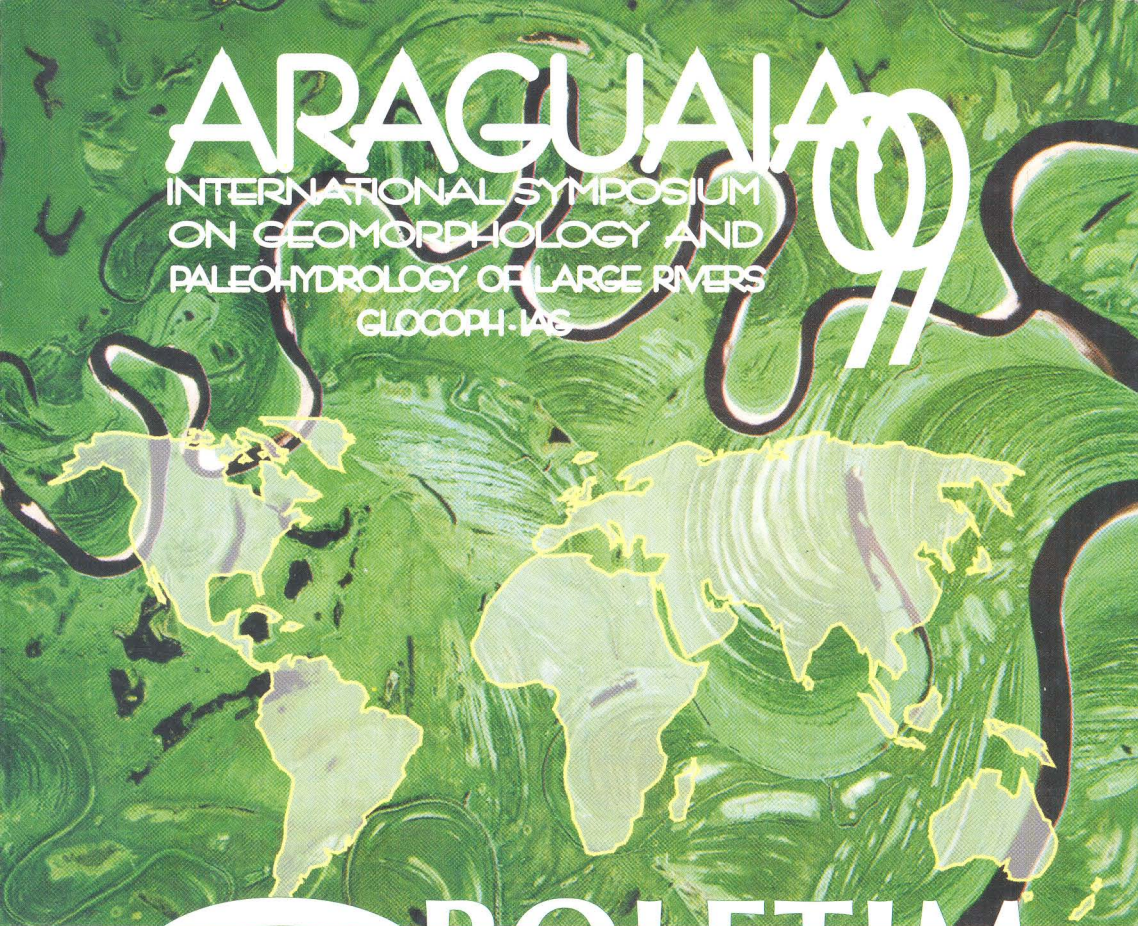


# ARAGUAIA

INTERNATIONAL SYMPOSIUM  
ON GEOMORPHOLOGY AND  
PALEOHYDROLOGY OF LARGE RIVERS  
GLOCOPH-1AS



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## THE ARUANA FLUVIOGRAPHIC STATION

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The Aruana fluviographic station was established in October 14th 1969 by the Company for Research in Mineral Resources (CPRM). Station lies in the Araguaia River and has a FrDT type. It furnishes data on water level (Fr), discharge (D) and transmits water level data by satellite by telemetry (T).

Although station has satellite transmission system, an observer undertakes daily readings of rulers placed at the river's right margin. Readings are made at 7:00 am and at 5:00 pm and notes are kept in a diary.


Measurements of net discharge are taken four times a year by two technicians in hydrometry. Measurements are done on boat by current meter with the help of a sextant.

Besides net measurements, sampling of sediment and water is made for analysis of chemical and physical parameters.

After analysis, data on daily water levels are transformed into daily discharge data. Data are stored in data banks of the National Agency of Electrical Energy (ANEEL) and in CPRM and available to clients.

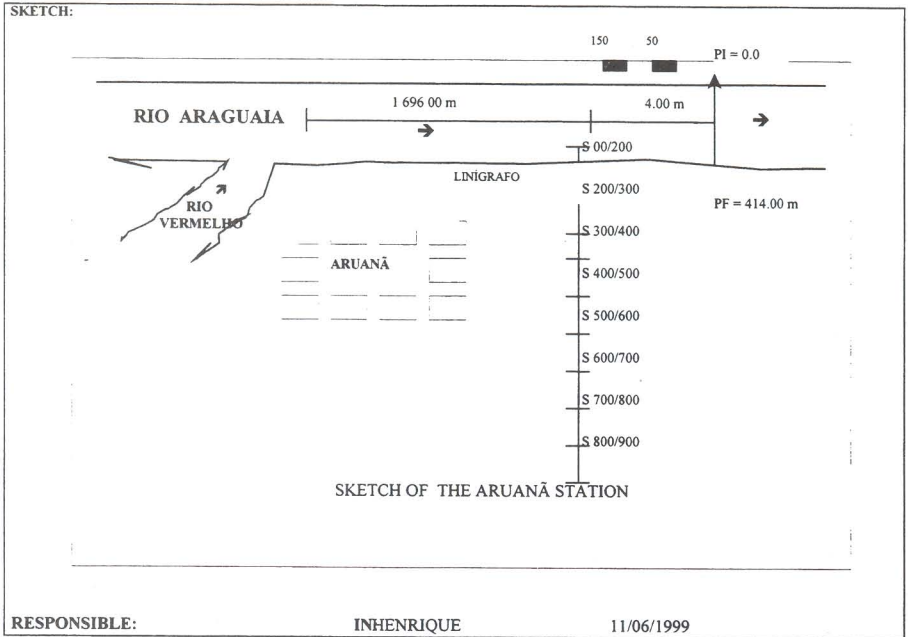
During visits, maintenance of station and monitoring of observer are undertaken. On these occasions leveling of ruler section, cleaning, substitution of worn rulers and gauging of water level apparatus, limnograph, are executed.

## DESCRIPTIVE FORM OF THE ARUANA GAUGE STATION-ON STREAM

 <b>CPRM</b>	<b>STATION:</b> ARUANÁ		<b>TYPE:</b> FrDT		<b>CODE:</b> 25200000
	<b>RIVER:</b> ARAGUAIA		<b>BASIN:</b> ARAGUAIA		
<b>DISTRICT:</b> SEDE		<b>MUNICÍPIUM:</b> ARUANÁ		<b>STATE:</b> GO	
<b>DRAINAGE AREA:</b> 76.984 km <sup>2</sup>		<b>DRAINAGE AREA:</b> RIO TOCANTINS			
<b>HYDROMETRIC NETWORK (A):</b> ANEEL					
<b>AGENCY IN OPERATION:</b> CPRM					
<b>STATION</b>	<b>DATE OF INSTALLATION</b>	<b>AGENCY</b>	<b>DATE OF RE-INSTALLATION</b>	<b>AGENCY</b>	
FLUVIOMETRIC	14.10.69	CPRM			
FLUVIOGRAPHIC					
SEDIMENTOMETRIC					
QUALITY OF WATER					
<b>CARTOGRAPHIC REFERENCE:</b> COORDENATES OBTAINED WITH A GPS GARMIN 45					
<b>LATITUDE:</b> 14° 54' 07"		<b>LONGITUDE:</b> 51° 04' 55"		<b>ALTITUDE:</b> m.	
<b>LOCALIZATION:</b>					
-ON THE RIGHT BANK OF THE ARAGUAIA RIVER, 150M DOWSTREAM OF RECANTO SONHADO HOTEL , DOWSTREAM OF THE RIO VERMELHO BAR.					
<b>ACCESSIBILITY:</b>					
- HIGHWAY GO-164, FROM GOIÁS IN DIRECTION TO ARAGUAPAZ, AFTER FOR THE HIGHWAY BR-251 UP TO ARUANÁ					
<b>DESCRIPTION:</b>					
- BANK:		- WRIGHT			
- SUPPORT:		- 9 SUPPORTS OF ALUMINIUM / RULE FIXED IN A SUPPORT			
- MEASUREMENTS:		- 00/200, 200/300, 300/400, 400/500, 500/600, 600/700, 700/800, 800/900 e 900/1000 cm.			
- RN's:		- RN-5=7.878 mm - RN-6=10.595 mm			
- SECTION MEASURED:		- 4,0 m DOWSTREAM OF THE RULE.			
- MEASUREMENTS PROCEEDINGS:		- CURRENT METER, ON A BOAT, WITH SEXTANT.			
- TRIGONOMETRIC POINT:		- 50 E 150 DO PI.			
- EQUIPMENTS:		- DAYLY STEVENS LIMNIGRAPH			

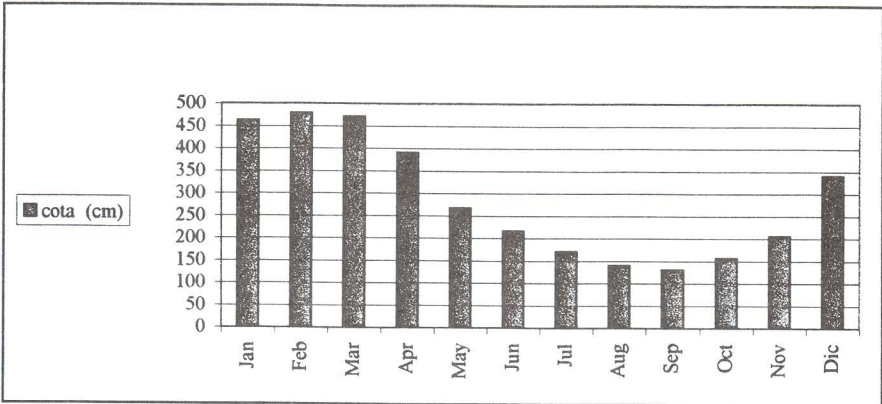


<b>POTAMOGRAPHY:</b> -THE ARAGUAIA RIVER START TO THE CAIAPO RANGE. 18., AFTER 720 KM DIVIDE IN TWO BRANCHES FORMING THE BANANAL ISLAND ALONG 375 KM. THE ARAGUAIA IS A TRIBUTARY ON THE LEFT BANK OF THE TOCANTINS. THE DRAINAGE AREA IS CA. 365,000KM2. AND THE LENGHT OF THE RIVER IS 1,755KM. THE MORE IMPORTANT TRIBUTARIES ARE THE CAIAPO, VERMELHO, DAS ALMAS, DAS MORTES AND DAS GARÇAS RIVERS..	
<b>PATTERN :</b> - RECTILINEOUS.	
<b>NATURE AND INCLINATION OF THE BANKS:</b> MD: FINE/VERY INCLINED/ HIGH VEGETATION ME: SANDS/LITTLE INCLINED/ LOW VEGETATION.	
<b>CHANNEL BED:</b> - CLAYEY/SANDY.	
<b>CONTROL (TYPE)</b> - NATURAL CHANNEL. WIDE	
<b>BANKFULL STAGE:</b>	
<b>OBSERVER:</b>	
<b>NAME:</b> ANTÔNIO PINHEIRO ARTIAGA	<b>OCCUPATIO</b> STUDENT
	<b>N:</b> _____
<b>EDUCATION</b> Primary School	<b>SALARY:</b> _____
<b>ADDRESS:</b> PRAÇA COUTO MAGALHAES Nº 113 - ARUANÃ	
<b>DISTANCE TO THE RESIDENCE FROM</b>	600 m.
<b>THE GAUGE STATION:</b> _____	



Monthly mean stages

MONTH	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dic	Max	Min	Mean
STAGE(cm)	462	478	471	390	267	216	170	140	130	156	205	340	671	111	286



Mean Monthly Discharge

MONTH	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Max	Min	Mean
Disch. m <sup>3</sup> /s	2310	2409	2307	1714	951	713	513	406	376	469	694	1536	4283	311	1199

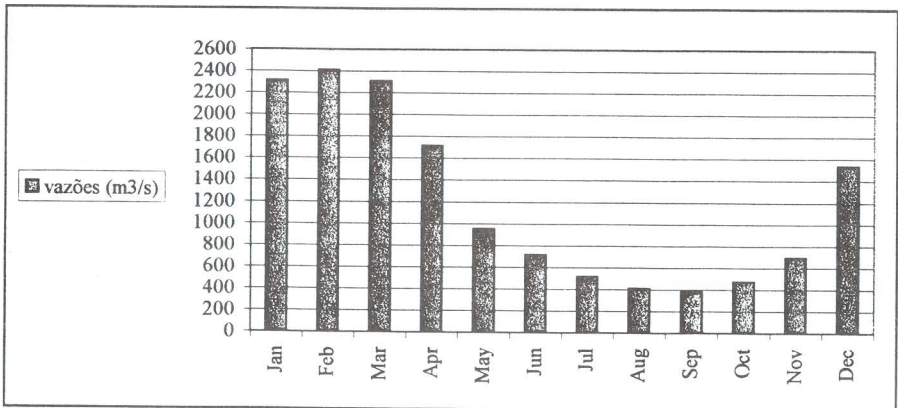


Figure 1. Monthly Mean stages and Mean Monthly Discharge at the Aruana gauge station