

INTRODUCTION

The Southern Climate Impacts Planning Program (SCIPP) is a NOAA Regional Integrated Sciences and Assessment (RISA) team that works to increase resiliency and preparedness for weather and climate extremes across the South Central U.S. SCIPP has engaged the emergency management and planning sectors in Arkansas and Oklahoma over the past three years. Several studies (Kartez & Faupel 1994, Schwab 2010, Smith 2011) have shown that the relationships between the two sectors are typically underdeveloped but are worth developing because of their complementary strengths and weaknesses (Schwab 2010). SCIPP has worked to develop those relationships and promote longer-term and more effective planning for climate hazards. Local and state decision maker interactions led to the identification of the need for a simple tool that would point users to trustworthy and usable data that can be used to assess their climate risks and challenges.

MOTIVATION & PROCESS

Emergency managers (EMs) and planners were brought together through workshops (pictured below) and webinars in Arkansas and Oklahoma in 2017 and 2018 to enhance the natural hazard resilience discussions that were taking place at local, tribal and regional levels across each state.

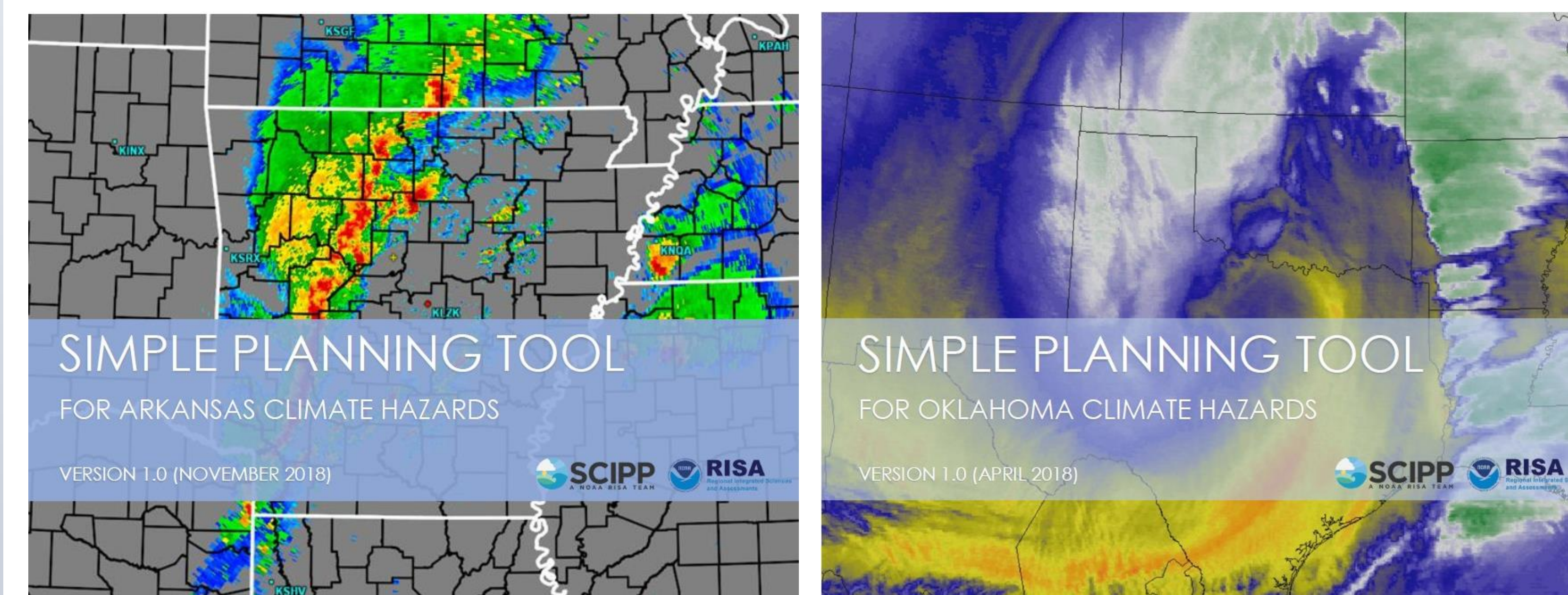


Through these interactions, SCIPP identified:

1. Participants did not always know where to find climate data and/or which organizations to trust.
2. The need for a tool that could help identify locally-relevant climate information that can be used in plans such as hazard mitigation plans, land use plans, comprehensive plans, etc.

Abrash Walton et al.'s (2016, p.1) findings that “scale-relevant data that are responsive to local level needs and presented in a manner that informs local decision-making” are needed for hazard mitigation and climate adaptation align with SCIPP’s initial findings. Collaborations with local planners and EMs, along with iterative feedback, led to the development of two versions of the *Simple Planning Tool* (SPT), for Oklahoma in April 2018 and Arkansas in November 2018.

TOOL OVERVIEW



Above: Cover page of each *Simple Planning Tool*.

The SPTs for Arkansas and Oklahoma are compilations of relatively easy-to-use online interactive tools, maps, and graphs that can assist planners and EMs who are assessing their long-term climate risks, both historically and in the future. The two versions are similar but are tailored for each state. The SPT is primarily designed for those who serve small- to medium-sized communities but may also be of interest to those who serve larger areas. While it may not answer every question one has about hazard climatologies and future trends, the SPT aims to cut through the internet clutter and point to relatively simple data tools that can be used during planning processes and in plans.

The images below describe the formatting and organization of the SPT:

User Instructions

This document is alphabetically organized by climate hazard (p. 6-18) and two non-climate hazards (p. 19-20). A table is included for each hazard and describes the data limitations, historical climatology tools, and projected future trends. See the example table below and corresponding descriptions to the left for more details on how each table is organized.

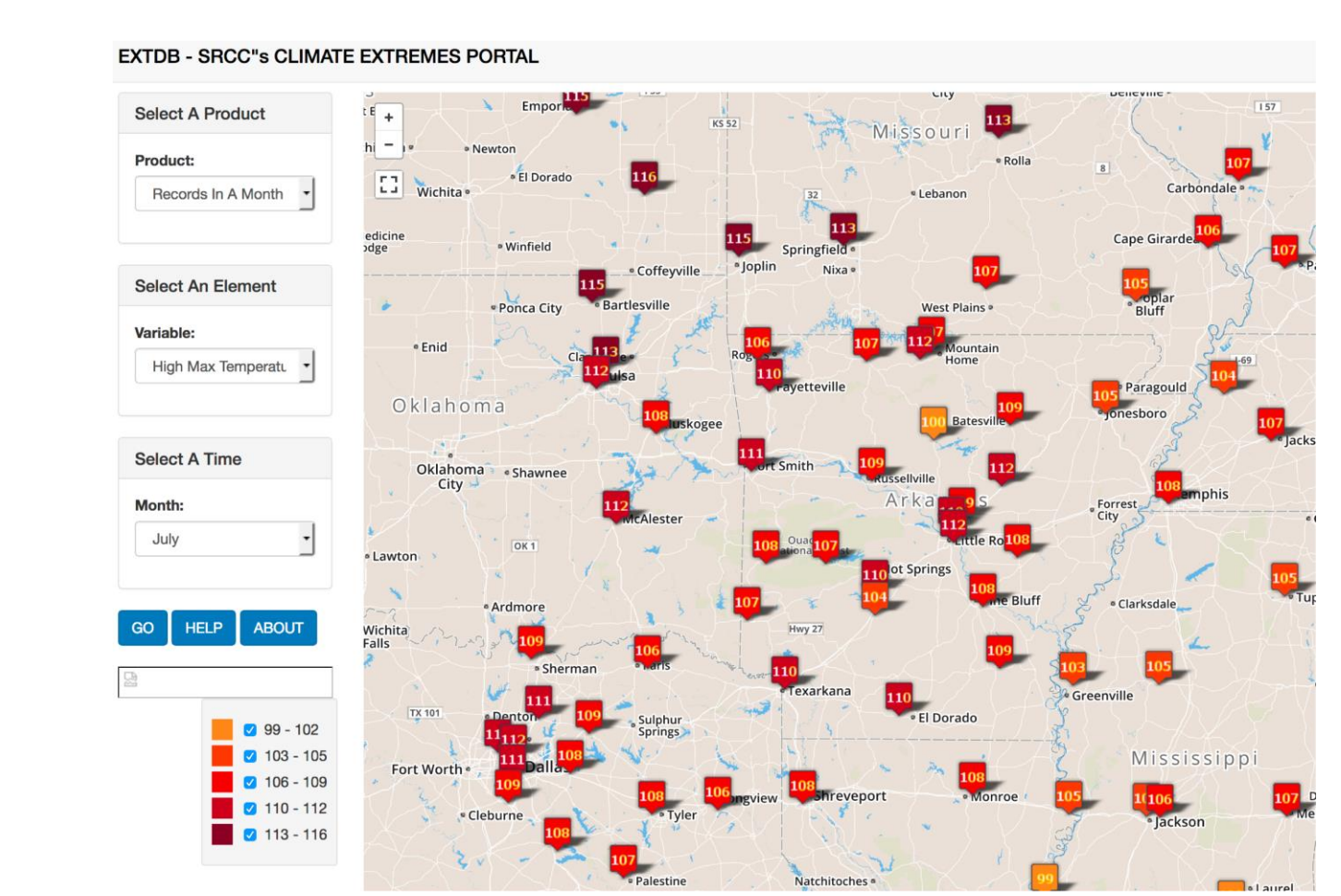
| Table Components | Description |
|--|-------------------------------|
| 1. This section describes known data limitations for the hazard. Knowing limitations can help one interpret data results more accurately. | Data Limitations |
| 2. The historical climatology rows show several tools that provide freely-available historical data relevant to each hazard. | Historical Climatology |
| 3. For each individual tool, this column provides its name, period of record of the data used (some tools use multiple periods), and the source. | Historical Climatology |
| 4. This column provides the information that can be obtained from the tool and instructions on how it can be found. | Historical Climatology |
| 5. This row provides the website link to access the tool. (Note: In the event of a URL change, search the web using the accompanying information.) | Historical Climatology |
| 6. This column shows an image of the tool's final product (i.e. map, graph, table). | Historical Climatology |
| 7. A concise summary of the state-of-the-science on whether the hazard is projected to be influenced by climate change, and if so, how. | Future Trends |

Find the Simple Planning Tools at:
<http://www.southernclimate.org/pages/data-tools>

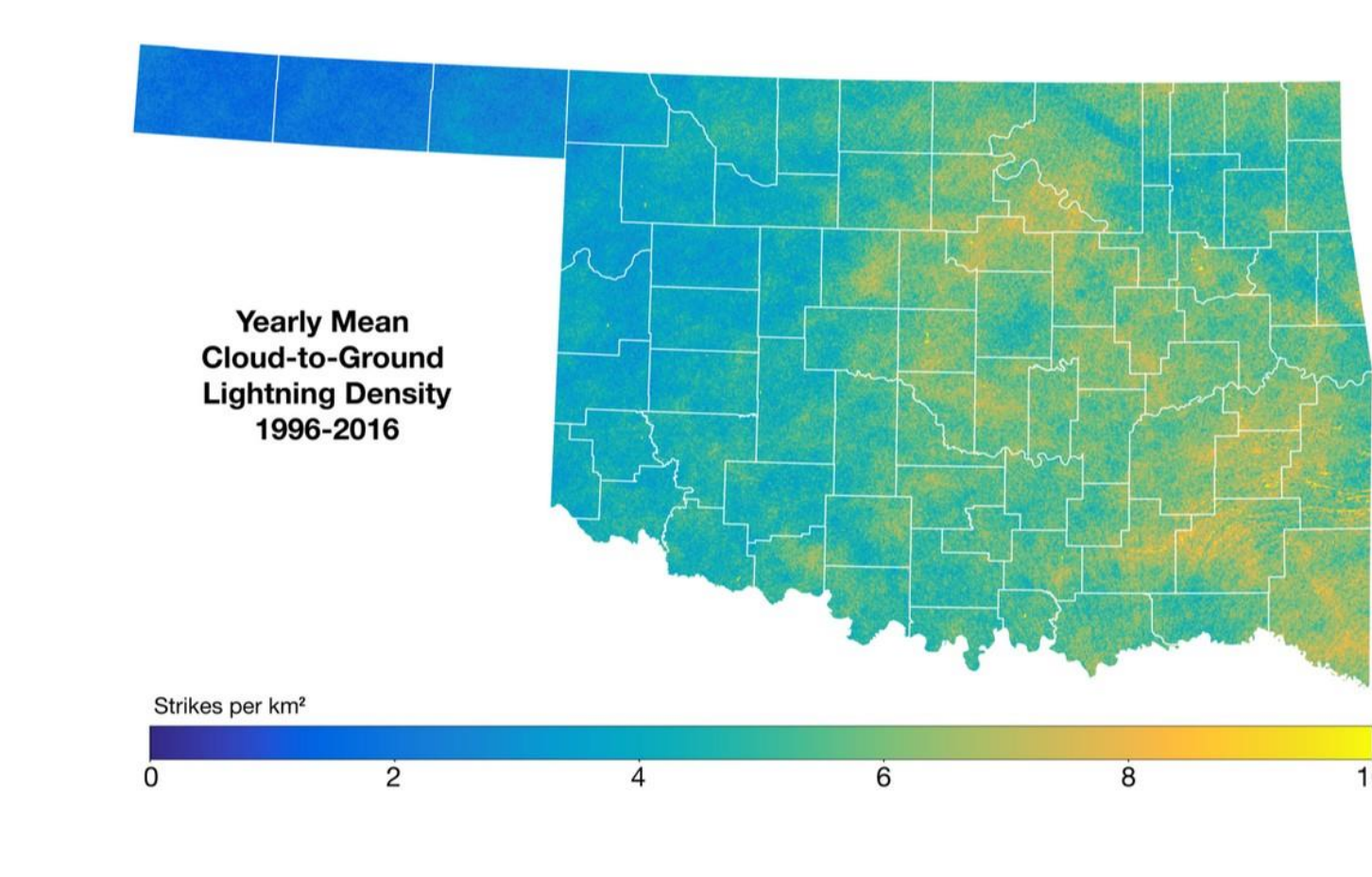


EXAMPLES OF TOOLS WITHIN THE SPT

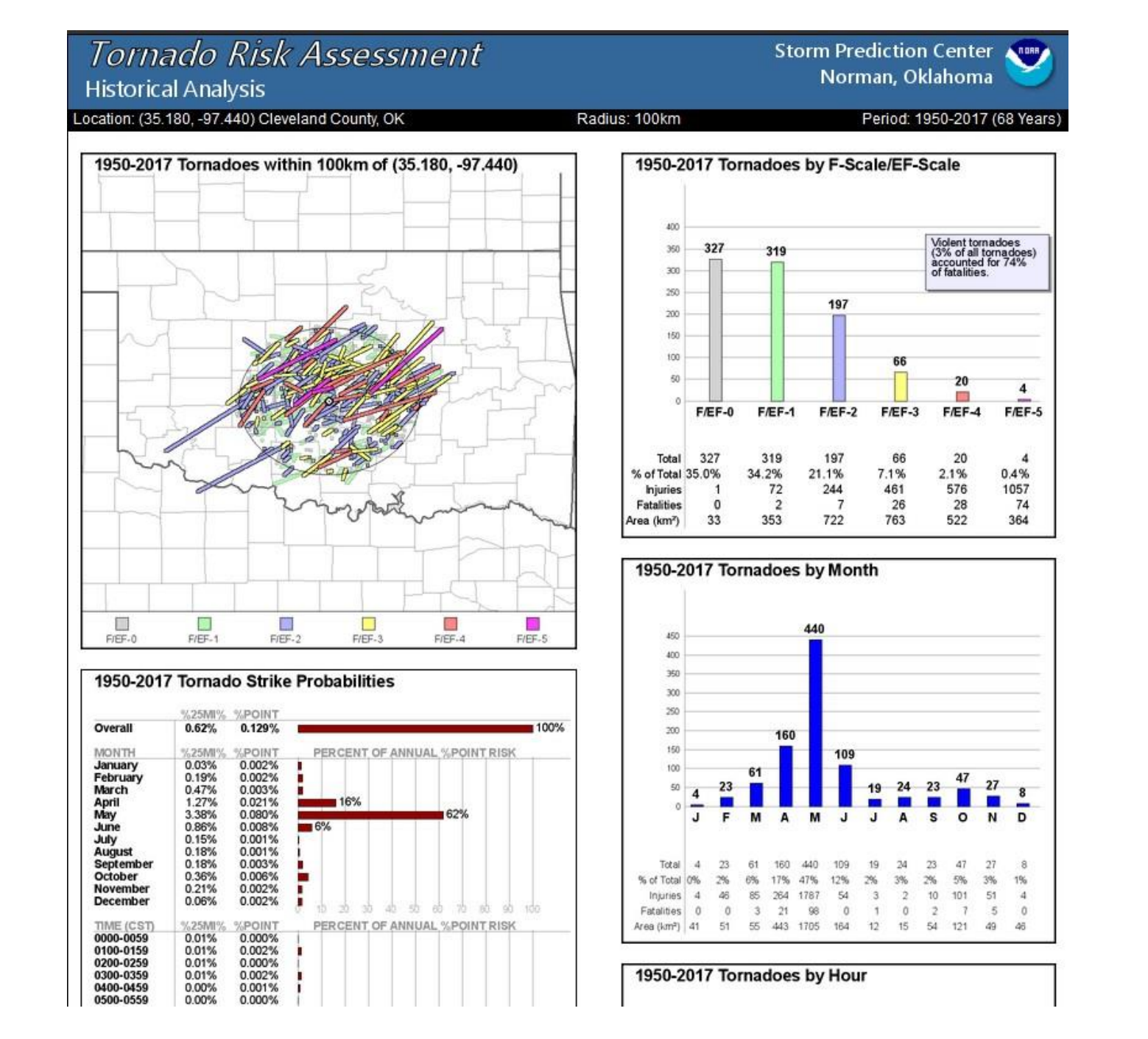
Climate Extremes Portal NOAA Southern Regional Climate Center



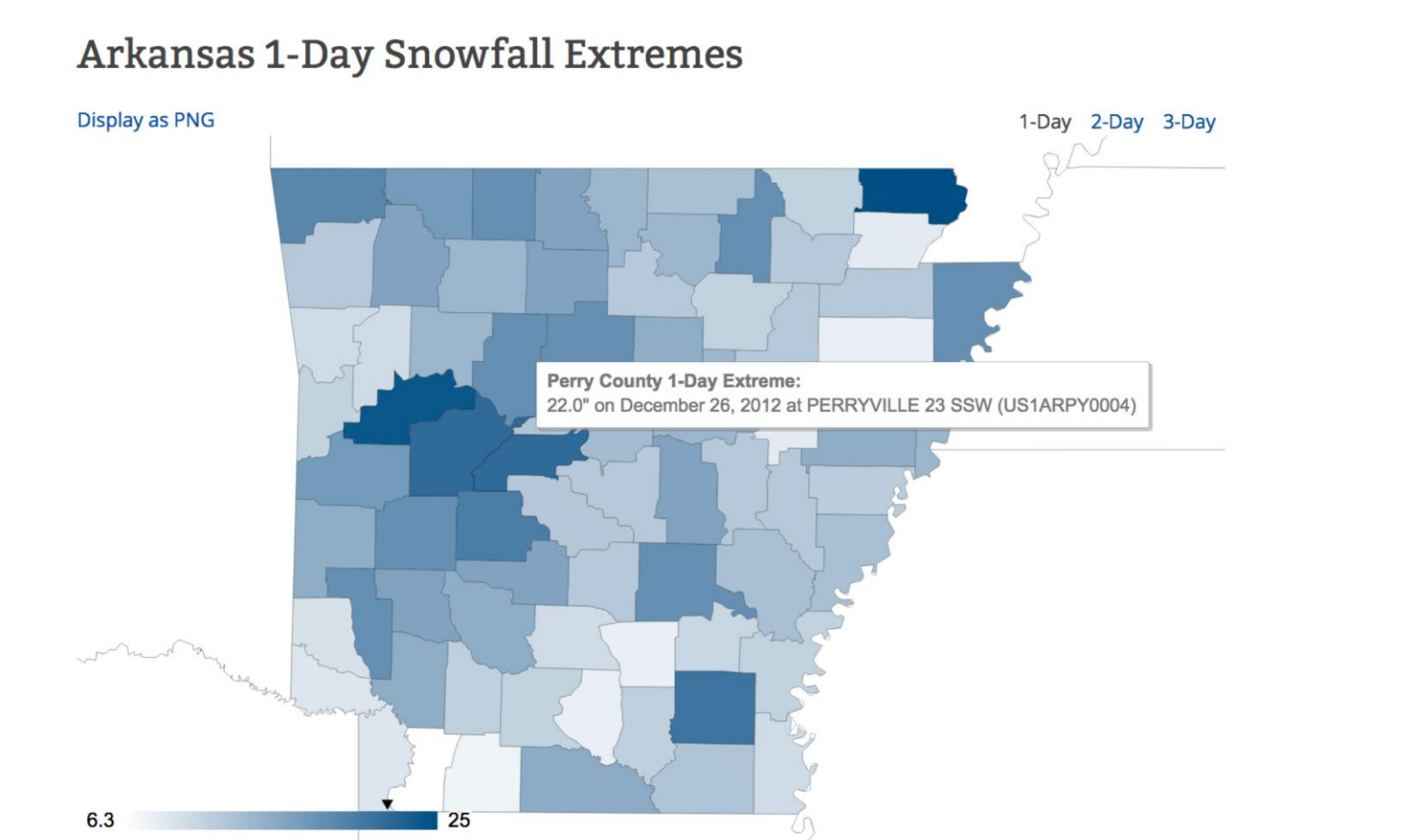
Annual and Monthly Distributions of Cloud-to-Ground Lighting NOAA NSSL & OU CIMMS



Tornado Risk Assessment NOAA NWS SPC



Snowfall Extremes NOAA NCEI



USES IN DECISION MAKING

A formal evaluation on the utility of the SPT will be conducted in 2019. A few examples of how the tool is already being used include:

- **Local Arkansas Planner:** “The *Simple Planning Tool* is and will be the most valuable tool in my toolbox for all my hazard mitigation projects.”
- **An Oklahoma State EM** has been using the SPT to update the State of Oklahoma Multi-Hazard Mitigation Plan and is encouraging local EMs to use it as well.
- **Local Oklahoma Planner:** “Planners across Oklahoma will have a much greater opportunity to properly reflect the climate trends and hazards as we look to and prepared for the future of our communities.”

REFERENCES

Abrash Walton, A., M. Simpson, J. Rhoades, and C. Daniels, 2016: Local solutions report: Identifying and meeting the needs of local communities adapting to climate change. Keene, NH: Antioch University New England Center for Climate Preparedness and Community Resilience.

Kartez, J. D., and C. E. Faupel, 1994: Comprehensive hazard management and the role of cooperation between local planning departments and emergency management offices. Unpublished technical report, Hazard Reduction and Recovery Center at Texas A&M, College Station, TX.

Schwab, J. C., 2010: Hazard mitigation: Integrating best practices into planning (PAS 560). Chicago, IL: American Planning Association PAS.

Smith, G., 2011: *Planning for post-disaster recovery: A review of the United States disaster assistance framework*. Washington, DC: Island Press.

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