

How to use JASMES Wildfire Monitor

Ver.1 : 2021/03/09

Ver.2 : 2022/02/01

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The JASMES Wildfire Monitor is a Wildfire detection system using the Fire radiative power (FRP) and [Wildfire detection algorithm](#) based on the L1B data observed by the onboard optical sensor SGLI of the Climate Change Observation Mission GCOM-C.

This document describes how to use the JASMES forest fire monitor.

■ Overview

- Results with high confidence(Reliability : 2~5) are drawn on the map for daytime and nighttime respectively.

Nighttime : FRP(W/m²) *If the value is unknown, it is drawn in light blue

Daytime : Location of fire detection

- The spatial resolution switches according to the zoom level.
For more information, please click [here](#).
- You can retrieve daily csv data for Wildfire detection points.
For more information, please click [here](#).

How to use JASMES Wildfire Monitor (Nighttime)

The screenshot shows the JASMES Wildfire Monitor interface. At the top, the JASMES logo is on the left, and navigation links (JASMES TOP, EORC GCOM-C, User Guide, About Data, Data Processing, FAQ) are on the right. Below the logo, the last update time is shown: "Last Update: Jul. 19, 2025 15:51:23 UTC". A date selection box is highlighted with a red rectangle, containing "Date: 2025 6 3" and a "Search Date" button. Below this are buttons for "-7 Day", "-1 Day", "Latest", "+1 Day", and "+7 Day". A red arrow points from the "Search Date" button to a text box that says "Please select a date.".

On the left side, the "Map Menu" section is visible. Under the "Product" tab, several options are listed: "Land Surface Temperature", "Activity of Vegetation (NDVI)", "Plant Water Stress Trend(WST)", "Rayleigh corrected reflectance RGB", "Wild Fire(FRP) Nighttime" (highlighted with a red rectangle), "Wild Fire Daytime", and "Total Evapotranspiration". A red arrow points from this highlighted option to a text box that says "Select 'Wild Fire (FRP) Nighttime.'".

Below the "Map Menu" is the "Statistics period" section, with buttons for "1-day", "8-day", "half-month", and "1-month". Below that is the "Obs / Anomaly" section, with buttons for "Observation" (highlighted) and "Anomaly". Below that is the "Sensor" section, with buttons for "Daytime" and "Nighttime".

In the center, the "What's New" section displays a list of updates. The first update is dated "2025/03/12" and mentions "Processing of JASMES products will be del...". The second update is dated "2025/02/25" and mentions "The following products have been added to JASMES Image." and lists "Snow and Ice Coverd area (SGLI + VIIRS)", "Snow and Ice Coverd area Anomaly", and "Total Evapotranspiration Anomaly". The third update is dated "2024/03/25" and mentions "Anomaly values can also be displayed on map." and "Please refet to here to How to use JASMES Map monitor." The fourth update is dated "2024/02/27" and mentions "Total Evapotranspiration was added to JASMES".

On the right side, the "Analysis" section is visible. It includes "Analysys of products" with "Get value" and "Point" buttons, and "Time Series Graph" with a "Time Series Graph" button. Below that is the "Data List(JASMES user)" section, with fields for "ID:" and "PW:", and buttons for "Explanation" and "Login". At the bottom right is the "Map settings" section, with "Layer Opacity Control" and "Base Map" options.

At the bottom of the interface, there is a scale bar (0 to 1000 km) and a legend for "Wild Fire / SGLI(GCOM-C) : Daytime". The footer contains the copyright notice: "Copyright© Japan Aerospace Exploration Agency, Earth Observation Research Center" and links for "What's new", "Contact", "Questionnaire", and "Terms of Use of Research Data".

How to use JASMES Wildfire Monitor (Daytime)

The screenshot shows the JASMES Wildfire Monitor interface. At the top, the JASMES logo is on the left, and navigation links (JASMES TOP, EORC GCOM-C, User Guide, About Data, Data Processing, FAQ) are on the right. Below the logo, the last update time is shown: "Last Update: Jul. 19, 2025 15:51:23 UTC". A date selection box is highlighted with a red rectangle, containing "Date: 2025" (dropdown), "6" (dropdown), "3" (dropdown), and a "Search Date" button. Below this are buttons for "-7 Day", "-1 Day", "Latest", "+1 Day", and "+7 Day". A red arrow points from this box to a callout that says "Please select a date.".

On the left side, the "Map Menu" section has tabs for "Land", "Ocean", "Atmo", and "Cryo". Under "Land", several product options are listed: "Land Surface Temperature", "Activity of Vegetation (NDVI)", "Plant Water Stress Trend(WST)", "Rayleigh corrected reflectance RGB", "Wild Fire(FRP) Nighttime", "Wild Fire Daytime" (highlighted with a red rectangle), and "Total Evapotranspiration". A red arrow points from this box to a callout that says "Select 'Wild Fire Daytime.'".

Below the Map Menu is the "Statistics period" section with buttons for "1-day", "8-day", "half-month", and "1-month". Below that is the "Obs / Anomaly" section with buttons for "Observation" and "Anomaly". Below that is the "Sensor" section with a dropdown menu showing "Daytime" and "SGLI(GCOM-C)".

In the center, the "What's New" section displays a list of updates: "2025/03/12", "2025/02/25", "2024/03/25", and "2024/02/27".

On the right side, the "Analysis" section contains several sub-sections: "Analysys of products" (with "Get value" and "Point" buttons), "Time Series Graph" (with "Time Series Graph" button), "Data List(JASMES user)" (with "ID:" and "PW:" fields), and "Map settings" (with "Layer Opacity Control" and "Base Map" dropdowns).

At the bottom, the main map area shows a satellite image of a region with yellow outlines indicating fire locations. A scale bar for "1000 km" and a legend for "fire location" are at the bottom left. The JAXA logo is at the bottom right.

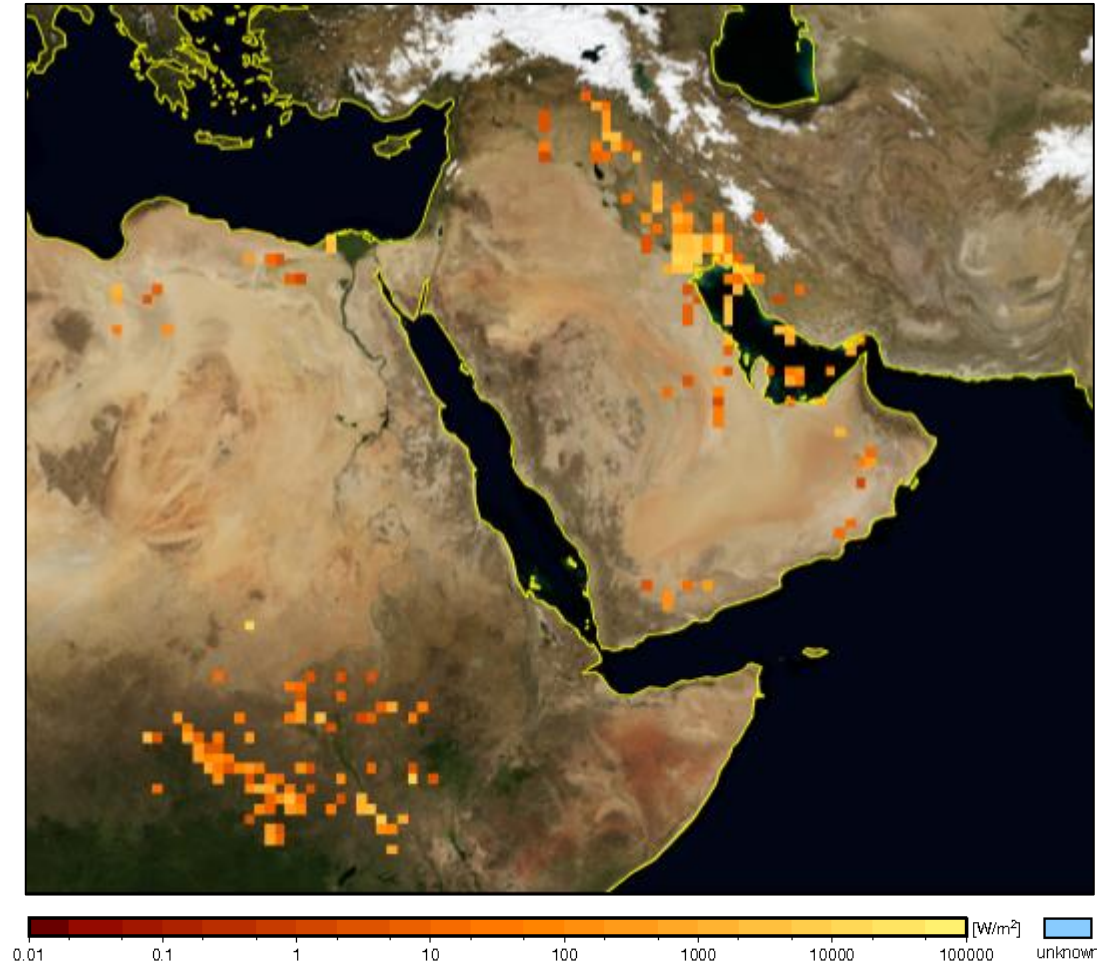
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How to use JASMES Wildfire Monitor (Nighttime)

Zoom level	Spatial resolution	Min	Max	Data
1-7	0.5 degree grid	0.01	100000	Accumulated 250 m resolution FRP (W/m^2) in 0.5 degree grid
8-10	0.05 degree grid	0.01	1000	$\text{FRP}(\text{W}/\text{m}^2)$ integrated in 0.05 degree grid $\times (250\text{m})^2 / 0.05$ degree grid area
11-	0.01 degree grid	0.01	40000	$\text{FRP}(\text{W}/\text{m}^2)$ integrated in 0.01 degree grid $\times (250\text{m})^2 / 0.01$ degree grid area

How to use JASMES Wildfire Monitor (Nighttime) (Zoom level 1~7)

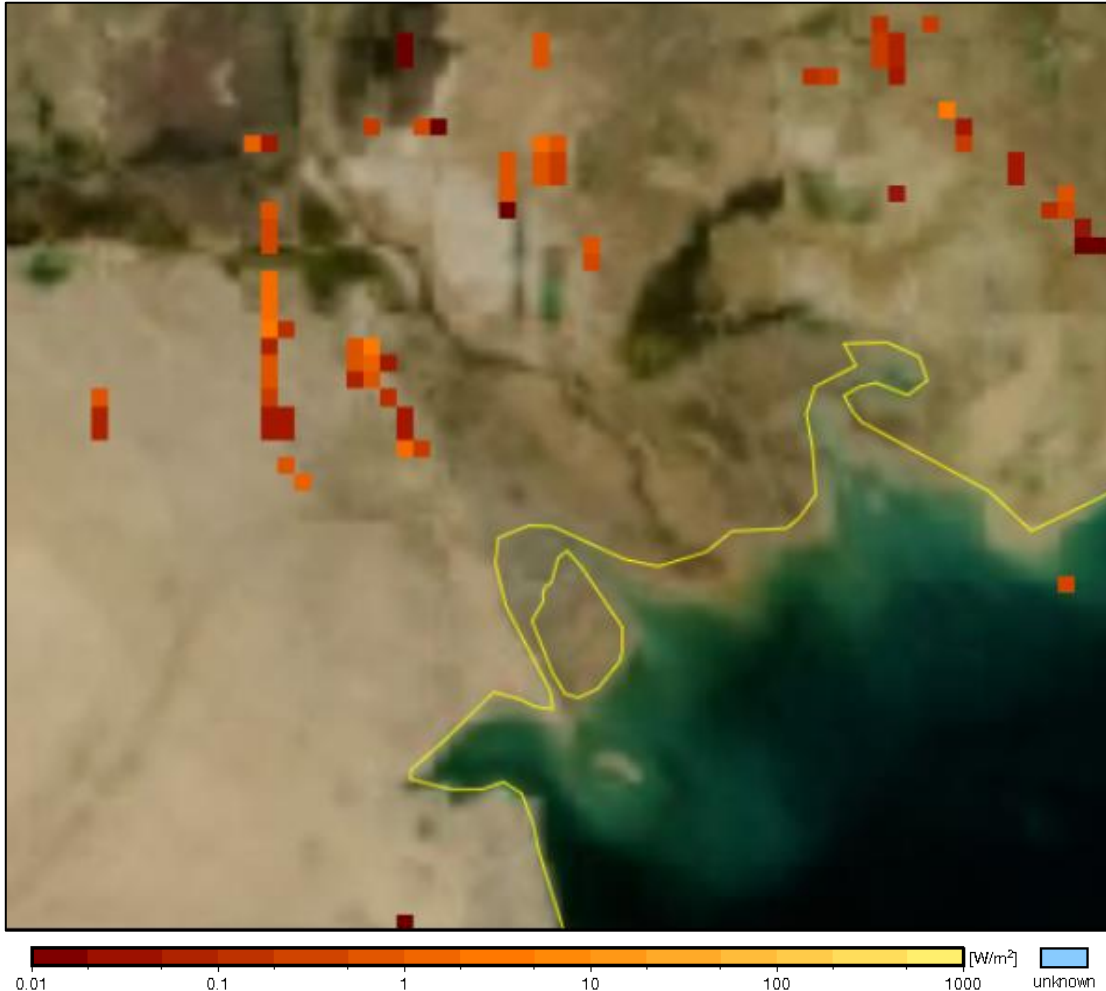
2021/01/03



- Display in a 0.5 degree grid to match the default zoom level of the map.
- The total 250 m resolution FRP (W/m²) within a 0.5 degree grid makes it easier to identify locations with high detection or high FRP when looking at the entire map.

How to use JASMES Wildfire Monitor (Nighttime) (Zoom level 8~10)

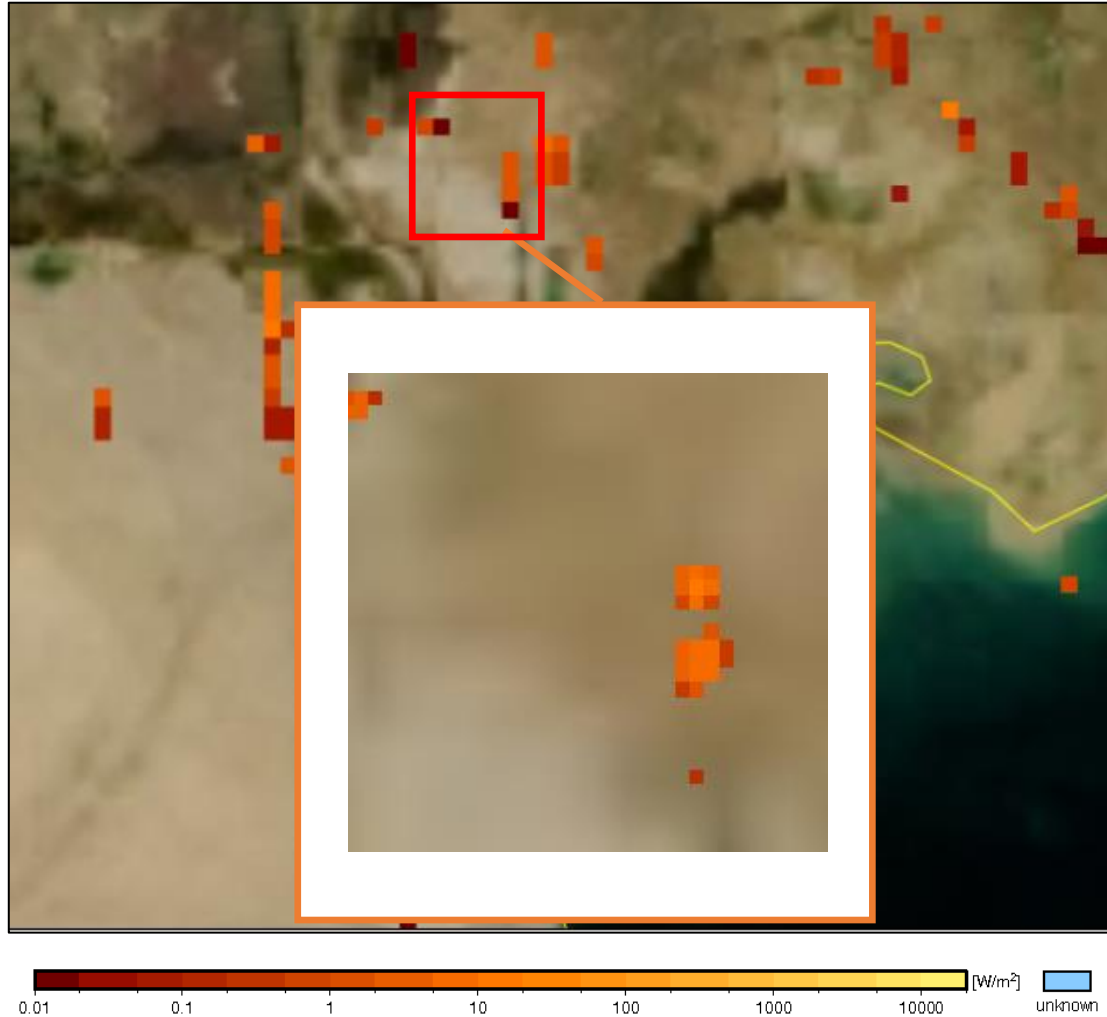
2021/01/03



- The grid shall be a 0.05 degree grid, suitable when the map is set at zoom level 8-10.
- $\text{FRP}(\text{W/m}^2) \times (250\text{m})^2 / \text{grid area value}$
- Lattice area is the area at the equator (0.05 degree lattice) corrected by $\cos(\text{center latitude})$

How to use JASMES Wildfire Monitor (Nighttime) (Zoom level 11~)

2021/01/03



- The grid shall be a 0.01 degree grid, suitable when the map is set at zoom level 11-.
- $FRP(W/m^2) * (250m)^2 / \text{grid area value}$
- Lattice area is the area at the equator (0.05 degree lattice) corrected by $\cos(\text{center latitude})$

How to use JASMES Wildfire Monitor (Daytime)

Zoom level	Spatial resolution	Min	Max	Data
1-7	0.5 degree grid	-	-	Drawing when there is fire detection within 0.5 degree grid
8-10	0.05 degree grid	-	-	Drawing when there is fire detection within 0.05 degree grid
11-	0.01 degree grid	-	-	Drawing when there is fire detection within 0.01 degree grid