



WEC – AMAZON FIRES MONITORING

Volume 03 • Nº 09 • Sep/2022
Monthly Bulletin for Monitoring Wildfires in the Amazon

AMAZON FIRES SEP/2022

During September of 2022, there were a total of 41,122 detections (graph 1) of hot spots/fires in the vegetation in the early afternoon passages having been recorded in the entire Amazon biome, through the use of NASA's AQUA, reference satellite (map 1). In the Amazonian states, the following outbreaks of fire were recorded: 12,696 in Pará (31%), 8,569 in Amazonas (21%), 6,950 in Mato Grosso (17%), 6,693 in Acre (16%), 5,354 in Rondônia (13%), 571 in Maranhão (1%), 199 in Amapá (0.5%), 92 in Roraima (0.2%) and 68 in Tocantins (0.2%). When compared to the same month of the previous year, there was an increase of 146% in the number of outbreaks (Table 1).

State	Nº of Outbreaks 2021	Nº of Outbreaks 2022	Variation
Pará	3828	12696	128%
Amazonas	2934	8659	137%
Mato Grosso	2799	6950	209%
Acre	3982	6693	68%
Rondônia	2635	5354	103%
Maranhão	326	571	75%
Amapá	137	199	45%
Roraima	54	92	52%
Tocantins	41	68	66%
Total	16736	41122	146%

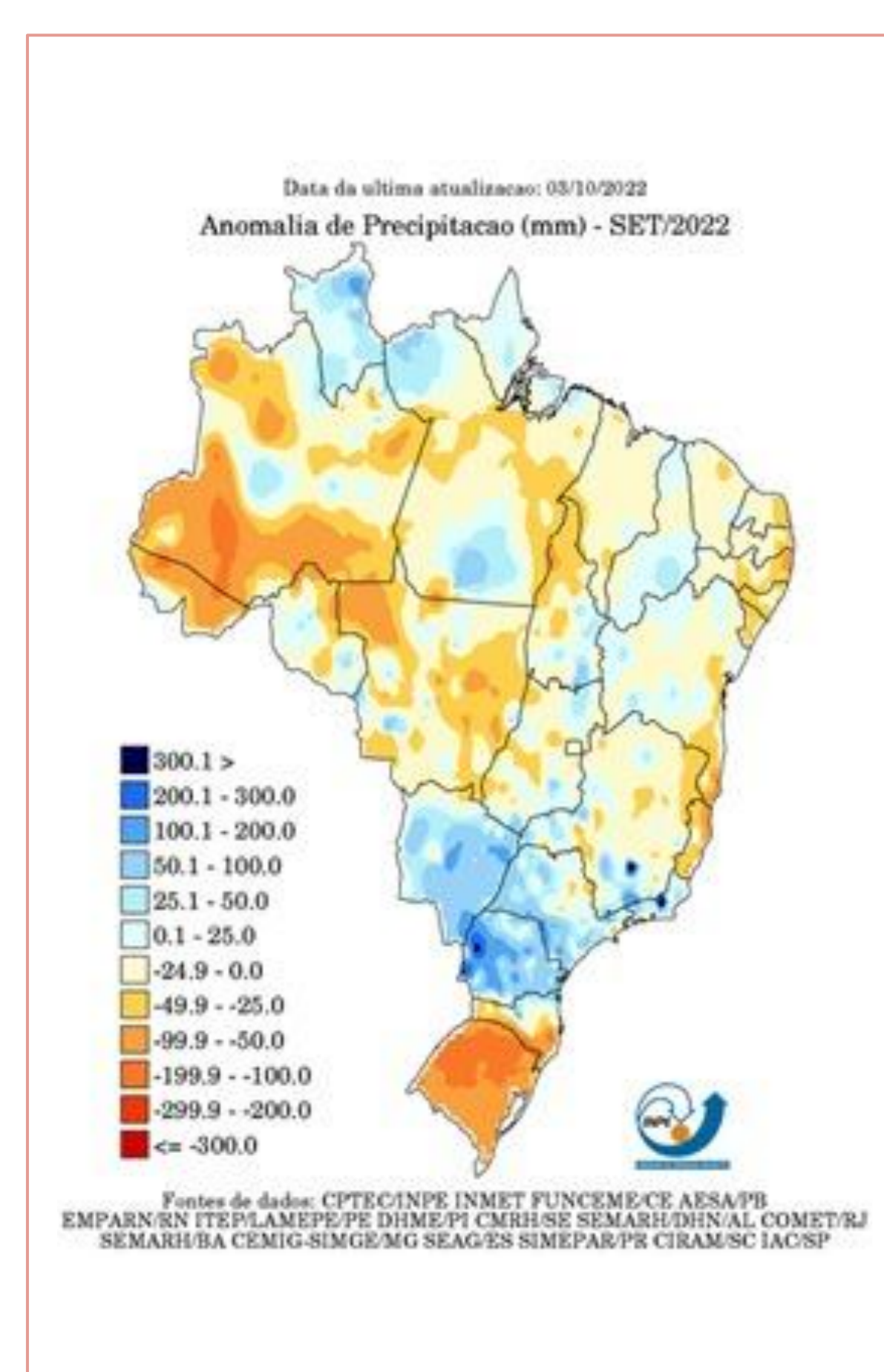
Table 1: Outbreaks of fire in Amazonian Legal states in Sep/2022 according to the reference satellite
Source: Fire Program - CPTEC-INPE / Brazil

TOTAL FIRES DETECTIONS



Map 1 - Total detections registered in Sep/2022 by the reference satellite | Source: Fire Program - CPTEC-INPE / Brazil

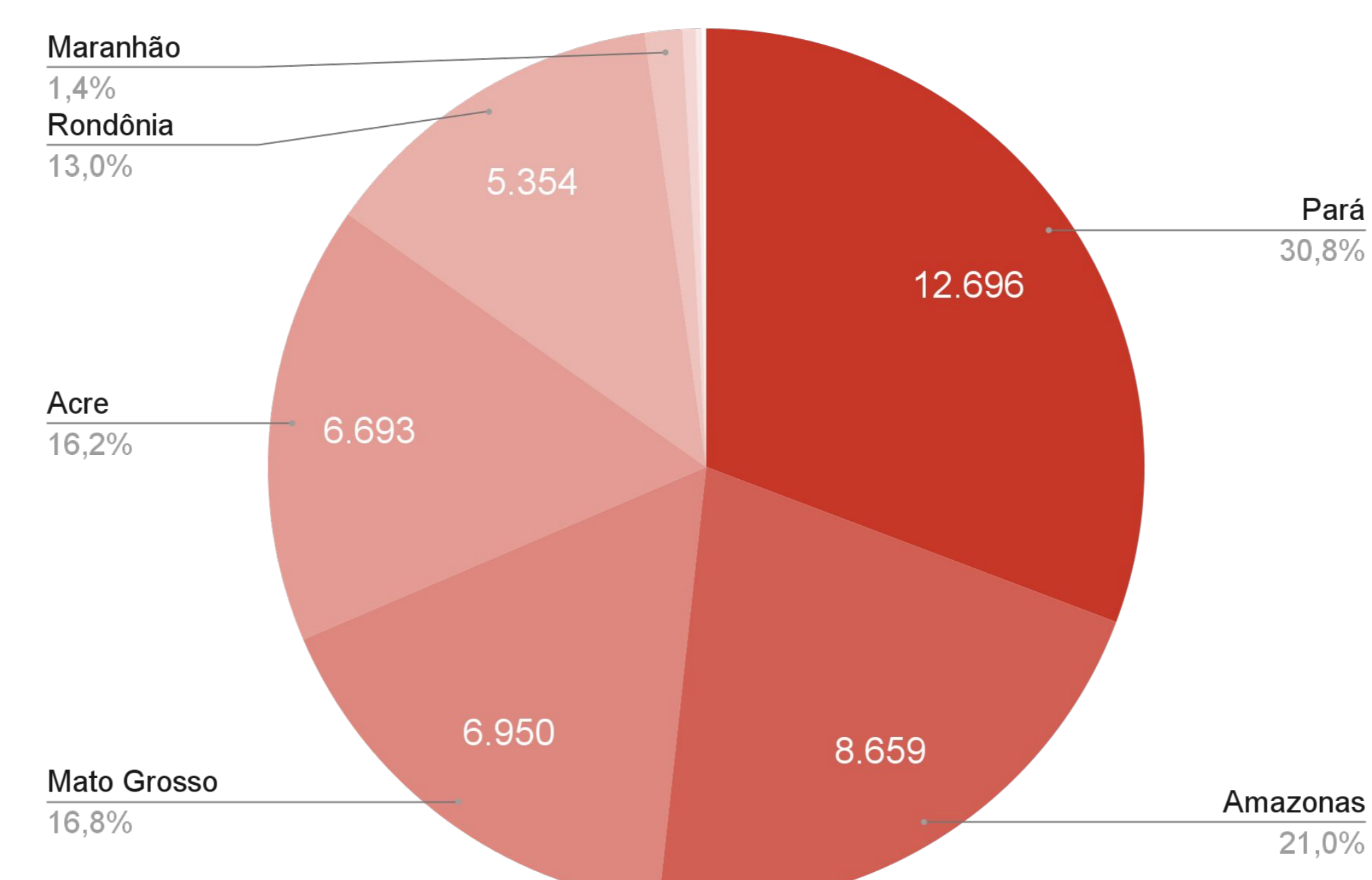
PRECIPITATION ANOMALIES RECORDED DURING SEP/2022



Map 2 - Precipitation anomalies recorded during Sep/2022

The map of precipitation anomalies (Map 2) indicates that rainfall was above average in the Roraima and Amapá states. In the other states of the Amazon biome, as Acre and Amazonas the rainfall was well below average, leading to an abundance of fires in these drought-ridden areas. In the states of Pará, Maranhão and Mato Grosso, rainfall was close to average.

FIRES BY STATES IN %



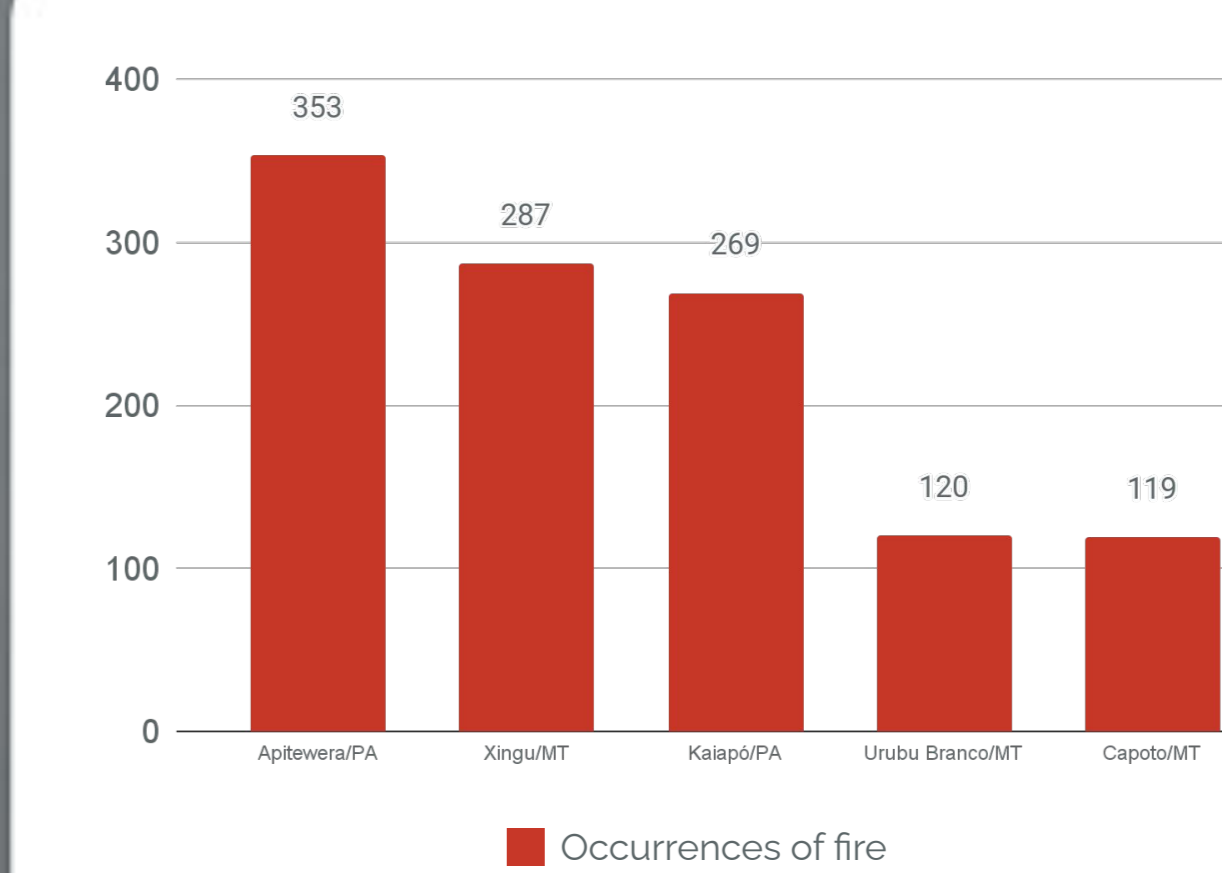
Graph 1: Fire detections registered in Sep/2022 by states | Source: Fire Program - CPTEC-INPE / Brazil

Municipality	State	Nº of Outbreaks Sep/2022
S. Felix do Xingu	PA	2246
Lábrea	AM	2178
Feijó	AC	1298
Porto Velho	RO	1991
Altamira	PA	1558
Boca do Acre	AM	1362
Colniza	MT	1209
Sena Madureira	AC	747
Novo Progresso	PA	872
Tarauacá	AC	855

AMAZONIAN MUNICIPALITIES WITH THE MOST RECORDED FIRES

Among the ten Amazonian municipalities (Table 2) that suffered the most from fires this month, the states of Amazonas, Acre and Pará, states beginning to enter their dry period. The total number of fires in these ten municipalities alone was 14,316 fires/hotspots, which represented 24% of all outbreaks registered in Brazil and 35% of all fires in Amazon biome.

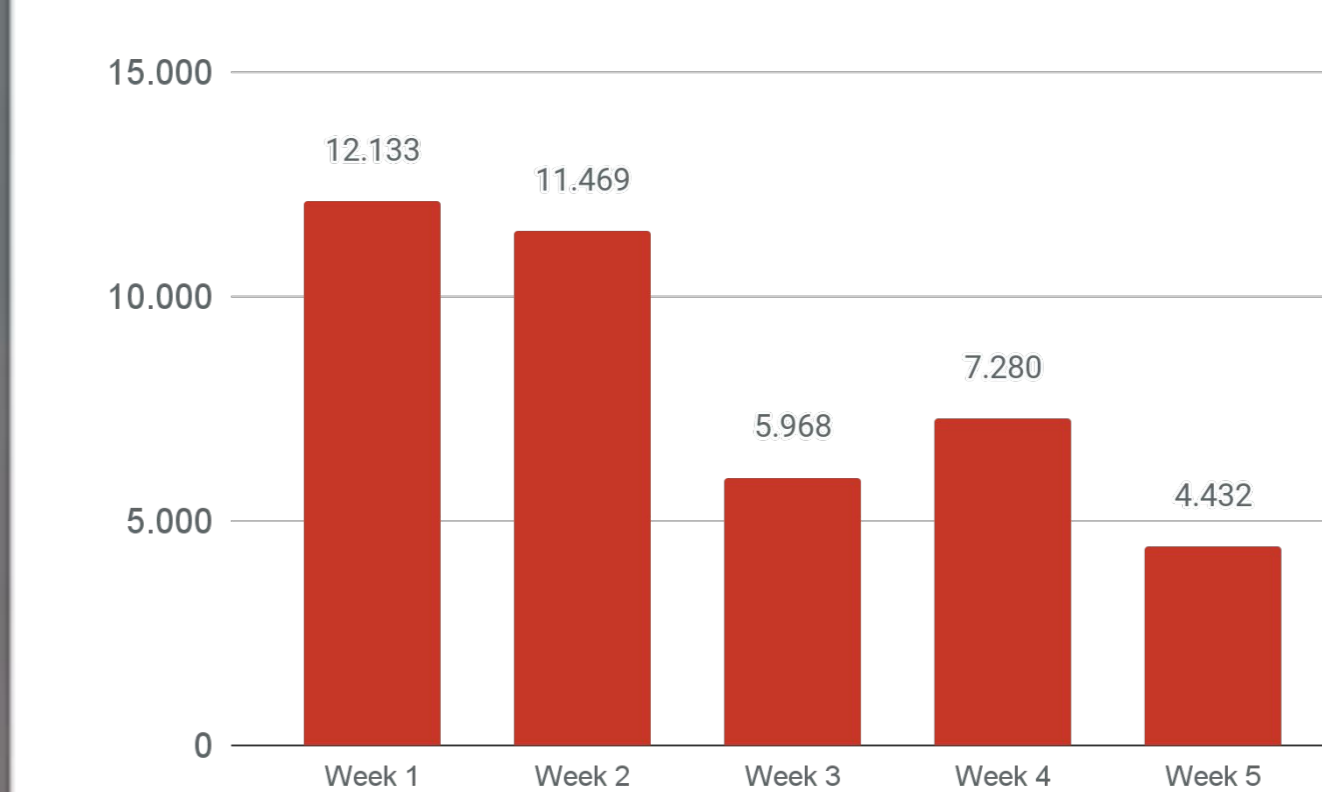
Table 2: Most recorded fires in Sep/2022 according to the reference satellite.
Source: Fire Program - CPTEC-INPE / Brazil



FIRES BY INDIGENOUS RESERVES IN SEP/2022

Throughout September 2022, fires affected some indigenous reserves of the Brazilian Amazon, most of them in the states of Mato Grosso and Pará. The graph 2 shows the five indigenous reserves which experienced the most occurrences of fire during this month. A total of 1,148 fires/hotspots were registered in indigenous villages, and this number indicates that only 3% of all the fires that occurred in the Amazon were within indigenous reserves.

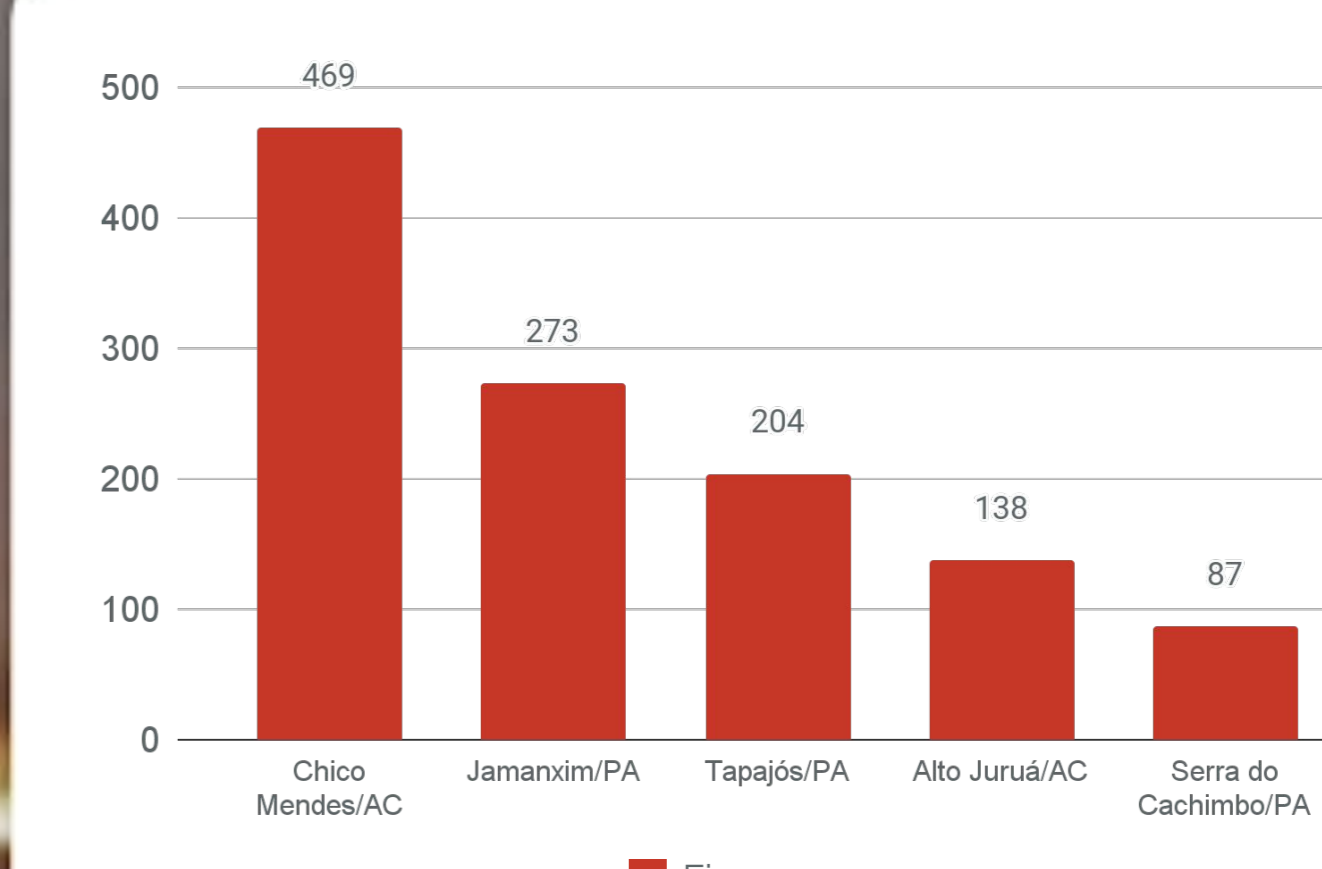
Graph 2: Fires in the indigenous reserve in Sep/2022
Source: Fire Program - CPTEC-INPE / Brazil



HOTSPOTS/FIRES BY WEEK

September is the third month of the burning season in the Amazon, so a gradual evolution in the number of outbreaks over the weeks is to be expected. This month, the first and second weeks were the one with the most fires (Graph 3), 50% of the total fires occurred between the 1st and 11th of September.

Graph 3: Hotspots/Fires by week in Sep/2022
Source: Fire Program - CPTEC-INPE / Brazil



FIRES BY FEDERAL CONSERVATION UNITS

Some few federal conservation units such as parks, biological reserves, national forests, etc. recorded fires this month. In total, according to the reference satellite, 1,171 fires/hotspots, this number indicates that at least 3% of fires registered this month occurred in an area that could not have fire, which are the conservation units. Graph 4 shows the Conservation Units that burned the most this month.

Graph 4: Fires by federal conservation units in Sep/2022
Source: Fire Program - CPTEC-INPE / Brazil

This technical bulletin contains the monthly summary of the main data and outbreaks of fire recorded in the Brazilian Amazon biome, and is based on the information available on the website www.inpe.br/queimadas. The main information reported here refers to the number of outbreaks and the areas burned. The monitoring program of the INPE "Fire Program" makes use of roughly 200 images a day, received from nine different satellites. For comparative temporal and spatial analyzes, only the reference satellite is employed.

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ACKNOWLEDGEMENT

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