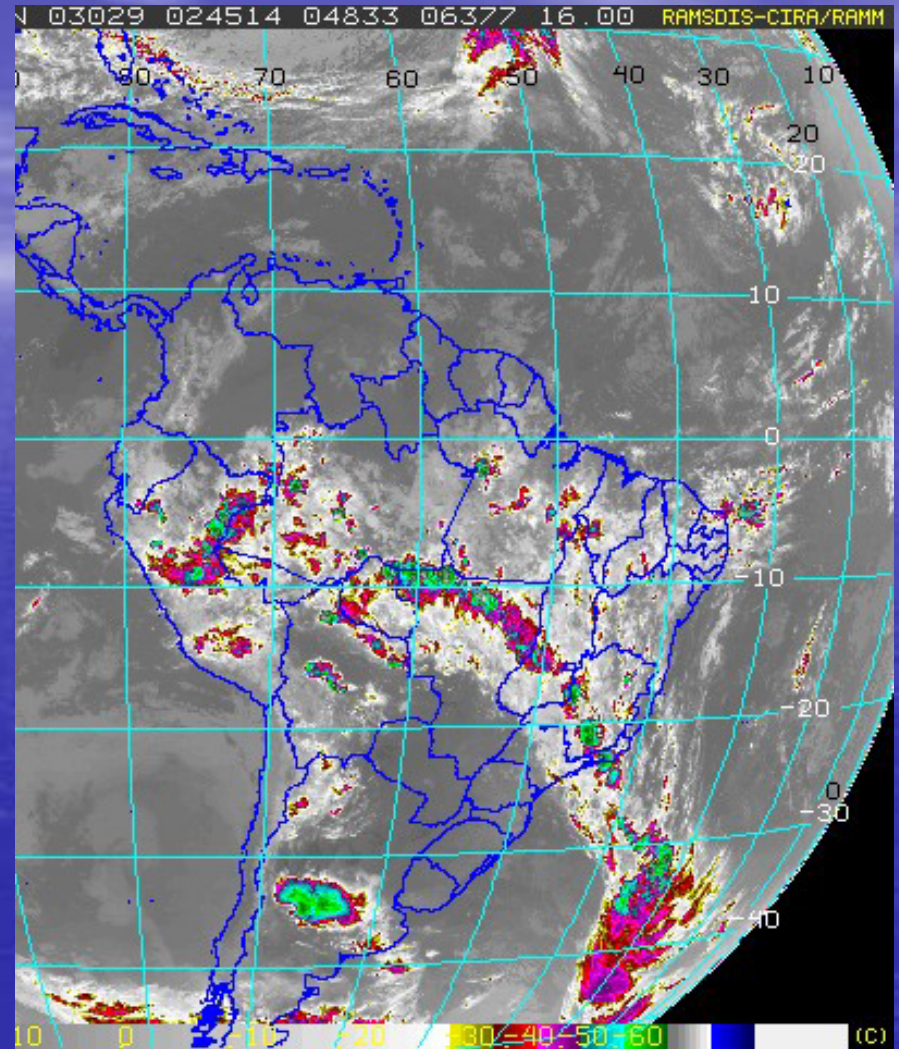
Prec.en 6 hs.(mm)- Omega (hPa/h) en 700 hPa  
Eta 40km - Valido para 2003012900 - T+48h



isotachs (m/s) 850 mb Wed 00Z 29jan2003



# 29 JANUARY 02:45 GMT

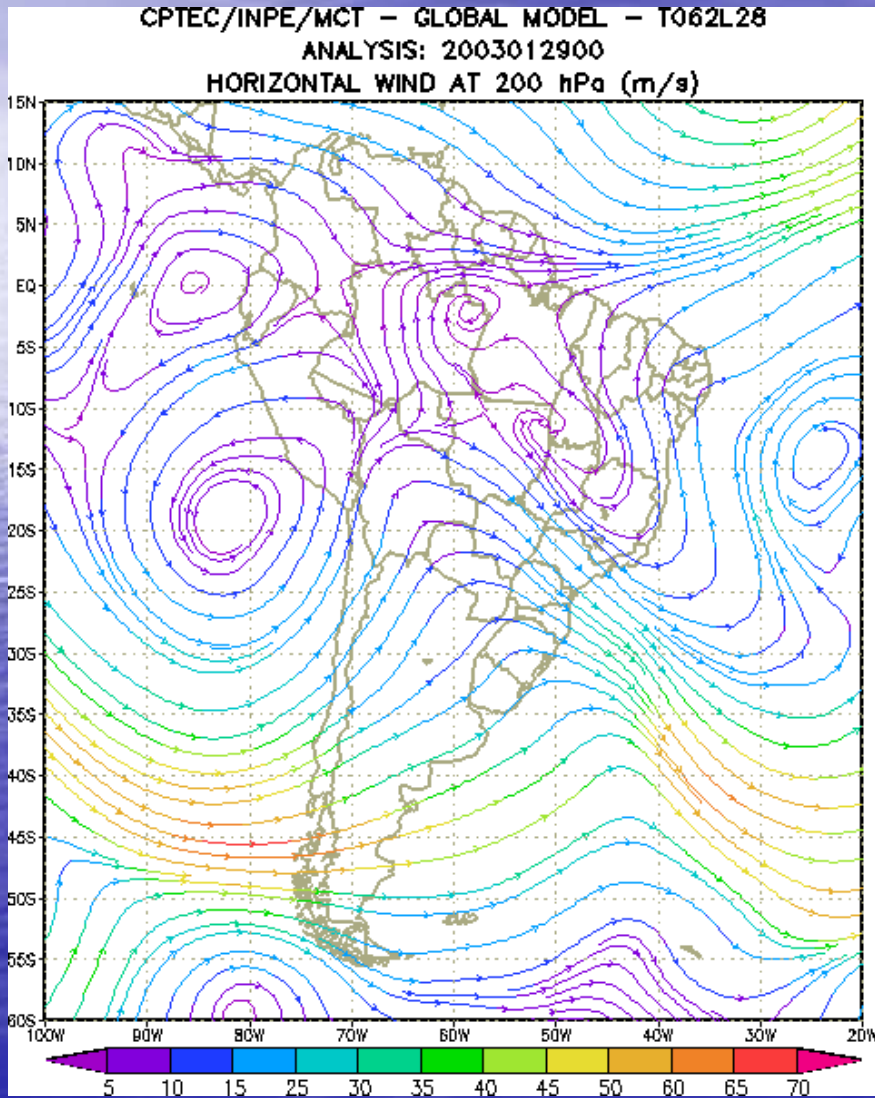


**ORGANIZED CONVECTION**

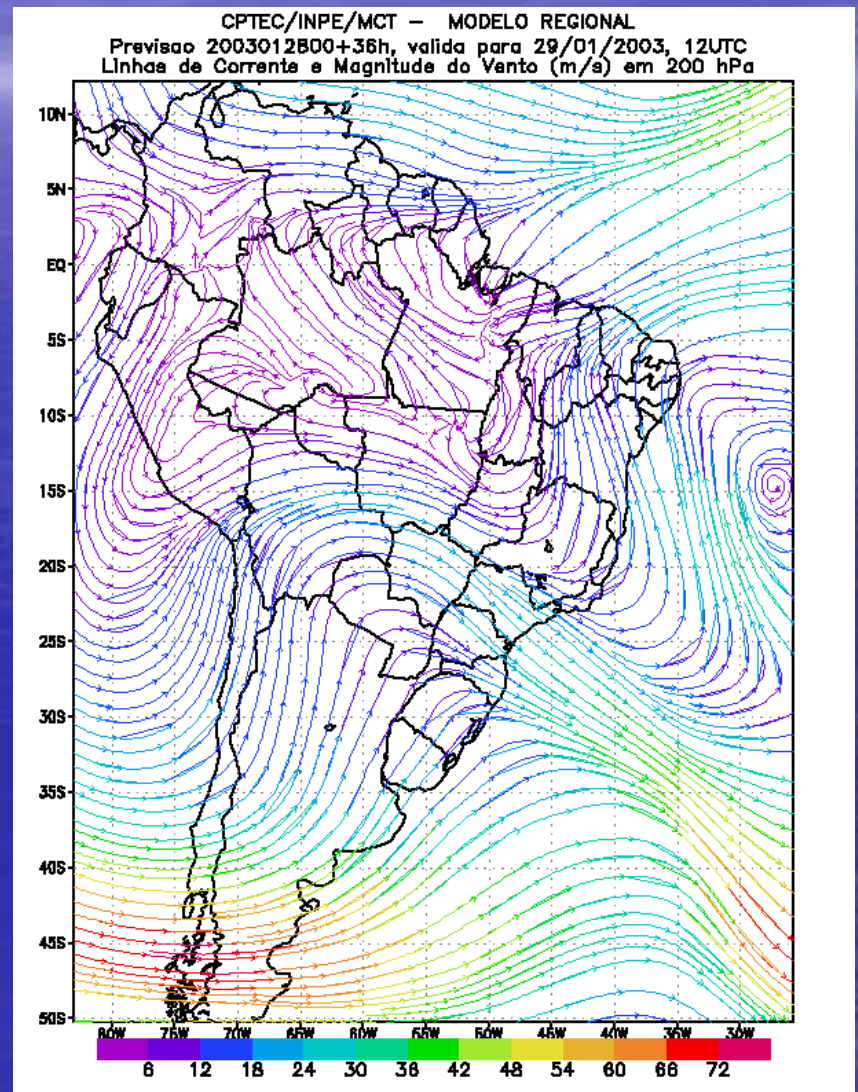
**SACZ**

# 200 hPa

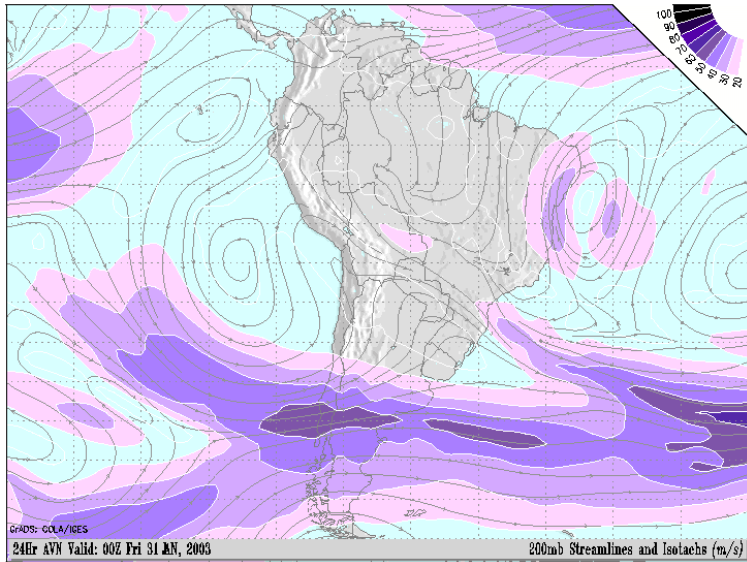
## ANALYSIS 29



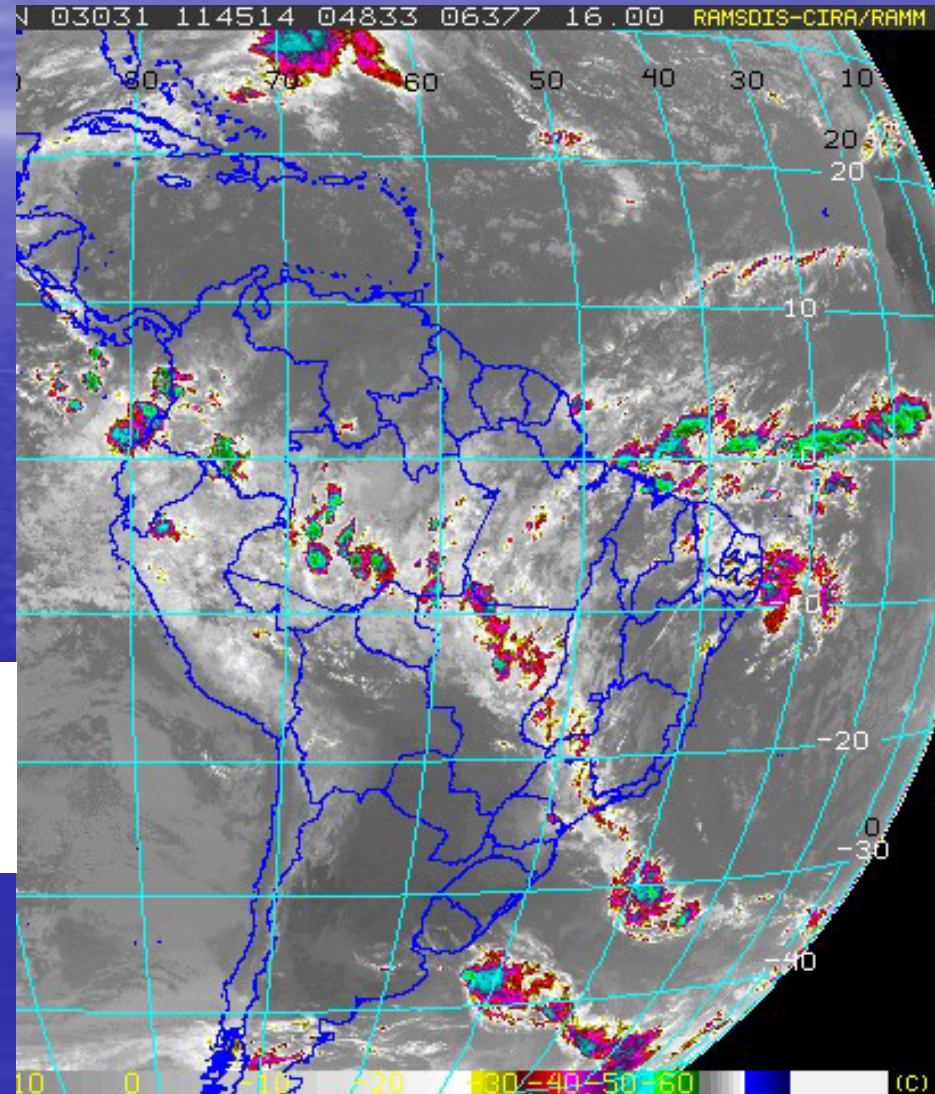
## FORECAST 28 TO 29



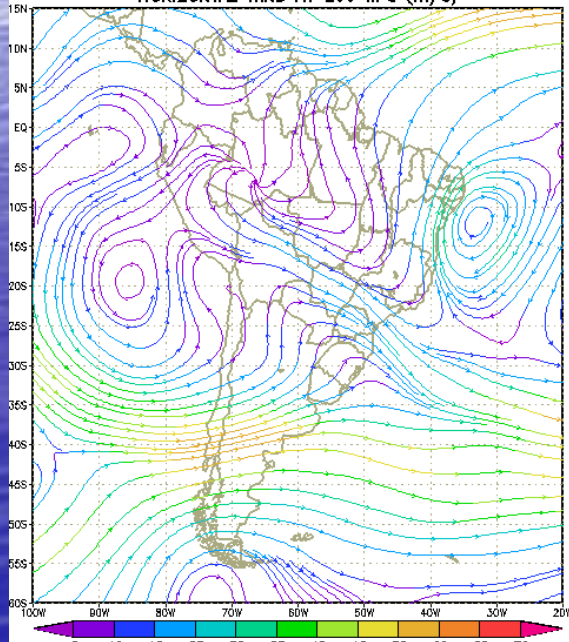
# FORECAST 30 TO 31



## 31 JANUARY 11:45 GMT



CPTEC/INPE/MCT - GLOBAL MODEL - T062L28  
ANALYSIS: 2003013100  
HORIZONTAL WIND AT 200 hPa (m/s)





# OTHER STUDIES

- DOWNSCALING AGCM T126
- ETA 20 km ETA 10 km ETA 5 km
- DIURNAL VARIATION LLJ (CLIMATE SIMULATION AGCM)
- OCCURRENCE OF CCMS AND LLJ

# OTHER STUDIES

- PARAMETRIZATION EXPERIMENTS
- RADIATION
- CONVECTION
- SURFACE PROCESSES  
VEGETATION , HUMIDITY