



WEC – AMAZON FIRES MONITORING

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Monthly Bulletin for Monitoring Wildfires in the Amazon

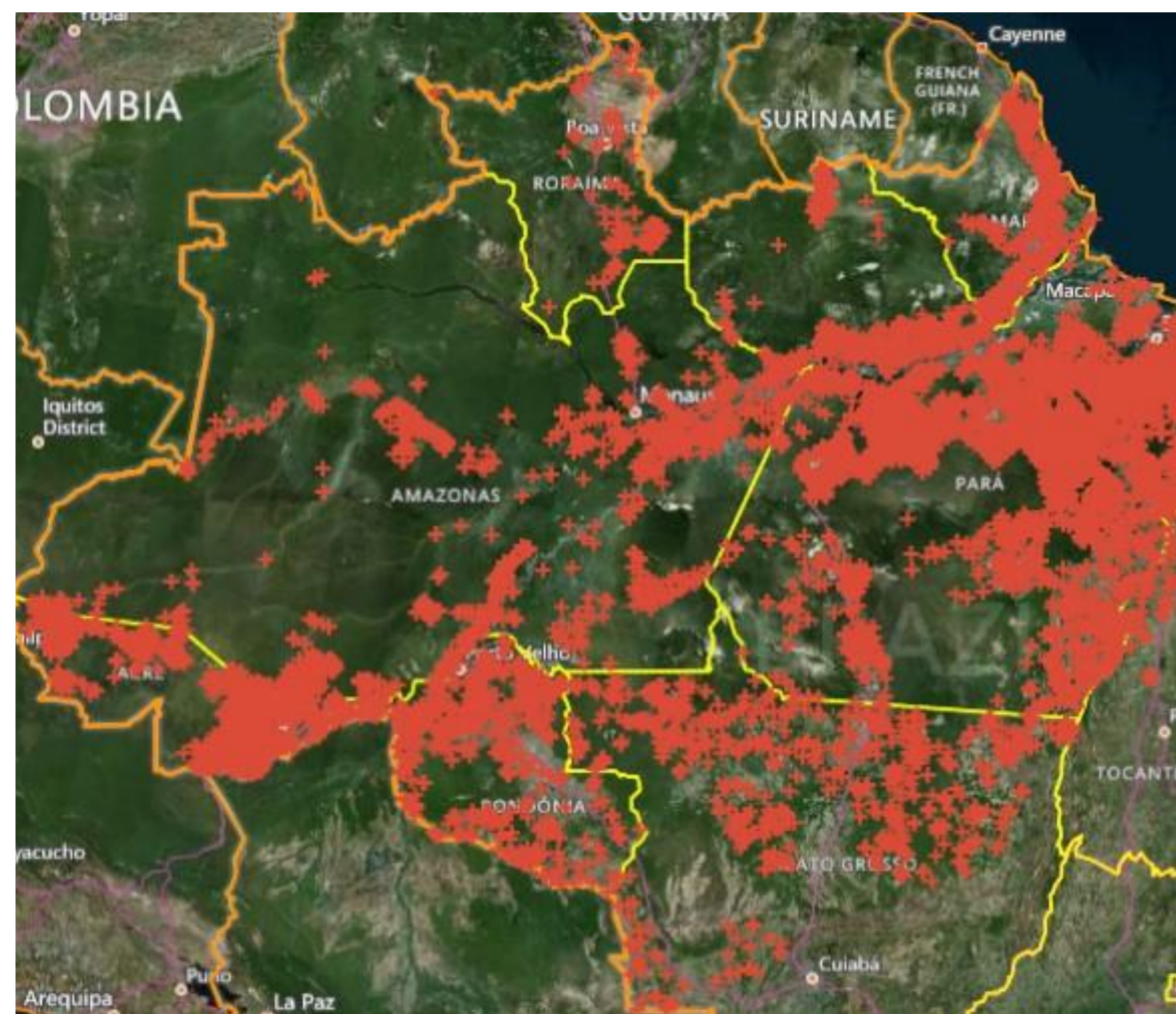
AMAZON FIRES OCT/2022

During October of 2022, there were a total of 13,705 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: 7,469 in Pará (54%), 1,503 in Amazonas (11%), 1,269 in Maranhão (9%), 1,127 in Acre (8%), 903 in Mato Grosso (7%), 822 in Rondônia (6%), 612 in Amapá (4%), 117 in Roraima (1%) and 89 in Tocantins (0.6%). When compared to the same month of the previous year, there was a decrease of % in the number of outbreaks (Table 1).

State	Nº of Outbreaks 2021	Nº of Outbreaks 2022	Variation
Pará	4,291	7,469	74%
Amazonas	1,774	1,503	-15%
Maranhão	923	1,269	37%
Acre	1,118	1,127	1%
Mato Grosso	1,073	903	-16%
Rondônia	1,764	822	-53%
Amapá	401	612	53%
Roraima	125	117	-6%
Tocantins	75	89	19%
Total	11,544	13,704	19%

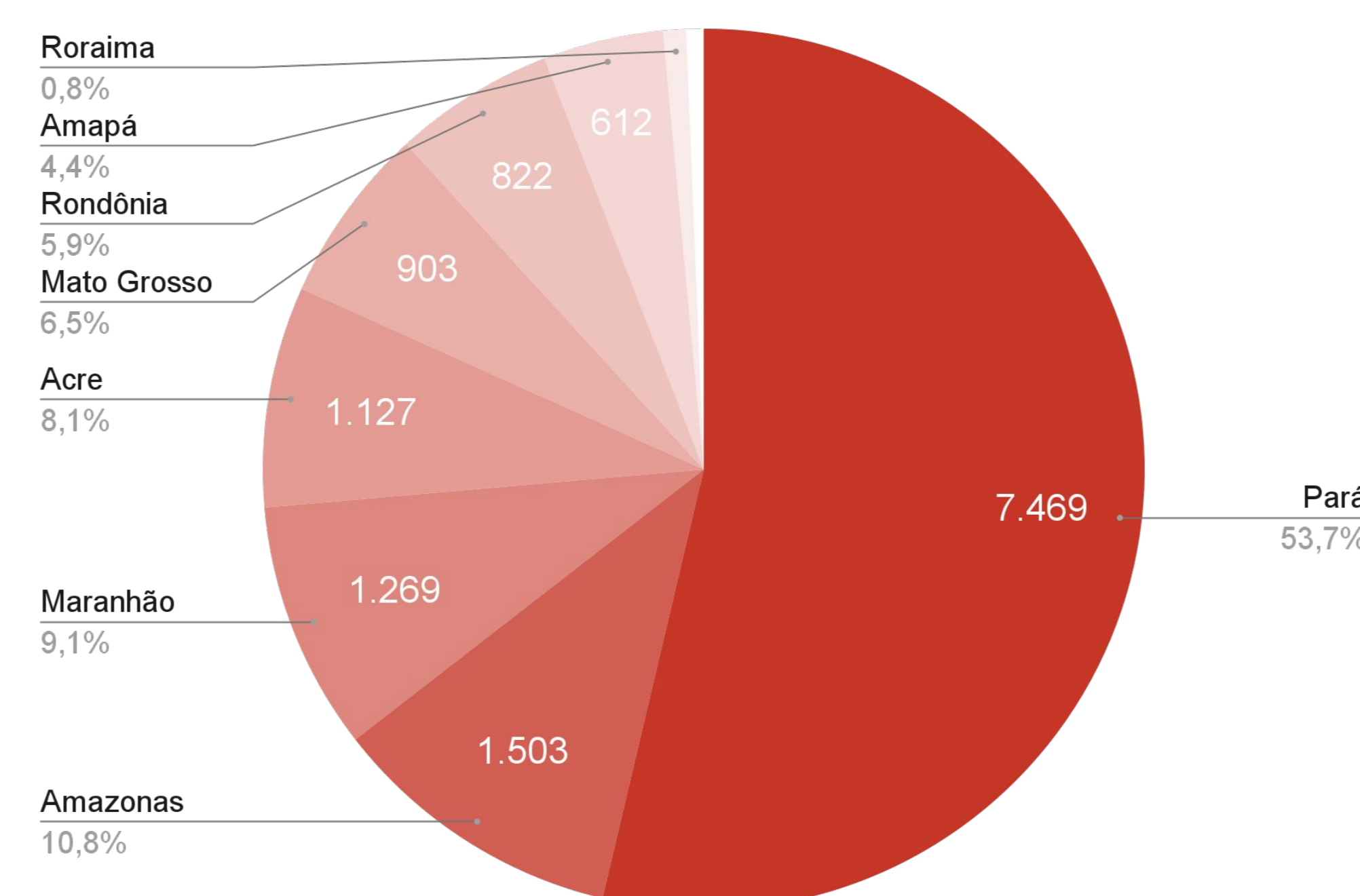
Table 1: Outbreaks of fire in Amazonian Legal states in Oct/2022 according to the reference satellite
Source: Fire Program - CPTEC-INPE / Brazil

TOTAL FIRES DETECTIONS



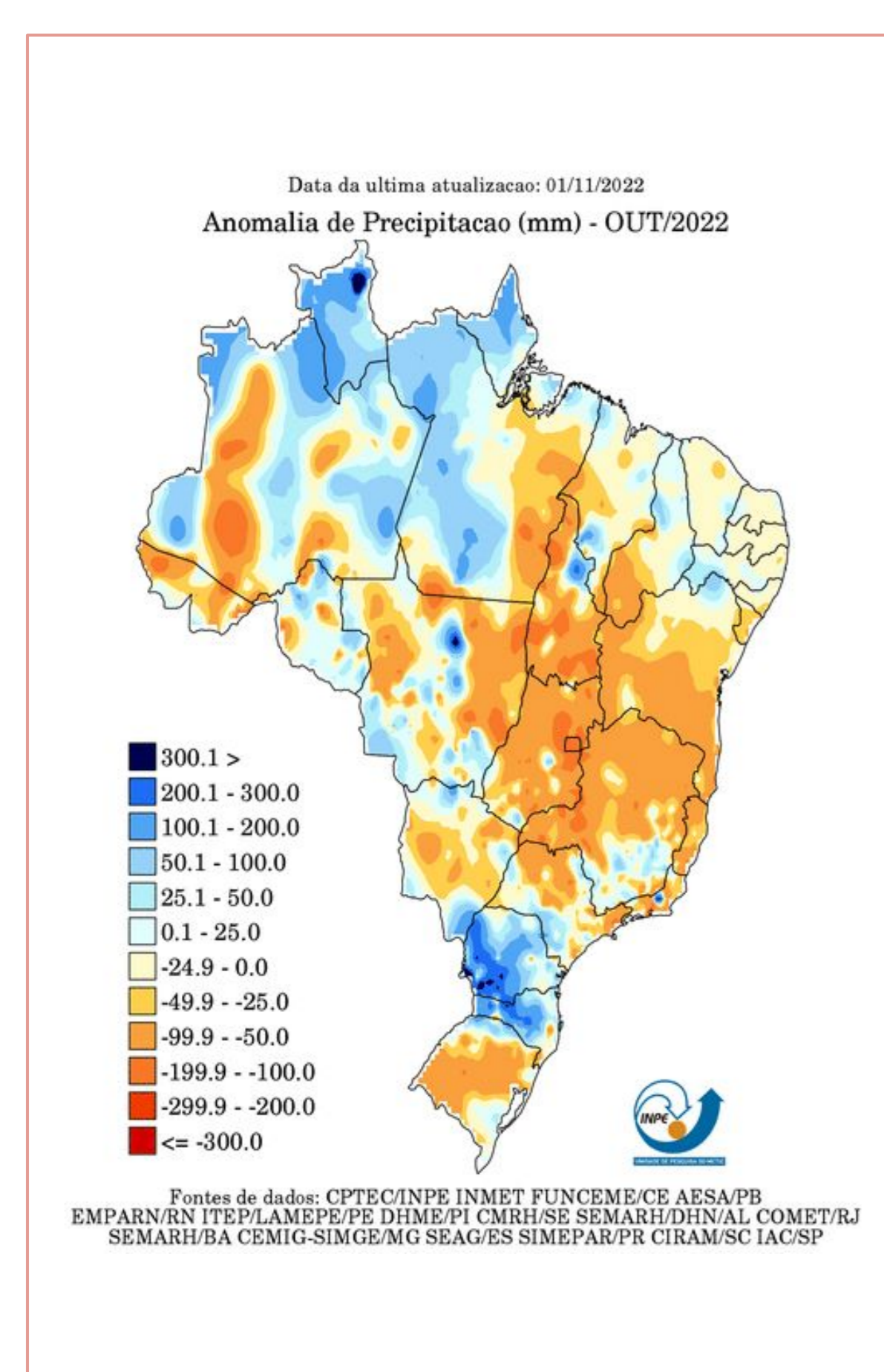
Map 1 - Total detections registered in Oct/2022 by the reference satellite | Source: Fire Program - CPTEC-INPE / Brazil

FIRES BY STATES IN %



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

PRECIPITATION ANOMALIES RECORDED DURING OCT/2022



Map 2 - Precipitation anomalies recorded during Oct/2022

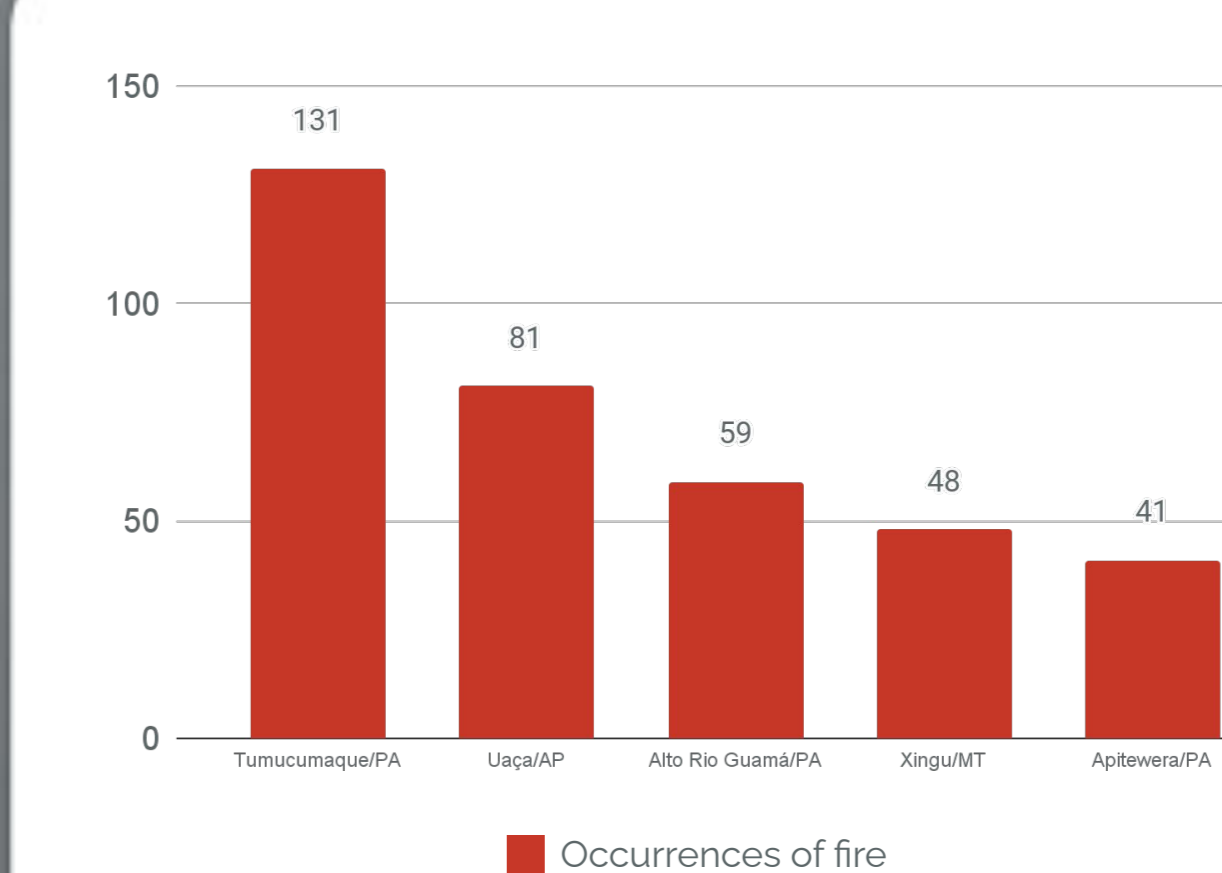
The map of precipitation anomalies (Map 2) indicates that rainfall was above average in the Amazonas, Amapá and Roraima states. In the other states of the Amazon biome, as Acre and Mato Grosso the rainfall was well below average, leading to an abundance of fires in these drought-ridden areas. In the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

Municipality	State	Nº of Outbreaks October/2022
Pacajá	PA	646
Portel	PA	614
Prainha	PA	289
Uruará	PA	255
Anapu	PA	258
Novo Repartimento	PA	243
Mojú	PA	211
Sena Madureira	AC	202
Altamira	PA	199
Porto Velho	RO	177

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 Rondônia, Acre and Pará, states beginning to enter their dry period. The total number of fires in these ten municipalities alone was 3,104 fires/hotspots, which represented 10% of all outbreaks registered in Brazil and 23% of all fires in Amazon biome.

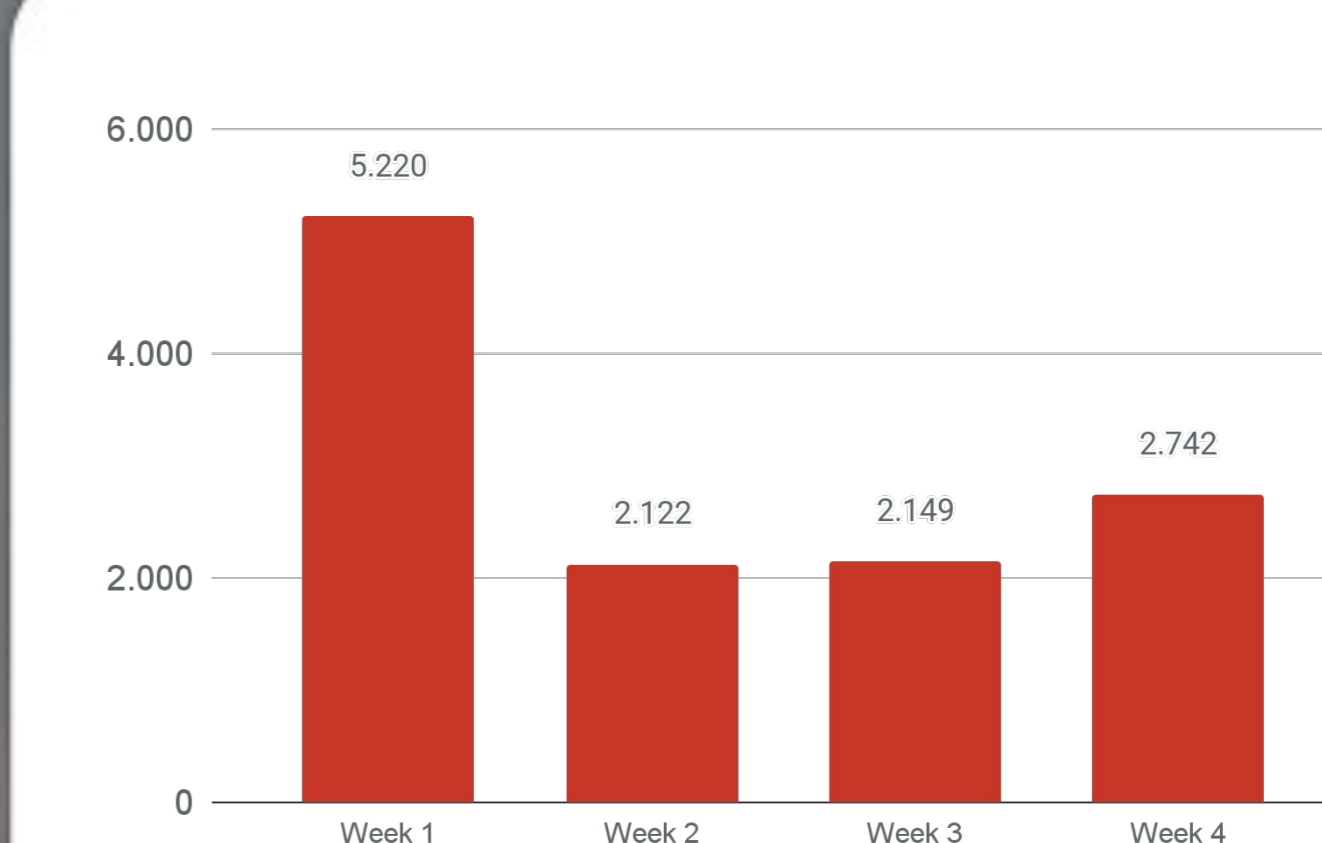
Table 2: Most recorded fires in Oct/2022 according to the reference satellite.
Source: Fire Program - CPTEC-INPE / Brazil



FIRES BY INDIGENOUS RESERVES IN OCT/2022

Throughout October 2022, fires affected some indigenous reserves of the Brazilian Amazon, most of them in the states Pará and Mato Grosso. The graph 2 shows the five indigenous reserves which experienced the most occurrences of fire during this month. A total of 360 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.

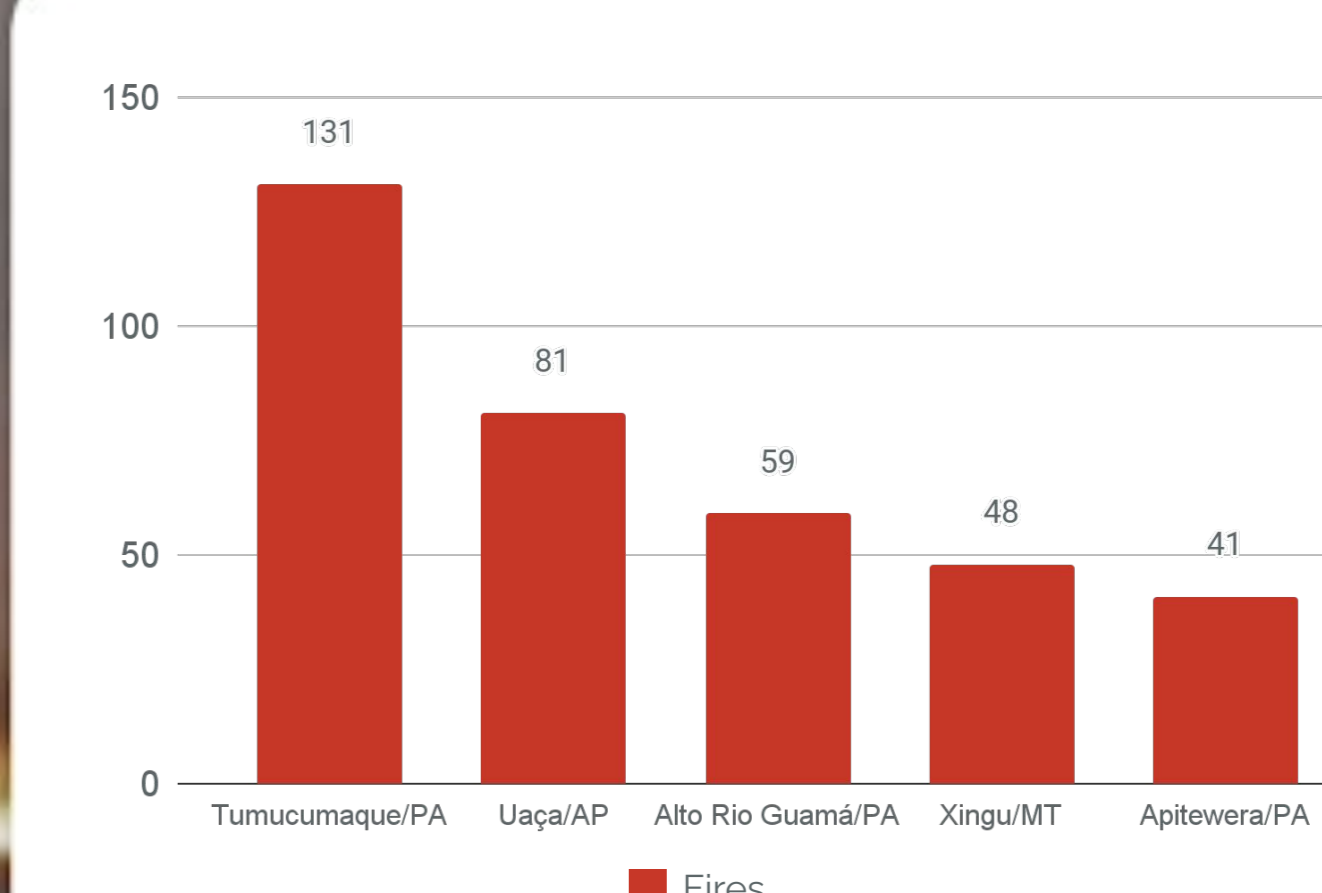
Graph 2: Fires in the indigenous reserve in Oct/2022
Source: Fire Program - CPTEC-INPE / Brazil



HOTSPOTS/FIRES BY WEEK

October is the fourth 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 third first was the one with the most fires (Graph 3), 38% of the total fires occurred between the 03th and 09th of October.

Graph 3: Hotspots/Fires by week in Oct/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, 329 fires/hotspots, this number indicates that at least 2% 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 Oct/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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