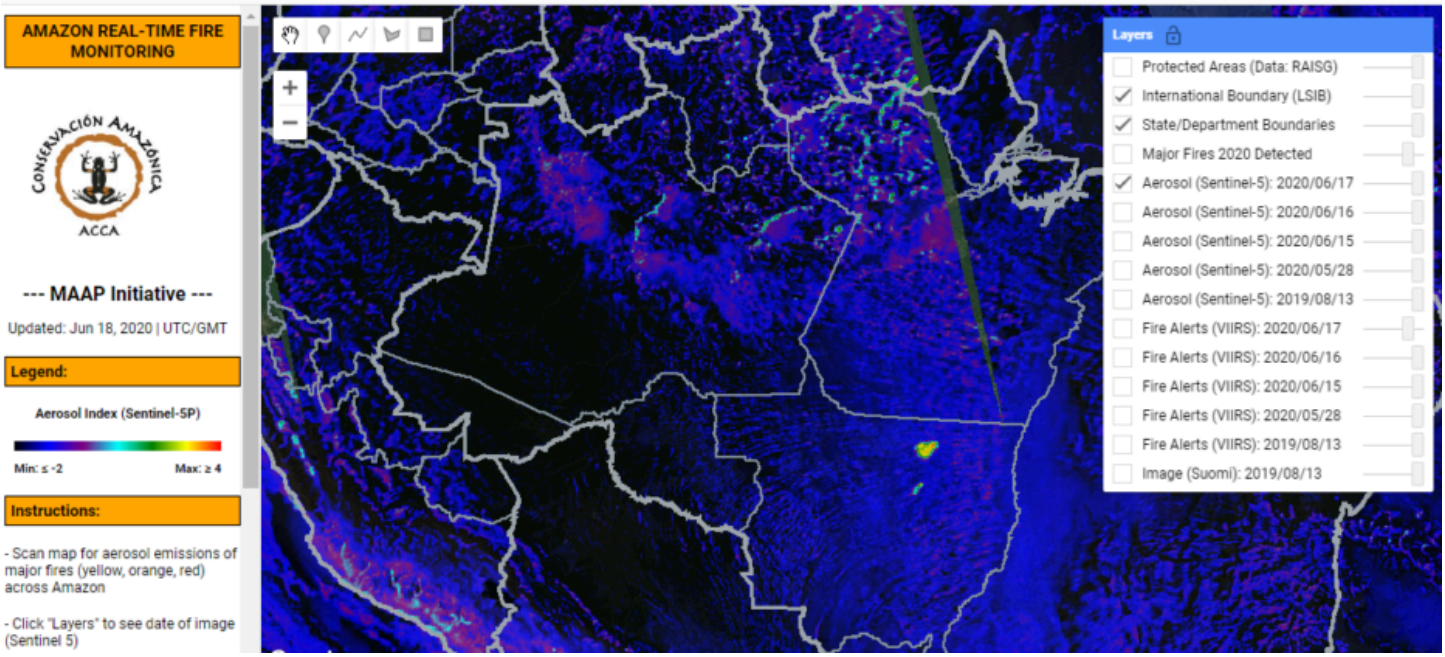
Amazon Fire Tracker 2020: Brazil #4 (June 17, 2020)

June 17, 2020

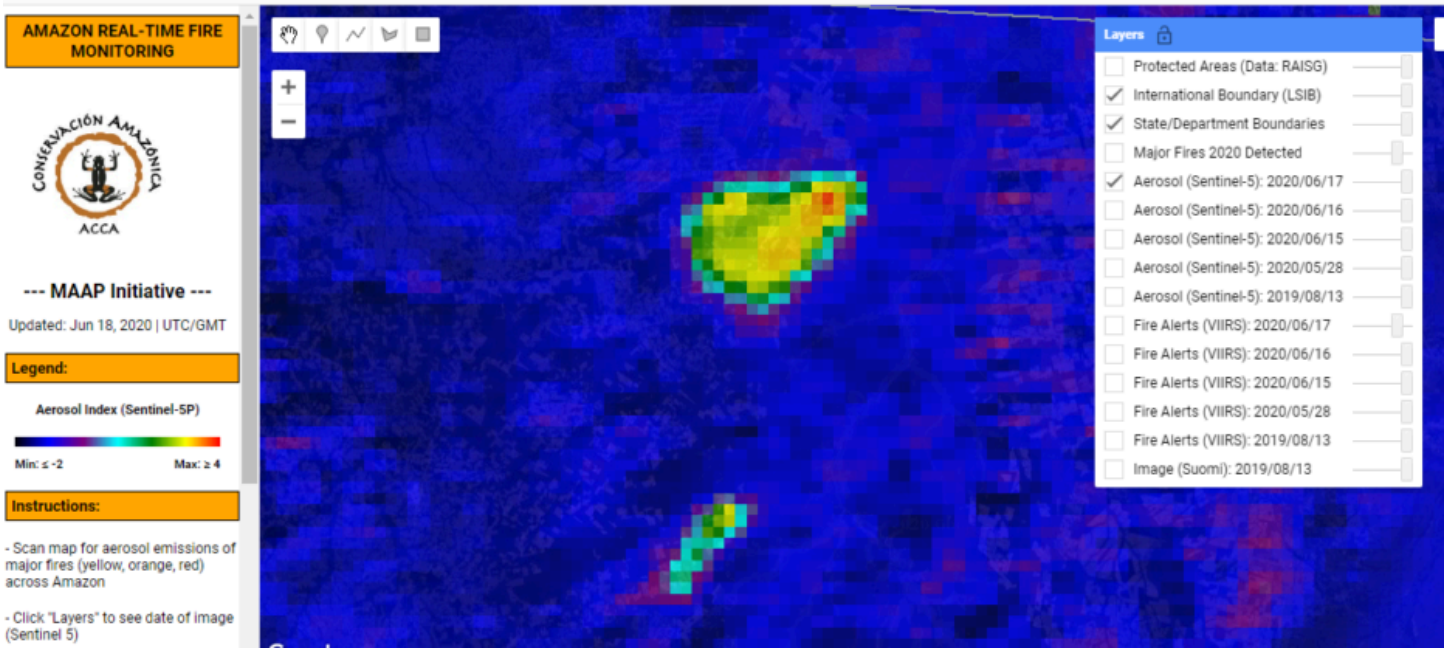
As presented in MAAP #118 (https://www.maapprogram.org/2020/amazon-fire-app/), Amazon Conservation launched a real-time fire monitoring app (https://luciovilla.users.earthengine.app/view/monitoring-amazon-fires) that specializes in detection of elevated aerosol emissions in the smoke coming from burning Amazon fires. As detailed below, the app just detected the **fourth major Amazon fire of 2020** on June 17. All four fires thus far have been in the state of Mato Grosso and burning recently deforested areas (see MAAP #113 (https://www.maapprogram.org/2019/brazil-amazon-fires/) for background).

Step 1. Detection of elevated emissions in the southeastern Brazilian Amazon (Mato Grosso).



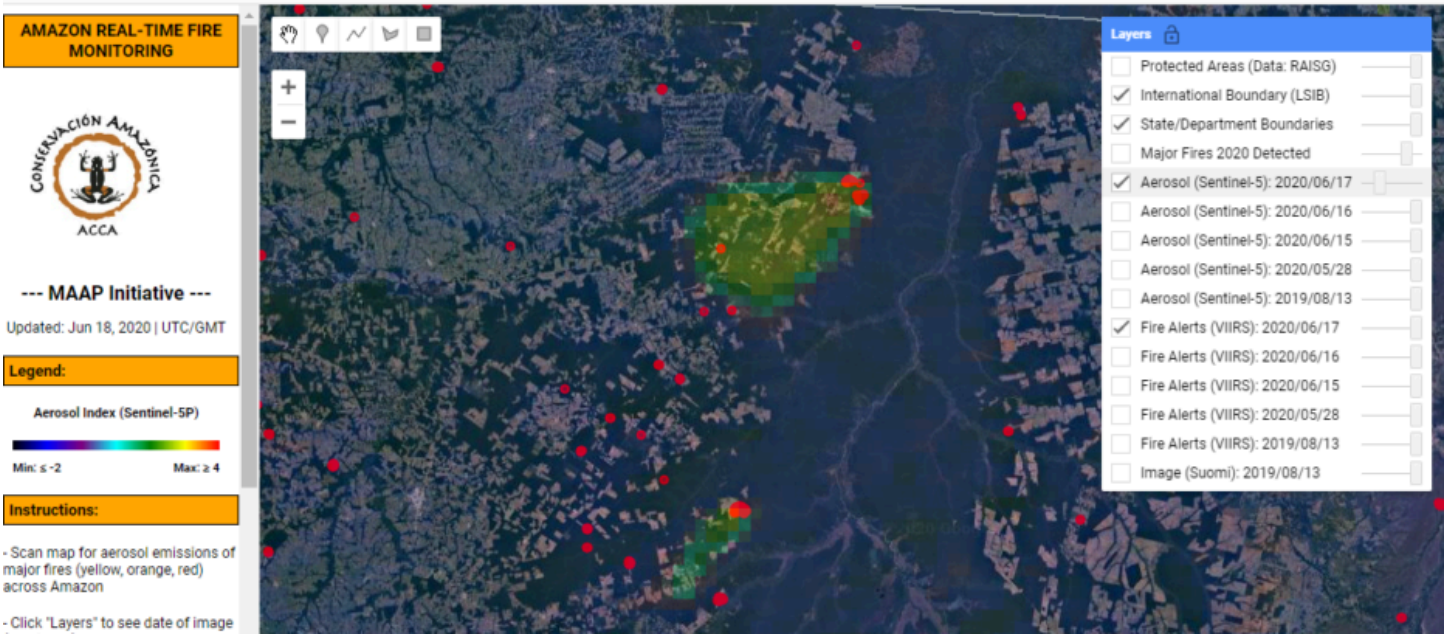
(https://www.maapprogram.org/wp-content/uploads/2020/06/maaproject.org-amazon-fire-tracker-2020-brazil-4-june-17-2020-1.png)

Step 2. Zoom in on the emissions.



(https://www.maapprogram.org/wp-content/uploads/2020/06/maaproject.org-amazon-fire-tracker-2020-brazil-4-june-17-2020-2.png)

Step 3. Adjust the transparency to see the underlying fire alerts that indicate the exact location of the fires. Obtain coordinates of the source of the fires.



(https://www.maapprogram.org/wp-content/uploads/2020/06/maaproject.org-amazon-fire-tracker-2020-brazil-4-june-17-2020-3.png)

Step 4. Check the satellite imagery in Planet Explorer. Here is a high resolution Planet image showing the fire burning on June 17. Also see the slider below, comparing the the June 17 fires with a pre-fire image from June 10.

(https://www.maapprogram.org/wp-content/uploads/2020/06/maaproject.org-amazon-fire-tracker-2020-brazil-4-june-17-2020-Brazil4-20200617.jpg)

Imagery source: Planet.

[twenty20 img1="9167" img2="9168" width="75%" offset="0.5"]

Imagery source: Planet.

Step 5. Using Planet's extensive imagery archive, we were able to determine that the fires were burning an area deforested in 2019 (and not a forest fire).

Coordinates: -10.45, -53.55

Annex – Fire Alert vs. Aerosol Emission Data

This slider shows us how aerosol emission data allows users to prioritize hundreds (or thousands) of heat-based fire alerts. In other words, the aerosol data indicates just the fires that are actually burning lots of biomass and putting out abundant smoke.

[twenty20 img1="9170" img2="9169" offset="0.5"]

References

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Planet Team (2017). Planet Application Program Interface: In Space for Life on Earth. San Francisco, CA. https://api.planet.com (https://api.planet.com/)

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Citation

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