

2020 Urban Heat Island Mapping in Las Cruces, NM

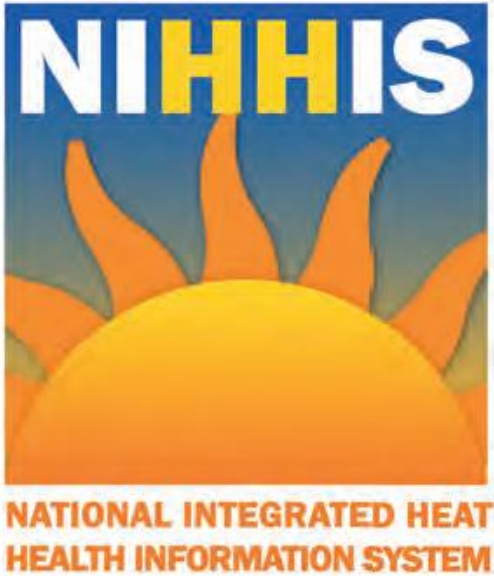
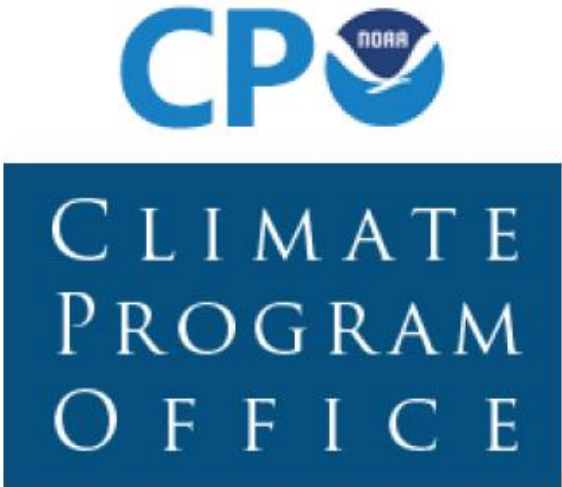
Dave DuBois, State Climatologist

College of Agricultural, Consumer and
Environmental Sciences

Department of Plant and Environmental
Sciences

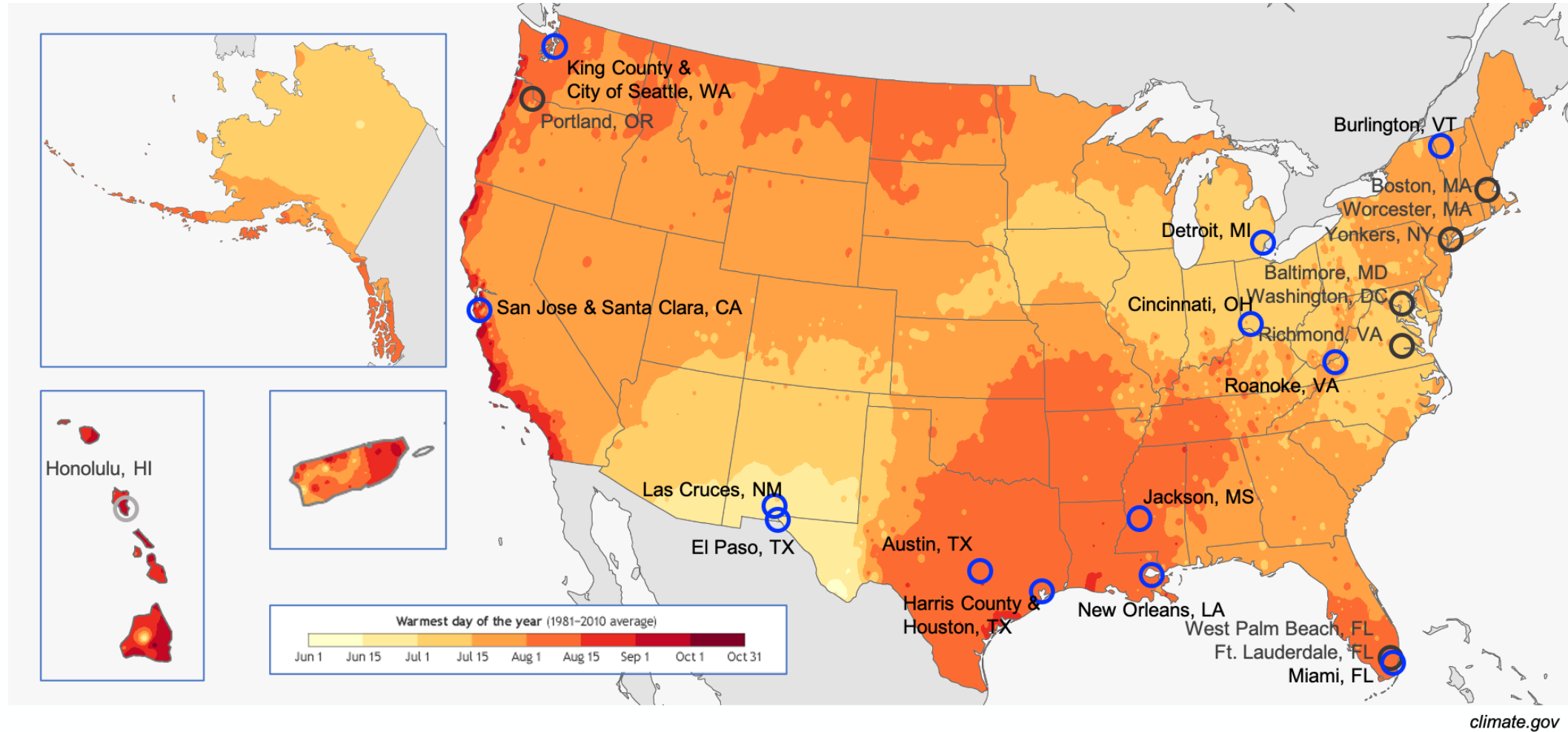


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NIHHIS Urban Heat Island Mapping Campaigns in 2020



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Heat Campaign 2020

- July 10, 2020
- 11 volunteers
- Las Cruces with 5 car routes, 2 bicycle routes
- Three times: 6-7 am, 3-4pm, 7-8pm
- 38,807 measurements
- 112.3°F maximum heat index

Local sponsor in Las Cruces



Thanks to our volunteers including Lisa Larocque!



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This map was created by a user. [Learn how to create your own.](#)



Dave D

Mike D

Brandon E.

Gary C

Mike G

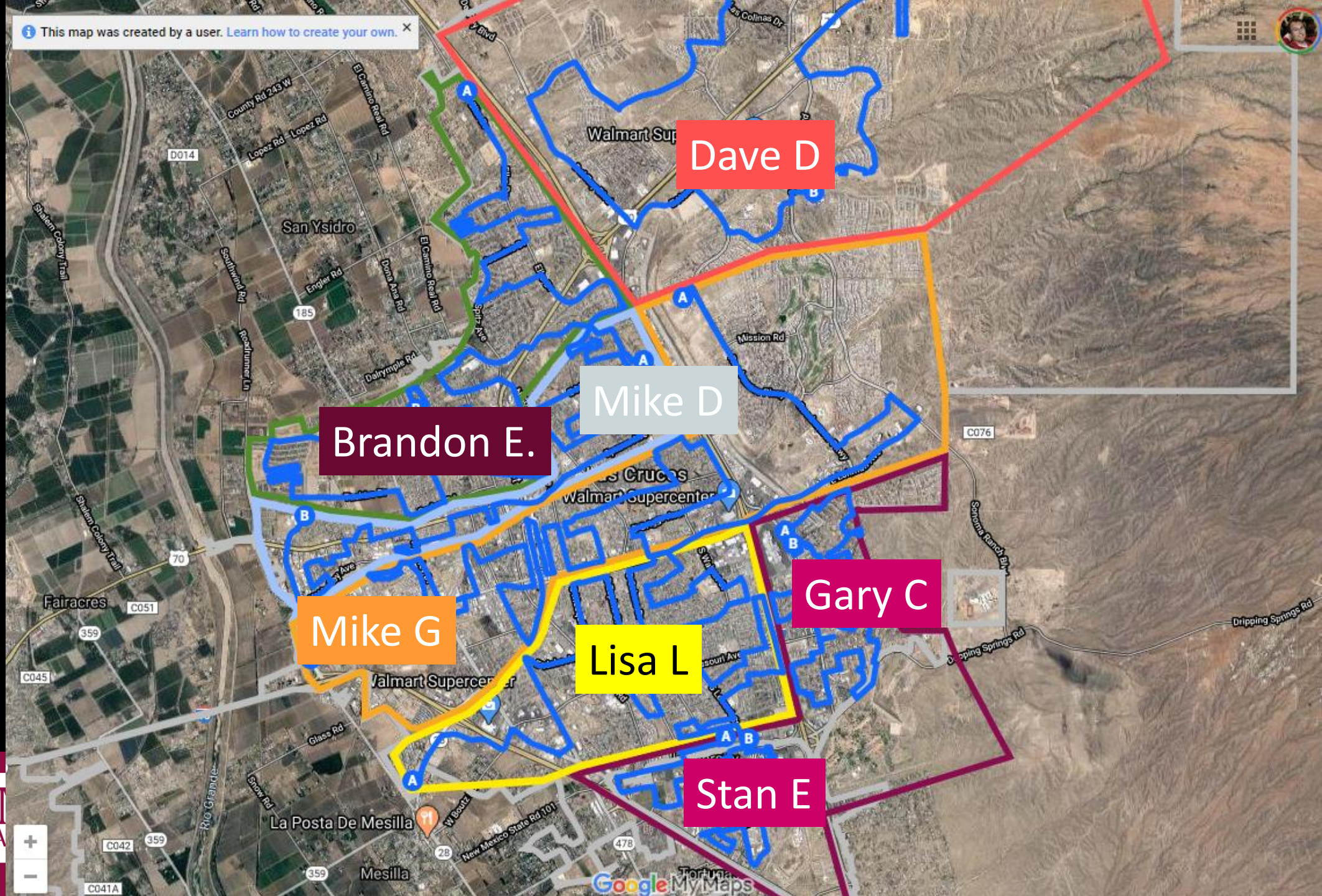
Lisa L

Stan E

NI
STA




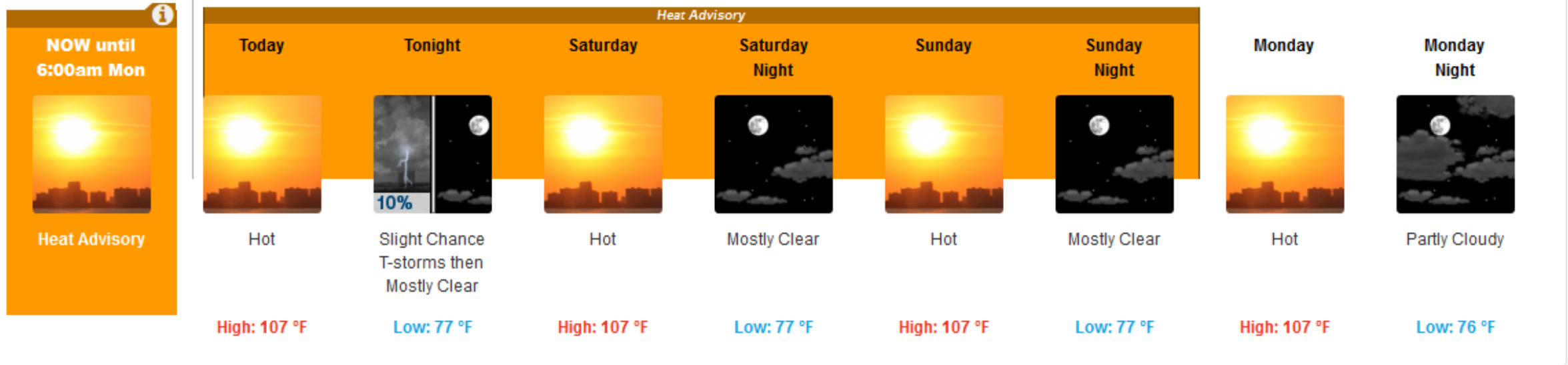
Google MyMaps



National Weather Service Forecast

Extended Forecast for
Las Cruces Intl Airport NM

 [Click here for hazard details and duration](#)

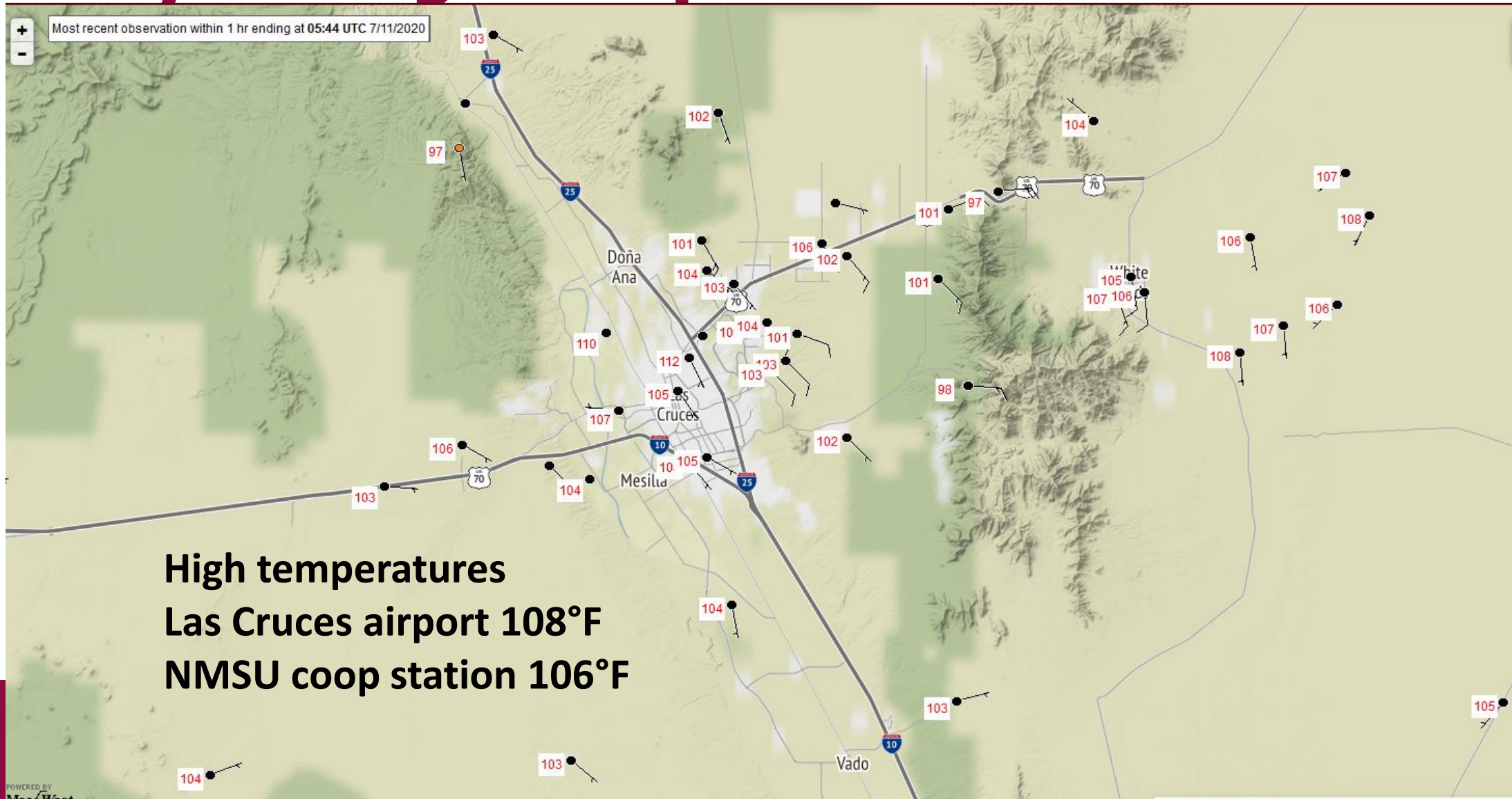


July 10



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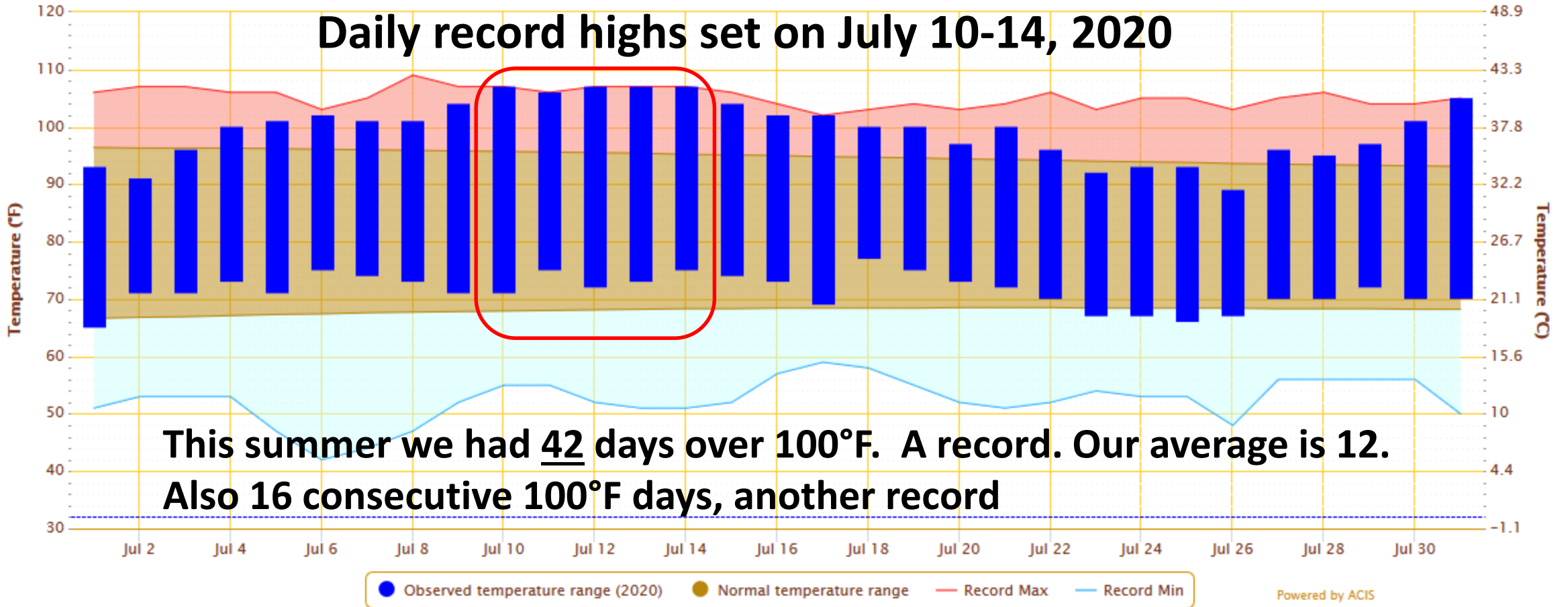
July 10 High temperatures in Las Cruces



Daily Temperature Data – STATE UNIVERSITY, NM

Period of Record – 1892-01-01 to 2020-10-12. Normals period: 1981-2010.

Daily record highs set on July 10-14, 2020



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Car and bicycle mounted sensors

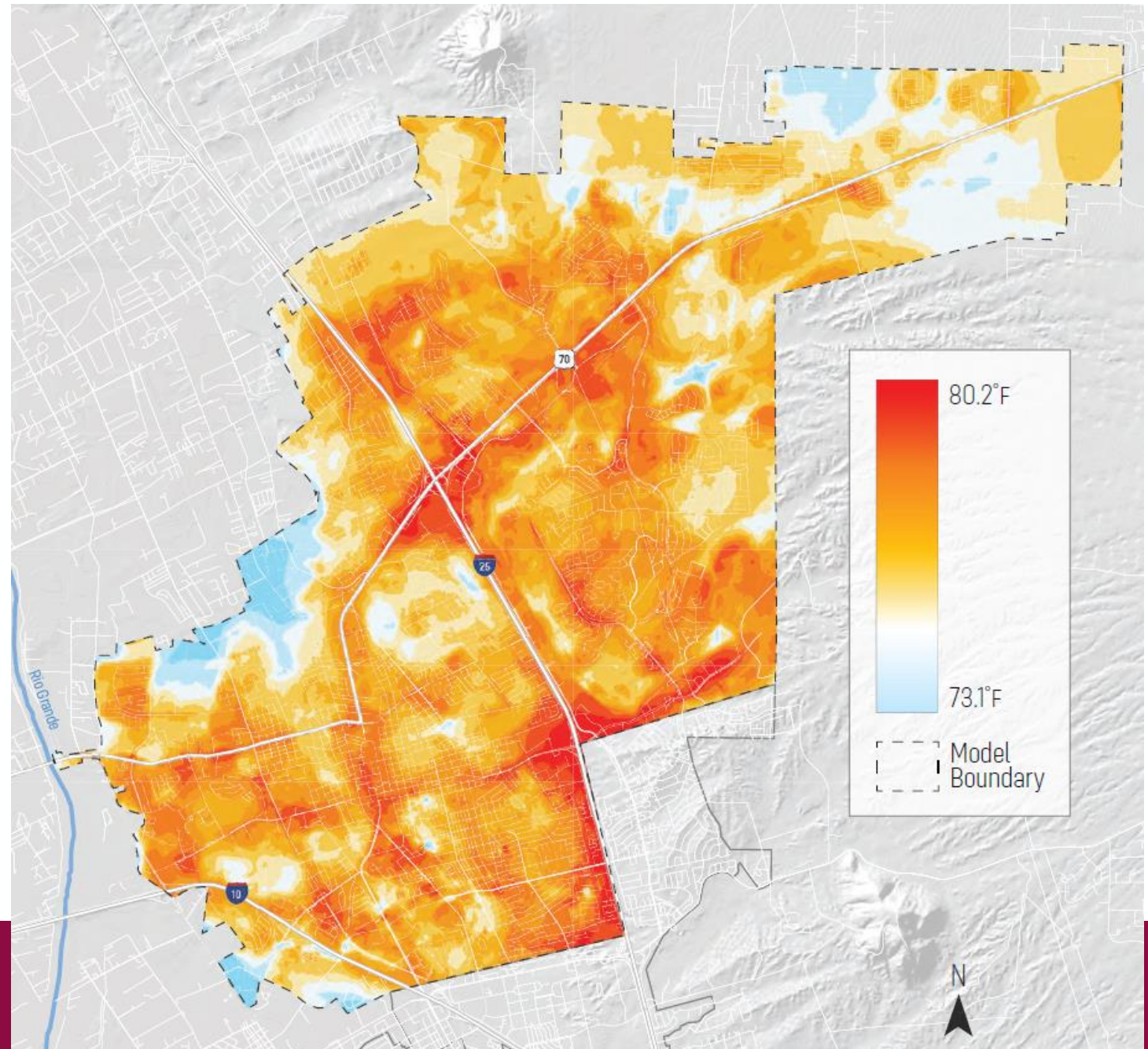


Morning 6-7am

Heat Index ranged from 73 to 80°F

Significant hot spots at major intersections

Cooler areas, more vegetation & agriculture

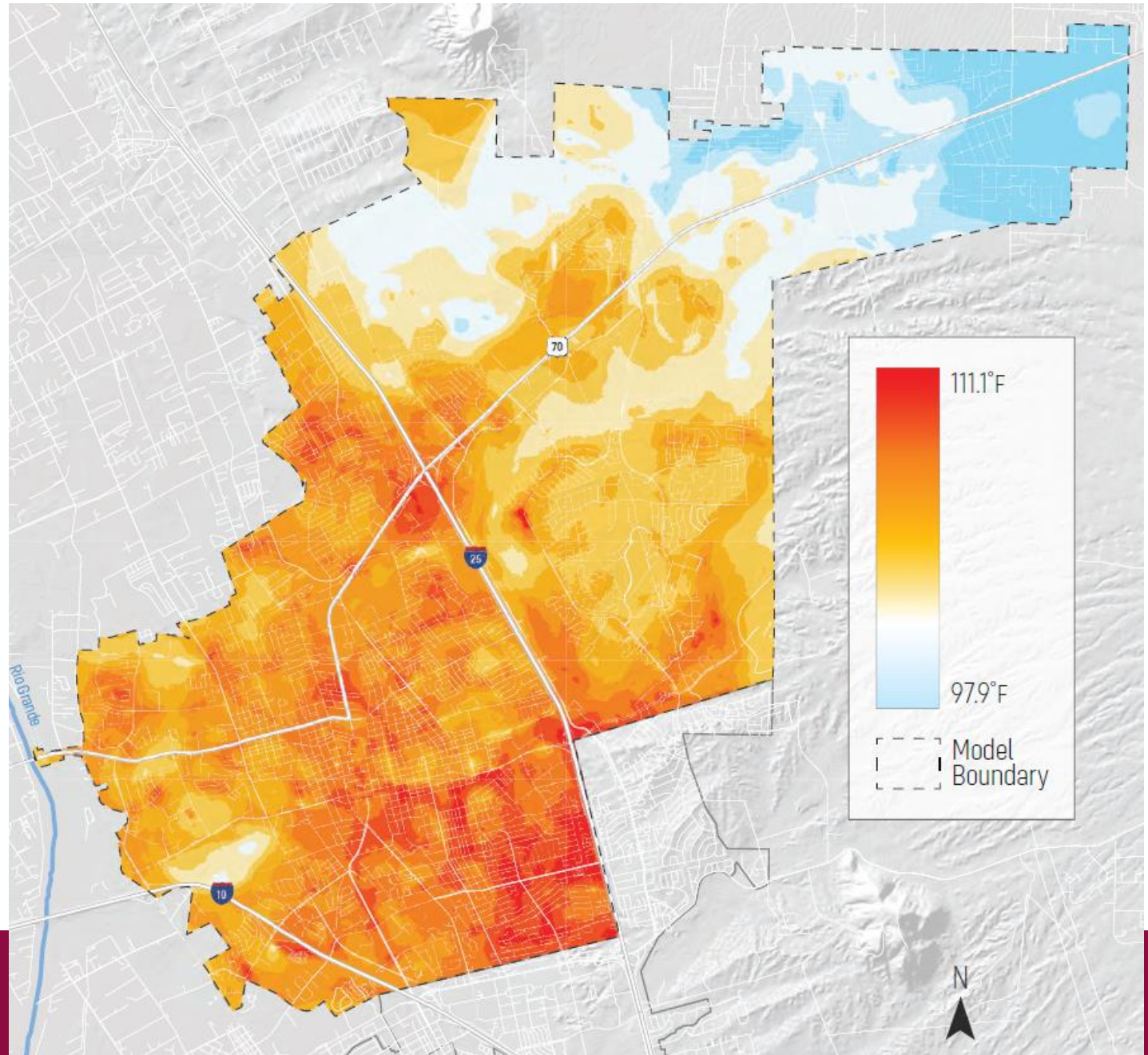


Afternoon 3-4pm

Heat Index ranged from 98 to 111°F

Significant heat throughout town

Cooler areas as elevation rises

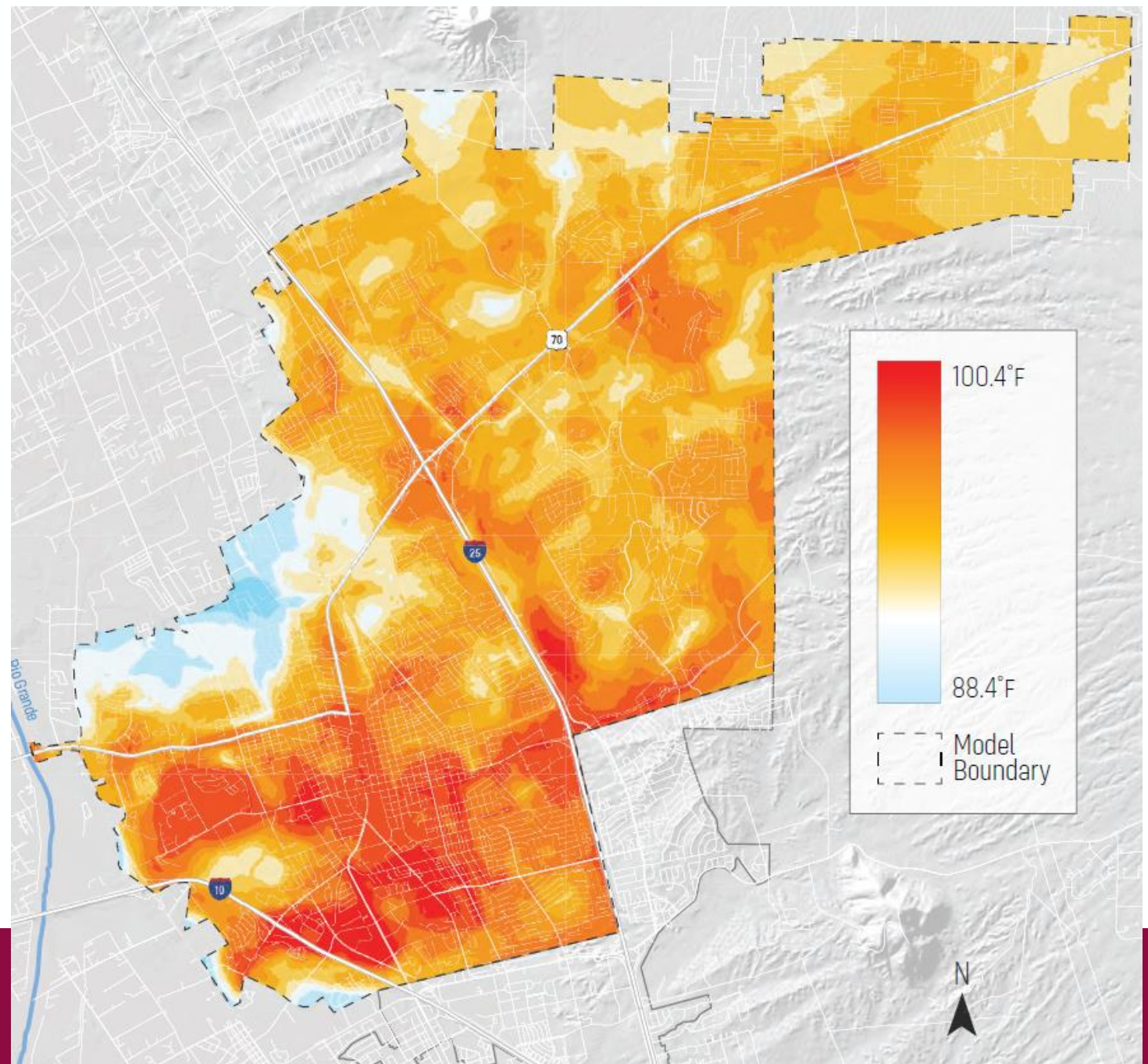


Evening 7-8pm

Heat Index ranged from 88 to 100°F

Significant heat remains in most of town

Cooler areas bordering agriculture





Web App: <https://arcg.is/1jqyn4>



Layer List

Layers

- Morning Traverse Points_Las Cruces
- Afternoon Traverse Points_Las Cruces
- Evening Traverse Points_Las Cruces
- Morning Bicycle Traverse Points_Las Cruces
- Afternoon Bicycle Traverse Points_Las Cruces
- Evening Bicycle Traverse Points_Las Cruces
- Morning Temperature Model_Las Cruces
- Afternoon Temperature Model_Las Cruces
- Evening Temperature Model_Las Cruces
- Morning Heat Index Model_Las Cruces

Legend

Afternoon Traverse Points_Las Cruces

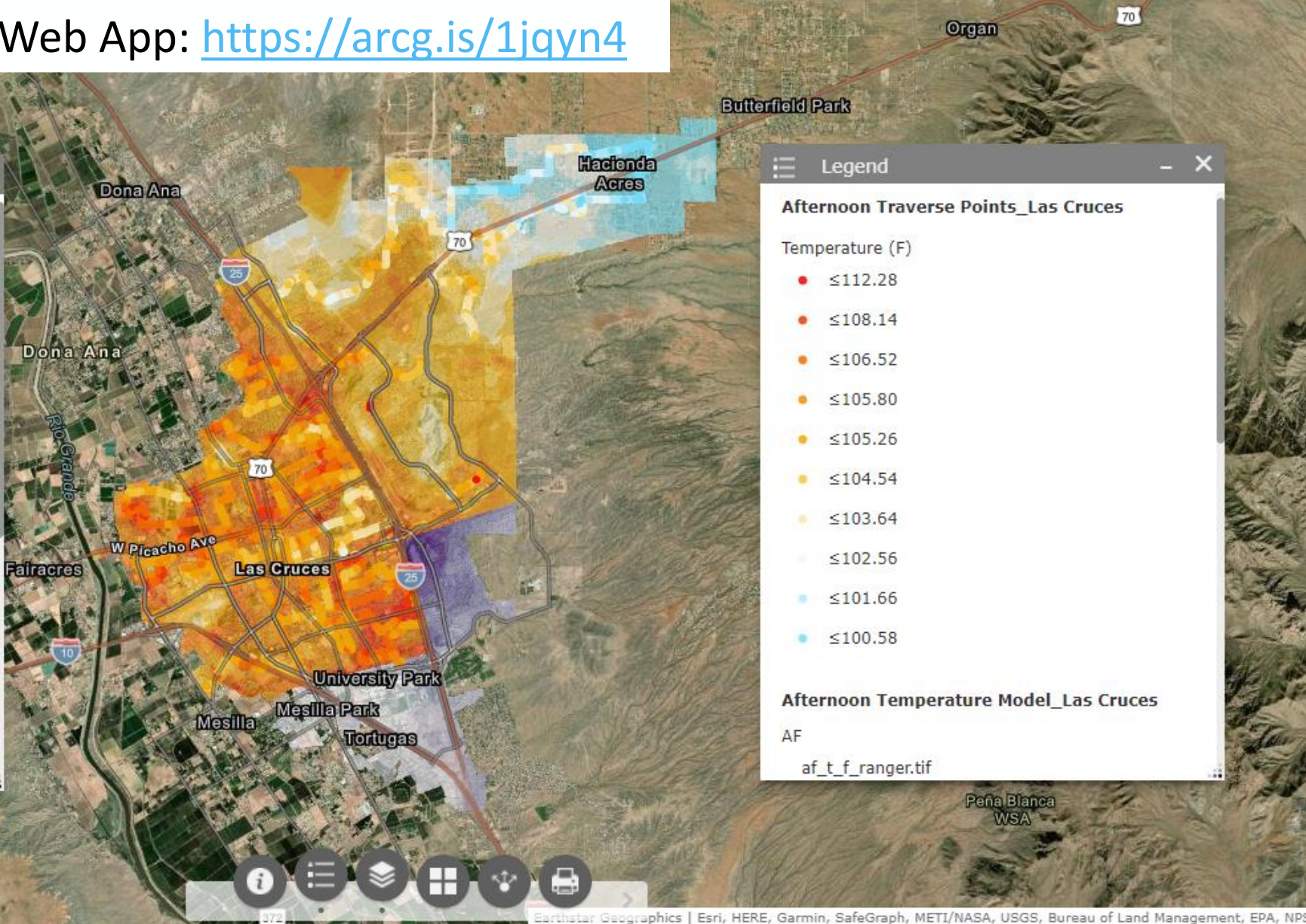
Temperature (F)

- ≤112.28
- ≤108.14
- ≤106.52
- ≤105.80
- ≤105.26
- ≤104.54
- ≤103.64
- ≤102.56
- ≤101.66
- ≤100.58

Afternoon Temperature Model_Las Cruces

AF

af_t_f_ranger.tif



-106.473 32.282 Degrees

2mi



IR Camera Survey – FLIR C2



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Next Steps

- Work with City of Las Cruces Sustainability Office, NMSU, and others in the community

Use the data and publicly available demographic information to explore the intersection of urban heat and social vulnerability

Options for addressing mitigation, urban planning, outreach to health, athletics, outdoor worker, homeless and others





Dave DuBois

NMSU College of Agricultural, Consumer and Environmental Sciences

Department of Plant and Environmental Sciences

Email: dwdubois@nmsu.edu

Twitter [@nmclimate](https://twitter.com/nmclimate)