

IVEY BUSINESS SCHOOL, WESTERN UNIVERSITY, CANADA

RESILIENCE LESSONS FROM THE MAUI WILDFIRES: IMPLICATIONS FOR TELECOMMUNICATIONS

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May 14, 2024

Disaster

Preparedness

Tsunami

Hurricanes

Floods

Earthquakes

Volcanic eruptions

Wildfires

“

Lahaina is gone

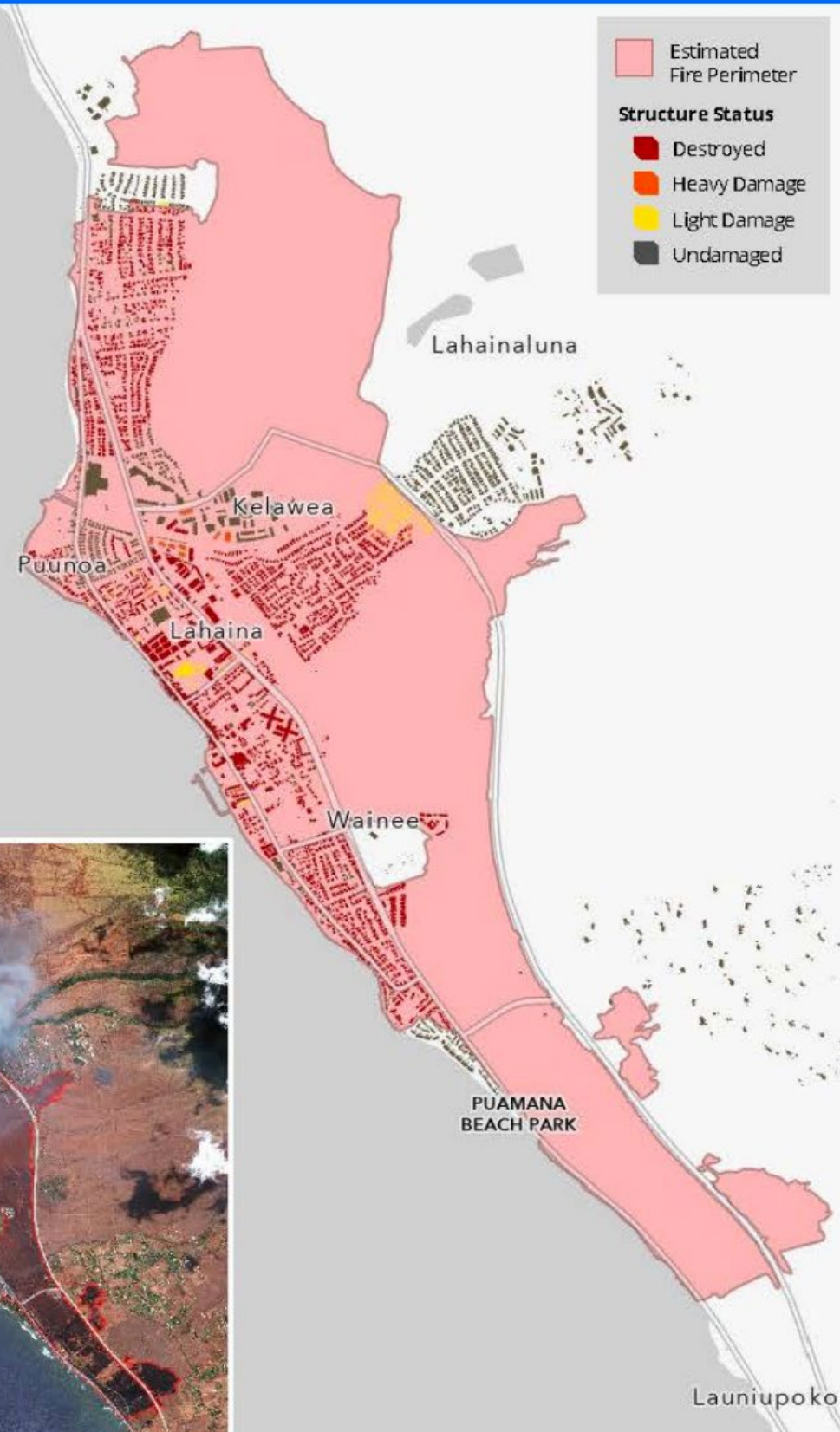
Email, August 8

LAHAINA FIRE – MAUI COUNTY, HAWAII

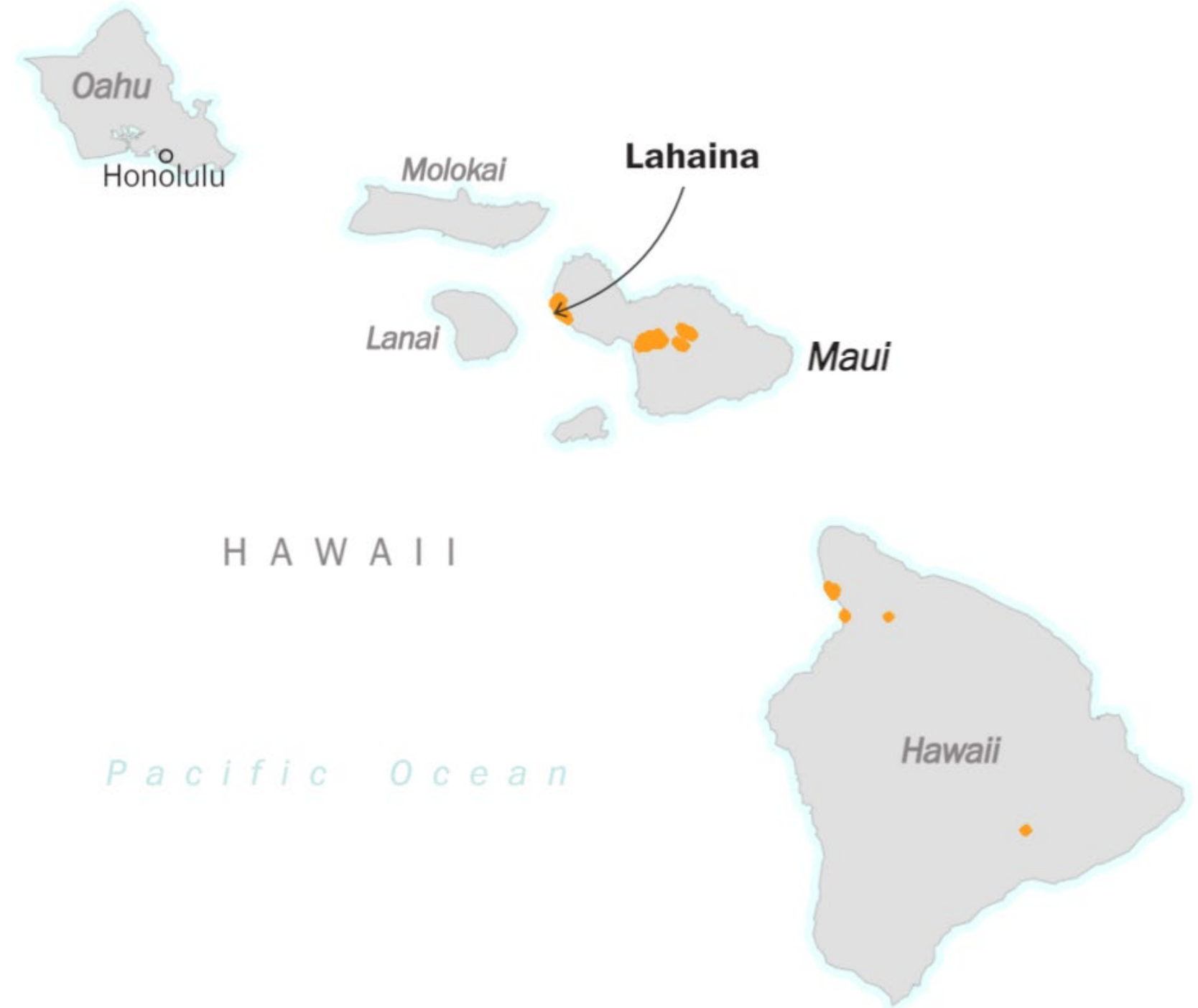
11AUG2023

Burn Area
(10AUG2023)

- Estimated Fire Perimeter
- Structure Status**
 - Destroyed
 - Heavy Damage
 - Light Damage
 - Undamaged



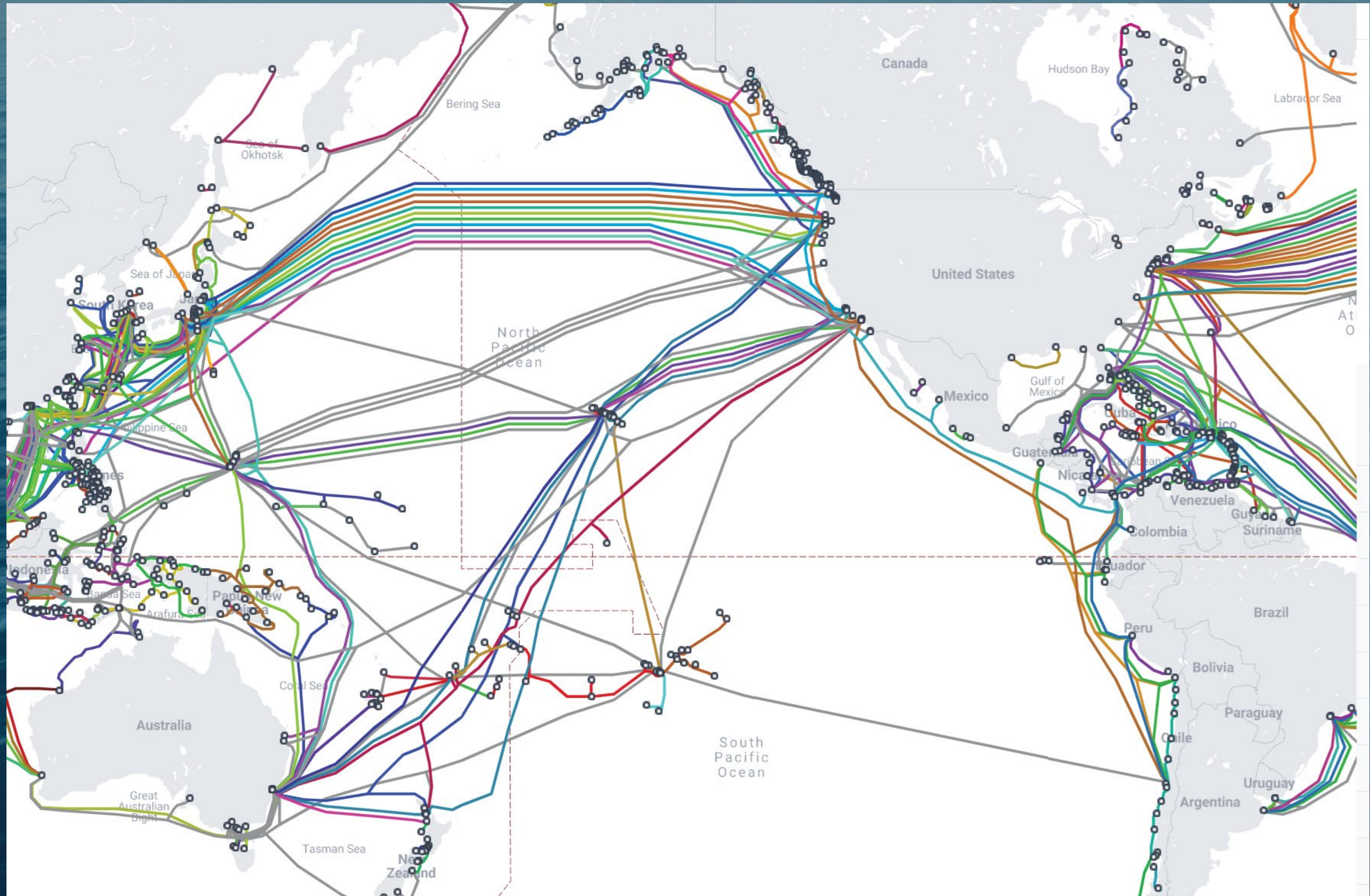
● Fires detected by satellite on August 9-10



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Pacific Disaster Center, August 11, 2023

The Washington Post, August 11, 2023



Telegeography, 2024

Telecommunications in the West Maui fires

- First responders did not know that cellular service/911 was down.
- Wireless carriers blamed HECO, noting that power was down during the afternoon and throughout the fires.
- Fiber lines strung on power poles were damaged or destroyed
- Major wireless carriers worked to restore cell sites using power generators, mobile cell sites, and relied on satellite for backhaul.

“

Lahaina is a wake-up call
for climate change.

Wayne Hirasa, telecom engineer

Implications for Telecommunications

- Invest in trenching of networks and utilities (where possible).
- Ensure power backup for critical communication systems. What happens when there is no power?
- Explore more resilient tech, such as solar powered mesh Wi-Fi networks (e.g., Mesh ++) or phone to satellite emergency connectivity.

Mahalo!

