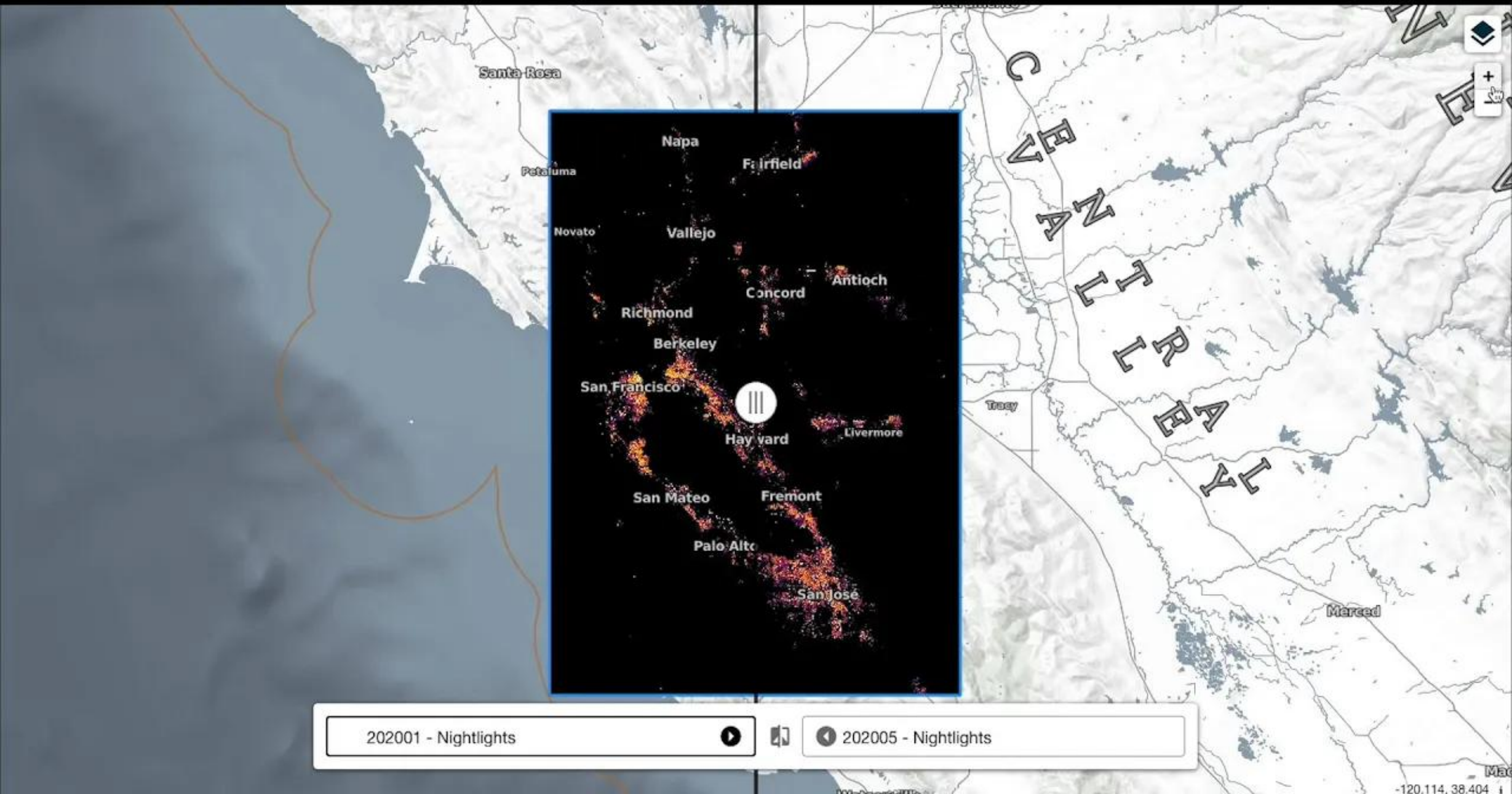
Reference Images



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The novel coronavirus led to changes in human activities

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around the globe. As a result of city-to-country-wide lockdowns,

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some bodies of water have run clearer, emissions of pollutants have temporarily

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declined, and transportation and shipment of goods have decreased.

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We can see some of these changes from space.

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NASA, ESA and JAXA have partnered to make

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data from their fleet of satellites accessible on the new COVID-19

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Earth Observation Dashboard. You can search through

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various signals of the COVID lockdowns as they’re visible from space.

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When you arrive at the dashboard, you have a few choices for digging

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into the data. On the left side, you can sort the observations by

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country or by type of data indicator. We’ll walk through a few of these.

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When you select an indicator, points on the map where those data

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are available will turn either green, blue, red or gray

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to indicate if the data are better than, the same as, or worse

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than the average baseline, or still being processed and uploaded.

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First up: Economic indicators. We'll start with import

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production sites: status of metallic ores. Points on the map

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where these data are available turned blue. We'll look at Dunkirk in France.

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A chart shows how many ships were available at piers

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over time in imagery from Sentinel-2.

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We can also look at finished goods production, like in Beijing.

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Clicking on the blue dot pulls up a chart showing how many new cars were

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visible in ALOS-2 and Sentinel-1 satellite imagery.

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You can click to read more and see the satellite imagery.We can see

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other economic indicators, like electric lights seen from space.

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We'll look at California. Clicking on the EO Data button

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zooms into the imagery from the NASA-NOAA Suomi-NPP satellite.

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You can compare lights from before and during the COVID lockdowns and you can zoom

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in even further for a closer look at the images.

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We can also investigate environmental indicators, like air

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quality. We'll look at the concentration of nitrogen dioxide,

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an air pollutant released by human activities like driving cars

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measured by the TROPOMI instrument from Copernicus Sentinel-5P

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satellites. You can compare global NO2

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concentrations from before and during COVID lockdowns or zoom and

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pan to specific locations. Using the

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greenhouse gases indicator, we can investigate similar measurements of global

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carbon dioxide from OCO-2 over the entire planet and

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00:02:41,070 --> 00:02:45,070
GOSAT satellites over individual city areas. We'll click on Global

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Indicator for the difference between 2020 and prior years.\h

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00:02:49,070 --> 00:02:53,070
You can also click on cities like Tokyo and see greenhouse

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gas column data for the annual change over the last few months.

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Water quality data over a time series in the North

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Adriatic Sea, show a drop and then subsequent increase in chlorophyll

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concentrations, which might reflect changes in both natural conditions like winds and

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currents and in human activities like agriculture and sewage runoff.

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You can also compare chlorophyll concentrations in

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coastal areas, like the Venice lagoon, where the drop is partly the result

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of decreased human activity.There are more data indicators to come,

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so you can continue to explore the changes caused by COVID-19

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lockdowns, as we see them from space.