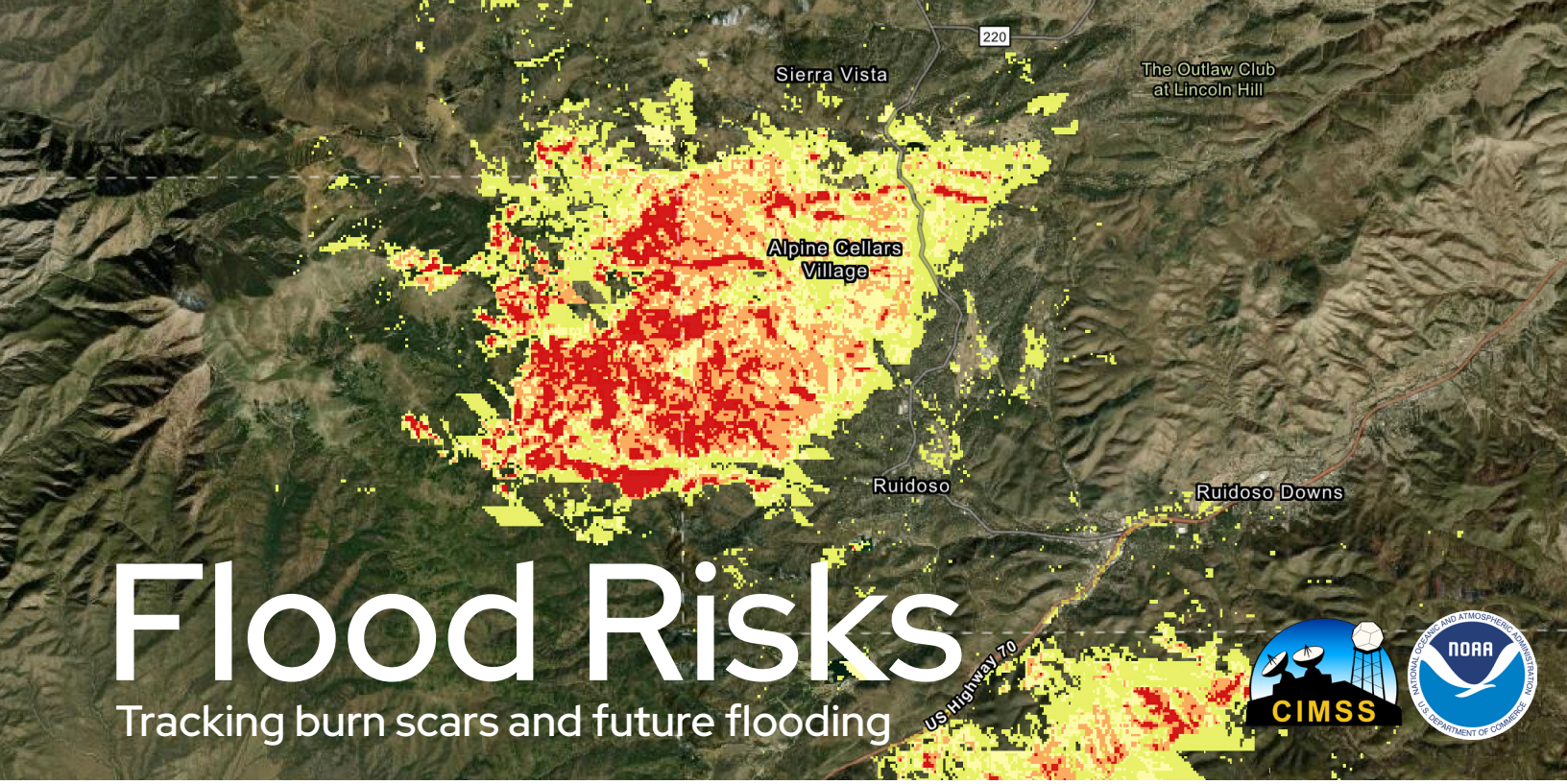
Wildfire Flood Risks

Tracking flash flood and debris flow hazards

On June 17, 2024, the South Fork Fire near Ruidoso, NM burned thousands of acres and destroyed 1,400 homes, leaving a burn scar that greatly increased the risk of flash flooding. The next day, that risk became reality when heavy rains flooded the area. Ruidoso emergency management teams and forecasters at the National Weather Service used a mapping tool developed at NOAA's Cooperative Institute for Meteorological Satellite Studies to rapidly identify burned areas and provided situational awarness to the changing conditions and flood risks.



Flood Risks

Tracking burn scars and future flooding

Following a wildfire, new dangers emerge with increased risks of flash floods and debris flows. A tool developed by NOAA's Cooperative Institute for Meteorological Satellite Studies uses cloud computing and multi-sensor satellite data to provide daily burn scar maps, aiding responders and forecasters in monitoring fire-affected areas.

- Provides emergency managers and first responders situational awareness of potential flash floods and debris flows during and after wildfires.
- Bridges the gap between fire ignition and the availability of traditional burn scar maps, reducing latency by days and weeks.
- Utilizes cloud-compute resources to aggregate the best satellite views from hundreds of images using nine different satellites and four different sensors.

Innovative research and development at the Cooperative Institute for Meteorological Satellite Studies supports NOAA's mission to save lives and protect property