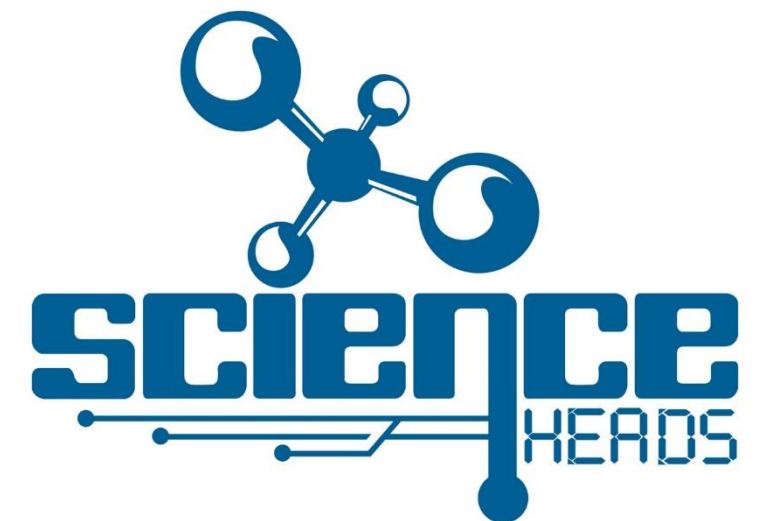


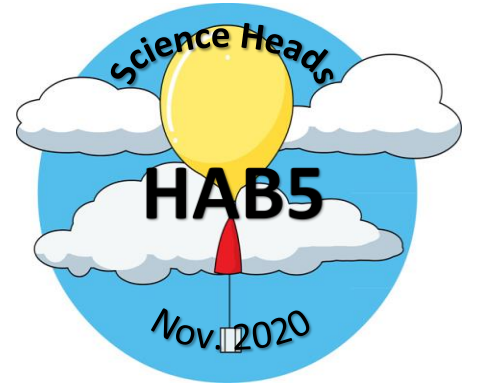
High Altitude Research Project

HARP - Supporting STEM Education

HAB5 LOPS Meeting

Nov. 15, 2020





Agenda

WCOM Prediction

Launch Zone Selection

Candidate Sites: Serrano Int. School, Trabuco Canyon

Modification to Launch Release Mechanism

Status of COVID Protocols / Testing

WCOM 11/13/2020 Report

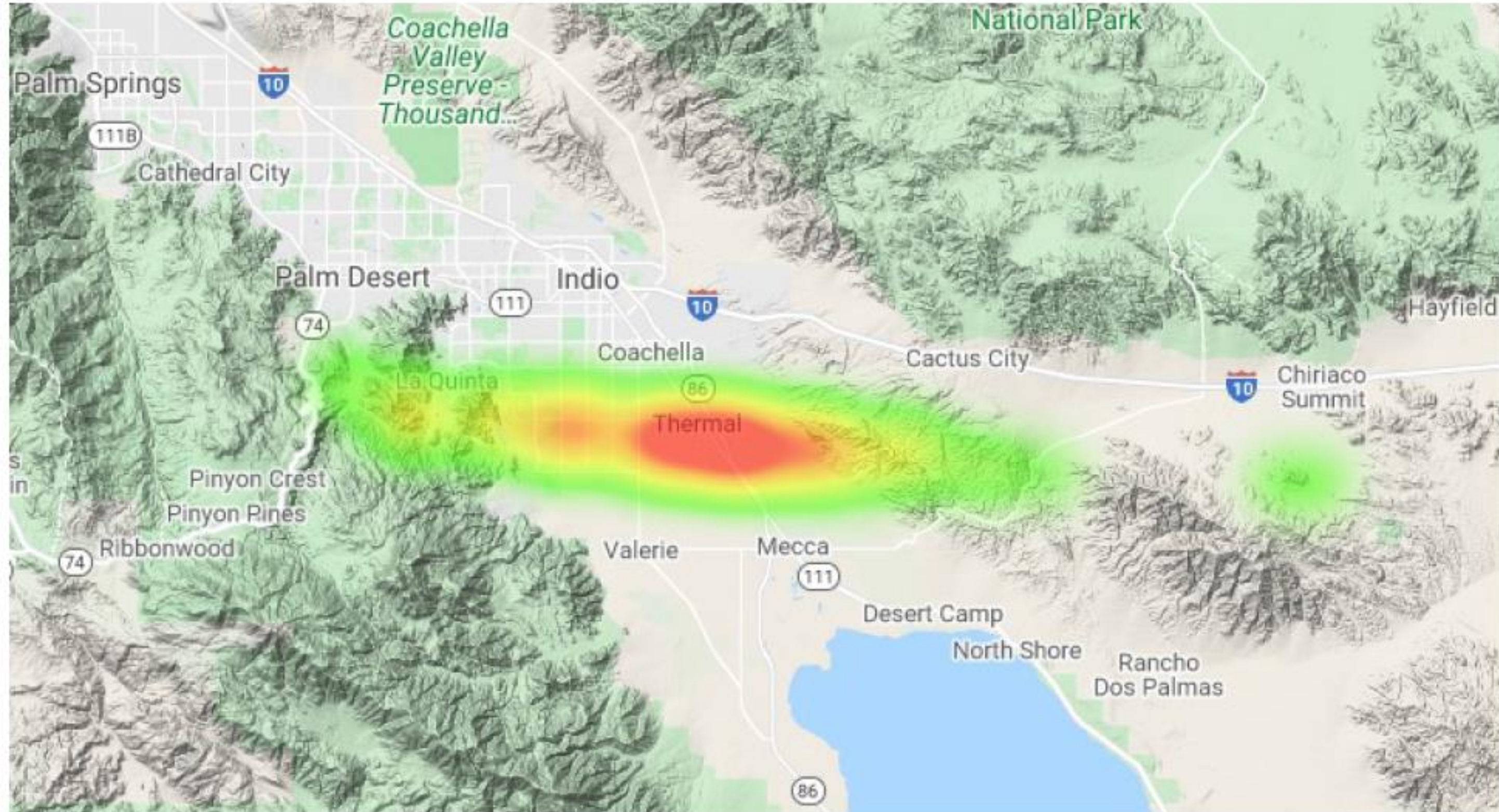
The weather for 11/21 looks favorable for launch. Sunny and winds ~5mph at 10am. I like the Trabuco Flyers launch site, and have run my simulations from there. Unless there's a big change in venue, there won't be a significant difference in prediction that we need to worry about at this point.

Here is my first run, with the 1600g balloon, 1972g payload, 4100g nozzle lift (chosen to give 6m/s ascent, requires 195 cu ft He), and 5' parachute. (I think the 5' is a good choice for the light payload.)

WCOM 11/13/2020 Report



WCOM 11/13/2020 Report



Serrano Intermediate School

Serrano Intermediate School - Google Maps

https://www.google.com/maps/place/Serrano+Intermediate+School/@33.6367496,-117.7040673,398m/data=!...

Serrano Intermediate School, Jeronimo Rd

Surf Safari
Temporarily closed

Woodwalk Rd
Woodbluff Rd
Jeronimo Rd
Ridgewood Cir
Rollingwood Rd
Overlake
Manzanita Dr

Serrano Intermediate School

3.2 ★★★★★ (27)
School

Directions Save Nearby Send to your phone Share

24642 Jeronimo Rd, Lake Forest, CA 92630

Closed today

svusd.org

(949) 586-3221

J7PX+9F Lake Forest, California

Add a label

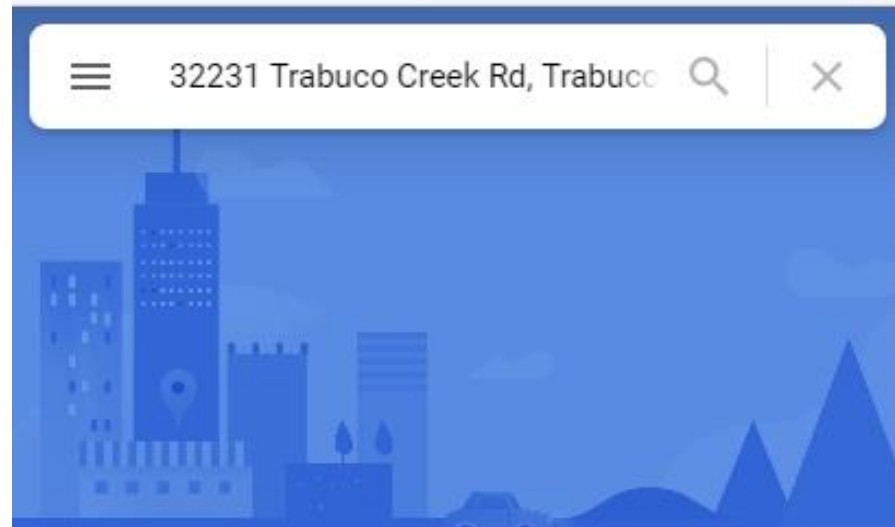
Suggest an edit

Map

Imagery ©2020 Google, Imagery ©2020 Maxar Technologies, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2020 United States Terms Send feedback 100 ft

Serrano Inter... Junk - Msn - ... HAB5 Nov 7 2020 V... 1:39 PM 11/15/2020

Trabuco Canyon



32231 Trabuco Creek Rd
Trabuco Canyon, CA 92679

- Directions
- Save
- Nearby
- Send to your phone
- Share

- MC8J+7V Trabuco Canyon, California
- Suggest an edit on 32231 Trabuco Creek Rd
- Add a missing place
- Add your business
- Add a label

At this location

Trabuco RC Flyers
4.5 ★★★★★ (13)
Club · 32231 Trabuco Creek Rd



Launch release Modification

Plastic Single Sheave
Lifting Rope Pulley

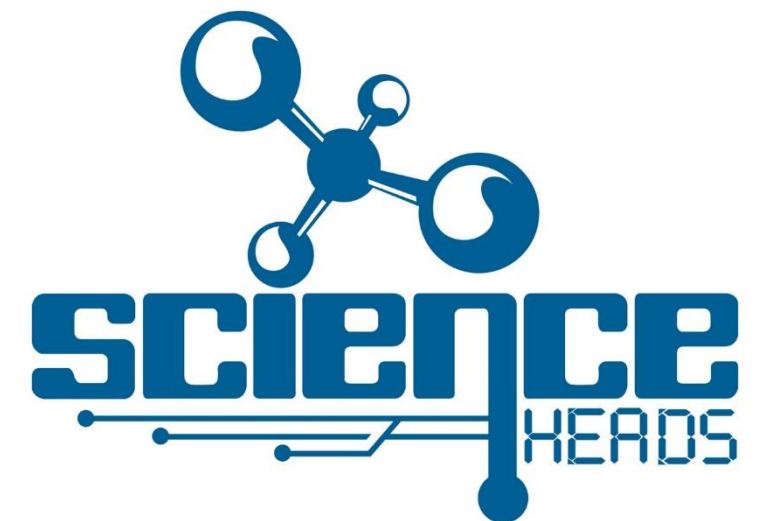


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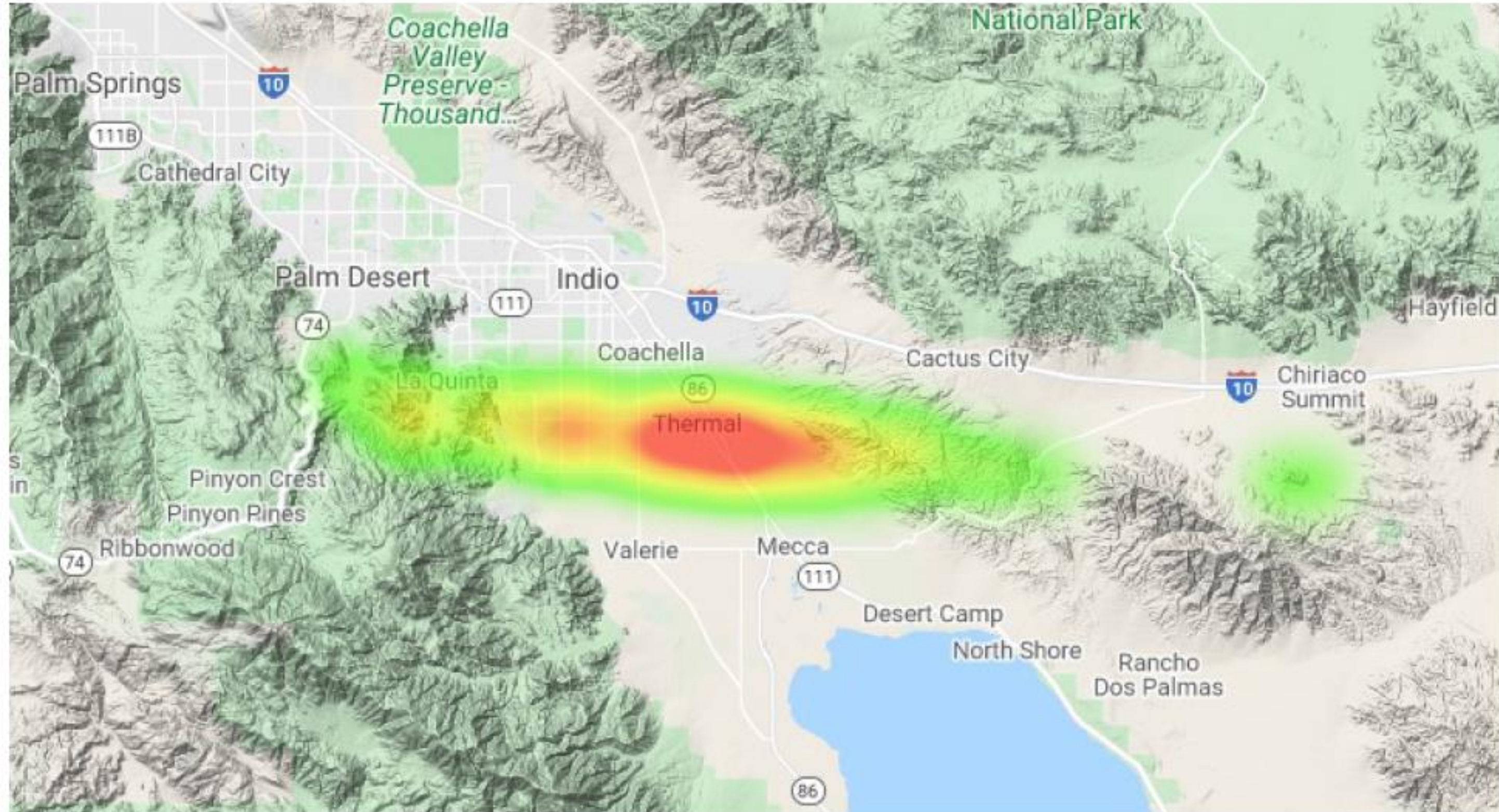
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WCOM 11/13/2020 Report



WCOM 11/13/2020 Report



Wrap Up

**Questions, Comments,
Concerns?**



Thank you for supporting Science Heads, HARP and STEM Education!

We couldn't do this without your help.