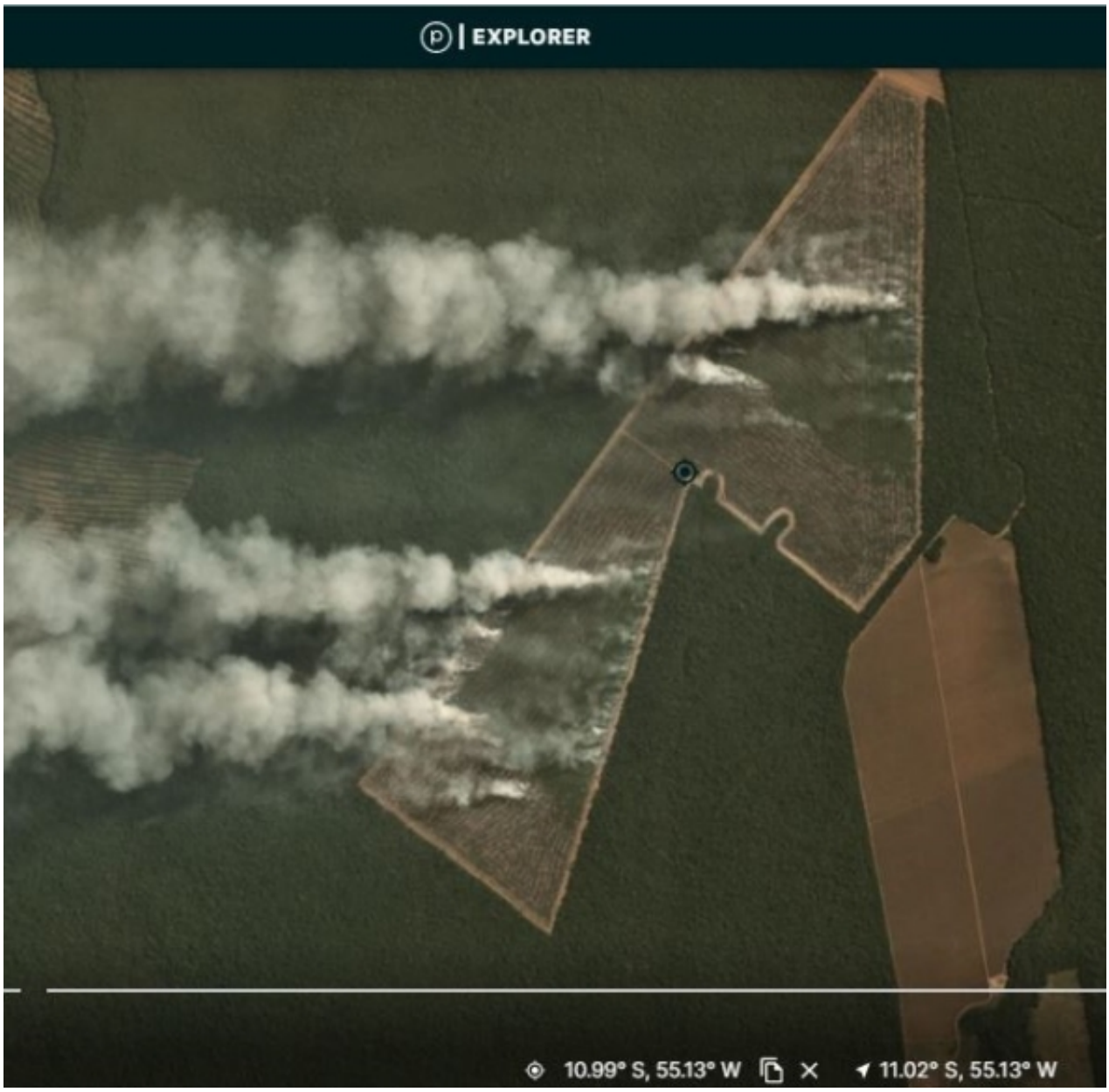
Amazon Fire Tracker 2020: Brazil Fire #12 (June 29)



20202 Amazon major fire #12, in Mato Grosso Brazil, on June 29. Data: Planet. Analysis: MAAP/Amazon Conservation.

As presented in MAAP #118, Amazon Conservation launched a real-time fire monitoring app that specializes in the rapid and user-friendly detection and visualization of major Amazon fires.

In a **novel approach**, the app combines data from the atmosphere (aerosol emissions in smoke) and the ground (heat anomalies) to effectively monitor large Amazon fires.

As detailed below, the app just detected the **12th major Amazon fire** of the year on June 29, 2020 (see the high-resolution image to the right).

It burned 587 hectares (1,451 acres) of land deforested in 2019.

Thus far, all 12 major Amazon fires of 2020 have:

- Occured in the state of Mato Grosso, in the southeastern Brazilian Amazon.
- Burned recently deforested areas (that is, areas deforested in 2018, 2019, or 2020). In other words, these are not forest fires. See MAAP #113 for background on this important point.

Below, we describe the process of using the app to detect and confirm the fire on June 29.

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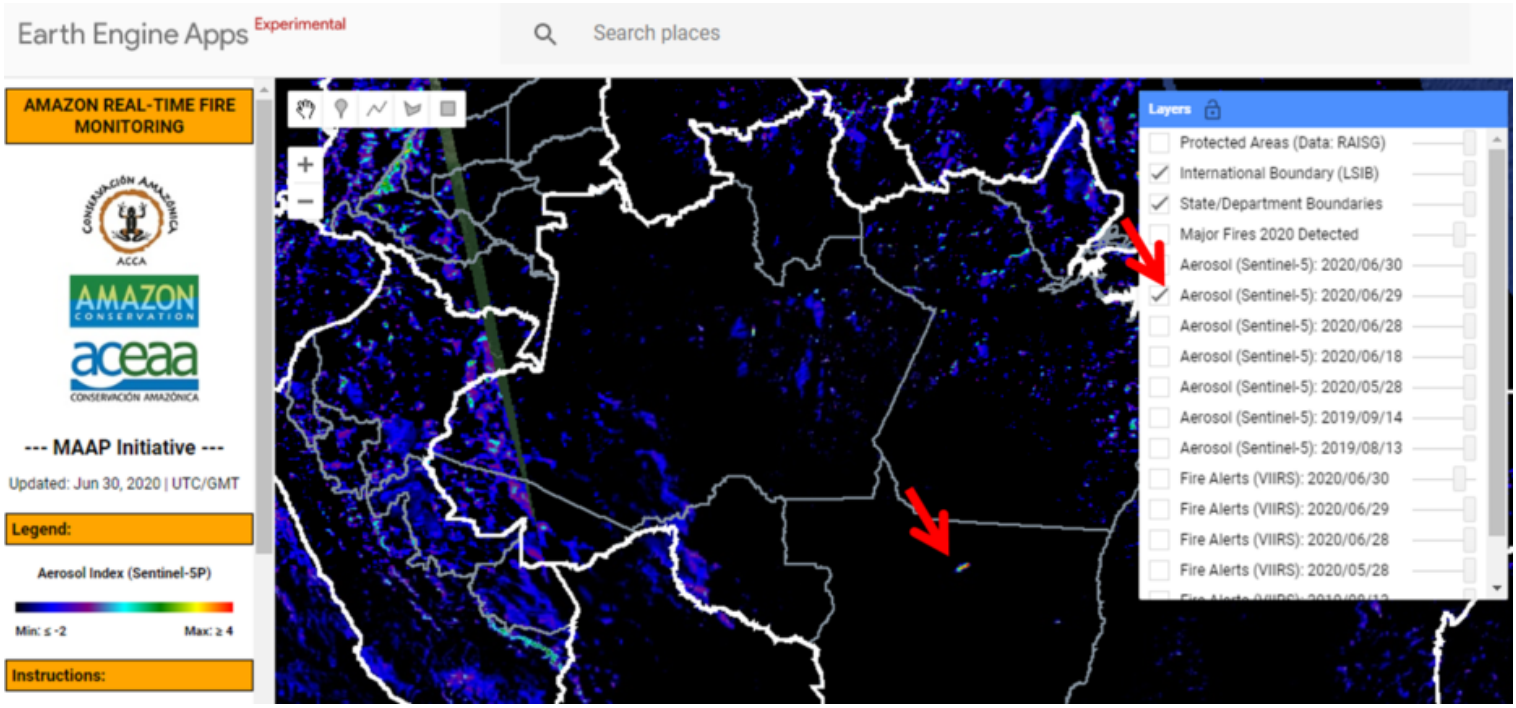
Step 1. Detection of elevated emissions in the southeastern Brazilian Amazon (Mato Grosso).



Step 2. Zoom in to confirm the elevated aerosol emissions, indicating the burning of abundant biomass.

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.

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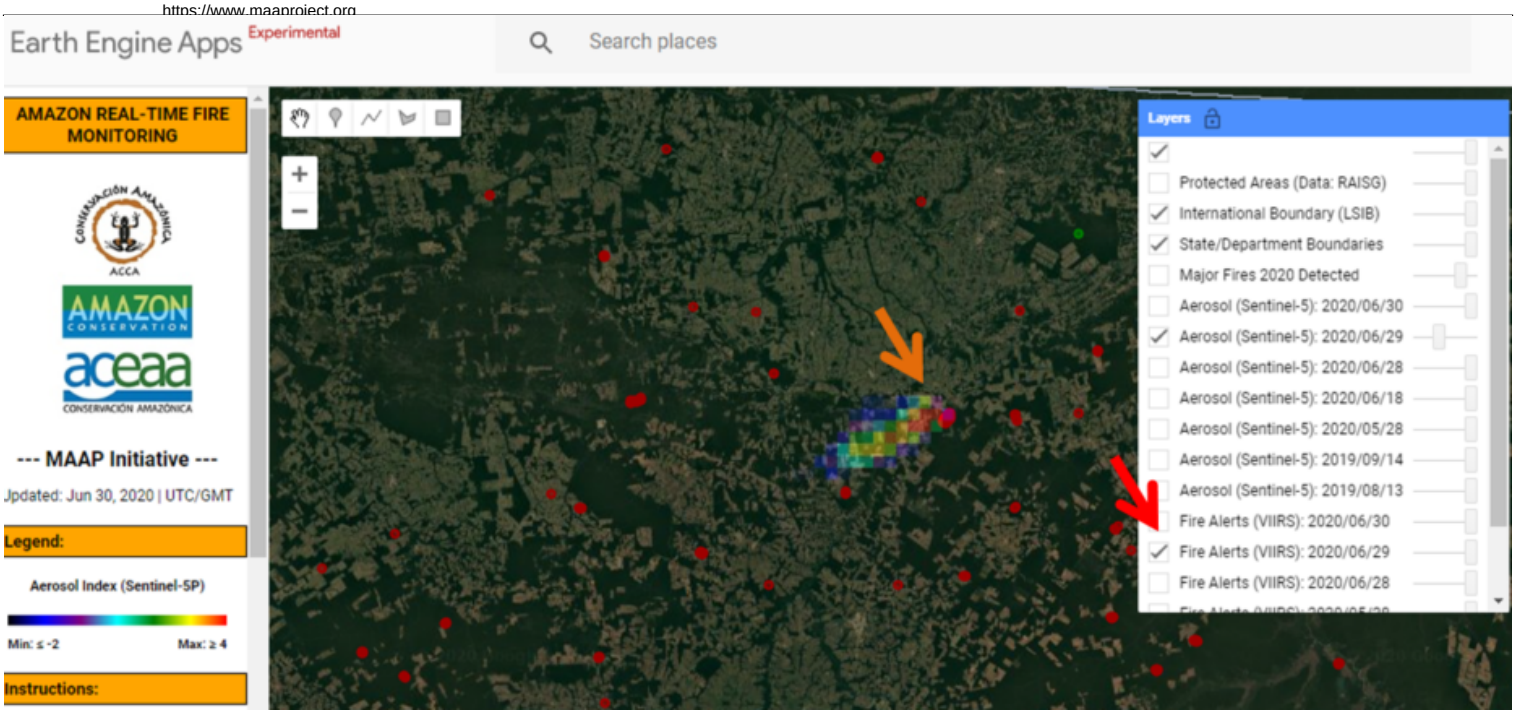
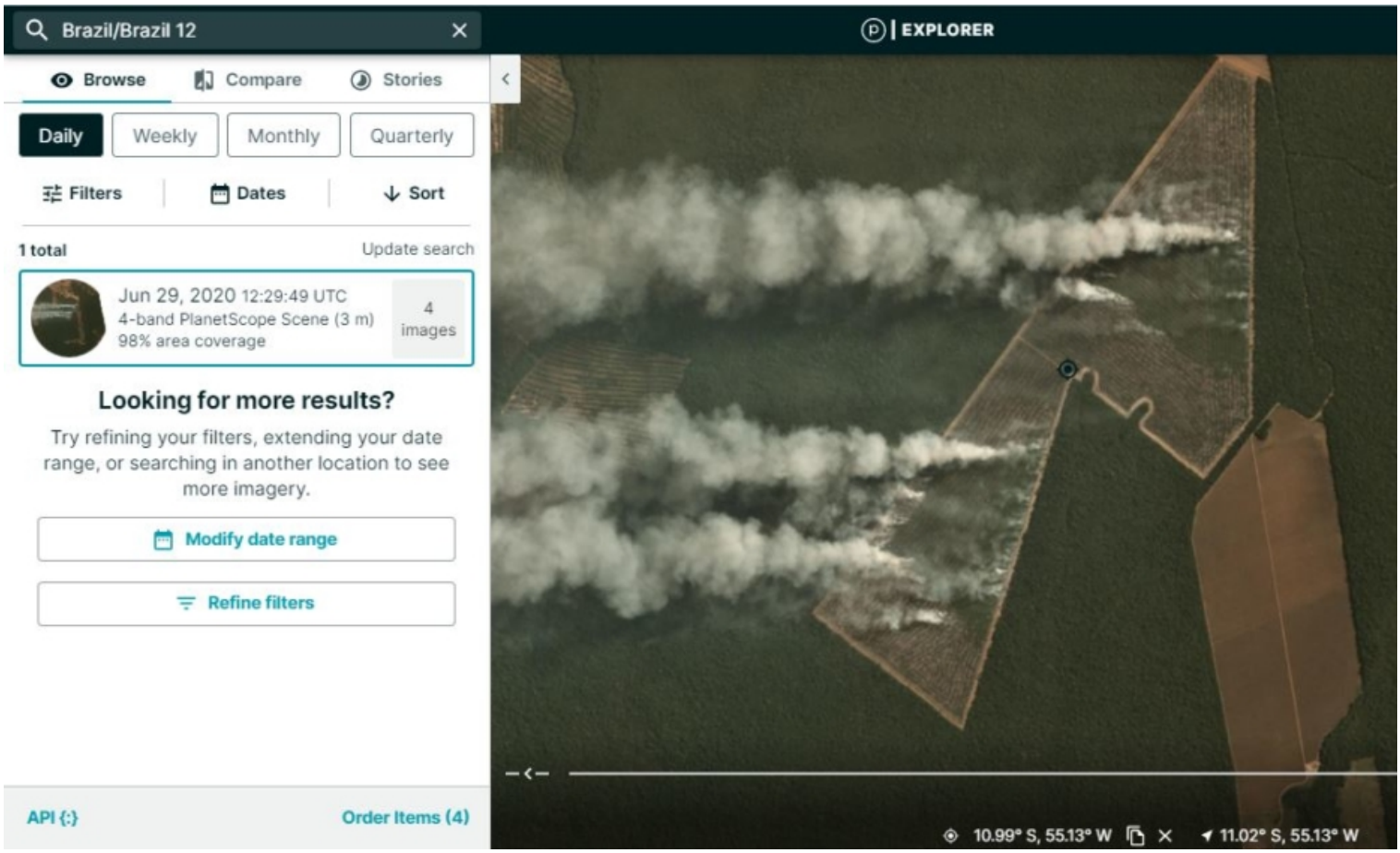


Step 4. Confirm fire with satellite imagery. For example, here is a high resolution image from Planet Explorer showing the fire burning on June 29.



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). In the **timelapse** below, see that the deforestation occurred between September and October 2019, and then burned on June 29, 2020. The final image shows the day after the fires, June 30, to see the full extent of the burn.

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https://www.maaproject.org/wp-content/uploads/2020/06/maaproject.org-amazon-fire-tracker-2020-brazil-fire-12-june-29-Brazil-12-series.mp4

Coordinates

-10.99, -55.13

References

Gorelick, N., Hancher, M., Dixon, M., Ilyushchenko, S., Thau, D., & Moore, R. (2017). Google Earth Engine: Planetary-scale geospatial analysis for everyone. Remote Sensing of Environment.

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

Acknowledgements

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Citation

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