

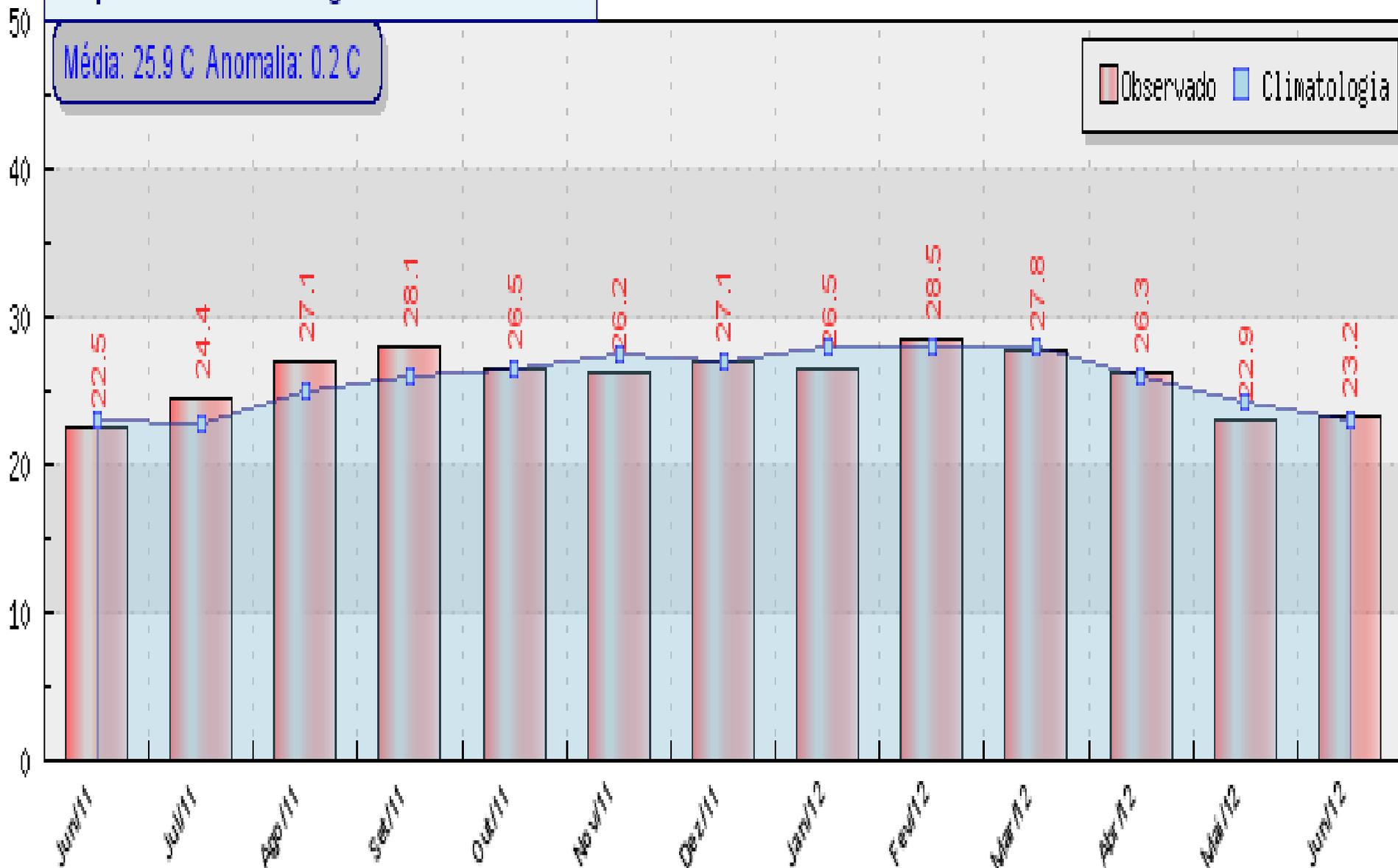


CLIMA: PROJEÇÃO PARA 2012

Temperaturas Máximas em Varginha-MG de Jun/11 à Jun/12

Média: 25.9 C Anomalia: 0.2 C

Observado Climatologia





- OCEANOS: Período de “Neutralidade”;
- INVERNO 2012: Sob condições de transição climática. Indicativo de início de um novo El Niño;
- TEMPERATURA: Padrão médio. Reduz risco de inverno rigoroso;
- GEADAS: Bloqueio Atmosférico no Pacífico Sul e indicativo de El Niño e Oceano Atlântico aquecido, contribuem para redução de risco de geadas;

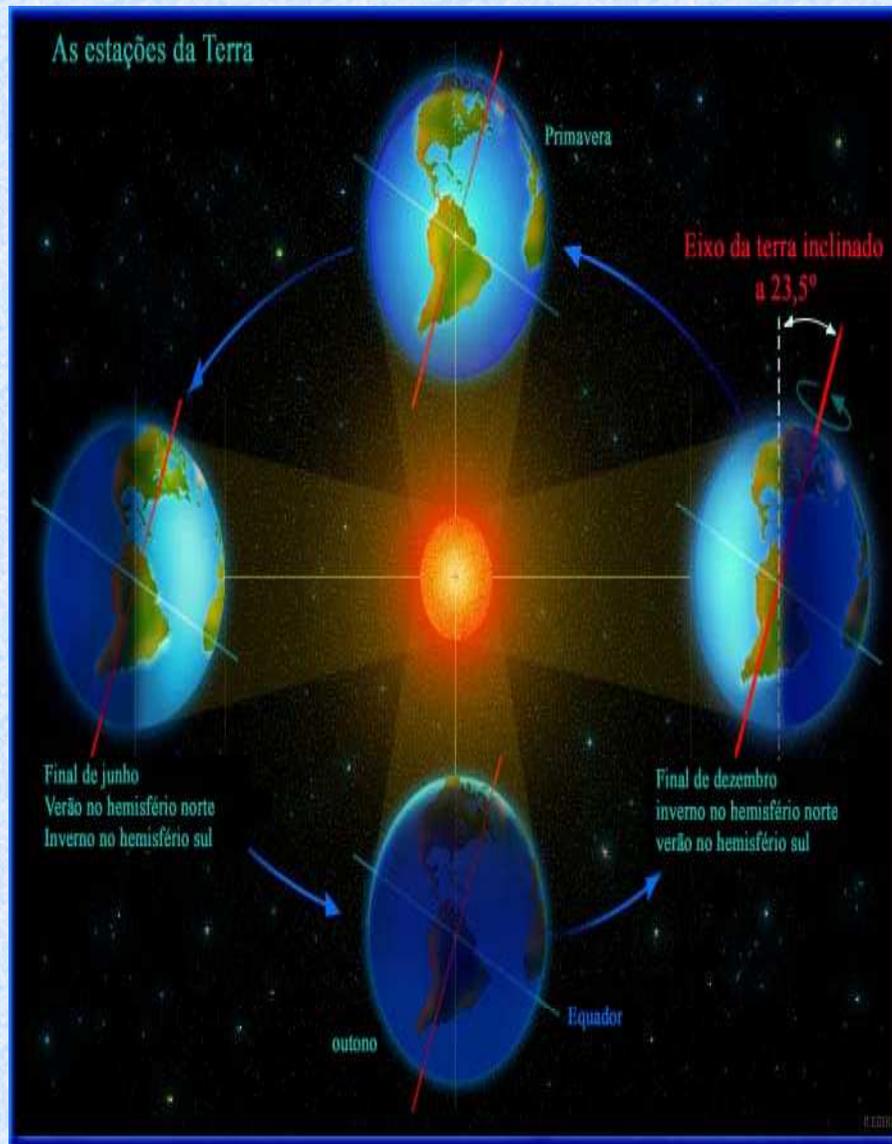




- CHUVA: Inverno seco, porém com alguns episódios isolados de chuvas. Aumenta risco para o processo de colheita;
- PRIMAVERA 2012: Retorno das chuvas não deve atrasar . Setembro e outubro com chuvas irregulares. **Cenário climático semelhante a 2009**;
- VERÃO 2013: Cenário climático semelhante a 2010.

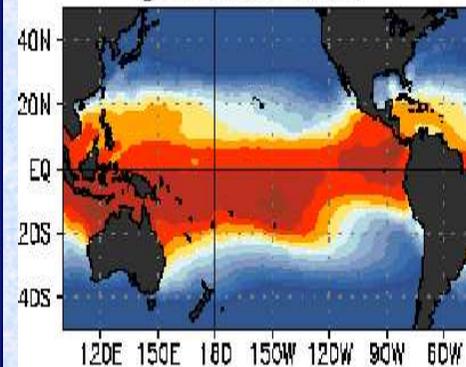


Ciclos do CLIMA: Sazonalidade e Interanualidade

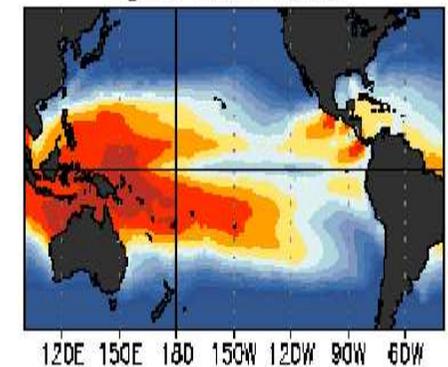


TEMPERATURAS OCEÂNICAS (°C)

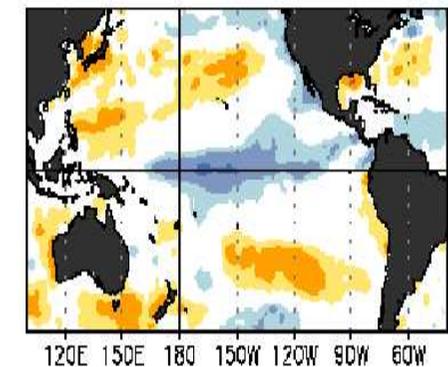
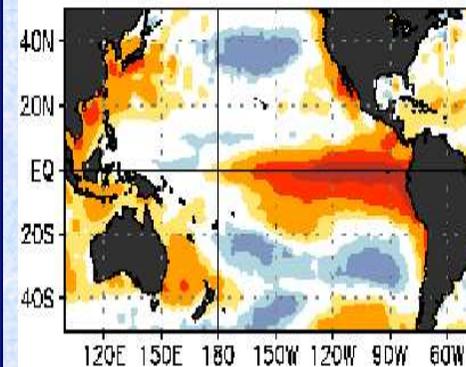
EL NIÑO
Jan-Mar 1998



LA NIÑA
Jan-Mar 1989



ANOMALIAS DE TEMPERATURA (°C)

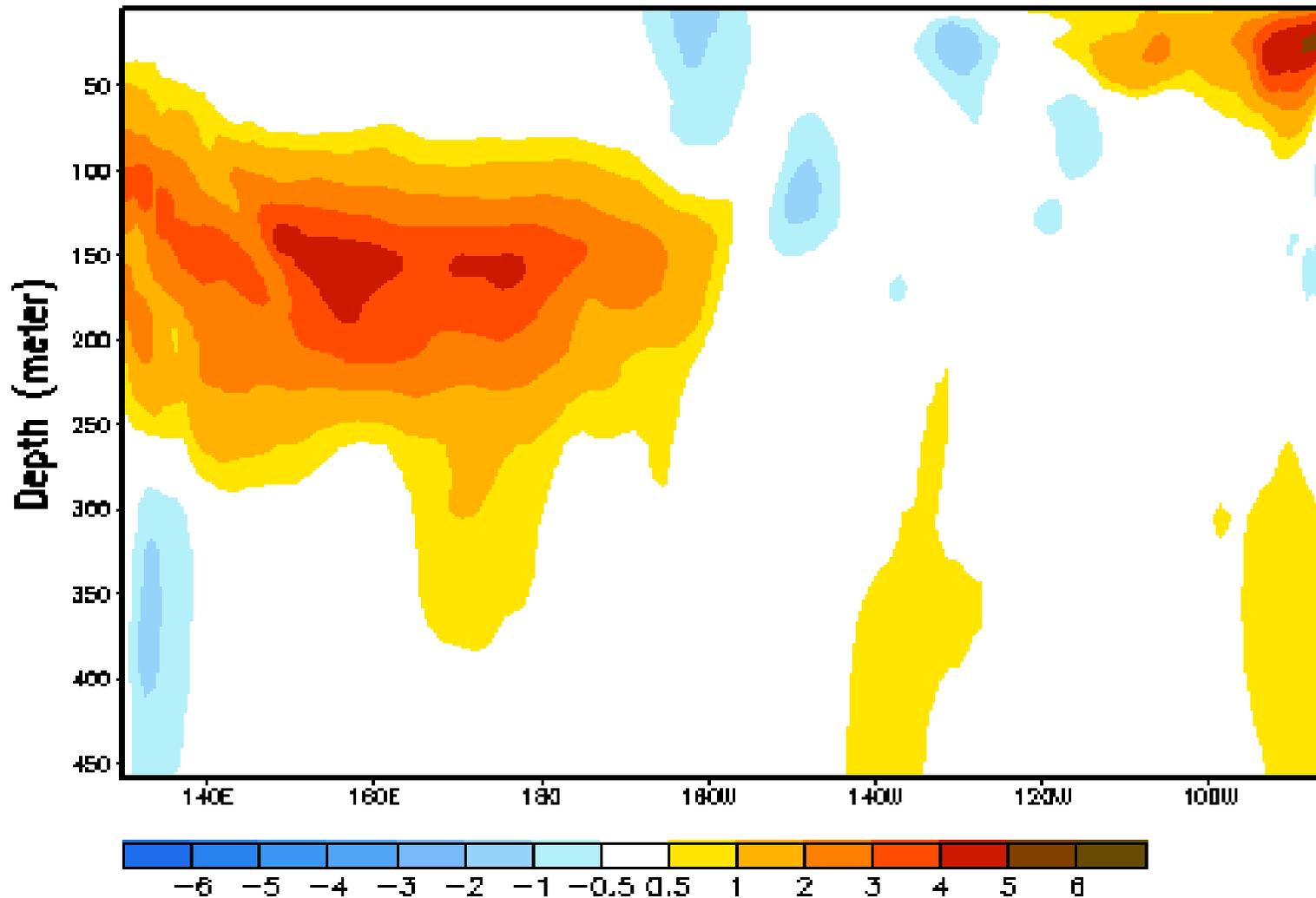


-3 -2 -1 -0.5 0.5 1 2 3

-3 -2 -1 -0.5 0.5 1 2 3

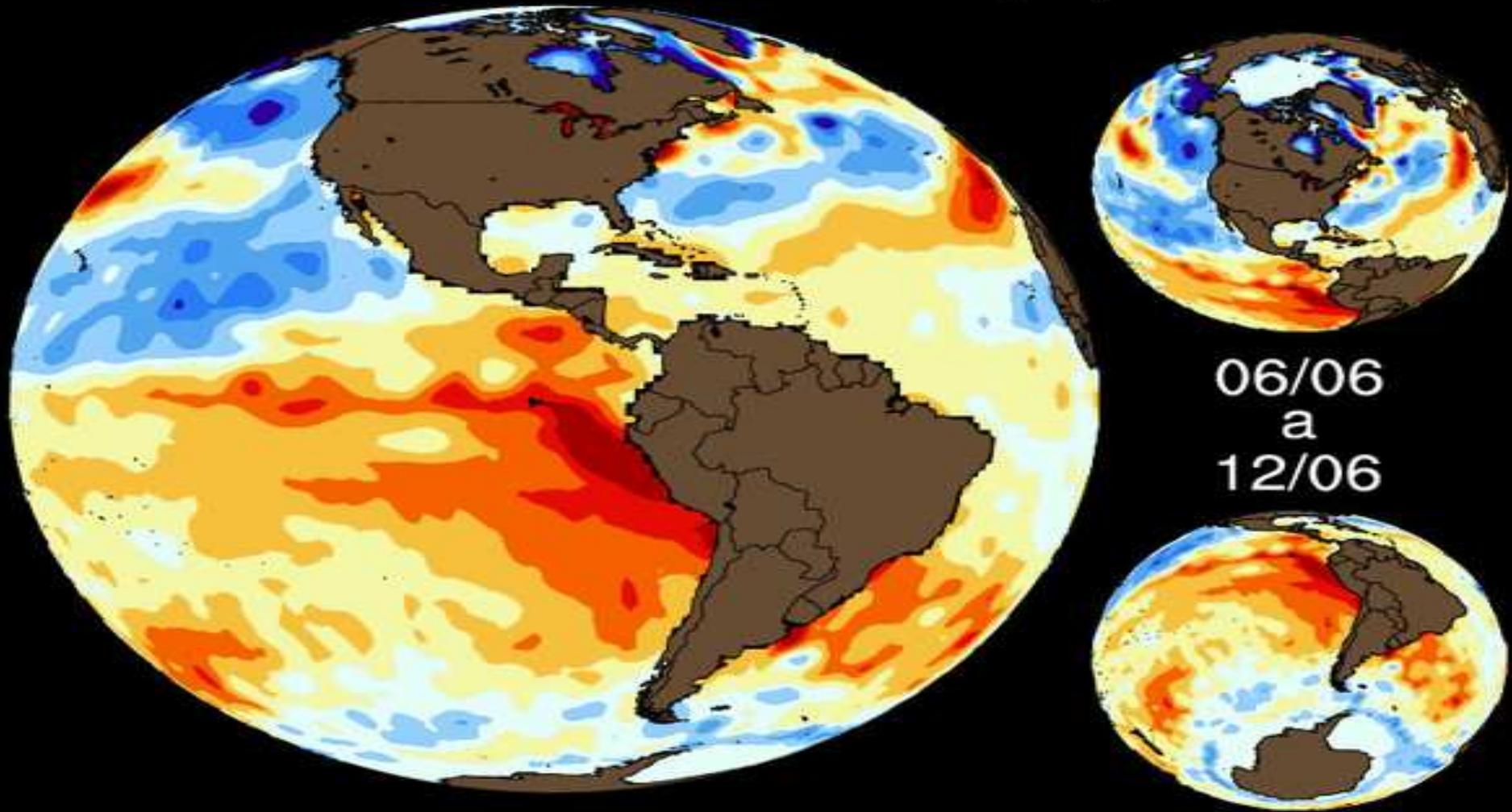
Equatorial Temperature Anomaly (°C)

Pentad centered on 08 APR 2012



TEMPERATURA DOS OCEANOS

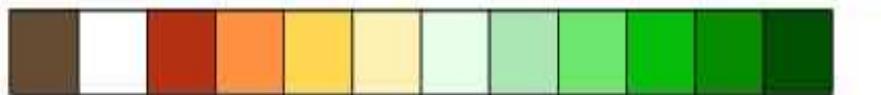
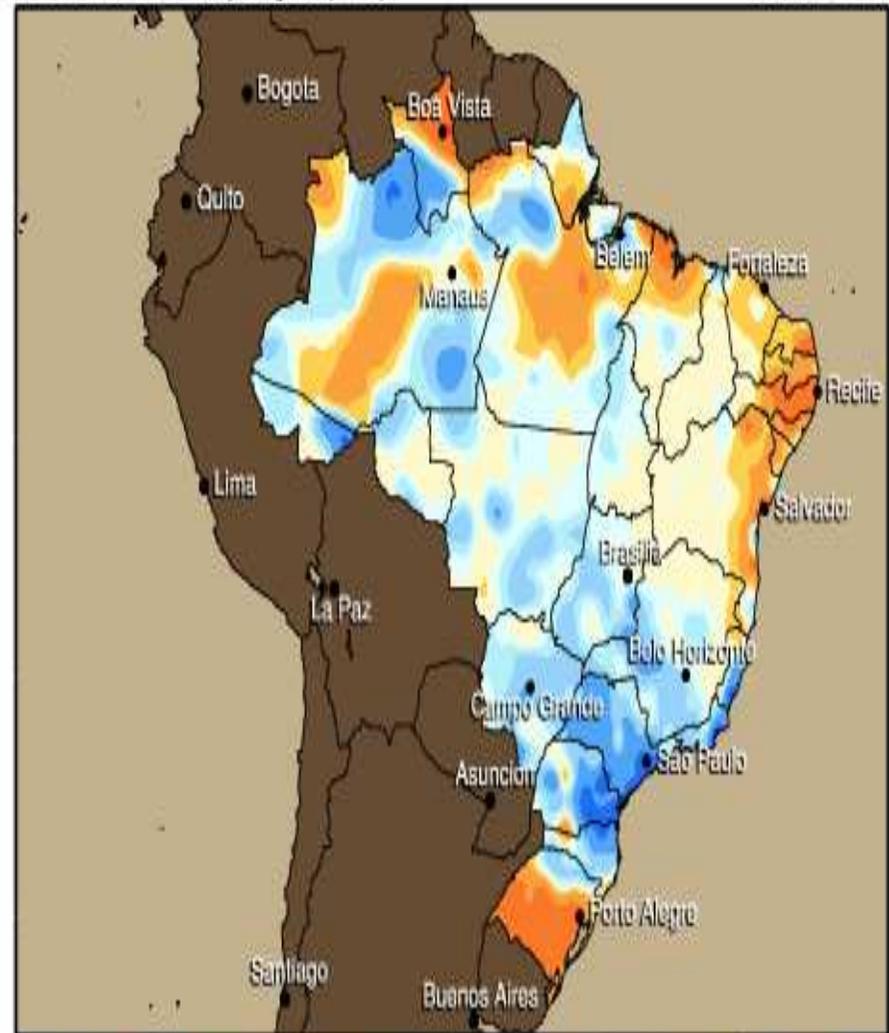
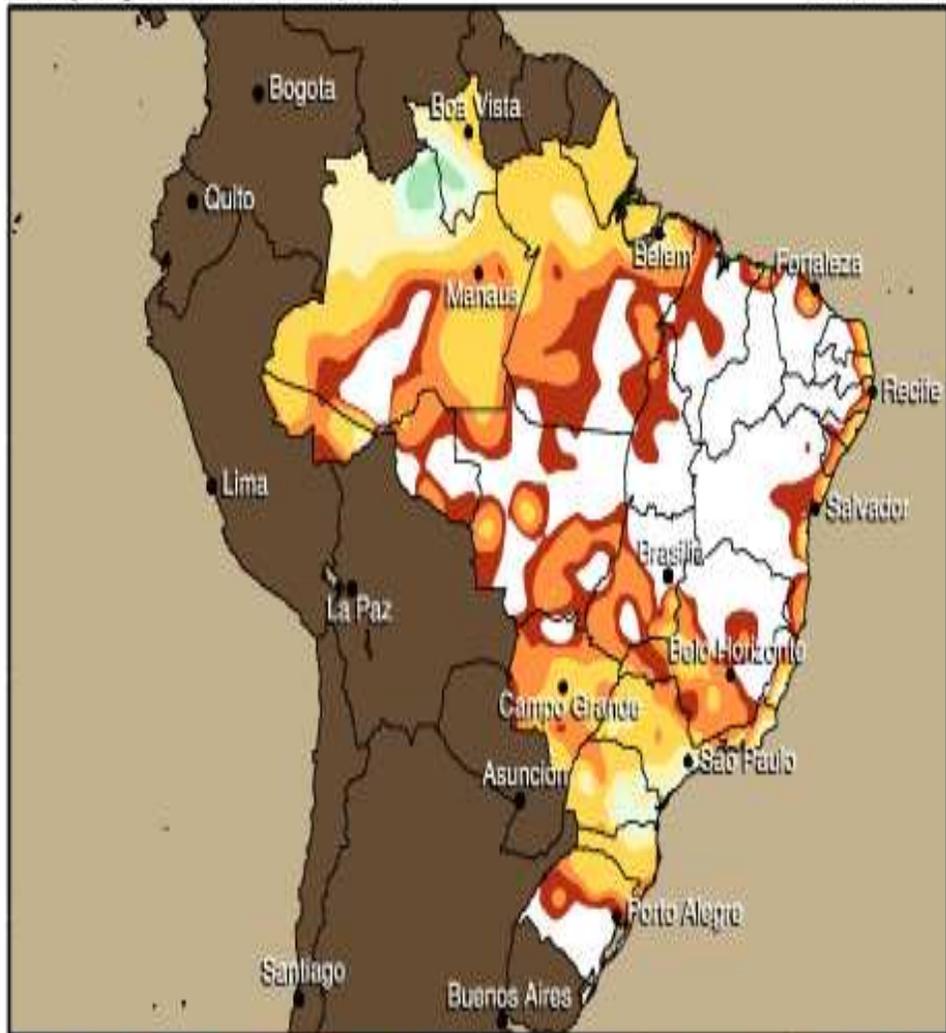
Anomalia da TSM (°C)



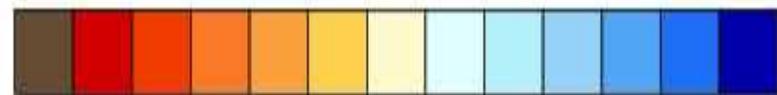
Precipitação Acumulada (mm)

01/06 - 13/06 Anomalia da Precipitação (mm)

01/06 - 13/06



sem dado 0 10 25 50 100 150 200 250 350 450 600 (mm)



sem dado -150 -100 -50 -25 -10 0 10 25 50 100 150 (mm)

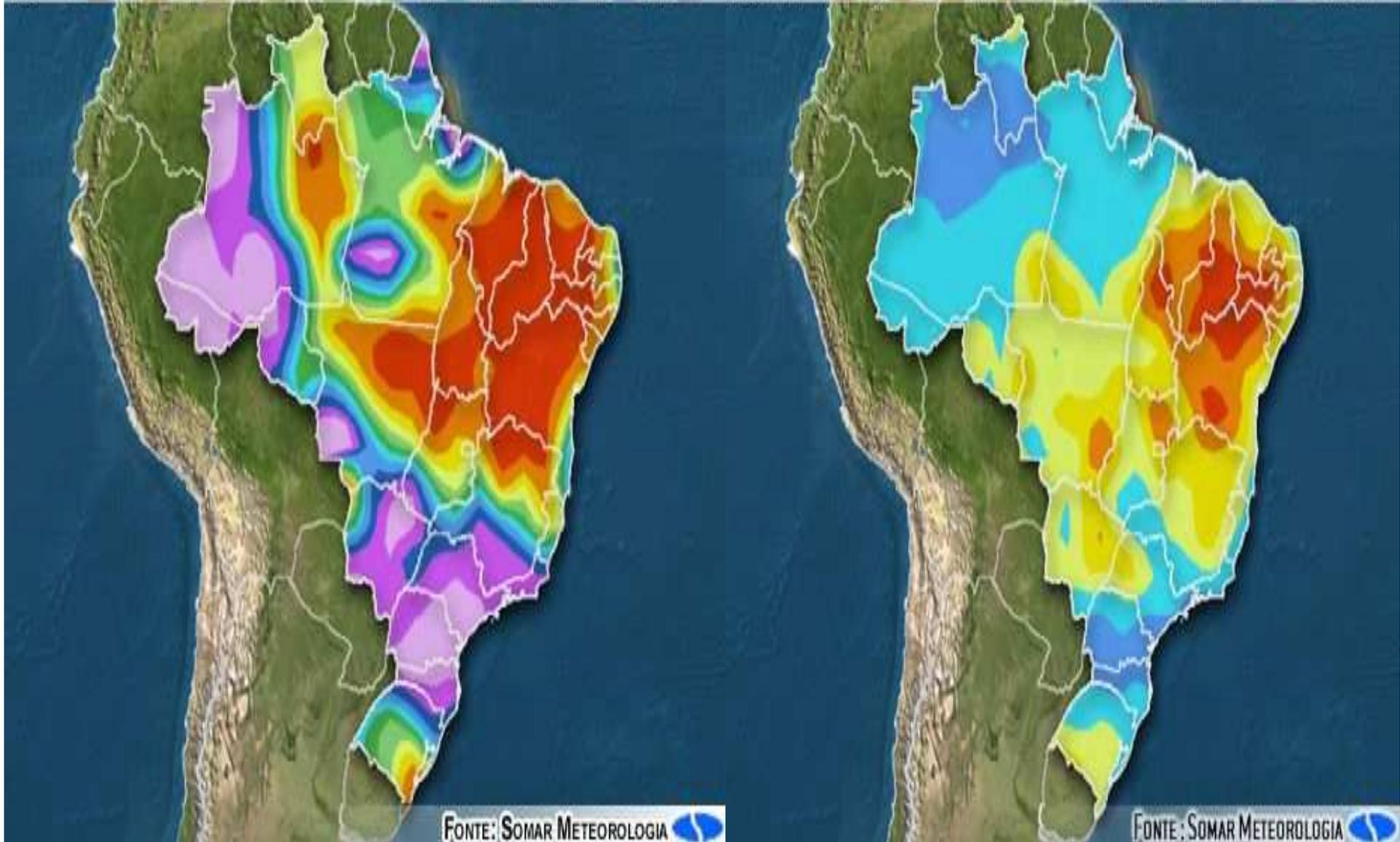
UMIDADE DO SOLO

ÁGUA DISPONÍVEL NO SOLO

12/06/12 CAPACIDADE HÍDRICA DO SOLO

12/06/12

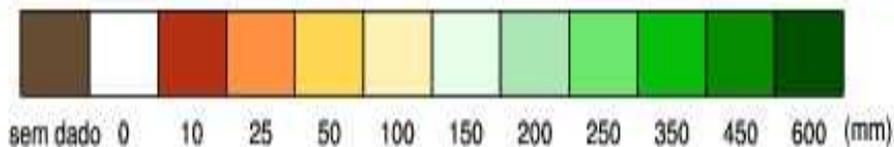
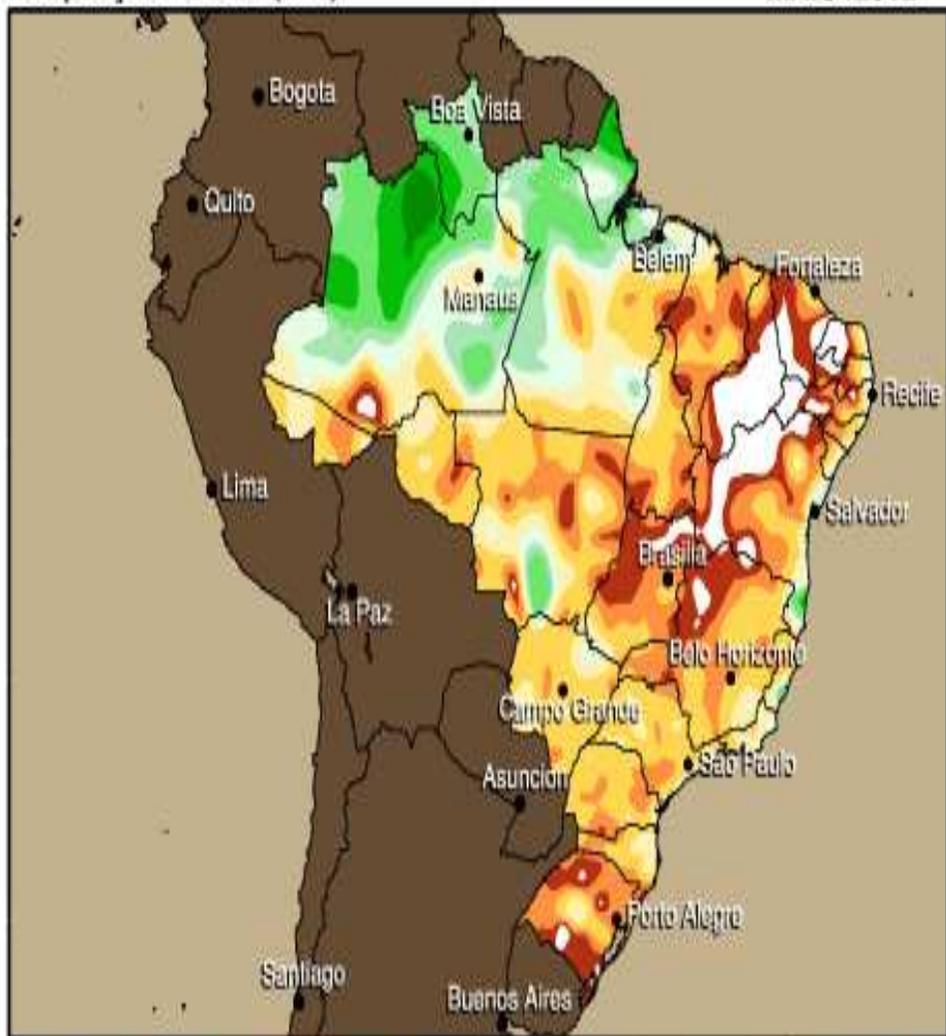
[%] 0 10 20 30 40 50 60 70 80 90 100 [%] SECO 10 20 30 40 50 60 70 80 90 ÚMIDO



CHUVA: Maio 2012

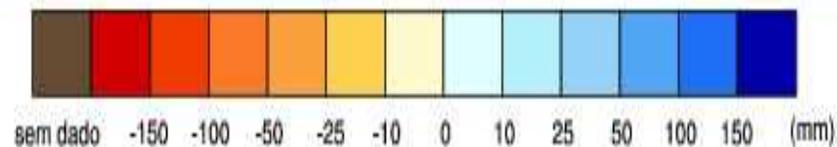
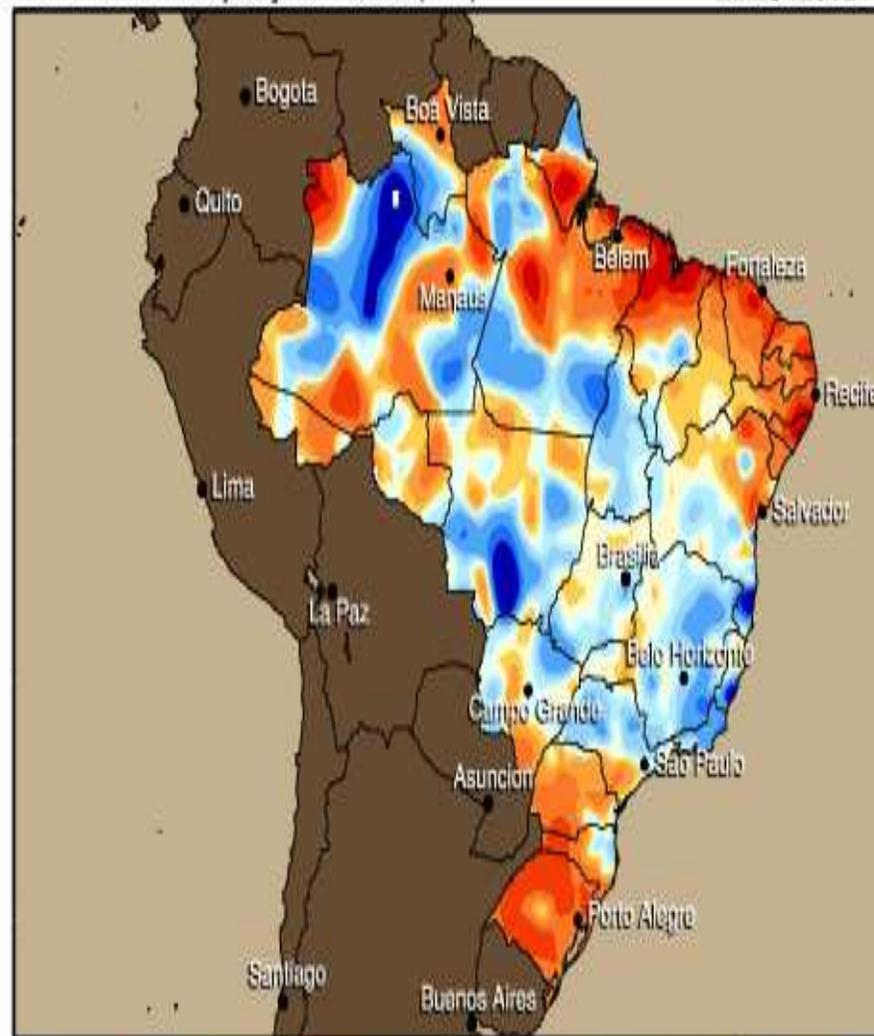
Precipitação mensal (mm)

MAIO /2012



Anomalia da Precipitação mensal (mm)

MAIO /2012





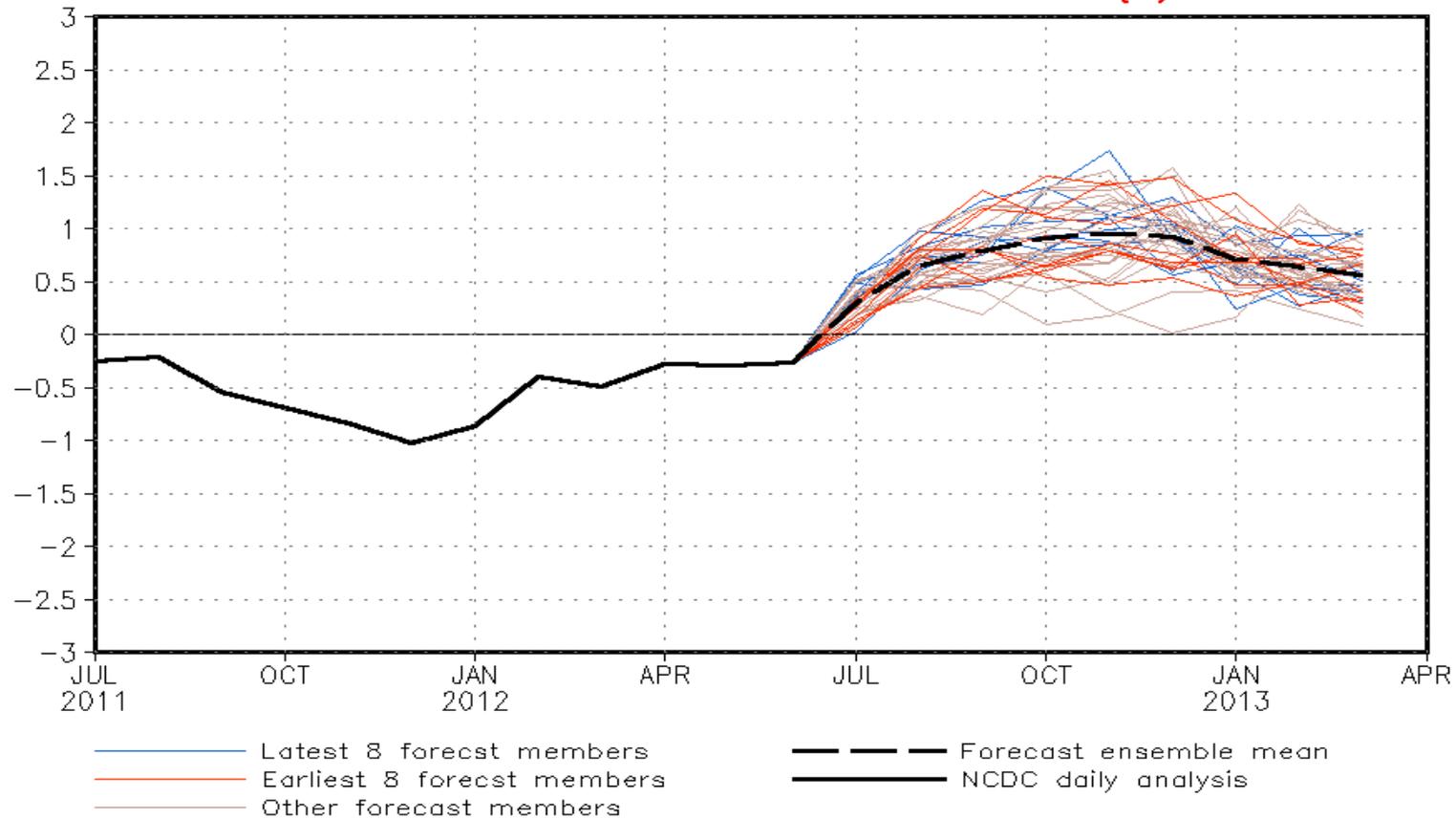
CFS/NOAA: Nova Versão (CFSv2)



NWS/NCEP/CPC

Last update: Thu Jun 14 2012
Initial conditions: 3Jun2012–12Jun2012

CFSv2 forecast Nino4 SST anomalies (K)





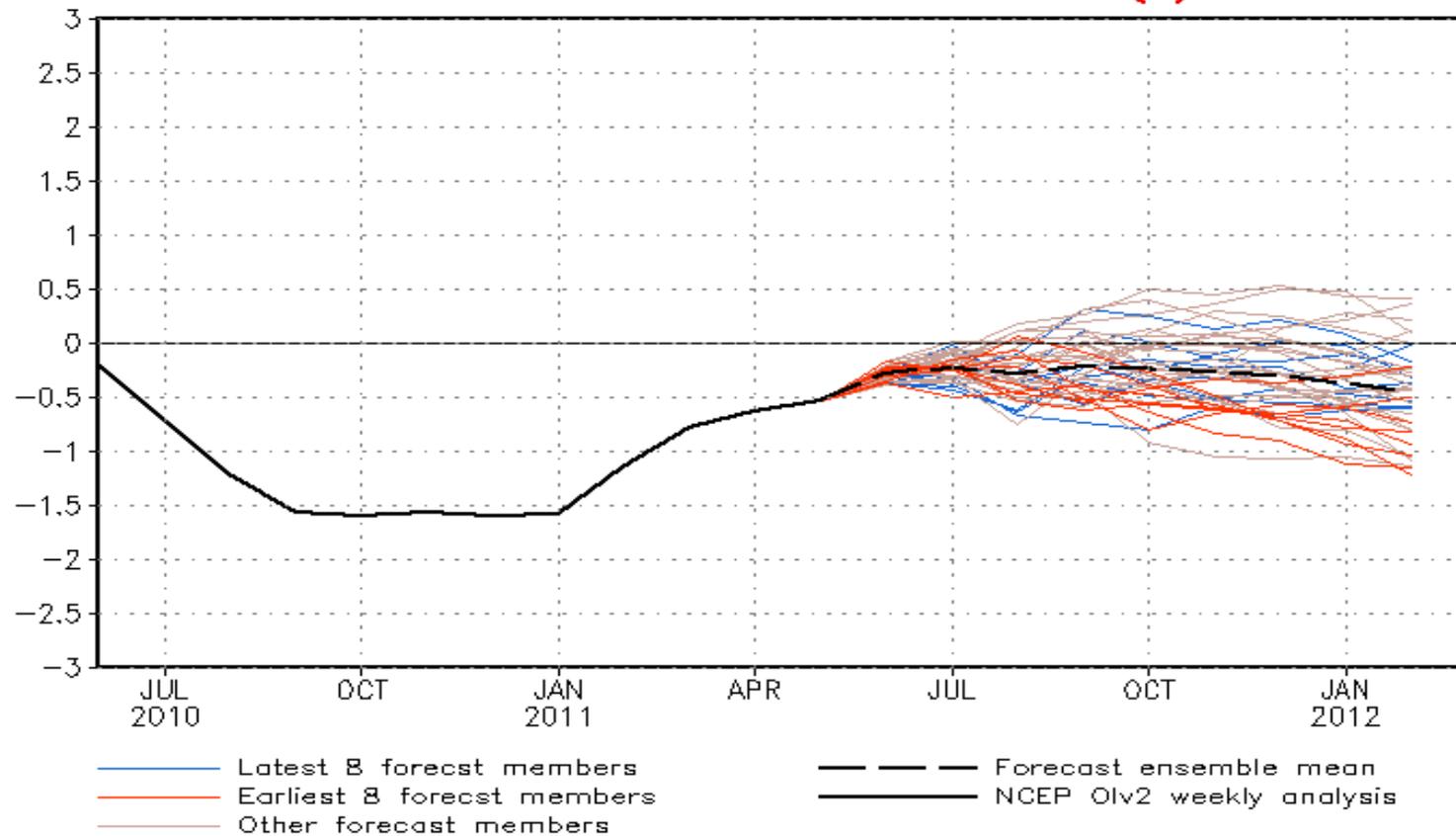
PREVISÃO DIVULGADA EM 2011!!!



NWS/NCEP/CPC

Last update: Mon May 30 2011
Initial conditions: 20May2011-29May2011

CFS forecast Nino4 SST anomalies (K)

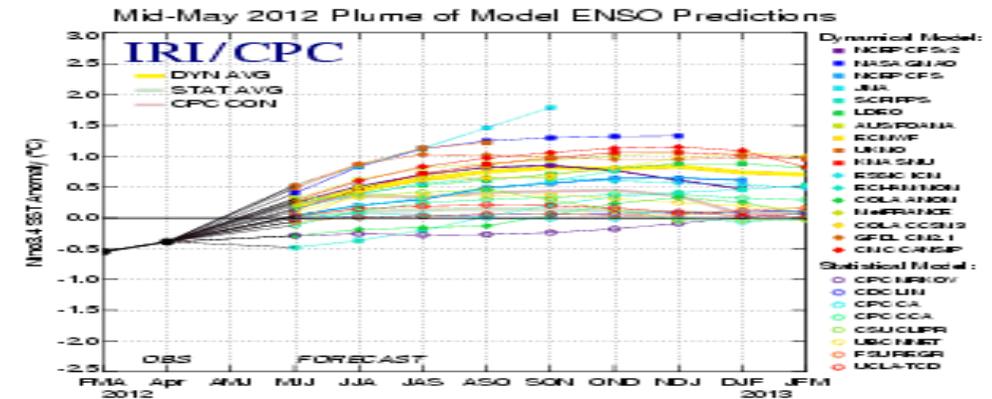
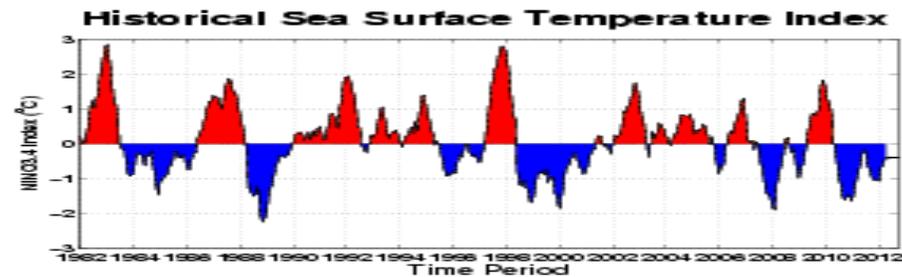
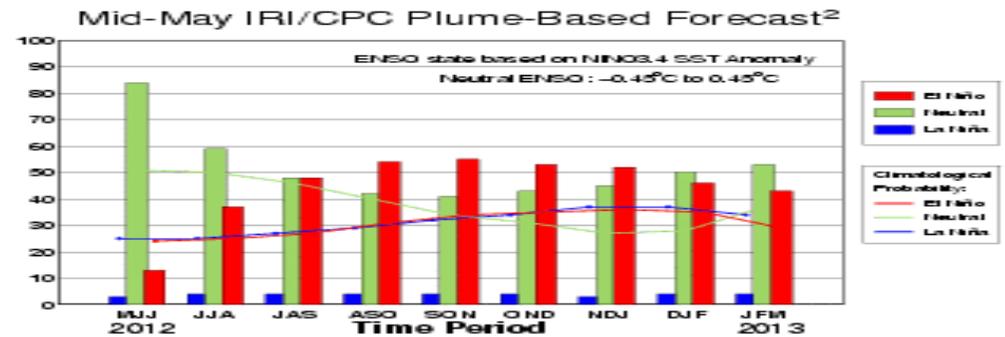
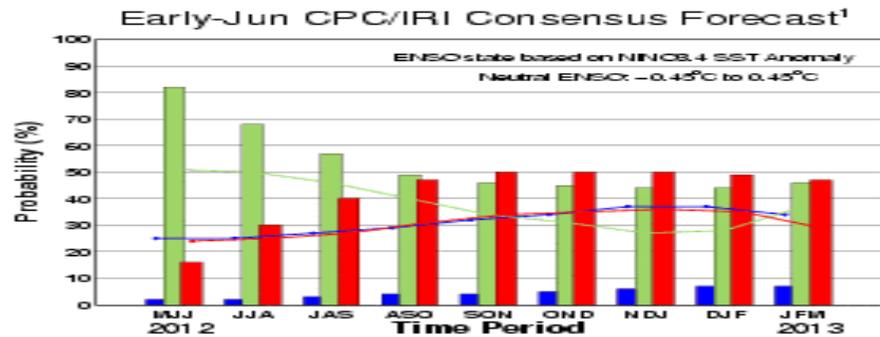




IRI: Mantém previsão de El Niño moderado/fraco

ENSO QUICK LOOK June 7, 2012 A monthly summary of the status of El Niño, La Niña and the Southern Oscillation, or "ENSO", based on NINO3.4 index (120-170W, 5S-5N)

Slightly more than half of the ENSO prediction models predict El Niño conditions developing around the July-September season, continuing through the rest of 2012. However, 40-45% of the models indicate persistence of ENSO-neutral conditions. Currently, no models indicate a re-emergence of La Niña conditions.



Historically Speaking

El Niño and La Niña events tend to develop during the period Apr-Jun and they:

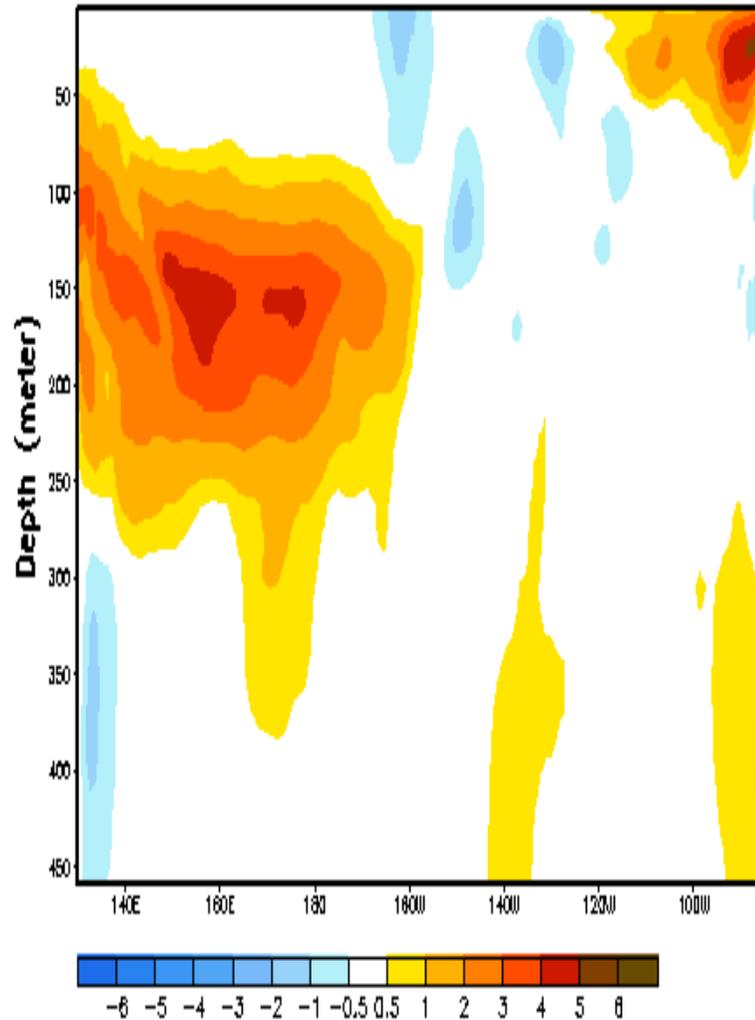
- Tend to reach their maximum strength during Dec-Feb
- Typically persist for 9-12 months, though occasionally persisting for up to 2 years
- Typically recur every 2 to 7 years

¹ Based on a consensus of CPC and IRI forecasters, in association with the official CPC/IRI ENSO Diagnostic Discussion.

² Purely objective, based on regression, using equally weighted model predictions from the plume.

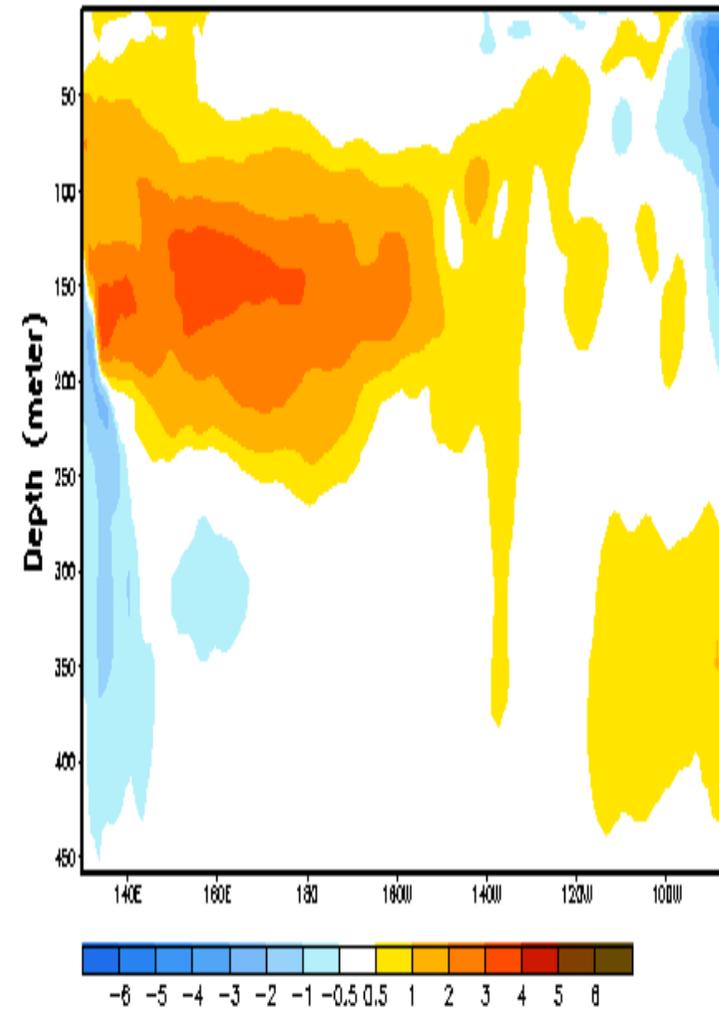
Equatorial Temperature Anomaly (°C)

Pentad centered on 08 APR 2012



Equatorial Temperature Anomaly (°C)

Pentad centered on 03 APR 2009





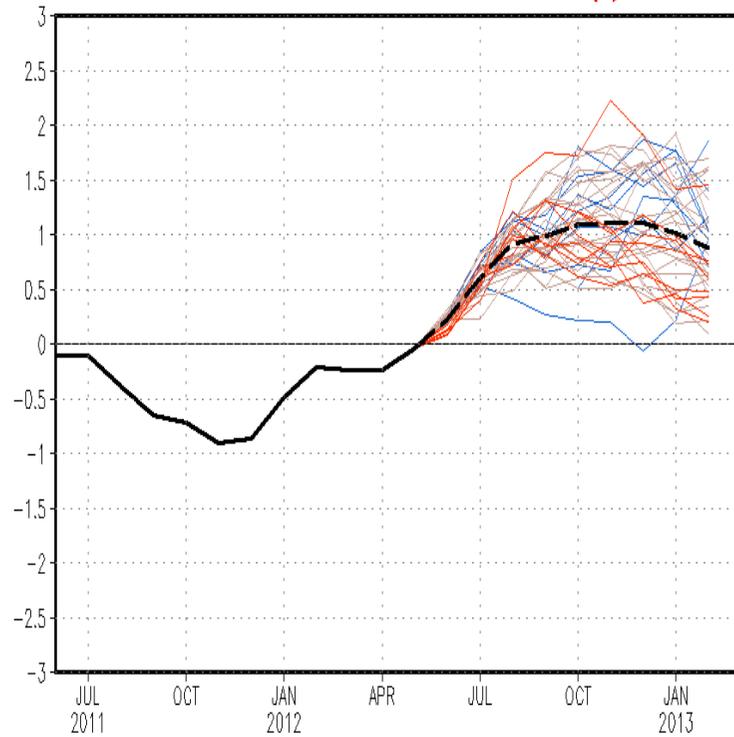
PREVISÃO: 2012 x 2009



NWS/NCEP/CPC

Last update: Tue Jun 12 2012
Initial conditions: 1Jun2012-10Jun2012

CFSv2 forecast Nino3.4 SST anomalies (K)



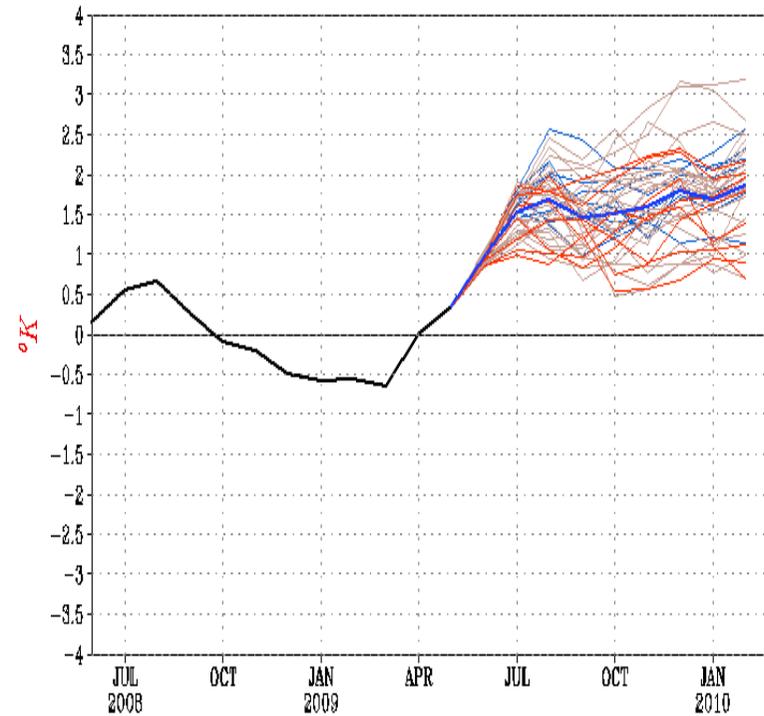
- Latest 8 forecast members
- Earliest 8 forecast members
- Other forecast members
- Forecast ensemble mean
- NCDC daily analysis



NWS/NCEP

Last update: Tue Jun 9 2009
Initial conditions: 29May2009-07Jun2009

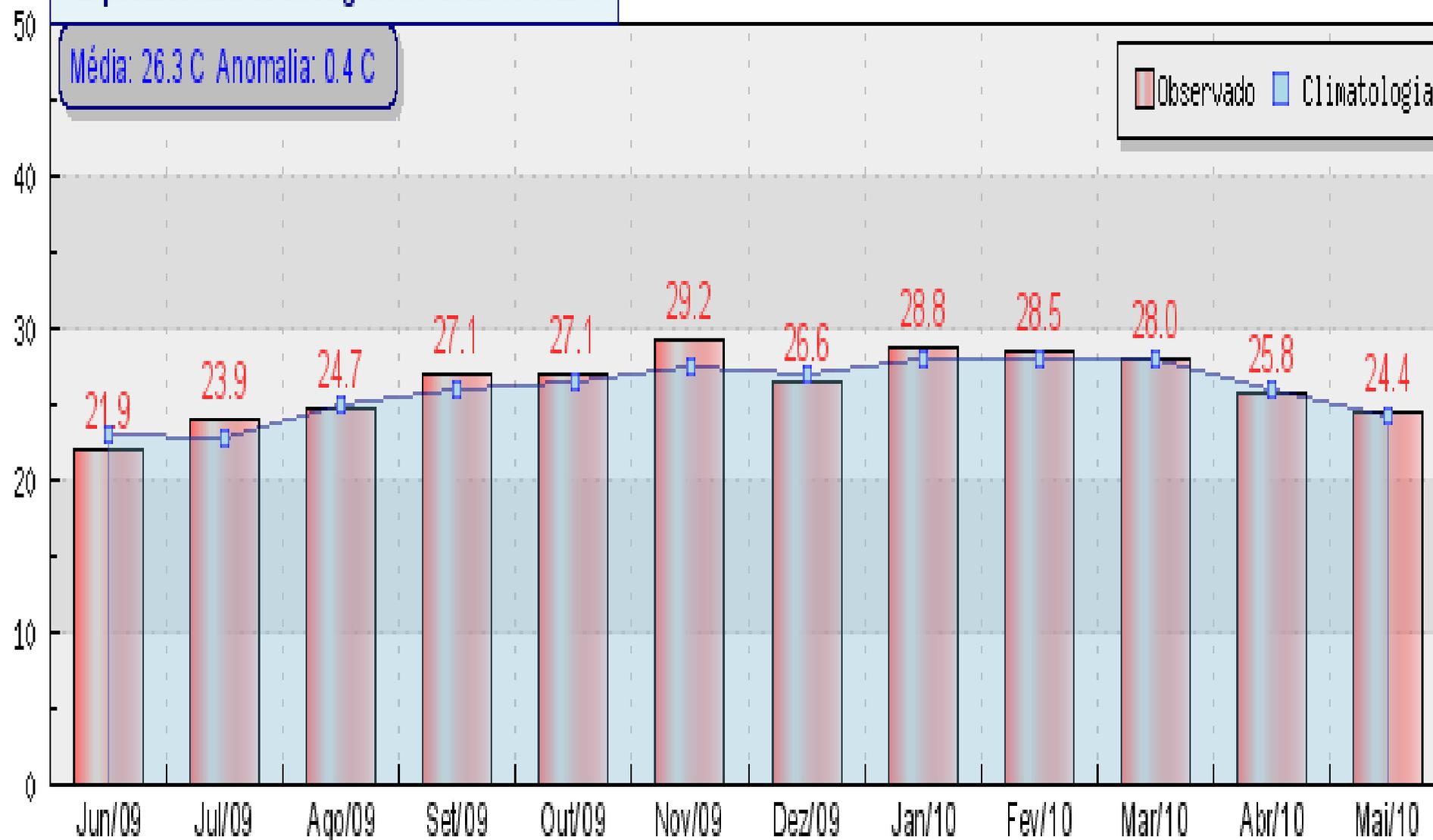
Forecast Nino3 SST anomalies from CFS



- Latest 8 forecast members
- Earliest 8 forecast members
- Other forecast members
- Forecast ensemble mean
- OIv2 observation

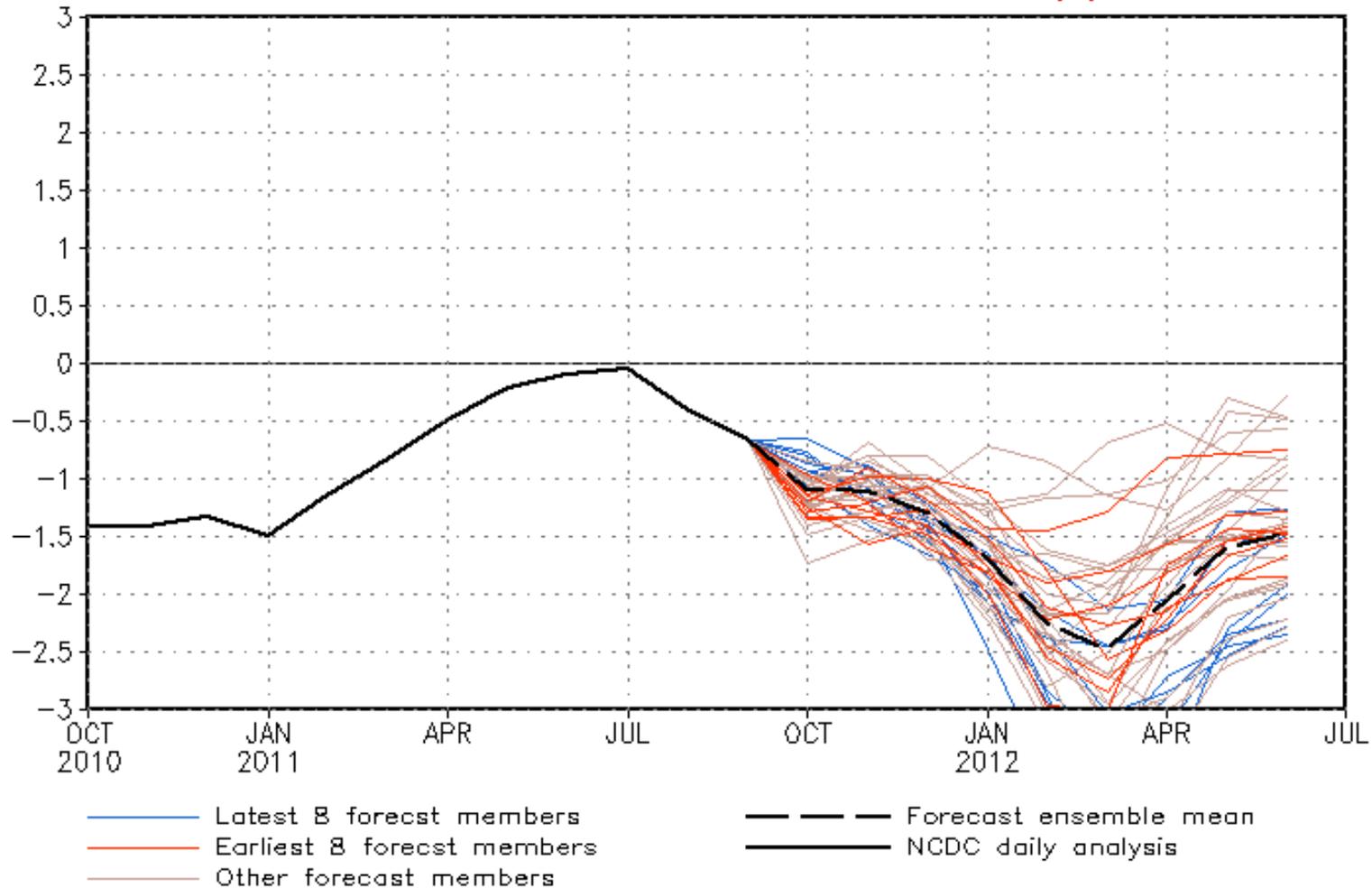
Temperaturas Máximas em Varginha-MG de Jun/09 à Mai/10

Média: 26.3 C Anomalia: 0.4 C





CFS forecast Nino3.4 SST anomalies (K)



Características últimos ELNIÑOS

Evolução da TSM das Últimos El Niños

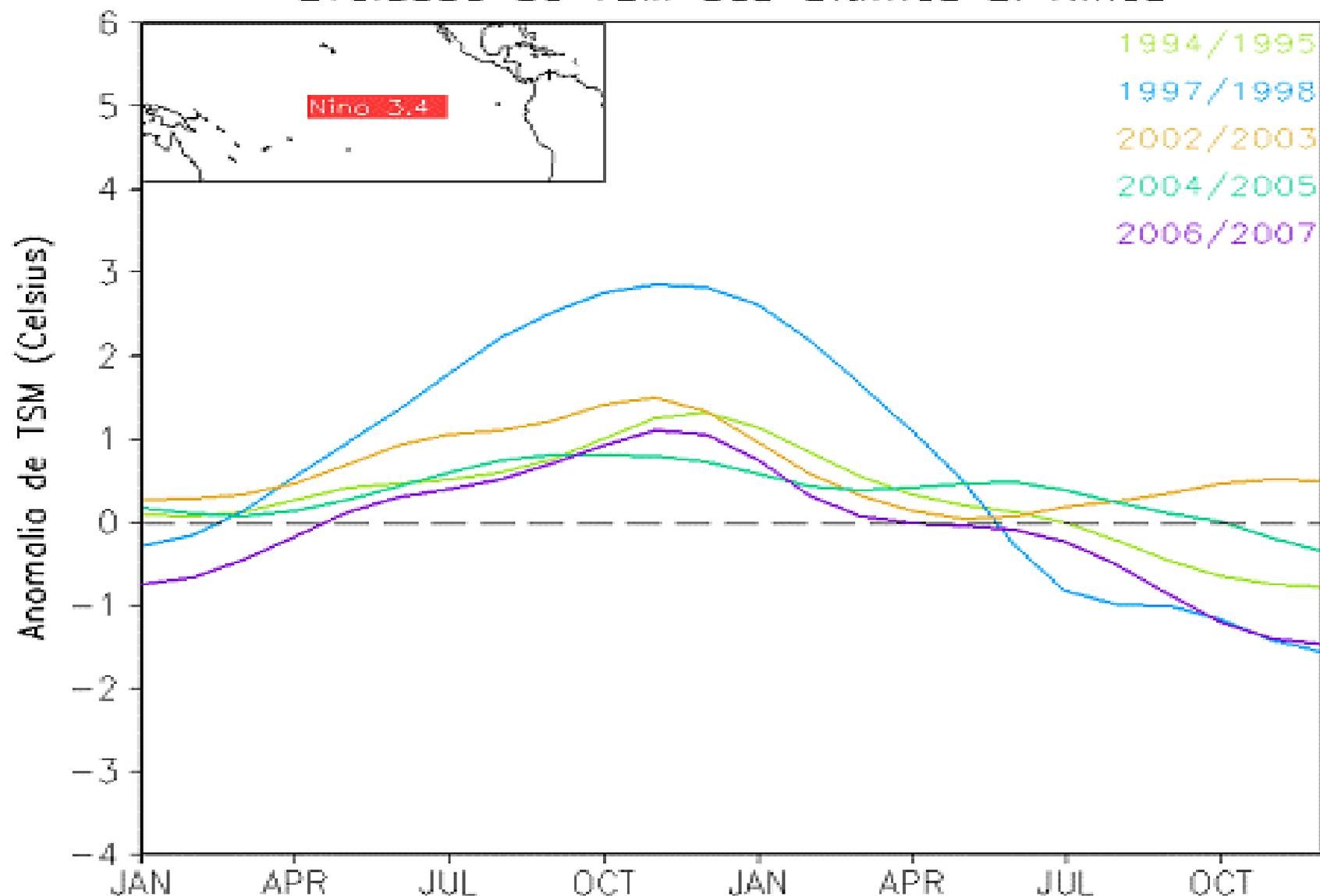


IMAGEM DE SATÉLITE

14/06/12 08:15



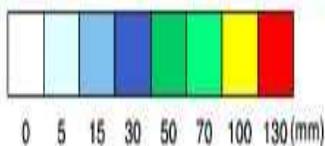
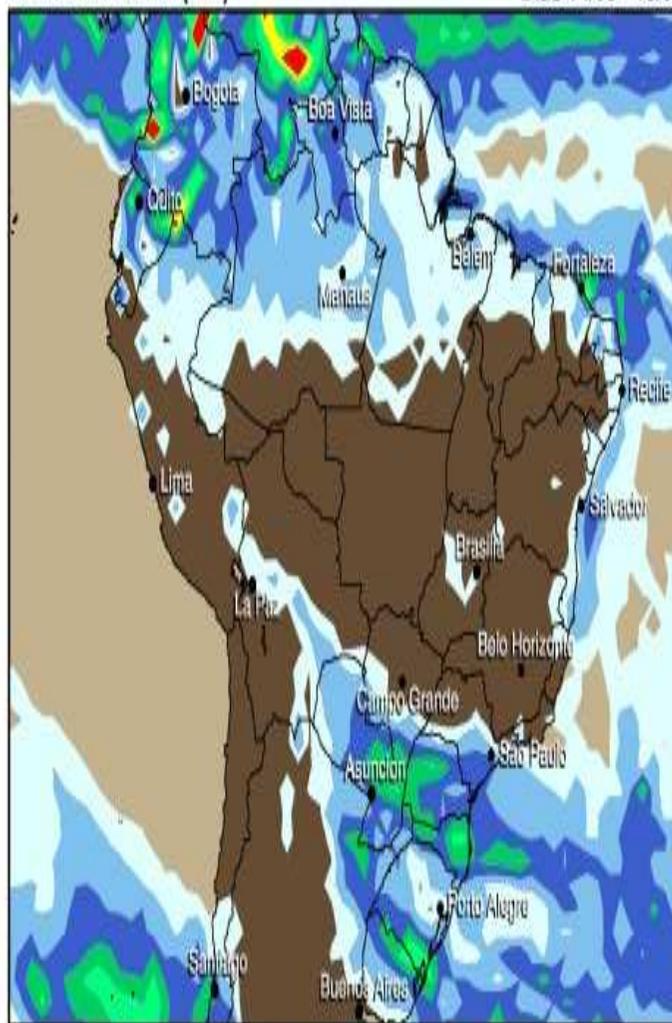


PREVISÃO: Junho a Dezembro/2012

CHUVA: Previsão 15 dias

Pêntada de Chuva (mm)

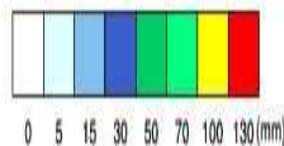
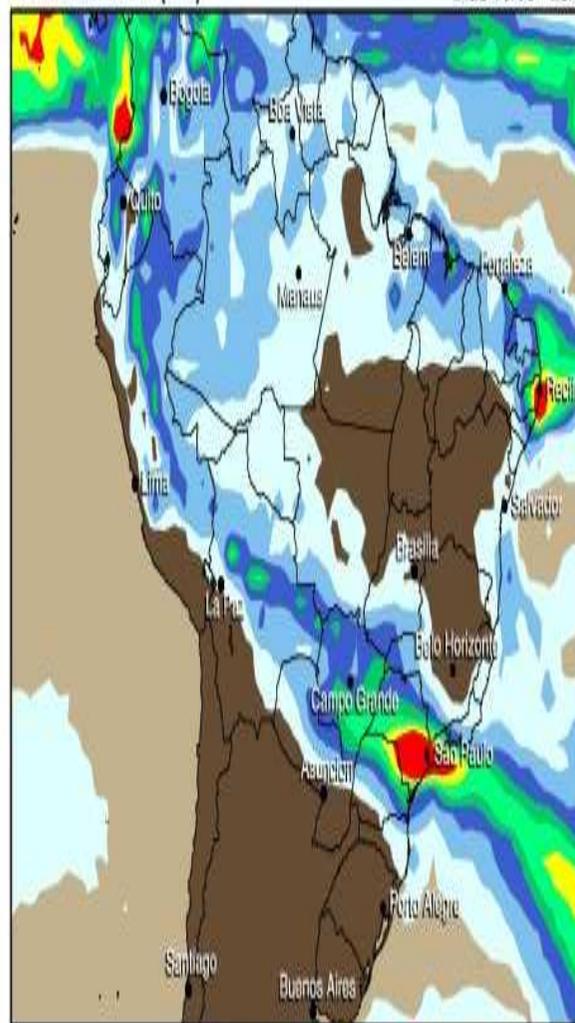
Dias 14/06 - 18/06



Fonte: GFS/NOAA-00z

Pêntada de Chuva (mm)

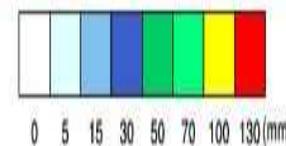
Dias 19/06 - 23/06



Fonte: ENS/NOAA-00z

Pêntada de Chuva (mm)

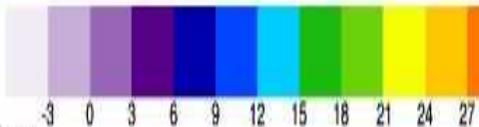
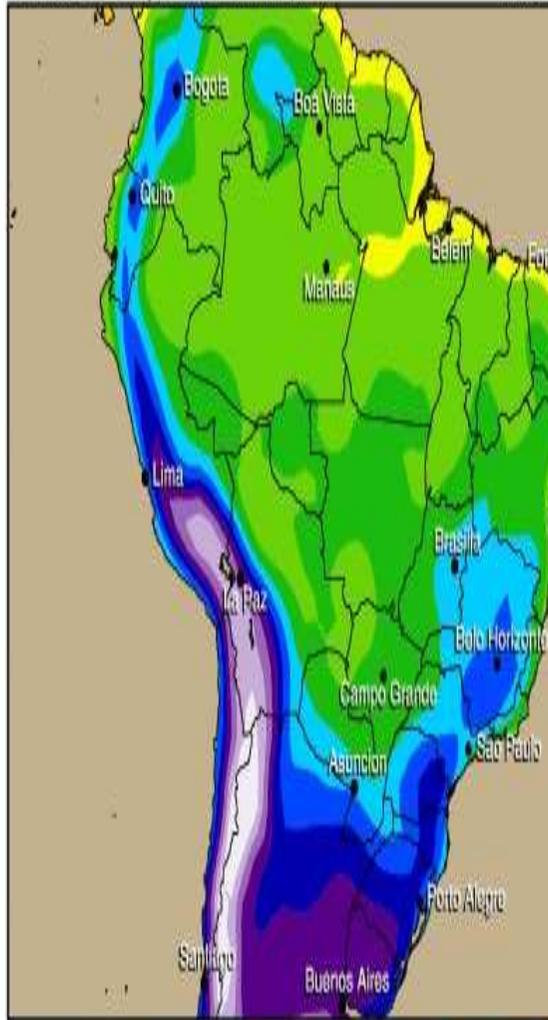
Dias 24/06 - 28/06



Fonte: ENS/NOAA-00z

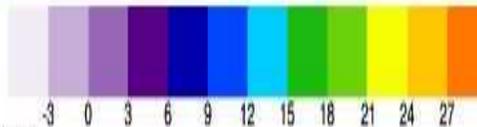
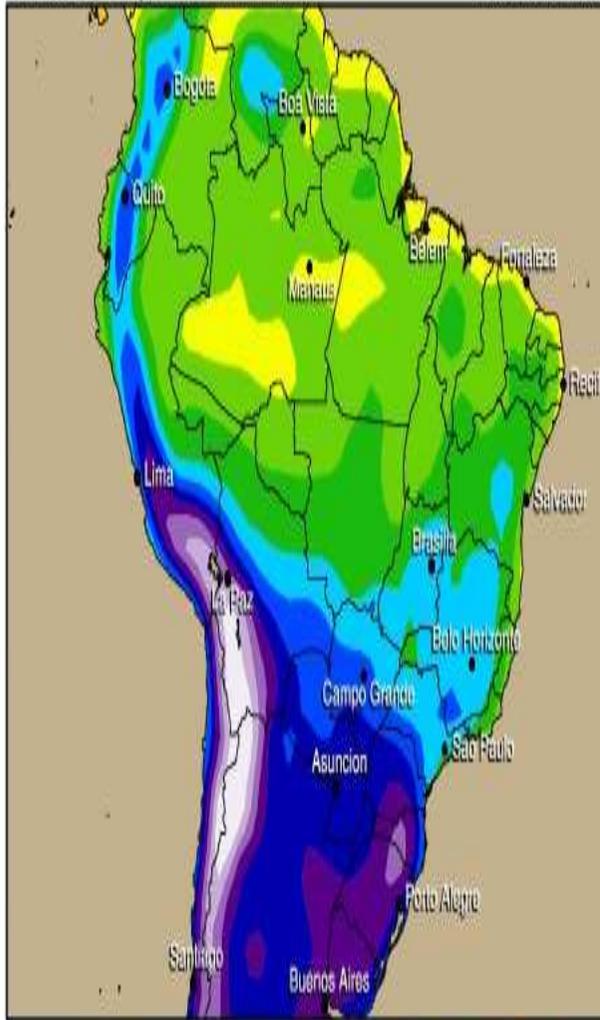
FRIO: Previsão 15 dias

Pêntada da Temperatura Mínima (°C)



Fonte: GFS/NOAA-00z

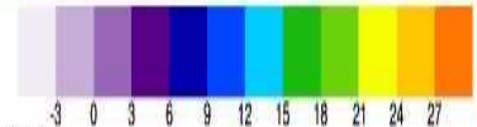
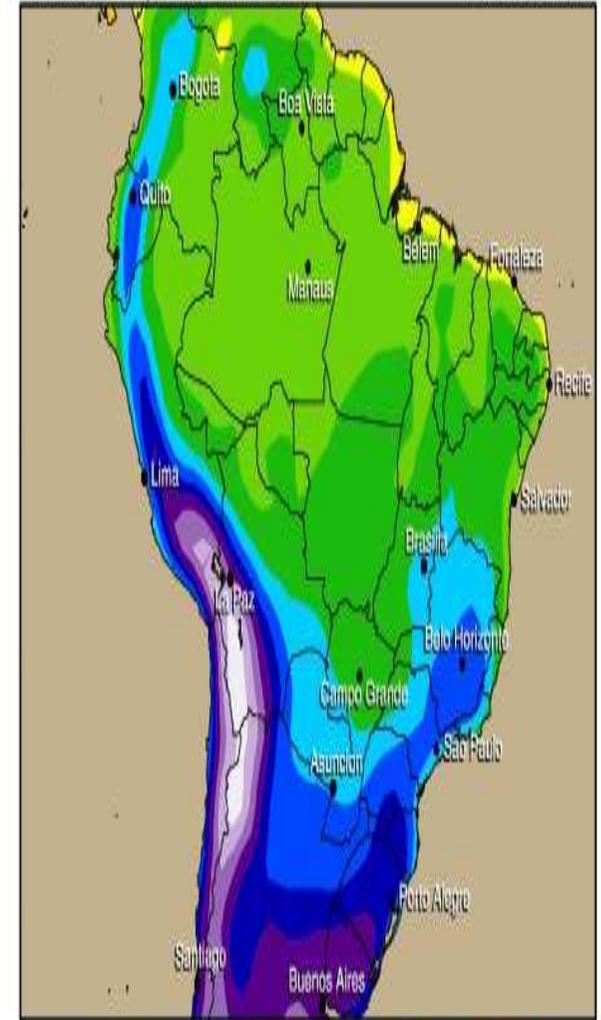
Dias 1. Pêntada da Temperatura Mínima (°C)



Fonte: ENS/NOAA-00z

Dias 19/06 - 23/06

Pêntada da Temperatura Mínima (°C)



Fonte: ENS/NOAA-00z

Dias 24/06 - 28/06

VENTO (Corrente de Jato): Padrão de Inverno

Corrente de Jato e Pressão (hPa)

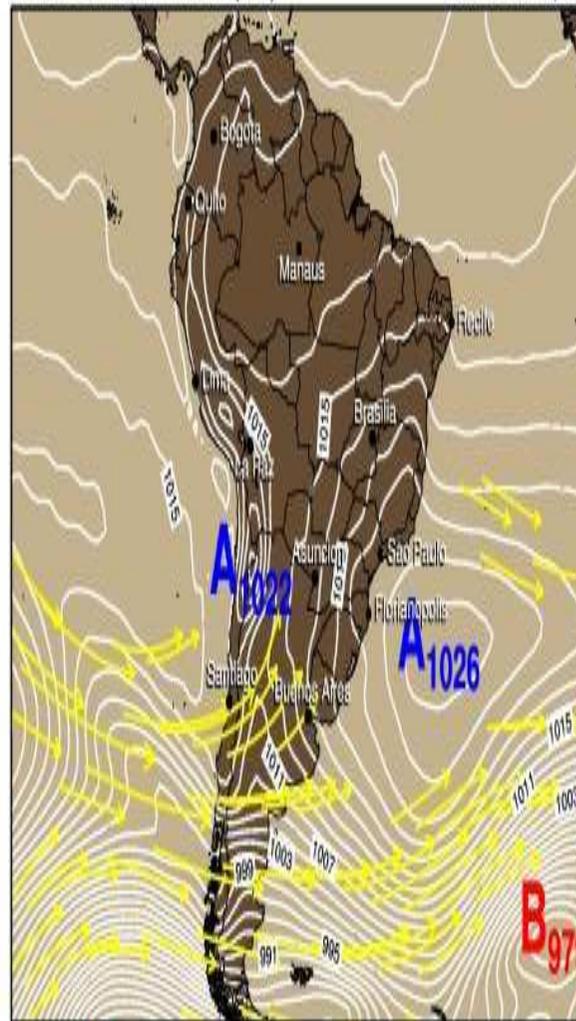
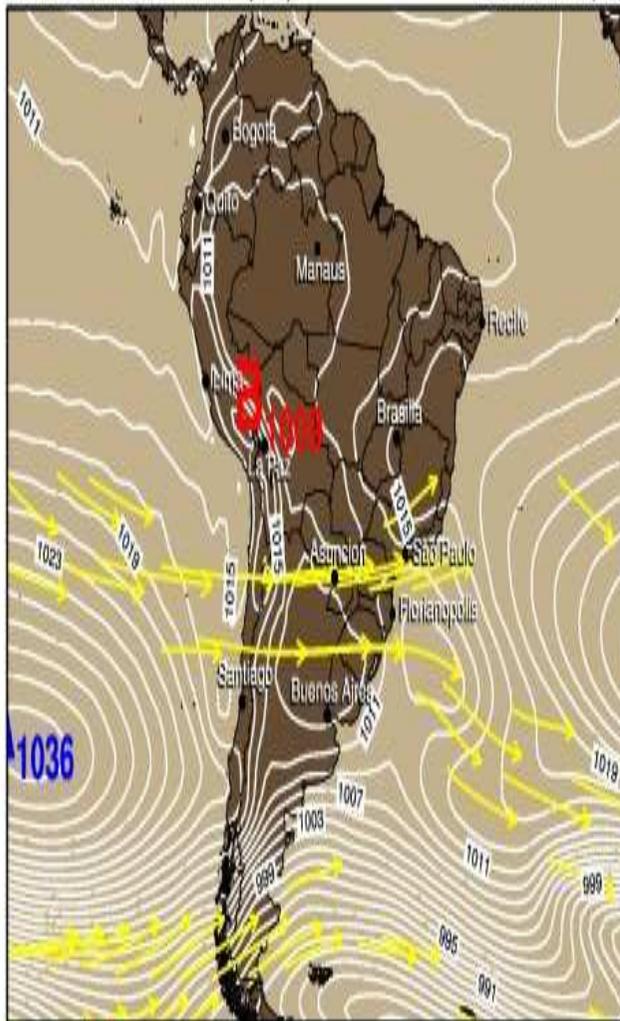
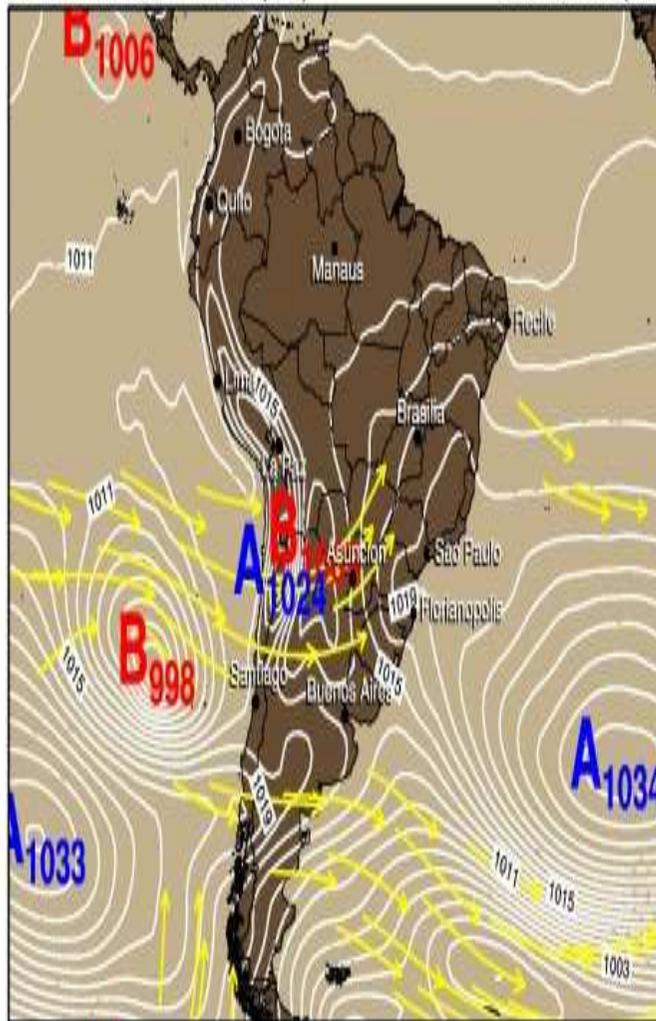
Dia 14/06/12 (Qui)

Corrente de Jato e Pressão (hPa)

Dia 18/06/12 (Seg)

Corrente de Jato e Pressão (hPa)

Dia 25/06/12 (Seg)



B -> Centro de baixa Pressão
A -> Centro de alta Pressão

Vento - m/s



B -> Centro de baixa Pressão
A -> Centro de alta Pressão

Vento - m/s

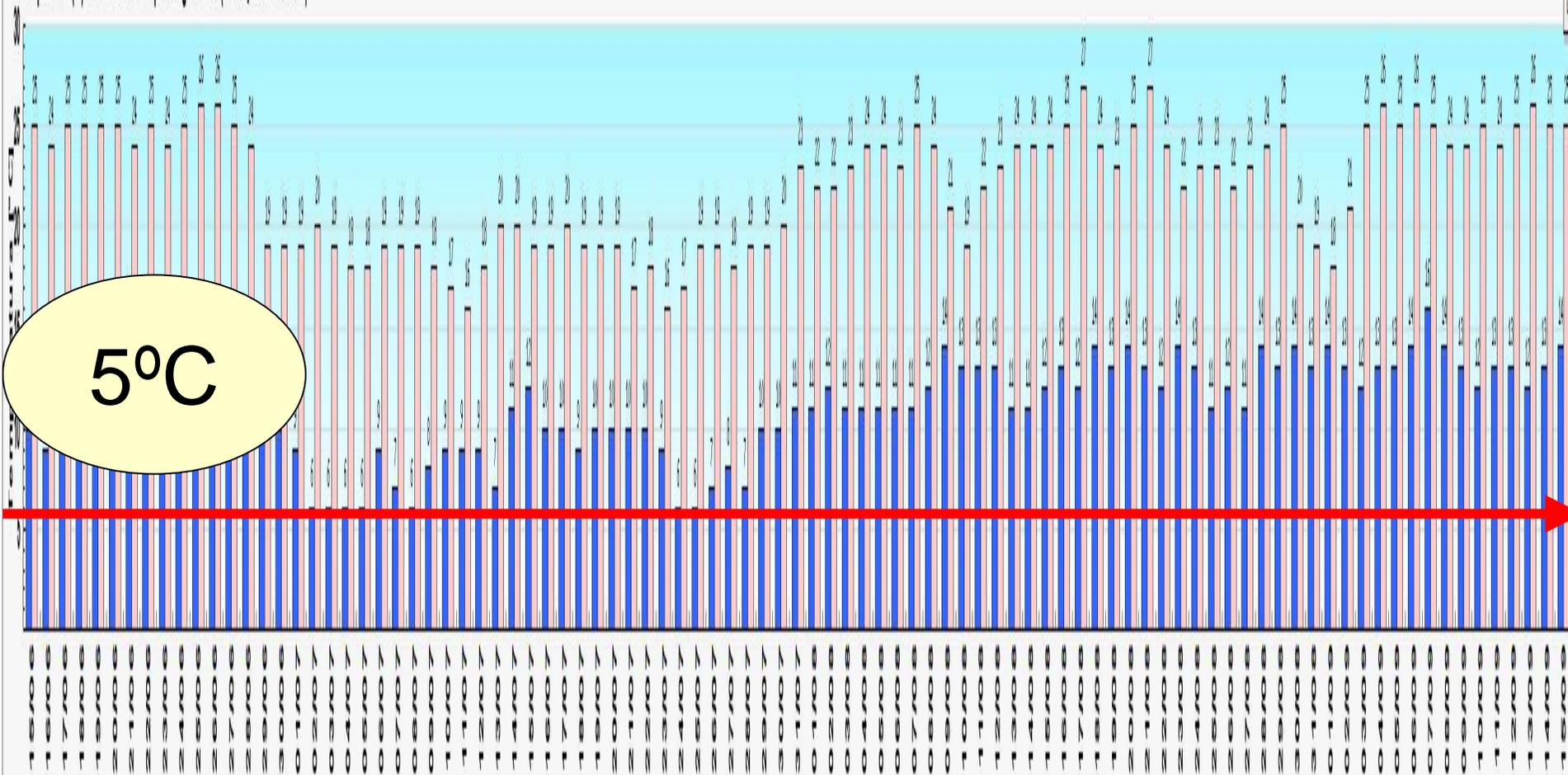


B -> Centro de baixa Pressão
A -> Centro de alta Pressão

Vento - m/s

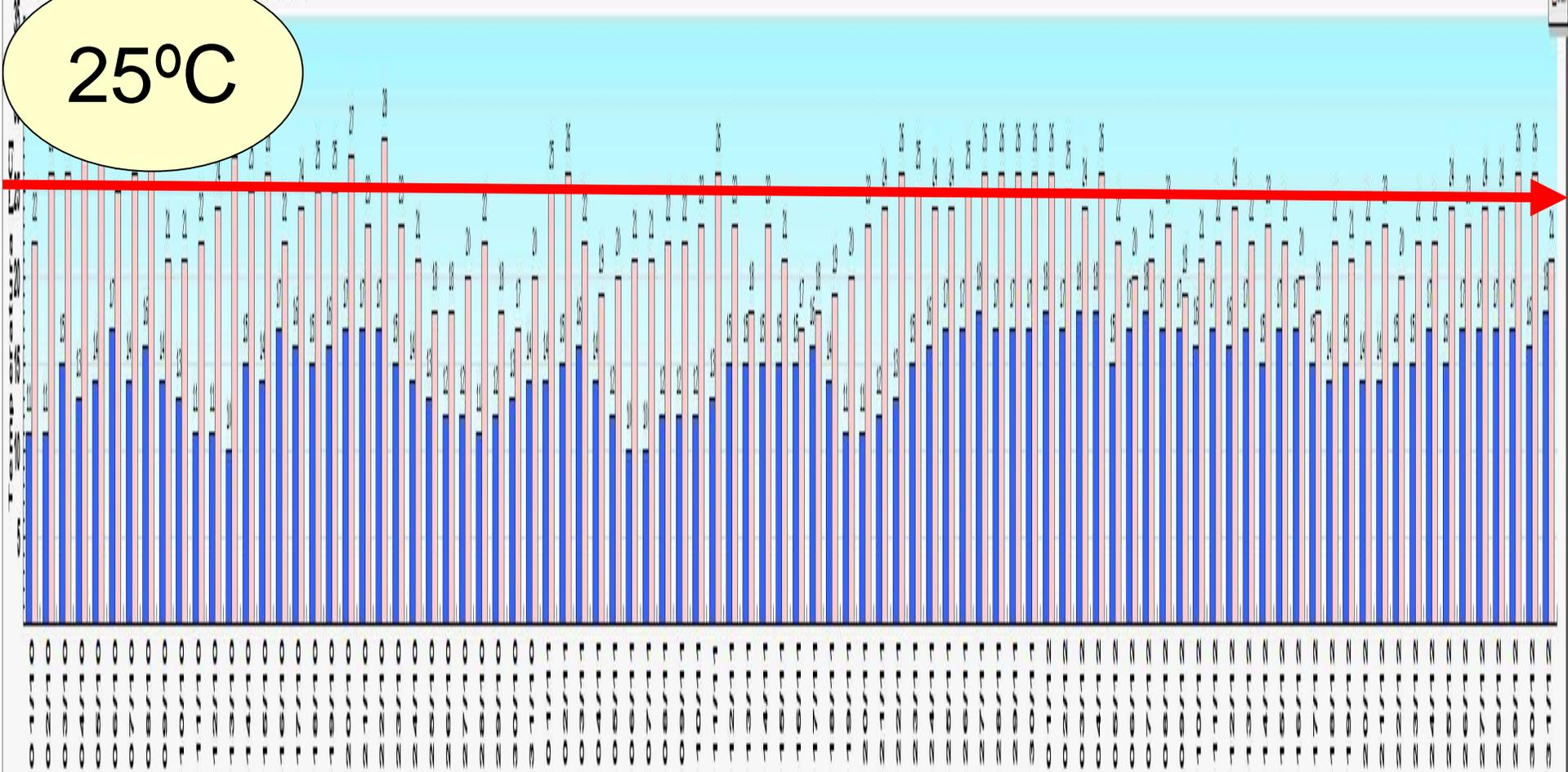


Temperaturas (°C) Máximas e Mínimas para Varginha - MG (Simulação de 10/06/2012)



Temperaturas (°C) Máximas e Mínimas para Curitiba - MG (Simulação de 13/09/2012)

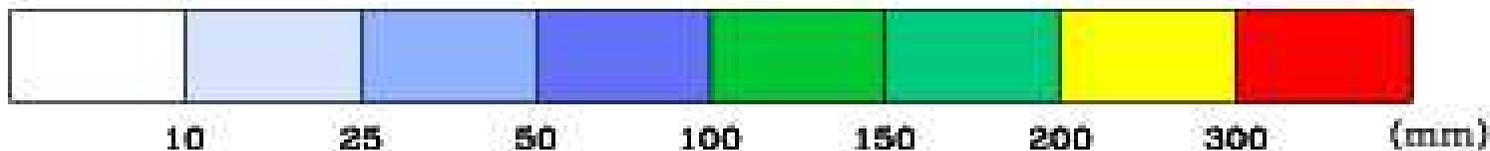
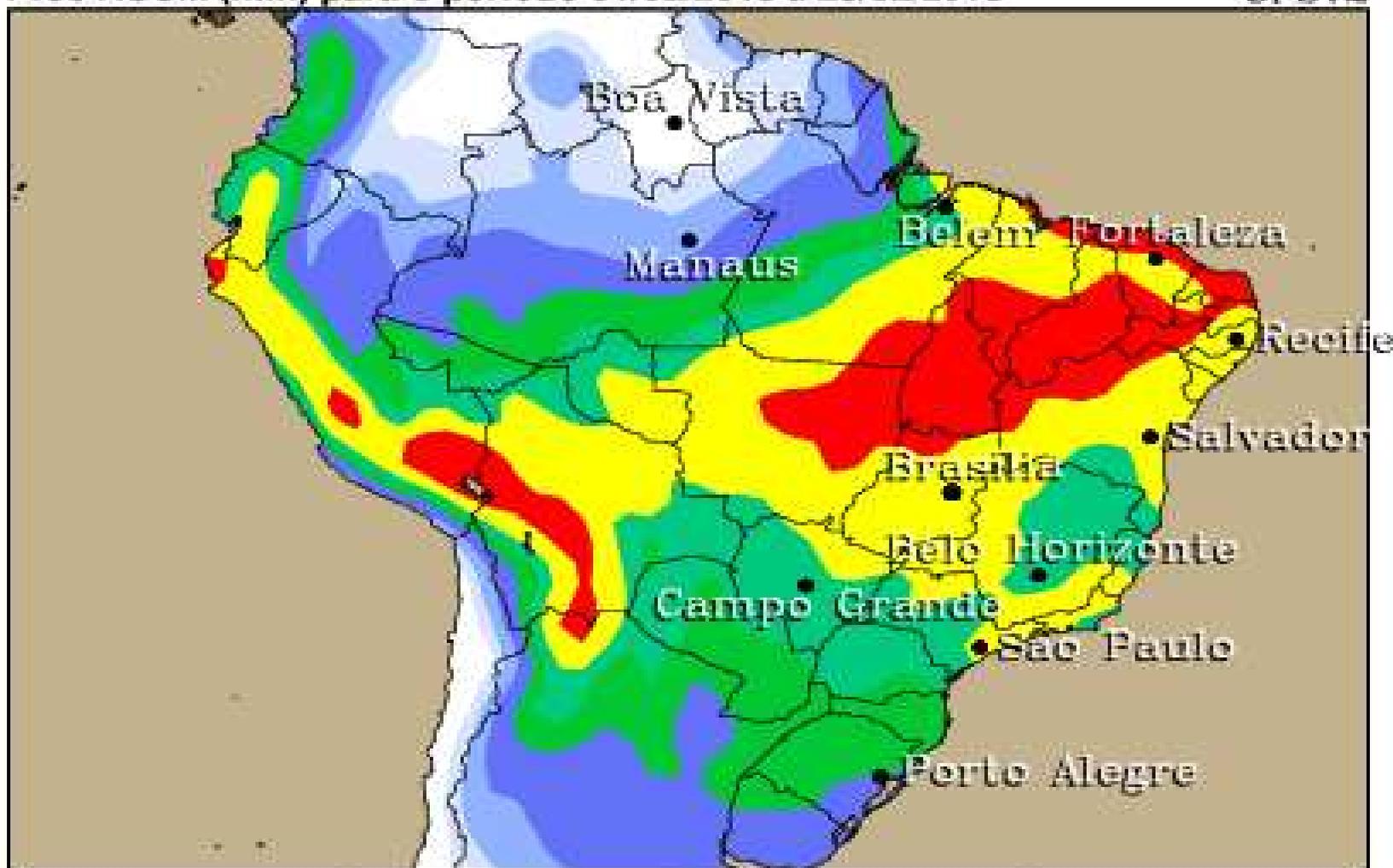
25°C



CHUVA: Previsão CFS/NOAA

Prec ACUM (mm) para o período 01/02/2013 a 28/02/2013

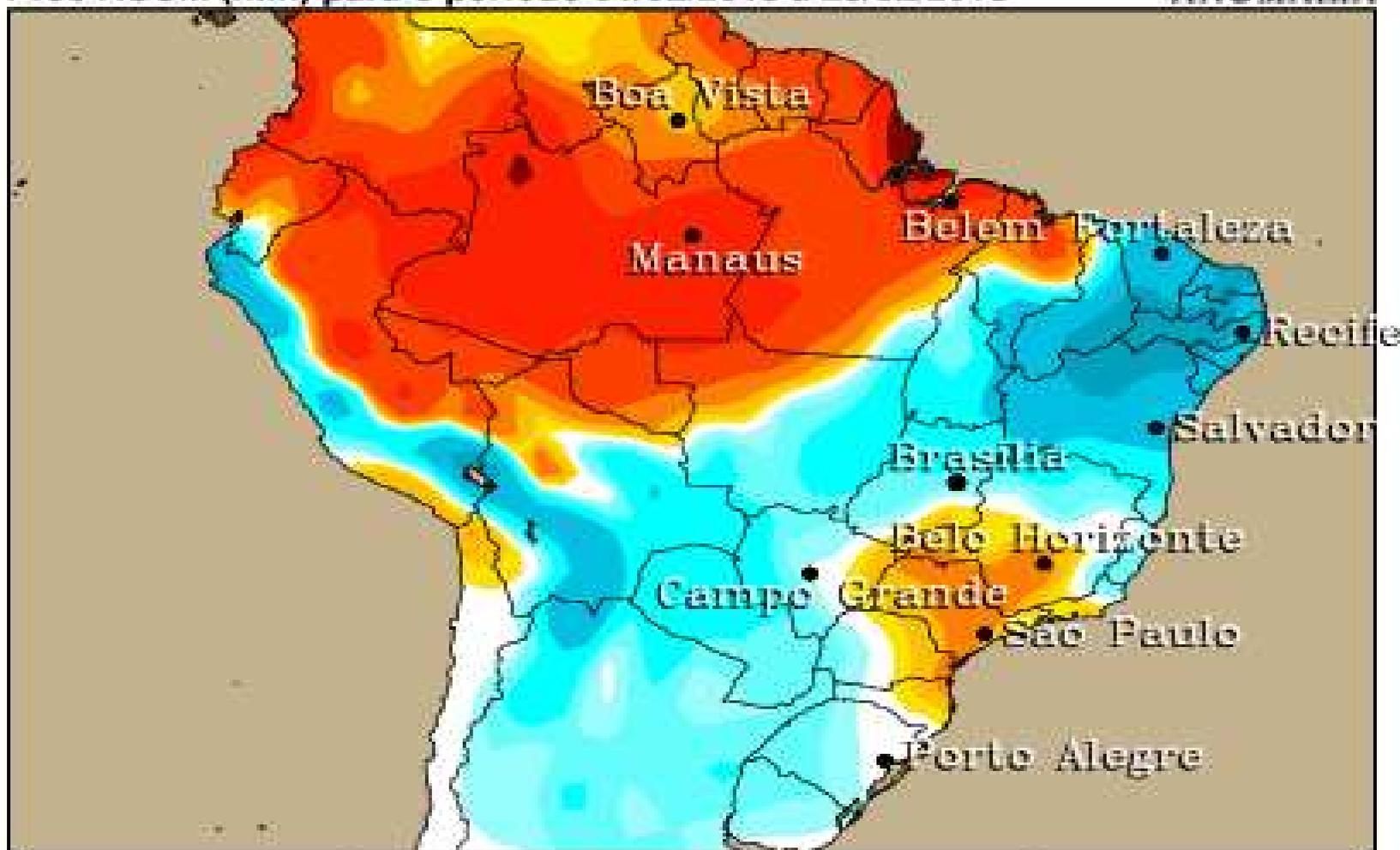
CFSv2



CHUVA (Desvio): Previsão CFS/NOAA

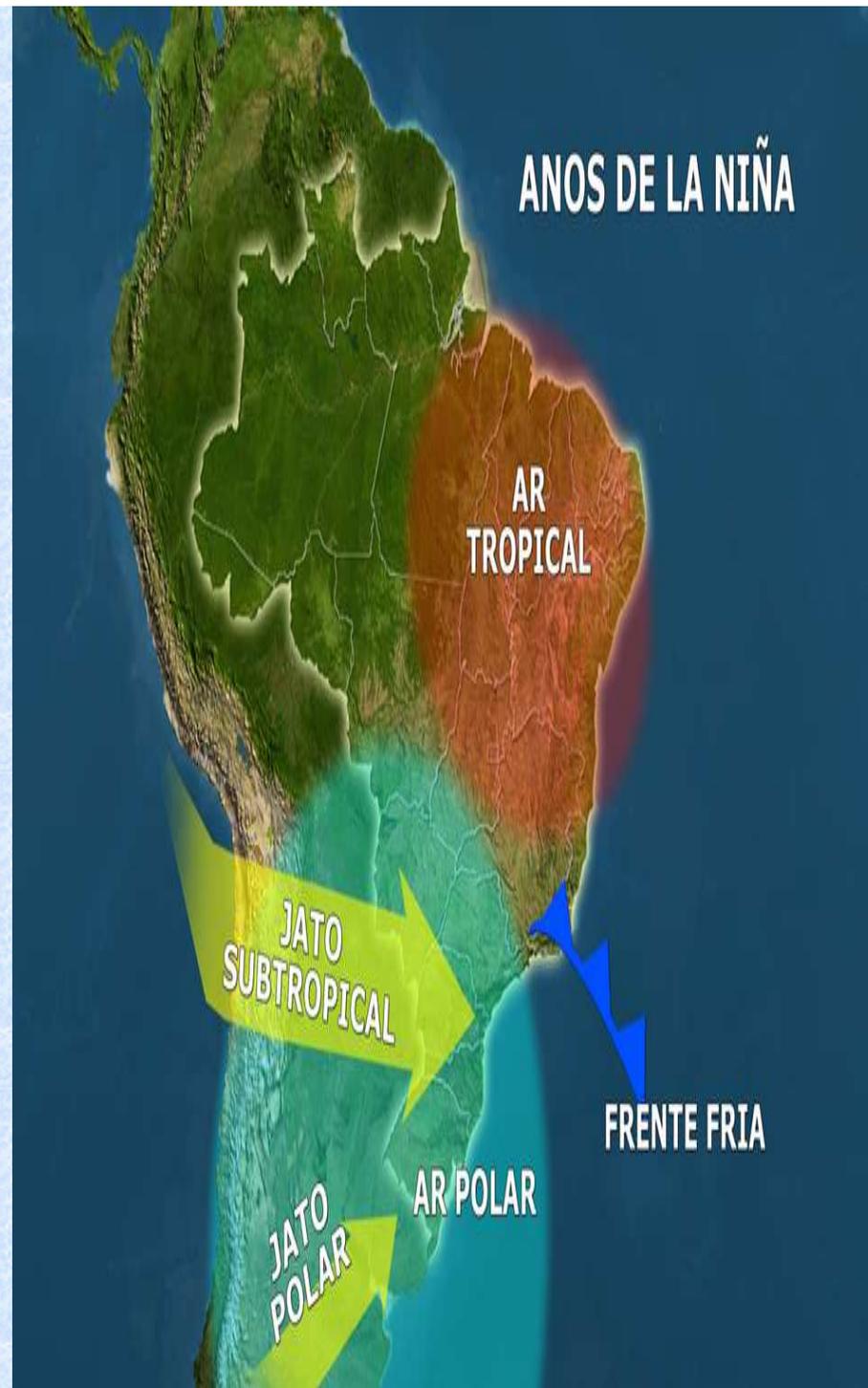
Prec ACUM (mm) para o período 01/02/2013 a 28/02/2013

ANOMALIA



-300 -200 -100 -50 -25 -10 10 25 50 100 200 300 (mm)

Fonte: CFSv2/NOAA — Média das simulações do período 31/05/2012 a 09/06/2012



ANOS NORMAIS

AR TROPICAL

AR POLAR

JATO SUBTROPICAL

JATO POLAR

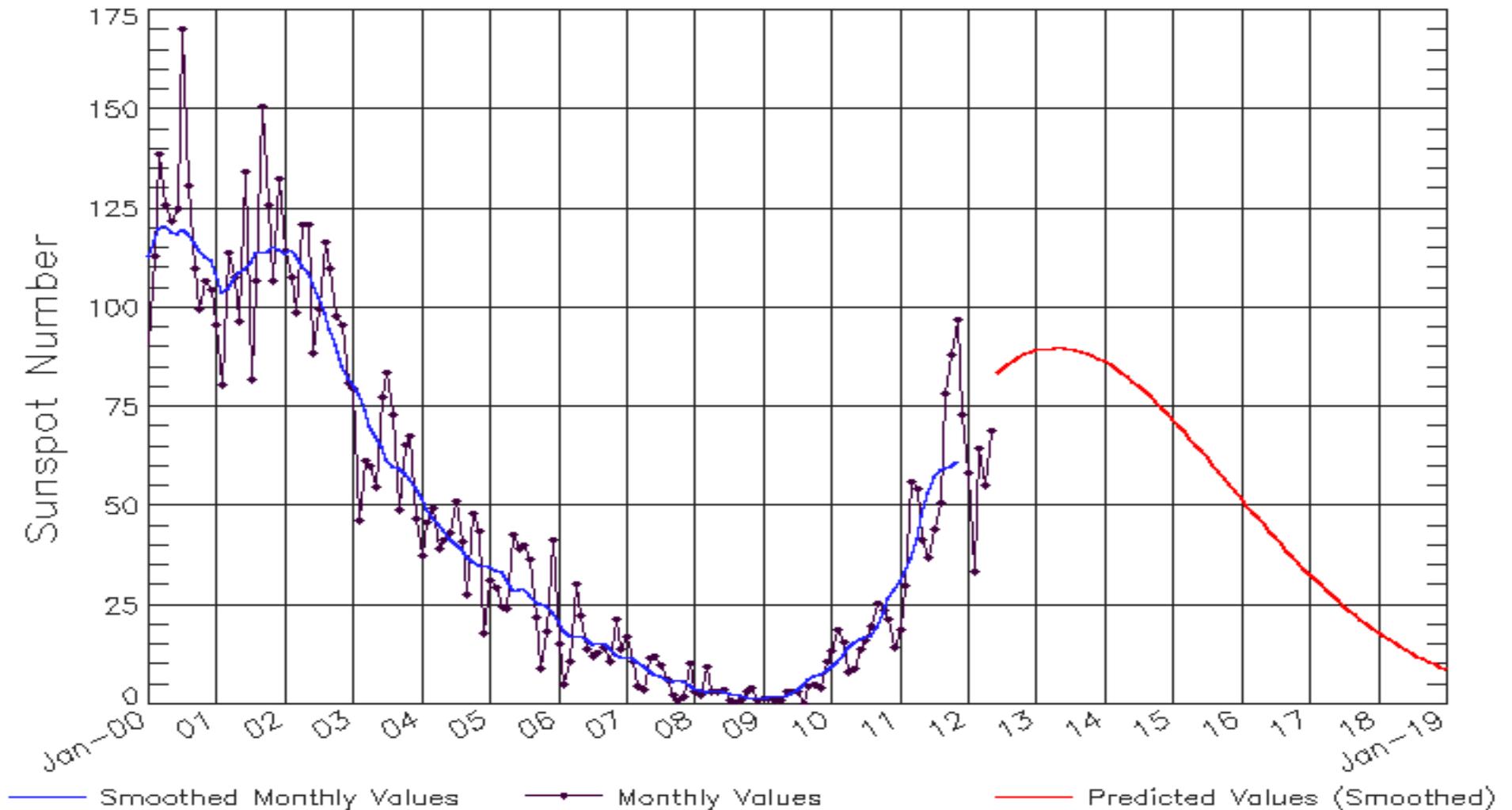
FRENTE FRIA





FRIO x CICLO SOLAR

ISES Solar Cycle Sunspot Number Progression
Observed data through May 2012



SOMAR

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