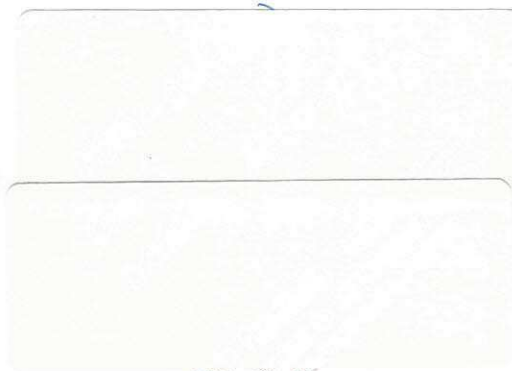




UNIVERSIDADE FEDERAL DA PARAÍBA
CENTRO DE CIÊNCIAS E TECNOLOGIA
DEPARTAMENTO DE ENGENHARIA CIVIL
ÁREA DE RECURSOS HÍDRICOS



Relatório de Estágio Supervisionado

*Coleta e Análise de Dados Hidrológicos do Sistema de Controle de
Enchentes da Bacia do Rio Capibaribe em Pernambuco*

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Março de 1999



Biblioteca Setorial do CDSA. Julho de 2021.

Sumé - PB

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Coleta e Análise de Dados Hidrológicos do Sistema de Controle de Enchentes da Bacia do Rio Capibaribe em Pernambuco

por

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I – INTRODUÇÃO

Este estudo consiste na coleta, processamento e análise de consistência das informações hidrológicas referentes aos reservatórios integrantes do sistema de controle de cheias da bacia hidrográfica do rio *Capibaribe* no estado de Pernambuco, com destaque para as caracterizações e atributos de múltiplos usos pertinentes aos reservatórios *Jucazinho* e *Carpina*.

As etapas do trabalho foram essencialmente as seguintes:

1. Coleta dos dados;
2. Processamento das informações;
3. Análise dos dados processados;
4. Emissão de relatório.

Um projeto de planejamento de recursos hídricos visando a otimização de um sistema de reservatórios integrados necessita, como base, de dados hidrológicos consistentes a respeito do sistema. Este trabalho tem a finalidade de fornecer dados hidrológicos consistentes para um projeto de mestrado que visa determinar formas de operação ótima para o sistema integrado dos reservatórios *Jucazinho* e *Carpina*, objetivando um melhor aproveitamento dos recursos hídricos da região.

II – O SISTEMA JUCAZINHO-CARPINA

2.1 – LOCALIZAÇÃO

A região compreendida pelas barragens em série de Jucazinho e Carpina, construídas ao longo do rio Capibaribe, está situada na porção nordeste da zona geográfica do Agreste do Estado de Pernambuco, no Nordeste do Brasil, entre as latitudes 7° 43' e 8° 19' sul e longitude de 35° 19' e 36° 42' a oeste de Greenwich. Com uma superfície de 5947 km², é parte integrante da bacia hidrográfica do rio Capibaribe cobrindo as suas partes alta e média, o que representa cerca de 78,9 % de toda a área de drenagem daquele curso d'água (o mapa da região é mostrado no Anexo 1).

Limita-se ao norte com o Estado da Paraíba e a bacia hidrográfica do rio Goiana; ao sul com a bacia hidrográfica do rio Ipojuca; a leste com a parte baixa da bacia hidrográfica do rio Capibaribe; a oeste com o Estado da Paraíba e bacia hidrográfica do rio Ipojuca.

A região do sistema de reservatórios Jucazinho-Carpina, no que diz respeito aos dados cartográficos e topográficos, é abrangida pelas Cartas Plani-Altimétricas a seguir listadas, cujas restituições fotogramétricas foram executadas pela *Aerofoto Cruzeiro Sociedade Anônima*, na escala 1:100.000 e equidistância das curvas de nível de 50 metros, publicadas pelo Ministério do Exército/SUDENE.

Tabela 1.1 – Lista das cartas plani-altimétricas que abrangem a região do sistema Jucazinho-Carpina

Carta	Número	Ano
Limoeiro	SB25-Y-C-V	1974
Vitória de Sto. Antão	SC25-V-A-II	1986
Surubim	SB25-Y-C-IV	1986
Caruarú	SB25-Z-D-VI	1984
Sta. Cruz do Capibaribe	SB24-Z-D-VI	1984
Belo Jardim	SC24-X-B-III	1986
Sumé	SB24-Z-D-V	1970
Pesqueira	SB24-X-II	1986

2.2 – CLIMATOLOGIA

A bacia dos açudes Jucazinho-Carpina, apresenta predomínio do clima semi-árido com pouco ou nenhum excesso hídrico, do tipo *Dd* segundo a classificação climática de *Thorntwaite* e definições contidas no trabalho *Contribuições ao Estudo do Clima de Pernambuco* (Reis, 1970).

De modo geral, pode-se dizer que há um período de cinco meses mais chuvosos na região, concentrados entre março e julho (março aparecendo como o mais chuvoso), embora que ainda prevaleçam condições de semi-árido. Neste período acontece cerca de 65% a 68% da precipitação anual, sendo setembro, outubro e novembro os meses mais secos.

A precipitação total anual média na região atinge valores em torno de 700 mm, com máximos de 800 mm a 1000 mm em algumas áreas isoladas, regionalmente conhecidas como *brejos* de altitude, como é o caso das localidades de Brejo da Madre de Deus e Taquaritinga do Norte.

Entre os postos selecionados para os estudos, referencia-se a seguir os registros de totais anuais médios nas estações consideradas como bem representativas para cada sub-região da bacia.

Tabela 1.2 – Totais anuais médios nos postos pluviométricos representativos

Porção da Bacia	Posto	Altitude	Período	Total Anual
Jucazinho-Carpina		(m)		Médio
				(mm)
Baixa	Glória do Goitá	200	1963-1985	1071,5
	Carpina	184	1934-1988	1007,8
	Salgadinho	270	1957-1983	920,7
	Bengalas	290	1963-1987	609,3
Média	Cumarú	395	1956-1991	820,5
	Surubim	380	1911-1985	644,8
	Toritama	376	1963-1989	550,5
	Carapotós	501	1962-1992	429,5
Alta	Taquaritinga do Norte	785	1963-1990	1132,1
	Jataúba	600	1962-1991	627,0

Sta. Cruz Capibaribe	472	1962-1987	503,3
Brejo Madre de Deus	646	1911-1987	850,2
Sítio Muquém	830	1967-1997	759,6
Lagoa do Félix	770	1967-1992	464,4

Pela situação geográfica da bacia, considerada sua pouca distância do mar (ponto mais a oeste dista cerca de 270 km), a região mais próxima do litoral sofre a influência dos sistemas meteorológicos de leste, de forma que o mês mais chuvoso se desloca para maio ou junho. A parte mais baixa da região, abaixo da cidade de Limoeiro até a barragem de Carpina, está sob influência direta das chuvas de inverno, se bem que possam existir influências secundárias convectivas, produzidas pelo centro orográfico situado a sudoeste, na Serra das Russas, com altitude de 800 m, distante cerca de 70 km do mar.

A região, como um todo, encontra-se envolvida pelas isoietas de 1000 mm e 500 mm, refletindo-se numa forte variabilidade espaço-temporal das chuvas.

A evaporação anual supera em muito o valor da precipitação, com lâminas atingindo cerca de 2200 mm. A maior evaporação média mensal é registrada no mês de janeiro atingindo valor de 231 mm. A temperatura média do ar nos meses mais secos, entre setembro e novembro, fica em torno dos 25 °C, tendo-se registrado máxima média de até 31,6 °C no mês de dezembro; os meses mais frios são junho a agosto; a temperatura média anual é de aproximadamente 24 °C, conforme registros da estação meteorológica de Surubim, operada pelo Instituto Nacional de Meteorologia – INMET.

A umidade relativa do ar, sendo um fator influenciado pela ocorrência de chuvas, apresenta-se com valores mais elevados no quadrimestre mais chuvoso, atingindo a média mensal de 78%. No mais seco apresenta um declínio, situando-se na faixa média mensal de 69% a 71%.

Os estudos dos ventos mostram que as maiores velocidades ocorrem nos meses de julho, e de dezembro a fevereiro (média de 8 km/h), sendo que a média anual se aproxima de 6,5 km/h.

Assim como as médias de temperaturas e ventos, as médias de insolação apresentam certa homogeneidade durante o ano. De março ate agosto, a insolação se mantém em torno 170 horas médias mensais, atingindo 251 horas em outubro. A insolação por ano tem valor médio de 2400 horas.

2.3 – HIDROLOGIA SUPERFICIAL

A região é drenada pelo rio Capibaribe que nasce no extremo sudoeste, nas vertentes da serra do Jacarará, numa altitude de cerca de 1135 m, no município de Jataúba/PE.

Desde a sua nascente o rio Capibaribe, apresentando uma declividade média de 0,44 % (4,48 m/km), percorre cerca de 135 km e é barrado no município de Surubim para formar o açude de Jucazinho; caminhando na direção oeste-leste mais 54 km o Capibaribe é novamente barrado, formando o açude de Carpina, no município de mesmo nome, limite do sistema hídrico superficial deste estudo.

O rio Capibaribe, dentro da bacia Jucazinho-Carpina, possui alguns afluentes importantes destacando-se pela margem direita os riachos: Aldeia Velha; Tabocas; Carrapatos; das Éguas, riacho Caçatubada e o rio Cotunguba.. Pela margem esquerda os mais expressivos tributários são os riachos: Jataúba; Topada; Carabeiras; Pará; Tapera e Caiaí.

O regime fluviométrico do rio Capibaribe, na área em estudo, apresenta as características comuns do semi-árido nordestino. Os escoamentos são função direta das chuvas e das características físicas da bacia. Em toda a área de drenagem aqui considerada, o regime fluvial do rio é intermitente. Somente a partir da cidade de Limoeiro, a jusante da barragem de Jucazinho e pouco a montante da barragem de Carpina, torna-se perene. Com o advento da construção da barragem de Jucazinho, ainda em fase de enchimento do lago, o trecho do rio Capibaribe entre os dois açudes (Jucazinho e Carpina), será perenizado por uma descarga mínima de regularização prevista em $2,7 \text{ m}^3/\text{s}$.

Por se tratar de uma região em que as precipitações pluviais se apresentam com distribuição mensal e interanual irregular, o mesmo se observa com relação aos deflúvios. Assim, coerentemente com o regime pluviométrico, a distribuição do escoamento ao longo do ano é também muito irregular. Na parte alta da bacia as descargas mais elevadas se concentram no quadrimestre de fevereiro a maio, não escoando frequentemente entre setembro e dezembro. Nas partes média e baixa da bacia, as vazões mais representativas ocorrem nos meses de março a julho, com baixos escoamentos entre os meses de outubro a janeiro

2.4 – FINALIDADES E DADOS TÉCNICOS DAS BARRAGENS

O sistema composto pelos dois reservatórios em série Jucazinho e Carpina, com área de drenagem total de 5947 km² e capacidade de acumulação totalizando 597 × 10⁶ m³, representa cerca de 93 % de todo o estoque d'água de superfície que pode ser armazenado na bacia.

2.4.1– BARRAGEM DE CARPINA

A barragem de Carpina tem função de regularizar a vazão do rio Capibaribe em 300 m³/s, evitando grandes enchentes a jusante, prejudiciais à Região Metropolitana do Recife, conforme concepção original da obra.

Conquanto se reconheça até hoje a importância da função protetora da barragem de Carpina, projetada para acumulação nula, a exclusividade desse papel vem sendo questionada desde há algum tempo por interessados na questão, fazendo com que o reservatório hoje tenha compromissos de parcial utilização como fonte de recursos hídricos, seja para reforço do abastecimento do Recife, seja para sustentar irrigações não formais em terras invadidas no entorno de sua bacia hidráulica, quanto em alguma outras área adjacentes à barragem, cujas demandas não se conhece com precisão. No entanto, a Companhia Pernambucana de Saneamento – COMPESA, informalmente operando a barragem, vem mantendo desde meados de 1992 uma acumulação média de não mais do que 56.600.000 m³, correspondente à cota 104 m do reservatório, permitindo-se derivar uma vazão de regularização para jusante na intenção de alimentar as captações a fio d'água de Tiúma e Castelo no mesmo rio Capibaribe, que derivam em média uma vazão de cerca de 1,3 m³/s (Vazão de Projeto das Captações = 1,5 m³/s) que são injetados no sistema (adutora) de Tapacurá para reforço do abastecimento de Recife.

A seguir são indicados os dados técnicos da barragem de Carpina:

- **Rio barrado:** Capibaribe
- **Município:** Carpina
- **Área da bacia hidrográfica:** 5.999 km²
- **Barragem constituída de um maciço de enrocamento com miolo de terra, com:**
 - Extensão total (900 m de maciço mais 730 m correspondentes a 4 diques): 1.720 m
 - Altura máxima: 42 m
 - Cota de coroamento: 124 m
 - Largura no coroamento: 8 m
 - Sangradouro de emergência tipo “Vallecito Dam”, cota 118 m

- Estrutura de tomada d'água em forma de caixa de 22,60 X 11 X 11,40 m (comprimento, largura e altura), dotada de 48 aberturas providas de grades de proteção, composta ainda de:

- Torre de comando com sistemas de acionamento das comportas, grades e stoplogs, incluindo ponte rolante.
 - Galeria com dois condutos, cada uma com ϕ 4,50 m que cruza todo o corpo transversal da barragem, tendo na sua parte de montante, para cada conduto, uma comporta tipo vagão. Geração inferior das tubulações na cota 84,20 m.
 - Bacia de dissipação de energia em concreto armado com largura de 15 m e 50 m de comprimento.
- **Área da bacia hidráulica na cota 118 m:** 24,65 km²
 - **Volume de acumulação na cota 118 m:** 270.000.000 m³
 - **Volume para atenuação de enchentes:** 189.000.000 m³
 - **Volume morto (cota 89,0 m):** 1.190.000 m³
 - **Volume útil:** 79.810.000 m³
 - **Vazão efluente máxima (laminação da cheia):** 300 m³/s
 - **Conclusão da obra:** 29 de maio de 1978
 - **Administração do empreendimento:** DNOCS (COMPESA - Companhia Pernambucana de Saneamento)

2.4.2- BARRAGEM DE JUCAZINHO

A barragem de Jucazinho possui as seguintes finalidades:

- Abastecimento da cidade de Caruarú e mais 19 outras localidades do agreste pernambucano, beneficiando uma população estimada hoje em 384.000 habitantes (1997) e uma população de projeto (ano 2016) de 715.352 habitantes.
- Controle de enchentes do alto curso do rio Capibaribe, preservando as cidades a jusante, até Recife.
- Irrigação de cerca de 6.750 ha ao longo do rio.
- Piscicultura com produção estimada em cerca de 500 toneladas de pescado por ano.
- Perenização do leito do rio Capibaribe a jusante da barragem com uma descarga prevista de 2,72 m³/s.

Os dados técnicos da barragem são:

- **Rio barrado:** Capibaribe
- **Município:** Surubim
- **Área da bacia hidrográfica:** 4.772 km²
- **Barragem do tipo gravidade, com maciço em concreto compactado rolado (CCR), com:**
 - Extensão da crista: 442,0 m
 - Altura máxima: 63,2 m
 - Cota do coroamento: 299,0 m
 - Largura do coroamento: 8,0 m
 - Estrutura de tomada d'água tipo "Galeria com Torre", com conduto de ϕ 2,0 m – acionamento de montante por comporta vazão e acionamento de jusante por dispersor Howell-Bunger.
 - Cota: 250,0 m
 - Descarga de regularidade (prevista: 2,72 m³/s
 - Descarga máxima: 35,0 m³/s
 - Vertedouro principal tipo "Stepped Spilway", em concreto, com:
 - Cota da soleira: 292,0 m
 - Comprimento: 170,0 m
 - Descarga máxima na cota 298,0 m: 5446,7 m³/s
 - Vertedouros auxiliares (02) tipo "Canal Lateral", em concreto, com:
 - Cota da soleira: 295,0 m
 - Comprimento total
 - Pela margem esquerda: 57,0 m
 - Pela margem direita: 57,0 m
 - Descarga máxima total: 1.291,3 m³/s
- **Área da bacia hidráulica na cota 292,0 m:** 15,00 km²
- **Volume de acumulação na cota 292,0 m:** 327.035.812 m³
- **Volume para atenuação de enchentes:** 100.000.000 m³
- **Volume morte (cota 250,0 m):** 7.093.175 m³
- **Volume útil:** 219.942.637 m³
- **Vazão afluente máxima (descarga de restrição para jusante):** 1.000 m³/s
- **Conclusão da obra:** Fevereiro de 1998
- **Administração do empreendimento:** DNOCS

2.5 – MONITORAMENTO HIDROMETEOROLÓGICO

Fazendo parte da bacia do rio Capibaribe, como já descrito, a sub-bacia Jucazinho-Carpina aproveita boa parte da rede de monitoramento hidrometeorológico implantada naquela bacia, que pode ser descrita como a seguir.

2.5.1 – REDE PLUVIOMÉTRICA

Originária da rede básica da SUDENE e desde 1992 mantida e operada pelo Estado de Pernambuco, atualmente sob a responsabilidade da Secretária de Recursos Hídricos, a rede pluviométrica da bacia Jucazinho-Carpina tem cerca de 35 postos em operação, com uns poucos, mais antigos, com registros desde 1911. Nas cercânias da bacia foram selecionados outros 39 postos, para complementação dos estudos hidrológicos.

Estão disponíveis dados diários e mensais nos Bancos de Dados da SUDENE e da Secretária de Recursos Hídricos do Estado de Pernambuco, cobrindo até o ano de 1985. Para alguns postos, já se tem dados até o ano de 1993. Os dados mensais, registrados até o ano de 1985, preliminarmente consistidas pela SUDENE, constam do trabalho *Dados Pluviométricos Mensais do Nordeste – Estado de Pernambuco/SUDENE – 1990*.

2.5.2 – REDE FLUVIOMÉTRICA

Engloba hoje 14 estações fluviométricas operadas pela Companhia de Pesquisa de Recursos Minerais – CPRM, para o Departamento Nacional de Águas e Energia Elétrica – DNAEE, do Ministério de Minas e Energia. Em poucos postos dispõe-se de descargas médias diárias e mensais desde 1956 a 1966.

No caso das estações de Toritama e de Limoeiro, cujos dados servem para os propósitos deste estudo, dispõe-se de descargas médias diárias e mensais relativas aos períodos de abril/1966 a dezembro/1996, e outubro/1956 a dezembro /1996, respectivamente.

Recentemente, em setembro de 1997 a CPRM divulgou Relatório Técnico contendo resultado de análises e estudos de consistência de dados fluviométricos diários da bacia do rio Capibaribe (sub-bacia 39), envolvendo as 14 estações, cobrindo o período base 1984-1996.

As estações fluviométricas locadas na bacia Jucazinho-Carpina estão listadas na Tabela 1.3 , a seguir, anotando-se algumas observações de avaliações sobre a qualidade dos dados ali obtidos, feitas em setembro de 1997 pela CPRM.

Tabela 1.3 – Relação das estações fluviométricas

Código	Rio	Estação	Área Drenagem (km ²)	Tipo da Estação	Período Base	Avaliação Final
39098000	Tapera	Tapera	254	FD	1986-1996	Medições insuficientes/Desativar
39100000	Capibaribe	Sta. Cruz Capibaribe	1.557	FD	1986-1996	Cotas de boa qualidade/imprecisões na curva-chave
93130000	Capibaribe	Toritama	2.407	FRDSQ	1985-1996	Observações de boa qualidade/descargas geradas com boa confiabilidade
39140000	Capibaribe	Salgadinho	5.108	FD	1984-1996	Descargas geradas de boa qualidade
39145000	Capibaribe	Limoeiro	5.360	FRDSQ	1983-1996	Descargas geradas devem ser usadas com restrições/Curvas-Chave com imprecisões

F=Fluviometria; FR=Fluviográfica; D=Medição de Descarga Líquida; Q=Qualidade da Água; S=Sedimentométrica

A figura do Anexo 2 , apresenta o diagrama unifilar da rede fluviométrica da bacia do Capibaribe, posicionando as principais barragens do sistema hídrico.

2.5.3 – REDE DE ESTAÇÕES CLIMATOLÓGICAS

Na bacia do rio Capibaribe estão locadas atualmente somente duas estações meteorológicas – Surubim e Recife, operadas pelo Instituto Nacional de Meteorologia-INMET, do Ministério da Agricultura, com dados históricos já publicados pela SUDENE (Normais Climatológicas da SUDENE)

No período 1961-1983, funcionou a estação experimental do então Instituto do Açúcar e do Alcool-IAA/PLANALSUCAR, em Carpina, cuja média de evaporação,

publicada no documento *Caracterização Edafo-Climática das Regiões Canavieiras do Brasil – Pernambuco* de Koffler, N. F. (1986), atinge 1899mm/ano, enquanto em Surubim é registrada uma média de 2154mm/ano.

Para fins deste estudo, no que tange à caracterização climatológica da bacia, estão considerados os dados da estação de Surubim, operada desde 1930 pelo INMET. Para as avaliações das perdas por evaporação nas bacias hidráulicas das barragens de Jucazinho e de Carpina, estão considerados, respectivamente, os dados de evaporação do Tanque Classe A das estações de Surubim e de Carpina.

2.5.4 – REDE DE MONITORAMENTO DA QUALIDADE DA ÁGUA

a) Rede operada pela CPRH

A rede de monitoramento de qualidade das águas superficiais, de responsabilidade da CPRH não contempla a maioria dos corpos d'água da bacia Jucazinho-Carpina.

Para avaliação da qualidade das águas, a CPRH utiliza indicadores que, de certo modo, se relacionam aos aspectos estético, sanitário e econômico, dando-se muito ênfase ao Índice de Qualidade de Água – IQA, que engloba em um só número uma série de parâmetros. O monitoramento feito pela CPRH objetiva, principalmente, o contínuo acompanhamento das condições dos cursos d'água, sendo sistemático para os rios litorâneos, para observar se os mesmos permanecem nas classes nas quais foram enquadrados.

b) Rede operada pela COMPESA

Conforme o PQA-PE, a COMPESA, como órgão mantenedor dos sistemas de abastecimento de água existentes na bacia em referencia, não dispõe de rede adequada de monitoramento de qualidade dos cursos d'água da bacia.

As informações são obtidas de um “monitoramento menos intensivo”, basicamente concentrados nos mananciais abastecedores dos sistemas de tratamento de água, que tem servido para avaliações iniciais ou mesmo conclusivas sobre as características físico-químicas e bacteriológicas da água bruta. Mesmo as análises sendo de boa qualidade, o monitoramento é pouco satisfatório, mas garante que a água bruta, após tratamento seja fornecida à população em conformidade com os padrões de potabilidade.

2.6 – HIDROLOGIA SUBTERRÂNEA

A bacia em estudo está inserida, completamente, em área de embasamento cristalino, com reduzida capacidade de acumulação de águas subterrâneas que, regra geral, apresentam elevadores teores de sais, tornando as muitas vezes inadequadas para consumo humano.

De acordo com dados contidos no Plano Estadual de Recursos Hídricos de Pernambuco-PERH/PE (1998), os parâmetros estatísticos dos dados de 460 poços perfurados no domínio das rochas cristalinas podem ser vistos conforme a Tabela 1.4.

Tabela 1.4 – Parâmetros estatísticos dos poços

Parâmetro Estatístico	Profundidade (m)	Nível Estático (m)	Nível Dinâmico (m)	Vazão (m³/h)
Média	49,70	7,00	24,70	3,20
Desvio Padrão	16,80	6,70	14,90	3,90
Coef. Variação	33,80	95,71	60,32	121,87
Valor Máximo	130,00	40,00	89,00	40,00
Valor Mínimo	11,00	0,00	0,10	0,00

III – DADOS COLETADOS

3.1 – GENERALIDADES

Foram analisados os dados pluviométricos de postos considerados como representativos (postos de referência) para a região do sistema Jucazinho-Carpina. A relação dos postos pluviométricos é mostrada na Tabela 3.1 abaixo.

Tabela 3.1 – Relação dos postos pluviométricos estudados nas duas bacias

Postos para Jucazinho	Algodão do Manso; Belo Jardim; Brejo da Madre de Deus; Carapotós; Cumarú; Jataúba; Mandaçaia; Poção; São Caetano; St. Barriguda; Sta. Cruz do Capibaribe; Sta. Maria da Paraíba; Surubim; Taquaritinga do Norte; Toritama; Vertentes; Vila do Pará
Postos para Carpina	Apoti; Bengalas; Bezerras; Bom Jardim; Buenos Aires; Cumarú; Gravatá; Limoeiro; Mata Virgem; Russinha; Salgadinho; St. Barriguda; Surubim; Umbuzeiro

Foram desenvolvidos programas de computador para preenchimento de falhas, homogeneização e cálculo da pluviometria média.

Os programas foram escritos usando-se a linguagem do software matemático MATLAB (*High-Performance Numeric Computation and Visualization Software*). MATLAB é uma abreviação para *Matrix Laboratory*. É um ambiente computacional técnico de alto desempenho em cálculo e visualização numérica. O MATLAB integra análise numérica, cálculo matricial, processamento de sinais, e gráficos em um ambiente de uso simples onde problemas e soluções são expressos da mesma forma como são escritos matematicamente: sem o uso da tradicional programação em determinadas linguagens.

O MATLAB é um sistema iterativo no qual o dado elementar básico é uma matriz que não requer dimensionamento. Isso nos permite resolver muitos problemas numéricos em um período de tempo menor do que eles levariam para ser escritos em uma linguagem tal como *Fortran*, *Basic* ou *C*.

IV – ANÁLISE DOS DADOS

4.1 – GENERALIDADES

No estudos dos dados de chuva foram desenvolvidos programas de preenchimento de falhas, homogeneização e determinação da precipitação média.

4.2 – PREENCHIMENTO DE FALHAS

Muitas estações pluviométricas apresentam falhas em seus registros devido à ausência do observador ou por defeitos no aparelho. Entretanto, como há necessidade de se trabalhar com séries contínuas, essas falhas devem ser preenchidas.

A princípio foi feito um programa denominado *pluv* para o preenchimento de falhas dos postos de referência de Jucazinho e Carpina. O programa foi desenvolvido com o seguinte princípio: designando por X a estação que apresenta falhas e por A , B e C as estações vizinhas, pode-se determinar a precipitação P_X do posto X pela expressão:

$$P_X = P_A \cdot Corr_A^X + P_B \cdot Corr_B^X + P_C \cdot Corr_C^X \quad (4.1)$$

onde P_A , P_B e P_C são as precipitações medidas nos postos A , B e C , respectivamente, e $Corr_A^X$, $Corr_B^X$ e $Corr_C^X$ são as correlações entre o posto com falhas X e os demais postos A , B e C .

Abaixo é mostrado um trecho do programa *pluv*.

Quadro 4.1 – Trecho exemplo do programa para preenchimento de falhas

```
A = corrcoef(X,Y);
Corr_pfalha_p2(j) = abs(A(1,2));
end

% Correlacao entre pfalha e p3:

for(j=2:13)
    X = pfalha(Lfalha_1:Lfalha_2,j);
    Y = p3(L3_1:L3_2,j);
    A = corrcoef(X,Y);
    Corr_pfalha_p3(j) = abs(A(1,2));
end

% Preenchimento do posto com falhas:

pfalha2_BASE = pfalha2(Lfalha_1:Lfalha_2,:);
p1_BASE = p1(L1_1:L1_2,:);
p2_BASE = p2(L2_1:L2_2,:);
p3_BASE = p3(L3_1:L3_2,:);

pfalha_PREENCHIDO = pfalha2_BASE;
Nlinhas = size(pfalha2_BASE, 1);
for(j=2:13)
    for(i=1:Nlinhas)
        if(pfalha_PREENCHIDO(i,j)==-9.9)
            pfalha_PREENCHIDO(i,j) = p1_BASE(i,j)*Corr_pfalha_p1(j) +
            p2_BASE(i,j)*Corr_pfalha_p2(j) + p3_BASE(i,j)*Corr_pfalha_p3(j);
        end
    end
end
end
```

Os quadros a seguir mostram exemplos da entrada dos dados e saída dos resultados usando-se o programa *pluv*.

Quadro 4.2 – Trecho exemplo do arquivo de dados para preenchimento de falhas

```

% Dados para preenchimento do posto STA. CRUZ DO CAPIBARIBE:

% Período base: 1963-1993

PBase1 = 1963;
PBase2 = 1993;

Posto_Falha_NOME = 'POSTO COM FALHAS - Posto 20: Sta. Cruz do Capibaribe';

pfalha=[

```

	20	1	2	3	4	5	6	7	8	9	10	11	12
1962	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	8.2	2.6	1.5	.0	2.4
1963	86.5	36.0	72.1	46.2	50.6	47.9	8.1	4.7	10.0	.0	.0	.0	125.7
1964	38.2	111.8	98.5	46.5	110.6	88.0	70.0	34.7	25.0	.0	.0	.0	.0
1965	.0	22.0	50.0	33.0	62.0	49.0	.0	.0	.0	.0	.0	.0	.0
1966	110.0	83.0	14.5	117.2	30.8	174.7	90.0	50.8	6.2	.0	26.0	.0	71.0
1967	-9.9	-9.9	87.2	191.4	214.6	111.9	85.1	-9.9	38.0	.0	.0	.0	62.7
1968	18.3	27.9	114.0	32.4	27.5	25.0	8.2	-9.9	-9.9	.9	1.6	.0	7.0
1969	48.9	33.5	291.7	63.6	60.6	123.3	83.7	25.0	9.3	.0	2.0	.0	3.2
1970	8.9	11.6	136.0	20.9	47.4	54.4	-9.9	34.4	.0	.0	.0	.0	.0
1971	4.7	13.0	31.0	131.0	120.8	98.0	130.5	48.2	.0	.0	.0	.0	.0
1972	.0	131.0	21.0	24.0	125.7	157.0	-9.9	-9.9	49.0	.0	.0	.0	47.0
1973	17.2	.0	37.0	118.0	97.0	74.5	58.4	.0	.0	.0	.0	.0	.0
1974	67.0	73.0	71.0	172.0	147.6	140.8	68.9	.0	.0	-9.9	.0	.0	35.7
1975	43.5	60.8	69.0	81.0	47.0	42.2	172.3	16.0	16.0	.0	.0	.0	.0
1976	28.0	48.4	77.7	29.2	43.0	.0	.0	23.0	.0	40.5	.0	.0	.0
1977	53.6	53.6	36.0	297.0	121.6	76.7	85.0	16.9	31.2	3.0	.0	.0	.0
1978	.0	40.0	66.6	39.6	105.0	.0	14.0	.0	.0	.0	.0	.0	.0
1979	2.0	.0	6.6	2.4	50.0	11.0	3.2	.0	16.6	.0	18.5	.0	.0
1980	2.2	122.5	94.5	.0	23.0	73.0	16.3	18.6	.0	6.3	3.5	.0	16.0
1981	76.0	9.3	408.2	42.0	.0	.0	21.2	13.3	14.2	.0	.0	.0	62.0
1982	.0	41.5	12.0	47.5	170.0	58.0	48.0	12.0	.0	.0	.0	.0	12.0
1983	25.0	40.0	50.0	18.0	61.0	6.0	9.0	20.0	.0	8.0	.0	.0	.0
1984	.0	.0	11.5	53.4	73.0	9.0	65.0	46.0	16.0	2.5	.0	.0	.0
1985	.0	149.0	122.0	173.5	.0	3.0	17.5	7.2	.0	.0	.0	.0	.0
1986	.0	6.5	45.0	132.0	9.0	8.0	14.0	9.0	4.5	.0	10.5	.0	.0
1987	.0	76.0	27.0	31.0	8.0	56.0	18.5	14.5	6.0	5.0	.0	.0	.0
1988	.0	20.0	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
1989	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
1990	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
1991	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
1992	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
1993	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9];

Quadro 4.3 – Trecho exemplo do arquivo de resultados para preenchimento de falhas

Resultados de Preenchimento de Falhas para o Posto STA. CRUZ DO CAPIBARIBE:

20	1	2	3	4	5	6	7	8	9	10	11	12
1963	86.5	36.0	72.1	46.2	50.6	47.9	8.1	4.7	10.0	0.0	0.0	125.7
1964	38.2	111.8	98.5	46.5	110.6	88.0	70.0	34.7	25.0	0.0	0.0	0.0
1965	0.0	22.0	50.0	33.0	62.0	49.0	0.0	0.0	0.0	0.0	0.0	0.0
1966	110.0	83.0	14.5	117.2	30.8	174.7	90.0	50.8	6.2	0.0	26.0	71.0
1967	36.0	31.8	87.2	191.4	214.6	111.9	85.1	13.4	38.0	0.0	0.0	62.7
1968	18.3	27.9	114.0	32.4	27.5	25.0	8.2	4.2	0.0	0.9	1.6	7.0
1969	48.9	33.5	291.7	63.6	60.6	123.3	83.7	25.0	9.3	0.0	2.0	3.2
1970	8.9	11.6	136.0	20.9	47.4	54.4	160.0	34.4	0.0	0.0	0.0	0.0
1971	4.7	13.0	31.0	131.0	120.8	98.0	130.5	48.2	0.0	0.0	0.0	0.0
1972	0.0	131.0	21.0	24.0	125.7	157.0	52.3	33.8	49.0	0.0	0.0	47.0
1973	17.2	0.0	37.0	118.0	97.0	74.5	58.4	0.0	0.0	0.0	0.0	0.0
1974	67.0	73.0	71.0	172.0	147.6	140.8	68.9	0.0	0.0	8.8	0.0	35.7
1975	43.5	60.8	69.0	81.0	47.0	42.2	172.3	16.0	16.0	0.0	0.0	0.0
1976	28.0	48.4	77.7	29.2	43.0	0.0	0.0	23.0	0.0	40.5	0.0	0.0
1977	53.6	53.6	36.0	297.0	121.6	76.7	85.0	16.9	31.2	3.0	0.0	0.0
1978	0.0	40.0	66.6	39.6	105.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0
1979	2.0	0.0	6.6	2.4	50.0	11.0	3.2	0.0	16.6	0.0	18.5	0.0
1980	2.2	122.5	94.5	0.0	23.0	73.0	16.3	18.6	0.0	6.3	3.5	16.0
1981	76.0	9.3	408.2	42.0	0.0	0.0	21.2	13.3	14.2	0.0	0.0	62.0
1982	0.0	41.5	12.0	47.5	170.0	58.0	48.0	12.0	0.0	0.0	0.0	12.0
1983	25.0	40.0	50.0	18.0	61.0	6.0	9.0	20.0	0.0	8.0	0.0	0.0
1984	0.0	0.0	11.5	53.4	73.0	9.0	65.0	46.0	16.0	2.5	0.0	0.0
1985	0.0	149.0	122.0	173.5	0.0	3.0	17.5	7.2	0.0	0.0	0.0	0.0
1986	0.0	6.5	45.0	132.0	9.0	8.0	14.0	9.0	4.5	0.0	10.5	0.0
1987	0.0	76.0	27.0	31.0	8.0	56.0	18.5	14.5	6.0	5.0	0.0	0.0
1988	0.0	20.0	255.3	197.6	32.1	56.8	104.0	5.0	6.4	0.0	6.4	24.3
1989	9.7	0.0	165.7	200.9	128.2	62.6	127.1	18.3	3.5	31.6	23.3	174.0
1990	19.5	51.7	22.7	92.6	42.4	77.6	102.1	6.6	3.1	13.4	9.1	17.6
1991	6.0	5.1	251.6	114.9	65.9	32.9	37.2	12.9	1.6	0.0	3.6	0.0
1992	129.6	79.0	189.8	161.3	19.4	64.4	176.5	5.8	29.2	2.9	5.4	13.6
1993	55.9	85.3	154.3	184.4	76.3	98.3	131.7	11.2	8.6	15.7	11.7	45.6
Média	28.6	47.2	99.7	93.4	70.0	60.6	63.8	16.3	9.5	4.5	3.9	23.1

4.3 – HOMOGENEIZAÇÃO

A *Análise de Duplas Massas* foi o método utilizado para se verificar a homogeneidade dos dados de precipitação, isto é, se houve alguma anormalidade na estação pluviométrica, tais como mudança de local ou das condições do aparelho ou modificação no método de observação.

Este método consiste em se construir uma curva dupla acumulativa, na qual são selecionados os totais anuais acumulados de um determinado posto e a média acumulada

dos totais anuais de todos os postos da região, considerada homogênea, sob o ponto de vista meteorológico.

Embora possa acontecer que o número de anos em que o posto foi operado nas condições iniciais seja maior do que nas atuais, é mais interessante corrigir os dados referindo-se às últimas. Isso porque, a qualquer instante, pode-se fazer uma inspeção local e conhecer o estado de operação e conservação do mesmo na atualidade.

Dessa forma, construiu-se um programa de nome *homog*, com base na *Análise de Duplas Massas*, para a homogeneização dos dados pluviométricos preenchidos anteriormente. A seguir é mostrada a relação dos postos cujos dados foram homogeneizados e seus respectivos postos vizinhos.

Tabela 4.1 – Postos homogeneizados para Jucazinho

Nome do Posto	Postos Vizinhos
Algodão do Manso	Sta. Cruz do Capibaribe; Mata Virgem; Vertentes; Surubim; Toritama; Mandaçaia
Belo Jardim	Poção; São Caetano; Brejo da Madre de Deus; Jataúba; Mandaçaia; Sta. Maria da Paraíba
Brejo da Madre de Deus	Sta. Cruz do Capibaribe; Mandaçaia; Jataúba; Poção; Belo Jardim; Vila do Pará
Carapotós	Bezerros; São Caetano; Toritama; Belo Jardim; Caruarú; St. Barriguda
Cumarú	Bom Jardim; Surubim; Algodão do Manso; Umbuzeiro; Mata Virgem; St. Barriguda
Jataúba	Sta. Cruz do Capibaribe; Toritama; Mandaçaia; Poção; Sta. Maria da Paraíba; Vila do Pará; Brejo da Madre de Deus
Mandaçaia	Sta. Cruz do Capibaribe; Carapotós; Toritama; Jataúba; Brejo; Belo Jardim
Poção	St. Muquém; Mandaçaia; Sta. Maria da Paraíba; Belo Jardim; Jataúba; Brejo

	da Madre de Deus
São Caetano	Bezerros; Carapotós; Cachoerinha; Caruarú; St. Barriguda
St. Barriguda	Sta. Cruz do Capibaribe; Algodão do Manso; Gravata; Bezerros; Carapotós; São Caetano; Vertentes; Surubim; Toritama; Mandaçaia
Taquaritinga do Norte	Sta. Cruz do Capibaribe; Mata Virgem; Vertentes
Sta. Cruz do Capibaribe	Vila do Pará; Jataúba; Vertentes; Toritama; Mandaçaia; Riacho de Sto. Antônio
Sta. Maria da Paraíba	Poção; St. Muquém; Jataúba; Belo Jardim; Congo; Mandaçaia
Surubim	Mata Virgem; Vertentes; Umbuzeiro; Cumarú; Algodão do Manso
Toritama	Sta. Cruz do Capibaribe; Carapotós; Algodão do Manso; Vertentes; Mandaçaia; St. Barriguda
Vertentes	Algodão do Manso; Toritama; Surubim; Sta. Cruz do Capibaribe; Mata Virgem; Vila do Pará
Vila do Pará	Jataúba; Sta. Cruz do Capibaribe; Barra de São Miguel; Poço Fundo; Congo

Tabela 4.2 – Postos homogeneizados para Carpina

Nome do Posto	Postos Vizinhos
St. Barriguda	Sta. Cruz do Capibaribe; Algodão do Manso; Gravata; Bezerros; Carapotós; São Caetano; Vertentes; Surubim; Toritama; Mandaçaia
Bezerros	Caruarú; St. Barriguda; Gravatá; São Caetano
Russinha	Apoti; Gravatá; Bezerros; Pombos;

	Bengalas
Bengalas	Apoti; Russinha; Cumarú; Limoeiro; Glória do Goitá
Apotí	Bengalas; Russinha; Glória do Goitá; Vitória do Sto. Antão
Buenos Aires	Limoeiro; Bom Jardim; Bizarra; Carpina; Nazaré da Mata
Limoeiro	Bengalas; Buenos Aires; Salgadinho; Bom Jardim; Carpina; Bizarra
Bom Jardim	Limoeiro; Bizarra; Umbuzeiro; Surubim; Mata Virgem
Umbuzeiro	Mata Virgem; Surubim; Bom Jardim; Bizarra
Mata Virgem	Surubim; Umbuzeiro; Bom Jardim; Vertentes; Algodão do Manso
Surubim	Mata Virgem; Vertentes; Umbuzeiro; Cumarú; Algodão do Manso
Salgadinho	Cumarú; Surubim; Algodão do Manso; St. Barriguda; Limoeiro
Cumarú	Bom Jardim; Surubim; Algodão do Manso; Umbuzeiro; Mata Virgem; St. Barriguda
Gravatá	Bezerros; Russinha; Pombos; St. Barriguda

Abaixo é mostrado um trecho do programa *homog*.

Quadro 4.4 – Trecho exemplo do programa para homogeneização

```

% -----
% Homogeneização:
% -----

ey = p(2:59,14);          % --- ey: eixo y com dados não-acumulados
for(i=2:59)
    temp(i) = (p10(i,14)+p24(i,14)+p22(i,14)+p43(i,14)+p45(i,14)+p20(i,14))/6;
end
ex = temp(2:59);          % --- ex: eixo x com dados não -acumulados

% Acumulação dos dados (período mais recente para o mais antigo):
% -----

eixox = zeros(1,58);
eixoy = zeros(1,58);
eixox(1) = ex(58);
eixoy(1) = ey(58);
for(i=57:-1:1)
    eixox(59-i) = sum(ex(i:58)); % --- eixox: eixo x com dados ACUMULADOS em
ordem
                                %          decrescente (posicao 1 = 1992)
                                %          (posicao 58 = 1935)
    eixoy(59-i) = sum(ey(i:58)); % --- eixoy: eixo y com dados ACUMULADOS em
ordem
                                %          decrescente (posicao 1 = 1992)
                                %          (posicao 58 = 1935)
end

```

O quadro a seguir mostra um exemplo da saída dos resultados usando-se o programa *homog*.

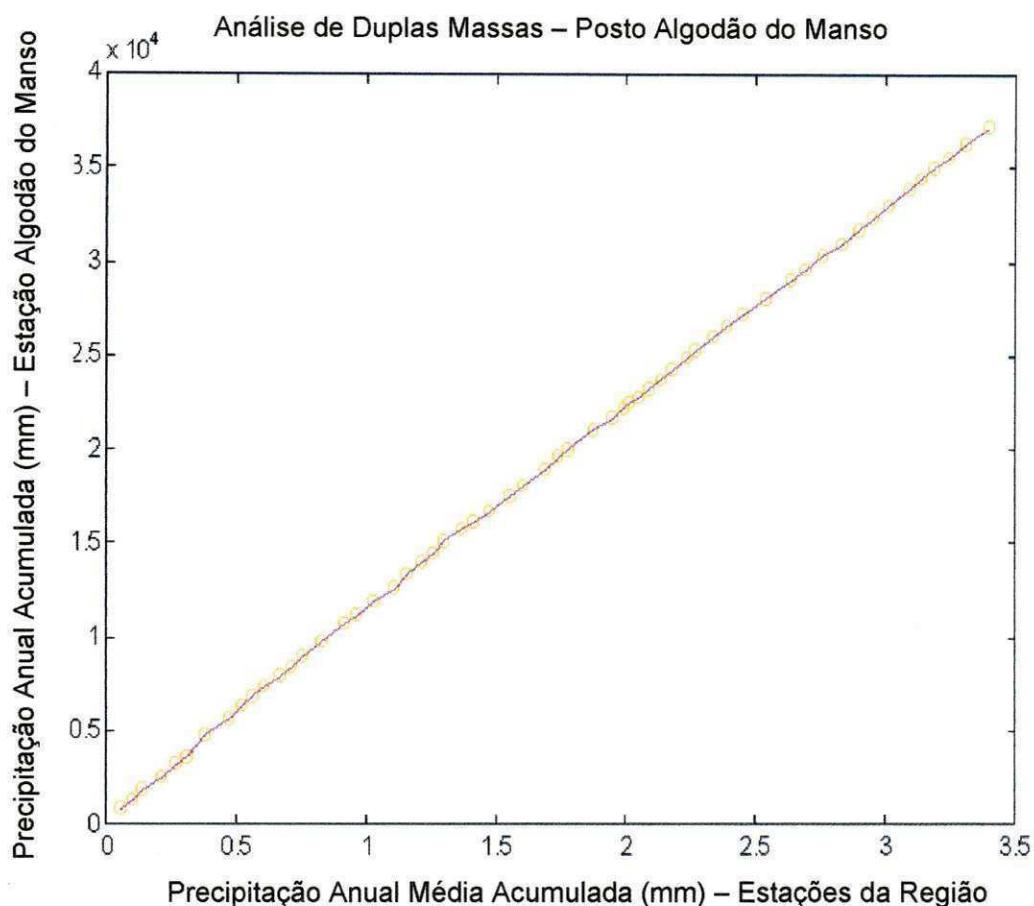
Quadro 4.5 – Trecho exemplo do arquivo de resultados para homogeneização

Dados de Pluviometria Homogeneizados (mm)
 Posto: STA. CRUZ DO CAPIBARIBE
 Número: 3857961

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	46.0	60.1	97.3	125.5	67.0	200.0	95.5	40.3	2.8	1.2	8.7	0.0	744.4
1936	19.9	132.9	15.3	6.3	56.6	165.3	58.1	15.0	1.1	2.6	0.0	1.8	474.9
1937	0.6	16.9	37.9	100.6	87.7	105.0	66.2	14.7	0.9	3.3	3.9	7.0	444.7
1938	18.3	10.2	52.7	88.0	52.3	44.2	23.1	44.3	26.9	12.7	5.8	9.3	387.8
1939	18.5	7.1	83.6	19.2	34.7	21.6	29.9	26.2	5.2	121.4	21.8	11.6	400.8
1940	40.9	86.5	95.2	118.0	171.6	51.5	33.6	13.8	14.8	5.3	1.2	6.7	639.1
1941	2.1	4.8	183.9	48.6	29.9	35.2	45.9	16.8	1.5	4.8	25.3	8.3	406.9
1942	0.6	23.5	17.4	91.2	50.3	63.3	25.8	16.7	14.5	13.9	12.0	38.0	367.2
1943	39.2	35.7	43.0	13.5	48.2	45.4	57.2	35.4	10.0	4.0	18.3	44.5	394.3
1944	64.6	10.7	39.9	101.6	83.3	115.2	89.3	54.5	3.8	1.0	0.8	0.9	565.6
1945	36.8	70.4	15.4	26.6	146.3	107.0	55.6	5.9	3.1	12.1	3.3	28.4	510.9
1946	18.2	8.7	23.2	63.1	34.2	128.3	47.2	25.6	1.8	1.5	1.8	30.5	384.0
1947	4.7	36.3	192.7	327.1	110.9	41.2	33.9	11.5	0.5	2.9	50.3	27.0	839.1
1948	7.9	3.4	147.5	92.9	103.0	144.6	197.1	22.0	5.2	39.6	4.4	5.4	772.8
1949	0.6	18.6	2.0	26.1	88.1	68.7	39.5	19.8	1.4	0.2	156.8	0.9	422.6
1950	0.3	5.4	57.5	105.1	53.5	32.4	50.2	16.9	2.4	16.8	8.6	9.8	359.0
1951	1.2	9.1	17.3	38.4	34.7	303.5	15.4	7.9	1.4	3.5	6.2	9.3	447.8
1952	2.1	0.5	44.8	15.2	19.3	91.4	17.2	14.3	4.0	1.9	4.4	20.6	235.8
1953	0.4	0.3	17.0	45.8	36.1	139.0	46.8	13.0	3.3	0.7	35.1	8.0	345.5
1954	19.6	1.5	9.9	37.9	109.5	51.7	20.7	6.0	1.3	0.0	1.0	0.2	259.2
1955	68.0	57.8	79.9	26.0	44.3	14.3	21.9	14.1	5.4	13.1	5.9	13.7	364.5
1956	11.9	32.7	40.3	42.4	25.2	21.7	38.6	50.2	1.2	0.2	14.7	0.1	279.2
1957	2.2	0.0	94.3	82.3	37.5	30.4	18.3	5.2	1.7	2.7	0.1	1.5	276.3
1958	0.0	23.9	18.4	8.4	37.0	12.8	52.0	17.1	19.2	2.7	0.4	0.1	192.0
1959	1.0	83.3	17.1	1.8	14.1	85.8	29.3	10.6	3.0	1.8	1.1	1.6	250.4
1960	0.9	24.7	332.3	22.8	48.7	104.7	13.5	2.4	7.8	1.4	0.0	0.0	559.1
1961	159.2	80.7	123.8	26.4	53.9	36.8	42.7	10.6	10.3	6.6	0.6	0.2	551.9
1962	27.3	17.3	56.4	24.0	57.9	78.3	38.3	8.8	2.8	1.6	0.0	2.6	315.3
1963	63.6	26.5	53.0	34.0	37.2	35.2	6.0	3.5	7.3	0.0	0.0	92.4	358.5
1964	36.9	108.1	95.2	44.9	106.9	85.1	67.7	33.5	24.2	0.0	0.0	0.0	602.4
1965	0.0	46.5	105.8	69.8	131.1	103.6	0.0	0.0	0.0	0.0	0.0	0.0	456.9
1966	127.5	96.2	16.8	135.9	35.7	202.5	104.3	58.9	7.2	0.0	30.1	82.3	897.4
1967	0.0	0.0	71.4	156.7	175.7	91.6	69.7	198.3	31.1	0.0	0.0	51.3	845.8
1968	35.1	53.5	218.6	62.1	52.7	47.9	15.7	13.6	9.0	1.7	3.1	13.4	526.6
1969	32.3	22.2	192.9	42.1	40.1	81.5	55.4	16.5	6.2	0.0	1.3	2.1	492.6
1970	7.5	9.8	115.1	17.7	40.1	46.0	81.7	29.1	0.0	0.0	0.0	0.0	347.0
1971	2.8	7.7	18.3	77.5	71.5	58.0	77.2	28.5	0.0	0.0	0.0	0.0	341.6
1972	0.0	59.2	9.5	10.8	56.8	71.0	52.3	86.3	22.1	0.0	0.0	21.2	389.3
1973	14.5	0.0	31.2	99.4	81.7	62.7	49.2	0.0	0.0	0.0	0.0	0.0	338.7
1974	48.5	52.9	51.4	124.6	106.9	102.0	49.9	0.0	0.0	0.1	0.0	25.9	562.2
1975	43.0	60.0	68.1	80.0	46.4	41.7	170.2	15.8	15.8	0.0	0.0	0.0	541.0
1976	36.8	63.5	102.0	38.3	56.4	0.0	0.0	30.2	0.0	53.2	0.0	0.0	380.4
1977	45.0	45.0	30.2	249.2	102.0	64.4	71.3	14.2	26.2	2.5	0.0	0.0	650.0
1978	0.0	90.9	151.4	90.0	238.7	0.0	31.8	0.0	0.0	0.0	0.0	0.0	602.9
1979	5.0	0.0	16.5	6.0	124.7	27.4	8.0	0.0	41.4	0.0	46.1	0.0	275.1
1980	1.5	86.0	66.3	0.0	16.1	51.2	11.4	13.1	0.0	4.4	2.5	11.2	263.9
1981	52.2	6.4	280.5	28.9	0.0	0.0	14.6	9.1	9.8	0.0	0.0	42.6	444.0
1982	0.0	36.9	10.7	42.2	151.0	51.5	42.6	10.7	0.0	0.0	0.0	10.7	356.1
1983	29.5	47.2	58.9	21.2	71.9	7.1	10.6	23.6	0.0	9.4	0.0	0.0	279.4
1984	0.0	0.0	23.1	107.1	146.5	18.1	130.4	92.3	32.1	5.0	0.0	0.0	554.5
1985	0.0	236.8	193.9	275.7	0.0	4.8	27.8	11.4	0.0	0.0	0.0	0.0	750.5
1986	0.0	16.0	110.7	324.7	22.1	19.7	34.4	22.1	11.1	0.0	25.8	0.0	586.7
1987	0.0	93.5	33.2	38.1	9.8	68.9	22.8	17.8	7.4	6.1	0.0	0.0	297.6
1988	0.0	20.0	150.5	103.4	28.6	45.4	61.8	9.7	2.9	0.2	6.9	25.2	454.6
1989	5.8	1.8	64.1	121.3	109.5	62.9	74.7	16.8	1.3	1.5	14.9	74.8	549.4
1990	7.7	44.5	2.1	49.8	46.3	53.4	62.7	10.2	16.1	3.3	0.9	4.0	301.0
1991	6.1	23.1	102.5	63.5	96.0	33.5	24.8	40.7	2.7	0.6	2.1	0.0	395.6
1992	102.0	74.1	101.6	77.7	17.2	35.6	56.3	8.6	21.2	0.0	2.3	0.0	496.6
Média	22.7	39.5	77.6	74.4	68.2	67.4	48.1	23.3	7.8	6.3	9.1	12.8	457.4

O gráfico a seguir é também construído pelo programa *homog* para cada posto trabalhado fornecendo ao usuário uma visualização melhor do processo de homogeneização. Neste exemplo vemos a homogeneização do posto Algodão do Manso, para Jucazinho. Todos os resultados de precipitações preenchidas e homogeneizadas se encontram nos Anexos III e IV para Jucazinho e Carpina, respectivamente.

Gráfico 4.1 – Exemplo de gráfico construído pelo programa de homogeneização



4.3 – PLUVIOMETRIA MÉDIA

A pluviometria média foi determinada através do *Método de Thiessen*, cujo princípio consiste em atribuir um fator de peso aos totais precipitados em cada aparelho, proporcionais à área de influência de cada um.

Essas áreas de influência (pesos) são determinadas em mapas da bacia contendo as estações, unindo-se os postos adjacentes por linhas retas e, em seguida, traçando-se as mediatrizes dessas retas formando polígonos. Os lados dos polígonos são os limites das áreas de influência de cada estação.

A precipitação média é calculada pela média ponderada, entre a precipitação P_i de cada estação e o peso a ela atribuído A_i que é a área de influência de P_i .

$$\bar{h} = \frac{\sum P_i \cdot A_i}{\sum A_i} \quad (4.2)$$

sendo \bar{h} a precipitação média e $\sum A_i$ a área total da bacia.

Portanto, com base no *Método de Thiessen*, foi desenvolvido um programa denominado *plumed* para o cálculo da pluviometria média nas bacias de Jucazinho e Carpina. A seguir é mostrada a relação dos postos com as respectivas áreas de influência calculadas através de mapas com os traçados dos polígonos de Thiessen.

Tabela 4.3 – Áreas de influência de Thiessen para os postos de Jucazinho

Nome do Posto	Área de Influência (km ²)
Algodão do Manso	264,2
Belo Jardim	46,1
Brejo da Madre de Deus	475,2
Carapotós	295,4
Cumarú	42,7
Jataúba	410,9
Mandaçaia	398,7
Poção	145,5
São Caetano	46,6
St. Barriguda	297,7
Taquaritinga do Norte	315,5
Sta. Cruz do Capibaribe	385,5
Sta. Maria da Paraíba	105,9
Surubim	60,4
Toritama	278,2
Vertentes	262,2
Vila do Pará	341,3
Área Total	4172

Tabela 4.4 – Áreas de influência de Thiessen para os postos de Carpina

Nome do Posto	Área de Influência (km ²)
St. Barriguda	42,6

Bezerros	54,7
Russinha	44,6
Bengalas	265,7
Apoti	7,7
Buenos Aires	18,6
Limoeiro	204,8
Bom Jardim	48,3
Umbuzeiro	68,9
Mata Virgem	161,3
Surubim	218,1
Salgadinho	251,4
Cumarú	286,9
Gravatá	101,4
Área Total	1775

Abaixo é mostrado um trecho do programa *plumed*. Os resultados de precipitações média para Jucazinho e Carpina se encontram nos Anexos V e VI, respectivamente.

Quadro 4.6 – Trecho exemplo do programa de cálculo da pluviometria média

```

% -----
% Cálculo da pluviometria média:
% -----

Pmed = p26(:,1:13);          % --- Atribui a Pmed um vetor semelhante à P26
Pmed(1,1) = 0;              % --- O primeiro valor de Pmed é zero (seria o
                             %   valor do número do posto em P26)

for(i=2:59)
    for(j=2:13)
        Pmed(i,j) = (p73(1,14)*p73(i,j)+ p12(1,14)*p12(i,j)+ p18(1,14)*p18(i,j)+
p47(1,14)*p47(i,j)+ p50(1,14)*p50(i,j)+ p15(1,14)*p15(i,j)+ p20(1,14)*p20(i,j)+
p45(1,14)*p45(i,j)+ p52(1,14)*p52(i,j)+ p17(1,14)*p17(i,j)+ p43(1,14)*p43(i,j)+
p46(1,14)*p46(i,j)+ p24(1,14)*p24(i,j)+ p26(1,14)*p26(i,j)+ p56(1,14)*p56(i,j)+
p22(1,14)*p22(i,j)+ p59(1,14)*p59(i,j))/100;
    end
end

% -----
% 1a Linha da matriz de pluviometria média:
% -----

Linha1 = Pmed(1,2:13);

% -----
% Pluviometria Média no período base:
% -----

p = Pmed(2:59,1:13);

% -----
% Cálculo da Média Mensal, Total Anual e Média dos Totais Anuais
% -----

% Cálculo das Precipitações Médias Mensais:
% -----

for(j=2:13)
    TEMP = p(1:58,j);
    MEDIA(j) = mean(TEMP);
end

% Cálculo dos Totais Anuais e Médias Anuais:
% -----

for(i=1:58)
    TOTAL_ANUAL(i) = p(i,2);
    for(j=3:13)
        TOTAL_ANUAL(i) = TOTAL_ANUAL(i) + p(i,j);
    end
end

% Cálculo da Média dos Totais Anuais:
% -----

MEDIA_ANUAL = mean(TOTAL_ANUAL);

```

V – CONCLUSÕES

A água é um bem essencial à vida e ao desenvolvimento econômico-social das nações. Trata-se de um recurso natural renovável que pode tornar-se escasso com o crescimento das populações, das indústrias e da agricultura.

Pela sua importância estratégica, este setor ressent-se ainda da necessidade de desenvolvimento e aprimoramento de métodos e técnicas próprias que possibilitem a sua utilização racional na promoção do crescimento econômico e do bem estar social do país.

Técnicas de otimização podem ser usadas como ferramentas que possibilitem uma melhor distribuição da água entre seus vários usuários, os quais representam diferentes, e muitas vezes conflitantes usos da mesma. Os resultados obtidos neste trabalho fornecerão suporte ao desenvolvimento de um projeto mais amplo cujo objetivo é determinar regras de operação ótima para o sistema integrado dos reservatórios *Jucazinho* e *Carpina* visando um melhor aproveitamento dos recursos hídricos da região compreendida pelos mesmos.

A principal ajuda deste trabalho de estágio foi no desenvolvimento de programas de computador que permitiram a análise mais rápida e precisa dos dados hidrológicos pertinentes a região. Além dos resultados apresentados neste relatório ainda estão sendo desenvolvidos atualmente outros programas para ajuste das curvas cota-área-volume e para modelagem de modelos de chuva-deflúvio.

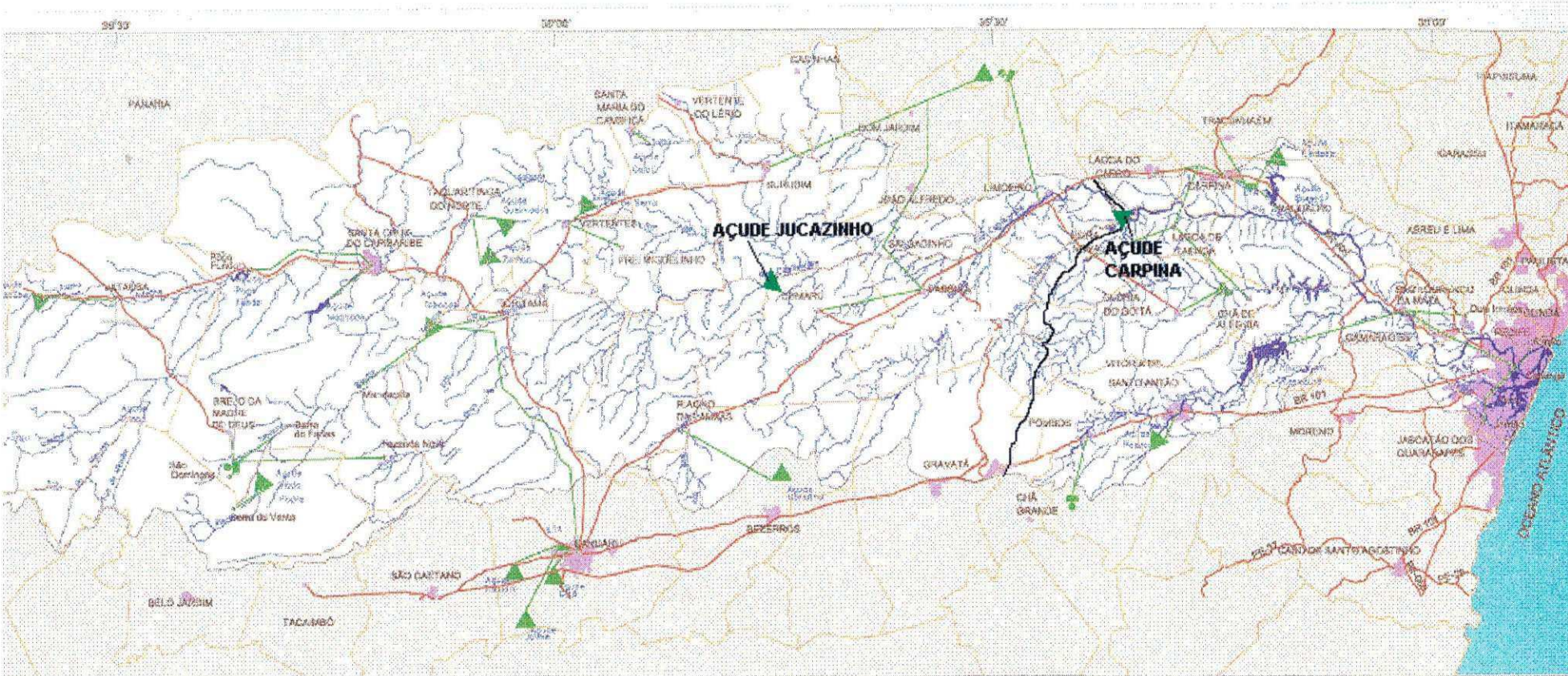
VI – REFERÊNCIAS

1 – TUCCI, C. E. M. *Hidrologia – Ciência e Aplicação*. 2a. Edição. Porto Alegre: Editora da Universidade. ABRH. 1997.

2 – VILLELA, S. W.; MATTOS, A. *Hidrologia Aplicada*. São Paulo. McGraw-Hill do Brasil. 1975.

ANEXO I

Mapa da Região



MAPA DE SITUAÇÃO



CONVENÇÕES

- Sedes Municipais
- Vilas
- Rios
- Estradas
- Limite Estadual
- Limite Municipal
- Limite Bacia Hidrográfica Jucazineho-Carpina

LEGENDA

- AÇÚDES UTILIZADOS NO ABASTECIMENTO URBANO
- PONTO DE CAPTAÇÃO D'ÁGUA
- FOCOS UTILIZADOS NO ABASTECIMENTO URBANO
- ETA (ESTAÇÃO DE TRATAMENTO D'ÁGUA)
- LINHAS ADUTORAS

ESCALA GRÁFICA

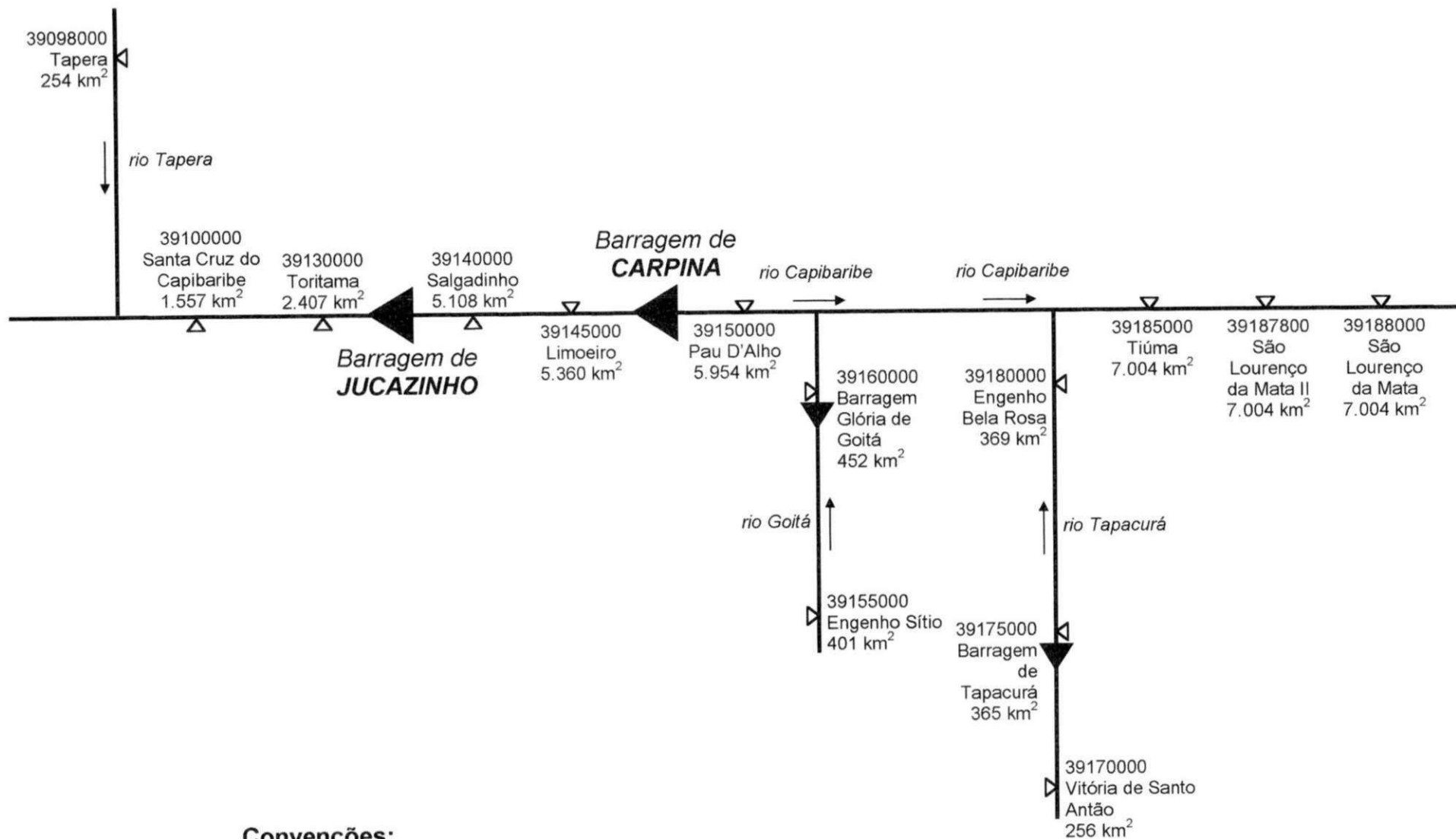


Bacia Hidrográfica do Rio Capibaribe
Açúdes Utilizados no Abastecimento Urbano

Fonte: Secretaria de Ciência, Tecnologia e Meio Ambiente (PERH - PE/1998)

ANEXO II

Diagrama Unifilar



Convenções:

- △ Posto Fluviométrico
- ▼ Barragem

**BACIA DO RIO CAPIBARIBE
DIAGRAMA UNIFILAR DA
REDE FLUVIOMÉTRICA**

ANEXO III

***Resultados de Preenchimento de Falhas
e Homogeneização para os Postos de
Jucazinho***

Dados de Pluviometria Homogeneizados (mm)

Posto: ALGODÃO DO MANSO

Número: 3858925

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	14.7	68.7	128.4	177.6	66.3	231.5	124.0	79.4	7.2	2.8	11.8	4.4	916.8
1936	4.3	113.9	36.8	15.7	115.0	266.1	98.8	36.9	5.3	7.0	0.2	3.1	703.1
1937	2.1	16.7	34.3	121.8	106.2	125.5	78.0	29.1	7.6	9.4	8.5	19.6	558.8
1938	27.3	11.7	65.1	88.2	83.7	76.5	23.2	79.2	35.3	18.2	16.3	5.8	530.5
1939	8.7	19.5	90.6	36.8	125.3	41.2	101.0	57.8	9.9	62.7	57.9	14.8	626.2
1940	66.5	53.2	105.0	93.2	274.4	97.1	63.7	41.2	45.0	8.4	1.2	28.3	877.2
1941	2.9	22.7	198.1	132.6	55.4	67.8	88.1	52.2	9.1	12.7	18.7	23.7	684.0
1942	4.6	25.2	48.0	113.3	138.8	102.4	55.8	52.2	16.6	22.7	12.1	35.3	627.0
1943	64.4	94.0	75.2	31.8	64.5	52.2	97.0	64.2	35.8	4.6	13.9	79.5	677.1
1944	26.5	4.5	27.1	99.9	110.4	117.8	114.2	129.4	40.8	10.5	8.7	6.0	695.8
1945	36.1	65.4	18.2	20.4	222.2	149.3	88.9	38.3	31.5	26.8	4.0	7.3	708.4
1946	37.3	16.3	53.9	106.1	74.6	122.3	61.5	43.7	16.9	1.4	0.6	49.1	583.7
1947	17.2	24.1	129.2	295.1	211.5	70.9	53.7	28.9	27.7	8.2	69.0	29.5	965.0
1948	11.3	10.8	119.9	39.7	148.2	188.3	180.5	42.9	39.2	50.1	15.9	14.1	860.9
1949	7.8	31.2	11.0	80.2	190.6	111.0	53.6	48.2	21.7	3.6	132.5	1.1	692.5
1950	11.6	16.6	42.0	150.1	102.8	27.1	62.4	45.8	16.7	12.1	10.5	26.6	524.3
1951	7.4	9.9	21.0	40.0	115.6	390.2	63.5	22.3	11.1	9.5	13.7	55.9	760.1
1952	8.4	3.5	33.2	9.4	52.8	90.6	22.1	50.9	13.0	1.6	2.7	18.5	306.7
1953	1.6	9.2	37.6	104.6	115.9	187.5	86.2	49.6	8.5	2.3	83.8	8.3	695.1
1954	9.1	21.6	33.6	113.8	221.6	39.6	36.5	16.1	6.3	1.1	32.7	5.3	537.3
1955	6.6	35.3	72.0	56.5	102.6	26.4	48.3	39.8	15.8	19.8	5.6	23.1	451.8
1956	2.8	46.5	35.0	67.2	80.0	48.2	62.8	55.4	19.4	9.7	15.5	5.3	447.8
1957	13.4	1.4	80.7	68.2	46.3	34.9	41.8	11.9	2.8	10.2	0.5	3.8	315.9
1958	0.0	1.2	5.4	3.8	93.6	29.2	59.9	19.8	3.1	2.9	0.0	4.5	223.4
1959	0.0	61.1	14.0	53.6	73.2	155.7	87.2	53.3	55.3	2.1	0.0	0.0	555.5
1960	6.6	3.0	325.9	74.1	49.1	51.0	98.6	6.2	9.7	12.6	0.0	7.2	644.0
1961	267.7	4.6	260.8	24.3	185.6	56.5	103.3	54.2	47.5	14.4	0.5	0.0	1019.4
1962	3.1	16.9	42.6	20.0	130.0	83.3	31.8	24.8	30.4	2.6	1.4	5.7	392.6
1963	41.2	16.8	115.2	91.6	55.3	68.6	33.0	10.5	19.9	0.4	3.5	251.8	707.8
1964	72.7	62.9	121.4	139.6	96.3	109.5	98.0	72.9	38.4	10.6	7.1	7.3	836.7
1965	59.0	25.6	50.9	81.0	68.8	173.9	29.3	24.4	18.5	5.7	9.0	26.0	572.1
1966	71.4	127.7	32.5	68.9	54.6	204.7	152.5	30.2	34.2	0.0	61.4	15.4	853.5
1967	7.5	26.2	55.1	96.8	96.3	52.4	92.0	32.6	10.1	18.3	0.0	9.4	496.7
1968	29.7	15.3	67.9	51.9	59.2	12.6	58.7	30.7	2.8	6.7	11.0	38.2	384.7
1969	68.4	4.8	146.2	91.8	62.0	114.5	147.6	22.4	15.1	8.2	9.2	1.3	691.5
1970	28.6	21.6	102.5	95.4	19.1	95.5	201.9	69.1	9.3	0.0	1.2	0.0	644.2
1971	4.5	6.9	38.5	43.5	93.2	86.0	55.2	41.1	8.7	28.8	12.5	1.0	419.9

1972	2.4	93.0	40.9	56.8	114.5	116.4	39.8	88.6	19.8	23.7	1.3	71.4	668.6
1973	47.2	9.9	30.2	266.0	39.1	49.7	44.8	78.0	44.5	51.7	11.1	16.9	689.1
1974	18.5	60.3	135.1	146.9	84.0	91.6	125.0	29.3	61.3	0.0	5.9	19.1	777.0
1975	58.1	0.0	40.3	94.2	89.7	52.3	254.5	28.0	32.5	0.8	6.1	81.5	738.0
1976	3.5	40.6	67.7	42.6	58.4	55.1	44.3	14.6	1.5	129.0	18.7	27.1	503.1
1977	25.9	12.8	36.4	147.1	260.1	193.6	141.8	20.3	29.2	15.6	4.0	26.0	912.8
1978	2.1	64.4	132.0	99.6	113.0	119.6	120.7	49.2	72.0	2.3	8.4	21.5	804.8
1979	96.7	71.8	57.1	24.4	104.0	70.8	86.2	18.6	37.6	1.6	11.8	1.1	581.7
1980	9.9	39.1	98.7	41.7	64.7	102.7	20.6	11.6	5.0	17.1	8.8	17.5	437.4
1981	41.4	44.7	251.2	15.0	20.7	32.9	25.6	14.8	19.9	0.4	28.9	45.2	540.7
1982	16.0	49.7	4.0	70.6	72.1	195.3	42.6	47.7	11.3	3.5	1.1	26.4	540.3
1983	20.3	60.5	94.6	18.6	50.8	53.9	34.4	62.9	3.0	52.5	0.0	0.0	451.5
1984	29.2	2.5	79.0	147.1	158.1	73.4	156.6	93.4	29.4	20.5	6.0	0.0	795.2
1985	6.7	101.1	175.8	218.0	50.0	83.7	97.0	53.0	19.1	0.8	11.8	2.3	819.3
1986	55.1	60.8	251.4	179.2	154.0	134.3	121.1	76.1	28.4	12.0	30.0	27.2	1129.6
1987	9.0	22.4	67.7	88.4	25.0	55.9	95.8	22.2	12.4	6.1	0.0	0.0	404.9
1988	16.8	22.6	154.1	102.8	66.8	60.8	192.3	27.7	17.1	6.7	11.3	24.8	703.8
1989	8.0	1.8	42.4	152.4	100.6	127.7	110.5	70.8	13.4	15.0	19.4	58.3	720.3
1990	8.3	5.0	1.2	68.0	97.2	102.8	115.5	42.8	18.1	22.6	3.4	18.0	502.9
1991	40.0	0.0	85.9	28.8	138.4	44.6	52.3	79.6	12.1	11.5	0.0	0.0	493.2
1992	78.6	100.7	174.5	79.2	14.8	77.0	126.4	47.2	99.5	0.0	10.0	0.0	807.9
MÉDIA	28.4	34.1	84.4	87.7	100.6	100.9	86.2	44.6	23.0	14.2	14.7	22.8	641.6

Dados de Pluviometria Homogeneizados (mm)

Posto: Belo Jardim

Número: 3867613

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	72.3	103.4	200.8	181.4	73.5	87.8	85.7	62.6	7.1	1.0	18.5	0.0	894.1
1936	43.6	96.8	43.0	35.5	103.5	185.8	48.3	21.0	8.4	14.5	21.5	3.1	625.1
1937	1.2	22.5	99.2	212.7	84.4	93.4	87.2	39.4	8.3	29.5	1.5	2.2	681.5
1938	21.5	29.0	55.0	105.3	50.5	70.0	28.3	60.7	20.0	6.2	18.2	40.3	504.9
1939	110.9	27.8	175.6	26.5	78.2	16.8	74.7	42.0	28.1	57.7	34.4	22.0	694.5
1940	40.7	144.4	233.0	152.0	162.6	30.7	12.1	36.0	51.9	0.2	10.5	14.2	888.4
1941	0.8	26.2	244.6	123.8	47.3	32.8	58.7	19.8	0.0	16.5	11.4	10.9	592.7
1942	0.1	4.7	8.9	139.5	69.8	94.5	82.5	40.0	47.4	14.8	4.8	56.9	563.8
1943	54.1	71.7	44.4	35.4	71.3	19.5	108.0	34.4	30.9	0.3	37.3	1.4	508.8
1944	57.4	51.7	69.8	150.0	63.6	123.1	82.8	75.4	48.6	0.7	0.0	34.5	757.6
1945	40.2	64.6	22.6	112.6	193.9	101.6	55.4	29.4	16.3	34.2	0.0	31.5	702.3
1946	89.9	9.5	67.2	145.0	65.9	87.6	60.6	31.8	29.1	5.8	49.4	25.2	666.8
1947	13.1	16.5	334.1	125.5	63.7	59.3	47.4	51.0	16.6	16.6	112.7	6.1	862.5
1948	17.4	2.6	255.2	36.9	110.6	129.4	191.6	32.7	33.7	26.4	7.3	11.7	855.5
1949	5.9	60.9	13.4	89.1	101.2	56.5	19.8	88.3	16.9	1.8	151.6	5.3	610.7
1950	50.6	11.1	74.0	149.0	41.2	29.9	39.5	35.3	26.8	28.9	5.3	17.7	509.4
1951	21.7	16.0	11.9	81.7	85.7	119.8	50.6	33.7	7.5	9.0	8.8	65.8	512.4
1952	3.0	6.2	98.7	57.2	37.2	82.8	58.8	26.6	9.6	9.0	5.9	48.9	443.8
1953	8.5	0.0	23.3	74.6	38.4	86.6	47.5	16.6	6.8	0.0	52.8	5.0	360.1
1954	25.1	20.7	69.3	111.5	135.0	48.6	45.9	24.3	8.2	5.3	0.5	3.3	497.7
1955	60.3	102.8	141.3	54.6	117.3	25.7	28.5	18.1	20.0	24.7	19.2	36.7	649.3
1956	16.7	45.0	40.6	130.2	63.6	41.3	80.7	94.4	26.4	10.9	10.8	11.2	571.8
1957	75.0	1.2	185.1	101.2	63.8	46.2	29.7	1.9	11.0	4.5	9.9	27.7	557.2
1958	15.6	45.7	39.9	47.8	83.8	154.6	74.1	36.1	29.2	1.3	4.1	60.0	592.1
1959	30.7	84.6	8.0	31.8	8.7	79.0	34.1	63.9	7.1	0.5	2.8	0.0	351.2
1960	20.4	32.3	289.0	120.7	77.4	76.8	30.7	31.1	2.6	16.5	1.0	6.2	704.8
1961	72.5	32.3	213.7	128.0	134.6	41.5	80.9	28.9	2.7	21.0	3.4	0.0	759.5
1962	22.4	25.7	110.2	146.5	48.7	60.3	32.7	26.1	16.8	0.5	11.2	51.9	553.0
1963	19.8	36.6	67.3	52.7	74.7	66.6	14.6	2.3	5.2	0.0	21.2	219.2	580.0
1964	59.0	232.9	114.3	128.7	57.4	66.2	50.4	37.1	16.5	4.1	1.3	32.0	799.9
1965	68.8	0.0	48.7	217.6	96.0	183.6	46.2	38.3	24.1	2.7	6.0	10.3	742.3
1966	50.8	114.3	43.7	355.5	74.5	133.0	199.4	26.0	58.5	0.0	195.3	10.6	1261.8
1967	10.6	50.8	362.4	253.0	154.5	35.0	67.1	69.2	44.2	8.8	0.0	109.1	1164.7
1968	51.6	25.7	72.0	43.8	84.6	40.0	55.1	12.7	6.5	0.0	58.3	6.1	456.4
1969	58.6	39.6	185.5	117.7	34.2	59.9	152.6	5.6	6.7	12.2	3.1	33.2	708.9
1970	123.5	45.6	99.5	67.3	63.6	105.1	101.4	68.1	3.0	25.0	0.0	0.0	702.1
1971	1.6	5.0	71.0	215.1	121.0	95.0	101.3	47.3	41.1	11.5	5.7	0.0	715.6

1972	4.0	78.0	82.7	128.4	65.5	98.2	63.2	125.4	14.4	4.3	0.0	68.7	732.8
1973	10.7	15.1	173.8	117.7	115.6	71.7	61.5	25.5	42.0	12.9	10.3	8.3	665.1
1974	52.8	102.2	99.3	246.5	58.4	75.8	68.7	47.0	10.4	0.0	121.4	18.9	901.4
1975	11.7	16.0	119.2	115.5	62.5	63.9	183.1	11.6	30.7	0.0	0.0	182.1	796.3
1976	0.0	42.1	79.1	139.0	81.7	26.4	32.5	14.1	9.2	62.8	21.8	3.6	512.3
1977	27.0	21.6	11.5	48.8	35.2	41.0	36.0	8.0	13.5	20.5	4.5	24.8	292.4
1978	3.7	106.4	228.9	112.9	100.7	93.7	86.0	28.3	53.9	3.0	15.5	12.4	845.4
1979	40.3	25.1	62.3	55.1	88.3	51.4	40.5	2.3	38.2	3.5	9.3	8.5	424.8
1980	30.5	73.5	80.4	29.6	21.1	105.4	25.0	8.2	24.7	39.1	3.9	11.8	453.2
1981	76.4	13.9	417.7	51.9	37.2	52.9	29.9	14.9	10.1	0.0	30.3	26.6	761.8
1982	17.9	66.2	16.8	39.6	137.5	82.7	48.4	60.4	1.6	2.4	10.7	14.6	498.8
1983	19.3	117.3	107.7	47.0	90.2	49.9	22.2	23.7	8.1	14.9	2.8	1.2	504.3
1984	78.9	12.3	163.0	151.9	159.0	43.8	99.6	64.6	26.0	14.2	1.8	3.0	818.1
1985	32.0	73.6	198.2	248.5	16.1	111.6	97.0	69.2	6.0	65.0	10.2	28.2	955.6
1986	12.8	88.8	224.8	128.2	85.2	62.6	132.4	54.2	41.2	7.6	19.8	10.2	867.8
1987	19.6	29.9	165.0	97.6	13.8	106.1	65.9	21.4	1.8	7.9	0.6	1.9	531.5
1988	20.3	49.9	166.1	160.2	32.0	63.0	116.4	12.2	12.5	2.6	19.3	48.5	703.0
1989	25.9	4.5	79.9	162.1	152.5	105.2	96.7	29.4	8.0	19.5	27.6	132.0	843.3
1990	20.4	62.0	4.8	68.5	67.2	69.0	118.6	34.8	29.8	31.6	1.6	3.2	511.5
1991	50.0	17.4	139.2	105.4	170.1	43.4	43.8	76.8	7.2	4.6	4.8	0.0	662.7
1992	131.7	128.4	143.3	85.4	36.0	73.0	67.6	23.6	61.0	0.0	1.8	0.0	751.8
MÉDIA	36.6	49.1	120.7	115.5	80.4	75.1	69.0	37.3	20.6	12.7	21.1	28.1	666.2

Dados de Pluviometria Homogeneizados (mm)
 Posto: BREJO DA MADRE DE DEUS
 Número: 3867324

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	86.7	124.1	241.0	217.6	132.3	129.3	122.0	99.6	14.8	2.4	16.3	0.0	1186.2
1936	49.4	121.6	63.3	52.7	119.8	242.3	60.7	23.0	15.1	19.5	22.0	0.0	789.3
1937	0.0	71.0	146.2	231.5	72.0	94.0	85.0	35.7	15.8	59.3	2.3	4.1	816.9
1938	20.1	31.9	92.3	83.4	51.8	77.1	30.2	86.1	33.0	9.0	40.1	79.3	634.4
1939	133.1	33.4	210.7	35.3	93.8	20.1	97.1	60.4	33.8	69.2	44.9	10.2	842.1
1940	50.6	202.9	327.6	217.2	251.7	11.9	17.1	31.5	34.8	0.2	26.4	9.0	1180.9
1941	1.0	33.0	308.3	156.0	59.7	41.3	74.0	24.9	0.0	20.8	27.2	11.0	757.1
1942	0.0	5.3	10.1	158.9	79.5	107.7	93.9	45.5	54.0	4.8	3.9	124.3	687.9
1943	65.6	82.8	42.9	36.0	128.0	23.3	124.8	39.8	35.8	0.4	43.1	1.7	624.0
1944	65.3	35.2	129.5	173.6	46.6	156.8	102.1	103.7	56.3	0.8	0.0	65.3	935.3
1945	44.9	107.4	40.8	150.6	233.0	113.1	74.2	42.8	18.1	38.0	0.0	16.4	879.4
1946	108.9	11.1	112.2	170.5	77.5	103.0	71.3	37.4	34.2	6.8	27.8	41.6	802.5
1947	16.7	84.6	467.1	166.0	75.6	99.2	83.5	70.1	22.8	22.8	161.1	8.4	1277.8
1948	25.7	3.9	377.2	54.5	163.4	191.2	283.1	48.3	49.9	39.0	15.0	17.3	1268.4
1949	7.3	45.3	20.6	106.2	138.3	67.8	23.8	106.1	20.3	2.8	220.0	11.3	769.8
1950	59.9	46.3	116.0	198.5	38.5	36.5	44.7	37.1	34.4	18.9	6.2	15.5	652.6
1951	27.3	61.3	13.8	95.3	130.7	113.2	62.7	45.2	12.3	16.6	19.4	83.8	681.4
1952	3.5	6.8	114.3	84.0	42.3	94.0	66.8	30.2	10.9	10.2	6.7	55.5	525.1
1953	10.6	0.0	49.7	92.9	47.7	107.7	59.1	20.6	17.2	0.0	65.6	6.3	477.5
1954	22.9	18.9	63.3	105.2	174.4	56.7	55.9	28.4	12.7	4.3	1.0	6.3	550.1
1955	45.5	110.2	197.3	59.3	87.7	46.9	32.4	14.0	28.6	35.4	28.6	48.7	734.7
1956	12.0	123.7	44.0	85.6	62.0	33.5	61.5	91.7	34.5	16.5	9.0	13.6	587.7
1957	82.1	5.7	190.1	108.8	71.9	72.6	40.0	0.0	19.7	6.0	18.4	24.9	640.1
1958	20.3	81.3	66.2	76.8	124.0	33.5	115.6	57.7	49.0	3.3	8.5	11.5	647.7
1959	43.3	17.8	13.7	49.7	18.4	114.4	47.6	95.0	10.4	1.4	8.3	0.0	419.9
1960	25.4	23.5	420.6	133.2	115.1	60.4	47.4	44.6	4.4	39.7	2.7	15.5	932.5
1961	74.5	12.4	159.7	162.6	176.3	118.8	102.7	35.4	5.3	32.1	7.3	0.0	887.0
1962	22.1	47.7	157.4	143.2	47.6	59.0	80.8	20.0	10.2	0.0	21.3	31.8	641.1
1963	57.0	83.6	110.0	81.9	138.9	106.2	20.5	4.0	19.1	0.0	8.8	243.1	873.1
1964	218.1	29.3	236.1	194.5	158.6	103.4	93.1	95.0	40.3	24.8	4.4	15.7	1213.2
1965	7.0	60.6	27.8	231.9	118.6	107.2	28.7	67.9	39.2	36.7	23.8	34.3	783.7
1966	48.8	184.2	68.8	390.7	73.7	214.3	252.2	45.4	64.3	1.0	133.2	82.0	1558.6
1967	51.1	81.0	366.6	226.1	209.1	168.7	67.6	105.4	93.8	112.8	0.0	173.7	1655.8
1968	89.0	28.2	172.4	165.1	158.8	29.6	65.1	4.7	7.4	2.1	0.2	54.8	777.4
1969	101.4	84.0	236.8	151.0	54.8	154.2	180.2	21.0	11.8	3.6	8.6	13.5	1020.9
1970	72.8	52.0	193.8	90.2	20.4	68.6	137.4	38.5	1.9	4.6	2.3	0.1	682.6
1971	0.5	44.3	106.6	244.2	48.6	73.5	114.9	43.7	10.9	91.0	6.0	0.0	784.2

73.0	59.1	53.7	84.6	50.5	39.0	103.9	26.1	15.3	0.0	17.0	535.6
58.2	282.0	88.0	164.0	49.0	65.0	8.0	42.0	16.0	3.4	70.4	906.0
96.6	154.8	258.3	61.2	83.3	73.1	30.8	33.5	16.1	26.5	34.1	930.1
28.0	155.8	79.2	24.8	37.3	134.5	10.6	180.1	2.4	5.2	123.8	1222.3
14.1	105.7	113.9	64.2	29.0	42.1	18.5	5.7	65.2	29.7	31.9	633.0
47.2	55.8	169.1	142.3	155.3	154.7	16.3	13.2	42.2	2.4	30.6	910.9
09.9	229.6	109.3	98.2	95.8	93.4	28.9	60.3	7.6	17.5	15.9	871.3
23.4	66.5	73.4	96.6	43.6	6.9	11.2	48.5	1.9	18.3	6.8	439.2
65.5	86.3	30.6	19.2	150.1	26.1	13.7	7.0	50.6	58.0	0.0	665.8
4.6	489.4	25.4	67.3	0.0	32.8	9.3	9.8	0.0	6.0	34.0	728.0
54.0	11.0	36.7	183.8	69.8	24.3	54.0	13.8	0.0	0.0	64.2	525.2
28.3	119.5	97.0	67.9	146.8	22.8	50.1	3.4	29.6	0.0	0.0	711.0
37.0	91.8	418.4	108.9	33.7	93.5	64.8	0.0	0.0	0.0	0.0	877.1
11.4	181.8	360.2	60.8	80.6	69.4	103.1	8.0	6.2	8.8	29.8	1261.8
35.0	197.0	209.1	133.3	64.4	76.3	111.4	34.3	0.0	17.9	11.0	1010.6
4.0	273.4	190.5	2.3	185.2	100.4	27.1	0.0	35.0	5.5	0.0	831.8
98.6	173.7	234.1	4.8	18.2	102.0	11.3	12.6	4.4	14.8	73.6	880.7
4.9	87.4	143.6	152.6	84.5	105.6	31.7	4.7	24.2	19.4	106.5	785.7
50.0	8.2	65.9	42.7	51.4	101.1	17.1	30.5	15.7	1.0	3.6	397.7
32.5	158.3	22.3	77.5	37.8	39.3	58.4	4.8	9.6	5.1	6.2	464.0
40.3	135.6	75.2	21.2	58.4	89.5	29.8	70.6	0.0	1.8	0.0	737.3

74.4	152.4	138.5	95.2	85.8	79.5	45.0	27.3	18.9	22.1	34.3	819.0

Dados de Pluviometria Homogeneizados (mm)

Posto: CARAPOTÓS

Número: 3867289

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
46													
1935	59.5	90.5	56.3	83.5	85.1	175.1	45.9	25.5	5.6	0.0	10.8	0.0	637.7
1936	14.5	141.7	33.6	6.2	90.6	118.4	31.8	26.2	2.2	4.8	0.0	1.3	471.1
1937	0.6	34.5	3.7	112.1	105.4	82.4	92.1	9.9	1.4	0.5	1.4	1.7	445.7
1938	22.5	19.2	23.2	82.2	35.9	24.7	36.7	40.4	52.3	14.4	1.5	0.9	353.8
1939	39.3	2.4	89.1	37.6	53.5	5.0	21.3	16.7	0.7	73.6	15.2	11.6	366.0
1940	46.7	15.2	63.8	114.2	205.4	7.4	9.1	12.3	38.5	5.5	1.7	0.0	519.6
1941	7.4	3.5	151.4	24.5	40.8	18.5	17.1	23.7	4.5	3.8	76.3	6.7	378.2
1942	0.3	58.2	7.2	104.9	68.2	17.9	13.8	26.7	20.8	1.0	2.6	54.3	375.9
1943	46.8	3.2	54.2	13.5	63.0	34.7	90.4	51.3	21.8	2.6	50.1	9.0	440.7
1944	113.4	33.5	21.1	106.1	110.6	80.3	89.8	6.1	4.7	0.5	0.2	0.6	567.1
1945	5.0	18.7	15.7	91.8	158.3	110.4	25.1	13.5	5.9	1.9	5.1	4.4	455.9
1946	23.0	19.4	56.1	91.6	37.1	65.8	23.0	11.9	6.1	2.4	2.4	47.8	386.5
1947	4.1	76.5	131.9	127.2	29.4	31.2	30.8	29.9	1.6	5.2	32.1	6.6	506.5
1948	17.9	24.5	124.8	61.4	50.9	109.3	13.8	22.5	18.3	24.1	5.4	8.6	481.6
1949	2.6	9.1	1.2	12.3	26.0	21.1	13.1	32.2	5.6	1.2	240.5	10.5	375.5
1950	1.2	0.8	39.3	67.6	43.9	52.1	8.8	28.1	9.2	10.5	13.5	25.8	300.8
1951	4.3	3.3	1.9	10.5	17.9	344.4	14.4	7.7	2.3	3.9	1.9	5.8	418.3
1952	5.5	2.0	18.2	15.8	14.1	37.0	32.1	9.5	6.4	5.8	9.7	9.2	165.3
1953	1.4	1.4	1.3	25.3	37.4	105.3	42.4	10.8	10.2	2.9	25.2	5.2	268.8
1954	19.0	0.0	0.0	0.0	144.3	89.0	19.1	7.3	2.9	0.0	0.6	1.2	283.4
1955	90.6	59.2	76.0	7.3	24.3	13.4	29.8	15.9	11.3	5.2	5.7	35.4	374.1
1956	28.8	76.5	41.5	29.2	0.6	26.0	111.6	92.8	2.8	0.6	3.5	0.6	414.5
1957	3.4	0.0	83.8	130.7	46.3	31.3	20.2	10.8	3.4	4.0	0.1	2.7	336.7
1958	0.0	95.7	28.8	17.2	65.4	18.7	136.8	39.9	42.0	4.5	1.4	0.3	450.7
1959	1.8	44.8	26.4	3.9	15.0	98.4	42.1	20.7	5.7	2.5	1.9	0.3	263.5
1960	1.9	20.5	64.7	26.7	61.4	163.0	45.6	5.1	17.8	2.7	7.3	13.7	430.4
1961	188.8	4.1	52.7	51.2	57.6	47.1	71.5	17.9	9.6	11.2	0.9	0.5	513.1
1962	0.0	28.8	15.2	9.5	77.1	90.7	74.1	12.0	13.3	0.0	0.0	38.1	358.8
1963	43.9	2.8	98.6	67.8	12.4	39.2	14.2	3.9	12.4	0.0	5.1	132.8	433.1
1964	78.1	70.4	189.2	116.5	43.0	42.6	39.3	28.0	21.7	18.3	0.0	8.3	655.4
1965	31.3	14.0	33.3	68.3	30.3	43.3	10.7	15.3	15.3	0.0	0.0	32.5	294.3
1966	43.0	133.4	30.5	115.0	54.9	100.3	60.1	24.3	0.0	0.0	20.0	30.5	612.0
1967	6.7	37.5	22.9	91.5	91.4	23.8	41.0	0.0	0.0	0.0	0.0	44.0	358.8
1968	0.0	33.8	42.7	58.5	13.8	0.0	35.8	0.0	0.0	0.0	0.0	0.0	184.6
1969	0.0	0.0	92.7	43.8	15.3	93.6	78.3	0.0	0.0	0.0	0.0	0.0	323.7
1970	2.8	0.0	87.2	87.9	25.5	0.0	142.3	30.7	0.0	0.0	0.0	0.0	376.4
1971	0.0	32.0	83.2	61.4	89.5	30.3	90.9	17.4	0.0	18.2	0.0	0.0	422.9

1972	12.0	49.2	48.0	98.0	57.8	30.3	7.2	99.0	0.0	0.0	0.0	101.2	502.7
1973	0.0	0.0	35.8	99.8	32.0	40.5	30.6	11.8	0.0	34.2	0.0	19.6	304.3
1974	20.2	61.9	86.9	286.7	20.2	33.2	35.2	0.0	0.0	0.0	0.0	0.0	544.3
1975	11.4	0.0	133.5	77.6	39.2	35.5	188.2	0.0	18.2	0.0	0.0	27.3	530.9
1976	0.0	76.8	72.4	21.8	45.9	0.0	0.0	24.8	0.0	98.5	25.5	28.6	394.3
1977	54.2	52.5	35.5	152.7	187.5	93.2	93.6	0.0	45.3	0.0	0.0	0.0	714.5
1978	0.0	35.1	190.5	113.4	105.2	32.3	65.6	44.2	0.0	0.0	21.2	0.0	607.5
1979	46.6	45.3	27.3	25.0	0.0	0.0	0.0	0.0	43.8	11.8	0.0	0.0	199.8
1980	0.0	116.6	63.1	0.0	0.0	72.5	0.0	0.0	0.0	0.0	0.0	0.0	252.2
1981	75.0	0.0	242.7	40.3	0.0	0.0	0.0	0.0	0.0	0.0	25.0	20.0	403.0
1982	0.0	32.6	21.0	83.0	73.2	78.8	23.6	34.0	14.4	0.2	0.0	13.2	374.0
1983	25.2	144.0	34.2	19.8	40.1	39.8	15.2	8.2	0.0	0.0	3.6	0.0	330.1
1984	0.0	0.0	87.3	211.7	110.9	40.5	60.9	60.6	8.2	0.0	0.0	0.0	580.1
1985	21.0	137.1	249.2	270.5	46.9	33.4	39.0	0.0	0.0	0.2	0.0	15.0	812.3
1986	5.2	91.0	250.7	156.8	23.6	52.3	30.2	32.2	34.2	10.2	0.0	0.0	686.4
1987	0.0	98.2	86.1	51.6	0.0	41.7	54.4	0.0	0.0	0.0	0.0	0.0	332.0
1988	0.0	39.4	129.2	56.6	10.8	69.4	62.4	0.0	0.0	0.0	0.0	21.8	389.6
1989	30.8	0.0	68.8	135.0	104.2	20.2	59.6	0.0	0.0	8.4	0.0	79.4	506.4
1990	7.2	39.3	4.5	52.2	32.0	39.7	64.5	17.4	7.7	0.0	0.0	1.9	266.4
1991	0.0	0.0	170.5	131.4	60.4	23.5	21.4	26.3	1.9	0.0	0.7	0.0	436.1
1992	98.3	9.6	105.6	43.2	43.0	0.0	24.8	0.0	29.6	0.0	0.0	0.0	354.1
MÉDIA	23.5	38.6	70.8	74.2	54.7	54.6	44.7	19.1	10.0	6.8	10.7	15.2	422.8

Dados de Pluviometria Homogeneizados (mm)

Posto: CUMARÚ

Número: 3868062

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	11.2	83.1	149.6	182.5	96.0	240.9	126.4	98.6	5.0	4.4	24.9	3.2	1025.8
1936	5.8	120.0	41.2	18.3	166.1	319.4	123.8	46.3	7.9	9.4	2.3	2.1	862.6
1937	2.2	15.2	46.9	123.0	85.0	136.6	85.5	42.8	16.5	8.7	13.8	22.0	598.2
1938	35.4	17.1	93.2	112.7	105.1	99.0	29.2	102.1	41.6	24.0	20.4	9.3	689.1
1939	5.4	41.0	139.8	27.8	104.9	51.3	149.9	99.0	22.4	66.1	75.4	18.8	801.8
1940	89.7	59.4	119.1	142.7	374.7	131.2	88.0	53.6	61.8	9.6	2.2	35.3	1167.3
1941	2.8	21.0	195.6	166.4	60.7	92.5	109.3	73.3	13.1	14.1	34.6	28.0	811.4
1942	7.7	30.8	55.3	142.6	201.1	113.5	67.8	95.3	28.0	27.8	9.3	39.6	818.8
1943	75.9	111.6	90.5	45.6	95.7	70.3	117.9	69.6	66.7	5.6	22.4	61.2	833.0
1944	18.8	1.4	50.6	146.4	156.6	121.1	122.8	155.3	65.2	13.4	16.4	13.8	881.8
1945	25.9	85.5	35.6	34.5	180.0	203.3	102.2	72.8	35.5	37.4	6.9	16.3	835.9
1946	55.0	22.3	60.1	122.2	105.2	127.8	75.3	47.8	33.7	1.6	1.1	55.2	707.3
1947	35.4	38.4	127.0	288.9	196.7	115.8	63.9	43.7	42.5	10.8	66.1	40.2	1069.4
1948	9.0	13.9	118.1	49.7	160.5	202.0	204.0	79.6	80.2	54.5	40.7	36.4	1048.6
1949	19.5	47.2	19.4	102.7	252.0	199.8	65.3	86.2	37.5	5.5	132.8	3.9	971.8
1950	23.1	32.0	64.3	239.0	131.4	46.4	79.6	61.2	49.6	15.1	8.9	35.8	786.4
1951	21.6	21.6	16.8	52.0	120.2	439.2	93.1	45.2	18.6	13.9	17.8	72.8	932.8
1952	12.4	17.0	65.7	19.9	82.7	116.5	37.1	125.1	29.7	3.8	2.8	30.2	542.9
1953	11.9	10.1	68.2	139.3	113.0	251.8	134.8	98.8	20.6	9.4	86.0	12.0	955.9
1954	12.0	28.5	55.8	103.9	308.0	77.2	66.3	48.1	15.4	2.1	41.0	6.7	765.0
1955	22.6	42.0	105.8	76.0	110.5	73.4	82.9	69.6	27.5	26.2	9.8	54.2	700.5
1956	12.1	59.8	80.3	79.2	78.6	80.6	100.4	91.3	34.0	3.3	6.4	4.2	630.2
1957	50.3	0.0	138.3	176.3	61.6	49.2	54.1	22.2	3.8	13.6	1.1	9.4	579.9
1958	1.1	15.9	28.8	29.8	172.7	51.9	105.5	59.6	22.9	6.7	4.4	13.3	512.6
1959	0.0	109.9	23.8	76.8	94.8	232.4	136.7	56.0	54.7	6.0	10.2	2.1	803.4
1960	23.8	29.8	343.7	111.3	71.8	101.4	93.2	70.2	14.8	26.4	1.7	14.9	903.0
1961	297.0	90.3	259.7	175.9	229.1	143.8	140.5	47.1	31.0	35.5	4.7	3.9	1458.5
1962	1.8	33.0	61.2	31.6	152.6	235.6	104.6	20.5	29.3	0.0	0.0	5.6	675.8
1963	78.3	57.7	138.2	72.7	47.9	72.1	40.1	21.1	17.6	0.0	3.0	89.4	638.1
1964	84.0	52.4	172.8	81.0	166.7	218.1	149.1	54.9	105.6	8.8	2.1	7.4	1102.9
1965	58.4	0.0	67.4	65.6	116.0	206.9	9.2	27.9	11.7	0.0	1.5	25.7	590.3
1966	65.4	142.8	36.2	41.5	45.3	189.7	163.8	22.4	83.4	0.0	56.6	41.4	888.5
1967	30.4	8.8	136.2	0.0	34.7	110.5	15.3	35.6	91.9	20.5	0.0	26.2	510.1
1968	118.1	5.1	84.6	46.5	35.6	28.5	88.7	19.2	0.2	5.0	0.0	18.2	449.7
1969	72.8	24.2	161.7	87.3	53.3	281.4	97.1	39.3	7.6	3.5	1.1	0.0	829.3
1970	10.5	2.0	81.6	20.9	74.2	119.2	120.1	196.3	9.2	11.2	16.6	0.0	661.8
1971	28.0	0.0	113.4	176.7	99.3	123.0	90.3	20.7	17.5	8.7	0.0	0.0	677.6

1972	4.0	35.6	125.8	106.8	256.3	183.9	82.1	157.6	118.4	4.0	0.0	3.7	1078.2
1973	21.8	18.4	86.2	151.1	292.6	192.1	175.7	75.5	55.1	1.8	13.1	20.1	1103.5
1974	28.9	47.6	126.8	175.2	106.0	102.5	163.2	25.1	91.1	0.0	0.0	16.2	882.6
1975	16.4	0.0	7.0	64.8	223.1	46.4	337.9	11.1	10.4	3.1	0.0	72.2	792.4
1976	0.0	20.1	87.5	16.0	70.7	85.9	82.3	2.4	64.1	65.2	35.0	26.8	556.0
1977	9.1	26.3	3.6	125.2	206.3	214.9	174.3	38.3	30.4	11.1	0.0	38.5	878.0
1978	0.0	107.7	178.4	135.6	28.7	139.9	130.5	87.2	77.3	7.0	6.5	16.7	915.5
1979	79.5	59.0	42.6	19.0	246.2	127.1	137.7	45.1	10.0	2.1	25.8	0.0	794.1
1980	0.0	37.0	109.6	51.1	99.9	187.6	21.8	1.0	0.0	0.0	5.1	109.0	622.1
1981	28.6	116.2	230.1	26.0	83.1	98.9	96.2	18.0	0.0	0.0	0.0	40.0	737.1
1982	97.1	149.0	55.7	180.5	300.1	430.3	63.1	122.5	10.0	0.0	0.0	23.4	1431.7
1983	55.0	168.0	171.4	10.0	89.3	108.1	104.3	77.6	15.0	0.0	0.0	0.0	798.7
1984	0.0	108.0	50.0	284.7	337.7	110.7	111.2	63.3	20.0	8.0	17.0	0.0	1110.6
1985	21.2	87.1	152.5	221.5	88.5	102.0	82.5	54.0	4.1	0.0	6.0	4.1	823.5
1986	25.0	79.1	129.4	327.9	133.1	314.7	541.4	181.0	106.6	115.7	87.6	107.9	2149.4
1987	45.9	22.9	56.1	104.2	21.1	97.4	84.4	4.2	8.1	0.0	0.0	0.0	444.3
1988	0.0	34.2	143.5	124.5	120.3	237.8	379.5	28.2	30.1	0.0	0.0	58.6	1156.7
1989	2.0	18.4	210.0	279.8	167.5	309.9	334.1	60.7	17.8	32.7	24.1	58.9	1515.9
1990	0.0	0.0	0.0	200.5	179.3	371.8	268.4	82.0	23.3	0.0	0.0	8.3	1133.6
1991	0.0	0.0	0.0	18.5	283.6	124.8	108.2	168.3	34.4	39.4	0.0	0.0	777.2
1992	185.3	198.4	152.5	84.9	29.3	113.5	125.6	47.3	107.6	1.9	16.4	0.7	1063.4
MÉDIA	35.4	48.7	99.4	108.9	139.7	158.2	123.1	65.0	36.0	13.9	16.9	25.2	870.4

Dados de Pluviometria Homogeneizados (mm)

Posto: JATAÚBA

Número: 3857905

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	90.0	106.0	223.3	130.2	48.5	86.0	93.6	10.6	6.1	1.3	10.6	0.0	806.0
1936	52.1	175.8	40.6	15.0	26.9	173.9	34.7	4.2	6.6	0.0	8.3	2.9	540.9
1937	0.0	43.3	127.7	184.3	56.0	51.2	42.5	5.9	6.5	33.3	1.4	2.7	554.7
1938	17.8	23.6	89.6	105.3	49.2	37.2	11.6	19.2	10.4	5.1	12.1	38.5	419.6
1939	82.0	49.0	138.3	13.7	31.2	31.2	45.9	11.6	19.0	99.4	28.3	12.7	562.3
1940	70.4	175.8	222.8	119.2	126.2	17.9	6.5	5.2	18.3	0.2	8.6	7.8	778.8
1941	0.6	18.6	291.0	68.3	40.7	23.1	36.4	4.5	0.0	12.0	15.5	5.9	516.6
1942	0.0	53.1	6.4	109.8	23.9	77.3	45.3	14.5	39.6	8.6	1.8	108.6	488.9
1943	59.9	70.8	54.6	23.7	51.0	28.1	87.6	9.5	22.1	0.3	37.4	10.7	455.8
1944	69.2	33.5	145.9	130.5	26.7	85.0	63.1	19.5	28.6	0.6	0.0	44.1	646.6
1945	48.5	100.0	25.2	89.5	158.4	72.2	49.6	5.4	8.5	23.6	0.0	30.4	611.3
1946	80.2	4.8	89.8	106.1	55.2	69.9	38.4	12.2	17.1	4.6	43.8	30.0	552.1
1947	12.0	40.5	372.8	177.6	17.9	28.0	22.6	5.4	6.8	9.1	91.9	33.8	818.4
1948	8.9	32.4	247.7	114.4	83.2	77.4	159.9	20.1	13.9	17.3	3.5	6.6	785.4
1949	4.3	61.5	25.5	40.5	114.9	40.5	18.6	12.1	9.0	1.7	194.1	6.2	529.1
1950	37.9	16.5	122.3	160.6	22.7	14.8	19.0	4.3	15.3	16.8	2.4	12.1	444.8
1951	22.5	28.6	10.3	126.8	81.6	81.8	26.3	8.2	8.4	10.5	7.5	65.6	478.0
1952	2.2	18.1	118.6	41.1	12.4	48.0	31.0	9.5	6.7	6.2	11.7	50.1	355.6
1953	7.8	11.2	60.0	73.1	10.7	80.6	30.6	2.9	9.5	6.3	51.0	11.5	355.2
1954	32.1	52.1	48.0	76.6	71.2	52.7	25.6	5.4	6.2	2.8	7.7	12.4	392.9
1955	64.2	68.9	170.9	47.3	33.0	21.4	14.8	3.5	14.6	28.7	11.6	33.6	512.6
1956	14.9	93.4	61.3	87.6	43.0	29.6	35.3	28.3	20.8	13.2	4.9	10.1	442.3
1957	44.8	1.4	170.9	85.3	20.7	46.3	11.6	0.0	7.0	2.8	5.8	15.1	411.9
1958	15.6	48.4	109.0	39.7	64.7	23.3	79.6	8.5	28.2	2.6	4.3	8.1	432.0
1959	32.6	124.4	7.9	8.5	10.6	42.1	11.7	12.2	3.1	0.5	12.5	0.5	266.8
1960	16.7	22.9	389.8	59.4	36.3	29.2	16.9	3.1	1.2	14.1	0.6	5.1	595.2
1961	66.6	140.6	189.3	50.7	31.9	32.9	42.7	2.8	5.5	13.0	2.0	0.0	578.0
1962	33.4	17.5	171.3	88.5	20.0	31.3	15.7	12.3	9.8	2.6	4.6	20.6	427.8
1963	69.6	36.4	113.3	102.4	6.6	50.7	0.0	0.0	33.8	0.0	39.8	92.1	544.7
1964	84.9	146.4	47.6	157.4	150.4	100.5	54.2	31.6	0.0	0.0	0.0	0.0	773.0
1965	0.0	0.0	32.3	81.1	79.0	303.8	11.8	6.5	3.6	28.1	7.8	0.0	554.0
1966	51.5	85.0	9.7	230.8	101.6	128.7	107.4	45.0	70.6	0.0	42.3	18.4	891.0
1967	3.0	18.1	35.0	163.3	201.0	81.8	35.4	26.8	28.2	20.2	0.0	20.4	633.1
1968	127.1	66.5	108.8	79.6	78.3	13.8	34.9	1.2	0.7	0.6	23.6	3.4	538.5
1969	140.2	74.4	127.9	96.7	2.1	96.7	68.0	2.1	2.1	2.1	2.1	2.1	616.5
1970	85.3	6.3	112.9	81.5	0.6	37.6	75.2	3.1	0.0	39.5	39.5	0.0	481.6
1971	37.9	0.0	70.4	257.9	91.8	32.5	34.1	2.7	2.7	0.0	0.0	0.0	530.2

1972	0.0	70.3	187.3	79.9	47.3	9.6	13.5	67.2	22.5	0.0	0.0	17.4	515.0
1973	0.0	0.0	173.1	104.1	56.2	26.5	0.0	0.0	0.0	0.0	14.6	47.4	421.8
1974	53.2	66.8	162.6	294.6	56.5	39.2	17.7	0.0	0.0	0.0	42.0	32.0	764.6
1975	20.4	36.0	76.5	143.0	58.3	9.8	185.8	0.0	0.0	0.0	0.0	133.3	663.1
1976	20.8	82.2	71.4	62.8	39.1	13.0	16.1	60.0	0.0	28.1	4.5	16.4	414.4
1977	117.1	38.5	0.0	300.7	61.7	65.0	70.2	29.4	6.9	8.4	11.0	31.1	740.0
1978	0.0	57.5	274.8	63.9	72.3	86.7	31.8	18.8	13.0	2.3	3.5	3.5	628.0
1979	83.4	39.0	0.0	70.5	43.5	0.0	28.4	4.5	12.3	0.0	9.6	3.3	294.5
1980	9.4	140.3	92.0	0.0	0.0	93.8	33.7	0.0	0.0	0.0	0.0	0.0	369.3
1981	0.0	1.0	310.7	8.0	33.5	20.0	20.0	16.4	4.8	7.8	19.5	37.7	479.5
1982	52.3	42.0	18.3	62.5	74.4	48.5	8.6	21.6	1.1	8.6	0.0	13.3	351.2
1983	21.7	45.8	76.5	80.2	60.2	8.1	14.5	0.0	8.1	0.0	9.7	13.1	338.0
1984	12.9	9.4	182.1	154.8	86.0	61.0	32.1	38.1	11.1	1.4	0.0	3.6	592.6
1985	13.6	298.2	118.8	198.0	39.0	10.6	55.0	39.9	0.0	58.2	0.0	24.5	855.9
1986	17.7	203.9	113.9	123.1	89.7	66.8	32.4	3.8	17.4	19.8	29.5	14.2	732.2
1987	9.6	20.9	122.4	109.0	9.2	83.7	40.3	15.4	9.6	3.8	5.8	0.0	429.7
1988	25.6	44.2	97.8	80.4	19.6	11.6	34.4	0.0	4.8	1.2	9.3	37.0	365.9
1989	13.6	8.1	16.6	182.1	91.6	24.6	34.2	21.6	0.0	17.0	15.2	103.0	527.6
1990	8.8	100.8	0.0	48.3	57.4	67.2	66.7	4.8	31.4	6.2	4.2	0.0	395.8
1991	0.0	38.4	243.6	95.6	182.0	20.8	6.4	19.8	0.0	0.1	2.6	3.7	613.0
1992	125.2	80.4	110.6	76.4	17.6	40.5	52.5	8.5	46.0	0.0	1.0	0.0	558.7
MÉDIA	37.8	60.2	117.9	102.8	56.5	53.2	40.2	12.9	11.7	10.2	15.9	21.7	540.9

Dados de Pluviometria Homogeneizados (mm)

Posto: MANDAÇAIA

Número: 3867244

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	76.6	99.7	152.8	136.3	107.4	163.0	62.5	12.6	2.3	0.0	15.1	0.0	828.4
1936	53.2	217.5	21.3	6.3	71.4	151.8	37.5	14.6	0.9	2.5	0.0	0.5	577.4
1937	0.1	30.6	64.1	190.3	125.4	91.7	70.4	8.4	0.7	5.5	2.4	2.4	591.9
1938	13.6	13.4	96.6	101.3	71.8	34.6	25.4	33.5	22.7	13.1	3.2	15.4	444.5
1939	8.3	9.5	115.5	30.1	38.6	42.3	40.8	15.0	9.5	208.3	28.5	4.5	551.1
1940	61.1	156.0	122.6	144.2	199.5	15.9	7.0	4.8	18.2	2.3	1.1	3.9	736.8
1941	0.9	5.5	304.6	38.0	40.2	20.4	33.4	11.2	1.5	1.5	56.2	1.8	515.1
1942	0.0	55.6	4.8	165.9	48.9	34.4	20.1	26.0	33.1	26.6	2.3	85.0	502.8
1943	35.3	56.9	63.4	24.9	69.8	48.2	69.8	35.8	12.3	1.7	56.5	26.4	500.9
1944	54.3	26.0	117.6	186.5	111.2	102.6	93.5	10.3	3.1	0.5	0.2	0.3	705.9
1945	70.9	113.8	9.2	68.6	180.7	94.3	16.2	6.7	2.3	0.8	3.8	65.9	633.3
1946	64.3	13.5	80.3	124.7	87.6	89.7	48.2	21.0	2.9	1.3	7.0	42.0	582.4
1947	6.0	50.1	338.8	263.8	16.9	10.5	10.5	6.1	0.3	1.1	46.6	37.0	787.6
1948	1.2	4.8	187.2	147.7	133.8	62.5	182.0	18.4	4.5	6.2	1.6	3.8	753.8
1949	0.4	18.6	0.6	15.0	166.0	27.3	35.2	11.3	1.6	0.4	256.7	2.8	535.9
1950	0.2	5.6	145.4	127.4	74.3	26.6	19.6	9.6	2.6	36.2	7.4	6.8	461.8
1951	0.7	19.9	1.2	124.0	33.4	299.3	14.6	7.2	2.5	5.4	1.6	14.2	524.0
1952	1.6	1.6	116.3	46.1	34.0	49.9	32.6	13.3	9.0	4.7	17.5	45.7	372.2
1953	0.4	1.1	17.6	67.5	37.7	132.1	37.5	8.1	6.4	2.1	58.5	24.4	393.4
1954	45.2	3.4	3.6	45.7	177.9	118.3	20.5	7.4	1.6	0.0	2.5	0.5	426.8
1955	108.5	94.2	171.7	28.7	39.1	10.0	20.4	10.3	4.9	20.9	4.6	21.5	534.7
1956	7.1	78.6	68.9	81.2	33.7	40.4	84.7	78.0	1.6	0.4	4.0	0.4	478.9
1957	3.8	0.0	145.4	156.3	66.1	47.6	18.0	8.8	3.1	5.4	0.2	2.3	456.9
1958	0.0	56.1	58.5	25.1	93.9	24.3	142.9	32.3	25.6	6.4	1.3	0.2	466.5
1959	0.3	109.7	17.3	2.4	16.6	93.7	36.4	21.8	6.8	1.8	1.6	2.1	310.5
1960	0.2	29.5	397.2	27.3	54.5	98.0	15.2	1.9	5.6	1.1	0.0	0.0	630.5
1961	147.5	103.0	183.5	34.2	61.2	35.2	53.1	9.0	12.8	5.4	0.7	0.3	646.0
1962	20.3	23.3	92.8	29.3	96.1	82.0	74.5	13.9	11.4	0.7	0.4	19.9	464.6
1963	40.1	13.2	140.5	68.0	40.3	42.0	5.9	0.0	12.7	0.0	31.0	164.3	558.0
1964	103.7	126.4	130.2	129.7	113.5	76.1	57.5	62.8	47.9	4.6	3.5	13.8	869.6
1965	25.1	7.4	76.8	82.2	39.7	127.9	41.1	11.2	3.1	18.7	0.0	32.0	465.2
1966	115.6	84.4	26.0	302.7	70.4	183.9	147.9	0.0	11.5	0.0	45.9	68.1	1056.2
1967	75.0	32.4	82.1	250.9	235.0	51.7	69.0	52.4	27.4	18.1	0.0	114.0	1008.1
1968	51.1	18.7	100.3	93.8	79.6	8.5	33.9	7.4	0.0	0.0	11.6	7.0	411.9
1969	83.6	21.9	105.3	91.8	31.8	87.9	97.1	12.2	8.3	3.7	16.0	0.0	559.6
1970	31.1	17.3	152.5	75.9	26.8	44.6	147.8	22.0	0.0	0.0	1.5	0.0	519.5
1971	0.0	27.9	32.0	144.6	51.8	60.4	51.3	23.2	13.5	4.9	0.0	0.0	409.6

1972	0.0	68.1	75.7	18.2	48.3	68.8	53.2	75.9	0.0	1.7	0.0	11.5	421.4
1973	2.3	0.0	19.3	95.6	16.5	64.6	29.5	0.0	12.0	27.3	0.0	16.5	283.6
1974	34.7	65.2	145.6	196.2	36.7	81.9	42.5	0.0	0.0	0.0	0.0	51.8	654.6
1975	0.0	33.8	121.7	99.9	96.4	9.7	174.7	17.3	32.2	0.0	0.0	76.4	662.1
1976	0.0	68.2	24.7	49.5	49.0	22.5	0.0	25.3	0.0	21.3	26.8	11.7	299.0
1977	106.5	20.3	10.3	214.5	118.8	147.4	120.0	0.0	25.7	0.0	0.0	0.0	763.5
1978	8.5	82.2	180.9	105.2	123.0	56.3	58.7	18.1	30.3	0.0	8.7	0.0	671.9
1979	35.6	0.0	97.3	23.4	60.6	4.8	30.0	2.1	47.4	0.0	0.0	0.0	301.2
1980	0.0	120.3	51.2	0.0	25.8	98.9	0.0	8.5	0.0	9.7	24.3	0.0	338.7
1981	67.5	22.5	318.2	34.5	6.5	0.0	0.0	12.3	0.0	0.0	0.0	40.0	501.5
1982	0.0	31.3	7.9	111.8	159.5	96.3	7.3	23.3	0.0	0.0	0.0	0.0	437.4
1983	0.0	146.8	31.0	51.2	50.1	16.1	14.0	26.0	0.0	0.0	0.0	0.0	335.2
1984	15.3	14.3	73.8	204.8	101.2	26.7	108.1	54.2	14.2	11.7	0.0	0.0	624.3
1985	12.7	147.1	216.3	387.9	68.2	49.8	54.9	27.4	0.0	0.0	0.0	0.0	964.3
1986	47.8	157.2	143.2	149.4	118.5	72.0	53.3	65.2	29.1	5.5	19.1	0.0	860.3
1987	0.0	57.5	179.0	82.9	0.0	46.2	65.6	8.5	8.5	0.0	0.0	0.0	448.2
1988	33.5	43.7	231.9	119.7	21.9	57.9	64.4	12.3	0.0	0.0	13.5	13.0	611.8
1989	18.1	0.0	91.7	110.2	134.3	57.6	101.1	29.4	7.3	28.8	8.7	117.2	704.4
1990	21.4	111.1	25.8	51.6	26.6	76.5	57.3	14.9	4.7	0.0	1.6	0.0	391.5
1991	11.3	10.9	160.7	23.7	65.8	20.3	32.0	35.7	6.5	0.0	6.3	0.0	373.2
1992	66.8	70.6	106.7	130.8	0.0	17.5	69.8	4.7	47.0	0.0	1.7	0.0	515.6
MÉDIA	30.9	52.0	107.9	102.4	74.2	65.9	53.6	19.1	10.3	8.9	13.8	20.1	559.2

Dados de Pluviometria Homogeneizados (mm)

Posto: POÇÃO

Número: 3866363

Ano	Mes												Total Anual
73	1	2	3	4	5	6	7	8	9	10	11	12	
1935	79.1	113.2	219.8	198.6	71.8	100.1	91.9	65.7	11.0	0.8	18.4	0.0	970.4
1936	54.6	107.1	43.2	30.2	100.9	195.3	47.1	20.8	12.1	13.1	20.3	3.1	647.8
1937	13.0	46.4	101.7	211.8	89.2	95.6	89.6	40.8	12.9	23.6	1.8	2.3	728.8
1938	52.6	27.7	52.5	110.0	48.9	66.8	27.1	55.7	24.6	5.5	23.6	38.7	533.7
1939	131.5	33.0	208.2	30.3	92.7	19.9	87.8	48.4	33.4	68.4	42.1	25.9	821.6
1940	103.9	167.8	270.9	175.7	184.8	30.9	14.1	43.9	42.3	0.2	15.7	16.5	1066.5
1941	0.9	29.8	279.0	141.2	54.0	37.4	67.0	22.6	0.0	18.8	17.1	12.4	680.1
1942	1.2	5.3	10.1	158.7	79.4	107.6	93.8	45.5	54.0	19.4	5.0	65.2	645.2
1943	30.4	79.7	49.3	41.0	69.9	21.8	120.0	38.2	34.4	0.4	41.4	1.6	528.1
1944	69.6	42.7	72.0	154.3	70.5	129.1	84.6	75.8	50.1	0.8	0.0	35.7	785.2
1945	43.7	91.2	25.9	119.8	217.7	116.1	61.9	32.3	18.6	39.0	0.0	35.8	802.1
1946	77.9	11.9	84.9	182.8	83.1	110.4	76.5	40.1	36.7	7.3	50.7	31.9	794.2
1947	25.8	43.3	380.9	144.9	74.7	70.3	52.3	58.2	18.9	18.9	130.4	7.0	1025.3
1948	20.5	3.1	300.3	43.4	130.1	152.2	225.4	38.5	39.7	31.1	9.8	13.8	1007.6
1949	5.7	60.7	16.3	108.7	119.6	68.8	24.1	107.6	20.6	1.9	198.4	6.5	738.8
1950	32.0	31.1	91.2	172.2	52.7	37.3	48.6	43.8	35.5	39.0	6.6	21.6	611.5
1951	14.3	34.5	12.6	87.9	85.8	121.9	53.6	35.3	9.6	8.5	12.0	69.9	546.0
1952	2.4	7.4	119.4	62.3	45.0	100.1	71.1	32.2	11.6	10.8	7.1	59.1	528.7
1953	9.0	0.0	24.8	79.1	40.6	91.7	50.4	17.6	11.5	0.0	55.9	5.3	385.9
1954	29.9	24.7	82.6	131.3	146.6	60.9	52.7	27.9	13.6	6.6	0.9	3.9	581.5
1955	84.5	120.2	141.3	47.6	118.3	32.0	27.1	18.0	29.4	20.2	25.2	36.8	700.6
1956	23.7	97.4	38.9	129.6	56.9	40.0	76.9	86.8	35.9	8.1	10.7	10.7	615.7
1957	55.9	3.7	218.9	119.0	74.4	59.6	34.1	2.4	18.2	5.0	14.9	32.7	638.6
1958	8.8	64.5	46.8	50.5	94.1	153.3	84.3	40.7	41.1	1.2	5.9	69.7	660.8
1959	27.3	70.4	11.1	42.1	10.7	111.3	47.3	87.9	10.3	0.6	5.5	0.0	424.5
1960	26.6	30.4	340.9	148.2	87.7	84.2	35.2	36.0	3.7	15.6	1.6	7.4	817.6
1961	91.8	26.9	254.1	140.7	151.1	65.6	93.7	33.6	4.9	22.3	5.7	0.0	890.3
1962	24.3	43.9	132.4	175.7	58.4	72.4	0.2	37.4	34.9	1.0	0.0	24.3	605.0
1963	57.5	128.1	97.2	83.6	57.6	86.8	55.6	18.4	6.7	0.0	15.4	146.7	753.5
1964	189.0	82.3	188.6	85.2	88.2	85.9	80.1	105.9	51.5	3.1	10.4	35.3	1005.3
1965	107.1	12.6	192.5	122.7	53.3	138.6	23.2	26.6	9.8	36.4	19.6	14.6	757.0
1966	66.1	96.7	27.3	284.8	81.2	225.4	281.4	54.7	64.8	11.8	151.1	5.4	1350.6
1967	21.0	150.4	355.7	292.1	157.0	55.4	74.8	94.9	49.4	28.4	0.0	14.1	1293.2
1968	116.9	17.3	196.7	80.4	97.7	67.2	84.8	27.2	48.0	0.0	0.0	0.0	736.3
1969	75.9	61.5	265.9	98.0	77.2	85.1	113.6	20.8	6.1	10.2	0.0	12.8	827.2
1970	104.4	30.1	192.3	36.4	41.5	68.0	118.5	30.6	2.0	20.3	0.0	0.0	644.1
1971	47.2	27.5	120.2	214.5	26.7	44.5	112.0	31.9	26.7	21.9	2.9	1.9	677.9

1972	40.9	106.5	34.8	111.4	94.0	102.6	26.5	81.3	22.3	7.5	0.0	28.6	656.4
1973	64.7	91.0	118.6	118.1	34.2	54.2	49.0	15.2	13.5	29.0	3.3	14.3	605.0
1974	185.9	109.3	267.4	172.9	40.5	90.9	89.3	23.1	14.6	0.0	65.2	23.9	1083.0
1975	23.1	97.3	134.2	106.2	130.2	61.4	171.5	34.8	81.1	8.2	2.5	79.4	930.0
1976	6.1	99.0	143.8	107.2	66.5	4.7	37.1	7.7	0.0	50.0	31.3	43.5	596.7
1977	132.6	48.4	83.5	133.1	110.9	160.0	160.6	10.6	0.0	0.0	0.0	18.4	858.1
1978	8.1	109.4	363.5	134.0	58.9	97.2	55.9	7.9	43.2	0.0	24.8	23.8	926.7
1979	4.5	11.9	103.4	51.3	131.0	36.0	58.3	4.9	20.9	0.0	16.6	0.0	438.8
1980	14.4	142.1	113.1	37.1	0.0	151.6	15.0	0.0	0.0	20.5	7.8	8.8	510.4
1981	33.9	9.7	542.1	60.9	7.1	7.1	28.2	0.0	0.0	0.0	35.0	0.0	724.1
1982	27.1	51.2	0.0	130.1	152.8	50.1	79.5	15.7	19.2	0.0	0.0	31.8	557.5
1983	46.4	105.8	124.9	36.0	41.3	67.6	8.4	37.7	0.0	6.2	12.4	0.0	486.7
1984	86.3	15.7	55.2	428.3	73.6	36.8	105.3	44.4	40.9	0.0	14.6	0.0	901.2
1985	75.0	172.2	339.4	319.1	28.0	150.5	100.7	40.7	0.0	0.0	0.0	0.0	1225.7
1986	30.8	295.5	154.0	179.5	46.5	110.0	123.0	75.5	58.5	0.0	60.9	21.0	1155.2
1987	70.5	13.0	97.2	93.5	33.5	114.0	83.6	36.8	0.0	0.0	0.0	0.0	542.1
1988	28.8	26.6	166.6	178.3	24.5	118.1	150.0	16.0	25.5	0.0	0.0	50.4	784.8
1989	36.1	0.0	93.8	164.5	172.9	107.7	110.9	54.2	3.4	23.0	21.0	56.1	843.6
1990	7.7	83.8	0.0	70.0	67.5	77.0	88.5	5.0	11.0	0.0	0.0	0.0	410.5
1991	0.0	58.3	218.0	0.0	73.0	46.7	94.8	64.2	0.0	42.6	0.0	0.0	597.6
1992	170.2	181.0	153.5	85.4	22.2	73.5	90.0	30.9	74.6	0.0	0.0	0.0	881.3
MÉDIA	52.1	66.4	147.8	125.0	79.3	85.0	77.7	38.8	23.5	12.2	21.1	21.9	750.7

Dados de Pluviometria Homogeneizados (mm)

Posto: SÃO CAETANO

Número: 3867672

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	66.8	101.6	63.3	93.8	95.6	196.8	51.5	28.7	6.3	0.0	12.1	0.0	716.4
1936	16.9	165.1	39.2	7.3	105.6	137.9	37.0	30.6	2.5	5.6	0.0	1.5	549.1
1937	0.7	40.5	4.4	131.7	123.8	96.9	108.2	11.7	1.7	0.6	1.7	1.9	523.7
1938	26.2	22.4	27.1	95.7	41.8	28.8	42.8	47.0	60.9	16.7	1.7	1.0	412.0
1939	41.7	2.5	94.6	39.9	56.7	5.3	22.7	17.8	0.7	78.1	16.1	12.3	388.5
1940	49.5	16.1	67.6	121.1	217.7	7.8	9.6	13.1	40.8	5.8	1.8	0.0	550.9
1941	7.8	3.6	159.2	25.8	42.8	19.4	18.0	24.9	4.7	4.0	80.2	7.1	397.5
1942	0.3	62.1	7.7	111.9	72.8	19.1	14.7	28.5	22.2	1.0	2.8	58.0	401.1
1943	52.9	3.6	61.3	15.2	71.2	39.3	102.2	58.0	24.7	3.0	56.6	10.2	498.4
1944	134.6	39.8	25.0	126.0	131.3	95.3	106.6	7.3	5.6	0.6	0.2	0.7	673.1
1945	5.4	20.1	16.9	98.9	170.4	118.9	27.0	14.6	6.3	2.0	5.5	4.7	490.8
1946	24.0	20.3	58.8	96.0	38.8	68.9	24.0	12.5	6.4	2.5	2.5	50.0	404.8
1947	4.1	76.5	132.0	127.3	29.4	31.2	30.8	29.9	1.6	5.2	32.2	6.6	506.8
1948	18.2	24.9	126.9	62.4	51.7	111.1	14.0	22.9	18.6	24.5	5.5	8.7	489.5
1949	2.7	9.4	1.2	12.7	26.8	21.7	13.5	33.2	5.7	1.2	247.8	10.9	386.9
1950	1.2	0.8	39.5	67.8	44.0	52.2	8.8	28.2	9.3	10.5	13.6	25.9	301.8
1951	5.0	3.8	2.2	12.2	20.8	399.7	16.7	8.9	2.7	4.5	2.2	6.7	485.5
1952	8.3	3.0	27.4	23.8	21.2	55.7	48.3	14.3	9.6	8.7	14.6	13.9	248.9
1953	1.9	1.9	1.8	35.1	51.8	145.9	58.7	15.0	14.1	4.0	34.9	7.2	372.4
1954	24.5	0.0	0.0	0.0	186.3	114.9	24.7	9.4	3.7	0.0	0.8	1.5	366.0
1955	96.2	62.9	80.7	7.8	25.8	14.2	31.6	16.9	12.0	5.5	6.1	37.6	397.2
1956	28.5	75.6	41.0	28.9	0.6	25.7	110.3	91.7	2.8	0.6	3.5	0.6	409.6
1957	3.3	0.0	92.3	119.1	47.1	30.0	22.4	11.1	3.2	7.0	0.2	2.3	338.1
1958	0.0	101.2	30.5	18.2	69.2	19.6	120.1	45.5	45.9	8.9	0.8	0.3	460.1
1959	2.2	54.4	32.1	4.7	18.2	119.6	46.3	21.1	6.2	2.2	2.3	0.4	309.8
1960	2.1	22.5	65.9	29.3	67.3	178.8	50.0	5.6	19.5	3.0	10.6	16.0	470.6
1961	203.1	4.4	56.7	55.1	62.0	50.7	76.9	19.3	10.3	4.9	0.5	0.6	544.6
1962	0.0	28.5	17.3	9.2	84.2	88.0	110.4	9.2	7.3	1.1	0.0	9.3	364.5
1963	103.0	67.3	120.0	35.7	56.8	90.1	0.0	10.5	0.0	0.0	14.5	73.1	571.0
1964	164.8	171.1	65.0	187.7	14.9	50.8	31.2	61.3	49.8	21.0	0.0	18.3	836.0
1965	38.3	0.0	16.3	130.0	44.6	92.4	34.2	22.9	21.8	3.1	8.6	9.7	421.9
1966	34.3	97.7	31.4	151.6	65.3	105.1	140.4	17.5	28.7	4.4	18.0	38.6	733.0
1967	15.0	21.9	81.7	83.5	63.1	33.1	37.6	35.7	15.3	14.6	0.3	51.4	453.2
1968	21.9	21.1	39.5	73.0	67.5	17.2	49.4	20.9	10.3	1.4	5.4	26.9	354.5
1969	66.4	70.5	119.0	71.5	45.2	98.2	115.7	11.3	14.5	9.8	8.9	5.2	636.2
1970	21.9	18.8	153.7	33.1	9.7	43.2	123.5	34.4	4.0	0.3	1.1	0.0	443.7
1971	0.0	0.5	6.8	77.7	39.1	46.9	62.0	35.8	67.9	9.2	1.9	0.4	348.2

1972	18.4	28.0	109.0	47.7	58.0	84.4	20.0	41.1	13.0	1.5	0.0	44.5	465.6
1973	40.7	4.4	121.4	100.8	18.0	38.2	45.7	11.3	10.8	28.5	4.2	42.9	466.9
1974	52.2	45.2	97.7	221.5	46.4	30.3	63.9	11.7	9.0	0.0	6.1	102.5	686.5
1975	27.0	47.8	140.1	117.3	92.5	33.7	152.7	9.5	17.0	0.0	4.2	46.9	688.7
1976	0.0	79.9	64.8	41.0	32.1	25.5	21.9	25.2	0.0	52.3	25.6	30.6	398.9
1977	161.8	21.2	41.7	32.6	80.6	147.6	68.7	0.4	19.8	1.9	0.0	0.4	576.7
1978	0.0	25.2	128.9	57.9	76.0	63.6	53.0	15.1	24.3	0.0	6.3	0.2	450.5
1979	49.6	7.7	36.8	42.6	46.4	40.2	49.4	4.0	48.5	3.8	17.0	8.3	354.3
1980	13.6	102.4	64.0	21.3	10.5	82.3	11.5	4.8	0.0	22.7	1.3	12.9	347.3
1981	17.6	19.8	346.1	12.0	12.2	32.3	26.9	14.8	8.4	0.5	21.0	12.6	524.2
1982	15.4	5.3	36.0	23.7	117.6	100.2	54.6	33.5	0.0	0.0	0.0	19.8	406.1
1983	85.5	208.9	69.3	4.3	38.3	34.5	19.4	21.3	5.0	15.6	0.0	2.1	504.2
1984	5.3	0.3	25.6	94.0	61.1	31.6	76.3	6.4	0.0	18.8	1.2	0.0	320.6
1985	32.2	93.3	154.9	170.5	26.0	93.5	58.3	59.0	12.3	0.0	5.1	3.7	708.8
1986	2.4	37.1	137.7	132.6	72.9	49.0	55.4	34.9	19.6	4.8	50.1	7.8	604.3
1987	4.7	74.7	104.7	110.0	14.5	62.5	74.0	16.5	11.0	0.1	4.0	2.0	478.7
1988	9.0	25.5	155.9	102.5	62.0	91.0	137.0	54.0	50.5	8.0	7.0	11.0	713.4
1989	4.0	0.0	5.0	40.5	110.5	67.5	170.0	30.5	1.0	15.0	36.5	123.0	603.5
1990	11.4	12.0	0.0	50.5	65.8	60.0	86.5	17.5	20.0	13.0	0.0	0.0	336.7
1991	4.0	0.0	56.8	137.2	69.0	51.0	36.5	95.5	4.9	0.0	0.0	0.0	454.9
1992	39.0	104.0	99.0	108.0	22.0	49.0	94.5	18.0	31.9	0.0	0.0	0.0	565.4
MÉDIA	32.5	41.0	69.0	70.5	60.6	71.3	57.2	25.0	15.1	8.0	13.9	17.1	481.2

Dados de Pluviometria Homogeneizados (mm)

Posto: St. BARRIGUDA

Número: 3868227

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	22.1	73.0	110.9	156.5	66.3	221.0	119.4	73.9	5.6	2.4	11.9	4.2	867.2
1936	4.9	123.6	35.9	12.8	108.1	237.0	94.8	35.7	4.4	7.0	0.2	2.4	666.8
1937	1.6	22.6	28.4	123.4	107.3	120.4	78.0	27.0	7.7	7.8	6.8	16.8	547.8
1938	29.6	14.3	55.7	90.3	78.6	65.2	23.4	74.8	38.7	18.7	12.3	5.0	506.6
1939	11.1	12.2	75.7	30.7	102.0	24.6	91.1	48.4	10.3	58.0	38.8	13.5	516.4
1940	63.5	41.9	90.9	88.5	259.4	76.2	59.6	35.6	42.6	7.4	1.2	25.6	792.4
1941	3.2	18.3	175.2	103.4	52.8	54.7	82.8	44.8	8.3	11.2	25.4	20.8	600.9
1942	3.6	30.3	38.2	104.7	121.9	82.1	53.1	44.1	17.2	18.9	9.1	35.1	558.3
1943	68.3	71.1	70.2	28.0	63.0	49.3	93.1	63.3	37.7	4.1	24.6	68.3	641.0
1944	44.3	14.1	27.6	111.0	114.4	116.7	110.4	115.8	38.8	9.9	7.1	5.7	715.8
1945	40.7	52.0	17.6	34.2	217.1	136.2	81.6	31.1	26.7	23.2	4.1	6.7	671.2
1946	37.1	14.2	47.2	94.6	66.3	105.2	57.8	39.5	16.7	1.3	0.7	44.1	524.7
1947	16.1	26.0	118.7	240.4	208.9	58.7	49.7	25.8	29.2	7.6	55.0	25.5	861.6
1948	14.1	12.4	110.3	38.3	134.0	159.3	169.2	37.6	39.8	41.6	13.9	14.3	784.8
1949	7.3	23.3	8.1	61.6	166.9	89.3	49.3	42.5	19.6	3.2	128.0	1.9	601.0
1950	10.9	12.2	37.1	124.2	90.3	27.2	57.3	39.6	18.3	10.5	10.0	25.1	462.7
1951	6.2	8.1	18.8	32.1	109.0	385.8	59.4	19.7	11.4	9.1	11.1	50.2	720.9
1952	5.3	3.5	31.4	11.4	45.8	80.3	21.3	42.8	15.6	2.6	4.5	15.8	280.3
1953	1.1	8.3	29.8	85.4	111.6	172.4	81.3	43.0	10.7	2.7	68.6	8.0	622.9
1954	9.3	16.0	25.5	80.9	207.2	50.9	34.9	13.9	7.4	1.0	28.0	6.2	481.2
1955	17.3	41.1	71.1	45.3	90.4	23.5	44.1	34.2	17.6	18.5	5.5	27.4	436.0
1956	5.5	54.8	37.2	58.7	70.7	43.1	61.5	60.8	21.3	9.3	11.7	5.4	440.0
1957	8.6	0.0	114.5	165.1	48.7	24.5	26.0	8.1	5.3	9.4	0.3	4.2	414.7
1958	0.0	30.7	12.0	8.1	84.9	16.2	88.0	24.2	16.7	11.1	0.0	0.0	291.9
1959	0.4	51.5	18.4	30.9	62.2	133.0	33.7	37.2	15.7	1.3	1.2	0.1	385.6
1960	7.2	10.1	318.1	52.7	44.5	99.9	94.7	5.6	14.3	8.0	0.0	7.0	662.1
1961	298.2	4.7	177.1	37.8	130.7	54.1	91.5	34.0	35.8	0.0	0.0	0.0	863.9
1962	0.0	24.0	22.4	10.2	89.0	83.3	125.0	0.2	0.0	3.1	0.0	17.8	375.0
1963	35.4	5.5	82.5	24.2	22.7	49.9	4.8	2.8	6.3	0.0	9.5	143.0	386.6
1964	62.8	64.7	225.0	108.2	77.8	101.1	73.1	61.9	42.9	17.4	3.0	7.6	845.5
1965	18.1	0.0	29.9	153.4	42.8	188.3	19.7	12.8	12.9	0.0	0.0	12.0	489.9
1966	72.6	72.3	28.8	102.8	81.4	174.4	93.8	14.2	9.2	0.0	28.6	0.0	678.1
1967	20.1	0.0	45.1	121.8	94.4	54.0	76.1	24.6	13.1	8.4	0.0	80.4	538.0
1968	43.6	0.0	41.2	38.6	20.3	0.0	22.4	13.2	0.0	0.0	0.0	0.0	179.3
1969	47.8	28.8	173.3	45.6	90.2	98.7	147.6	21.4	7.2	0.0	18.4	0.0	679.0
1970	0.0	16.4	85.5	47.3	11.0	66.5	168.2	31.6	1.2	0.0	0.0	0.0	427.7
1971	4.3	0.0	18.4	18.6	89.5	49.3	42.0	36.9	20.2	13.3	2.2	0.0	294.7

1972	10.9	37.6	71.4	20.0	47.0	79.2	22.0	65.9	16.3	9.0	0.0	60.2	439.5
1973	36.6	36.6	16.2	136.8	26.8	36.7	62.6	20.0	40.2	59.8	3.6	4.6	480.5
1974	30.0	71.8	67.2	180.8	23.6	44.9	84.5	24.6	25.2	0.0	0.8	47.0	600.4
1975	2.6	0.7	162.6	225.8	210.6	137.6	594.4	12.4	68.8	0.0	0.0	52.8	1468.3
1976	18.8	83.0	227.5	63.2	32.4	27.0	38.0	3.0	28.8	63.8	25.4	18.0	628.9
1977	78.3	12.4	26.8	134.7	138.1	117.8	95.0	13.7	90.2	0.0	0.0	7.6	714.6
1978	0.0	53.9	122.8	99.1	101.5	116.8	102.4	19.8	34.4	0.0	2.3	14.4	667.4
1979	59.8	71.0	48.8	121.3	45.6	49.3	21.0	2.2	16.8	2.2	0.0	6.5	444.5
1980	7.4	74.5	67.8	20.1	24.2	82.3	9.5	13.2	8.1	14.6	3.0	10.0	334.7
1981	44.6	19.1	306.0	19.0	20.2	18.7	12.4	6.4	7.6	0.0	25.4	35.3	514.7
1982	13.6	45.0	23.0	49.0	61.0	143.0	36.5	30.5	14.8	0.8	0.6	21.4	439.2
1983	9.8	110.0	43.2	25.5	56.0	38.2	21.2	55.8	2.9	19.4	3.2	1.2	386.4
1984	17.0	2.2	109.8	162.4	152.2	40.6	88.4	58.6	25.2	30.8	4.0	0.0	691.2
1985	15.2	141.8	186.4	260.4	58.6	60.6	51.8	58.2	15.8	1.2	6.6	3.8	860.4
1986	40.4	41.6	87.4	137.0	85.0	55.4	71.0	42.0	18.8	7.8	15.0	28.2	629.6
1987	11.8	35.0	49.6	60.0	4.8	48.8	33.0	11.6	6.4	2.8	0.0	0.0	263.8
1988	3.6	22.0	146.6	89.5	19.4	65.1	98.2	2.2	2.2	7.8	21.4	28.2	506.2
1989	7.4	0.0	29.4	103.6	127.0	77.0	85.8	48.0	1.0	15.6	15.2	31.6	541.6
1990	8.2	85.6	3.2	55.4	48.0	45.6	74.8	31.4	0.0	6.4	0.0	6.4	365.0
1991	3.4	0.0	67.4	37.6	90.3	18.7	31.2	58.1	4.5	1.5	1.4	0.2	314.3
1992	84.8	40.6	101.4	83.8	18.3	31.8	59.0	18.3	56.2	0.0	2.9	0.0	497.1
MÉDIA	26.7	34.2	79.6	82.9	85.7	84.6	75.4	33.1	19.5	10.2	11.6	18.6	562.1

Dados de Pluviometria Homogeneizados (mm)

Posto: Sta. CRUZ DO CAPIBARIBE

Número: 3857961

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	46.0	60.1	97.3	125.5	67.0	200.0	95.5	40.3	2.8	1.2	8.7	0.0	744.4
1936	19.9	132.9	15.3	6.3	56.6	165.3	58.1	15.0	1.1	2.6	0.0	1.8	474.9
1937	0.6	16.9	37.9	100.6	87.7	105.0	66.2	14.7	0.9	3.3	3.9	7.0	444.7
1938	18.3	10.2	52.7	88.0	52.3	44.2	23.1	44.3	26.9	12.7	5.8	9.3	387.8
1939	18.5	7.1	83.6	19.2	34.7	21.6	29.9	26.2	5.2	121.4	21.8	11.6	400.8
1940	40.9	86.5	95.2	118.0	171.6	51.5	33.6	13.8	14.8	5.3	1.2	6.7	639.1
1941	2.1	4.8	183.9	48.6	29.9	35.2	45.9	16.8	1.5	4.8	25.3	8.3	406.9
1942	0.6	23.5	17.4	91.2	50.3	63.3	25.8	16.7	14.5	13.9	12.0	38.0	367.2
1943	39.2	35.7	43.0	13.5	48.2	45.4	57.2	35.4	10.0	4.0	18.3	44.5	394.3
1944	64.6	10.7	39.9	101.6	83.3	115.2	89.3	54.5	3.8	1.0	0.8	0.9	565.6
1945	36.8	70.4	15.4	26.6	146.3	107.0	55.6	5.9	3.1	12.1	3.3	28.4	510.9
1946	18.2	8.7	23.2	63.1	34.2	128.3	47.2	25.6	1.8	1.5	1.8	30.5	384.0
1947	4.7	36.3	192.7	327.1	110.9	41.2	33.9	11.5	0.5	2.9	50.3	27.0	839.1
1948	7.9	3.4	147.5	92.9	103.0	144.6	197.1	22.0	5.2	39.6	4.4	5.4	772.8
1949	0.6	18.6	2.0	26.1	88.1	68.7	39.5	19.8	1.4	0.2	156.8	0.9	422.6
1950	0.3	5.4	57.5	105.1	53.5	32.4	50.2	16.9	2.4	16.8	8.6	9.8	359.0
1951	1.2	9.1	17.3	38.4	34.7	303.5	15.4	7.9	1.4	3.5	6.2	9.3	447.8
1952	2.1	0.5	44.8	15.2	19.3	91.4	17.2	14.3	4.0	1.9	4.4	20.6	235.8
1953	0.4	0.3	17.0	45.8	36.1	139.0	46.8	13.0	3.3	0.7	35.1	8.0	345.5
1954	19.6	1.5	9.9	37.9	109.5	51.7	20.7	6.0	1.3	0.0	1.0	0.2	259.2
1955	68.0	57.8	79.9	26.0	44.3	14.3	21.9	14.1	5.4	13.1	5.9	13.7	364.5
1956	11.9	32.7	40.3	42.4	25.2	21.7	38.6	50.2	1.2	0.2	14.7	0.1	279.2
1957	2.2	0.0	94.3	82.3	37.5	30.4	18.3	5.2	1.7	2.7	0.1	1.5	276.3
1958	0.0	23.9	18.4	8.4	37.0	12.8	52.0	17.1	19.2	2.7	0.4	0.1	192.0
1959	1.0	83.3	17.1	1.8	14.1	85.8	29.3	10.6	3.0	1.8	1.1	1.6	250.4
1960	0.9	24.7	332.3	22.8	48.7	104.7	13.5	2.4	7.8	1.4	0.0	0.0	559.1
1961	159.2	80.7	123.8	26.4	53.9	36.8	42.7	10.6	10.3	6.6	0.6	0.2	551.9
1962	27.3	17.3	56.4	24.0	57.9	78.3	38.3	8.8	2.8	1.6	0.0	2.6	315.3
1963	63.6	26.5	53.0	34.0	37.2	35.2	6.0	3.5	7.3	0.0	0.0	92.4	358.5
1964	36.9	108.1	95.2	44.9	106.9	85.1	67.7	33.5	24.2	0.0	0.0	0.0	602.4
1965	0.0	46.5	105.8	69.8	131.1	103.6	0.0	0.0	0.0	0.0	0.0	0.0	456.9
1966	127.5	96.2	16.8	135.9	35.7	202.5	104.3	58.9	7.2	0.0	30.1	82.3	897.4
1967	0.0	0.0	71.4	156.7	175.7	91.6	69.7	198.3	31.1	0.0	0.0	51.3	845.8
1968	35.1	53.5	218.6	62.1	52.7	47.9	15.7	13.6	9.0	1.7	3.1	13.4	526.6
1969	32.3	22.2	192.9	42.1	40.1	81.5	55.4	16.5	6.2	0.0	1.3	2.1	492.6
1970	7.5	9.8	115.1	17.7	40.1	46.0	81.7	29.1	0.0	0.0	0.0	0.0	347.0
1971	2.8	7.7	18.3	77.5	71.5	58.0	77.2	28.5	0.0	0.0	0.0	0.0	341.6

1972	0.0	59.2	9.5	10.8	56.8	71.0	52.3	86.3	22.1	0.0	0.0	21.2	389.3
1973	14.5	0.0	31.2	99.4	81.7	62.7	49.2	0.0	0.0	0.0	0.0	0.0	338.7
1974	48.5	52.9	51.4	124.6	106.9	102.0	49.9	0.0	0.0	0.1	0.0	25.9	562.2
1975	43.0	60.0	68.1	80.0	46.4	41.7	170.2	15.8	15.8	0.0	0.0	0.0	541.0
1976	36.8	63.5	102.0	38.3	56.4	0.0	0.0	30.2	0.0	53.2	0.0	0.0	380.4
1977	45.0	45.0	30.2	249.2	102.0	64.4	71.3	14.2	26.2	2.5	0.0	0.0	650.0
1978	0.0	90.9	151.4	90.0	238.7	0.0	31.8	0.0	0.0	0.0	0.0	0.0	602.9
1979	5.0	0.0	16.5	6.0	124.7	27.4	8.0	0.0	41.4	0.0	46.1	0.0	275.1
1980	1.5	86.0	66.3	0.0	16.1	51.2	11.4	13.1	0.0	4.4	2.5	11.2	263.9
1981	52.2	6.4	280.5	28.9	0.0	0.0	14.6	9.1	9.8	0.0	0.0	42.6	444.0
1982	0.0	36.9	10.7	42.2	151.0	51.5	42.6	10.7	0.0	0.0	0.0	10.7	356.1
1983	29.5	47.2	58.9	21.2	71.9	7.1	10.6	23.6	0.0	9.4	0.0	0.0	279.4
1984	0.0	0.0	23.1	107.1	146.5	18.1	130.4	92.3	32.1	5.0	0.0	0.0	554.5
1985	0.0	236.8	193.9	275.7	0.0	4.8	27.8	11.4	0.0	0.0	0.0	0.0	750.5
1986	0.0	16.0	110.7	324.7	22.1	19.7	34.4	22.1	11.1	0.0	25.8	0.0	586.7
1987	0.0	93.5	33.2	38.1	9.8	68.9	22.8	17.8	7.4	6.1	0.0	0.0	297.6
1988	0.0	20.0	150.5	103.4	28.6	45.4	61.8	9.7	2.9	0.2	6.9	25.2	454.6
1989	5.8	1.8	64.1	121.3	109.5	62.9	74.7	16.8	1.3	1.5	14.9	74.8	549.4
1990	7.7	44.5	2.1	49.8	46.3	53.4	62.7	10.2	16.1	3.3	0.9	4.0	301.0
1991	6.1	23.1	102.5	63.5	96.0	33.5	24.8	40.7	2.7	0.6	2.1	0.0	395.6
1992	102.0	74.1	101.6	77.7	17.2	35.6	56.3	8.6	21.2	0.0	2.3	0.0	496.6
MÉDIA	22.7	39.5	77.6	74.4	68.2	67.4	48.1	23.3	7.8	6.3	9.1	12.8	457.4

Dados de Pluviometria Homogeneizados (mm)
 Posto: Sta. MARIA DA PARAÍBA
 Número: 3866066

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	78.9	112.9	219.2	198.0	84.1	103.3	91.7	72.7	8.1	2.0	19.1	0.0	990.0
1936	45.0	100.9	37.6	28.8	102.4	198.2	46.1	20.8	8.6	15.1	16.4	2.9	622.8
1937	20.4	37.8	89.9	210.9	85.1	95.6	89.6	39.5	9.0	55.4	1.7	2.4	737.3
1938	70.8	27.0	44.6	108.8	46.7	65.2	26.5	59.7	19.2	7.3	20.4	39.2	535.4
1939	148.2	37.2	234.7	33.9	104.5	22.4	99.0	58.2	37.6	77.1	46.8	28.3	927.9
1940	153.6	185.4	299.3	193.9	210.8	29.6	15.6	42.9	64.5	0.2	15.7	17.7	1229.2
1941	1.0	34.0	317.8	160.8	61.5	42.6	76.3	25.7	0.0	21.4	17.5	14.0	772.6
1942	2.1	6.0	11.4	179.1	89.6	121.4	105.9	51.3	60.9	7.6	5.9	76.9	718.1
1943	12.6	85.0	54.8	44.0	89.1	23.4	128.1	40.8	36.7	0.4	44.2	1.7	560.8
1944	81.0	49.6	65.1	164.3	67.2	139.5	90.1	85.7	53.3	0.8	0.0	39.1	835.7
1945	44.3	88.9	23.0	124.2	234.0	121.7	65.0	37.3	19.5	40.9	0.0	36.6	835.4
1946	63.2	13.5	86.0	206.8	94.0	124.9	86.5	45.3	41.5	8.3	63.0	36.8	869.8
1947	32.7	34.5	381.2	146.0	72.0	73.1	52.7	58.5	19.0	19.0	130.3	7.0	1026.0
1948	19.9	3.0	292.0	42.2	126.5	148.0	219.2	37.4	38.6	30.2	9.0	13.4	979.4
1949	5.0	70.7	16.4	117.1	134.6	74.1	26.0	115.9	22.2	3.0	207.3	7.3	799.6
1950	14.2	26.5	88.5	183.1	53.5	40.5	52.1	45.9	35.7	24.7	7.1	23.0	594.8
1951	9.0	28.4	12.9	89.1	94.4	119.0	54.3	37.0	8.3	13.9	11.0	70.9	548.2
1952	2.0	8.2	131.4	67.8	49.8	110.8	78.7	35.6	12.8	12.0	7.9	65.4	582.4
1953	10.1	0.0	22.9	88.7	45.6	102.9	56.5	19.7	8.6	0.0	62.7	6.0	423.7
1954	29.2	24.1	80.6	127.9	163.2	61.8	51.5	29.7	9.9	5.6	0.7	4.0	588.2
1955	99.4	113.5	113.9	46.5	116.3	37.2	27.1	17.9	20.9	41.5	22.6	37.9	694.7
1956	30.8	83.7	37.3	140.7	67.5	43.7	83.0	102.9	28.4	20.7	11.4	11.9	662.0
1957	35.3	2.9	219.5	118.3	75.6	63.5	34.0	1.7	13.4	6.5	13.4	32.3	616.4
1958	3.5	71.4	50.5	58.6	118.0	153.2	99.7	52.7	41.3	3.4	6.4	78.9	737.6
1959	16.0	79.7	9.4	38.0	11.6	102.2	43.0	82.4	9.0	1.2	4.4	0.0	396.9
1960	24.7	29.0	286.5	130.4	81.2	69.0	30.9	33.0	2.7	30.0	1.3	6.8	725.5
1961	84.3	27.6	240.3	122.8	145.3	70.1	83.1	31.5	2.9	31.0	4.4	0.0	843.3
1962	22.9	39.5	118.5	177.5	59.0	73.1	1.0	33.3	11.0	0.5	6.7	11.6	554.6
1963	134.4	56.3	190.2	78.2	57.9	76.7	31.4	13.1	10.5	1.2	2.2	141.9	794.0
1964	54.6	97.0	204.7	158.0	59.0	76.6	65.9	38.6	57.0	8.5	3.1	33.8	856.8
1965	71.8	0.4	88.6	255.4	67.0	195.7	11.6	59.7	18.8	36.4	0.0	31.3	836.7
1966	104.6	94.1	21.7	172.0	106.5	139.8	209.3	25.9	27.2	5.2	72.7	42.2	1021.2
1967	25.5	207.6	184.5	256.0	58.0	28.2	42.5	43.7	14.0	10.0	0.0	47.2	917.2
1968	29.1	35.2	127.8	100.8	146.0	49.3	63.1	0.0	15.0	3.7	27.1	2.5	599.6
1969	21.4	161.6	190.6	74.7	49.6	100.3	126.5	13.2	3.5	18.2	0.0	0.0	759.6
1970	65.2	55.7	150.0	62.0	38.1	67.8	138.8	48.6	0.0	19.2	0.0	0.0	645.4
1971	15.2	18.2	113.6	263.0	73.0	66.6	121.8	50.6	12.2	24.8	5.6	3.6	768.2

1972	0.0	137.2	75.0	112.8	93.8	100.4	32.5	109.0	9.4	0.0	0.0	70.2	740.3
1973	15.0	37.3	47.3	87.7	29.8	46.8	56.5	8.6	43.6	15.8	7.2	13.7	409.3
1974	221.5	110.4	330.6	255.4	52.4	81.8	76.6	40.0	15.8	0.0	42.2	72.6	1299.3
1975	16.2	43.7	122.0	91.4	58.2	56.4	174.4	14.8	36.0	0.0	0.0	136.6	749.7
1976	0.0	149.2	124.2	118.6	35.2	30.8	22.6	19.4	14.2	26.6	0.0	16.4	557.2
1977	130.7	47.1	53.8	130.2	129.6	131.2	189.2	14.2	17.4	84.8	0.0	16.4	944.6
1978	0.0	104.4	239.2	106.0	97.0	111.0	101.0	26.0	87.0	17.0	0.0	13.0	901.6
1979	55.0	33.0	60.0	63.0	104.0	35.0	73.0	0.0	39.0	0.0	27.0	0.0	489.0
1980	34.0	145.0	205.0	29.0	20.0	117.0	27.0	3.0	0.0	28.0	11.0	0.0	619.0
1981	101.0	8.0	304.0	51.0	39.0	19.0	19.0	13.0	11.0	0.0	29.0	39.0	633.0
1982	0.0	75.0	0.0	80.8	154.0	92.0	67.0	71.0	26.0	0.0	0.0	22.0	587.8
1983	21.0	75.0	68.0	48.0	64.0	42.0	36.0	41.0	0.0	0.0	0.0	0.0	395.0
1984	0.0	0.0	74.0	393.0	160.0	45.0	97.0	101.0	34.0	0.0	0.0	0.0	904.0
1985	68.0	296.0	160.0	294.0	45.0	75.0	94.0	76.0	0.0	0.0	2.9	65.0	1175.9
1986	0.0	219.2	311.0	126.0	90.0	56.0	72.0	72.0	34.0	13.0	23.0	6.0	1022.2
1987	5.0	13.0	195.0	81.0	9.0	144.0	100.0	38.0	0.0	0.0	0.0	0.0	585.0
1988	21.0	36.0	171.0	185.0	20.0	64.0	117.2	0.0	34.0	0.0	0.0	5.3	653.5
1989	0.0	0.0	71.0	151.0	132.0	83.8	123.0	24.0	0.0	32.0	0.0	55.0	671.8
1990	7.1	62.0	0.0	41.0	0.0	27.0	63.0	0.0	0.0	13.3	0.9	0.0	214.3
1991	0.0	28.0	195.8	0.0	61.0	51.0	59.0	74.8	0.0	0.0	0.0	0.0	469.6
1992	125.5	112.5	102.8	72.7	10.2	53.8	68.4	26.3	40.6	0.0	0.8	0.0	613.6
MÉDIA	43.2	66.9	133.9	125.6	81.8	80.9	75.7	41.0	21.4	14.4	17.4	26.0	728.3

Dados de Pluviometria Homogeneizados (mm)

Posto: SURUBIM

Número: 3858653

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	4.5	127.8	228.0	195.3	43.4	191.4	114.4	62.3	1.6	0.8	17.4	3.9	990.8
1936	10.0	122.7	28.2	5.2	131.9	244.8	100.3	41.1	7.1	8.2	0.6	0.0	700.1
1937	1.4	16.9	56.5	124.1	162.9	100.4	85.9	24.4	6.2	10.1	8.9	16.4	614.1
1938	32.5	7.5	47.5	60.9	56.6	77.2	27.6	75.2	31.0	32.9	14.4	1.8	465.1
1939	0.7	19.5	90.7	38.7	121.4	38.5	79.4	59.1	10.9	46.3	28.4	18.9	552.5
1940	78.5	45.0	70.3	77.2	290.5	132.6	58.4	39.7	36.7	6.3	0.8	28.1	864.1
1941	2.3	15.5	209.3	152.0	54.0	80.1	88.9	53.6	9.6	15.6	18.6	21.4	720.9
1942	9.7	33.2	35.7	112.3	133.6	117.0	65.9	88.0	25.4	17.7	3.3	34.5	676.3
1943	75.2	86.7	115.5	52.2	55.2	55.5	108.9	62.2	41.9	6.7	19.9	105.0	784.9
1944	7.7	2.2	11.1	90.8	59.5	63.1	95.6	86.8	38.6	15.0	17.7	8.6	496.7
1945	3.5	39.6	4.0	42.4	210.4	173.1	63.0	66.4	29.3	29.7	4.5	6.4	672.3
1946	37.7	17.2	38.9	133.1	87.9	83.7	64.2	32.8	18.3	1.9	0.1	35.3	551.1
1947	24.8	8.0	29.5	152.4	59.6	63.0	43.3	40.5	34.1	9.7	69.2	24.4	558.5
1948	0.2	10.1	100.6	59.3	126.8	151.5	143.5	33.6	48.4	19.7	37.4	30.7	761.8
1949	13.5	3.0	16.5	73.1	143.6	96.0	51.0	64.6	20.6	2.2	96.4	4.1	584.6
1950	10.8	28.1	41.7	172.5	97.6	26.4	48.3	52.8	22.0	14.0	16.4	29.7	560.3
1951	19.0	6.0	0.0	46.5	82.3	226.7	85.4	36.5	11.6	13.4	19.4	36.4	583.2
1952	13.3	3.3	40.1	10.6	49.5	48.3	23.7	61.1	7.1	5.7	2.6	9.9	275.2
1953	5.8	5.3	51.9	89.5	82.7	123.4	60.3	50.3	14.3	8.1	85.7	12.4	589.7
1954	10.0	31.1	50.0	66.3	224.4	55.4	54.6	27.3	7.6	3.8	92.1	19.0	641.6
1955	10.8	74.9	66.3	79.1	91.5	43.7	58.4	51.5	18.6	34.0	2.8	52.1	583.7
1956	7.9	66.2	47.3	80.4	114.5	77.2	74.4	58.1	33.0	15.4	0.9	10.4	585.7
1957	40.6	0.0	62.7	0.0	41.9	63.5	37.2	15.5	8.0	16.0	1.7	13.0	300.1
1958	0.0	1.0	5.4	3.9	125.8	34.2	64.4	19.6	4.2	3.1	0.0	3.0	264.6
1959	0.0	60.8	14.1	51.6	75.2	171.3	85.6	56.1	51.3	2.0	0.0	0.0	568.0
1960	9.3	3.0	327.5	74.5	39.9	63.1	98.6	12.2	10.9	12.6	0.0	5.7	657.3
1961	342.6	4.7	262.0	35.4	150.8	71.5	100.2	54.2	47.5	13.6	0.4	0.0	1082.9
1962	5.4	17.0	41.3	23.3	144.2	83.3	25.1	30.4	31.4	2.8	1.5	16.8	422.5
1963	9.5	36.1	101.4	96.3	33.8	70.9	55.7	16.3	20.5	0.3	14.3	94.6	549.7
1964	51.7	96.0	122.3	155.9	156.4	140.1	79.6	77.7	65.4	8.7	5.8	13.7	973.3
1965	55.1	0.0	32.7	72.4	83.5	165.4	13.5	30.3	23.9	20.9	4.2	37.8	539.7
1966	45.6	77.5	28.3	73.4	59.2	171.4	219.0	29.3	74.6	9.5	48.0	7.7	843.5
1967	6.4	50.9	48.0	50.7	61.9	83.0	142.8	43.4	9.3	26.2	0.0	45.2	567.8
1968	117.5	5.2	103.8	71.5	68.8	26.9	48.2	37.0	9.2	10.1	0.6	20.6	519.4
1969	40.1	27.9	208.1	73.3	137.1	179.6	178.8	33.9	14.1	19.3	12.9	3.1	928.2
1970	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971	12.4	3.5	15.0	17.0	99.0	62.6	106.2	60.6	21.1	29.6	9.5	0.0	436.5

1972	5.0	10.8	138.8	101.4	135.2	143.0	41.2	44.4	16.0	14.0	7.9	59.7	717.4
1973	26.5	8.0	27.1	213.2	43.2	88.4	58.8	94.0	44.2	38.2	9.8	19.2	670.6
1974	20.0	88.0	86.0	275.0	88.6	121.4	115.2	21.1	44.8	0.8	5.2	33.9	900.0
1975	48.3	0.0	38.5	118.1	51.4	55.0	271.7	29.6	36.3	3.6	9.3	62.6	724.4
1976	4.3	20.7	50.3	24.9	105.7	42.1	0.0	25.3	4.0	144.5	16.6	25.2	463.6
1977	14.6	51.8	76.6	233.5	157.0	155.0	124.4	19.2	80.1	26.0	5.9	14.3	958.4
1978	0.0	78.5	125.0	85.4	202.4	99.7	122.6	72.9	74.8	3.4	12.4	30.6	907.7
1979	58.7	70.3	66.6	32.1	81.4	61.5	105.6	14.8	41.6	6.5	19.9	1.2	560.2
1980	44.5	57.0	121.1	73.6	54.0	111.9	16.4	16.9	10.7	18.8	5.7	19.9	550.5
1981	23.6	26.8	178.4	61.5	25.6	36.8	32.6	13.1	12.0	4.4	37.2	48.7	500.7
1982	14.2	50.4	12.3	76.2	70.1	170.0	64.5	41.6	18.7	2.5	2.8	30.0	553.3
1983	20.3	61.6	124.0	39.6	71.6	40.5	30.4	42.7	3.9	28.1	1.0	5.1	468.8
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985	11.2	103.6	190.4	241.6	40.3	69.4	117.0	64.5	20.6	1.0	12.3	8.4	880.3
1986	41.4	60.3	158.6	144.7	75.9	96.5	108.4	70.0	48.8	6.6	24.4	18.6	854.2
1987	17.6	32.4	96.6	103.8	10.2	80.2	68.6	18.9	7.0	5.7	0.1	0.0	441.1
1988	14.7	30.5	146.5	170.7	65.2	65.7	145.4	32.6	21.6	3.0	6.9	15.7	718.5
1989	13.8	2.5	54.6	148.4	112.1	83.5	127.1	71.1	3.2	13.6	14.2	75.9	720.0
1990	13.6	33.8	4.0	88.6	72.2	89.9	99.1	45.6	11.1	9.1	0.8	5.1	472.9
1991	17.4	6.4	84.4	74.6	140.7	60.4	51.7	66.5	3.3	2.3	3.1	0.1	510.9
1992	58.2	72.7	111.8	66.5	16.3	56.7	106.0	29.4	86.3	0.0	5.8	0.0	609.7
MÉDIA	27.3	34.8	80.1	87.7	92.7	92.8	80.3	43.4	25.1	14.2	14.8	21.5	614.7

Dados de Pluviometria Homogeneizados (mm)

Posto: TAQUARITINGA DO NORTE

Número: 3857891

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	55.6	75.1	247.7	220.4	50.1	193.8	218.1	120.3	10.5	4.5	4.3	0.8	1201.3
1936	18.8	176.9	46.5	12.5	60.6	202.6	158.0	34.5	5.5	6.6	0.0	7.7	730.2
1937	2.2	14.9	90.0	108.7	73.5	104.3	133.5	42.5	10.2	7.5	3.9	31.7	623.0
1938	50.8	15.5	111.3	129.6	55.6	50.9	42.0	112.0	50.1	24.2	6.0	13.1	661.2
1939	15.6	12.8	146.5	17.1	68.8	14.9	126.5	72.7	14.0	84.8	18.7	28.8	621.2
1940	103.6	74.0	212.3	155.8	185.2	77.0	85.1	44.5	41.6	10.9	0.7	27.4	1018.1
1941	4.2	18.4	413.9	112.7	34.5	49.3	114.1	64.0	9.4	14.2	8.9	35.6	879.2
1942	4.7	33.3	64.2	136.9	79.8	81.6	69.3	57.2	20.0	30.9	8.1	74.4	660.4
1943	126.3	87.6	121.0	25.3	50.7	49.4	137.8	82.9	35.6	9.1	6.0	176.5	908.3
1944	99.7	6.6	72.5	157.8	89.0	119.8	212.3	203.9	58.9	9.8	3.0	6.2	1039.7
1945	106.6	116.8	44.6	18.9	175.6	123.4	148.7	36.0	36.0	40.6	2.1	30.9	880.3
1946	45.4	19.5	49.2	106.2	38.3	125.4	102.4	67.4	20.4	2.6	0.3	91.0	668.1
1947	23.1	51.5	371.8	574.2	218.1	62.2	89.4	38.5	28.9	9.8	32.9	58.8	1559.4
1948	27.2	9.9	299.9	63.0	114.9	162.4	342.5	61.6	36.3	98.4	5.7	19.4	1241.2
1949	6.7	46.9	12.4	68.9	120.5	95.5	88.1	63.1	16.6	1.8	68.4	1.3	590.2
1950	8.4	17.0	97.2	182.1	71.1	28.6	112.7	60.1	19.0	22.6	5.5	37.2	661.6
1951	6.4	15.6	74.8	32.5	78.9	374.9	67.1	30.4	15.0	12.2	7.2	51.3	766.5
1952	3.5	2.9	94.3	15.6	30.4	98.2	35.3	64.2	14.0	1.5	0.6	46.2	406.8
1953	1.3	6.7	76.8	126.4	76.7	194.8	150.9	66.8	9.2	1.6	35.2	20.8	767.0
1954	22.0	5.0	38.8	70.4	99.6	28.4	48.9	18.6	6.5	0.6	8.7	3.0	350.5
1955	46.2	45.7	112.0	48.2	62.5	20.9	55.7	49.9	14.1	25.3	3.4	29.1	513.1
1956	10.6	38.8	87.6	67.1	45.7	33.9	72.4	85.5	18.5	3.3	6.4	4.2	474.0
1957	50.3	0.0	119.5	157.9	72.7	68.3	53.4	20.9	5.5	13.9	2.5	17.9	582.8
1958	2.2	26.3	13.9	57.8	188.5	51.6	168.6	75.1	24.2	13.3	2.9	25.7	650.1
1959	5.7	116.1	23.8	76.8	94.8	139.5	128.1	47.9	50.5	3.0	0.2	2.1	688.5
1960	11.8	19.3	312.4	161.9	98.8	112.5	88.2	81.6	14.5	43.3	1.8	13.3	959.4
1961	183.0	124.5	112.3	189.0	99.2	88.8	126.8	28.2	24.4	36.5	9.3	0.3	1022.3
1962	1.2	8.9	47.5	14.4	84.8	202.1	157.5	40.7	80.1	0.0	0.0	0.0	637.2
1963	114.4	73.8	181.6	56.5	74.1	256.6	157.6	61.9	110.6	0.0	16.6	235.8	1339.5
1964	192.2	206.3	191.4	93.5	89.9	205.9	196.9	276.6	231.8	0.0	0.0	30.5	1715.0
1965	41.3	0.0	73.0	162.9	165.9	268.9	154.5	9.6	40.0	71.2	23.0	0.0	1010.3
1966	188.8	152.4	49.0	191.3	71.4	152.8	407.8	60.8	69.9	7.9	41.2	16.3	1409.6
1967	33.7	60.9	132.2	106.3	116.4	211.0	191.9	165.8	27.2	10.0	0.0	42.8	1098.2
1968	64.0	74.6	122.0	105.7	85.4	55.5	162.0	57.3	17.3	17.3	3.1	24.1	788.3
1969	36.6	50.8	175.5	97.7	159.0	217.2	347.4	55.1	38.9	15.9	29.3	6.8	1230.2
1970	58.1	50.8	108.5	134.3	86.7	161.8	261.5	124.2	16.6	4.3	0.0	0.0	1006.8
1971	10.3	21.8	18.0	333.0	162.3	110.6	151.3	85.3	58.4	55.9	23.7	0.0	1030.6

1972	11.0	105.3	132.1	39.5	138.6	88.3	131.8	256.6	51.2	26.1	11.8	46.3	1038.6
1973	36.4	15.5	129.7	329.3	79.7	95.0	87.1	72.3	171.1	51.5	22.9	0.0	1090.5
1974	50.2	80.2	182.5	558.8	123.3	301.7	602.5	84.7	80.0	0.0	19.1	43.8	2126.8
1975	44.0	280.3	235.5	240.9	430.0	203.6	921.9	16.0	59.0	0.0	25.7	90.1	2547.0
1976	14.0	184.1	128.4	32.2	103.5	170.8	304.7	85.4	5.0	150.2	84.3	46.0	1308.6
1977	25.7	0.0	23.3	85.7	588.0	272.4	252.8	57.6	95.1	63.2	8.4	58.0	1530.2
1978	0.0	145.3	202.9	188.0	216.0	119.7	204.6	25.3	101.3	0.0	0.0	24.0	1227.1
1979	106.4	39.6	77.6	76.7	170.5	201.6	145.5	35.7	66.8	16.4	49.2	0.0	986.0
1980	15.3	90.8	131.8	90.3	92.3	179.1	65.4	0.0	76.6	11.4	11.6	37.5	802.1
1981	74.0	44.0	441.6	44.7	74.2	56.2	52.4	59.2	42.7	0.0	49.6	64.2	1002.8
1982	26.9	52.8	3.5	237.8	116.9	199.9	78.8	151.4	44.3	1.0	0.0	29.5	942.8
1983	27.5	119.2	81.1	40.0	135.8	78.5	121.7	201.8	0.0	46.6	3.6	0.7	856.5
1984	0.0	2.5	165.7	151.7	192.0	131.7	197.3	212.5	52.0	0.0	0.0	0.0	1105.4
1985	6.0	156.1	269.8	406.9	36.5	101.8	235.6	114.5	18.0	0.0	21.5	13.5	1380.2
1986	81.4	158.3	264.0	193.0	168.0	207.5	230.5	202.5	92.0	33.5	29.5	19.0	1679.2
1987	10.6	49.5	222.0	149.5	44.0	148.0	161.0	82.0	8.1	0.0	0.0	0.0	874.7
1988	36.6	73.1	214.0	189.2	101.2	140.2	273.0	59.9	31.5	21.2	35.1	8.0	1183.0
1989	21.5	20.0	69.7	222.8	150.2	126.4	188.4	60.7	26.8	13.8	24.1	125.7	1050.1
1990	0.0	32.0	7.0	157.5	167.4	140.0	103.6	87.7	37.7	21.6	5.0	7.4	766.9
1991	13.2	5.3	219.4	158.1	224.7	119.6	95.1	61.9	34.4	39.4	0.0	0.0	971.1
1992	67.5	119.1	162.0	57.0	37.5	75.3	208.0	93.5	210.5	0.0	1.8	0.0	1032.2
MÉDIA	42.3	63.0	136.7	138.6	119.3	133.7	172.9	80.8	44.9	20.9	13.7	31.5	998.1

Dados de Pluviometria Homogeneizados (mm)

Posto: TORITAMA

Número: 3867088

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
43													
1935	38.0	87.7	127.7	158.9	67.1	185.5	122.9	74.6	6.6	1.6	11.0	1.2	882.8
1936	6.3	136.6	34.6	17.6	100.4	213.5	93.1	28.3	7.0	5.5	0.2	2.2	645.3
1937	1.0	29.9	50.9	124.4	101.7	102.4	82.6	26.8	6.4	8.3	4.9	12.9	552.2
1938	27.4	17.3	46.8	85.8	56.3	57.6	28.5	75.0	41.7	21.9	16.9	24.0	499.1
1939	60.2	8.0	91.3	17.7	52.0	6.6	68.6	34.4	10.4	35.9	23.2	13.1	421.5
1940	51.9	44.2	104.3	106.5	209.5	52.8	40.4	24.7	25.8	5.7	7.1	15.1	688.1
1941	1.6	10.3	164.1	94.5	41.3	39.0	68.7	27.8	4.2	9.5	22.5	16.3	499.7
1942	2.3	23.5	16.1	96.1	78.1	65.7	57.0	34.2	22.2	12.7	9.4	55.2	472.4
1943	67.3	42.9	56.6	27.4	68.3	41.8	94.0	49.4	26.5	5.6	24.7	68.6	573.1
1944	60.0	22.8	44.3	127.6	91.4	123.8	120.7	113.3	33.4	6.5	3.9	23.6	771.3
1945	50.7	44.7	18.2	58.5	193.1	115.9	76.5	26.1	17.6	22.2	2.9	8.9	635.3
1946	40.2	11.4	37.8	90.8	47.4	82.1	57.3	31.5	13.7	1.8	7.6	36.9	458.4
1947	15.4	35.9	165.7	256.3	167.8	57.2	65.1	37.3	17.8	7.7	85.4	22.1	933.7
1948	16.3	8.1	138.0	39.3	114.4	139.8	200.3	31.5	27.9	45.9	13.4	17.8	792.6
1949	4.4	16.9	8.1	56.4	110.2	62.5	41.4	54.5	11.6	0.9	151.8	4.7	523.5
1950	17.9	14.0	41.6	117.0	55.1	25.1	55.2	28.5	14.0	11.4	8.6	18.2	406.7
1951	11.4	13.0	16.4	36.5	92.3	350.3	58.7	28.0	8.5	9.3	15.9	44.1	684.4
1952	3.4	2.3	44.5	25.2	31.4	69.2	33.1	28.5	5.7	3.1	3.9	26.8	277.0
1953	4.2	2.0	31.9	83.0	77.0	163.2	80.8	33.5	11.5	3.4	65.3	9.7	565.4
1954	13.2	9.5	25.0	51.0	131.9	47.2	40.1	15.1	5.4	1.3	13.4	7.0	360.0
1955	21.5	50.9	75.7	39.1	61.8	22.1	32.1	19.7	13.4	16.3	11.7	31.3	395.5
1956	7.4	55.3	34.9	51.1	51.7	29.9	46.8	60.5	16.3	5.1	11.6	7.0	377.8
1957	30.6	0.6	89.8	71.8	42.5	37.3	30.0	5.8	6.6	6.2	5.0	9.6	335.8
1958	3.9	50.1	22.9	23.3	42.7	13.6	48.8	23.0	24.4	3.1	2.4	2.9	261.1
1959	35.7	43.1	24.4	29.7	18.5	116.2	46.0	51.0	9.4	2.1	6.0	0.0	382.1
1960	14.4	18.0	306.8	61.8	70.0	114.0	34.8	18.5	10.6	8.4	2.0	11.3	670.6
1961	122.8	7.5	113.2	131.4	144.8	83.3	122.8	32.0	9.4	9.4	4.8	0.0	781.4
1962	10.6	29.8	53.5	53.3	57.7	76.7	41.5	15.0	18.1	1.9	4.3	13.4	375.8
1963	23.1	8.3	124.0	34.0	29.1	28.5	5.2	0.0	0.0	0.0	11.6	216.2	480.0
1964	48.2	84.5	118.0	117.1	90.2	125.9	64.7	21.9	33.4	0.0	0.0	0.0	703.9
1965	19.9	0.0	32.8	169.0	80.0	90.0	0.0	11.4	0.0	0.0	0.0	61.0	464.2
1966	95.2	131.1	0.0	29.1	51.5	197.3	178.7	0.0	38.1	0.0	23.3	0.0	744.4
1967	10.8	52.0	51.5	151.1	105.2	54.7	43.0	114.6	0.0	0.0	0.0	22.2	605.2
1968	48.1	0.0	97.4	68.4	57.7	3.4	45.9	0.0	0.0	0.0	0.0	0.0	320.8
1969	0.0	75.9	220.1	15.0	66.5	65.8	178.4	3.9	23.8	0.0	0.0	0.0	649.4
1970	24.5	0.0	134.4	26.9	10.6	73.2	195.2	43.4	0.0	0.0	0.0	0.0	508.3
1971	0.0	0.0	91.1	47.7	129.2	94.2	51.3	24.5	13.5	6.4	12.1	0.0	470.0

1972	8.8	113.9	92.0	5.4	118.8	74.1	39.8	86.6	20.7	0.0	0.0	59.1	619.1
1973	10.7	14.9	79.9	126.3	49.3	57.1	38.0	20.2	19.5	18.5	4.0	32.0	470.5
1974	46.8	76.6	159.1	189.3	54.1	47.5	71.1	7.8	42.9	7.9	0.0	7.9	711.0
1975	0.0	50.4	225.3	86.5	32.9	52.1	225.3	0.0	38.6	0.0	0.0	93.0	804.1
1976	0.0	116.6	119.1	26.3	20.2	27.8	5.1	29.1	0.0	87.3	20.0	23.3	475.0
1977	108.8	33.2	25.1	131.1	221.2	127.6	137.1	11.5	33.6	0.0	1.0	14.5	844.8
1978	0.0	67.0	146.3	127.3	95.3	74.4	136.0	4.7	3.7	0.0	0.0	11.5	666.2
1979	13.3	0.0	61.6	65.6	7.3	108.4	39.8	11.8	68.4	5.3	21.4	0.0	402.8
1980	10.6	59.2	70.2	0.0	46.6	125.6	18.4	0.0	2.8	33.9	0.0	4.0	371.3
1981	74.4	10.8	263.6	17.8	0.0	24.6	3.4	6.2	17.0	0.0	4.2	52.6	474.6
1982	6.2	47.8	0.0	52.2	70.7	115.6	23.4	13.6	9.0	0.0	0.0	6.2	344.7
1983	3.3	59.6	32.2	60.2	49.7	51.5	6.6	70.6	0.0	18.6	0.0	0.0	352.3
1984	18.6	1.8	202.2	198.1	72.8	77.0	90.0	50.0	30.8	30.2	0.0	0.0	771.5
1985	0.0	214.4	246.2	277.0	20.2	23.4	70.0	56.2	0.0	0.0	0.0	0.0	907.4
1986	12.0	121.6	194.4	221.2	62.8	98.8	85.4	0.0	38.0	0.0	0.0	0.0	834.2
1987	23.6	65.2	85.0	93.8	0.0	59.4	22.2	12.0	3.2	0.0	0.0	0.0	364.4
1988	8.4	9.6	68.4	103.4	51.2	55.5	118.6	21.6	0.0	0.0	2.0	10.2	448.9
1989	0.0	0.0	85.6	97.8	107.2	61.6	117.9	36.4	2.7	10.1	16.5	150.6	686.4
1990	0.0	0.0	5.5	98.8	64.7	90.0	120.0	0.0	16.3	6.1	0.6	4.1	406.1
1991	8.1	22.9	114.1	68.7	84.0	44.3	28.8	47.7	3.9	3.8	3.3	2.8	432.4
1992	81.9	78.1	109.3	77.7	17.6	44.6	81.7	21.1	52.1	0.0	2.7	0.0	566.8
MÉDIA	24.9	40.5	90.3	84.7	73.2	80.5	71.2	30.3	16.2	8.6	11.4	22.0	553.8

Dados de Pluviometria Homogeneizados (mm)

Posto: VERTENTES

Número: 3858805

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	26.5	44.6	119.2	217.3	57.0	310.7	182.7	148.0	18.1	3.4	7.3	0.0	1134.5
1936	2.5	159.8	16.7	15.2	72.6	335.3	144.6	30.0	7.9	3.7	0.0	7.5	795.7
1937	2.3	8.4	60.7	83.5	107.5	191.9	121.4	54.8	11.2	6.0	10.9	26.1	684.8
1938	32.0	14.1	46.8	127.1	76.5	71.5	30.7	105.3	53.6	15.8	12.8	4.2	590.5
1939	11.2	11.8	95.7	10.3	148.1	18.0	136.5	63.5	12.4	66.5	44.4	27.0	645.5
1940	70.8	50.6	128.9	171.9	307.9	98.1	69.4	44.3	29.3	9.8	2.2	15.8	999.1
1941	2.2	15.8	260.6	116.5	60.0	70.5	92.6	51.8	9.3	11.3	19.9	28.3	738.9
1942	3.0	19.7	43.5	144.4	129.1	140.2	55.9	32.7	15.4	27.4	36.5	43.6	691.4
1943	99.6	86.7	61.4	18.3	76.6	78.9	99.7	81.4	15.8	9.7	2.1	139.3	769.3
1944	47.5	0.9	24.5	111.3	97.4	158.3	130.4	199.4	50.2	1.9	1.8	2.4	825.9
1945	90.2	105.5	25.5	4.2	253.7	146.3	108.5	7.0	37.9	28.0	5.0	6.2	817.9
1946	12.0	24.6	10.7	86.8	45.9	219.4	79.3	80.4	14.5	2.4	0.0	60.9	636.9
1947	8.4	33.6	133.3	421.7	284.2	53.6	47.0	20.0	6.0	3.7	55.1	19.8	1086.3
1948	22.7	0.0	161.2	23.7	168.7	250.6	255.0	47.9	10.5	90.8	9.6	10.5	1051.2
1949	0.0	59.9	3.8	56.5	164.0	120.2	61.6	52.7	6.3	0.0	185.6	0.0	710.4
1950	0.0	17.5	47.5	173.0	112.1	46.0	98.0	46.5	7.7	20.2	16.3	24.0	608.8
1951	0.0	11.1	45.7	0.0	112.4	519.9	30.7	25.0	10.2	5.8	18.4	17.9	797.1
1952	0.0	0.0	52.3	9.1	38.8	169.8	22.2	42.6	0.0	0.0	0.0	25.7	360.6
1953	0.0	0.0	35.5	98.0	99.0	248.2	96.2	45.8	0.0	0.0	66.3	8.1	697.0
1954	21.8	0.0	43.3	129.0	209.1	53.3	67.1	21.2	0.0	0.0	0.0	0.0	544.8
1955	0.0	24.7	67.5	72.1	193.4	38.6	60.7	56.7	0.0	30.4	21.3	23.2	588.5
1956	3.5	16.2	81.0	82.9	119.2	37.3	56.1	82.5	0.0	0.0	63.2	0.0	541.8
1957	0.0	0.0	159.1	80.6	58.8	45.7	47.6	0.0	0.0	0.0	0.0	0.0	391.7
1958	0.0	42.3	78.6	0.0	0.0	182.5	0.0	0.0	0.0	0.0	0.0	0.0	303.3
1959	1.1	71.2	22.3	47.5	63.4	156.2	91.0	34.0	31.5	2.2	1.0	0.9	522.3
1960	7.0	11.1	366.0	89.0	78.5	115.2	79.3	46.6	15.1	20.7	0.8	10.7	839.9
1961	285.9	56.6	194.4	101.8	167.7	84.8	123.5	27.6	24.5	21.3	2.4	0.3	1090.8
1962	3.9	18.2	40.2	19.2	117.6	144.3	69.2	23.1	26.5	0.0	0.0	4.0	466.2
1963	85.8	35.2	92.1	9.2	50.2	78.7	8.4	14.6	26.6	1.5	29.5	253.8	685.4
1964	0.0	57.7	71.4	90.4	120.9	279.7	257.1	124.6	108.7	0.0	0.0	24.4	1134.9
1965	71.9	13.6	22.5	40.8	49.0	245.4	46.9	44.9	28.8	5.1	2.6	24.0	595.3
1966	96.5	84.9	23.4	88.9	54.2	327.0	215.3	31.8	45.6	3.7	65.2	11.7	1048.2
1967	7.6	40.1	97.2	196.4	115.7	71.7	116.5	46.8	17.8	19.9	0.0	34.4	764.1
1968	142.1	0.0	87.1	77.6	89.8	27.2	105.5	30.6	4.4	8.7	0.0	31.2	604.4
1969	34.2	43.3	151.7	88.3	101.1	179.4	197.1	21.5	14.2	13.0	8.9	2.5	855.2
1970	16.8	19.7	64.7	75.6	15.8	76.5	123.8	46.2	6.5	2.1	1.0	0.0	449.0
1971	2.2	6.5	22.9	175.6	88.7	98.2	57.4	44.7	18.0	19.1	5.5	0.0	538.7

1972	2.7	37.6	94.4	79.5	77.1	98.8	47.1	151.3	23.6	9.6	0.0	67.0	688.7
1973	33.8	7.7	12.5	246.9	40.9	56.5	51.8	59.3	39.7	10.1	24.6	17.4	601.3
1974	25.4	24.9	72.6	353.8	61.0	122.6	145.4	38.5	41.0	0.0	26.2	22.4	933.9
1975	31.4	16.5	66.2	108.7	73.8	51.1	255.0	12.8	32.6	2.1	4.6	139.6	794.4
1976	0.2	111.7	107.8	34.3	71.4	49.8	60.5	40.0	3.0	105.6	25.0	46.0	655.3
1977	89.2	8.6	12.2	147.5	226.9	254.4	181.3	28.1	72.6	10.3	2.6	13.9	1047.6
1978	0.0	107.9	133.2	105.7	185.0	90.8	115.7	53.5	68.4	0.0	4.4	4.4	869.0
1979	69.0	39.4	52.4	21.4	83.8	56.2	105.4	12.0	272.3	0.0	0.0	0.0	711.9
1980	0.0	0.0	80.9	46.4	65.4	105.3	29.0	16.0	9.2	45.8	12.4	16.2	426.6
1981	100.0	23.6	416.6	26.2	25.9	29.5	30.0	14.9	17.0	0.0	26.2	48.0	757.9
1982	8.0	114.8	6.0	225.6	63.9	166.6	41.0	74.6	8.4	0.8	0.0	22.2	731.9
1983	12.2	83.2	81.6	28.6	61.5	62.0	33.6	97.6	2.2	37.8	0.0	0.0	500.3
1984	25.0	0.0	155.0	108.2	161.2	61.9	141.7	82.2	32.4	14.8	1.6	0.0	784.0
1985	3.9	90.5	155.5	374.5	24.5	72.0	87.3	40.0	3.9	0.0	10.0	2.9	865.0
1986	31.3	59.8	137.6	152.9	70.5	88.4	101.0	64.8	39.8	14.9	26.7	17.4	805.1
1987	12.8	42.8	84.7	77.3	7.8	59.9	54.6	11.0	5.7	2.1	0.5	0.1	359.3
1988	12.6	24.7	131.4	132.3	47.2	70.2	123.8	20.6	17.0	2.4	6.4	11.0	599.6
1989	10.7	1.2	102.7	225.0	104.6	53.3	91.7	58.8	2.4	5.7	20.1	82.8	759.0
1990	2.7	5.8	0.3	74.9	70.9	83.8	36.8	16.5	4.8	0.0	0.6	1.2	298.3
1991	23.0	0.0	71.6	54.0	145.8	61.3	53.0	54.0	10.4	0.0	0.0	0.0	473.1
1992	34.2	77.0	86.0	47.6	16.8	57.3	128.3	13.6	61.5	0.0	1.3	0.0	523.6
MÉDIA	30.0	35.9	88.3	103.9	99.8	124.8	94.8	48.9	25.0	12.3	15.3	24.2	703.3

Dados de Pluviometria Homogeneizados (mm)

Posto: VILA DO PARÁ

Número: 3857727

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	20.7	30.0	189.7	98.5	49.5	56.1	19.0	0.9	0.1	0.1	4.3	0.0	469.0
1936	23.6	151.8	1.7	2.7	16.3	93.5	10.0	1.4	0.0	0.0	0.0	0.0	300.9
1937	0.0	6.7	37.5	120.0	52.9	40.6	21.5	5.6	0.0	2.1	0.7	4.2	291.9
1938	7.5	2.1	71.1	61.3	62.8	10.3	3.6	17.0	0.2	2.8	1.7	10.6	251.0
1939	11.0	3.1	35.8	7.8	20.1	7.4	70.4	6.6	3.9	88.7	9.6	1.9	266.2
1940	29.0	101.4	77.3	65.6	75.9	57.3	18.2	0.1	4.1	0.1	0.0	3.1	432.0
1941	0.0	1.6	143.8	36.3	19.9	17.7	15.9	2.6	3.5	0.1	6.5	3.7	251.4
1942	0.0	9.8	3.2	71.3	7.2	20.8	31.6	19.8	10.0	12.1	0.0	24.0	209.8
1943	3.7	54.1	17.1	10.4	15.8	41.4	25.4	8.2	1.6	0.0	5.1	8.0	190.8
1944	49.4	0.2	68.5	74.6	7.6	34.2	66.9	6.3	2.4	0.4	0.1	0.0	310.5
1945	18.7	54.0	0.1	15.5	92.8	58.0	26.6	1.1	2.9	0.0	0.0	25.5	295.2
1946	39.5	0.9	42.1	42.8	52.1	8.8	14.8	7.4	0.0	0.0	2.4	8.0	219.0
1947	43.1	15.0	193.9	211.1	8.9	0.1	1.1	0.0	0.0	0.0	23.7	15.1	511.8
1948	0.0	0.0	123.3	153.4	155.5	28.5	61.9	13.5	0.7	0.7	0.0	1.4	538.8
1949	0.0	17.2	0.0	7.8	136.9	2.0	6.1	0.0	0.0	0.0	80.7	0.0	250.7
1950	0.0	1.9	65.1	75.9	64.1	0.0	5.5	0.0	0.0	10.2	0.0	0.0	222.7
1951	0.0	10.3	0.0	136.4	29.7	38.2	2.2	2.8	0.7	1.6	0.0	8.2	230.1
1952	0.0	0.0	70.1	27.9	18.9	3.8	2.2	4.0	1.6	0.0	3.6	16.7	148.9
1953	0.0	0.0	21.4	56.3	3.1	31.6	2.4	0.0	0.0	0.0	26.3	11.1	152.2
1954	9.4	1.9	14.5	49.0	73.7	15.1	3.3	2.3	0.0	0.0	1.6	0.0	170.7
1955	24.5	32.4	141.9	26.0	24.6	0.0	1.6	2.3	0.0	8.3	0.0	3.5	265.0
1956	0.0	14.3	41.6	53.5	32.4	9.6	3.1	10.3	0.0	0.0	1.3	0.0	166.2
1957	0.9	0.0	89.2	67.6	30.8	6.9	0.0	0.0	0.0	0.0	0.0	0.0	195.4
1958	0.0	1.1	31.5	19.2	61.3	1.2	18.1	0.0	0.0	0.0	0.0	0.0	132.4
1959	0.0	77.9	0.0	1.2	14.8	45.9	0.0	0.0	0.0	0.0	0.0	1.6	141.4
1960	0.0	17.7	256.8	33.3	52.8	19.0	0.0	0.0	0.0	0.0	0.0	0.0	379.6
1961	39.7	72.8	146.3	5.5	39.0	0.0	30.9	0.0	12.8	0.0	0.0	0.0	347.0
1962	10.2	0.0	73.5	35.2	25.6	0.0	1.8	14.9	5.9	0.4	4.5	19.8	191.7
1963	51.2	8.0	61.3	42.3	19.1	0.0	36.1	2.0	17.3	0.0	0.0	64.8	302.0
1964	108.2	76.4	32.8	21.8	21.1	87.8	12.7	12.7	24.8	0.0	0.0	8.4	406.8
1965	18.2	21.7	55.7	48.3	8.4	45.8	17.8	16.2	46.8	0.0	7.6	83.2	369.7
1966	72.8	8.6	42.0	87.2	25.0	131.1	73.7	38.8	3.2	0.0	64.3	62.4	609.0
1967	39.9	47.4	194.5	307.2	15.5	75.1	0.0	0.0	88.4	19.1	0.0	0.0	787.0
1968	66.9	24.0	67.3	87.4	126.0	0.0	6.4	0.0	0.0	0.0	0.0	6.5	384.5
1969	9.4	0.0	68.6	0.0	93.7	64.3	106.1	1.9	0.0	0.0	0.0	0.0	344.1
1970	66.1	75.6	53.4	35.8	0.0	15.9	0.0	0.0	0.0	0.0	0.0	0.0	246.8
1971	0.0	0.0	4.3	127.6	69.6	6.3	179.6	0.0	0.0	0.0	0.0	0.0	387.4

1972	0.0	122.0	76.0	1.3	11.4	0.0	0.0	87.3	0.0	0.0	0.0	20.4	318.4
1973	34.2	0.0	164.6	112.9	0.0	0.0	0.0	0.0	28.0	0.0	0.0	0.0	339.8
1974	65.8	71.7	81.8	138.1	75.1	75.1	18.8	0.0	0.0	0.0	0.0	0.0	526.4
1975	117.0	0.0	52.6	124.8	0.0	36.0	89.1	0.0	0.0	0.0	0.0	0.0	419.6
1976	0.0	84.4	44.7	0.0	0.0	8.3	0.0	0.0	0.0	0.0	85.4	0.0	222.8
1977	29.3	0.0	84.2	141.4	0.0	83.5	176.4	0.0	0.0	0.0	0.0	0.0	514.8
1978	0.0	56.2	0.0	71.1	130.8	114.2	60.2	0.0	0.0	0.0	0.0	0.0	432.4
1979	53.8	0.0	44.9	0.0	0.0	0.0	11.7	16.9	13.3	0.0	0.0	0.0	140.6
1980	0.0	36.8	30.8	0.0	18.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0	99.1
1981	0.0	0.0	0.0	102.2	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	107.5
1982	0.0	0.0	0.0	12.8	0.0	11.4	18.0	0.0	0.0	0.0	0.0	0.0	42.2
1983	15.4	15.5	25.5	18.3	8.7	11.7	0.0	0.0	0.0	0.0	0.0	0.0	95.1
1984	2.3	31.9	147.0	66.3	40.0	15.5	18.7	0.0	0.0	0.0	0.0	0.0	321.7
1985	5.2	149.6	151.6	259.4	0.0	0.0	3.2	0.0	7.5	0.0	0.0	0.0	576.5
1986	14.8	117.5	109.9	0.0	22.8	100.7	54.7	0.0	0.0	0.0	0.0	0.0	420.4
1987	0.0	22.3	111.9	44.6	3.3	32.6	18.8	2.5	0.4	1.8	0.1	0.0	238.3
1988	9.6	72.9	120.5	86.1	9.7	42.7	33.4	3.1	0.2	0.0	0.0	12.4	390.6
1989	3.2	1.8	92.9	141.9	56.5	62.6	47.8	9.6	0.0	0.9	12.8	67.4	497.4
1990	1.5	53.3	0.5	27.8	26.8	38.1	31.7	4.0	4.3	0.8	0.3	0.4	189.5
1991	0.0	35.3	142.9	72.1	70.4	40.3	14.6	13.9	0.0	0.0	0.3	0.0	389.8
1992	148.0	61.7	114.0	60.1	16.5	17.7	16.8	0.0	19.3	0.0	0.0	0.0	454.1
MÉDIA	21.8	32.3	71.3	65.6	36.4	30.4	26.0	5.8	5.2	2.8	6.0	8.5	312.2

ANEXO IV

***Resultados de Preenchimento de Falhas
e Homogeneização para os Postos de
Carpina***

Dados de Pluviometria Homogeneizados (mm)

Posto: APOTI

Número: 3869125

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
63													
1935	25.1	97.9	182.5	189.7	109.7	268.8	129.6	74.1	4.3	6.3	7.3	2.5	1097.8
1936	10.7	116.2	48.6	37.3	208.4	465.5	144.1	57.0	5.6	16.6	3.0	1.5	1114.5
1937	2.5	49.4	29.5	192.9	104.1	154.2	81.8	40.9	21.3	12.4	16.4	15.9	721.3
1938	17.1	17.5	123.5	123.4	87.0	87.8	37.9	99.9	52.9	30.4	23.2	11.8	712.4
1939	18.0	44.4	129.7	17.9	82.3	58.9	177.1	103.5	30.8	90.4	91.3	28.7	873.0
1940	85.3	108.3	114.2	187.3	475.8	107.1	100.2	61.4	73.9	15.0	1.2	48.1	1377.8
1941	6.1	33.5	229.7	216.6	66.2	133.7	114.8	108.5	24.5	14.1	55.4	22.6	1025.7
1942	4.0	28.2	103.4	130.9	269.8	94.2	84.2	151.7	34.6	42.0	4.9	61.1	1009.0
1943	103.5	128.7	119.1	64.5	123.0	94.2	118.9	69.5	83.2	4.4	24.0	22.2	955.2
1944	3.7	3.1	65.2	194.4	216.1	163.7	100.9	114.5	56.9	13.6	25.3	26.4	983.8
1945	5.1	67.4	56.1	36.0	159.9	239.6	96.9	100.1	30.8	43.3	16.1	35.8	887.1
1946	66.1	22.6	68.2	90.8	126.7	122.1	93.9	41.9	42.7	1.1	0.1	65.3	741.5
1947	54.9	35.5	96.9	144.1	154.0	120.4	54.4	33.8	25.7	10.4	61.4	57.5	849.0
1948	12.2	11.9	80.8	60.0	121.6	192.1	192.1	72.0	59.9	18.7	39.8	52.5	913.6
1949	18.9	38.3	12.2	86.8	200.6	155.1	55.3	72.2	45.0	14.5	82.1	6.3	787.3
1950	24.2	84.0	72.9	235.6	124.3	26.7	64.4	26.4	13.3	25.3	8.7	33.5	739.3
1951	23.9	60.2	1.8	45.5	74.6	313.3	56.9	22.5	4.5	16.1	5.0	18.9	643.2
1952	30.9	1.8	49.4	31.9	82.0	96.8	85.6	117.9	20.5	11.6	4.6	41.9	574.9
1953	14.1	18.7	60.9	114.2	60.2	178.8	146.6	75.1	20.8	33.1	60.4	12.3	795.2
1954	20.6	10.3	28.6	59.0	250.1	55.0	42.8	28.4	17.0	4.8	21.4	2.7	540.7
1955	9.2	48.2	98.3	43.4	67.6	80.3	71.8	53.4	31.7	21.2	7.9	114.9	647.9
1956	15.1	85.4	231.2	61.3	74.9	125.0	110.7	97.1	27.1	26.2	4.0	10.1	868.1
1957	76.0	14.8	146.5	162.4	68.8	73.7	50.3	24.9	9.2	18.6	5.7	17.3	668.2
1958	4.1	26.0	45.5	40.2	236.5	76.6	155.9	89.9	25.5	13.1	6.9	18.3	738.5
1959	20.6	89.9	54.7	113.0	110.3	237.5	157.6	71.3	43.2	11.2	17.9	7.7	934.9
1960	43.2	41.7	243.8	119.2	83.7	143.7	116.3	91.5	14.9	28.8	2.3	21.5	950.6
1961	235.6	98.9	221.3	207.5	182.2	120.4	134.5	44.5	17.3	37.3	5.2	12.1	1316.8
1962	0.6	22.1	84.9	51.0	157.6	262.6	155.2	29.2	20.7	1.0	0.0	8.6	793.5
1963	18.2	58.6	115.3	120.8	57.9	100.4	81.4	55.0	26.1	14.8	10.7	75.6	734.8
1964	91.6	131.0	182.2	158.6	133.3	166.2	125.6	97.7	88.4	6.3	6.2	10.4	1197.5
1965	80.2	14.9	85.3	99.7	144.7	340.3	61.3	54.7	43.8	13.4	14.1	30.4	982.8
1966	39.0	91.2	57.8	81.8	101.2	236.3	279.2	34.2	62.0	9.8	36.5	19.3	1048.3
1967	47.9	65.7	161.7	84.2	61.7	141.3	107.2	76.3	24.0	8.2	25.2	88.3	891.7
1968	55.0	35.3	74.5	38.7	0.0	55.0	101.4	40.5	0.0	0.0	0.0	100.1	500.5
1969	15.5	0.0	197.0	23.0	216.6	116.8	189.9	43.2	0.0	17.5	17.0	0.0	836.5
1970	14.5	84.4	43.2	60.0	0.0	148.3	297.6	133.3	0.0	0.0	0.0	0.0	781.3
1971	21.4	0.0	11.2	25.2	66.0	96.0	127.5	17.8	43.8	7.3	13.5	0.0	429.7

1972	33.5	7.7	37.2	79.8	133.3	185.2	122.0	115.5	56.5	12.6	4.8	11.6	799.7
1973	72.5	13.1	64.9	185.9	97.8	141.2	86.9	48.3	52.7	14.4	6.1	81.3	865.1
1974	107.6	45.2	177.6	237.2	129.1	113.5	140.5	43.8	90.8	0.0	16.1	33.6	1135.0
1975	17.1	12.6	26.9	83.3	85.0	107.2	386.5	77.7	40.0	0.0	20.6	118.3	975.2
1976	2.6	105.8	227.6	56.0	67.0	73.0	75.6	28.4	0.0	98.6	12.2	45.8	792.6
1977	27.6	43.6	61.2	137.9	204.8	287.4	220.4	38.6	71.0	13.6	0.0	7.5	1113.6
1978	0.0	145.8	145.6	107.2	101.0	161.8	226.4	111.7	123.2	0.0	5.2	29.4	1157.3
1979	56.4	70.6	48.2	25.0	63.0	72.6	72.0	37.8	88.2	22.0	47.8	0.0	603.6
1980	0.0	134.6	131.8	106.8	88.4	255.8	36.0	66.8	44.8	19.8	67.0	38.4	990.2
1981	62.4	43.4	185.8	24.6	56.8	35.6	85.2	0.0	0.0	0.0	0.0	100.4	594.2
1982	5.4	51.4	41.0	36.4	176.2	212.0	106.4	70.4	21.0	0.0	0.0	0.0	720.2
1983	0.0	73.8	165.6	0.0	105.4	55.8	62.7	98.8	7.4	53.8	0.0	0.0	623.3
1984	75.6	6.8	41.8	123.0	211.0	90.6	208.6	129.0	56.0	28.9	58.8	0.0	1030.1
1985	42.0	88.9	296.6	244.4	116.0	158.8	203.4	81.8	10.4	7.2	14.6	29.8	1293.9
1986	22.6	97.2	196.2	141.8	106.2	216.8	258.8	84.6	63.8	46.0	73.6	66.2	1373.8
1987	40.4	81.6	122.4	98.8	24.6	140.2	139.8	43.2	18.4	37.0	0.0	0.0	746.4
1988	17.0	13.6	95.6	135.0	150.4	98.2	272.4	23.6	31.4	0.0	36.4	33.8	907.4
1989	63.6	29.4	64.0	183.6	182.6	98.0	192.8	89.4	23.6	30.4	36.8	60.2	1054.4
1990	57.8	0.0	0.0	121.0	127.8	143.2	206.8	90.2	35.0	11.4	3.8	0.0	797.0
1991	10.4	0.0	68.6	120.0	275.0	99.0	128.4	129.4	0.0	31.6	10.7	0.0	873.1
1992	54.2	146.4	170.6	63.4	0.0	132.4	128.0	50.4	120.9	0.0	10.6	0.0	876.9
MÉDIA	36.3	53.4	105.1	104.5	126.9	147.0	132.1	68.7	36.2	18.7	19.8	30.3	879.1

Dados de Pluviometria Homogeneizados (mm)

Posto: BENGALAS

Número: 3869005

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	9.3	67.5	118.9	153.8	61.2	185.4	93.2	44.8	3.8	2.1	8.8	7.7	756.5
1936	3.4	95.8	42.6	16.0	130.4	244.2	82.3	41.1	4.3	8.7	0.1	2.0	670.9
1937	1.5	17.9	25.5	135.4	110.8	105.0	63.8	19.7	8.4	11.2	9.8	16.4	525.4
1938	27.8	10.6	69.6	71.3	78.5	74.1	18.7	61.9	32.3	17.7	17.8	6.8	487.1
1939	8.1	19.0	90.2	51.9	118.5	39.5	100.0	55.3	12.1	62.9	76.8	9.8	644.1
1940	67.3	52.9	96.4	65.9	246.1	100.1	60.2	39.2	47.4	7.9	1.1	33.0	817.5
1941	3.6	26.9	178.6	139.7	55.4	69.4	86.9	49.9	9.3	13.0	20.1	21.1	673.9
1942	4.7	29.4	51.8	105.0	124.6	89.5	56.0	55.5	18.1	20.8	0.7	30.8	586.9
1943	53.9	94.0	76.5	35.3	48.1	41.5	93.1	55.6	43.0	2.6	25.8	45.2	614.6
1944	6.3	5.1	24.8	79.3	86.6	73.6	82.9	62.1	40.7	12.0	11.5	6.1	491.0
1945	7.6	47.4	14.1	24.1	167.4	139.8	69.7	46.1	28.2	21.9	3.4	7.1	576.8
1946	57.4	10.8	68.9	109.0	82.2	73.0	49.6	24.0	19.1	0.9	1.9	41.5	538.3
1947	20.9	14.7	101.2	153.9	56.0	67.9	42.5	24.3	36.8	8.3	55.9	26.0	608.4
1948	8.8	17.1	100.1	43.9	108.6	152.3	136.1	36.1	48.7	28.9	6.5	13.0	700.1
1949	13.4	17.8	12.1	86.8	163.4	104.4	44.5	38.7	23.9	5.0	63.3	1.3	574.6
1950	19.9	14.7	38.3	140.7	75.9	19.1	44.7	40.4	22.1	8.6	2.7	24.7	451.8
1951	10.6	8.4	8.0	54.7	97.2	271.9	70.9	16.0	12.8	9.2	3.3	66.3	629.3
1952	7.8	5.6	24.2	9.5	47.7	47.8	20.0	46.9	19.0	2.2	1.2	13.5	245.4
1953	1.6	14.7	31.4	93.1	103.9	124.2	64.2	39.7	12.2	3.1	68.4	5.6	562.1
1954	5.4	25.7	37.3	130.2	280.8	43.2	36.1	16.5	9.2	1.5	23.9	5.9	615.7
1955	11.5	39.6	84.4	63.6	88.9	30.5	53.3	39.8	20.9	19.6	5.5	24.1	481.7
1956	2.2	57.5	27.6	73.1	78.0	60.9	71.7	52.1	27.5	11.9	5.6	6.4	474.5
1957	14.8	2.6	72.0	71.8	47.1	36.1	43.0	14.3	3.8	14.0	0.3	4.1	323.9
1958	0.0	0.0	5.1	5.8	177.2	40.1	85.4	27.4	4.4	2.7	0.0	6.3	354.4
1959	0.0	51.9	12.7	53.0	76.6	165.6	86.9	54.3	57.0	2.2	0.0	0.0	560.2
1960	9.3	3.5	308.6	74.2	33.3	58.6	98.6	5.4	13.4	12.6	0.0	5.9	623.4
1961	345.0	5.5	247.6	27.7	126.1	66.0	100.9	54.2	47.5	17.2	1.0	0.0	1038.7
1962	5.1	14.9	41.1	20.8	122.6	83.3	40.3	31.3	47.3	7.0	4.2	21.1	439.0
1963	10.0	70.3	79.5	59.3	23.7	101.8	55.0	3.2	4.7	0.0	0.0	90.2	497.7
1964	107.6	102.3	154.2	127.9	89.4	139.4	84.2	104.5	89.6	0.0	28.3	8.2	1035.6
1965	51.8	9.1	61.7	39.8	73.1	73.7	26.0	35.2	9.4	13.3	0.0	3.2	396.3
1966	64.8	89.4	64.7	210.9	113.2	68.4	161.7	16.3	58.1	0.3	34.1	0.0	881.9
1967	10.1	0.0	135.9	185.6	95.0	101.1	97.3	47.1	6.4	18.7	0.0	10.1	707.3
1968	20.5	18.2	51.7	58.9	30.4	10.1	64.8	12.1	0.0	0.0	0.0	51.2	317.9
1969	85.9	16.3	73.6	30.6	112.6	155.7	159.2	28.0	0.0	7.3	7.4	5.1	681.7
1970	17.4	29.7	92.5	63.2	18.5	138.3	183.7	80.5	18.5	3.1	8.6	23.5	677.5
1971	12.6	0.0	0.6	68.2	103.5	55.0	125.8	51.9	9.3	54.0	12.8	0.0	493.7

1972	36.5	0.0	8.4	47.0	102.1	117.4	19.6	68.5	5.2	0.0	0.0	0.0	404.7
1973	22.1	12.5	76.6	89.7	30.9	106.4	30.5	32.9	8.3	6.4	31.6	29.6	477.5
1974	25.5	10.3	48.3	200.8	112.3	26.5	59.4	14.6	70.9	0.0	26.0	1.6	596.2
1975	48.1	53.2	6.4	95.8	82.0	107.1	230.5	36.6	28.5	0.0	11.5	136.7	836.4
1976	0.0	6.2	121.9	10.3	47.7	35.8	40.1	23.8	0.0	140.0	8.4	56.1	490.3
1977	14.8	21.2	42.1	175.8	58.3	136.9	159.8	33.3	34.0	13.4	19.6	23.7	732.9
1978	9.3	46.2	100.0	65.4	121.9	121.3	167.8	75.7	87.7	3.2	16.7	6.0	821.2
1979	19.2	42.0	30.1	22.0	57.0	36.0	79.3	9.6	65.6	11.3	10.2	14.4	396.7
1980	21.6	79.8	200.7	44.8	71.5	224.0	31.0	33.8	47.5	0.0	36.2	37.9	828.8
1981	21.4	0.0	172.3	19.1	10.2	10.8	25.7	0.8	0.0	0.0	0.0	44.8	305.1
1982	0.8	10.2	10.8	70.8	126.1	158.4	58.3	40.5	0.0	0.0	0.0	0.8	476.7
1983	0.8	36.2	91.8	0.0	84.9	18.1	81.9	27.4	14.0	38.8	0.0	2.5	396.4
1984	35.8	0.0	37.3	153.3	137.5	96.4	136.4	99.6	19.6	4.0	0.8	0.0	720.7
1985	7.3	139.4	220.1	222.0	75.8	80.3	170.5	78.7	25.5	0.0	6.2	0.0	1025.8
1986	25.5	53.8	168.8	92.8	73.3	83.4	125.3	74.0	55.6	8.3	47.0	26.0	833.8
1987	20.3	18.2	77.5	112.4	4.1	120.2	115.5	14.1	6.1	25.5	0.6	0.0	514.5
1988	0.0	25.1	178.5	108.9	95.1	93.1	160.5	22.3	23.5	5.0	14.3	24.5	750.8
1989	15.8	0.0	10.1	137.0	67.0	60.9	108.3	18.2	3.0	25.4	17.9	58.9	522.5
1990	20.1	41.1	9.2	78.6	54.6	88.7	89.4	47.1	14.9	9.0	0.7	8.5	461.9
1991	20.6	7.7	63.9	89.2	133.2	48.1	60.1	70.6	3.9	3.8	1.1	0.3	502.5
1992	67.8	75.8	57.4	79.2	16.9	54.7	97.2	32.7	99.5	0.0	10.0	0.0	591.2
MÉDIA	26.6	30.8	76.8	83.6	89.9	90.9	84.5	40.1	25.6	12.5	13.3	19.2	593.8

Dados de Pluviometria Homogeneizados (mm)

Posto: BEZERROS

Número: 3868453

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	24.8	77.7	99.7	145.2	44.0	197.9	102.0	60.3	6.7	1.2	9.8	5.0	774.4
1936	10.0	128.0	26.6	15.1	99.9	237.3	86.9	41.6	5.8	5.5	0.1	3.8	660.6
1937	2.4	29.0	33.1	133.1	128.1	126.8	87.1	25.6	4.4	7.7	5.2	16.0	598.4
1938	22.5	14.0	46.0	94.0	69.6	73.0	25.3	66.5	40.1	19.4	10.4	4.3	485.2
1939	13.4	10.1	56.4	25.3	85.8	30.0	48.5	30.3	3.4	43.4	26.0	12.0	384.8
1940	34.9	30.1	54.1	63.7	186.6	50.0	33.5	26.4	25.2	5.0	0.8	15.1	525.4
1941	2.2	10.2	119.1	71.4	39.5	38.7	47.4	25.2	5.1	6.9	20.0	13.5	399.3
1942	2.4	18.9	26.8	78.0	76.5	65.5	35.0	31.3	12.5	12.2	9.1	24.6	393.0
1943	47.0	65.3	65.1	23.4	44.9	41.1	72.8	54.3	24.6	5.1	22.4	75.9	542.0
1944	70.5	17.4	27.0	119.3	99.1	120.5	115.6	115.1	27.9	5.8	2.4	4.3	724.9
1945	20.3	30.2	11.2	24.4	165.7	99.6	48.3	22.4	19.7	15.3	3.0	5.1	465.0
1946	15.3	12.4	28.9	64.2	50.0	76.5	37.5	26.7	7.1	1.3	0.4	34.5	354.7
1947	5.3	11.5	57.1	152.9	97.5	27.3	22.2	12.0	7.2	3.1	26.4	12.2	434.7
1948	5.1	4.0	67.5	20.8	73.8	98.3	91.0	17.1	15.8	27.1	5.0	9.6	435.0
1949	2.0	13.4	3.4	35.9	91.7	50.7	25.2	25.2	10.2	1.1	97.9	1.1	358.0
1950	3.2	8.2	20.2	67.0	45.0	14.1	27.7	17.9	5.3	7.7	5.5	12.8	234.6
1951	4.3	6.2	13.0	22.3	91.9	307.7	39.6	17.1	5.1	6.1	8.2	23.7	545.3
1952	8.5	1.3	29.4	6.9	30.2	61.4	15.0	26.8	3.0	2.3	5.1	13.3	203.1
1953	1.1	2.2	20.6	61.1	79.8	110.5	50.2	25.0	4.8	2.1	44.3	5.8	407.4
1954	13.3	22.4	27.1	86.0	201.5	45.2	30.5	12.3	2.8	1.0	8.2	6.0	456.3
1955	28.7	47.9	67.1	38.9	78.5	19.8	30.0	24.8	11.3	16.1	6.0	27.2	396.3
1956	11.1	61.5	42.2	53.6	88.5	38.7	55.7	42.6	11.9	4.7	16.6	3.7	430.6
1957	13.7	0.0	100.2	94.2	55.7	41.1	29.3	7.6	3.8	10.3	0.1	5.2	361.3
1958	0.0	60.3	24.0	11.8	146.8	35.2	129.7	32.7	29.5	6.3	1.1	0.0	477.3
1959	0.8	70.6	13.5	31.4	74.2	96.7	32.9	41.3	2.0	1.8	1.7	0.3	367.2
1960	1.5	14.9	204.0	77.1	3.2	85.8	124.2	0.4	11.7	3.9	0.0	0.0	526.7
1961	238.6	3.4	140.9	38.4	3.6	38.6	84.3	30.9	16.6	10.9	1.7	0.3	608.2
1962	0.0	29.2	16.0	10.0	93.6	94.6	111.8	1.2	18.5	0.0	0.0	16.8	391.6
1963	21.0	68.9	99.7	51.5	25.1	15.0	17.4	9.7	16.1	0.8	18.8	89.2	433.3
1964	88.0	69.8	70.3	100.6	139.7	83.1	108.8	71.1	41.8	38.1	19.7	17.5	848.5
1965	44.6	135.7	20.4	83.4	46.2	64.8	51.1	21.3	15.3	20.7	15.2	23.0	541.7
1966	37.5	159.8	35.7	198.7	52.6	89.4	114.9	42.3	50.4	0.0	48.7	26.4	856.5
1967	19.3	25.6	98.2	45.8	101.5	71.9	54.6	44.2	43.6	20.4	0.0	36.6	561.7
1968	20.3	20.3	73.0	69.0	22.1	9.5	28.3	12.6	5.9	10.1	27.2	73.7	371.9
1969	66.9	40.1	174.2	42.1	67.2	93.7	130.1	15.1	29.7	16.4	8.4	7.7	691.4
1970	39.3	60.6	75.3	53.2	13.6	56.4	152.8	42.1	3.0	0.7	3.8	0.2	501.0
1971	7.3	14.6	27.5	172.6	70.6	37.6	65.8	30.0	15.5	19.4	6.8	0.0	467.8

1972	12.4	117.8	89.9	75.4	82.0	133.0	45.5	67.4	12.7	23.1	0.6	51.2	711.0
1973	89.5	31.2	76.0	227.1	28.4	63.3	38.2	22.9	40.8	44.4	4.1	15.5	681.4
1974	25.5	116.4	90.4	295.8	53.2	39.5	78.6	17.6	14.9	0.0	28.4	27.2	787.5
1975	23.0	25.1	49.0	146.3	52.0	51.2	318.8	49.9	22.8	6.1	18.6	132.1	894.9
1976	1.5	89.4	142.1	37.8	30.1	22.1	13.3	6.8	0.2	42.3	18.1	42.9	446.6
1977	16.1	8.8	99.9	184.5	164.0	166.3	99.1	3.7	0.4	4.8	1.7	13.2	762.5
1978	0.0	64.1	99.4	39.6	156.8	96.8	52.2	43.9	57.0	0.4	6.5	11.8	628.5
1979	46.4	60.1	122.8	52.5	28.2	11.3	25.0	1.7	24.3	9.3	14.9	0.0	396.5
1980	8.1	86.4	130.7	29.7	36.6	88.0	15.4	1.5	3.3	27.4	12.7	26.0	465.8
1981	45.3	10.4	267.1	6.8	4.8	25.7	25.4	10.2	13.3	1.2	7.0	37.5	454.7
1982	20.4	17.6	9.5	102.4	111.4	56.1	25.7	30.5	15.0	0.2	0.5	14.1	403.4
1983	7.5	88.6	39.9	3.5	51.1	40.9	47.5	31.2	2.8	24.1	1.5	4.1	342.7
1984	10.5	1.5	131.3	188.3	102.5	23.7	102.4	98.2	25.0	24.6	8.4	0.0	716.4
1985	25.9	184.4	288.9	306.2	82.6	66.0	89.6	45.0	11.6	1.4	12.2	0.0	1113.8
1986	10.0	51.8	149.2	129.0	63.6	60.6	97.0	44.8	24.6	19.0	17.0	34.8	701.4
1987	20.0	89.4	46.0	101.6	16.6	75.6	40.4	25.0	9.2	12.8	3.2	0.0	439.8
1988	9.2	61.1	112.9	121.6	42.0	50.0	125.3	19.9	26.2	9.5	8.7	63.2	649.6
1989	16.4	5.4	44.7	235.9	165.8	48.5	125.1	36.1	8.6	25.5	13.2	106.4	831.6
1990	26.0	91.0	0.0	73.6	56.8	40.6	142.6	36.4	6.2	8.6	0.0	0.0	481.8
1991	34.0	50.6	39.4	107.0	91.0	36.6	39.2	57.2	3.0	0.0	4.2	1.2	463.4
1992	48.3	62.9	105.8	67.2	23.7	45.9	87.9	22.2	66.3	0.0	3.7	0.0	533.9
MÉDIA	24.9	46.7	73.3	86.5	74.6	70.4	68.9	31.4	16.4	11.1	11.6	20.8	536.6

Dados de Pluviometria Homogeneizados (mm)

Posto: BOM JARDIM

Número: 3858684

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
23													
1935	9.6	93.6	133.5	149.3	104.8	273.1	162.0	104.2	6.7	3.0	77.3	10.0	1127.2
1936	2.9	70.4	32.1	27.7	267.9	385.3	131.6	52.9	12.0	15.7	3.2	4.1	1005.7
1937	4.4	15.3	61.9	121.6	101.2	157.2	115.1	61.6	28.5	18.4	14.0	19.9	719.2
1938	39.2	32.5	109.8	101.5	111.4	122.9	49.1	97.4	34.8	17.9	19.6	10.7	747.0
1939	5.9	45.5	177.3	34.6	161.3	28.4	169.6	133.5	25.6	80.0	88.3	18.6	968.5
1940	136.3	72.3	121.8	151.1	407.9	154.4	110.4	67.1	70.2	7.3	5.1	22.7	1326.5
1941	2.3	30.8	142.1	236.1	65.1	134.8	148.5	87.2	21.9	20.1	60.1	55.2	1004.2
1942	10.5	38.8	61.2	192.9	227.8	134.2	68.5	125.3	35.4	27.6	6.6	40.1	968.8
1943	63.5	176.1	105.7	52.7	89.2	80.7	164.4	69.3	86.4	13.7	25.2	20.2	947.2
1944	16.4	0.0	98.0	135.9	135.8	91.9	139.7	123.3	87.7	30.3	25.2	19.1	903.4
1945	18.6	77.8	52.3	68.1	180.4	222.0	140.6	117.8	46.5	43.4	10.7	12.3	990.4
1946	82.6	23.9	78.6	162.5	134.2	111.9	79.6	27.0	40.9	6.0	2.9	60.9	811.0
1947	69.1	45.6	134.1	157.9	199.0	135.6	73.4	57.0	48.7	23.0	50.6	61.7	1055.6
1948	5.0	24.8	97.5	51.9	167.1	168.8	184.4	100.4	108.2	90.6	97.3	89.2	1185.2
1949	25.1	41.8	24.3	119.1	301.8	235.6	55.1	93.0	27.2	9.0	109.0	6.0	1046.9
1950	33.3	20.5	65.0	257.3	154.8	63.6	100.5	55.5	66.9	32.7	0.0	53.2	903.2
1951	25.1	13.9	1.9	83.2	169.9	430.6	133.6	52.9	18.3	23.8	20.6	78.3	1052.0
1952	12.4	38.7	90.5	21.6	98.4	106.2	28.6	126.4	23.2	0.0	0.0	44.4	590.4
1953	22.8	9.3	92.3	125.8	130.6	257.2	134.9	107.3	14.9	11.0	77.7	21.2	1005.1
1954	10.8	49.0	70.9	113.4	294.8	100.6	92.6	62.6	7.9	2.8	10.8	12.0	828.3
1955	65.3	48.6	173.4	136.8	166.0	121.3	113.9	103.9	19.4	34.0	13.2	71.6	1067.4
1956	33.0	116.7	114.6	143.0	127.0	137.1	125.5	144.3	48.4	30.5	10.6	15.2	1045.9
1957	84.9	6.7	93.6	206.2	56.1	135.7	61.0	44.8	14.5	21.1	6.3	40.7	771.6
1958	2.9	38.5	45.1	70.7	240.9	78.4	231.5	126.0	39.5	14.3	4.2	23.2	915.2
1959	16.9	52.5	38.5	140.9	110.8	183.3	134.3	92.5	36.8	6.3	15.8	2.4	831.0
1960	33.0	32.8	315.9	118.5	90.3	135.1	116.2	75.0	20.1	24.6	1.7	21.0	984.2
1961	221.7	130.7	209.9	212.3	169.6	182.2	170.8	75.0	37.8	26.3	3.4	5.3	1445.0
1962	0.8	50.8	54.6	52.8	158.4	280.8	125.6	84.1	60.7	7.5	3.9	63.3	943.3
1963	28.7	62.6	149.9	101.7	68.6	123.2	101.1	36.1	30.3	0.0	35.1	174.6	911.9
1964	154.7	117.8	278.9	174.2	122.6	197.0	156.7	145.1	123.5	9.2	2.5	16.9	1499.1
1965	141.5	6.3	64.3	114.2	117.7	269.6	68.5	96.0	82.6	14.8	3.8	48.2	1027.5
1966	110.7	108.1	76.8	155.5	104.3	235.4	388.0	80.5	102.0	0.5	95.3	13.3	1470.4
1967	18.9	63.3	137.4	198.8	145.6	99.0	181.9	109.5	24.9	64.7	0.0	59.5	1103.5
1968	48.5	20.3	132.7	89.5	132.5	46.9	173.0	45.4	23.2	9.7	5.7	43.2	770.6
1969	58.0	58.1	110.2	134.0	170.9	222.1	286.0	43.5	26.5	42.4	12.5	10.3	1174.5
1970	7.4	42.2	152.6	179.8	64.7	173.1	312.9	183.1	29.8	1.0	13.6	3.0	1163.2
1971	22.4	15.0	67.8	87.3	191.5	100.3	136.6	66.0	41.3	91.1	29.4	19.2	867.9

1972	8.3	38.6	115.8	93.8	152.2	179.6	99.9	96.5	66.6	20.3	7.6	134.4	1013.6
1973	47.2	32.4	30.5	217.7	55.1	148.2	127.5	36.5	121.4	75.9	15.5	18.4	926.3
1974	48.7	66.0	145.8	206.4	181.5	150.3	197.7	23.9	117.6	5.4	12.7	41.1	1197.1
1975	60.6	7.3	85.5	80.9	78.7	156.9	416.2	64.6	80.0	3.0	7.7	37.0	1078.4
1976	1.7	78.0	41.0	0.0	0.0	40.1	96.8	41.5	7.0	74.6	28.6	82.4	491.7
1977	30.6	49.1	62.2	179.2	223.9	226.9	288.3	62.2	114.2	34.7	14.9	38.6	1324.8
1978	7.8	87.7	197.2	200.4	350.8	159.1	202.0	104.7	97.6	9.3	52.0	63.4	1532.0
1979	99.8	89.2	95.6	96.8	205.4	92.7	127.6	56.6	68.0	7.4	45.7	15.1	999.9
1980	33.2	124.5	128.9	88.4	81.5	151.7	58.7	46.5	75.3	38.8	11.9	23.2	862.6
1981	57.0	53.1	293.9	43.8	58.6	73.3	83.2	39.2	27.2	1.9	67.4	91.3	889.9
1982	45.7	68.7	15.7	90.5	164.7	278.1	119.0	76.6	56.1	4.0	5.7	27.2	952.0
1983	25.1	53.2	216.8	38.7	95.5	92.9	85.0	80.1	14.9	48.1	2.0	4.9	757.2
1984	151.1	6.6	19.8	160.6	252.2	79.6	246.5	100.4	42.2	18.5	24.2	0.0	1101.7
1985	34.3	145.8	210.2	173.5	132.2	106.1	190.9	80.0	29.2	4.5	34.5	22.0	1163.2
1986	85.2	45.8	198.8	186.4	66.6	174.4	195.5	180.5	45.0	11.0	43.3	66.5	1299.0
1987	45.2	40.2	38.4	200.2	21.7	145.0	124.4	41.1	27.4	22.8	2.0	0.0	708.4
1988	35.9	6.8	172.0	279.9	118.0	133.2	196.0	69.7	37.9	0.0	18.5	18.0	1085.9
1989	48.4	4.7	38.7	229.2	194.0	107.0	196.4	133.8	8.6	17.7	33.9	57.9	1070.3
1990	0.0	30.5	16.2	180.1	109.4	141.8	225.0	114.5	31.2	30.9	9.7	7.2	896.5
1991	9.5	0.0	52.5	132.0	152.0	118.3	102.6	139.9	10.7	22.4	15.7	5.1	760.7
1992	73.5	113.6	167.8	201.2	43.0	125.3	139.2	65.3	130.2	15.5	16.2	2.8	1093.6
MÉDIA	44.7	52.3	108.8	133.8	146.2	155.1	149.7	84.9	48.0	23.1	24.7	35.3	1006.6

Dados de Pluviometria Homogeneizados (mm)

Posto: BUENOS AIRES

Número: 3859529

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	24.3	79.3	142.6	207.2	108.3	264.1	133.5	79.7	6.5	4.8	42.4	7.5	1100.2
1936	13.6	105.5	55.6	35.5	242.1	437.6	144.8	46.0	6.9	16.2	2.8	6.3	1112.9
1937	2.3	43.4	31.9	154.2	124.2	164.4	94.1	44.8	17.4	11.9	15.1	17.9	721.6
1938	25.8	30.6	131.0	110.1	97.4	98.8	39.9	87.8	44.4	31.3	29.2	9.6	735.9
1939	6.1	56.9	201.8	22.3	147.8	45.4	180.9	132.0	29.5	101.1	94.8	28.8	1047.4
1940	87.3	103.4	132.9	166.0	423.0	127.7	91.8	76.5	74.7	10.2	2.5	42.0	1338.0
1941	9.2	34.9	200.7	227.6	58.0	133.1	112.3	84.6	24.9	15.5	52.2	40.1	993.1
1942	4.4	32.6	100.9	160.0	293.8	100.3	74.7	128.5	33.4	33.0	5.9	56.2	1023.7
1943	87.1	136.6	99.9	54.5	114.0	90.7	136.9	63.2	81.7	8.3	22.1	37.0	932.0
1944	8.7	1.3	68.6	173.7	202.4	152.1	115.6	110.9	69.4	18.5	22.1	18.8	962.1
1945	21.0	81.4	52.3	66.4	188.7	245.6	113.4	108.1	36.5	38.4	15.1	21.7	988.6
1946	104.2	24.8	82.1	112.4	135.8	135.0	82.0	34.1	38.7	2.7	2.1	57.8	811.7
1947	63.3	52.8	128.9	152.4	172.8	109.9	63.8	41.5	39.1	12.4	54.0	62.8	953.7
1948	10.6	26.2	99.3	60.1	161.0	205.6	233.5	90.5	88.7	48.0	59.0	59.1	1141.6
1949	25.2	37.7	26.8	149.3	319.6	213.8	64.1	108.1	37.1	13.8	114.3	8.6	1118.4
1950	28.6	53.4	82.3	316.6	183.9	51.2	98.9	63.2	47.1	36.7	5.2	47.1	1014.2
1951	21.9	33.4	12.0	79.6	153.3	476.0	112.5	56.7	13.0	20.3	20.1	73.1	1071.9
1952	27.8	26.1	91.9	41.9	120.8	124.6	67.4	154.3	35.1	8.3	4.8	53.3	756.3
1953	18.9	15.4	83.6	131.8	98.8	244.3	153.2	108.2	21.5	17.8	75.9	21.0	990.4
1954	22.4	45.1	63.8	112.2	311.8	91.6	80.4	61.9	14.5	5.4	19.0	9.8	837.9
1955	26.9	50.0	166.7	87.7	113.4	84.7	86.6	83.2	23.6	29.4	9.4	89.4	851.0
1956	26.0	91.5	174.5	118.4	95.2	137.7	118.2	122.9	37.6	29.3	14.1	10.7	976.1
1957	71.4	12.2	140.6	177.6	76.1	88.9	52.4	38.0	9.9	18.3	6.4	32.7	724.5
1958	5.8	32.3	45.6	50.5	241.0	84.1	183.6	95.1	32.8	9.5	6.1	30.9	817.3
1959	13.2	62.6	52.6	95.4	128.1	146.8	102.2	113.0	19.0	7.8	24.7	4.2	769.6
1960	30.3	40.8	269.6	117.1	97.2	137.1	115.7	86.8	20.7	26.0	2.2	25.2	968.7
1961	137.7	107.8	169.8	209.3	148.2	102.3	114.6	39.0	21.4	24.4	5.6	8.9	1089.0
1962	1.4	30.5	74.8	73.9	146.3	248.0	117.7	50.7	54.2	4.7	3.2	37.8	843.2
1963	14.2	73.0	124.3	165.8	72.1	108.6	97.0	45.8	21.7	6.6	38.0	68.3	835.4
1964	140.5	127.1	167.2	163.2	147.5	224.1	162.0	132.2	94.5	12.5	8.6	13.4	1392.8
1965	97.4	17.6	58.3	140.3	152.0	265.7	69.4	67.6	61.6	17.9	13.9	36.1	997.8
1966	54.8	79.2	45.1	117.3	109.2	253.6	329.1	60.8	72.2	7.5	45.8	31.2	1205.8
1967	21.5	51.7	139.7	163.8	68.5	187.1	149.1	121.2	9.5	40.5	0.0	51.0	1003.6
1968	143.1	26.5	125.0	118.0	160.5	41.0	156.0	51.5	23.8	6.0	0.0	30.5	881.9
1969	56.0	40.5	52.0	108.5	223.0	210.0	300.0	84.5	31.0	14.5	18.8	11.5	1150.3
1970	24.8	32.9	177.8	209.4	59.2	166.1	195.3	239.7	18.3	0.0	9.0	0.0	1132.5
1971	89.3	42.0	34.4	28.2	285.8	168.2	107.6	58.3	53.1	60.3	28.0	0.0	955.2

1972	18.8	95.0	166.3	168.8	179.7	163.3	79.5	140.2	93.7	21.6	5.3	93.4	1225.6
1973	54.3	60.0	107.7	239.6	91.3	142.8	120.6	81.3	122.9	5.3	1.0	52.2	1079.0
1974	83.0	96.0	232.5	306.0	208.0	126.5	214.0	30.7	161.2	0.0	2.6	48.2	1508.7
1975	23.3	11.5	41.3	35.9	185.8	184.9	342.3	89.3	42.0	6.3	32.8	89.1	1084.5
1976	6.0	125.6	297.4	126.9	154.2	83.4	167.2	39.3	7.5	67.0	50.5	37.7	1162.7
1977	30.6	116.8	55.0	301.2	147.1	250.0	425.8	70.4	93.9	40.3	19.7	26.2	1577.0
1978	5.8	145.5	82.4	256.6	122.7	129.4	254.5	90.8	194.0	2.1	30.3	30.2	1344.3
1979	70.5	97.2	104.8	91.7	166.9	152.7	162.9	33.3	142.3	8.0	88.1	13.9	1132.3
1980	48.0	155.1	162.2	50.7	69.9	69.2	46.8	44.7	66.3	53.8	6.6	37.5	810.8
1981	37.4	71.1	207.2	46.4	84.4	92.6	62.2	19.2	24.2	0.0	54.9	110.1	809.7
1982	20.0	68.5	20.6	101.9	188.8	210.7	136.0	92.3	120.8	4.6	3.5	23.6	991.3
1983	17.5	70.9	205.9	45.7	75.7	75.3	43.5	55.7	34.7	29.6	4.3	6.2	665.0
1984	85.2	0.0	24.2	134.5	131.9	118.6	236.9	88.6	8.9	6.3	10.6	29.3	875.0
1985	40.5	106.6	268.9	213.4	139.6	188.4	304.4	76.6	56.8	1.4	14.6	38.2	1449.4
1986	86.2	78.8	221.4	255.8	147.8	232.0	180.2	190.0	63.6	34.0	78.8	17.8	1586.4
1987	6.0	41.0	197.2	148.2	38.6	160.0	149.0	38.8	29.6	21.8	5.2	5.2	840.6
1988	46.4	132.2	221.0	262.8	107.6	120.6	286.6	78.8	66.0	9.6	22.6	19.8	1374.0
1989	31.4	11.2	38.4	239.6	119.0	152.8	274.4	166.0	8.0	20.2	40.0	74.4	1175.4
1990	7.0	3.4	7.6	229.4	152.0	165.6	396.2	132.4	39.6	36.0	2.2	25.8	1197.2
1991	12.6	17.6	131.6	160.0	235.6	91.6	142.2	130.2	21.4	44.6	31.8	0.0	1019.2
1992	76.4	106.8	229.2	96.8	83.8	177.8	167.0	52.4	87.0	15.0	28.4	5.8	1126.4
MÉDIA	40.9	61.2	119.5	141.2	151.9	159.6	152.5	84.7	49.1	20.6	24.6	33.5	1039.3

Dados de Pluviometria Homogeneizados (mm)

Posto: CUMARÚ

Número: 3868062

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	11.2	83.1	149.6	182.5	96.0	240.9	126.4	98.6	5.0	4.4	24.9	3.2	1025.8
1936	5.8	120.0	41.2	18.3	166.1	319.4	123.8	46.3	7.9	9.4	2.3	2.1	862.6
1937	2.2	15.2	46.9	123.0	85.0	136.6	85.5	42.8	16.5	8.7	13.8	22.0	598.2
1938	35.4	17.1	93.2	112.7	105.1	99.0	29.2	102.1	41.6	24.0	20.4	9.3	689.1
1939	5.4	41.0	139.8	27.8	104.9	51.3	149.9	99.0	22.4	66.1	75.4	18.8	801.8
1940	89.7	59.4	119.1	142.7	374.7	131.2	88.0	53.6	61.8	9.6	2.2	35.3	1167.3
1941	2.8	21.0	195.6	166.4	60.7	92.5	109.3	73.3	13.1	14.1	34.6	28.0	811.4
1942	7.7	30.8	55.3	142.6	201.1	113.5	67.8	95.3	28.0	27.8	9.3	39.6	818.8
1943	75.9	111.6	90.5	45.6	95.7	70.3	117.9	69.6	66.7	5.6	22.4	61.2	833.0
1944	18.8	1.4	50.6	146.4	156.6	121.1	122.8	155.3	65.2	13.4	16.4	13.8	881.8
1945	25.9	85.5	35.6	34.5	180.0	203.3	102.2	72.8	35.5	37.4	6.9	16.3	835.9
1946	55.0	22.3	60.1	122.2	105.2	127.8	75.3	47.8	33.7	1.6	1.1	55.2	707.3
1947	35.4	38.4	127.0	288.9	196.7	115.8	63.9	43.7	42.5	10.8	66.1	40.2	1069.4
1948	9.0	13.9	118.1	49.7	160.5	202.0	204.0	79.6	80.2	54.5	40.7	36.4	1048.6
1949	19.5	47.2	19.4	102.7	252.0	199.8	65.3	86.2	37.5	5.5	132.8	3.9	971.8
1950	23.1	32.0	64.3	239.0	131.4	46.4	79.6	61.2	49.6	15.1	8.9	35.8	786.4
1951	21.6	21.6	16.8	52.0	120.2	439.2	93.1	45.2	18.6	13.9	17.8	72.8	932.8
1952	12.4	17.0	65.7	19.9	82.7	116.5	37.1	125.1	29.7	3.8	2.8	30.2	542.9
1953	11.9	10.1	68.2	139.3	113.0	251.8	134.8	98.8	20.6	9.4	86.0	12.0	955.9
1954	12.0	28.5	55.8	103.9	308.0	77.2	66.3	48.1	15.4	2.1	41.0	6.7	765.0
1955	22.6	42.0	105.8	76.0	110.5	73.4	82.9	69.6	27.5	26.2	9.8	54.2	700.5
1956	12.1	59.8	80.3	79.2	78.6	80.6	100.4	91.3	34.0	3.3	6.4	4.2	630.2
1957	50.3	0.0	138.3	176.3	61.6	49.2	54.1	22.2	3.8	13.6	1.1	9.4	579.9
1958	1.1	15.9	28.8	29.8	172.7	51.9	105.5	59.6	22.9	6.7	4.4	13.3	512.6
1959	0.0	109.9	23.8	76.8	94.8	232.4	136.7	56.0	54.7	6.0	10.2	2.1	803.4
1960	23.8	29.8	343.7	111.3	71.8	101.4	93.2	70.2	14.8	26.4	1.7	14.9	903.0
1961	297.0	90.3	259.7	175.9	229.1	143.8	140.5	47.1	31.0	35.5	4.7	3.9	1458.5
1962	1.8	33.0	61.2	31.6	152.6	235.6	104.6	20.5	29.3	0.0	0.0	5.6	675.8
1963	78.3	57.7	138.2	72.7	47.9	72.1	40.1	21.1	17.6	0.0	3.0	89.4	638.1
1964	84.0	52.4	172.8	81.0	166.7	218.1	149.1	54.9	105.6	8.8	2.1	7.4	1102.9
1965	58.4	0.0	67.4	65.6	116.0	206.9	9.2	27.9	11.7	0.0	1.5	25.7	590.3
1966	65.4	142.8	36.2	41.5	45.3	189.7	163.8	22.4	83.4	0.0	56.6	41.4	888.5
1967	30.4	8.8	136.2	0.0	34.7	110.5	15.3	35.6	91.9	20.5	0.0	26.2	510.1
1968	118.1	5.1	84.6	46.5	35.6	28.5	88.7	19.2	0.2	5.0	0.0	18.2	449.7
1969	72.8	24.2	161.7	87.3	53.3	281.4	97.1	39.3	7.6	3.5	1.1	0.0	829.3
1970	10.5	2.0	81.6	20.9	74.2	119.2	120.1	196.3	9.2	11.2	16.6	0.0	661.8
1971	28.0	0.0	113.4	176.7	99.3	123.0	90.3	20.7	17.5	8.7	0.0	0.0	677.6

1972	4.0	35.6	125.8	106.8	256.3	183.9	82.1	157.6	118.4	4.0	0.0	3.7	1078.2
1973	21.8	18.4	86.2	151.1	292.6	192.1	175.7	75.5	55.1	1.8	13.1	20.1	1103.5
1974	28.9	47.6	126.8	175.2	106.0	102.5	163.2	25.1	91.1	0.0	0.0	16.2	882.6
1975	16.4	0.0	7.0	64.8	223.1	46.4	337.9	11.1	10.4	3.1	0.0	72.2	792.4
1976	0.0	20.1	87.5	16.0	70.7	85.9	82.3	2.4	64.1	65.2	35.0	26.8	556.0
1977	9.1	26.3	3.6	125.2	206.3	214.9	174.3	38.3	30.4	11.1	0.0	38.5	878.0
1978	0.0	107.7	178.4	135.6	28.7	139.9	130.5	87.2	77.3	7.0	6.5	16.7	915.5
1979	79.5	59.0	42.6	19.0	246.2	127.1	137.7	45.1	10.0	2.1	25.8	0.0	794.1
1980	0.0	37.0	109.6	51.1	99.9	187.6	21.8	1.0	0.0	0.0	5.1	109.0	622.1
1981	28.6	116.2	230.1	26.0	83.1	98.9	96.2	18.0	0.0	0.0	0.0	40.0	737.1
1982	97.1	149.0	55.7	180.5	300.1	430.3	63.1	122.5	10.0	0.0	0.0	23.4	1431.7
1983	55.0	168.0	171.4	10.0	89.3	108.1	104.3	77.6	15.0	0.0	0.0	0.0	798.7
1984	0.0	108.0	50.0	284.7	337.7	110.7	111.2	63.3	20.0	8.0	17.0	0.0	1110.6
1985	21.2	87.1	152.5	221.5	88.5	102.0	82.5	54.0	4.1	0.0	6.0	4.1	823.5
1986	25.0	79.1	129.4	327.9	133.1	314.7	541.4	181.0	106.6	115.7	87.6	107.9	2149.4
1987	45.9	22.9	56.1	104.2	21.1	97.4	84.4	4.2	8.1	0.0	0.0	0.0	444.3
1988	0.0	34.2	143.5	124.5	120.3	237.8	379.5	28.2	30.1	0.0	0.0	58.6	1156.7
1989	2.0	18.4	210.0	279.8	167.5	309.9	334.1	60.7	17.8	32.7	24.1	58.9	1515.9
1990	0.0	0.0	0.0	200.5	179.3	371.8	268.4	82.0	23.3	0.0	0.0	8.3	1133.6
1991	0.0	0.0	0.0	18.5	283.6	124.8	108.2	168.3	34.4	39.4	0.0	0.0	777.2
1992	185.3	198.4	152.5	84.9	29.3	113.5	125.6	47.3	107.6	1.9	16.4	0.7	1063.4
MÉDIA	35.4	48.7	99.4	108.9	139.7	158.2	123.1	65.0	36.0	13.9	16.9	25.2	870.4

Dados de Pluviometria Homogeneizados (mm)

Posto: GRAVATÁ

Número: 3868488

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	14.6	72.6	52.0	166.8	55.6	221.7	79.9	27.5	11.9	0.0	17.4	20.0	740.0
1936	15.3	109.9	26.1	34.6	109.5	243.5	56.1	57.7	7.7	7.4	0.3	6.0	674.0
1937	4.7	36.7	12.1	163.2	90.5	96.6	41.0	9.1	1.3	15.8	2.3	7.4	480.8
1938	1.8	14.7	70.8	90.3	80.7	93.1	10.3	35.3	26.4	4.0	23.3	8.9	459.5
1939	18.9	21.5	82.6	53.7	100.5	47.5	49.4	7.9	0.0	70.8	73.8	1.4	528.1
1940	46.8	91.1	107.4	61.4	259.7	30.6	41.2	44.4	64.3	11.9	0.0	35.4	794.1
1941	4.0	30.4	178.9	137.0	70.7	49.9	56.7	17.7	9.7	10.5	17.7	15.4	598.7
1942	3.2	5.4	112.9	145.8	74.7	89.6	57.5	19.8	17.4	28.2	4.0	32.1	590.5
1943	3.3	199.7	96.4	32.9	26.6	21.9	53.2	79.8	38.4	0.0	8.8	35.2	596.3
1944	39.2	28.9	53.7	118.1	157.3	111.7	71.6	38.8	13.4	0.0	0.0	0.0	632.8
1945	0.0	29.4	23.6	30.6	254.6	133.5	23.6	23.6	58.9	0.0	0.0	13.3	591.0
1946	30.4	22.7	105.0	89.2	86.5	44.6	23.4	14.3	8.5	0.0	0.0	59.8	484.4
1947	4.9	7.8	195.3	258.8	29.7	29.7	16.1	0.0	6.5	3.6	67.9	21.1	641.3
1948	0.0	0.0	172.7	32.7	72.7	175.2	116.1	14.2	37.7	23.4	6.8	9.4	660.8
1949	0.0	45.0	0.0	96.6	131.9	54.2	9.7	8.8	37.1	9.2	191.5	0.0	583.9
1950	40.3	26.9	103.1	211.7	29.0	0.0	23.6	6.2	0.0	18.9	0.0	38.9	498.6
1951	0.0	12.2	4.3	61.5	141.3	298.6	36.1	0.0	0.0	0.0	0.0	40.7	594.8
1952	66.0	0.0	97.9	0.0	52.5	53.7	9.2	10.9	0.0	0.0	31.6	36.2	357.8
1953	0.0	6.3	24.8	121.3	185.6	54.5	42.0	9.8	0.0	0.0	123.1	0.0	567.5
1954	9.3	32.5	30.9	131.1	197.8	26.2	7.7	1.7	0.0	0.0	4.8	0.0	442.0
1955	0.0	44.8	186.9	58.3	84.4	2.1	0.0	0.0	19.4	0.0	0.0	23.6	419.5
1956	0.0	122.3	35.1	81.1	118.1	34.0	56.5	29.6	4.4	0.0	15.3	0.0	496.4
1957	10.9	0.0	100.1	146.2	77.2	18.1	6.4	0.0	0.0	32.7	0.0	0.0	391.5
1958	0.0	0.0	7.8	7.8	210.4	36.5	111.9	30.7	0.0	0.0	0.0	0.0	405.0
1959	0.0	118.9	0.0	62.7	90.8	118.4	32.4	60.5	7.5	2.5	2.1	0.3	496.2
1960	0.0	0.0	235.8	123.0	0.0	25.3	166.7	0.0	0.0	4.5	0.0	0.0	555.3
1961	209.9	0.0	288.7	0.0	0.0	29.1	99.5	43.4	23.3	21.8	1.9	1.5	719.1
1962	0.0	35.8	20.9	12.1	91.7	115.5	134.0	8.1	11.2	0.0	0.0	14.0	443.2
1963	140.6	16.6	41.8	55.4	27.2	40.2	21.4	0.0	0.0	0.0	5.4	95.2	443.8
1964	53.6	71.8	119.6	113.6	158.6	84.0	45.0	88.4	27.1	12.2	2.2	22.9	799.1
1965	89.5	38.6	57.0	69.3	23.1	199.7	15.5	25.5	20.2	12.3	0.0	0.0	550.7
1966	32.5	88.1	21.8	84.9	46.7	145.6	137.0	22.9	39.7	0.0	29.2	7.7	656.2
1967	2.0	8.9	93.5	84.9	69.8	60.8	80.0	30.4	12.4	16.2	0.0	0.2	459.1
1968	30.5	2.7	136.8	59.0	46.0	9.5	68.2	24.1	7.5	3.8	20.0	9.8	418.0
1969	70.1	26.3	94.4	40.6	64.4	189.3	183.7	13.0	17.4	12.7	8.3	10.4	730.6
1970	89.3	35.5	26.3	70.0	12.3	54.0	243.6	56.8	17.4	0.0	0.0	2.3	607.7
1971	11.1	3.4	32.2	71.8	71.5	37.3	50.7	26.8	15.8	25.6	13.2	0.0	359.4

1972	14.2	28.3	43.1	61.8	108.4	86.4	25.3	59.2	20.0	15.2	0.0	21.2	483.1
1973	35.9	0.0	11.2	137.8	23.7	68.7	78.5	20.2	70.5	4.9	7.0	7.0	465.5
1974	51.4	27.0	162.6	148.3	44.6	95.8	46.8	37.9	12.6	0.0	21.1	50.7	698.9
1975	43.7	10.7	36.2	36.8	77.8	43.7	269.5	49.9	22.3	0.0	10.0	116.2	716.8
1976	0.0	12.7	195.0	0.0	64.5	24.0	24.7	11.5	0.0	120.8	28.2	45.0	526.4
1977	19.8	7.9	33.1	137.0	69.3	162.7	97.1	22.4	43.6	42.1	0.0	19.0	653.9
1978	4.3	119.6	101.9	58.4	81.5	103.4	59.8	58.9	86.3	12.5	8.4	18.3	713.3
1979	31.6	30.8	61.7	34.5	82.8	50.3	31.1	46.3	52.2	16.8	20.5	0.0	458.8
1980	23.6	101.6	111.0	41.1	39.3	105.9	0.0	15.1	6.6	8.5	12.6	11.5	476.7
1981	52.2	9.9	176.2	33.8	18.9	35.5	29.9	6.7	13.0	0.0	9.7	66.6	452.3
1982	98.7	0.0	0.0	0.0	0.0	0.0	194.1	98.3	0.0	0.0	0.0	49.0	440.1
1983	13.1	41.4	77.2	12.9	86.7	39.4	48.6	8.1	13.8	31.1	5.5	5.7	383.4
1984	8.2	0.0	22.4	0.0	0.0	0.0	1.0	111.9	28.6	24.2	19.2	0.0	215.5
1985	76.0	133.8	195.0	178.4	124.2	76.5	132.1	49.4	7.9	7.4	13.3	1.1	995.1
1986	30.5	52.0	168.7	135.8	90.4	84.9	96.6	54.1	25.3	12.1	22.3	29.9	802.6
1987	14.6	39.2	60.4	93.3	13.2	72.1	71.3	18.6	9.5	13.2	1.2	0.0	406.6
1988	9.0	31.8	147.5	107.6	57.7	65.0	144.3	18.8	18.0	7.6	13.0	38.0	658.3
1989	11.8	1.6	32.3	165.2	118.3	80.5	107.7	41.5	8.5	20.2	16.0	65.0	668.6
1990	16.5	59.9	3.3	70.1	63.9	64.2	105.9	37.1	10.5	14.8	1.2	9.7	457.1
1991	30.1	15.9	64.3	61.8	105.4	36.8	41.0	67.2	8.0	8.2	2.1	0.6	441.4
1992	65.8	70.4	114.0	79.2	16.3	56.5	93.1	33.8	99.5	0.0	10.0	0.0	638.6
MÉDIA	29.2	38.0	83.9	82.3	80.8	76.3	68.5	30.2	19.3	12.2	15.4	19.4	555.5

Dados de Pluviometria Homogeneizados (mm)

Posto: LIMOEIRO

Número: 3859708

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	16.7	77.9	152.7	205.9	103.6	265.8	135.4	74.3	5.7	5.1	33.4	6.0	1082.5
1936	12.2	110.8	56.1	35.0	207.5	443.9	144.7	48.9	6.5	16.6	3.1	6.0	1091.3
1937	3.2	42.8	26.4	161.8	124.5	161.7	93.3	40.4	19.2	12.1	15.7	16.7	717.8
1938	31.8	32.2	126.5	116.4	103.7	98.2	40.9	85.9	46.6	31.5	27.0	8.6	749.3
1939	10.6	59.7	196.0	21.8	131.8	45.9	181.7	124.2	30.0	100.2	94.5	30.7	1027.1
1940	95.4	104.2	126.8	172.7	447.1	125.8	94.6	78.8	73.3	10.9	2.3	47.0	1378.9
1941	9.3	32.8	211.0	224.3	59.8	133.1	114.7	82.1	25.2	15.4	53.6	35.1	996.4
1942	5.9	33.6	105.4	153.2	275.1	102.5	76.2	127.4	33.8	34.3	5.7	62.4	1015.5
1943	77.3	135.3	103.8	56.3	114.3	91.1	136.4	60.6	82.1	7.7	23.3	37.7	925.9
1944	10.1	1.2	65.1	180.3	194.6	151.1	116.1	105.2	66.2	17.4	23.4	18.8	949.5
1945	20.5	83.0	50.8	61.3	170.8	243.3	113.4	102.4	35.0	39.1	15.0	24.3	958.9
1946	96.3	25.9	79.5	99.4	128.1	132.9	85.3	34.0	40.4	2.4	1.5	54.5	780.2
1947	63.3	60.9	123.0	150.4	165.9	113.0	63.0	40.3	34.7	12.2	56.3	62.9	945.9
1948	12.0	29.9	93.1	57.4	154.6	204.5	226.3	84.8	80.6	43.5	56.9	41.8	1085.4
1949	30.6	36.4	24.3	131.2	272.0	217.5	65.0	93.0	39.2	14.1	110.0	7.5	1040.8
1950	36.7	49.0	78.7	290.3	153.4	51.0	98.2	55.7	37.8	34.7	6.0	36.0	927.5
1951	30.3	31.5	11.5	63.2	121.2	473.0	113.0	48.1	10.8	19.7	16.3	47.5	986.1
1952	26.7	28.9	80.0	38.6	103.1	125.3	69.8	146.0	30.1	8.9	4.5	44.2	706.1
1953	24.7	16.4	76.3	127.8	91.5	245.0	156.8	101.7	20.8	20.1	74.2	16.8	972.1
1954	24.3	52.0	51.0	98.4	310.2	91.8	81.2	51.9	14.8	5.4	20.8	5.7	807.5
1955	33.3	54.3	150.5	77.8	104.7	85.3	85.9	83.9	25.1	28.9	9.5	93.1	832.3
1956	26.6	93.8	193.0	102.3	91.1	137.1	117.3	114.1	34.8	24.6	9.3	7.9	951.9
1957	67.2	11.3	146.3	160.0	72.1	82.3	52.5	30.8	10.0	17.8	5.5	30.2	686.0
1958	4.5	33.7	43.9	44.5	236.7	82.9	180.9	87.3	31.2	10.1	6.2	31.1	793.0
1959	12.8	58.1	58.1	91.1	127.0	169.4	116.3	107.3	26.8	8.4	22.2	3.8	801.3
1960	41.9	43.8	267.8	116.1	87.3	141.2	117.3	85.4	18.7	26.4	2.2	24.8	972.9
1961	178.1	110.6	169.9	202.7	146.2	110.3	122.5	31.3	19.9	26.9	5.8	9.4	1133.6
1962	1.0	32.7	74.8	63.2	159.8	252.6	122.7	39.7	45.8	3.2	1.7	22.2	819.4
1963	21.1	77.0	130.8	159.0	64.8	105.6	90.3	42.4	21.9	7.2	33.2	66.1	819.4
1964	133.4	122.3	166.1	154.5	146.1	213.4	152.9	121.0	94.4	11.8	7.2	12.7	1335.8
1965	85.2	16.6	61.7	127.9	143.3	266.9	63.3	59.3	59.3	16.1	12.4	34.0	946.0
1966	51.5	80.7	45.9	116.4	100.0	247.6	310.9	56.2	72.0	7.9	45.5	32.8	1167.4
1967	21.0	53.1	142.8	116.8	98.1	134.9	0.0	0.0	0.0	19.7	0.0	55.9	642.3
1968	66.0	16.5	112.6	68.4	126.3	36.8	161.0	46.9	0.0	9.6	3.5	10.3	657.9
1969	100.7	14.6	80.1	98.4	217.8	242.8	216.6	83.8	45.7	35.3	0.0	0.0	1135.8
1970	40.6	93.6	128.9	124.5	61.8	189.5	257.0	200.9	21.2	1.8	2.4	0.0	1122.2
1971	7.2	14.1	33.4	87.5	129.8	97.8	150.2	55.6	52.2	49.5	27.2	5.2	709.7

1972	36.9	30.8	83.6	126.0	165.7	168.3	79.7	125.1	82.0	24.6	9.8	56.2	988.7
1973	45.2	42.9	105.5	193.6	74.4	199.3	127.4	27.5	121.6	15.3	14.1	43.1	1009.9
1974	73.2	71.7	148.5	299.8	167.3	152.4	210.8	36.3	95.3	0.4	13.9	81.9	1351.5
1975	97.1	16.5	37.8	80.7	89.6	127.1	395.8	68.4	58.7	6.7	22.1	101.2	1101.7
1976	20.7	86.2	207.5	171.5	96.1	114.0	87.7	28.6	5.3	96.5	25.6	41.9	981.6
1977	19.9	70.4	35.8	155.4	197.7	249.6	273.2	46.0	108.5	30.6	10.3	50.8	1248.2
1978	1.4	79.9	58.0	158.0	134.3	95.5	214.1	82.2	159.5	7.7	33.6	47.4	1071.6
1979	65.4	102.0	104.3	60.3	169.0	132.9	115.1	45.0	118.3	13.7	54.3	5.1	985.4
1980	36.9	143.6	168.2	94.6	103.1	197.6	44.9	52.1	43.8	40.1	17.9	41.7	984.5
1981	66.0	55.0	247.5	36.8	67.1	80.8	78.6	26.5	27.5	3.8	45.1	122.7	857.4
1982	37.8	87.0	41.6	76.8	197.7	244.9	115.1	96.9	71.2	5.7	12.8	30.4	1017.9
1983	27.5	101.3	181.7	39.6	120.5	84.8	84.1	93.5	22.2	56.7	3.3	8.1	823.3
1984	91.0	14.6	58.6	232.0	250.0	103.0	237.7	135.7	46.0	31.2	25.2	5.5	1230.5
1985	44.2	158.2	282.4	204.2	145.8	162.7	257.1	86.4	34.2	7.0	17.2	42.7	1442.1
1986	69.5	107.3	235.6	259.4	167.0	243.9	248.4	147.7	64.2	45.2	83.0	64.4	1735.6
1987	36.9	75.7	172.0	154.5	43.5	163.1	148.9	44.7	22.7	25.1	6.9	4.4	898.4
1988	39.3	45.8	169.6	208.9	153.0	150.4	253.0	62.0	46.1	11.2	28.4	31.4	1199.1
1989	41.3	14.8	61.8	259.5	148.0	158.2	252.8	119.1	23.6	28.6	42.1	79.6	1229.4
1990	13.6	20.5	7.2	164.2	144.6	171.2	271.0	130.7	40.2	38.4	8.4	20.1	1030.1
1991	16.3	20.3	87.2	133.2	275.0	107.6	128.7	126.9	26.1	31.5	27.1	1.2	981.1
1992	85.8	134.0	254.3	95.7	54.3	164.0	138.7	78.1	104.9	13.1	21.7	4.8	1149.4
MÉDIA	43.0	59.5	113.7	130.4	146.7	161.8	142.9	77.4	45.4	22.2	23.5	33.4	999.8

Dados de Pluviometria Homogeneizados (mm)

Posto: MATA VIRGEM

Número: 3858439

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	14.3	59.9	142.7	172.7	68.3	221.4	132.7	75.6	5.9	4.2	10.6	1.8	910.1
1936	3.6	110.5	39.5	8.4	122.3	281.5	114.3	30.1	4.5	7.8	0.2	2.9	725.7
1937	1.2	8.0	40.1	100.2	102.6	124.5	84.6	30.8	9.7	6.7	9.4	21.0	538.7
1938	34.3	11.2	65.0	86.6	87.7	71.7	27.3	91.3	39.7	21.6	15.9	5.2	557.4
1939	5.2	16.2	94.7	29.3	138.6	25.6	120.8	87.6	14.8	61.6	56.9	17.9	669.0
1940	71.1	44.6	109.6	100.0	275.8	126.2	69.5	41.7	42.0	7.8	1.3	26.6	916.3
1941	2.8	22.6	198.1	131.4	50.0	73.5	91.3	68.2	8.7	13.1	18.1	23.7	701.3
1942	4.6	34.5	39.9	116.4	154.3	111.8	59.5	70.4	17.8	24.5	8.6	37.2	679.5
1943	73.1	78.7	73.3	34.9	69.8	60.9	108.1	61.0	38.5	4.3	18.3	89.5	710.4
1944	24.2	1.0	27.6	108.9	114.4	126.2	131.2	128.5	51.9	16.1	11.6	6.9	748.5
1945	38.7	75.1	19.8	20.0	218.9	167.3	100.9	53.2	29.4	33.9	4.1	6.7	768.0
1946	46.3	12.7	43.2	124.2	76.6	140.8	73.0	44.3	21.8	1.5	1.0	50.2	635.6
1947	19.0	26.5	126.4	271.1	216.6	86.0	58.1	35.0	32.8	10.0	61.2	28.9	971.7
1948	14.5	18.3	125.4	48.5	164.1	204.8	203.4	58.6	44.3	58.4	17.0	15.8	973.2
1949	12.6	32.3	15.4	106.4	246.5	168.8	76.9	69.4	23.4	4.3	123.3	1.6	881.1
1950	15.7	19.8	51.8	213.6	135.9	39.9	85.9	74.3	25.7	13.3	11.6	32.9	720.2
1951	10.5	11.4	34.3	51.5	134.0	485.3	84.6	28.9	17.5	15.4	15.1	65.9	954.4
1952	4.4	7.5	43.5	18.1	74.6	131.1	33.7	92.1	23.0	2.2	1.2	24.6	456.2
1953	1.7	16.0	47.9	122.3	123.1	252.4	109.4	71.3	12.6	2.8	86.0	11.0	856.5
1954	8.6	12.9	37.1	106.1	274.6	51.3	57.6	29.6	11.7	1.6	54.1	8.6	653.7
1955	9.7	39.5	67.2	77.0	122.0	41.3	64.7	66.3	19.5	27.9	6.3	26.9	568.2
1956	3.1	47.7	43.8	90.4	88.5	72.2	77.2	83.1	27.4	13.2	10.9	6.3	563.8
1957	17.6	2.3	95.4	71.0	47.7	42.9	51.7	20.7	3.6	8.7	0.7	4.4	366.5
1958	0.0	2.3	8.2	3.7	121.3	57.9	71.6	37.8	7.0	5.2	0.0	9.5	324.7
1959	0.0	31.8	21.8	51.2	65.8	213.0	114.1	50.0	49.5	2.1	0.0	0.4	599.8
1960	10.0	5.3	391.1	61.5	65.2	97.8	79.4	12.1	15.7	10.2	0.0	9.7	758.0
1961	307.4	7.2	272.8	49.6	218.4	102.5	119.8	38.8	34.0	14.0	0.5	0.0	1165.0
1962	5.5	18.4	48.2	28.7	153.3	96.9	0.0	47.9	51.8	12.7	9.2	35.1	507.6
1963	0.5	18.1	81.1	84.9	67.1	161.4	79.5	41.9	13.6	0.0	0.0	53.9	602.1
1964	80.3	55.9	65.7	87.4	66.9	191.8	125.5	136.0	122.7	0.0	0.0	4.8	936.9
1965	71.8	16.0	50.5	49.2	100.2	231.1	20.6	26.6	31.7	10.1	0.0	32.0	639.7
1966	62.7	99.7	0.0	36.6	54.8	181.1	273.3	83.9	35.5	0.0	0.0	10.1	837.7
1967	5.9	0.0	40.5	110.0	110.9	86.2	149.7	33.5	0.0	68.8	0.0	10.4	615.8
1968	82.0	0.0	193.3	66.5	112.7	0.0	32.1	0.0	7.4	0.0	0.0	10.5	504.5
1969	45.1	46.7	140.4	84.0	101.4	116.8	171.4	20.3	6.1	0.0	12.2	0.0	744.4
1970	26.4	5.2	38.6	26.9	0.0	138.6	172.8	101.0	0.0	0.0	0.0	0.0	509.5
1971	0.0	0.0	57.3	103.0	92.9	25.3	179.2	37.0	11.1	2.0	3.9	0.0	511.7

1972	0.0	103.6	29.5	54.7	98.5	74.9	39.2	134.6	0.0	20.1	0.0	71.3	626.3
1973	39.0	0.0	77.9	198.7	20.9	99.5	93.0	0.0	39.3	0.0	23.6	75.4	667.3
1974	104.2	114.1	104.1	123.3	47.2	119.6	176.0	22.0	10.6	0.0	7.2	13.7	841.7
1975	79.6	68.8	49.8	39.6	82.4	108.9	183.2	42.3	18.8	0.0	10.2	65.7	749.4
1976	12.2	39.0	70.3	31.7	104.2	42.5	61.7	0.0	0.0	92.8	20.4	35.3	510.1
1977	0.0	23.0	87.4	347.5	128.0	107.8	182.4	33.5	49.8	38.9	11.7	0.0	1010.0
1978	8.4	169.6	88.7	117.9	101.8	90.3	159.2	39.4	93.7	18.2	27.5	32.3	946.8
1979	47.7	40.6	71.2	75.4	103.1	134.8	61.7	15.0	79.7	0.0	18.4	20.7	668.2
1980	30.9	60.1	87.8	87.1	48.5	129.5	29.1	6.1	24.5	8.3	0.0	7.5	519.4
1981	59.8	22.2	347.5	32.7	40.3	20.4	30.1	0.0	13.5	0.0	39.0	28.6	634.0
1982	0.0	113.4	0.0	81.4	131.5	182.6	37.1	76.3	8.7	0.0	0.0	17.0	647.9
1983	0.0	137.4	0.0	0.0	141.6	41.9	82.9	52.7	0.0	36.6	0.0	0.0	493.0
1984	29.1	0.0	25.8	154.0	147.7	28.7	158.7	118.4	0.0	12.1	0.0	0.0	674.5
1985	0.0	269.4	141.4	197.2	40.7	16.5	175.9	54.8	21.2	0.0	8.2	0.0	925.4
1986	67.2	35.2	91.1	161.3	43.7	135.7	140.8	151.9	103.4	0.0	54.1	0.0	984.4
1987	26.3	15.9	129.9	119.3	6.3	102.7	85.9	21.3	0.0	0.0	0.0	0.0	507.6
1988	20.6	5.0	206.4	140.3	54.7	75.6	154.0	45.2	0.0	0.0	4.2	6.6	712.6
1989	4.9	2.4	47.2	154.1	128.6	64.6	181.8	143.4	0.0	23.9	6.8	49.4	807.1
1990	39.0	31.0	0.0	106.0	108.6	111.3	37.6	47.9	38.0	0.0	0.0	0.0	519.4
1991	10.4	0.0	51.2	115.9	146.4	155.2	35.0	39.9	0.0	0.0	2.5	0.0	556.5
1992	81.9	94.3	107.2	65.1	16.6	54.1	112.0	29.7	83.6	0.0	6.6	0.0	651.1
MÉDIA	31.0	40.7	82.9	94.1	106.5	115.6	100.4	54.4	25.8	12.7	14.0	19.3	697.2

Dados de Pluviometria Homogeneizados (mm)

Posto: RUSSINHA

Número: 3869308

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	26.4	91.6	177.6	189.9	113.8	269.5	144.3	75.3	4.7	5.2	7.3	2.3	1107.9
1936	10.7	110.5	49.1	37.4	234.8	473.2	141.1	53.7	6.4	13.5	3.0	1.5	1134.9
1937	2.4	51.2	32.3	193.0	116.9	154.0	84.3	42.4	20.4	10.1	16.4	15.2	738.6
1938	16.3	19.6	127.9	123.1	78.8	81.9	44.8	99.3	54.5	29.3	23.2	10.9	709.6
1939	17.0	46.1	127.1	17.7	108.1	55.3	185.8	106.0	30.8	89.6	91.3	28.8	903.6
1940	84.9	109.6	119.5	187.2	444.5	107.4	96.3	60.6	77.8	13.5	1.2	47.1	1349.6
1941	5.9	36.8	228.9	216.8	61.6	136.4	117.2	111.5	22.2	13.5	55.4	22.7	1028.9
1942	3.9	27.8	102.4	130.8	306.5	95.2	86.7	152.8	35.0	39.6	4.9	63.4	1049.0
1943	105.1	127.7	116.5	64.5	125.1	95.4	133.9	70.7	84.3	4.7	24.0	20.6	972.5
1944	3.6	2.8	64.8	194.3	230.4	166.1	106.3	116.1	57.0	16.5	25.3	25.8	1009.0
1945	5.1	70.3	57.8	35.9	184.1	238.8	115.8	102.5	31.0	40.1	16.1	33.9	931.4
1946	67.5	22.0	68.3	90.9	130.8	123.9	102.9	42.5	42.3	1.6	0.1	64.1	756.9
1947	55.1	33.7	98.7	144.1	158.9	117.3	54.8	32.7	27.1	8.6	61.4	58.6	851.0
1948	11.7	12.1	82.6	60.2	127.2	193.6	192.0	71.5	60.5	21.6	39.8	49.5	922.3
1949	18.3	35.5	11.8	86.9	231.7	154.2	60.3	76.7	48.4	11.5	82.1	5.8	823.2
1950	23.2	80.6	73.2	235.8	152.2	27.1	76.2	27.9	13.9	30.0	8.8	34.7	783.6
1951	22.8	54.3	1.9	45.7	90.2	324.6	65.8	23.8	4.4	13.4	5.0	18.2	670.1
1952	31.0	1.8	50.0	32.0	94.8	97.6	101.8	114.4	22.4	10.6	4.6	41.6	602.6
1953	13.3	16.7	60.1	113.9	53.2	179.1	134.4	72.3	23.2	26.6	60.4	12.5	765.7
1954	20.1	9.5	31.3	58.7	212.7	52.3	37.0	28.7	19.3	4.2	21.4	2.9	498.1
1955	9.0	44.7	106.4	43.3	77.7	75.5	59.9	49.8	36.1	17.0	7.9	109.6	636.9
1956	15.1	82.3	224.1	61.5	77.4	131.3	101.3	100.6	25.6	30.8	4.3	10.2	864.5
1957	73.6	16.3	140.3	163.3	77.9	73.6	53.4	27.3	8.9	19.3	5.1	18.3	677.3
1958	3.9	26.7	42.7	41.4	249.0	78.0	172.3	94.2	25.5	11.9	7.0	20.1	772.7
1959	18.9	81.0	49.2	109.0	119.1	239.2	168.3	73.2	43.2	11.2	17.9	8.9	939.1
1960	41.6	39.3	251.6	121.8	94.9	148.0	124.9	93.1	14.3	26.5	2.3	21.8	980.1
1961	229.0	93.8	209.5	206.7	177.3	117.8	141.4	48.6	17.8	34.4	5.1	9.8	1291.2
1962	0.6	24.4	79.8	47.6	152.6	257.6	166.4	29.5	20.2	1.2	0.0	10.2	790.1
1963	25.9	55.6	112.3	108.4	62.7	104.2	82.2	50.4	26.2	16.2	7.9	59.2	711.2
1964	82.6	122.0	166.3	125.9	133.8	168.9	142.8	71.0	86.4	7.5	2.9	9.6	1119.7
1965	69.7	8.2	76.0	70.4	133.6	285.2	50.9	54.1	35.3	15.2	9.2	28.3	836.1
1966	30.8	76.9	43.2	73.9	83.2	259.1	268.7	31.4	45.1	10.7	41.6	19.0	983.6
1967	15.1	19.0	168.6	45.4	89.6	127.9	113.3	47.3	57.4	30.0	3.0	71.0	787.6
1968	56.0	39.0	211.0	74.0	98.0	41.0	66.4	32.0	27.0	5.0	0.0	62.0	711.4
1969	18.0	11.0	99.0	57.4	261.6	230.4	247.7	16.2	7.9	3.5	0.0	22.5	975.2
1970	51.0	16.6	129.7	102.5	8.1	110.7	636.4	113.8	3.5	8.7	0.0	0.0	1181.0
1971	15.2	0.0	45.6	139.1	162.4	66.5	108.8	39.6	18.6	38.9	15.7	0.0	650.4

1972	35.0	33.7	86.8	92.7	113.4	168.5	60.2	113.4	21.3	20.5	0.0	20.3	765.8
1973	58.4	0.0	23.7	145.2	39.6	128.8	90.4	69.9	98.5	0.0	10.2	28.5	693.2
1974	98.8	6.0	114.5	373.9	111.1	76.8	121.2	20.5	50.0	0.0	43.7	65.9	1082.4
1975	27.5	0.0	38.5	96.6	75.6	111.2	318.2	30.3	37.7	6.3	0.0	135.0	876.9
1976	32.5	74.7	179.6	51.0	95.2	39.3	58.3	53.6	9.2	78.5	35.8	75.8	783.5
1977	10.4	71.9	44.5	90.2	58.0	269.8	155.3	17.5	31.3	21.7	2.6	45.1	818.3
1978	0.0	146.9	135.4	67.5	215.8	146.3	260.0	119.7	89.0	12.2	21.6	26.3	1240.7
1979	184.4	146.0	114.6	44.4	94.8	63.3	42.3	21.0	54.0	16.1	24.6	0.0	805.5
1980	0.0	130.7	187.2	62.5	51.6	178.8	36.6	17.8	19.1	18.2	2.4	19.1	724.0
1981	140.6	30.2	246.7	43.4	16.7	79.1	25.4	7.2	11.3	0.0	5.0	97.3	702.9
1982	27.2	51.1	9.0	45.2	147.9	221.6	23.1	44.7	9.4	3.5	3.4	33.6	619.7
1983	6.5	50.6	181.7	30.3	95.9	51.9	33.8	81.0	10.5	48.6	4.1	2.4	597.3
1984	45.5	15.2	71.6	218.7	132.0	101.0	133.6	124.4	34.7	3.7	45.2	0.0	925.6
1985	89.8	132.5	206.8	304.5	113.0	84.2	133.3	58.8	23.0	10.0	6.6	28.5	1191.0
1986	1.2	54.7	184.8	212.2	143.2	196.6	99.4	61.5	33.0	15.2	73.0	28.5	1103.3
1987	0.0	0.0	71.7	188.0	3.8	109.6	28.2	21.7	11.3	28.3	0.0	15.2	477.8
1988	0.0	35.9	105.1	94.8	108.0	107.4	222.0	14.0	10.3	0.0	9.3	28.2	735.0
1989	53.3	0.0	104.0	204.2	164.1	105.2	232.0	24.8	30.4	31.5	47.9	98.4	1095.8
1990	31.3	14.4	3.4	156.9	134.7	201.7	238.5	111.3	36.4	30.4	13.6	22.5	995.1
1991	17.1	15.5	77.0	96.1	283.9	96.2	104.7	124.1	10.4	23.0	4.2	0.0	852.2
1992	77.3	154.3	170.6	63.4	0.0	132.4	128.0	50.4	120.9	0.0	10.6	0.0	907.9
MÉDIA	38.6	49.7	106.8	112.6	129.5	143.6	126.4	62.8	33.4	18.3	18.0	31.2	870.9

Dados de Pluviometria Homogeneizados (mm)

Posto: SALGADINHO

Número: 3858869

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	22.4	69.2	146.7	215.8	100.1	282.8	148.8	112.2	6.9	5.2	6.8	1.5	1118.4
1936	6.9	126.2	47.7	23.2	183.1	396.2	132.1	43.5	4.8	9.8	1.3	3.1	977.9
1937	1.6	30.6	31.0	123.1	104.1	157.8	87.4	43.5	17.5	7.8	13.0	20.4	637.8
1938	21.8	17.8	96.9	131.2	87.1	76.1	35.1	107.4	50.7	22.9	19.3	8.8	675.1
1939	13.2	44.1	116.4	13.5	119.1	48.0	181.9	81.1	27.3	84.6	89.4	22.9	841.5
1940	79.9	82.0	123.4	176.6	370.4	112.0	89.2	53.4	63.3	11.4	1.4	36.1	1199.1
1941	5.1	28.1	220.2	154.2	57.9	107.5	110.1	79.4	17.7	13.0	37.6	25.5	856.3
1942	3.5	24.8	71.1	134.7	247.7	109.0	72.4	90.2	26.1	33.8	10.9	50.9	875.1
1943	91.5	108.9	88.5	37.1	105.7	86.3	122.7	74.4	64.7	5.3	19.4	60.6	865.1
1944	4.0	2.0	49.2	172.7	191.0	183.0	132.7	193.1	60.1	14.4	16.4	15.3	1033.9
1945	9.3	97.4	40.9	17.3	214.4	212.8	122.3	54.6	32.5	39.2	10.8	20.1	871.6
1946	71.6	23.4	58.6	97.2	105.3	165.8	90.3	63.3	37.6	1.7	0.7	61.7	777.2
1947	44.5	43.4	143.7	477.3	228.4	111.6	66.6	35.4	30.3	9.4	67.6	46.7	1304.9
1948	13.0	8.1	109.3	41.0	153.1	228.1	221.8	65.8	51.9	55.0	23.2	28.1	998.4
1949	17.2	50.1	12.8	78.1	237.2	158.5	66.6	63.6	34.9	7.1	106.5	2.8	835.4
1950	23.3	50.2	59.5	206.7	145.1	35.9	83.4	41.1	17.1	22.3	8.7	31.7	725.0
1951	17.1	34.4	22.2	20.8	109.5	468.1	63.1	25.8	9.8	12.5	8.4	43.5	835.2
1952	20.2	1.6	38.3	19.5	82.3	132.3	63.5	88.3	22.3	5.2	2.0	33.1	508.6
1953	8.0	9.9	49.4	130.9	85.2	251.9	134.3	74.0	16.4	13.2	69.9	10.8	853.9
1954	12.8	4.8	22.9	66.3	205.3	40.2	38.2	20.0	14.1	2.1	12.0	1.3	440.0
1955	10.8	29.6	81.1	42.2	100.1	52.3	62.7	48.3	26.5	18.9	7.9	57.8	538.2
1956	9.9	49.6	126.3	60.0	75.5	92.1	87.7	76.3	23.5	19.1	11.6	6.6	638.2
1957	52.0	9.4	102.7	133.6	79.7	77.3	53.1	19.9	6.4	14.0	3.1	17.9	569.1
1958	2.2	26.3	13.9	57.8	188.5	51.6	168.6	75.1	24.2	13.3	2.9	25.7	650.1
1959	17.9	121.1	44.6	94.4	103.8	241.1	174.3	70.0	57.4	7.8	7.2	4.7	944.3
1960	30.3	35.9	312.4	161.9	98.8	112.5	88.2	81.6	14.5	43.3	1.8	18.7	999.9
1961	183.0	124.5	112.3	189.0	99.2	88.8	126.8	28.2	24.4	36.5	9.3	0.3	1022.3
1962	1.2	8.9	47.5	14.4	84.8	202.1	185.8	35.9	15.6	1.7	0.0	10.8	608.7
1963	14.5	77.2	111.4	63.4	52.0	130.8	59.6	91.9	28.5	0.0	22.5	47.1	698.9
1964	122.7	81.2	131.5	84.7	121.8	153.4	123.9	59.0	83.1	0.0	14.4	4.8	980.5
1965	73.8	11.3	55.1	0.0	112.3	270.6	46.0	45.7	11.4	4.2	0.0	20.0	650.4
1966	23.1	23.4	32.1	62.6	0.0	295.1	284.9	17.1	0.0	10.9	55.2	13.4	817.8
1967	16.5	27.2	118.6	80.0	23.9	88.1	104.9	83.8	19.6	30.0	2.4	13.4	608.4
1968	0.6	4.8	217.3	83.8	96.5	48.2	100.6	21.0	8.2	18.2	0.0	25.6	624.8
1969	44.5	33.9	135.0	323.6	150.0	184.8	208.7	25.4	27.8	22.2	18.6	6.2	1180.7
1970	33.4	34.2	111.2	123.2	30.4	137.7	263.9	147.4	9.3	7.3	4.5	2.1	904.6
1971	7.2	12.3	31.8	287.2	129.0	116.3	128.3	19.4	42.4	50.5	36.0	3.2	863.6

1972	39.8	20.8	164.3	85.1	164.9	141.4	67.2	145.0	58.0	24.6	3.1	55.9	970.1
1973	37.0	34.0	111.0	173.1	70.5	108.5	78.3	75.4	69.5	14.1	6.4	12.6	790.4
1974	31.2	0.0	160.1	133.4	134.2	129.4	166.6	27.5	103.7	0.0	14.6	22.9	923.6
1975	30.4	5.4	94.4	94.5	109.1	65.3	273.3	65.1	47.8	0.0	8.4	93.6	887.3
1976	3.3	219.7	201.4	91.1	88.3	73.6	88.1	50.8	6.4	98.5	47.1	39.2	1007.5
1977	16.0	63.5	59.7	116.6	171.0	234.4	241.0	32.1	59.1	26.6	2.2	39.2	1061.4
1978	8.8	145.0	162.2	121.6	90.8	162.1	235.5	77.9	121.5	7.1	32.8	32.6	1197.9
1979	86.6	76.0	128.6	60.6	99.7	92.5	87.5	21.2	69.4	20.2	39.8	4.2	786.3
1980	24.9	106.1	181.2	95.6	66.2	175.0	26.1	25.9	31.4	33.4	22.7	31.1	819.6
1981	25.5	42.4	287.7	59.2	31.2	56.7	59.5	25.2	16.4	0.0	71.2	66.0	741.0
1982	24.3	49.2	44.0	146.3	86.9	211.0	94.6	71.6	33.9	1.2	20.9	23.6	807.5
1983	38.0	62.8	152.9	31.2	84.0	60.2	66.8	100.6	26.0	67.2	5.2	1.3	696.2
1984	55.4	7.4	93.2	226.4	231.8	99.7	205.6	128.9	58.5	21.2	14.4	0.7	1143.2
1985	28.6	124.6	239.5	277.4	116.9	142.0	202.1	74.1	27.4	6.3	16.3	22.4	1277.6
1986	50.0	99.7	204.9	265.0	153.1	257.5	286.4	116.7	83.6	50.8	90.3	74.4	1732.4
1987	44.6	99.8	111.6	123.8	31.6	159.8	115.3	42.4	14.8	21.8	3.5	1.9	770.9
1988	30.3	23.8	124.6	148.5	147.1	173.9	260.9	44.8	38.7	9.0	17.5	30.0	1049.1
1989	56.7	21.1	95.8	241.1	158.0	159.6	218.7	79.1	21.8	29.8	38.2	90.6	1210.5
1990	32.2	10.5	6.4	150.7	116.9	172.9	195.6	84.2	25.0	17.4	8.8	19.1	839.7
1991	13.5	9.2	73.2	55.1	247.6	89.2	99.9	112.8	8.0	16.8	1.0	0.0	726.3
1992	65.6	118.5	130.6	50.4	7.5	93.8	128.1	34.3	101.8	0.0	3.7	0.0	734.3
MÉDIA	32.3	50.1	106.2	119.8	122.2	147.7	129.8	65.4	35.4	19.7	20.5	25.2	874.2

Dados de Pluviometria Homogeneizados (mm)

Posto: St. BARRIGUDA

Número: 3868227

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
56													
1935	22.1	73.0	110.9	156.5	66.3	221.0	119.4	73.9	5.6	2.4	11.9	4.2	867.2
1936	4.9	123.6	35.9	12.8	108.1	237.0	94.8	35.7	4.4	7.0	0.2	2.4	666.8
1937	1.6	22.6	28.4	123.4	107.3	120.4	78.0	27.0	7.7	7.8	6.8	16.8	547.8
1938	29.6	14.3	55.7	90.3	78.6	65.2	23.4	74.8	38.7	18.7	12.3	5.0	506.6
1939	11.1	12.2	75.7	30.7	102.0	24.6	91.1	48.4	10.3	58.0	38.8	13.5	516.4
1940	63.5	41.9	90.9	88.5	259.4	76.2	59.6	35.6	42.6	7.4	1.2	25.6	792.4
1941	3.2	18.3	175.2	103.4	52.8	54.7	82.8	44.8	8.3	11.2	25.4	20.8	600.9
1942	3.6	30.3	38.2	104.7	121.9	82.1	53.1	44.1	17.2	18.9	9.1	35.1	558.3
1943	68.3	71.1	70.2	28.0	63.0	49.3	93.1	63.3	37.7	4.1	24.6	68.3	641.0
1944	44.3	14.1	27.6	111.0	114.4	116.7	110.4	115.8	38.8	9.9	7.1	5.7	715.8
1945	40.7	52.0	17.6	34.2	217.1	136.2	81.6	31.1	26.7	23.2	4.1	6.7	671.2
1946	37.1	14.2	47.2	94.6	66.3	105.2	57.8	39.5	16.7	1.3	0.7	44.1	524.7
1947	16.1	26.0	118.7	240.4	208.9	58.7	49.7	25.8	29.2	7.6	55.0	25.5	861.6
1948	14.1	12.4	110.3	38.3	134.0	159.3	169.2	37.6	39.8	41.6	13.9	14.3	784.8
1949	7.3	23.3	8.1	61.6	166.9	89.3	49.3	42.5	19.6	3.2	128.0	1.9	601.0
1950	10.9	12.2	37.1	124.2	90.3	27.2	57.3	39.6	18.3	10.5	10.0	25.1	462.7
1951	6.2	8.1	18.8	32.1	109.0	385.8	59.4	19.7	11.4	9.1	11.1	50.2	720.9
1952	5.3	3.5	31.4	11.4	45.8	80.3	21.3	42.8	15.6	2.6	4.5	15.8	280.3
1953	1.1	8.3	29.8	85.4	111.6	172.4	81.3	43.0	10.7	2.7	68.6	8.0	622.9
1954	9.3	16.0	25.5	80.9	207.2	50.9	34.9	13.9	7.4	1.0	28.0	6.2	481.2
1955	17.3	41.1	71.1	45.3	90.4	23.5	44.1	34.2	17.6	18.5	5.5	27.4	436.0
1956	5.5	54.8	37.2	58.7	70.7	43.1	61.5	60.8	21.3	9.3	11.7	5.4	440.0
1957	8.6	0.0	114.5	165.1	48.7	24.5	26.0	8.1	5.3	9.4	0.3	4.2	414.7
1958	0.0	30.7	12.0	8.1	84.9	16.2	88.0	24.2	16.7	11.1	0.0	0.0	291.9
1959	0.4	51.5	18.4	30.9	62.2	133.0	33.7	37.2	15.7	1.3	1.2	0.1	385.6
1960	7.2	10.1	318.1	52.7	44.5	99.9	94.7	5.6	14.3	8.0	0.0	7.0	662.1
1961	298.2	4.7	177.1	37.8	130.7	54.1	91.5	34.0	35.8	0.0	0.0	0.0	863.9
1962	0.0	24.0	22.4	10.2	89.0	83.3	125.0	0.2	0.0	3.1	0.0	17.8	375.0
1963	35.4	5.5	82.5	24.2	22.7	49.9	4.8	2.8	6.3	0.0	9.5	143.0	386.6
1964	62.8	64.7	225.0	108.2	77.8	101.1	73.1	61.9	42.9	17.4	3.0	7.6	845.5
1965	18.1	0.0	29.9	153.4	42.8	188.3	19.7	12.8	12.9	0.0	0.0	12.0	489.9
1966	72.6	72.3	28.8	102.8	81.4	174.4	93.8	14.2	9.2	0.0	28.6	0.0	678.1
1967	20.1	0.0	45.1	121.8	94.4	54.0	76.1	24.6	13.1	8.4	0.0	80.4	538.0
1968	43.6	0.0	41.2	38.6	20.3	0.0	22.4	13.2	0.0	0.0	0.0	0.0	179.3
1969	47.8	28.8	173.3	45.6	90.2	98.7	147.6	21.4	7.2	0.0	18.4	0.0	679.0
1970	0.0	16.4	85.5	47.3	11.0	66.5	168.2	31.6	1.2	0.0	0.0	0.0	427.7
1971	4.3	0.0	18.4	18.6	89.5	49.3	42.0	36.9	20.2	13.3	2.2	0.0	294.7

1972	10.9	37.6	71.4	20.0	47.0	79.2	22.0	65.9	16.3	9.0	0.0	60.2	439.5
1973	36.6	36.6	16.2	136.8	26.8	36.7	62.6	20.0	40.2	59.8	3.6	4.6	480.5
1974	30.0	71.8	67.2	180.8	23.6	44.9	84.5	24.6	25.2	0.0	0.8	47.0	600.4
1975	2.6	0.7	162.6	225.8	210.6	137.6	594.4	12.4	68.8	0.0	0.0	52.8	1468.3
1976	18.8	83.0	227.5	63.2	32.4	27.0	38.0	3.0	28.8	63.8	25.4	18.0	628.9
1977	78.3	12.4	26.8	134.7	138.1	117.8	95.0	13.7	90.2	0.0	0.0	7.6	714.6
1978	0.0	53.9	122.8	99.1	101.5	116.8	102.4	19.8	34.4	0.0	2.3	14.4	667.4
1979	59.8	71.0	48.8	121.3	45.6	49.3	21.0	2.2	16.8	2.2	0.0	6.5	444.5
1980	7.4	74.5	67.8	20.1	24.2	82.3	9.5	13.2	8.1	14.6	3.0	10.0	334.7
1981	44.6	19.1	306.0	19.0	20.2	18.7	12.4	6.4	7.6	0.0	25.4	35.3	514.7
1982	13.6	45.0	23.0	49.0	61.0	143.0	36.5	30.5	14.8	0.8	0.6	21.4	439.2
1983	9.8	110.0	43.2	25.5	56.0	38.2	21.2	55.8	2.9	19.4	3.2	1.2	386.4
1984	17.0	2.2	109.8	162.4	152.2	40.6	88.4	58.6	25.2	30.8	4.0	0.0	691.2
1985	15.2	141.8	186.4	260.4	58.6	60.6	51.8	58.2	15.8	1.2	6.6	3.8	860.4
1986	40.4	41.6	87.4	137.0	85.0	55.4	71.0	42.0	18.8	7.8	15.0	28.2	629.6
1987	11.8	35.0	49.6	60.0	4.8	48.8	33.0	11.6	6.4	2.8	0.0	0.0	263.8
1988	3.6	22.0	146.6	89.5	19.4	65.1	98.2	2.2	2.2	7.8	21.4	28.2	506.2
1989	7.4	0.0	29.4	103.6	127.0	77.0	85.8	48.0	1.0	15.6	15.2	31.6	541.6
1990	8.2	85.6	3.2	55.4	48.0	45.6	74.8	31.4	0.0	6.4	0.0	6.4	365.0
1991	3.4	0.0	67.4	37.6	90.3	18.7	31.2	58.1	4.5	1.5	1.4	0.2	314.3
1992	84.8	40.6	101.4	83.8	18.3	31.8	59.0	18.3	56.2	0.0	2.9	0.0	497.1
MÉDIA	26.7	34.2	79.6	82.9	85.7	84.6	75.4	33.1	19.5	10.2	11.6	18.6	562.1

Dados de Pluviometria Homogeneizados (mm)

Posto: SURUBIM

Número: 3858653

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	4.5	127.8	228.0	195.3	43.4	191.4	114.4	62.3	1.6	0.8	17.4	3.9	990.8
1936	10.0	122.7	28.2	5.2	131.9	244.8	100.3	41.1	7.1	8.2	0.6	0.0	700.1
1937	1.4	16.9	56.5	124.1	162.9	100.4	85.9	24.4	6.2	10.1	8.9	16.4	614.1
1938	32.5	7.5	47.5	60.9	56.6	77.2	27.6	75.2	31.0	32.9	14.4	1.8	465.1
1939	0.7	19.5	90.7	38.7	121.4	38.5	79.4	59.1	10.9	46.3	28.4	18.9	552.5
1940	78.5	45.0	70.3	77.2	290.5	132.6	58.4	39.7	36.7	6.3	0.8	28.1	864.1
1941	2.3	15.5	209.3	152.0	54.0	80.1	88.9	53.6	9.6	15.6	18.6	21.4	720.9
1942	9.7	33.2	35.7	112.3	133.6	117.0	65.9	88.0	25.4	17.7	3.3	34.5	676.3
1943	75.2	86.7	115.5	52.2	55.2	55.5	108.9	62.2	41.9	6.7	19.9	105.0	784.9
1944	7.7	2.2	11.1	90.8	59.5	63.1	95.6	86.8	38.6	15.0	17.7	8.6	496.7
1945	3.5	39.6	4.0	42.4	210.4	173.1	63.0	66.4	29.3	29.7	4.5	6.4	672.3
1946	37.7	17.2	38.9	133.1	87.9	83.7	64.2	32.8	18.3	1.9	0.1	35.3	551.1
1947	24.8	8.0	29.5	152.4	59.6	63.0	43.3	40.5	34.1	9.7	69.2	24.4	558.5
1948	0.2	10.1	100.6	59.3	126.8	151.5	143.5	33.6	48.4	19.7	37.4	30.7	761.8
1949	13.5	3.0	16.5	73.1	143.6	96.0	51.0	64.6	20.6	2.2	96.4	4.1	584.6
1950	10.8	28.1	41.7	172.5	97.6	26.4	48.3	52.8	22.0	14.0	16.4	29.7	560.3
1951	19.0	6.0	0.0	46.5	82.3	226.7	85.4	36.5	11.6	13.4	19.4	36.4	583.2
1952	13.3	3.3	40.1	10.6	49.5	48.3	23.7	61.1	7.1	5.7	2.6	9.9	275.2
1953	5.8	5.3	51.9	89.5	82.7	123.4	60.3	50.3	14.3	8.1	85.7	12.4	589.7
1954	10.0	31.1	50.0	66.3	224.4	55.4	54.6	27.3	7.6	3.8	92.1	19.0	641.6
1955	10.8	74.9	66.3	79.1	91.5	43.7	58.4	51.5	18.6	34.0	2.8	52.1	583.7
1956	7.9	66.2	47.3	80.4	114.5	77.2	74.4	58.1	33.0	15.4	0.9	10.4	585.7
1957	40.6	0.0	62.7	0.0	41.9	63.5	37.2	15.5	8.0	16.0	1.7	13.0	300.1
1958	0.0	1.0	5.4	3.9	125.8	34.2	64.4	19.6	4.2	3.1	0.0	3.0	264.6
1959	0.0	60.8	14.1	51.6	75.2	171.3	85.6	56.1	51.3	2.0	0.0	0.0	568.0
1960	9.3	3.0	327.5	74.5	39.9	63.1	98.6	12.2	10.9	12.6	0.0	5.7	657.3
1961	342.6	4.7	262.0	35.4	150.8	71.5	100.2	54.2	47.5	13.6	0.4	0.0	1082.9
1962	5.4	17.0	41.3	23.3	144.2	83.3	25.1	30.4	31.4	2.8	1.5	16.8	422.5
1963	9.5	36.1	101.4	96.3	33.8	70.9	55.7	16.3	20.5	0.3	14.3	94.6	549.7
1964	51.7	96.0	122.3	155.9	156.4	140.1	79.6	77.7	65.4	8.7	5.8	13.7	973.3
1965	55.1	0.0	32.7	72.4	83.5	165.4	13.5	30.3	23.9	20.9	4.2	37.8	539.7
1966	45.6	77.5	28.3	73.4	59.2	171.4	219.0	29.3	74.6	9.5	48.0	7.7	843.5
1967	6.4	50.9	48.0	50.7	61.9	83.0	142.8	43.4	9.3	26.2	0.0	45.2	567.8
1968	117.5	5.2	103.8	71.5	68.8	26.9	48.2	37.0	9.2	10.1	0.6	20.6	519.4
1969	40.1	27.9	208.1	73.3	137.1	179.6	178.8	33.9	14.1	19.3	12.9	3.1	928.2
1970	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971	12.4	3.5	15.0	17.0	99.0	62.6	106.2	60.6	21.1	29.6	9.5	0.0	436.5

1972	5.0	10.8	138.8	101.4	135.2	143.0	41.2	44.4	16.0	14.0	7.9	59.7	717.4
1973	26.5	8.0	27.1	213.2	43.2	88.4	58.8	94.0	44.2	38.2	9.8	19.2	670.6
1974	20.0	88.0	86.0	275.0	88.6	121.4	115.2	21.1	44.8	0.8	5.2	33.9	900.0
1975	48.3	0.0	38.5	118.1	51.4	55.0	271.7	29.6	36.3	3.6	9.3	62.6	724.4
1976	4.3	20.7	50.3	24.9	105.7	42.1	0.0	25.3	4.0	144.5	16.6	25.2	463.6
1977	14.6	51.8	76.6	233.5	157.0	155.0	124.4	19.2	80.1	26.0	5.9	14.3	958.4
1978	0.0	78.5	125.0	85.4	202.4	99.7	122.6	72.9	74.8	3.4	12.4	30.6	907.7
1979	58.7	70.3	66.6	32.1	81.4	61.5	105.6	14.8	41.6	6.5	19.9	1.2	560.2
1980	44.5	57.0	121.1	73.6	54.0	111.9	16.4	16.9	10.7	18.8	5.7	19.9	550.5
1981	23.6	26.8	178.4	61.5	25.6	36.8	32.6	13.1	12.0	4.4	37.2	48.7	500.7
1982	14.2	50.4	12.3	76.2	70.1	170.0	64.5	41.6	18.7	2.5	2.8	30.0	553.3
1983	20.3	61.6	124.0	39.6	71.6	40.5	30.4	42.7	3.9	28.1	1.0	5.1	468.8
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985	11.2	103.6	190.4	241.6	40.3	69.4	117.0	64.5	20.6	1.0	12.3	8.4	880.3
1986	41.4	60.3	158.6	144.7	75.9	96.5	108.4	70.0	48.8	6.6	24.4	18.6	854.2
1987	17.6	32.4	96.6	103.8	10.2	80.2	68.6	18.9	7.0	5.7	0.1	0.0	441.1
1988	14.7	30.5	146.5	170.7	65.2	65.7	145.4	32.6	21.6	3.0	6.9	15.7	718.5
1989	13.8	2.5	54.6	148.4	112.1	83.5	127.1	71.1	3.2	13.6	14.2	75.9	720.0
1990	13.6	33.8	4.0	88.6	72.2	89.9	99.1	45.6	11.1	9.1	0.8	5.1	472.9
1991	17.4	6.4	84.4	74.6	140.7	60.4	51.7	66.5	3.3	2.3	3.1	0.1	510.9
1992	58.2	72.7	111.8	66.5	16.3	56.7	106.0	29.4	86.3	0.0	5.8	0.0	609.7
MÉDIA	27.3	34.8	80.1	87.7	92.7	92.8	80.3	43.4	25.1	14.2	14.8	21.5	614.7

Dados de Pluviometria Homogeneizados (mm)

Posto: UMBUZEIRO

Número: 3858467

Ano	Mes												Total Anual
	1	2	3	4	5	6	7	8	9	10	11	12	
1935	14.5	30.8	136.5	159.4	141.1	238.7	127.0	73.8	4.9	9.9	8.7	2.7	947.8
1936	0.0	79.2	87.2	7.6	197.9	313.2	107.8	21.8	0.0	11.2	0.0	0.0	825.9
1937	0.5	2.9	15.6	135.5	91.1	157.7	77.3	39.7	18.3	7.2	14.0	33.7	593.5
1938	36.5	11.8	102.0	76.7	123.8	60.1	19.0	100.1	40.4	16.4	19.6	10.9	617.2
1939	7.6	15.1	88.5	43.0	129.5	24.0	169.0	123.2	17.5	68.2	81.4	9.3	776.4
1940	76.7	46.9	140.9	82.0	265.5	170.4	100.0	49.0	62.0	8.8	1.4	46.1	1049.7
1941	4.0	34.9	167.3	146.4	47.0	85.4	118.9	98.8	8.7	14.1	19.6	27.3	772.6
1942	3.2	49.2	46.6	117.2	228.2	96.9	66.5	80.3	13.4	31.2	0.0	39.4	772.1
1943	69.4	90.4	71.2	40.1	97.6	70.0	161.8	67.5	61.4	0.1	33.3	17.1	779.9
1944	1.4	0.0	36.3	99.0	140.0	120.7	123.0	100.9	59.8	26.2	11.5	10.6	729.5
1945	12.6	83.5	25.9	11.4	170.3	196.9	146.6	75.1	27.0	44.2	3.5	8.2	805.3
1946	78.0	0.0	83.2	135.9	97.4	111.2	65.1	32.6	25.4	0.5	2.5	42.8	674.6
1947	24.1	28.0	140.3	143.9	102.4	142.7	75.8	39.9	52.9	14.8	52.9	40.1	857.8
1948	16.6	38.6	92.5	58.8	179.0	218.6	201.6	90.7	61.9	66.9	0.0	4.0	1029.0
1949	19.5	20.0	22.8	145.5	315.1	232.1	85.4	59.1	29.1	7.5	54.8	0.0	990.9
1950	31.9	11.1	53.3	256.4	168.2	40.8	96.2	103.2	37.4	5.9	0.0	40.6	845.0
1951	11.0	11.0	22.6	89.5	118.1	462.6	113.0	11.8	22.4	18.8	0.1	148.0	1028.9
1952	0.0	17.4	0.0	31.9	124.1	126.3	48.3	142.1	57.8	0.0	0.0	25.2	573.1
1953	0.0	36.6	33.8	135.9	120.4	292.9	127.5	94.3	17.9	0.0	74.1	6.2	939.6
1954	0.0	0.0	22.7	167.0	488.7	43.5	60.3	36.5	23.5	0.0	16.6	0.0	858.8
1955	16.1	26.1	98.7	98.6	159.6	54.2	109.2	93.9	29.5	27.9	6.7	12.2	732.7
1956	0.0	55.9	24.4	127.2	70.9	109.4	129.4	120.3	35.5	26.6	7.1	10.3	717.1
1957	6.1	12.4	74.6	20.6	71.8	61.3	165.5	71.5	0.0	5.8	0.0	0.0	489.5
1958	0.0	0.0	4.4	5.7	225.4	105.5	92.8	45.4	0.4	0.0	0.0	24.9	504.5
1959	0.0	2.6	21.1	37.1	54.1	200.5	166.3	64.5	63.4	2.4	0.0	0.0	612.1
1960	10.4	5.5	406.6	63.9	67.8	101.6	82.6	12.6	16.3	10.6	0.0	10.1	787.9
1961	322.8	7.6	286.4	52.1	229.3	107.6	125.8	40.7	35.7	23.4	0.8	0.0	1232.0
1962	8.3	10.1	61.1	37.0	179.1	147.5	0.0	73.2	78.0	3.4	0.0	35.0	632.5
1963	18.0	61.6	74.6	74.0	48.1	102.1	82.7	32.1	29.5	2.5	37.3	103.7	666.1
1964	165.1	101.8	113.0	202.6	113.8	162.9	106.6	88.2	80.1	2.1	0.0	6.3	1142.5
1965	76.2	9.1	23.7	113.9	113.1	170.7	50.5	67.7	60.1	7.1	1.0	24.2	717.3
1966	70.1	106.5	37.9	112.3	48.8	100.8	243.9	100.8	43.7	0.0	78.1	40.8	983.9
1967	35.1	38.3	56.2	173.4	21.1	94.6	132.7	105.0	23.6	78.6	0.0	32.4	790.9
1968	67.0	27.5	67.3	47.0	92.5	36.1	148.2	67.6	29.7	20.1	0.0	17.1	619.9
1969	76.0	36.7	109.9	44.6	168.8	241.3	176.1	31.8	8.0	28.3	57.9	16.1	995.6
1970	27.9	19.3	92.0	115.2	30.3	56.4	154.4	132.1	12.9	0.0	0.0	0.0	640.6
1971	8.1	0.0	40.9	33.7	129.7	180.8	183.3	10.7	11.8	5.8	11.4	0.0	616.3

1972	24.5	25.8	75.9	26.5	91.7	31.7	9.9	15.5	9.6	8.1	0.6	5.0	324.8
1973	48.0	77.0	81.0	80.0	38.0	198.0	96.0	20.9	101.7	26.5	15.1	14.1	796.3
1974	49.7	64.1	129.4	159.8	130.0	135.6	139.4	15.4	93.4	0.0	0.0	40.0	956.8
1975	43.4	21.8	23.0	16.5	52.0	142.6	311.0	117.2	46.0	0.0	0.0	60.4	833.9
1976	0.0	29.2	104.4	95.0	123.6	69.2	98.8	32.4	0.0	63.8	7.0	66.0	689.4
1977	87.2	52.8	42.8	243.1	191.9	182.4	241.2	82.4	129.2	15.6	0.0	37.8	1306.4
1978	0.0	73.0	119.2	182.8	132.2	154.9	139.8	89.6	115.9	0.0	34.6	47.2	1089.2
1979	41.2	26.4	119.0	30.3	157.1	153.2	177.7	24.8	55.6	0.0	32.8	0.0	818.1
1980	24.8	59.6	81.6	133.2	59.8	140.5	22.7	12.1	17.1	15.7	10.2	0.0	577.3
1981	33.1	25.1	300.2	56.0	86.0	40.8	75.1	34.4	13.0	0.5	56.4	74.0	794.6
1982	5.6	0.0	9.6	142.0	147.8	227.4	61.8	129.2	48.8	0.0	0.0	10.8	783.0
1983	0.0	27.0	160.8	11.4	98.2	68.8	63.6	77.0	0.0	24.6	0.0	0.0	531.4
1984	65.4	0.0	77.8	88.3	266.0	67.2	285.8	154.4	20.8	0.0	0.0	0.0	1025.7
1985	0.0	296.2	186.5	307.6	89.8	118.7	163.6	91.7	63.4	0.0	18.6	21.4	1357.5
1986	57.6	46.0	220.4	172.0	100.4	175.6	230.8	120.2	105.2	0.0	52.2	41.2	1321.6
1987	31.2	47.6	74.7	87.1	0.0	105.5	132.0	22.4	14.4	0.0	0.0	0.0	514.9
1988	26.7	27.2	98.6	391.5	123.8	126.4	254.6	105.4	66.6	0.0	0.0	0.0	1220.8
1989	35.2	0.0	98.4	147.8	126.9	148.1	211.7	134.5	0.0	0.0	32.5	40.4	975.5
1990	17.4	24.2	23.4	184.6	72.8	174.1	160.8	98.8	0.0	0.0	0.0	17.0	773.1
1991	7.0	0.0	71.5	171.1	236.0	113.4	150.6	119.3	0.0	0.0	0.0	0.0	868.9
1992	80.4	82.8	109.5	63.5	16.2	56.3	107.9	30.2	87.6	0.0	5.7	0.0	640.1
MÉDIA	34.4	36.8	89.5	107.4	129.5	135.7	127.2	71.1	37.7	12.9	14.8	22.8	819.8

ANEXO V

Pluviometria Média para Jucazinho

Pluviometria Média na Bacia Hidrográfica da Barragem de Jucazinho (Método de Thiessen)
 Dados Pluviométricos Homogeneizados (mm)

Ano	Mes												Total Anual
	Jan	Fev	Mar	Abr	Mai	Jun	Jul	Ago	Set	Out	Nov	Dez	
1935	53.6	84.2	164.3	159.2	75.3	165.7	105.2	59.9	7.2	1.7	11.3	0.8	888.5
1936	27.2	147.5	33.1	16.8	79.0	197.1	69.1	21.9	5.7	6.4	4.8	2.4	610.9
1937	1.8	29.8	68.6	147.6	89.9	97.4	78.4	24.0	6.7	16.5	3.9	10.1	574.7
1938	25.7	17.2	69.0	94.9	59.6	51.3	25.3	60.5	31.2	13.3	13.1	22.6	483.7
1939	46.8	18.1	118.9	24.5	69.5	22.0	74.4	38.2	14.2	89.6	31.1	14.0	561.1
1940	63.0	104.3	157.4	133.2	204.0	47.2	33.1	23.9	29.8	4.3	6.1	12.7	819.1
1941	2.2	15.4	243.3	89.8	44.2	38.9	60.0	27.7	4.0	10.2	27.4	13.7	576.7
1942	1.6	29.2	20.9	122.9	73.6	74.6	51.6	35.1	27.9	15.5	7.6	65.5	526.2
1943	57.7	63.9	59.0	25.1	66.3	41.9	91.6	44.7	24.5	3.3	28.7	48.1	554.6
1944	63.8	20.4	70.7	130.6	77.6	110.8	104.3	81.2	30.5	3.4	2.2	17.8	713.2
1945	47.7	79.3	21.5	62.7	185.8	111.0	65.2	21.4	16.4	21.2	2.4	23.3	658.1
1946	51.5	12.7	60.3	108.1	59.9	99.7	55.8	33.1	15.4	2.9	13.2	41.9	554.4
1947	16.1	44.1	259.3	257.6	107.2	49.0	44.4	28.0	13.3	8.4	71.8	24.2	923.5
1948	13.9	9.8	200.0	76.3	124.3	135.4	188.2	33.3	24.4	37.8	8.6	11.3	863.2
1949	4.2	34.0	9.8	53.4	128.5	63.2	36.4	46.1	11.3	1.5	170.7	4.3	563.4
1950	16.5	16.0	78.9	140.1	62.9	29.3	46.0	29.0	15.1	18.4	7.7	18.0	478.0
1951	9.5	20.0	17.8	67.9	76.2	262.6	39.1	20.3	7.7	8.5	9.5	40.7	579.8
1952	3.3	4.5	74.8	32.8	32.1	75.5	33.4	28.3	8.4	4.4	6.5	33.6	337.7
1953	3.6	3.3	34.5	77.7	54.7	133.9	61.6	24.9	8.6	2.0	53.3	10.8	468.9
1954	21.8	13.9	32.6	72.2	147.7	57.2	35.2	14.5	5.4	1.5	8.8	4.2	415.0
1955	50.8	64.5	119.8	42.2	69.8	23.4	31.7	22.1	13.1	21.4	10.8	28.5	498.2
1956	11.1	63.3	51.3	70.4	50.9	33.4	59.8	65.8	14.8	6.3	11.5	5.1	443.8
1957	26.7	1.1	131.2	107.4	51.2	43.4	27.8	6.1	6.3	5.6	4.3	10.0	421.2
1958	4.9	44.6	43.0	29.7	83.2	42.5	86.4	29.7	24.0	4.4	2.5	9.8	404.5
1959	13.0	73.7	16.0	28.0	32.8	105.8	48.4	39.2	15.9	1.6	3.6	0.8	378.8
1960	10.2	20.0	322.2	73.1	66.5	85.1	45.2	20.7	8.3	14.8	1.4	7.5	674.9
1961	155.1	55.9	163.2	79.3	105.7	59.5	81.1	23.0	16.0	14.9	2.8	0.2	756.9
1962	14.1	23.3	80.2	54.4	70.4	81.6	59.8	18.0	18.3	1.1	4.0	17.0	442.2
1963	58.8	35.6	108.2	60.0	47.9	69.8	26.7	9.2	22.5	0.2	14.3	164.2	617.4
1964	99.9	96.3	136.7	115.0	99.7	113.2	86.3	72.7	53.0	7.3	2.1	12.1	894.3

1965	29.0	17.6	55.7	116.0	75.9	154.3	30.8	22.5	18.8	17.4	7.5	26.5	571.8
1966	86.1	106.0	30.8	179.1	64.3	180.3	169.7	33.2	35.7	1.7	58.6	37.8	983.2
1967	24.7	45.0	127.5	178.3	136.5	85.5	70.1	71.5	34.7	24.0	0.0	58.1	856.1
1968	66.7	29.6	110.8	84.3	80.9	21.8	53.2	13.8	5.9	3.0	6.1	16.1	492.2
1969	55.7	43.2	160.9	74.8	62.5	114.0	140.0	16.3	10.6	4.9	7.8	3.6	694.3
1970	41.9	26.1	117.0	66.6	24.7	61.0	131.5	38.9	2.8	6.5	4.6	0.0	521.5
1971	8.1	14.7	52.0	151.9	83.9	62.1	85.8	31.9	14.2	22.9	5.0	0.2	532.7
1972	6.7	76.1	81.2	48.4	74.6	64.9	40.0	102.5	19.1	7.2	1.1	40.9	562.7
1973	26.2	17.1	98.8	143.7	58.9	50.9	43.6	21.9	34.0	22.6	7.1	22.2	547.0
1974	52.6	70.6	129.9	243.1	63.5	91.0	106.0	19.5	23.7	2.4	15.5	28.9	846.6
1975	44.1	80.5	119.4	119.6	95.6	56.6	267.4	11.4	47.3	0.8	3.5	77.6	923.7
1976	9.8	92.1	95.9	51.8	50.7	33.7	42.4	28.6	4.5	67.1	29.7	22.3	528.7
1977	73.8	27.8	34.0	171.7	168.9	138.8	134.2	16.7	34.8	15.2	2.6	16.9	835.3
1978	1.8	81.8	174.9	105.5	128.7	82.9	87.8	23.5	36.7	1.8	7.0	9.3	741.7
1979	52.4	28.0	52.0	46.7	73.5	47.3	43.2	9.8	53.0	3.1	15.3	1.8	426.1
1980	13.3	93.8	81.3	21.5	30.3	100.4	19.4	6.7	8.7	18.7	12.3	9.0	415.3
1981	50.3	15.6	314.8	34.7	24.6	16.4	19.2	12.9	10.4	0.9	17.2	36.0	552.8
1982	14.1	46.4	10.2	85.6	105.3	102.0	34.0	41.4	10.7	1.3	0.3	20.5	471.8
1983	22.4	90.8	68.1	44.2	59.7	48.9	26.0	49.3	2.1	17.0	2.2	1.5	432.3
1984	16.0	11.5	110.8	195.6	118.1	49.1	97.3	69.3	20.4	8.6	1.5	0.4	698.7
1985	16.9	188.8	196.2	297.6	37.7	52.7	72.1	48.0	6.0	7.3	5.0	10.6	938.8
1986	27.6	117.6	168.9	169.2	86.2	85.9	84.2	59.1	32.3	9.7	20.8	11.4	873.0
1987	10.1	42.8	127.5	93.7	10.2	83.3	63.5	20.2	5.2	6.0	1.3	0.1	463.8
1988	17.7	55.9	151.0	126.6	33.0	59.4	106.5	14.9	10.0	3.5	10.3	27.1	616.1
1989	13.5	3.6	69.9	148.5	117.5	72.7	96.3	34.3	5.1	14.7	15.4	90.1	681.6
1990	7.7	52.5	5.3	67.4	59.5	72.2	78.5	21.2	16.1	7.7	1.5	3.6	393.1
1991	9.6	18.5	145.5	63.7	110.6	42.5	38.7	48.0	6.7	7.2	2.1	1.3	494.4
1992	97.8	86.4	119.8	76.0	19.7	43.7	81.3	22.2	63.3	0.0	2.2	0.0	612.4
MÉDIA	32.3	48.7	103.0	99.3	78.5	79.2	70.9	33.0	18.5	11.2	14.0	21.5	610.2

ANEXO VI

Pluviometria Média para Carpina

Pluviometria Média na Bacia Hidrográfica da Barragem de Carpina (Método de Thiessen)
 Dados Pluviométricos Homogeneizados (mm)

Ano	Mes												Total Anual
	Jan	Fev	Mar	Abr	Mai	Jun	Jul	Ago	Set	Out	Nov	Dez	
1935	14.1	79.0	145.7	182.3	81.2	232.5	122.7	75.6	5.3	3.6	17.9	5.1	965.1
1936	7.2	112.1	42.8	19.3	159.7	319.0	112.0	43.0	5.9	10.0	1.2	2.8	835.1
1937	2.1	23.2	35.4	132.8	111.4	131.4	81.2	33.4	12.9	10.0	11.3	18.6	603.6
1938	28.5	16.4	84.3	97.0	87.8	83.5	28.8	84.7	39.8	23.0	19.2	7.4	600.3
1939	8.5	32.0	117.2	32.1	119.1	41.4	131.6	80.7	18.4	70.2	71.1	18.0	740.4
1940	78.4	65.9	108.0	118.5	327.9	114.8	75.8	50.3	55.6	9.1	1.5	34.4	1040.2
1941	4.2	25.2	194.9	159.4	56.9	90.1	98.7	66.0	13.6	13.7	30.8	25.6	779.1
1942	5.6	29.7	62.6	128.4	184.8	103.9	65.3	83.8	24.2	26.7	6.1	41.5	762.8
1943	69.8	109.5	90.7	42.7	79.4	65.0	112.9	65.3	56.4	5.0	21.7	58.9	777.3
1944	15.0	4.4	41.5	129.9	138.1	119.7	111.3	116.7	51.9	14.2	15.0	11.3	769.0
1945	15.9	68.1	28.6	33.1	193.7	185.6	93.1	64.2	33.1	31.6	7.0	13.7	767.6
1946	59.0	18.4	62.4	111.8	97.5	113.3	69.2	38.5	27.4	1.6	1.1	50.4	650.5
1947	33.1	30.2	114.4	239.2	144.2	91.0	54.0	34.0	33.7	9.9	61.0	37.7	882.6
1948	9.1	15.5	108.4	48.2	138.8	186.4	181.4	58.3	58.5	43.0	28.8	27.6	904.0
1949	16.4	31.8	15.5	95.5	215.0	151.5	57.2	64.2	30.3	6.6	107.5	3.2	794.6
1950	22.8	31.4	57.7	207.3	117.4	33.9	69.7	50.3	27.9	17.7	7.6	32.5	676.1
1951	16.6	18.9	13.7	50.1	112.7	384.5	81.6	30.2	12.6	13.1	11.6	57.3	802.8
1952	16.8	10.4	49.9	18.5	73.4	95.9	39.8	88.8	21.6	4.1	4.1	26.9	450.2
1953	8.3	12.2	51.5	116.1	104.4	198.2	105.9	69.0	15.2	8.8	78.6	10.5	778.6
1954	11.6	25.1	40.8	99.4	268.4	57.7	51.8	30.5	11.7	2.4	33.5	6.8	639.8
1955	17.2	45.2	100.6	68.8	103.3	52.6	65.3	56.5	23.1	23.7	6.8	49.5	612.5
1956	10.1	67.5	83.6	81.7	88.3	84.4	88.2	78.5	28.5	14.4	8.2	6.8	640.0
1957	38.7	4.5	103.5	111.3	60.7	57.5	50.1	21.5	5.6	15.0	2.0	12.4	482.8
1958	1.3	15.3	18.4	24.7	178.5	53.6	118.2	52.5	16.0	6.7	2.2	14.0	501.5
1959	5.2	74.6	27.2	69.9	90.2	190.8	113.9	64.8	45.2	4.7	6.6	1.9	695.0
1960	19.5	19.7	314.7	101.3	61.5	93.8	102.0	42.4	13.9	20.5	0.9	12.4	802.7
1961	269.6	54.9	221.5	109.6	148.8	94.3	118.4	43.2	32.7	24.0	3.5	2.4	1122.9
1962	2.9	22.7	50.1	29.3	132.7	162.3	90.0	32.8	34.9	3.6	2.0	18.9	582.1
1963	31.7	55.5	103.9	83.3	45.5	96.4	58.9	32.2	17.5	1.5	13.4	81.7	621.6
1964	97.9	86.1	142.8	119.4	128.2	165.8	114.9	88.4	86.2	6.8	9.2	9.8	1055.7

1965	67.6	13.7	53.8	66.0	98.4	198.1	31.7	39.2	25.8	10.6	3.2	23.4	631.3
1966	52.8	89.6	37.2	98.4	62.6	184.4	223.5	36.8	53.5	4.1	44.4	18.3	905.7
1967	16.4	23.4	106.9	93.3	69.6	98.1	86.1	46.6	25.4	29.9	0.5	29.2	625.3
1968	62.2	10.6	119.7	64.8	72.3	25.7	85.1	25.3	6.3	7.5	2.6	25.9	508.0
1969	64.4	27.7	130.0	105.3	126.7	195.6	174.3	35.4	16.3	15.0	10.7	4.4	905.9
1970	25.3	28.1	80.0	68.1	31.3	112.3	185.9	118.3	10.7	3.8	5.5	4.0	673.5
1971	13.0	5.3	42.0	118.6	111.3	83.9	119.4	38.3	24.5	32.9	14.7	1.6	605.4
1972	20.5	33.1	91.4	82.6	147.6	134.9	52.8	103.4	45.4	14.0	2.9	38.4	766.8
1973	35.2	22.0	73.1	163.0	86.0	129.0	92.7	49.5	60.4	16.0	14.7	27.3	768.8
1974	44.7	51.2	116.2	204.1	107.6	103.0	137.1	24.5	69.4	0.3	12.5	30.7	901.3
1975	46.1	19.5	41.3	83.7	107.4	86.4	299.5	44.9	34.8	2.2	9.3	90.9	866.0
1976	5.9	63.7	132.0	51.9	79.1	60.5	60.2	22.7	13.6	100.1	25.7	41.0	656.5
1977	18.5	40.6	47.8	178.3	149.8	187.1	186.8	34.4	60.1	22.9	6.9	28.6	961.7
1978	4.1	100.3	123.7	112.6	119.0	123.0	162.3	74.4	98.3	6.9	20.5	26.8	971.7
1979	61.7	64.4	76.2	45.2	124.1	90.5	94.9	26.4	58.6	9.3	27.6	6.1	684.7
1980	23.4	83.3	141.3	70.3	70.1	163.6	26.4	21.6	24.9	16.8	14.5	39.0	695.3
1981	39.8	41.9	240.3	37.9	42.1	51.3	53.2	14.9	11.3	1.1	29.5	60.4	623.6
1982	34.3	64.8	25.4	100.9	144.6	219.2	77.7	76.0	23.5	1.4	5.1	22.0	794.8
1983	22.3	85.8	125.5	19.6	92.5	59.2	70.7	62.7	13.2	35.6	1.9	2.9	591.9
1984	36.5	20.9	49.8	166.8	179.9	71.6	139.1	94.0	25.9	13.2	11.4	1.0	810.1
1985	24.3	145.1	207.0	233.0	90.5	97.5	157.9	67.8	22.4	2.7	11.8	12.6	1072.7
1986	42.7	69.1	168.2	202.2	107.2	180.0	231.7	115.2	70.0	35.9	59.8	49.7	1331.7
1987	30.0	44.3	94.3	118.0	17.9	115.0	98.1	23.4	10.7	13.4	1.7	1.2	568.1
1988	15.9	29.9	153.2	155.8	102.7	129.1	222.8	38.5	28.4	4.7	11.8	29.9	922.6
1989	23.6	8.8	79.3	201.6	133.3	137.5	197.6	75.4	11.5	24.4	24.8	68.6	986.4
1990	18.1	27.4	5.4	131.5	107.0	162.9	166.8	72.7	22.1	12.6	3.1	10.7	740.2
1991	13.9	8.6	59.3	81.7	198.2	89.0	82.6	100.6	12.1	15.5	5.2	0.4	667.2
1992	89.3	112.0	132.9	77.2	22.8	87.3	115.1	40.7	97.5	2.4	10.5	0.8	788.5
MÉDIA	32.6	43.8	92.8	103.3	114.7	124.6	108.5	56.3	31.7	15.5	17.0	24.1	764.9