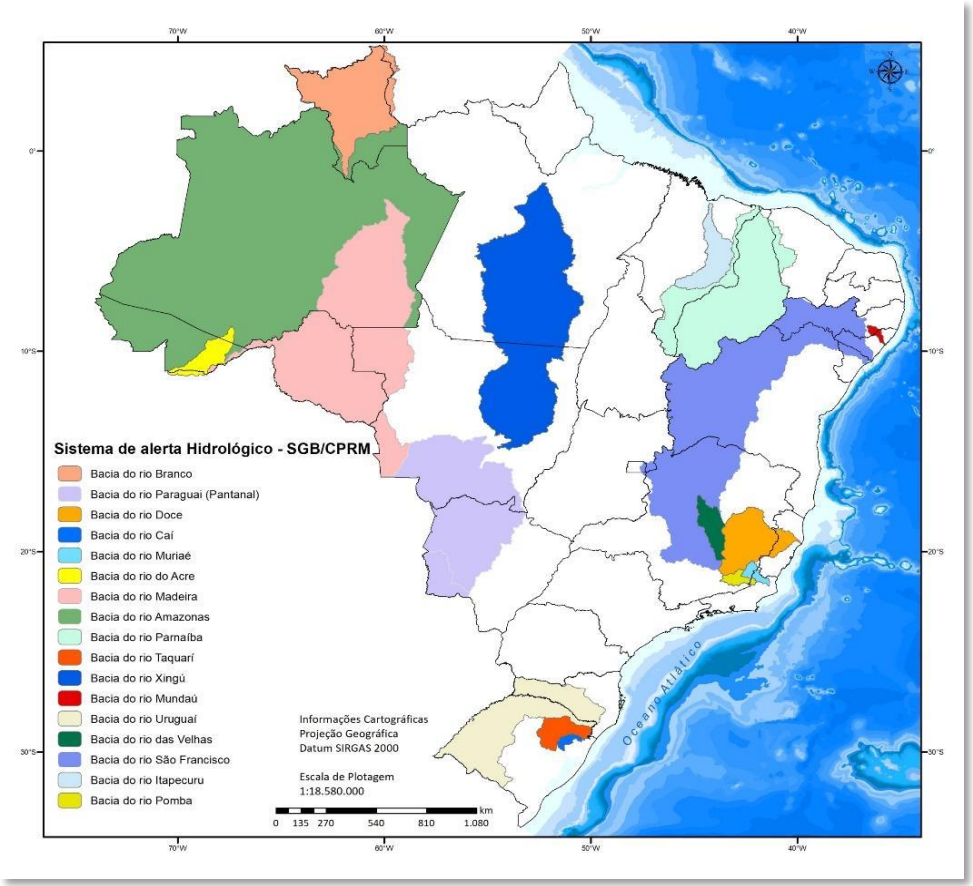
2ª Sala de Crise da Região Norte

Artur Matos

Coordenador do Sistema de Alerta Hidrológico

Serviço Geológico do Brasil - CPRM

SISTEMA DE ALERTA HIDROLÓGICO



SAH
SISTEMA DE ALERTA HIDROLÓGICO
Serviço Geológico do Brasil (SGB/CPRM)

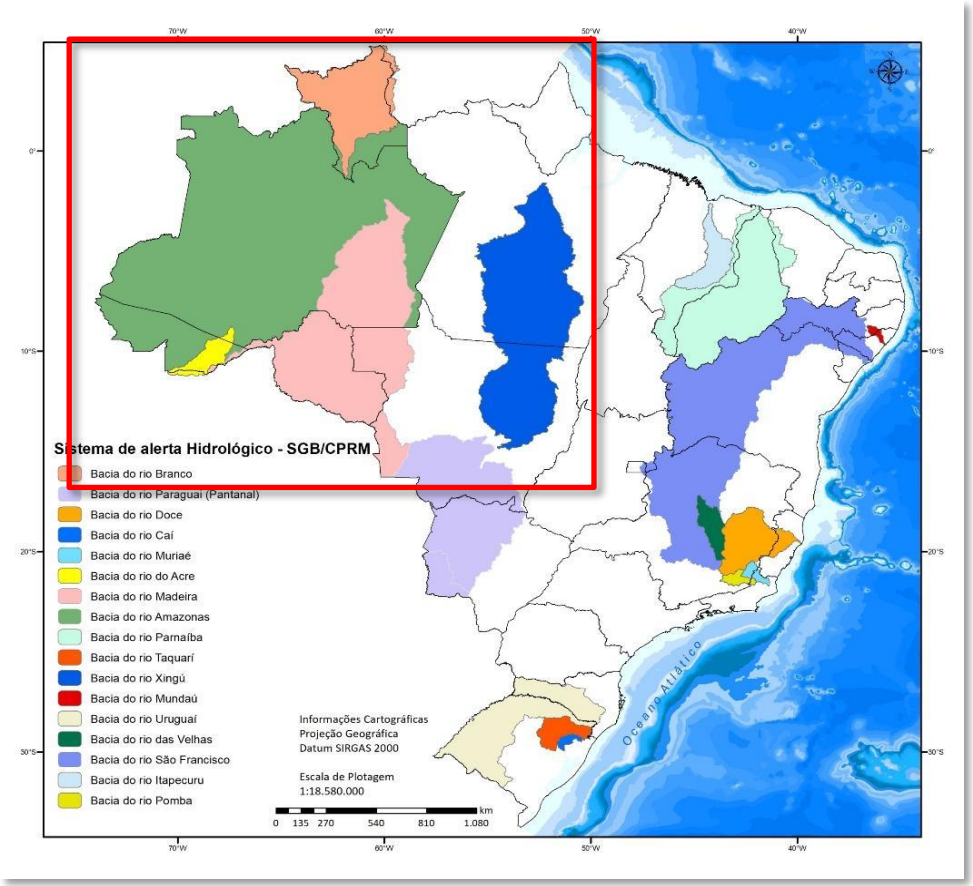
+ DE 7 MILHÕES DE PESSOAS BENEFICIADAS

Rede Hidrometeorológica Nacional
SGB SERVIÇO GEOLÓGICO DO BRASIL - CPRM
ANA

www.sgb.gov.br/sace

SGB SERVIÇO GEOLÓGICO DO BRASIL - CPRM

SISTEMA DE ALERTA HIDROLÓGICO



REGIÃO NORTE

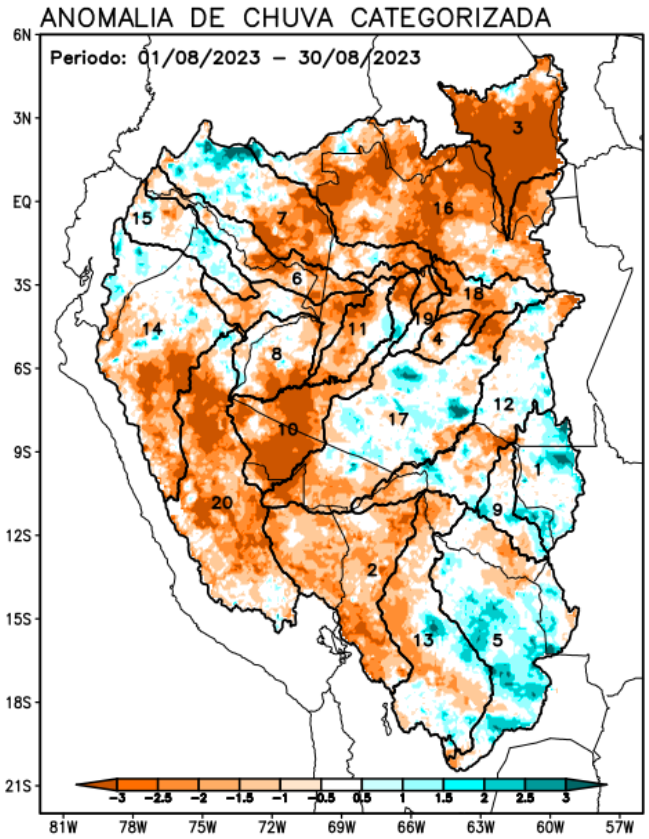
- SAH AMAZONAS
- SAH BRANCO
- SAH MADEIRA
- SAH ACRE
- SAH XINGU

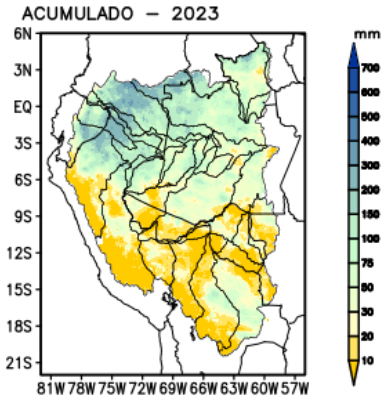
Situação atual

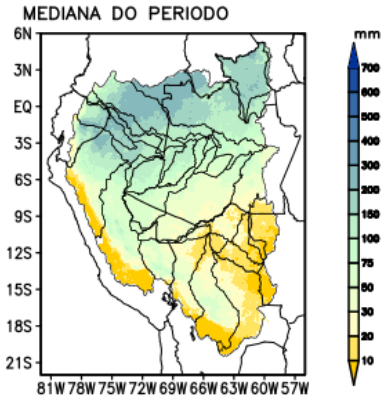
SISTEMA DE ALERTA HIDROLÓGICO
Serviço Geológico do Brasil (SGB/CPRM)

SERVIÇO GEOLÓGICO DO BRASIL - CPRM

SAH AMAZONAS





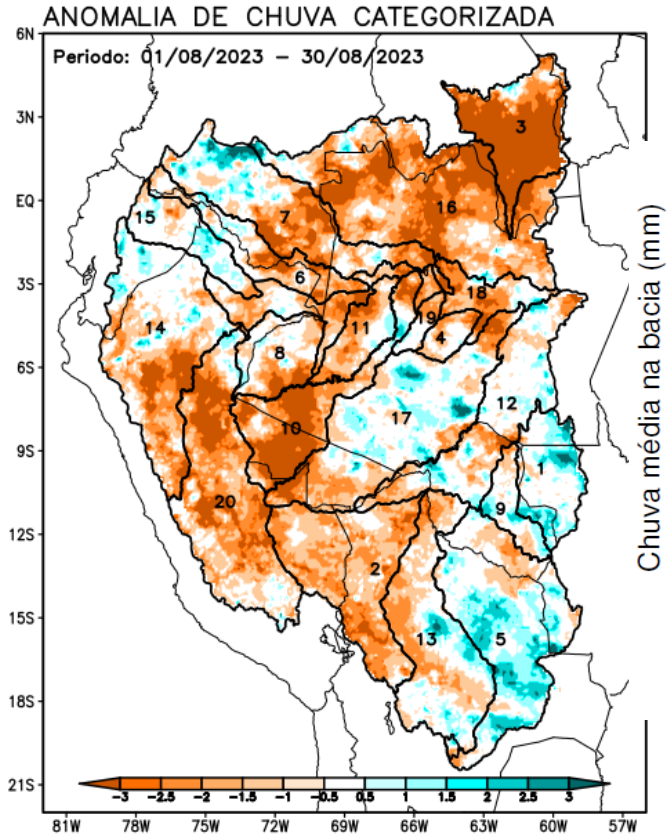


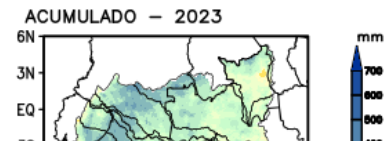
1	BH Aripuanã
2	BH Beni
3	BH Branco
4	BH Coari
5	BH Guaporé
6	BH Içá
7	BH Japurá
8	BH Javari
9	BH Ji-Paraná
10	BH Juruá
11	BH Jutai
12	BH Madeira
13	BH Mamoré
14	BH Marañon
15	BH Napo
16	BH Negro
17	BH Purus
18	BH Solimões
19	BH Tefé
20	BH Ucayali

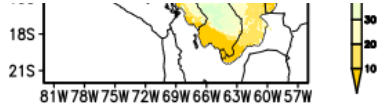
MERGE/GPM - INPE/CPTEC,

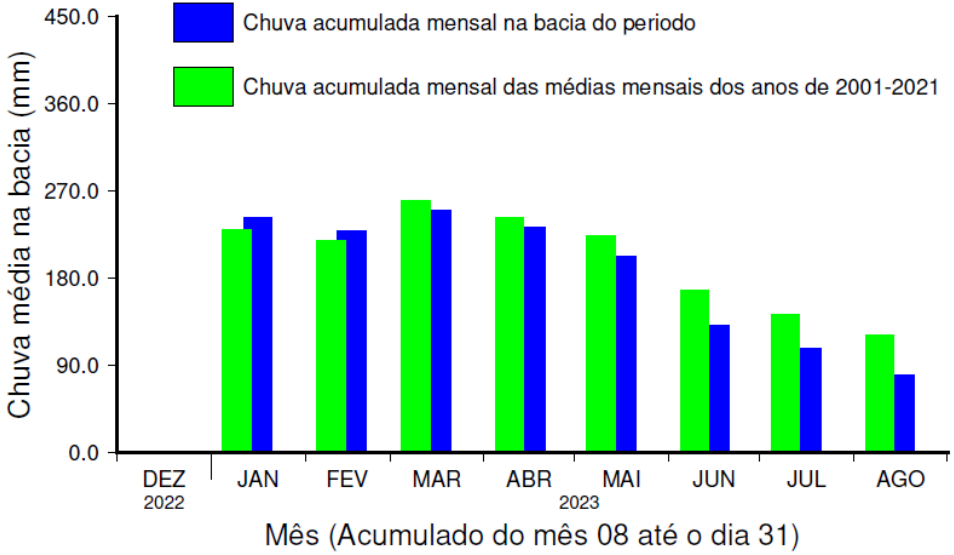
Fonte: Monitoramento Climático Grandes Bacias Hidrográficas CODAM/INPA ISSN 2965-0291

SAH AMAZONAS





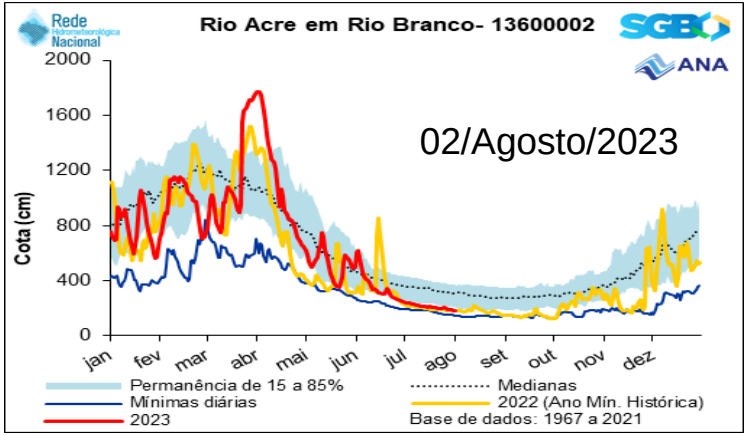


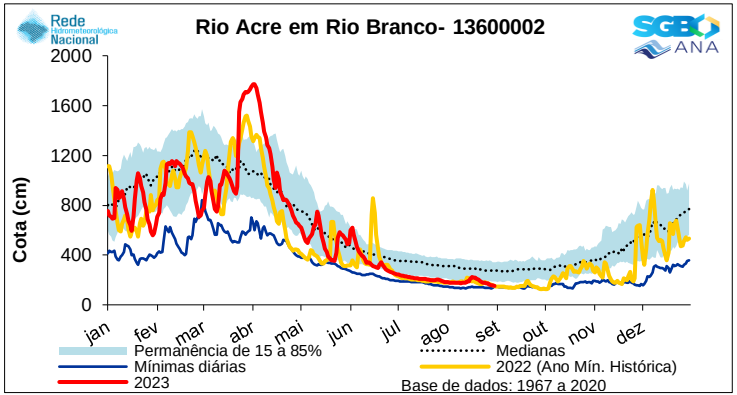


1	BH Aripuanã
2	BH Beni
3	BH Branco
20	BH Ucayali

MERGE/GPM - INPE/CPTEC,

SAH ACRE/AMAZONAS





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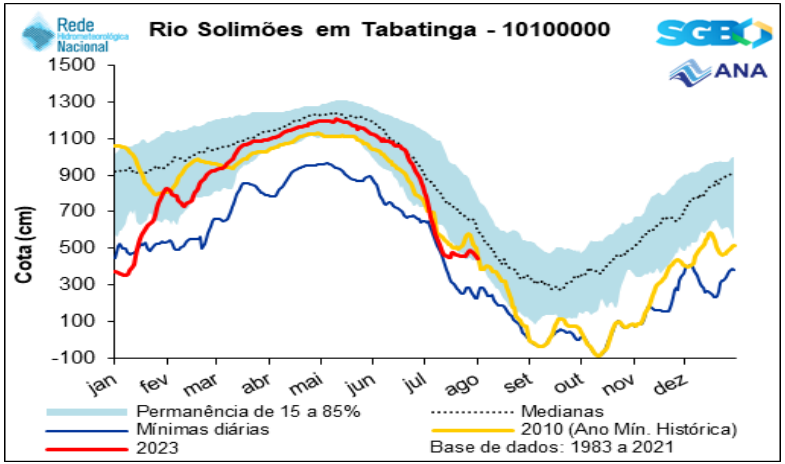

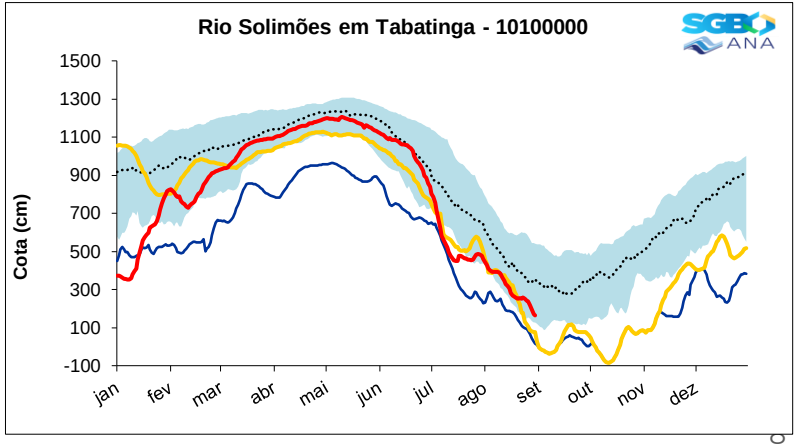

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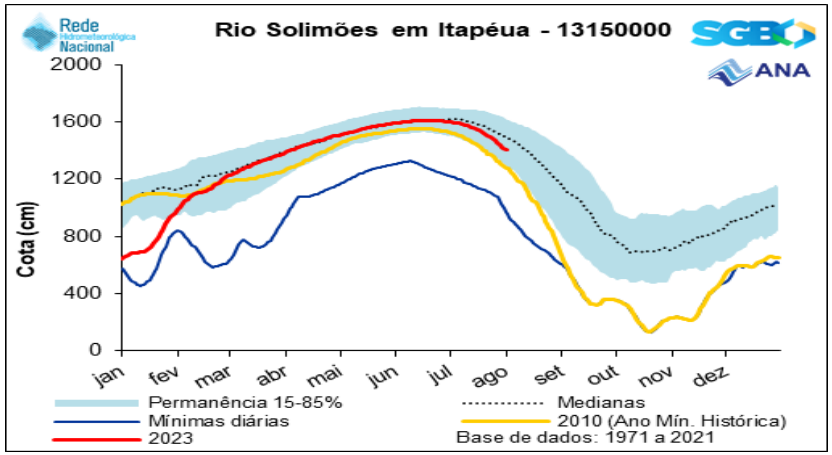

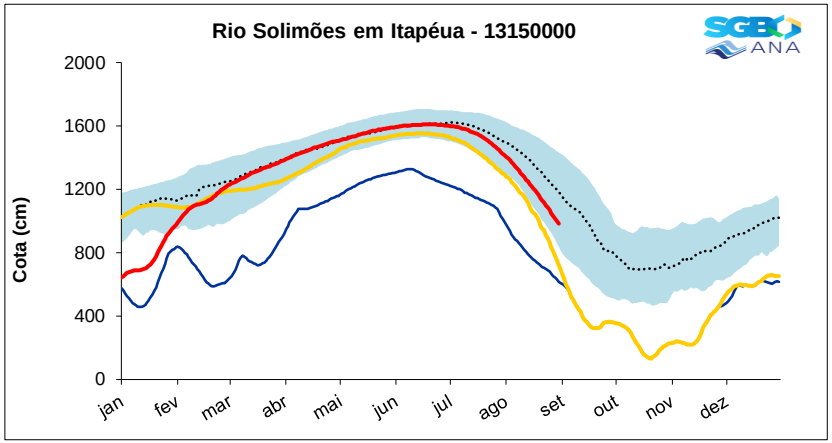

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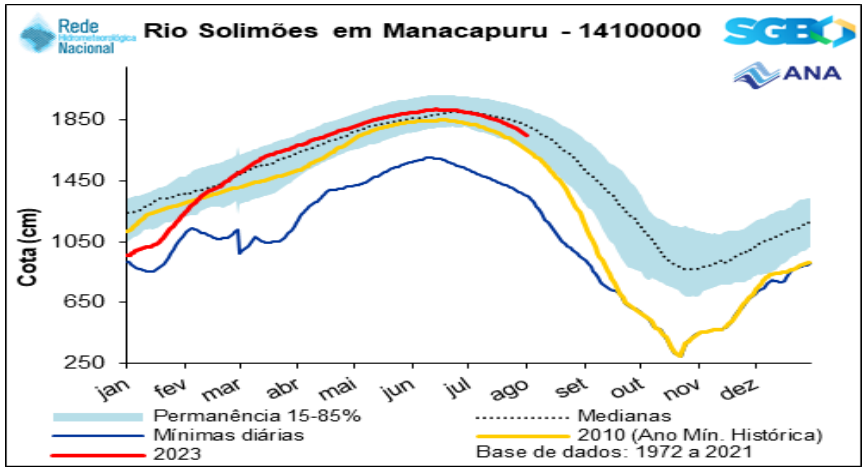

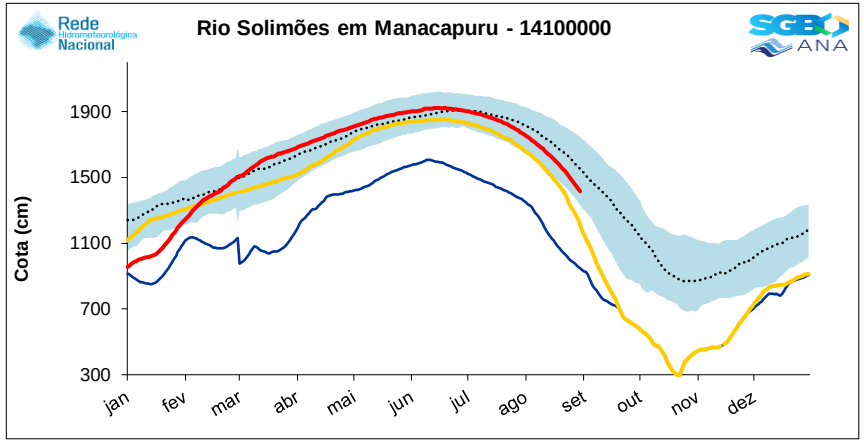

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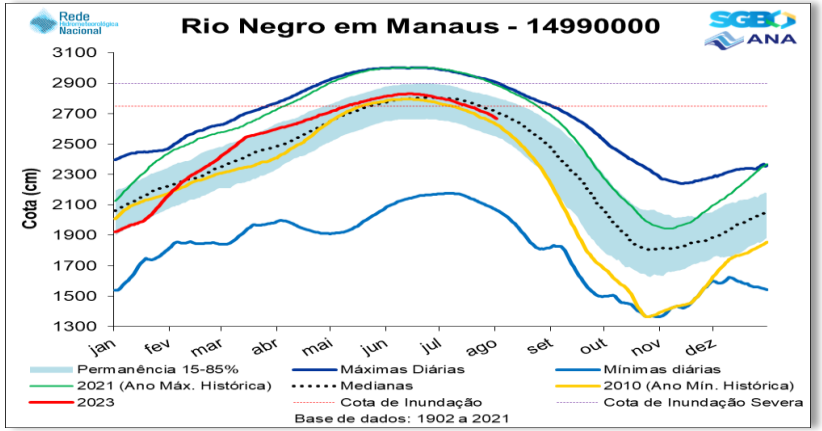

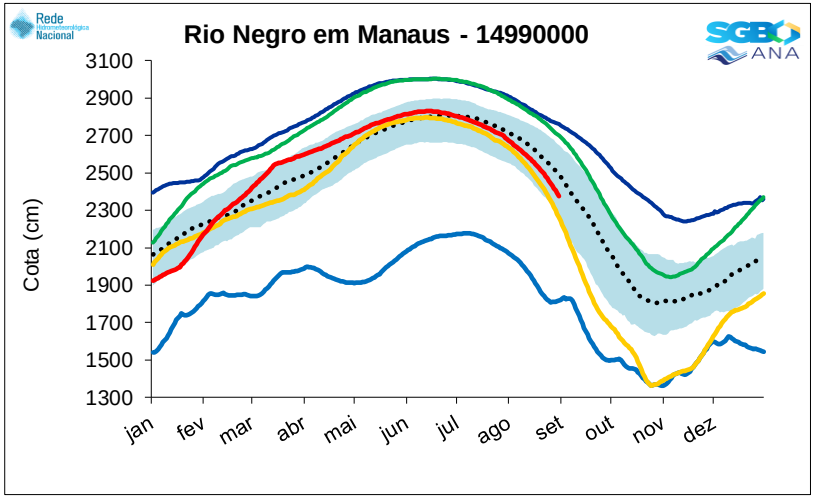

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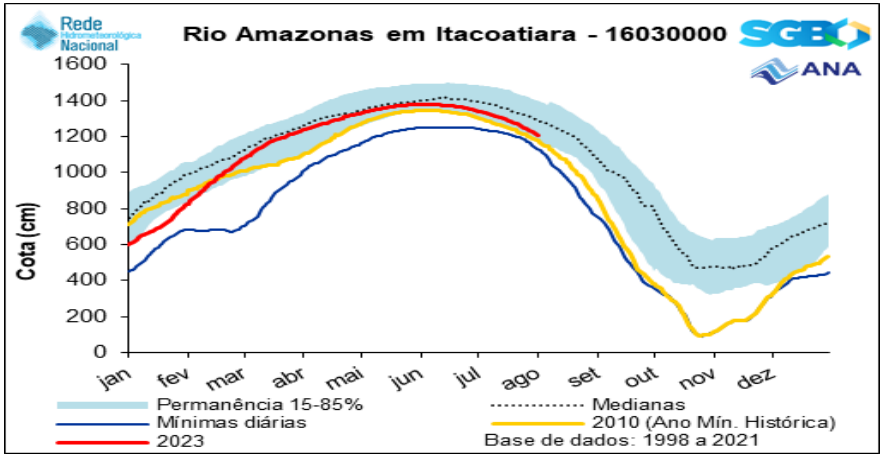

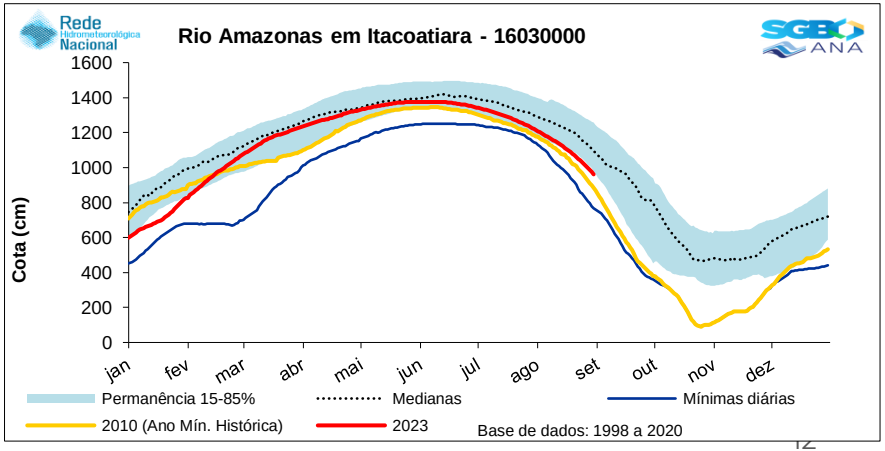

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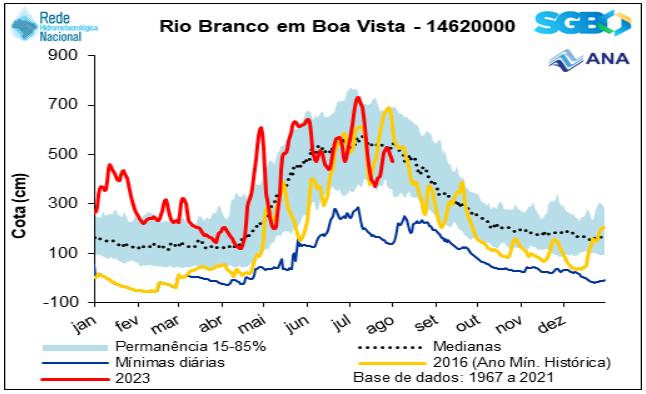

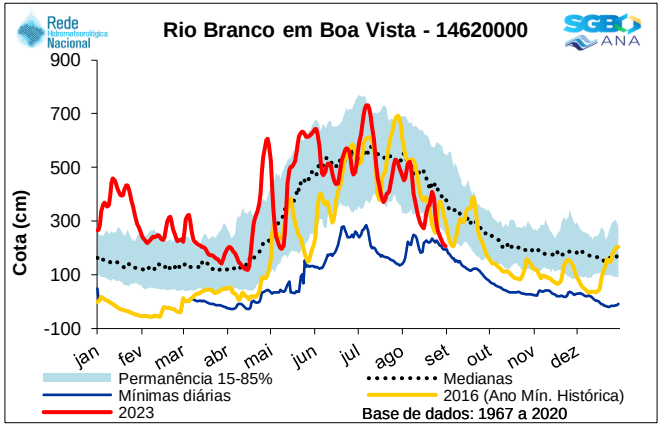

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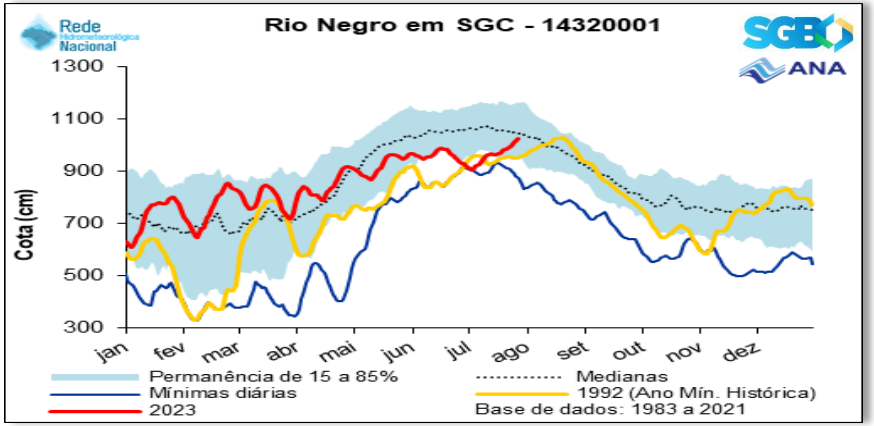

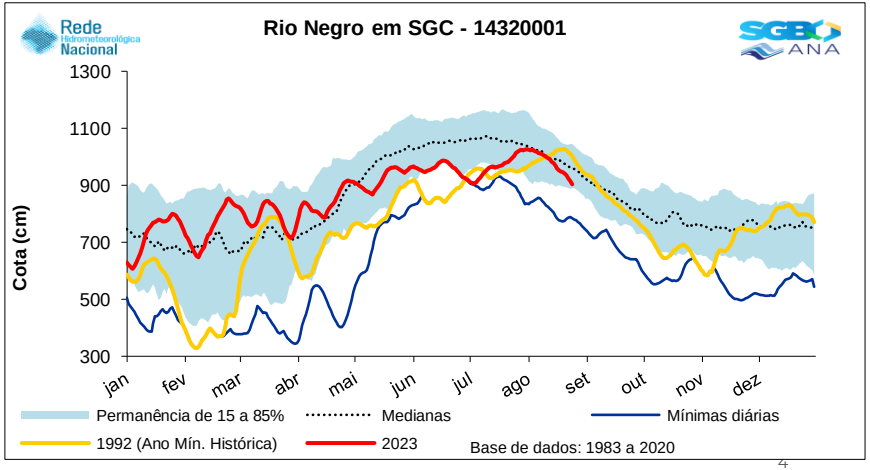

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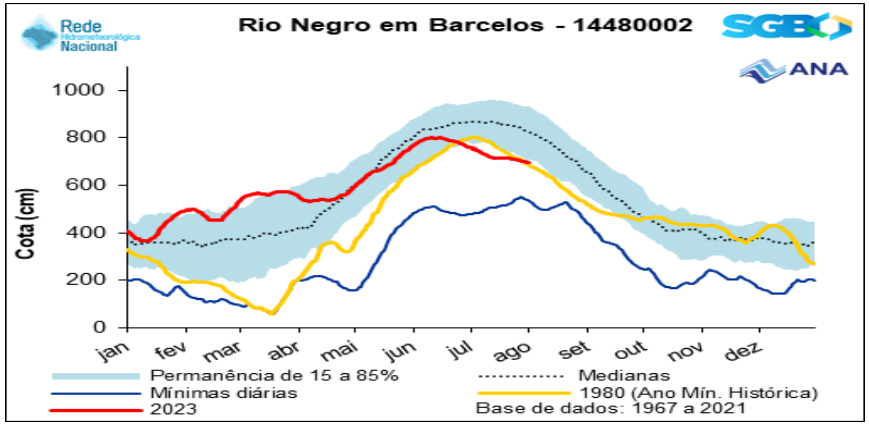
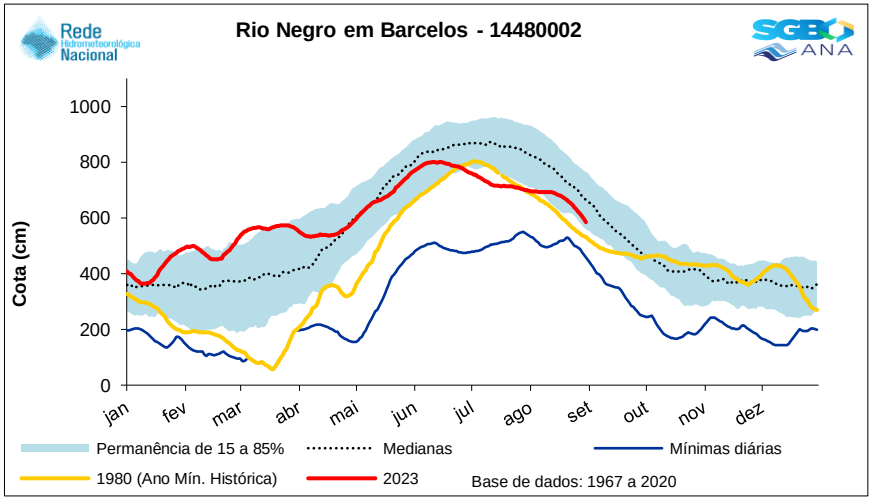
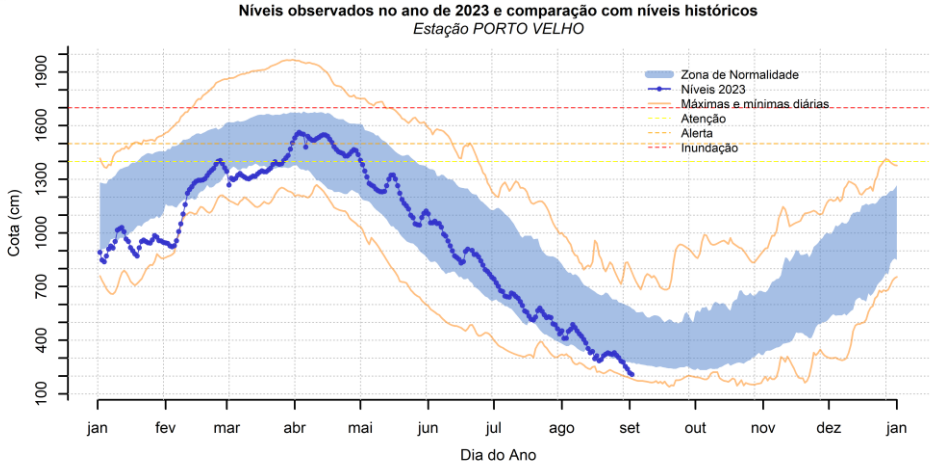




SAH MADEIRA


Níveis observados no ano de 2023 e comparação com níveis históricos
Estação PORTO VELHO
Zona de Normalidade
Níveis 2023
Máximas e mínimas diárias
Atenção
Alerta
Inundação
Cota (cm)
100
400
700
1000
1300
1600
1900
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abr
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jun
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ago
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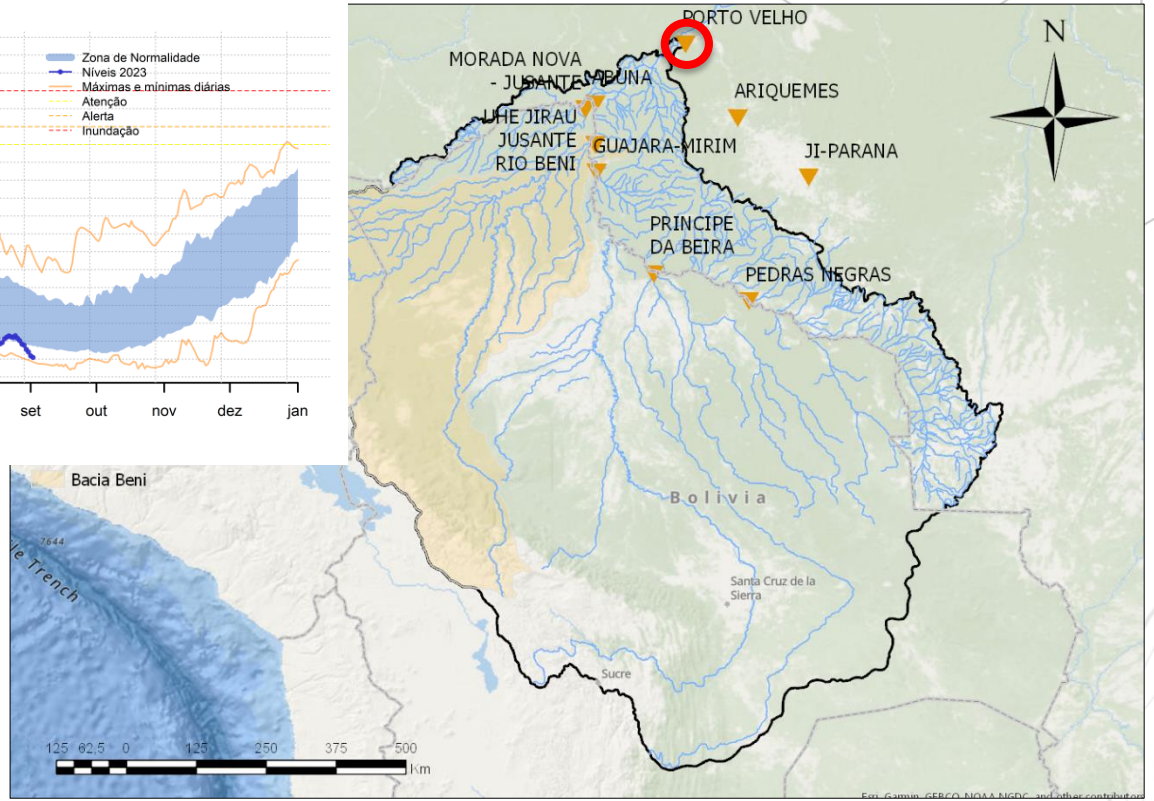
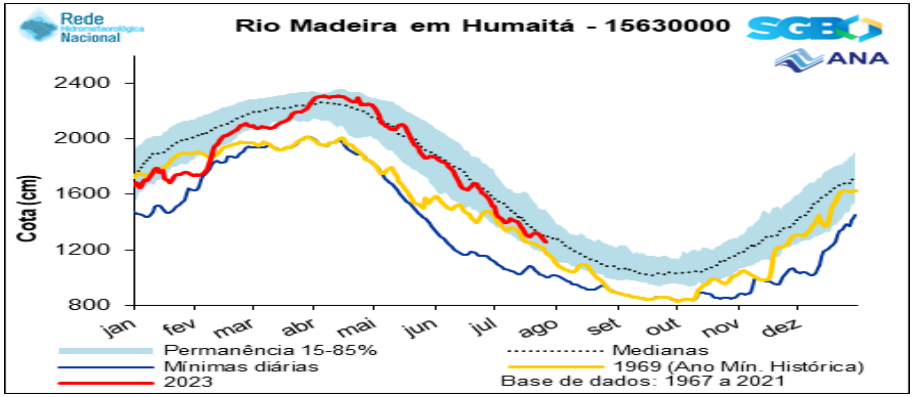
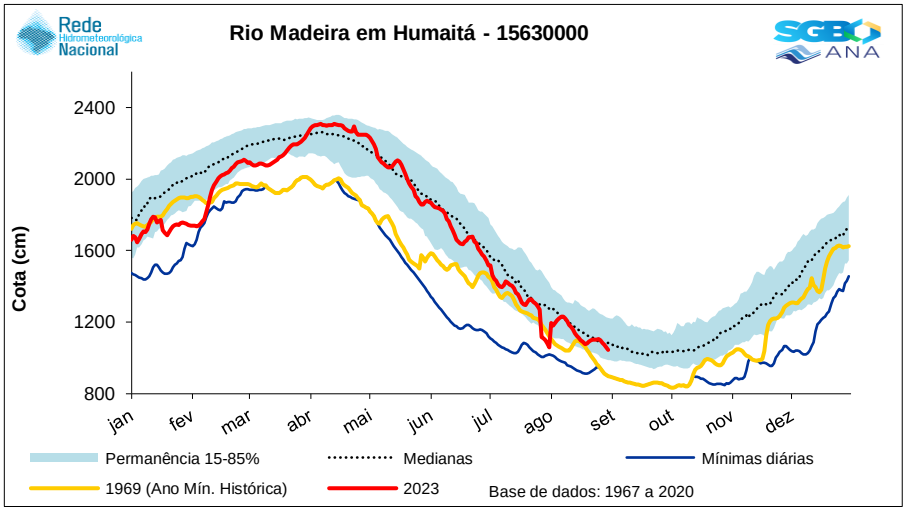
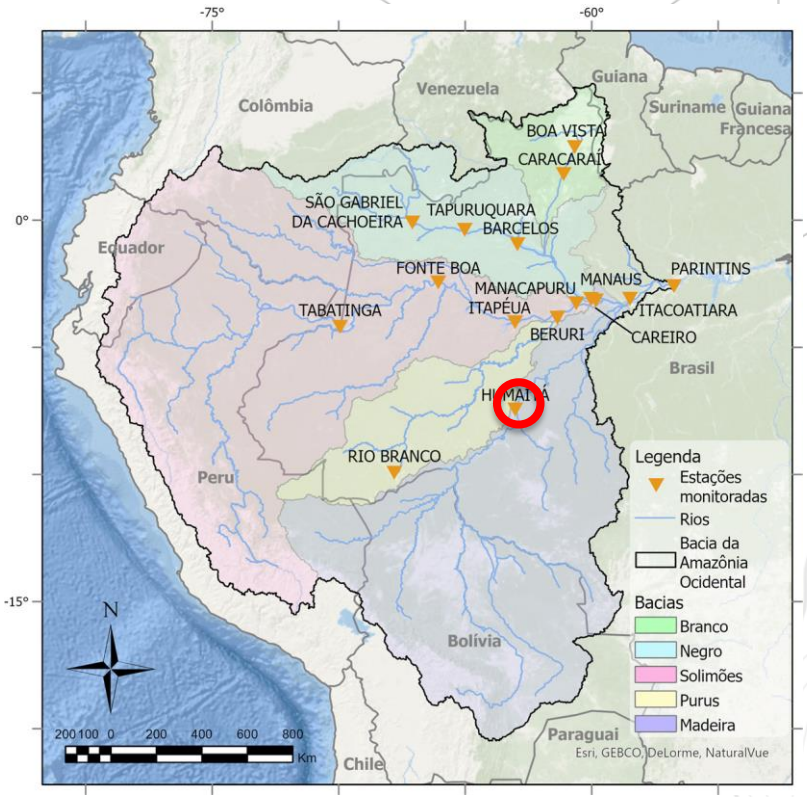
out
nov
dez
jan
Dia do Ano


PORTO VELHO
MORADA NOVA
- JUSANTE
CACHOEIRA
ARIQUEMES
UHE JIRAU
JUSANTE
RIO BENI
GUAJARA-MIRIM
JI-PARANA
PRINCIPE
DA BEIRA
PEDRAS NEGRAS
N
Bacia Beni
Bolivia
Santa Cruz de la
Sierra
Sucre
7644
125 62,5 0 125 250 375 500
km

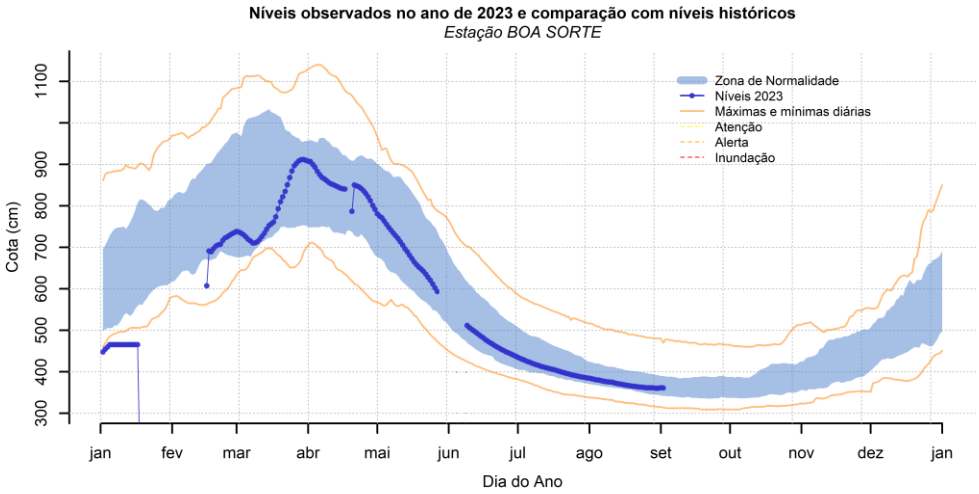
SAH AMAZONAS







SAH XINGU


Níveis observados no ano de 2023 e comparação com níveis históricos
Estação BOA SORTE
Zona de Normalidade
Níveis 2023
Máximas e mínimas diárias
Atenção
Alerta
Inundação
Cota (cm)
300
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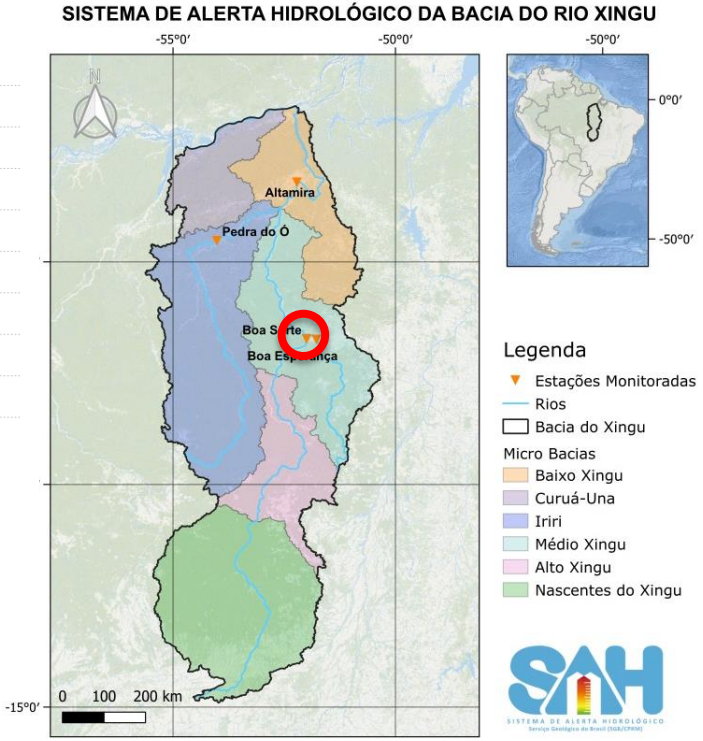
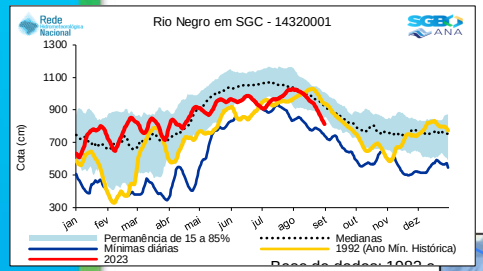
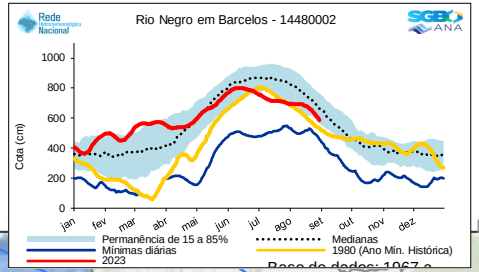
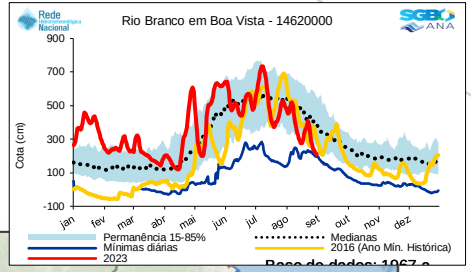
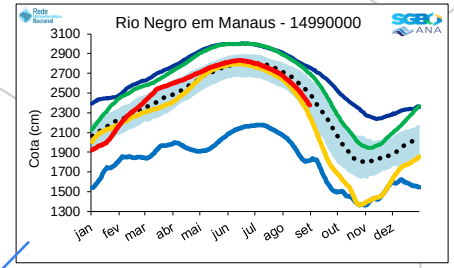
Dia do Ano

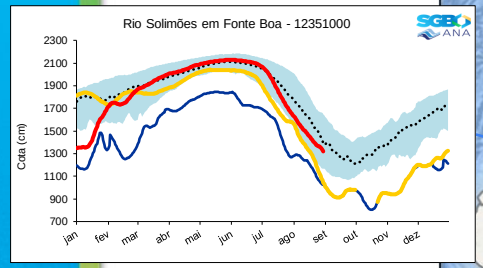

SISTEMA DE ALERTA HIDROLÓGICO DA BACIA DO RIO XINGU
-55°0′
-50°0′
-50°0′
0°0′
-50°0′
-15°0′
N
Altamira
Pedra do Ó
Boa Sorte
Boa Esperança
0
100
200 km
Legenda
Estações Monitoradas
Rios
Bacia do Xingu
Micro Bacias
Baixo Xingu
Curuá-Una
Iriri
Médio Xingu
Alto Xingu
Nascentes do Xingu

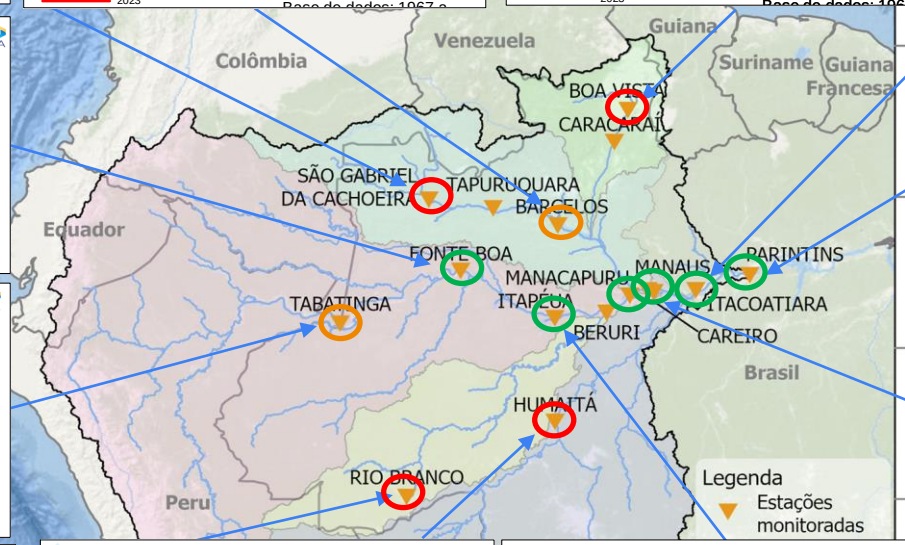


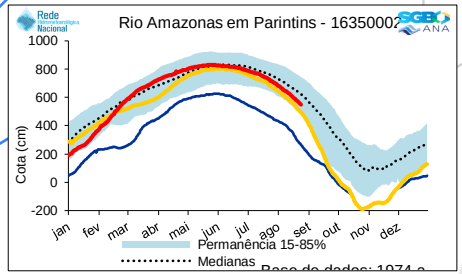


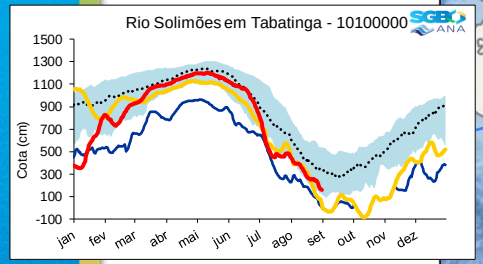


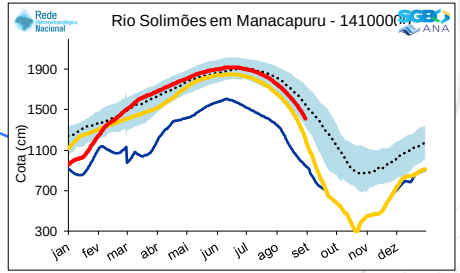


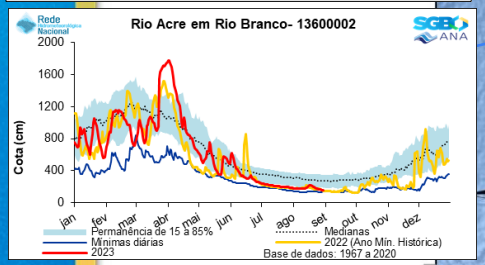


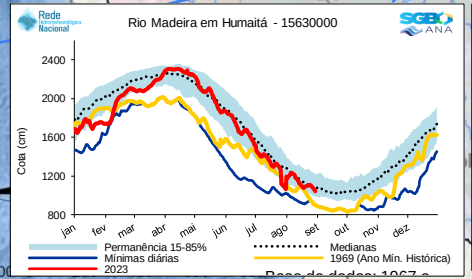


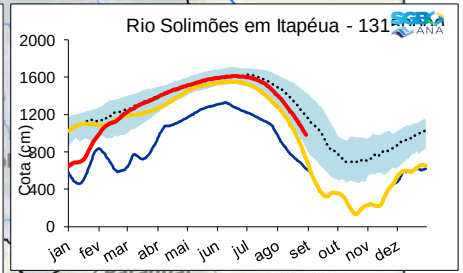












Dentro da normalidade

Próximo ao limite inferior da normalidade

Abaixo da normalidade

SERVIÇO GEOLÓGICO DO BRASIL - CPRM

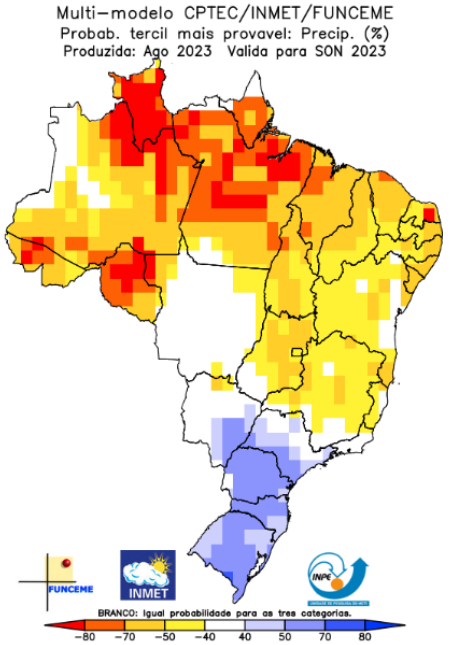
Prognósticos e considerações

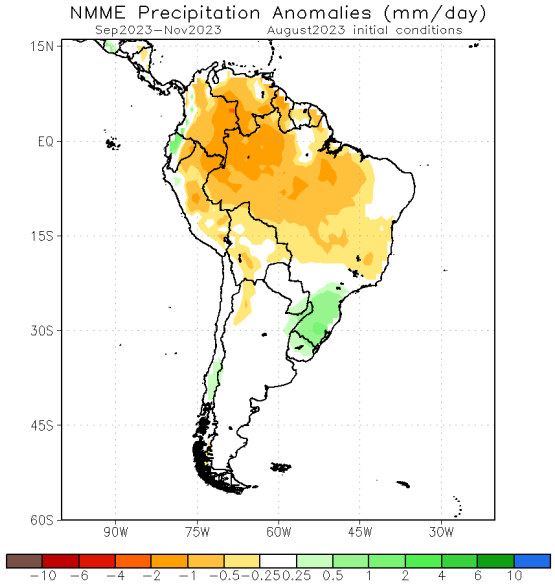
SISTEMA DE ALERTA HIDROLÓGICO
Serviço Geológico do Brasil (SGB/CPRM)

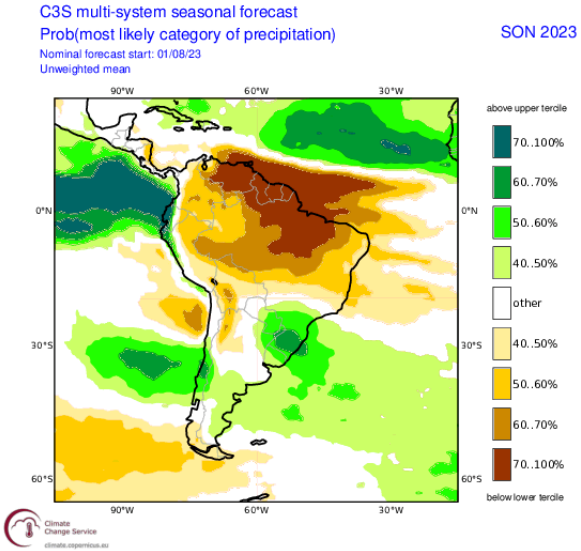
SERVIÇO GEOLÓGICO DO BRASIL - CPRM

Multi-modelos (Setembro – Outubro – Novembro)

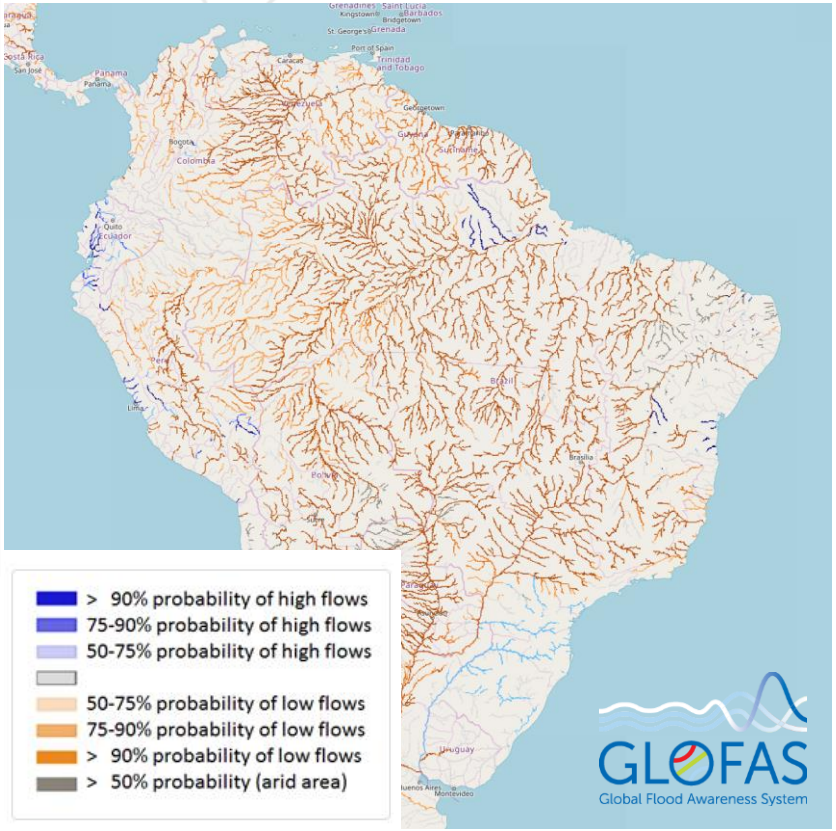
PREVISÃO CLIMÁTICA



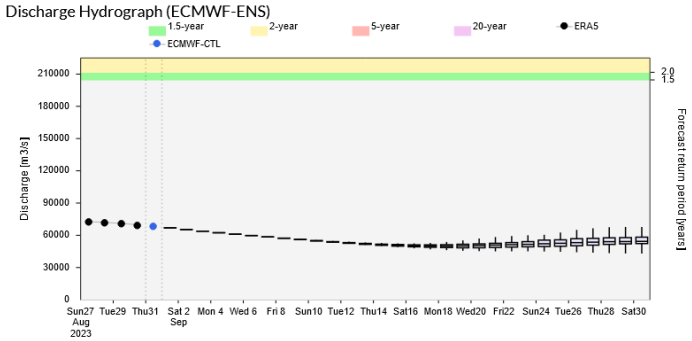


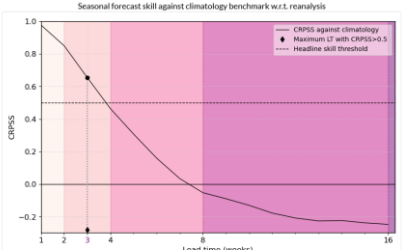


GLOFAS (4 meses de previsão)



Previsão



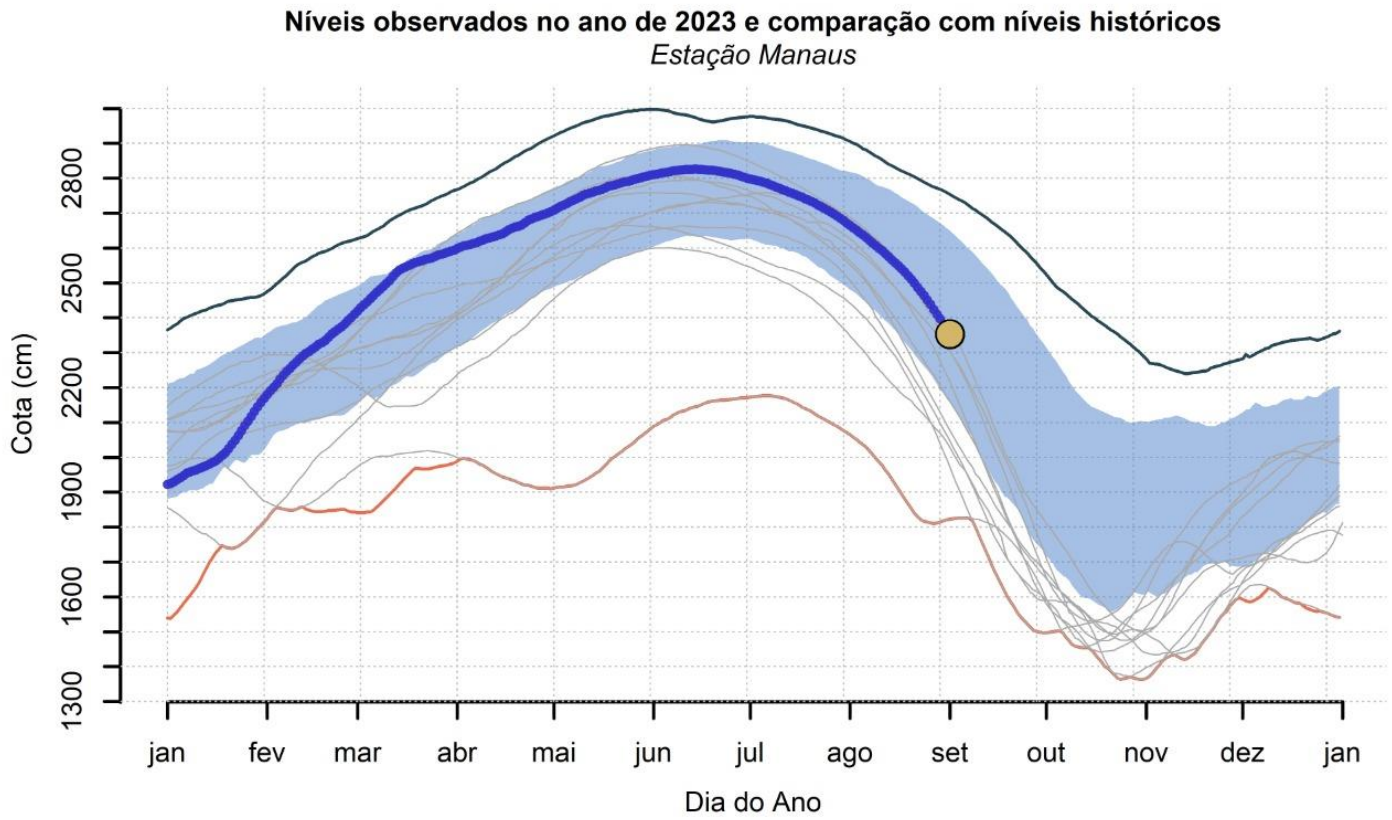


Destreza do modelo

10 Maiores secas

(+ de 100 anos de dados)

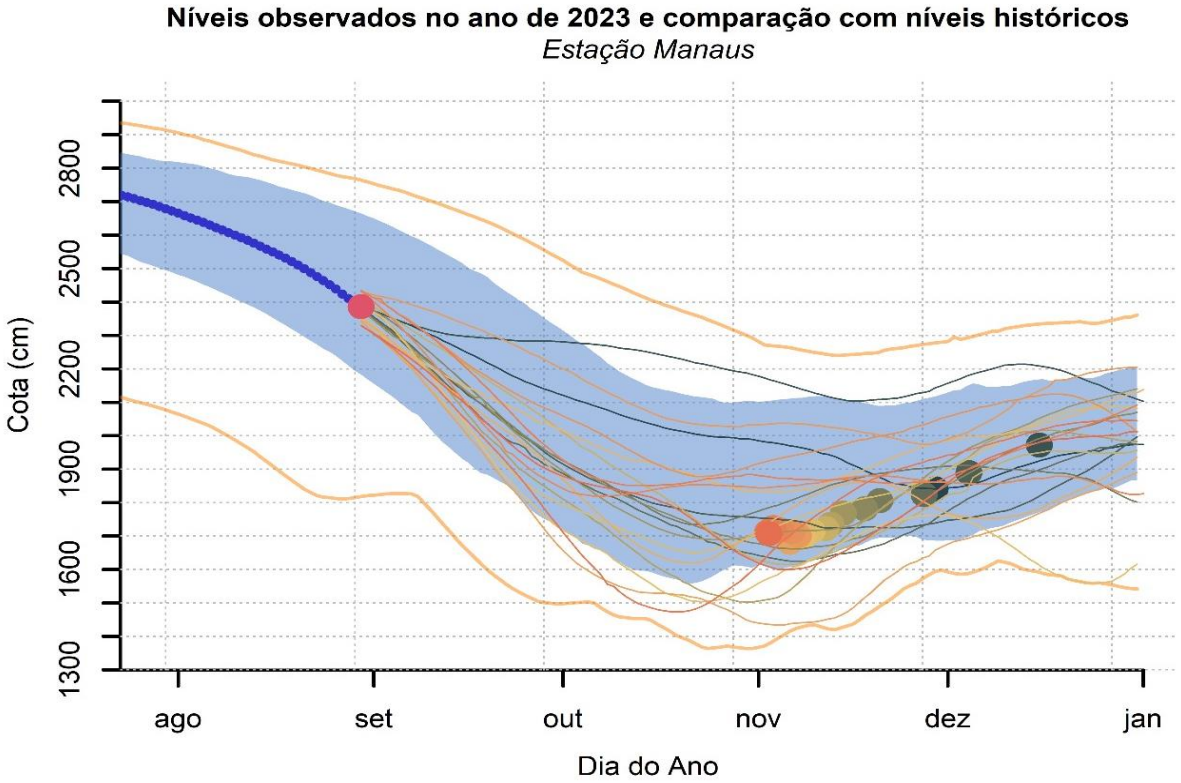
El Niño
Seca Hidrológica



Cota mínima (cm)	Ano	Ordem
1363	**2010**	1
1364	**1963**	2
1420	**1906**	3
1434	**1997**	4
1442	**1916**	5
1454	**1926**	6
1474	**1958**	7
1475	**2005**	8
1497	**1936**	9
1503	**1998**	10
1504	**1909**	11
1506	**1995**	12
1539	**1907**	13
1569	**1948**	14
1574	**1950**	15
1586	**2009**	16

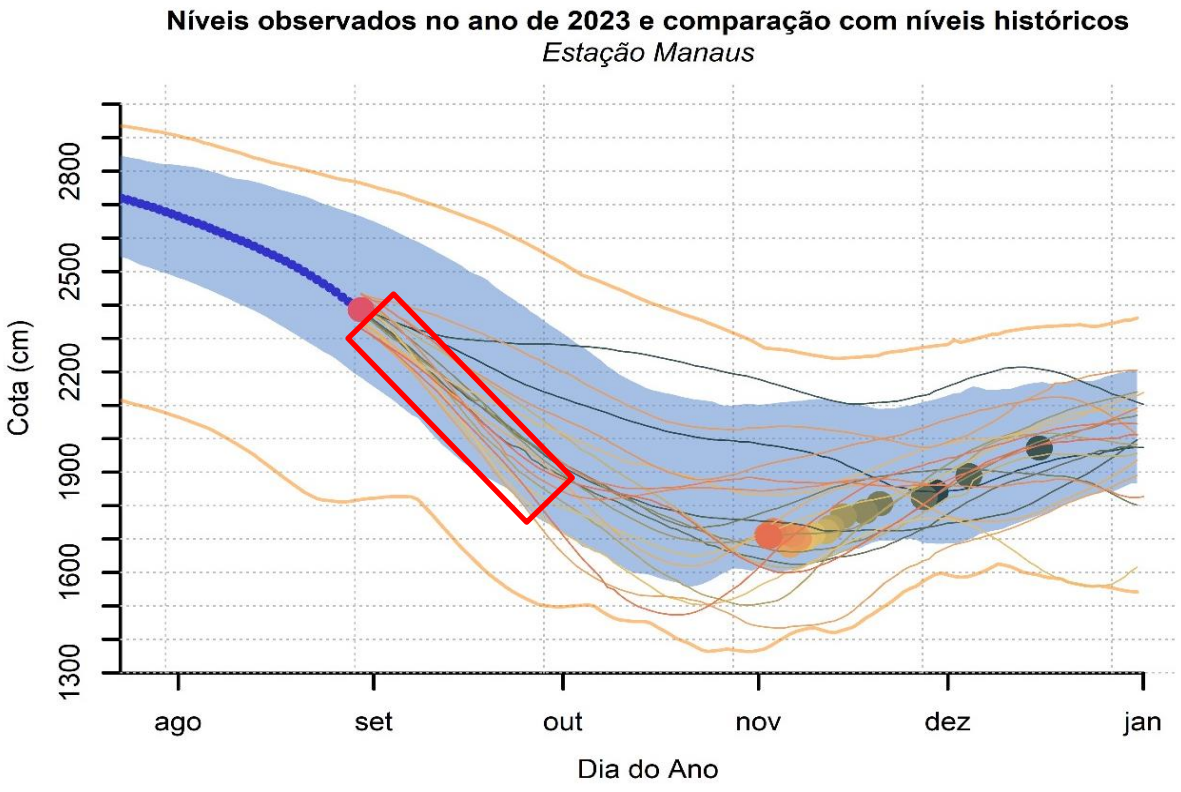
20 anos onde o nível estava próximo do nível atual

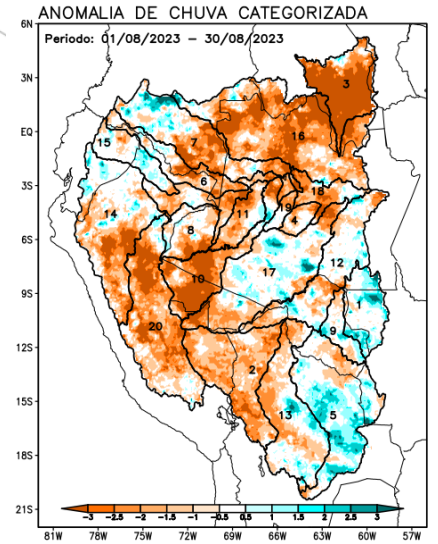
(+ de 100 anos de dados)

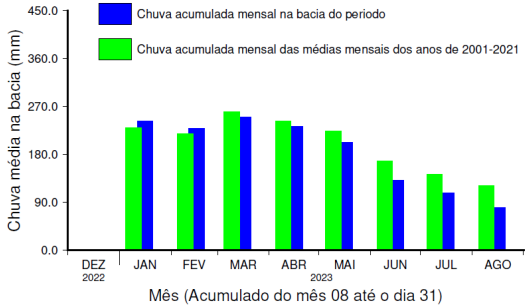


20 anos onde o nível estava próximo do nível atual

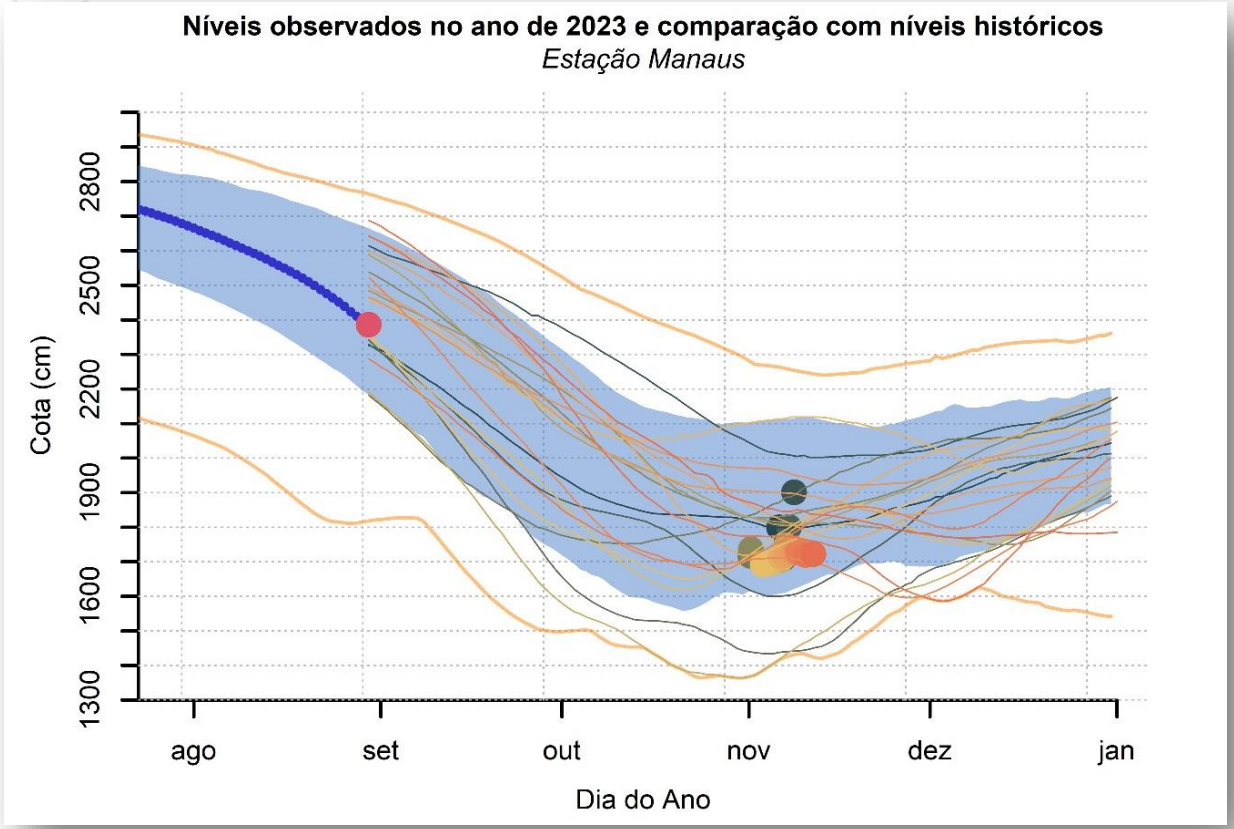
(+ de 100 anos de dados)



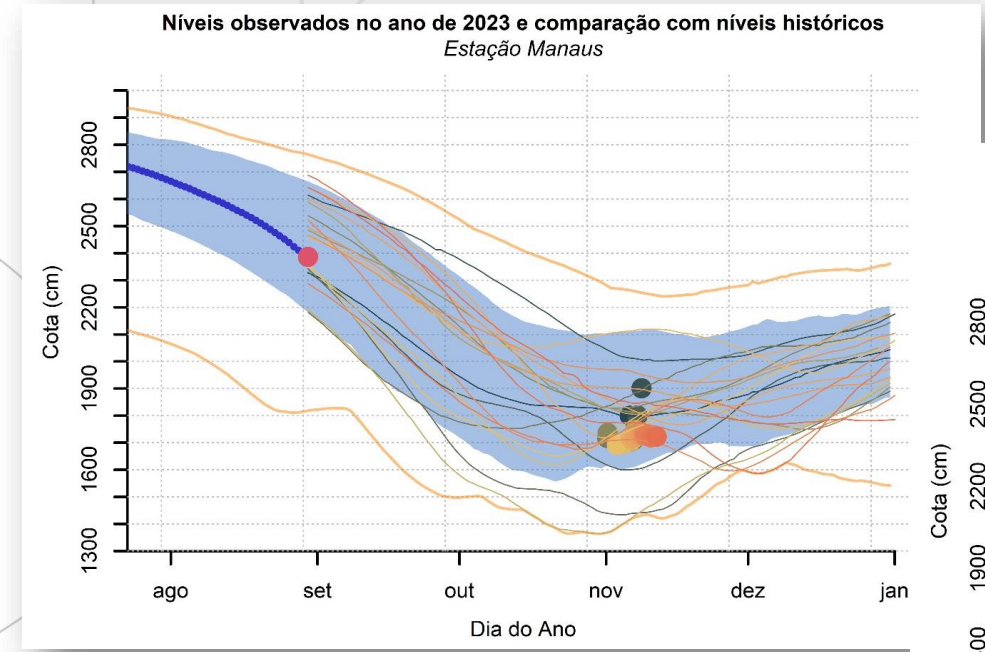


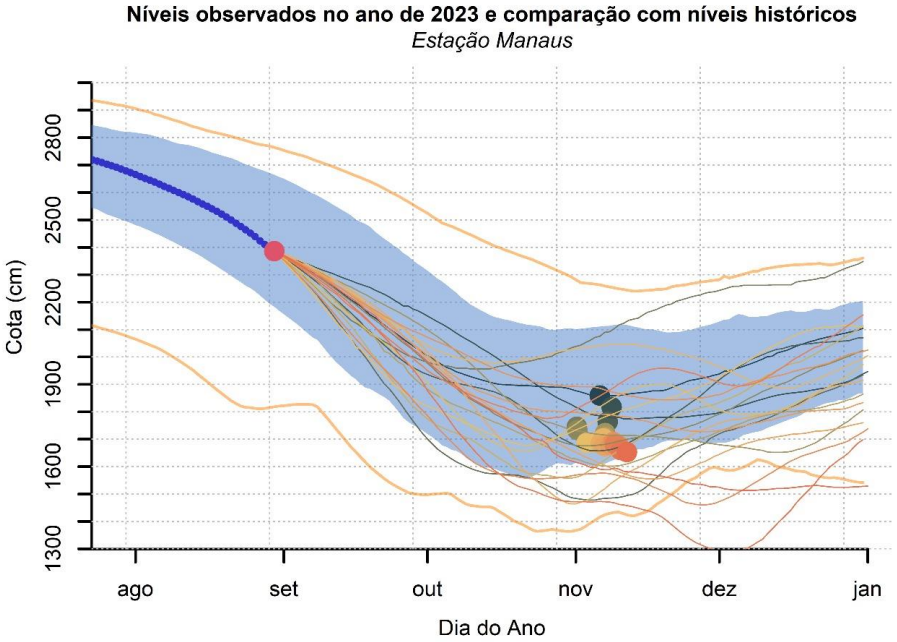


Todos os anos que o El Nino estava em um patamar parecido com o de hoje (+ de 100 anos de dados)



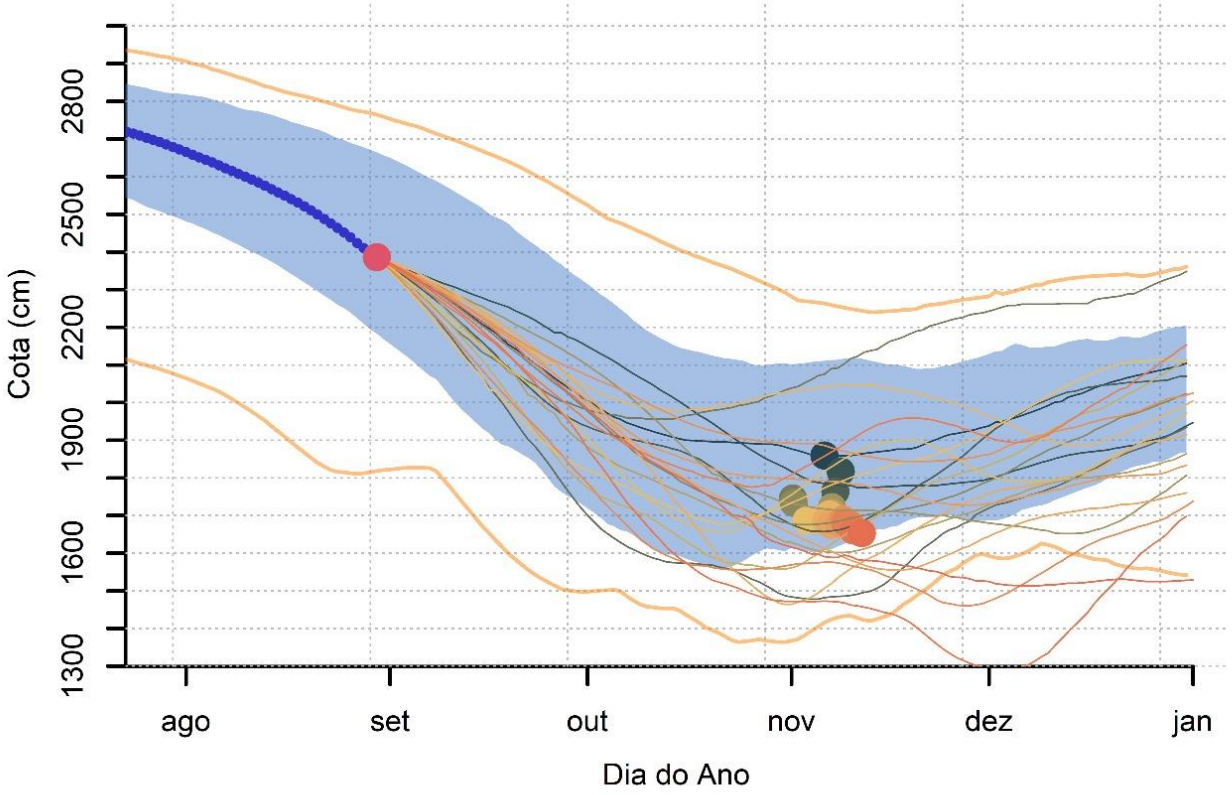
Todos os anos que o El Nino estava em um patamar parecido com o de hoje (+ de 100 anos de dados)



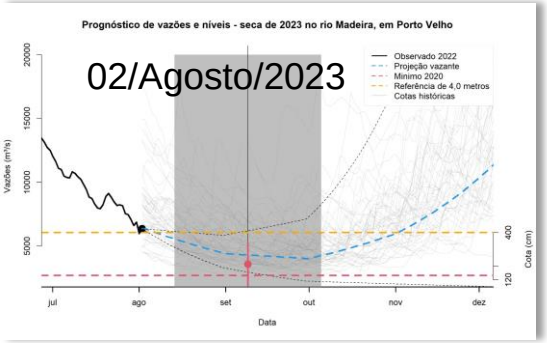


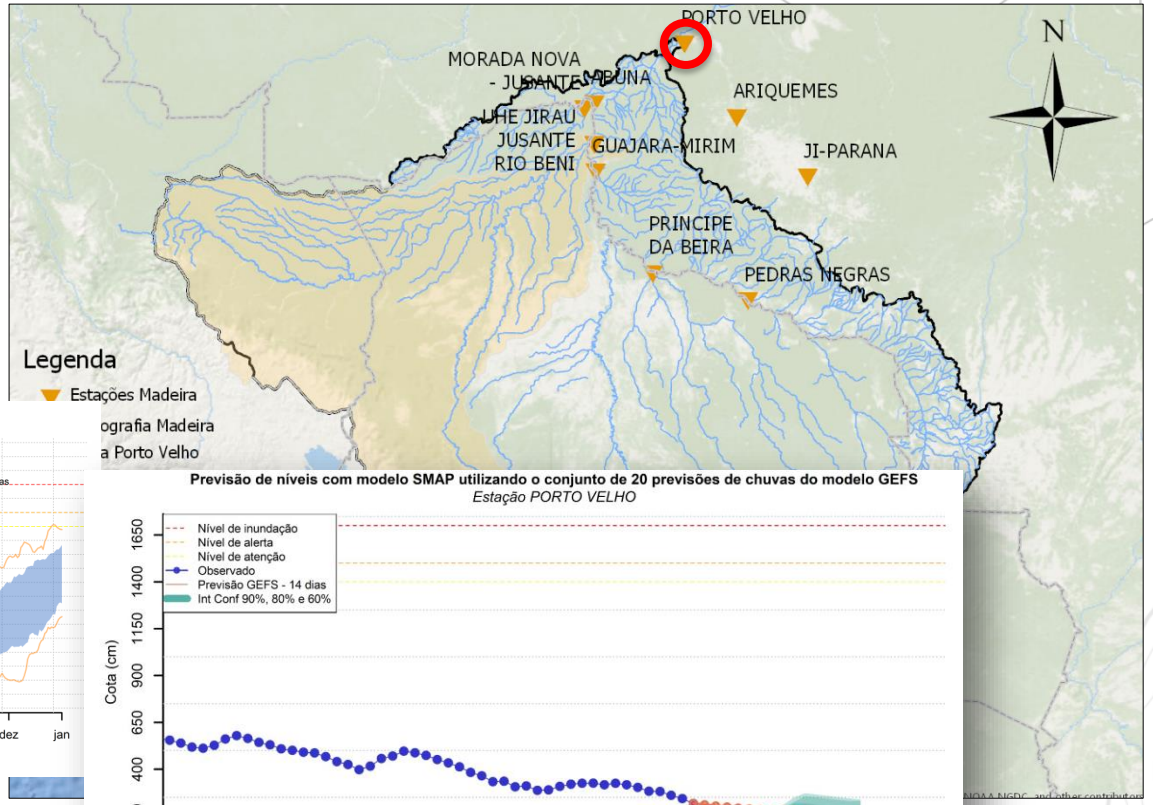
Níveis observados no ano de 2023 e comparação com níveis históricos

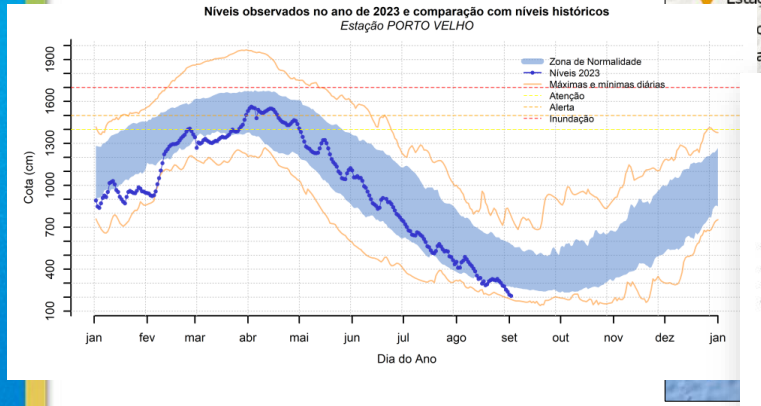
Estação Manaus



PREVISÃO PORTO VELHO







CONSIDERAÇÕES FINAIS

- HIDROVIAS
  - Transporte de grandes cargas
  - Transporte de alimentos, remédios e combustíveis para interior
  - Mobilidade de pessoas entre comunidades e centros de saúde
- MEIOS DE SUBSISTÊNCIA
  - Pesca
  - Agricultura
- ÁGUA
  - Consumo
  - Higiene

Artur Matos
Pesquisador em Geociências
Coordenador do Sistema de Alerta Hidrológico

Serviço Geológico do Brasil – CPRM

www.cprm.gov.br

artur.matos@sgb.gov.br