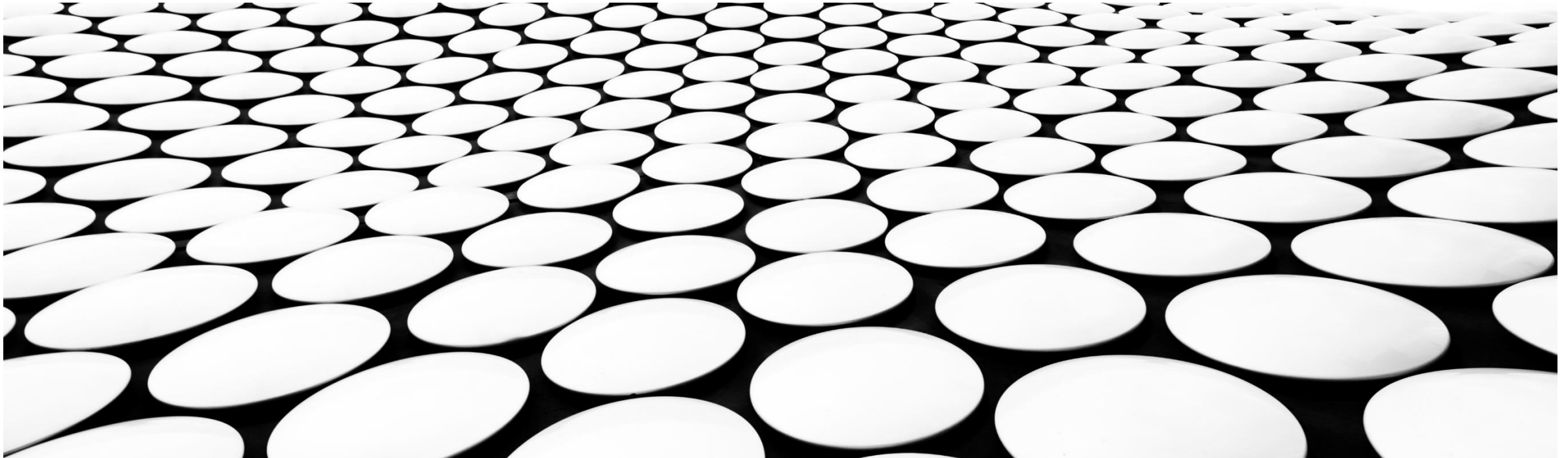
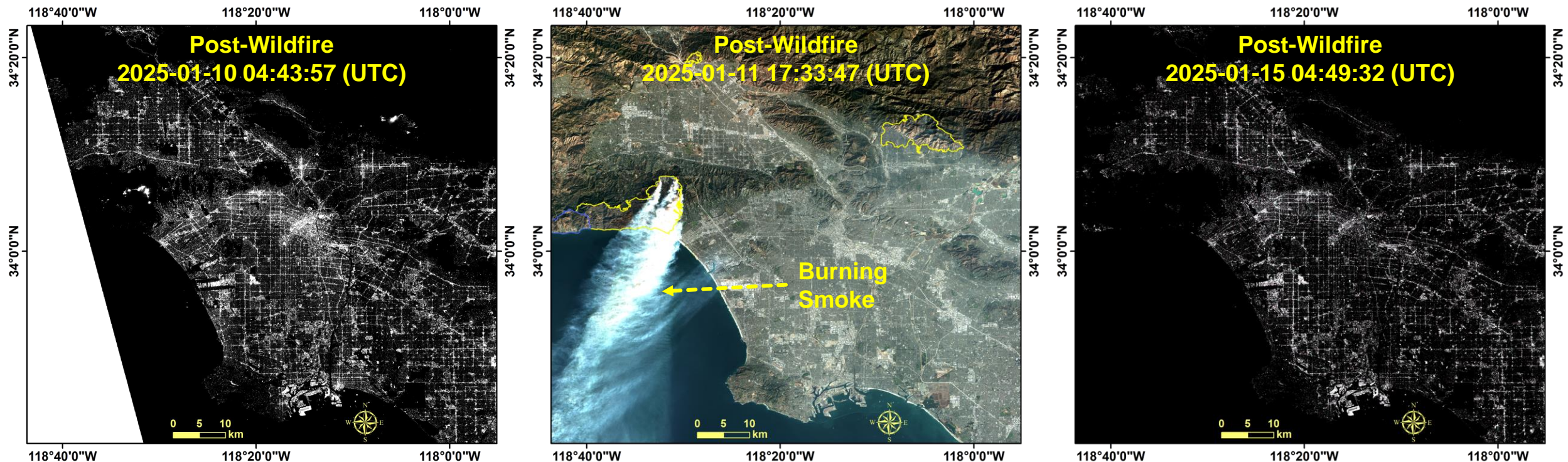


ASSESSMENT OF LOS ANGELES WILD FIRE BASED ON MULTISOURCE REMOTE SENSING DATA




INTRODUCTION

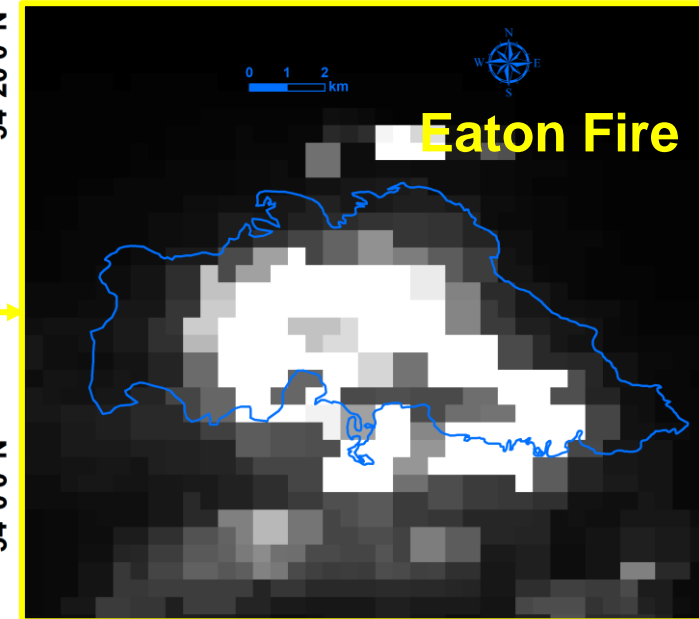
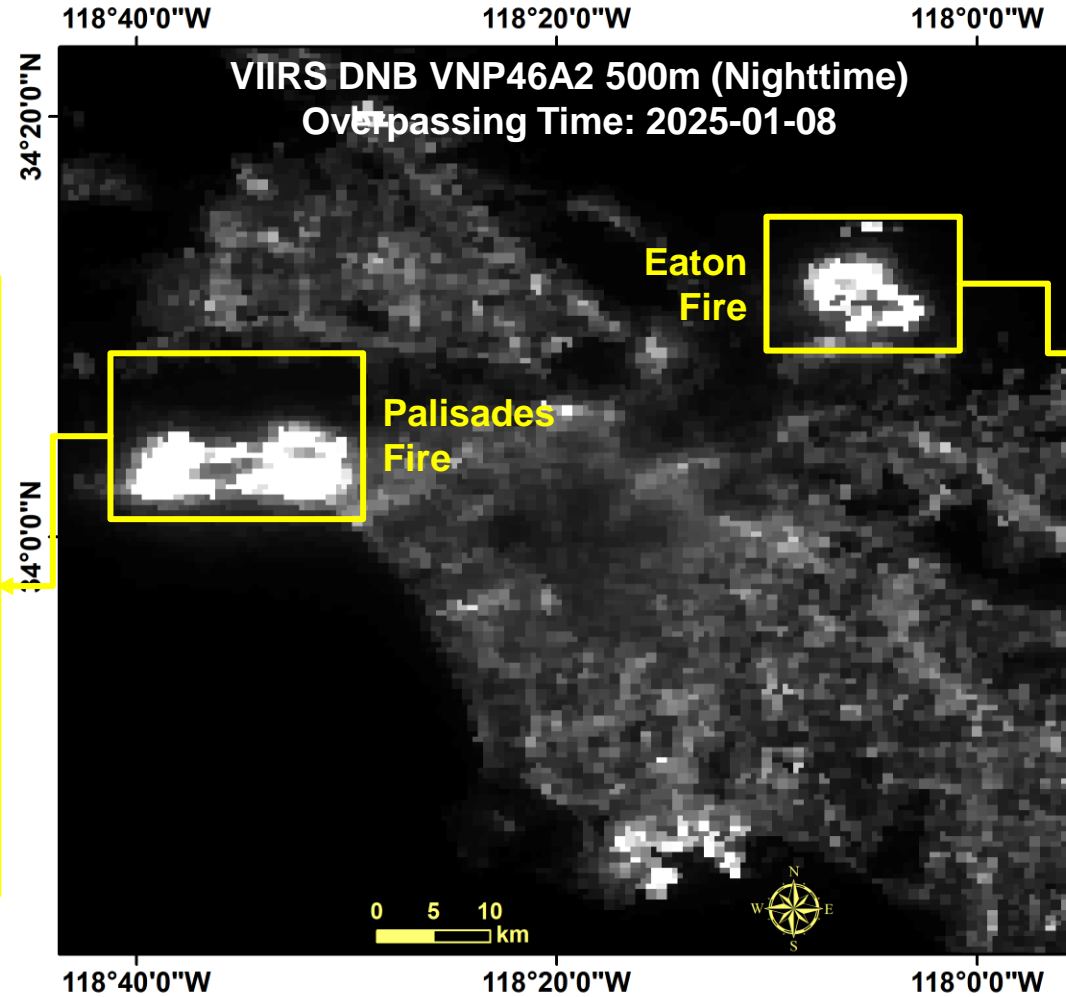
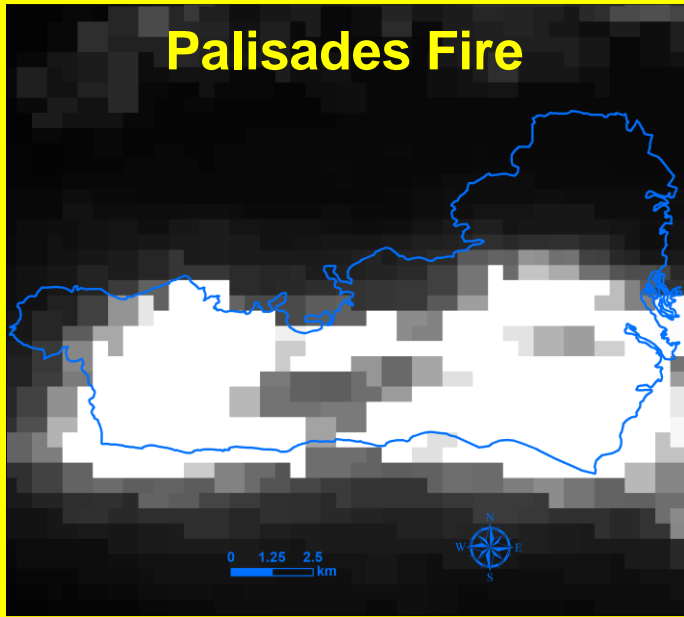
- On 7 January 2025, mountain fire broke out in the southern region of the Los Angeles County, California, USA. As of 13 January local time, the death toll from this mountain fire has exceeded 24, and multiple fires have resulted in the destruction of more than 10,000 structures, with multiple fires still spreading.
- The International Research Center of Big Data for Sustainable Development Goals (CBAS) activated its emergency framework to plan the overpassing for the affected area of the SDGSAT-1 payloads, i.e., Glimmer Imager (GLI), Thermal Infrared Spectrometer (TIS), and Multispectral Imager (MSI), six post-disaster scenes were acquired (10 January, 11 January, and 15 January 2025).





ANALYSIS-WILDFIRE 2025-01-08

 Burned Area

 High
Radiance
Low

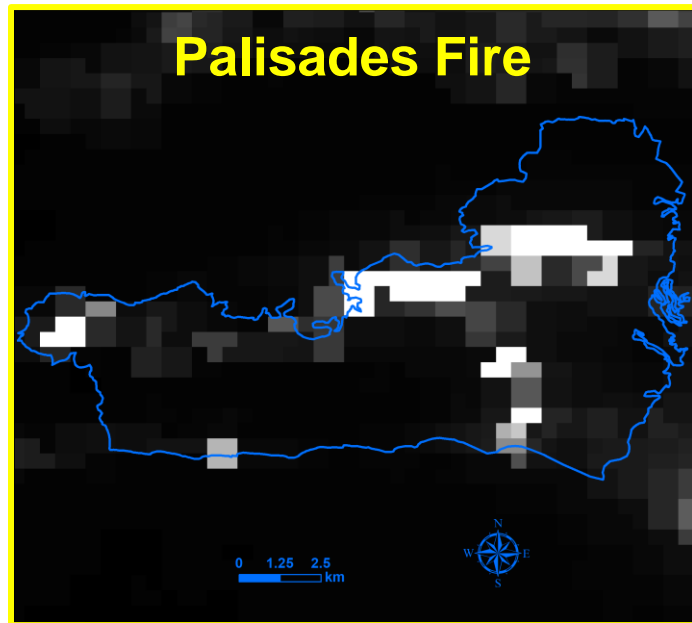
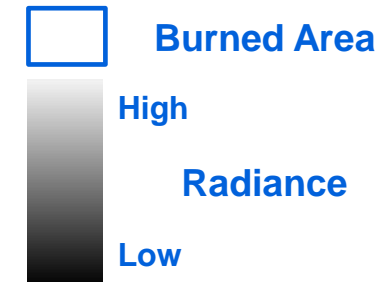
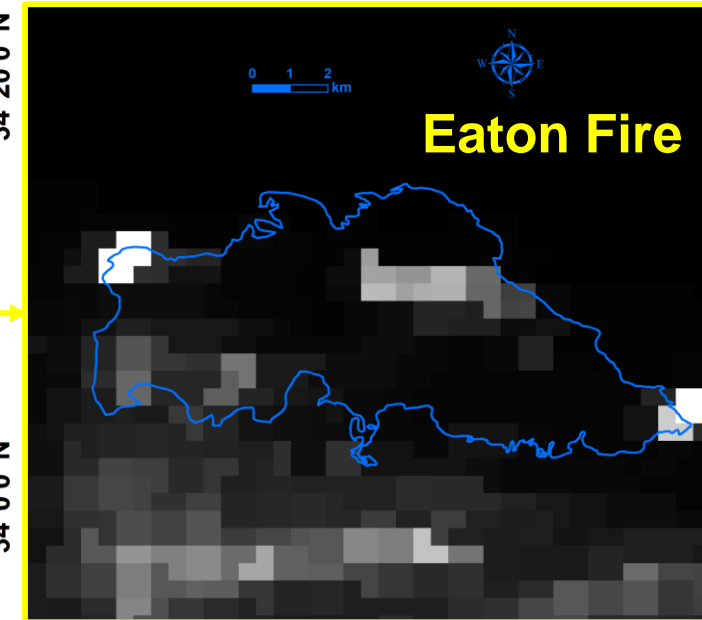
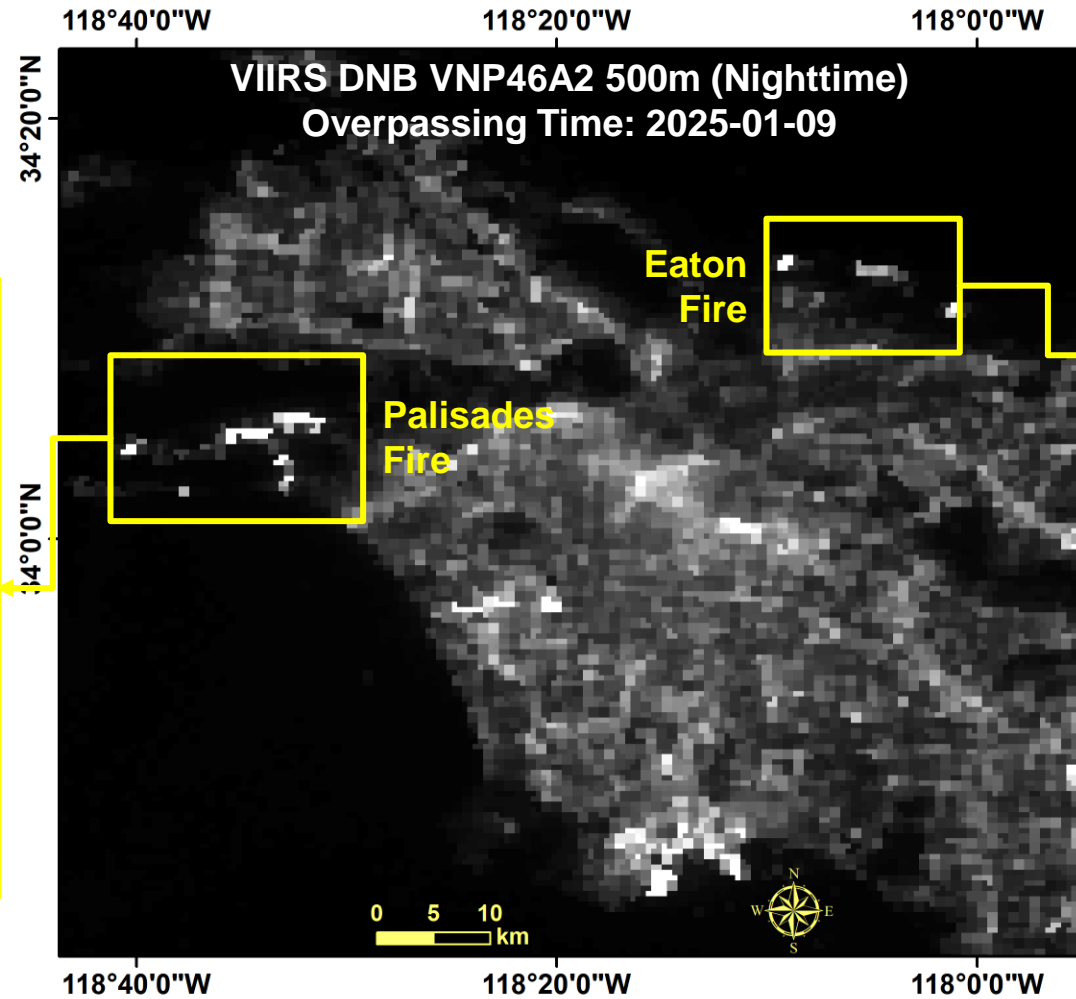
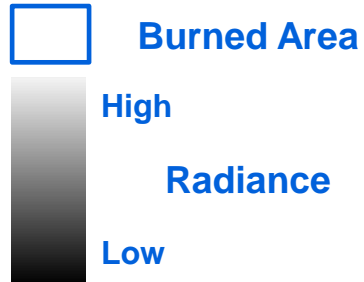


 Burned Area

 High
Radiance
Low

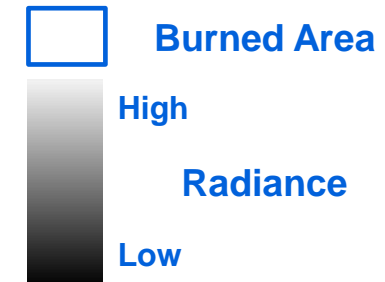
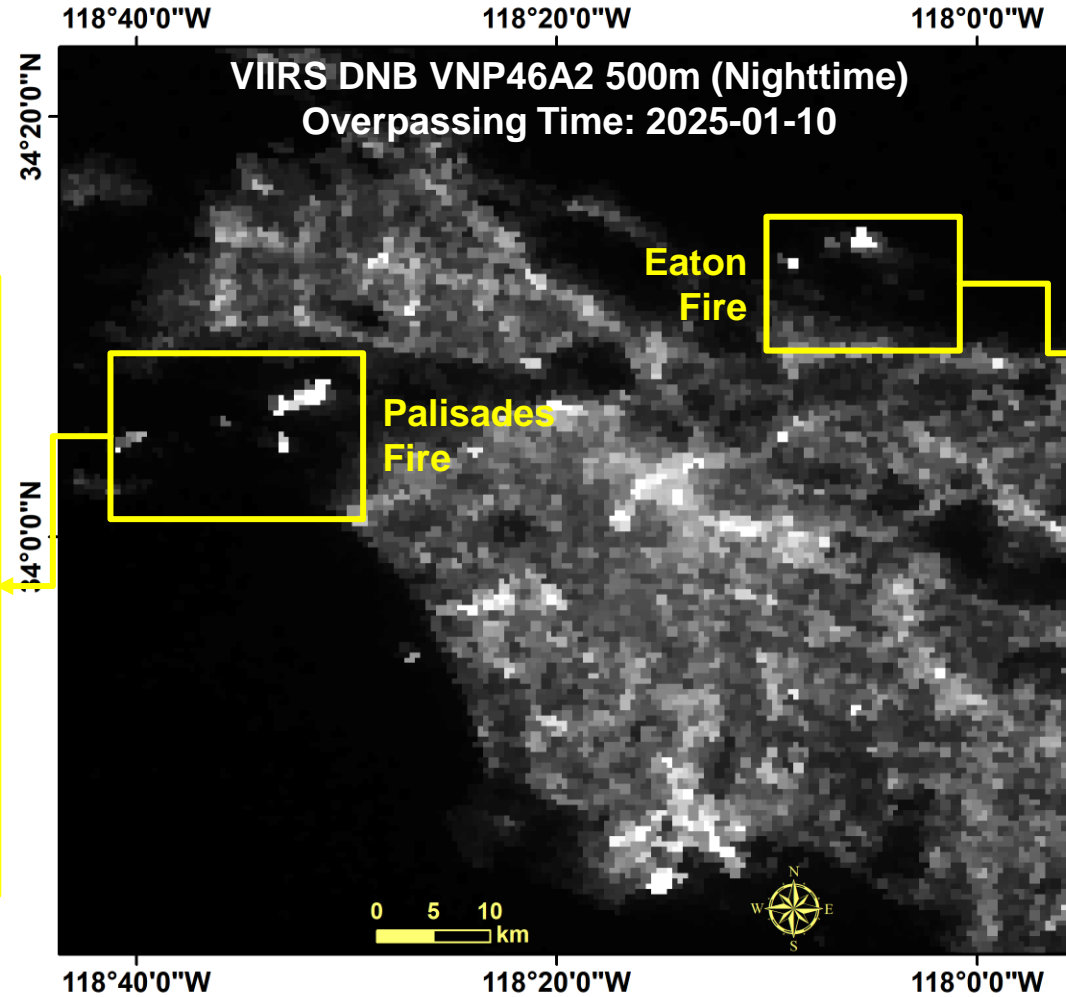
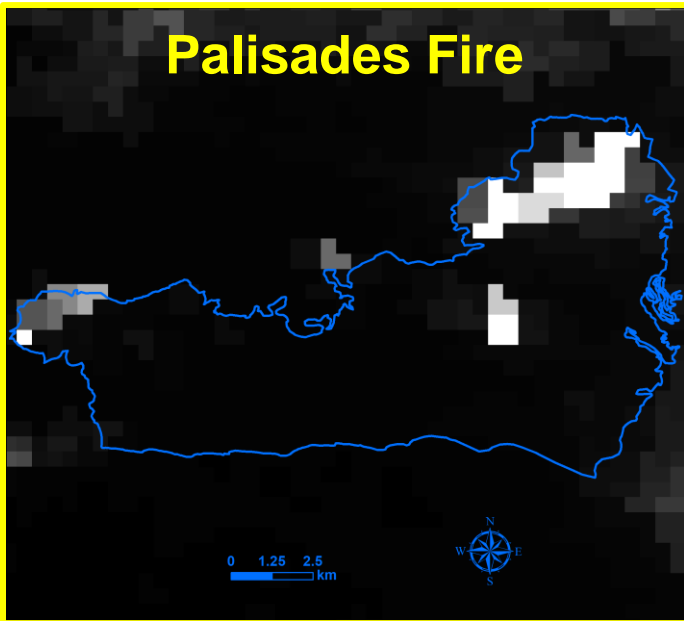
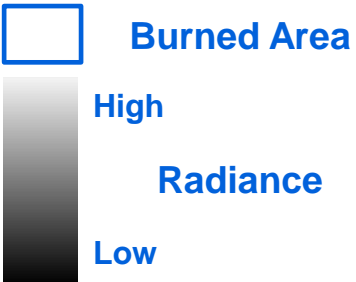
On 8 January, the Palisades Fire in West Los Angeles and the Eaton Fire in East Los Angeles burned rapidly

ANALYSIS-WILDFIRE 2025-01-09



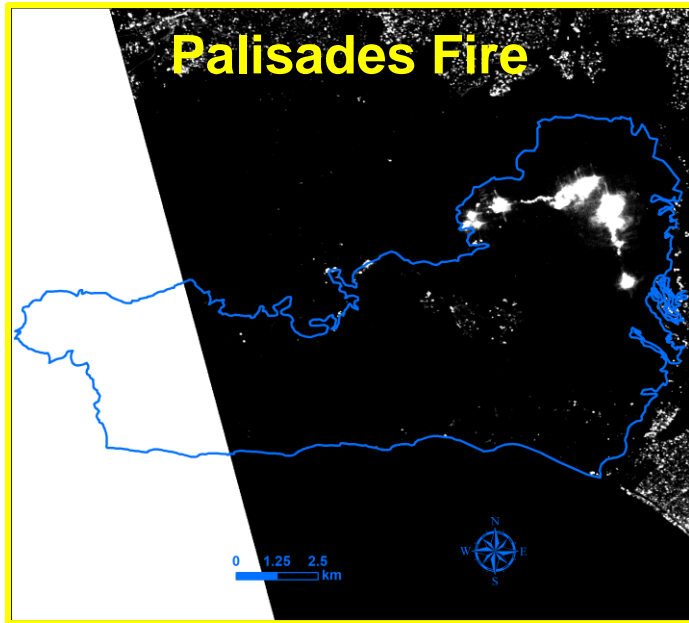
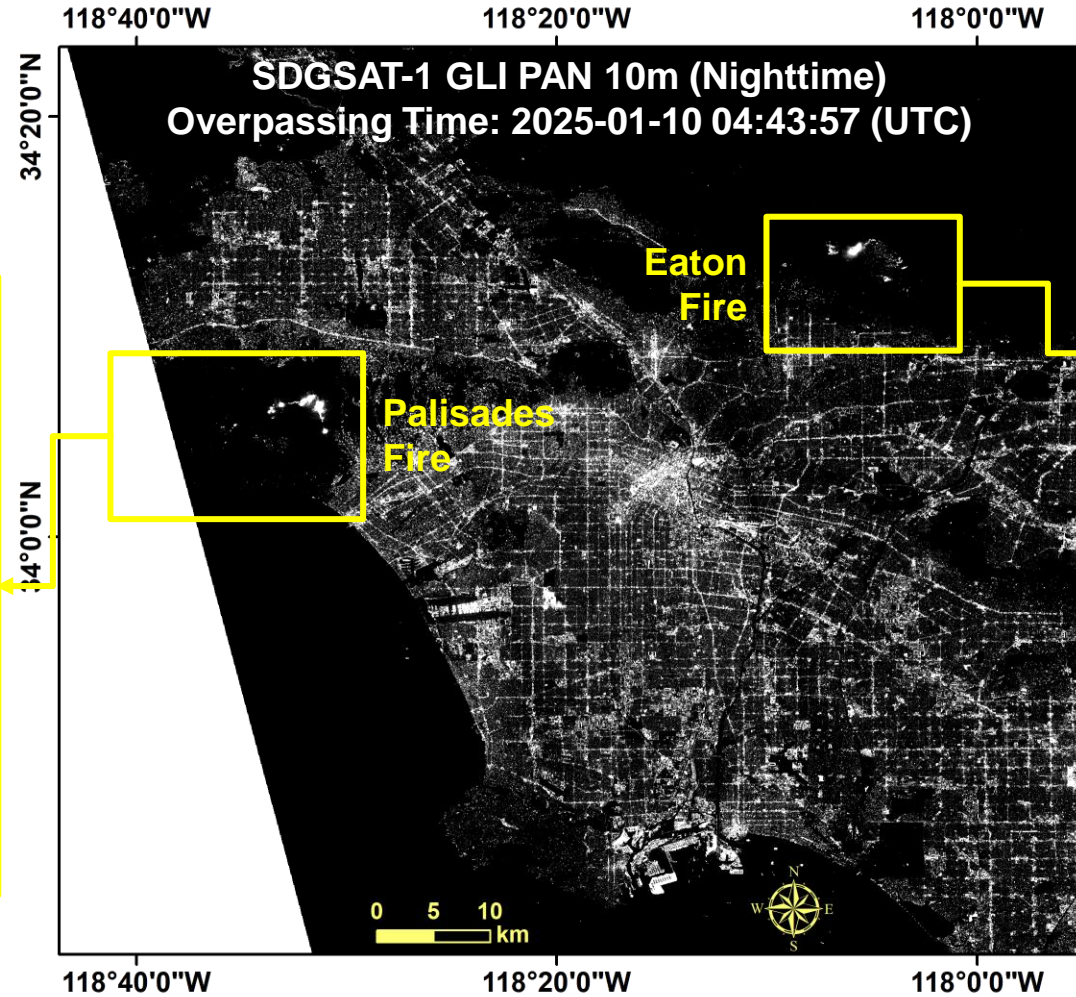
On 9 January 2025, the severity of the Palisades Fire and Eaton Fire in Los Angeles was somewhat lower than that of 8 January, 2025, and moved northward

ANALYSIS-WILDFIRE 2025-01-10



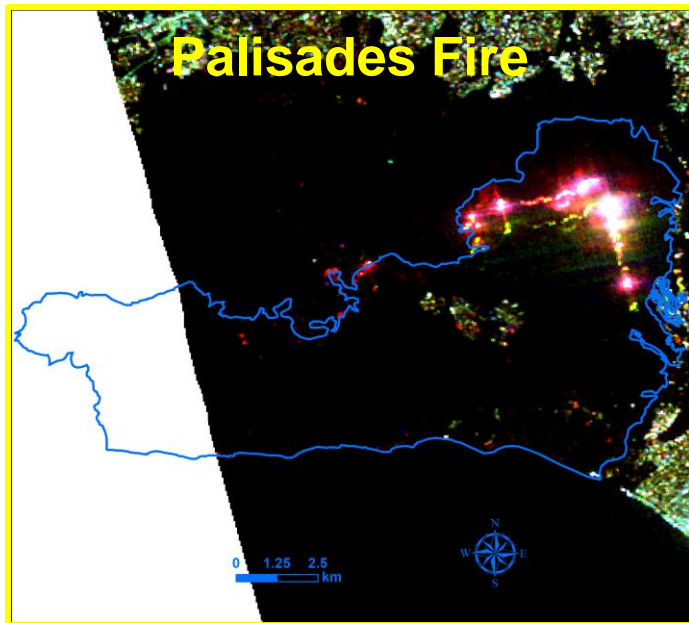
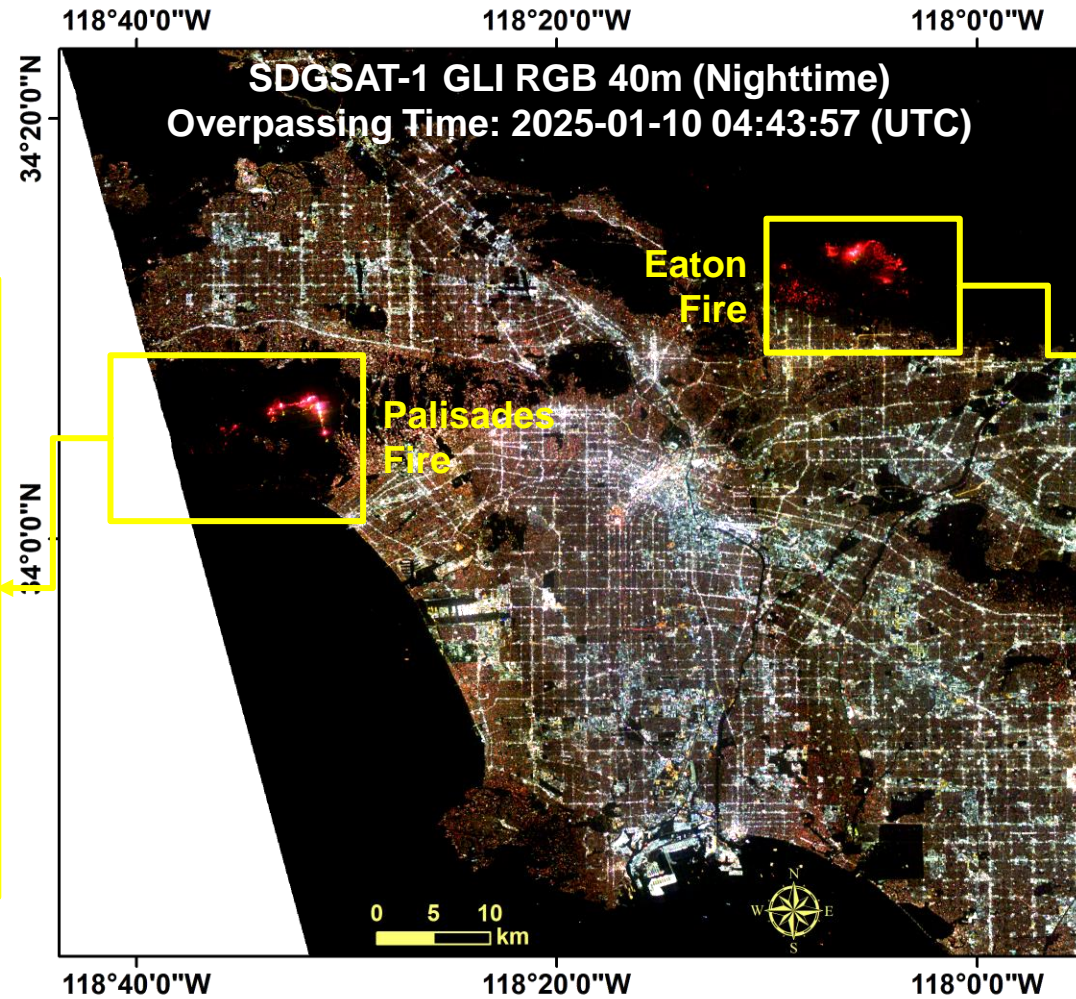
On 10 January 2025, the severity of the Palisades Fire and Eaton Fire in Los Angeles was somewhat lower than that of 9 January, 2025, and has moved northward

ANALYSIS-WILDFIRE 2025-01-10



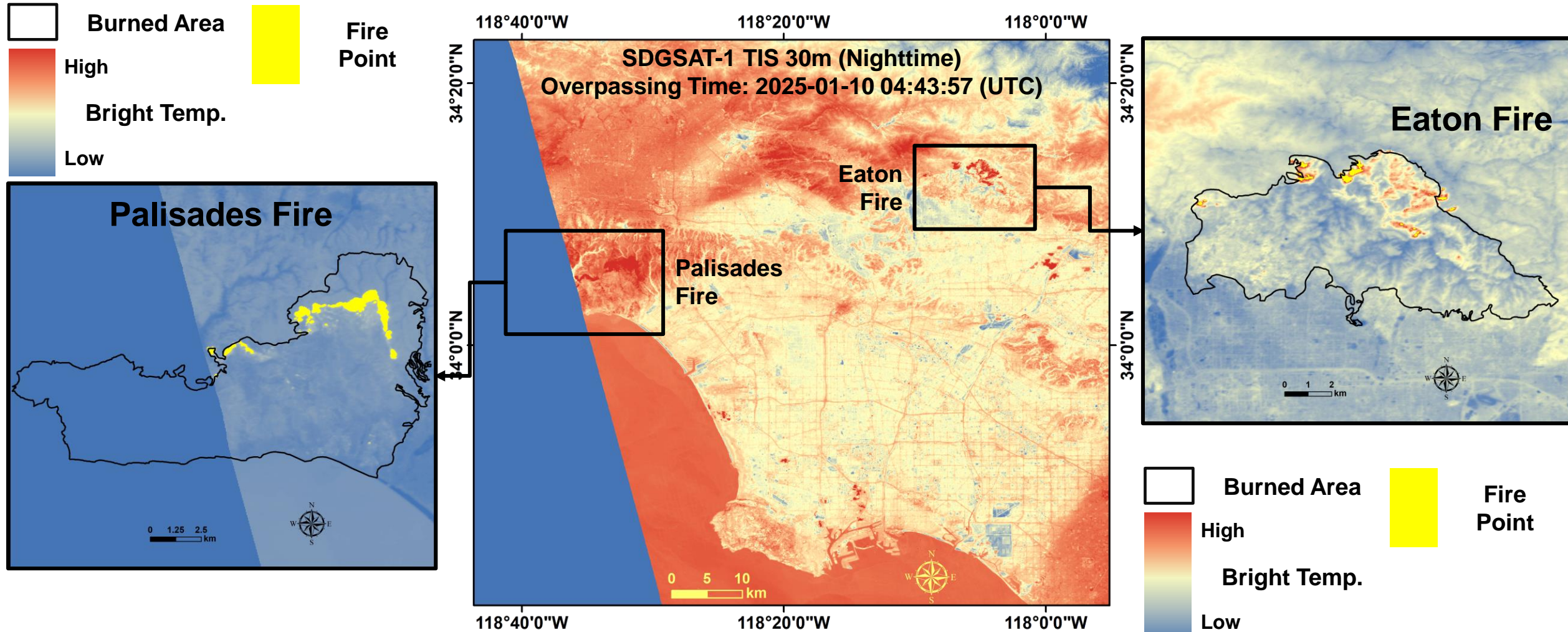
On 11 January, 2025, the Palisades Fire and the Eaton Fire east burned more vigorously compared with that of 10 January, 2025, with the Palisades gradually moving southeast and the Eaton gradually moving to the west

ANALYSIS-WILDFIRE 2025-01-10



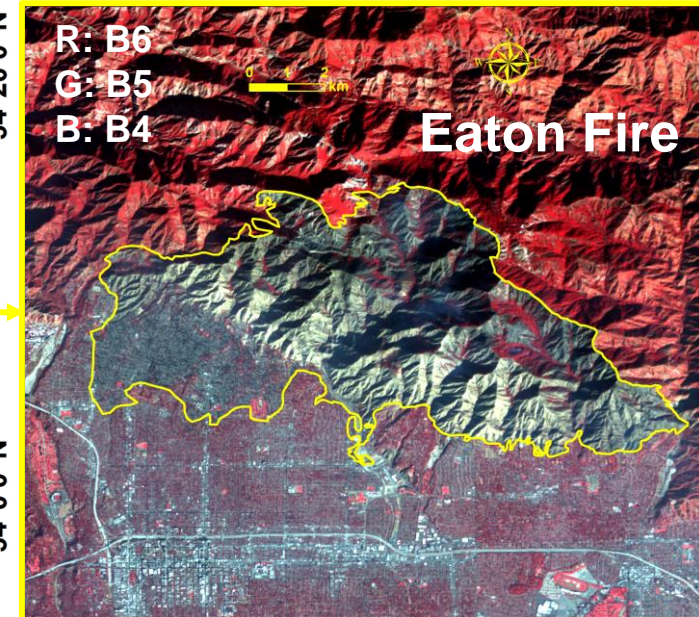
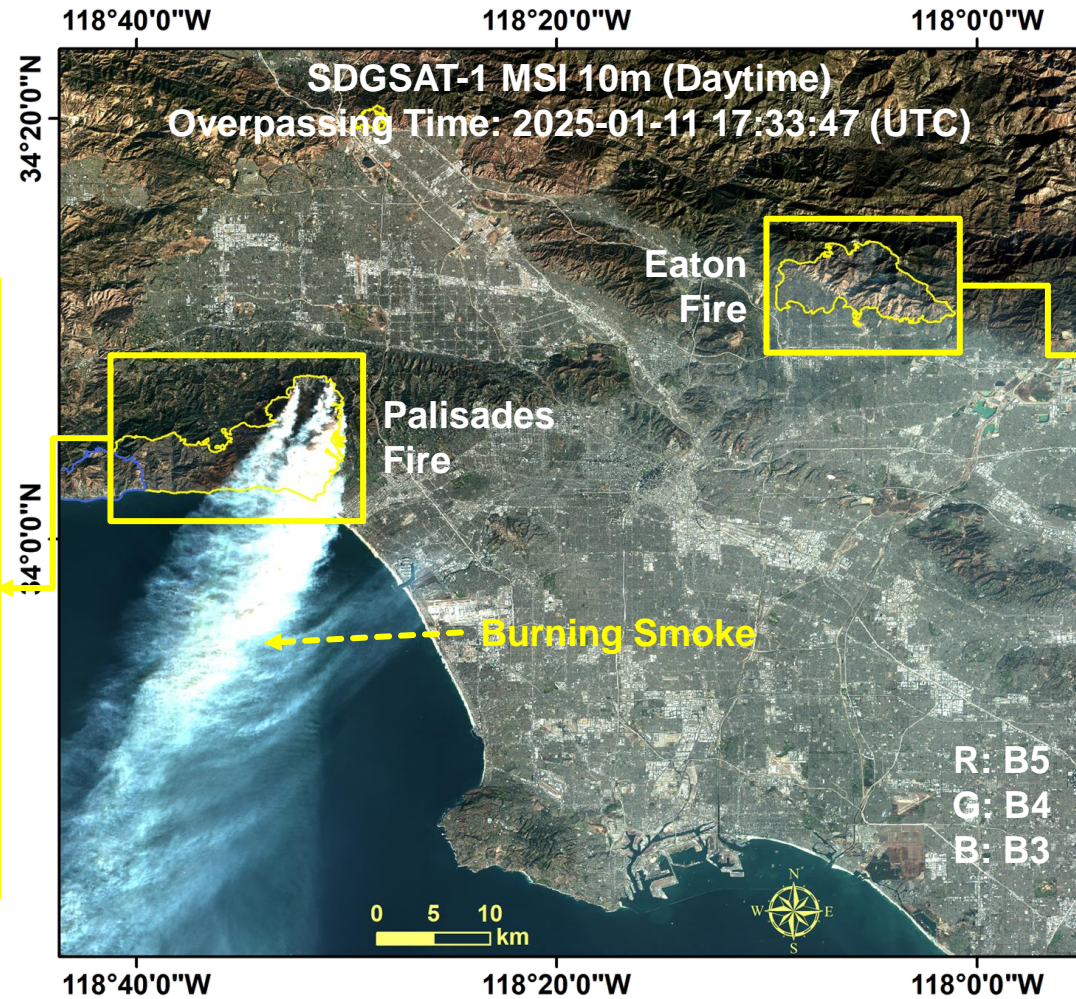
On 11 January, 2025, the Palisades Fire and the Eaton Fire east burned more vigorously compared with that of 10 January, 2025, with the Palisades gradually moving southeast and the Eaton gradually moving to the west

ANALYSIS-WILDFIRE 2025-01-10



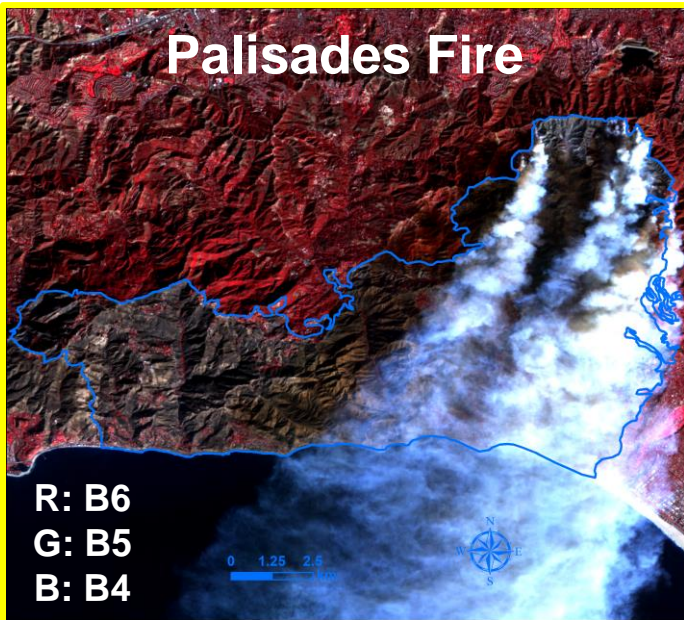
On 11 January, 2025, the Palisades Fire and the Eaton Fire burned more vigorously compared with 10 January, 2025, with the Palisades gradually moving southeast and the Eaton gradually moving to the west. The active fire area of the Palisades Fire and Eaton Fire are 2.32 and 0.47 km², respectively.

ANALYSIS-WILDFIRE 2025-01-11



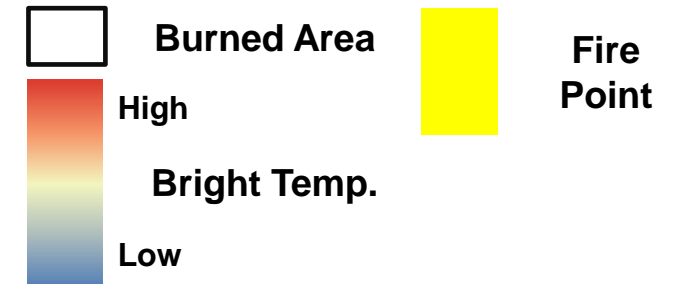
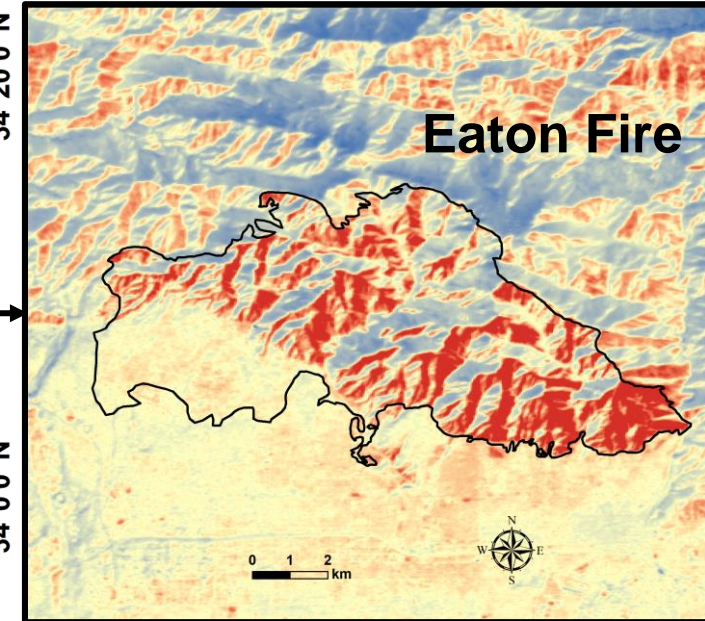
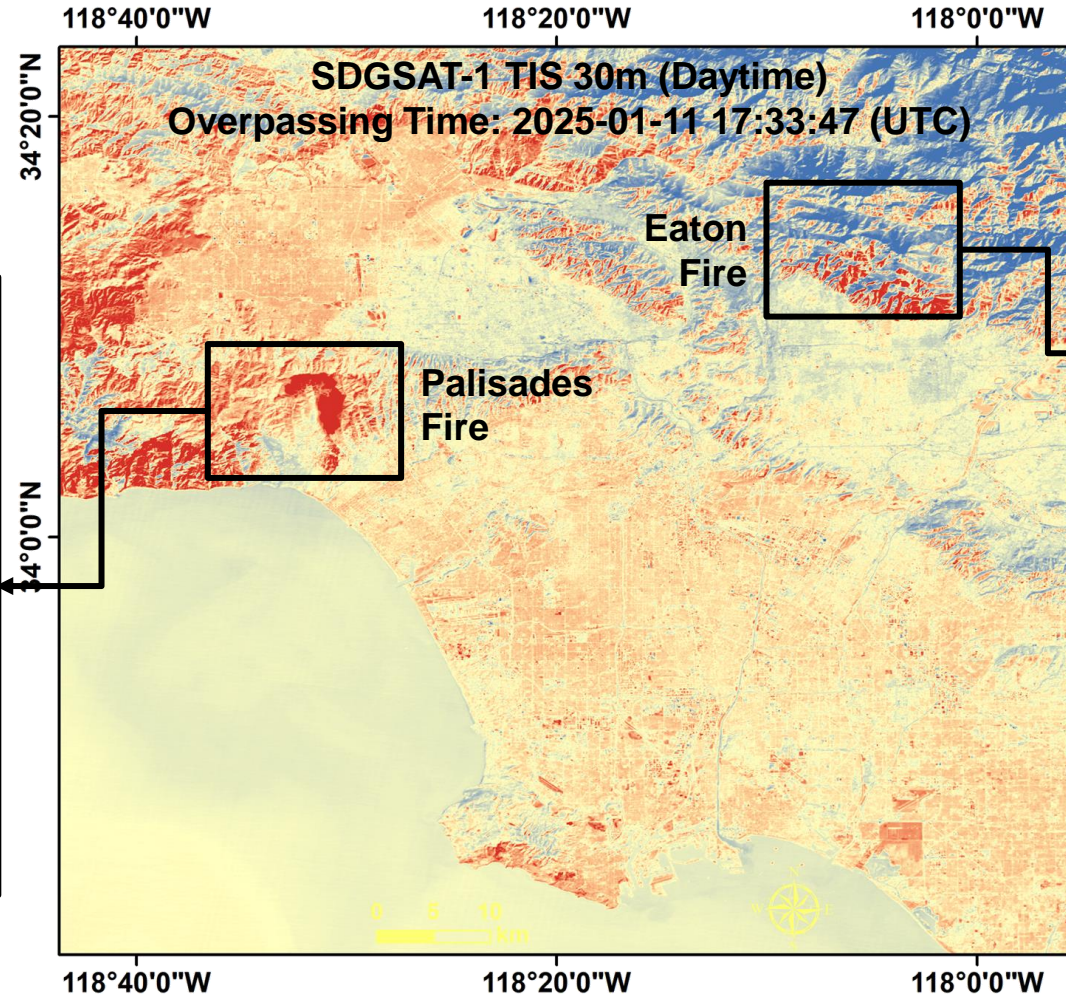
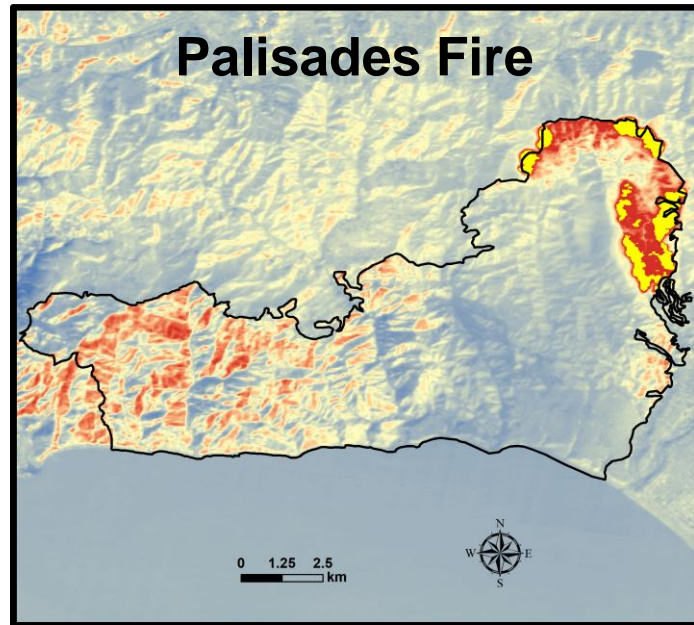
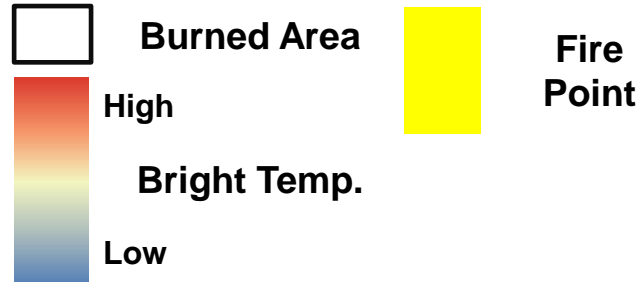
Burned Area

Burned Area



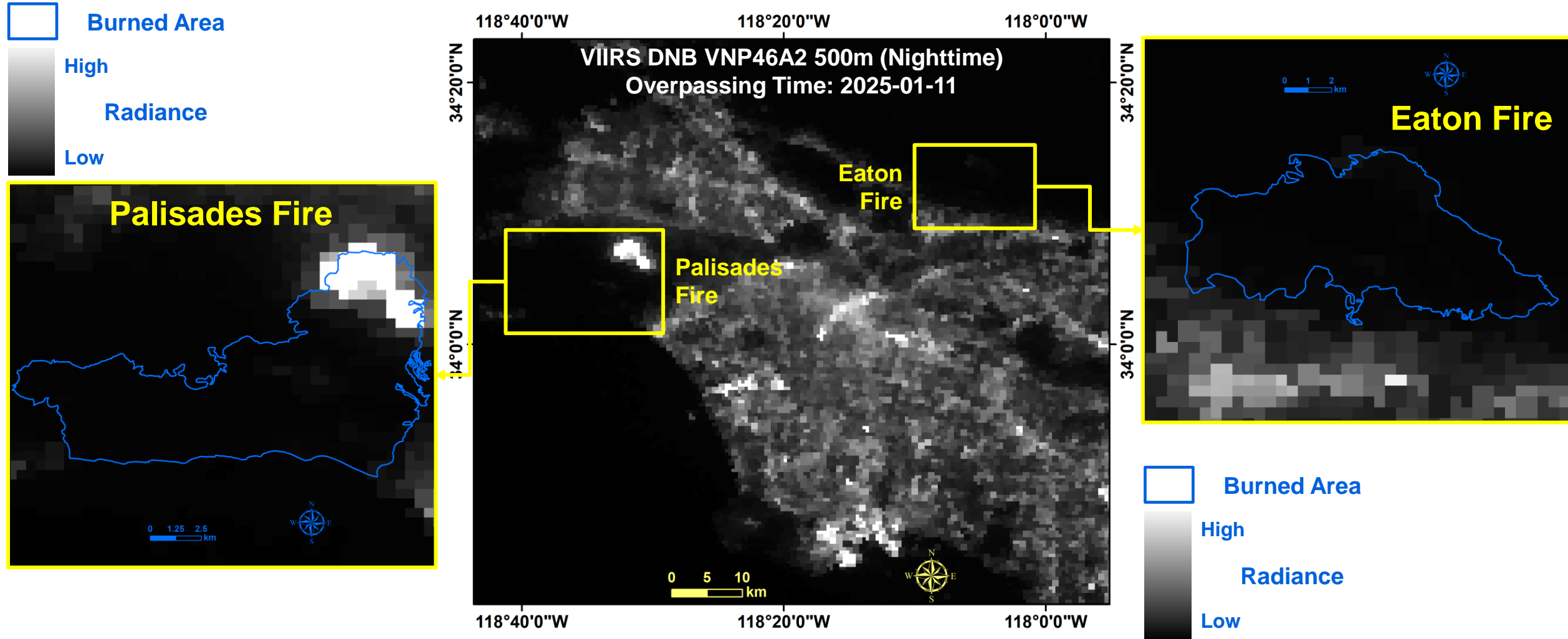
As of 11 January, 2025, the burned area caused by the Palisades Fire and Eaton Fire were 95.09 km² and 54.59 km², respectively

ANALYSIS-WILDFIRE 2025-01-11



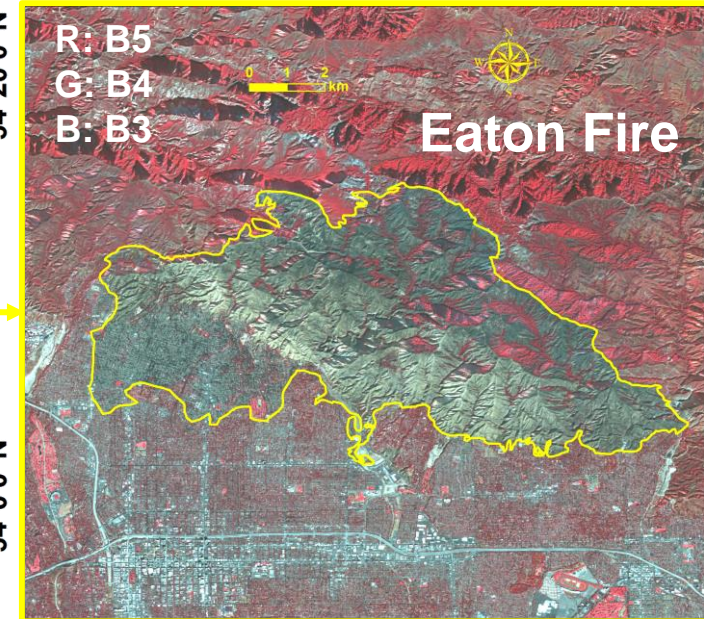
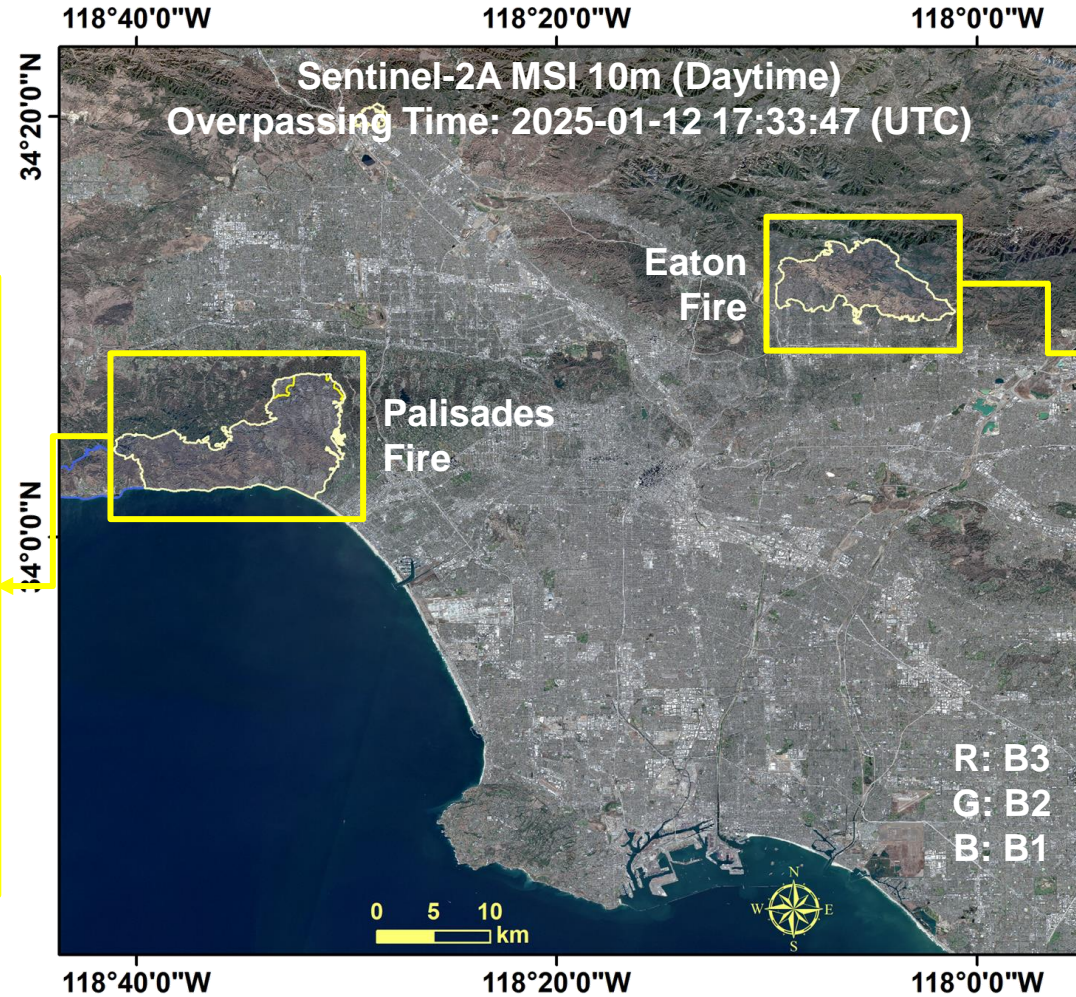
As of 11 January, 2025, the active fire area of the Palisades Fire was 2.54 km².

ANALYSIS-WILDFIRE 2025-01-11



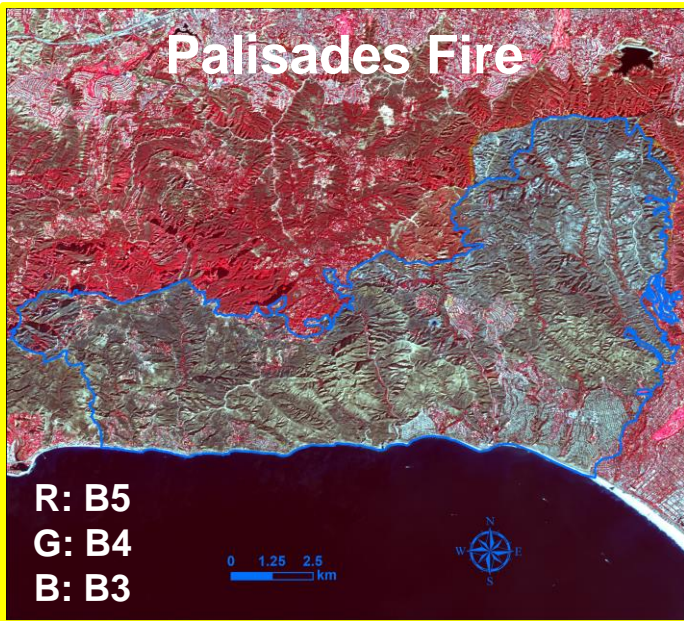
On the evening of 11 January, 2025, the Palisades Fire had grown in size and was moving to the northeast, while the Eaton Fire showed little visible active fire.

ANALYSIS-WILDFIRE 2025-01-12



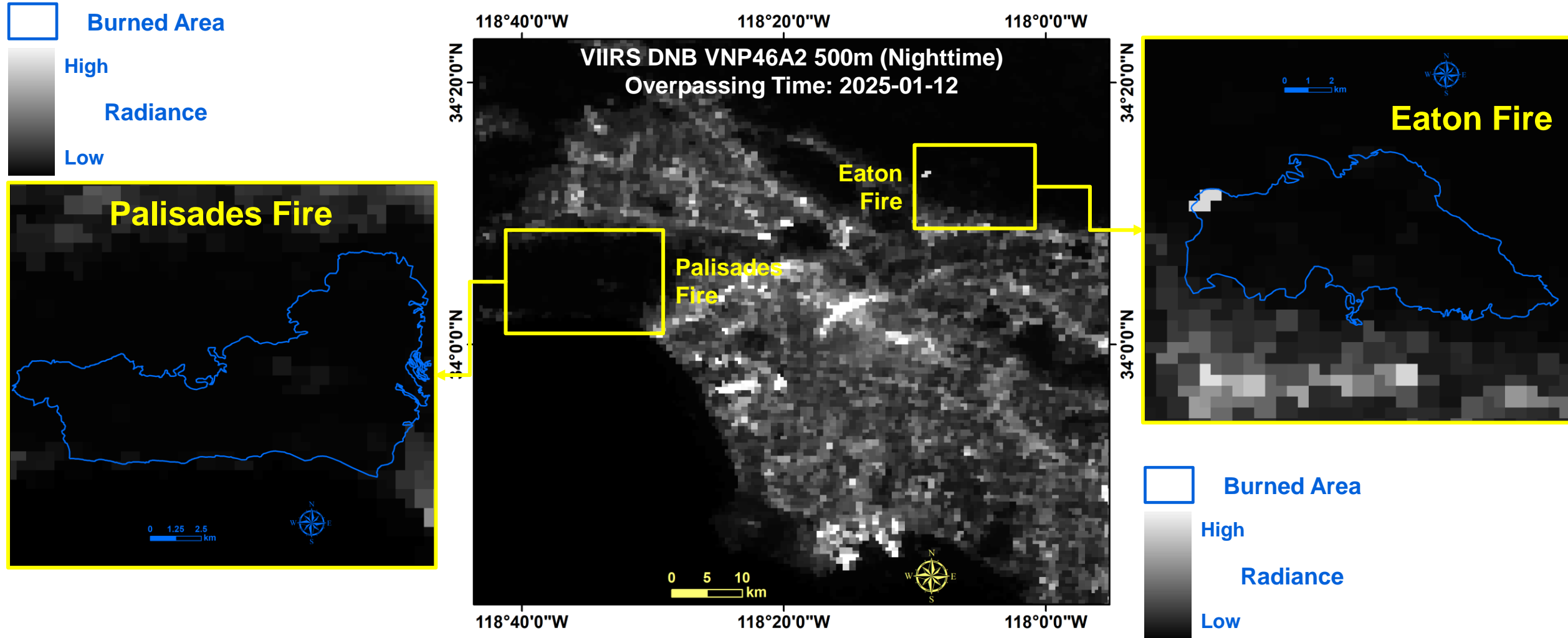
Burned Area

Burned Area



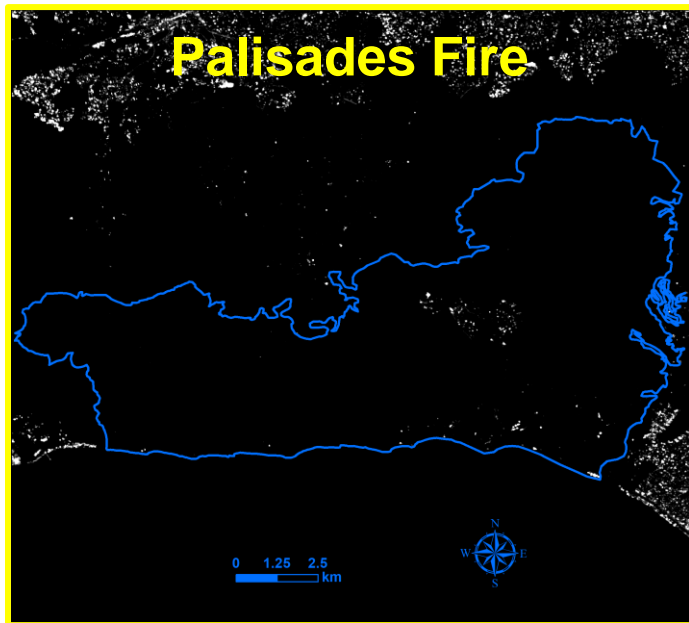
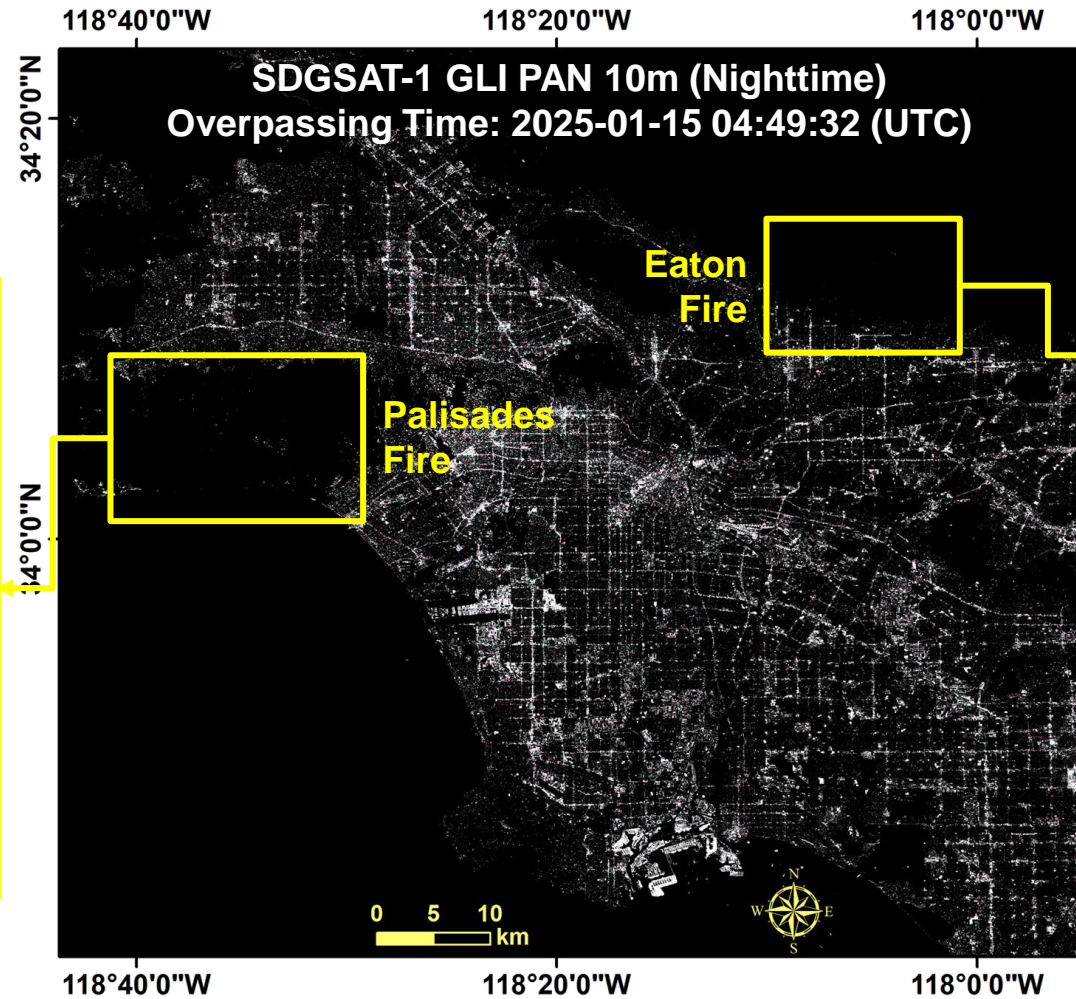
As of 11 January, 2025, the burned area caused by the Palisades Fire and Eaton Fire were 97.47 km² and 54.57 km², respectively

ANALYSIS-WILDFIRE 2025-01-12



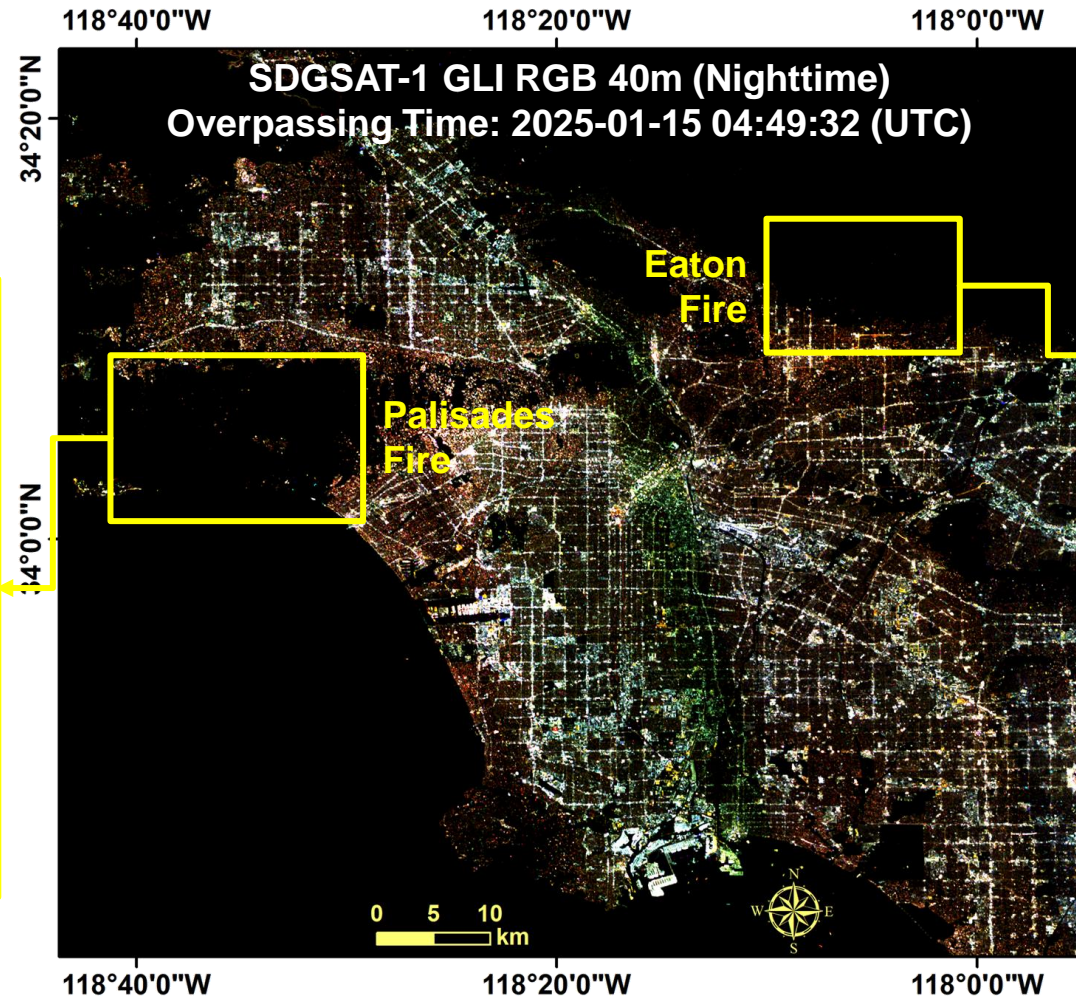
On the evening of 12 January, 2025, the Palisades Fire had little visible active fire, while the Eaton Fire had grown in size and was moving to the west.

ANALYSIS-WILDFIRE 2025-01-15



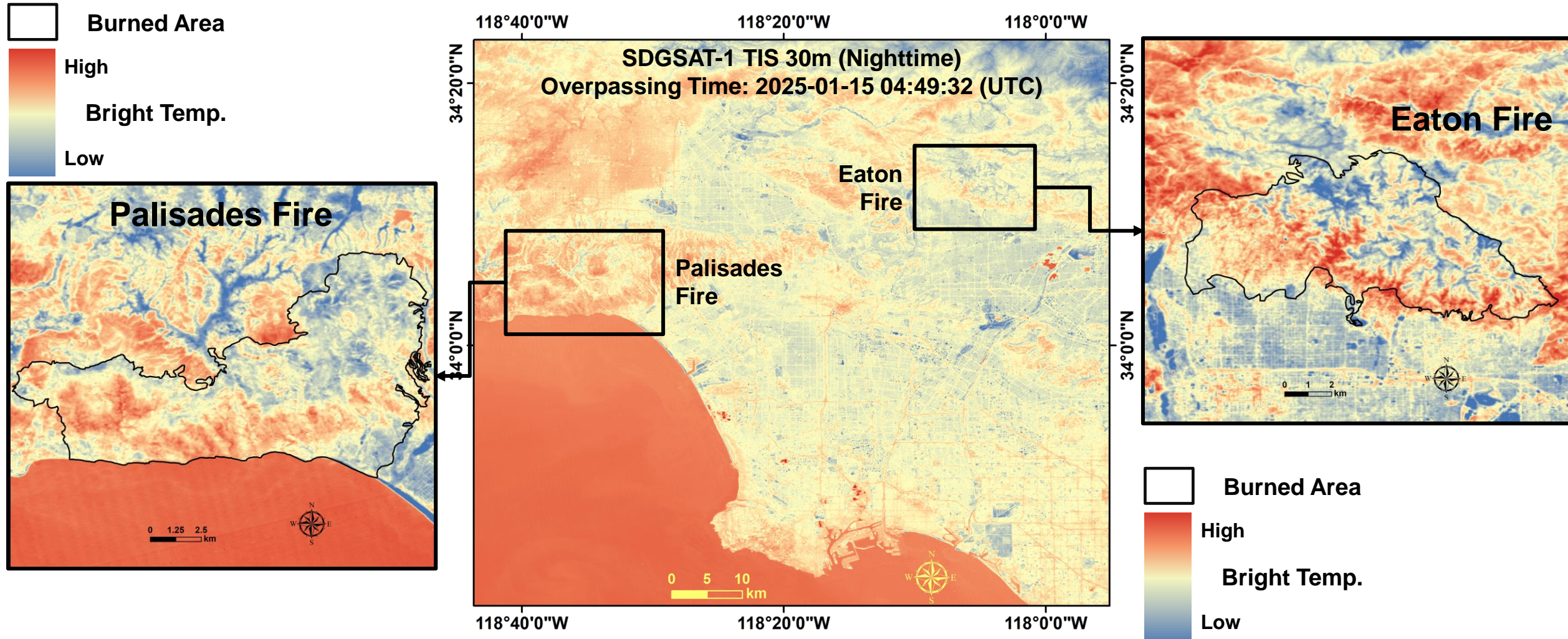
On the evening of 15 January, 2025, the active fire of Palisades Fire and Eaton Fire were largely diminished in the nighttime light imagery.

ANALYSIS-WILDFIRE 2025-01-15



On the evening of 15 January, 2025, the active fire of Palisades Fire and Eaton Fire were largely diminished in the nighttime light imagery.

ANALYSIS-WILDFIRE 2025-01-15



On the evening of 15 January, 2025, the Palisades Fire and Eaton Fire had little remaining thermal anomalies.

SUMMARY



- **As of 12 January, 2025, the Los Angeles wildfires that began on 7 January 2025, known as the Palisades Fire and the Eaton Fire, have resulted in 97.47 km² and 54.57 km² of damage.**
- **The Palisades Fire burned at an extremely fast rate, gradually dying out and spreading northeastwards on 9 January, 2025, then towards southeast with the fire point area of 2.32 km² on 10 January, 2025, and turning to northeast with the fire point area of 2.54 km² on 11 January, 2025, and was largely contained on 12 January, 2025. The total burned area resulted by the Palisades Fire reached 97.47 km².**
- **The Eaton Fire burned at an extremely fast rate, gradually dying out and spreading northeastwards on 9 January, 2025, then towards west with the fire point area of 0.47 km² on 10 January, 2025, and was largely contained at the evening of 11 January, 2025. The total burned area caused by the Palisades Fire reached 54.57 km².**
- **The synergistic observations of SDGSAT-1 payloads, i.e., GLI (10/40m) & TIS (30m), MSI (10m) & TIS (30m), are of great importance for natural disaster management.**
- **Continuous observations have been planned for full assessment of the wildfire.**

SOURCES

(1) Satellite Images

Satellite Data: SDGSAT-1 GLI

Imagery Date: 10 January, 2025, and 15 January, 2025

Resolution: 10/40 m

Satellite Data: SDGSAT-1 MSI

Imagery Date: 11 January, 2025

Resolution: 10 m

Satellite Data: SDGSAT-1 TIS

Imagery Date: 10 January, 2025, 11 January, 2025, and 15 January, 2025

Resolution: 30 m

Copyright: International Research Center of Big Data for Sustainable Development Goals (CBAS)

Source: International Research Center of Big Data for Sustainable Development Goals (CBAS)

Satellite Data: Sentinel 2A MSI

Imagery Date: 02 January, 2025, and 12 January, 2025

Resolution: 10 m

Copyright: the European Space Agency (ESA)

Source: the European Space Agency (ESA)



Satellite Product: VIIRS DNB VNP46A2

Imagery Date: from 08 January, 2025, to and 12 January, 2025

Resolution: 500 m

Copyright: National Aeronautics and Space Administration (NASA)

Source: the National Aeronautics and Space Administration (NASA)

(2) Analysis & Production

Analysis: International Research Center of Big Data for Sustainable Development Goals (CBAS)

Production: International Research Center of Big Data for Sustainable Development Goals (CBAS) & Integrated Research on Disaster Risk (IRDR)

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