



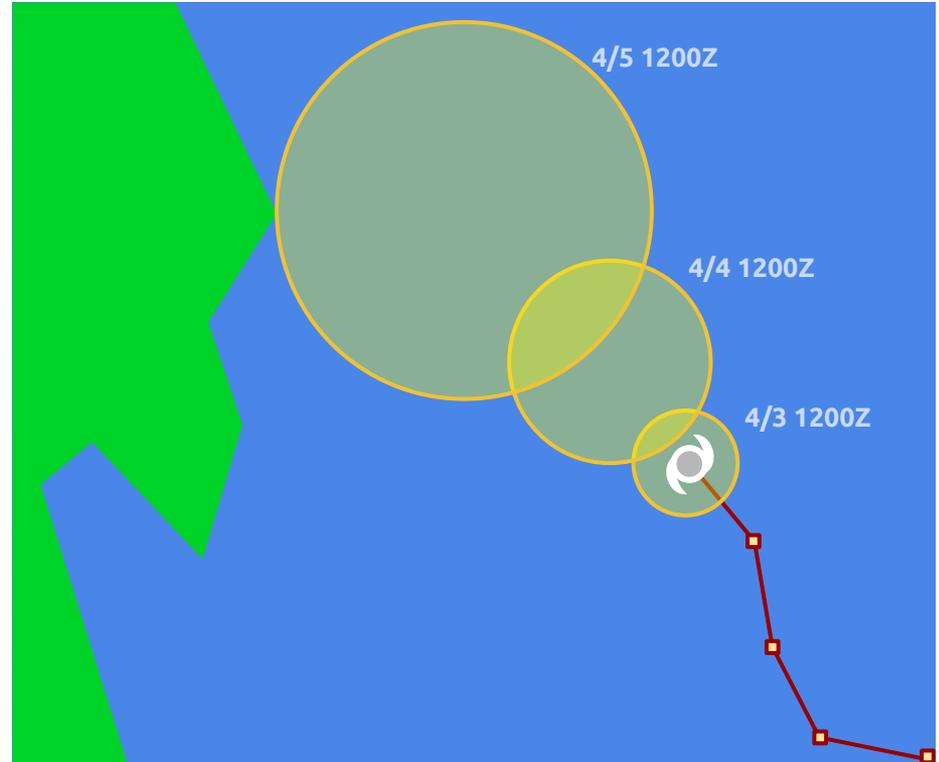
Usability Findings:

weatherunderground.com



# why weatherunderground.com?

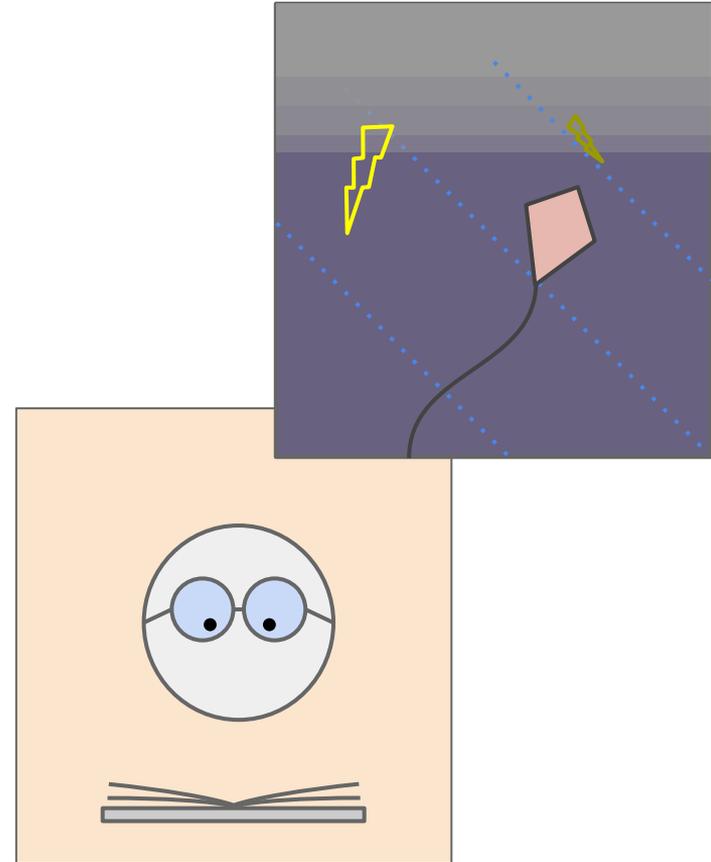
- **Great tools for tracking tropical cyclones**
  - 72-hour path projection
- **Researcher-friendly**
  - Very data-oriented website



# who are its users?

Based on the content and utilities available, we assume a bulk of their users are:

- **Researchers/Students**
- **Meteorology Afficionados**



# Participants in this Test

Five people participated in and completed this usability test\*:

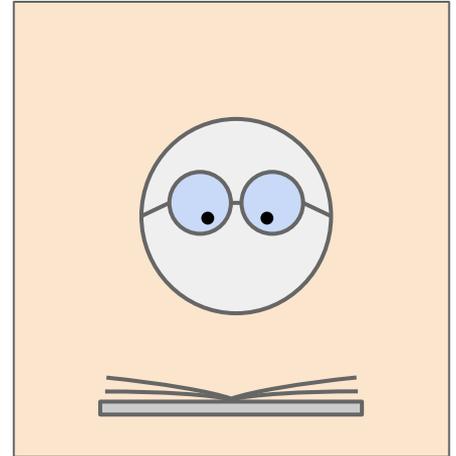
- **Identified**
  - My sister
  - A friend
- **Unidentified**
  - Three of my fellow classmates

*\* To avoid skewing the statistics, any participant who did not complete the test has been omitted from the results.*

# Tasking Strategy

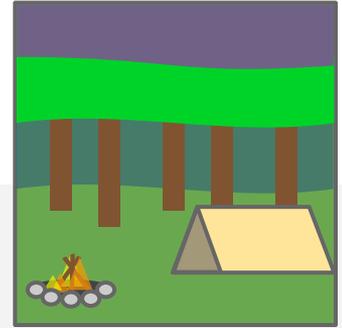
**Tasks were based on what a casual researcher may be looking for, e.g.:**

- Current weather at a given geographical point
- Historical weather data for a given geographical region
- Visualizations of active and historical tropical cyclone activity



# Task 1: Breakdown

You are planning a hiking/camping trip at Shenandoah National Park in Virginia for next week Monday-wednesday. Will you experience any inclement weather (e.g., thunderstorms, snow, heavy winds, etc)?



## Intent

Determine how well the design supports finding a simple weather forecast.

## Verification

At the end of this task, the user was asked about the weather they just looked up and their opinion on the ease of finding that information.

# Task 1: Results

Easy as pie (except for that guy).

## Why so low?

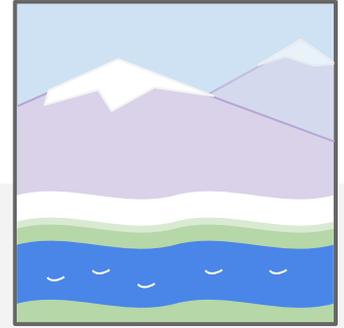
- **Two users clicked on advertisements**
  - Any click that is not predefined as a “success” URL is tracked as a failure. Assuming that the users were actually interested in the ads, **if we ignore those clicks we see a 100% success rate.**
- **Low number of participants**
  - Statistical anomalies skew the averages because of the smaller sample size.

Success Rate

60%

## Task 2: Breakdown

You want to visit Denali National Park in Alaska but don't want to freeze to death. Which months have average lows above 20°F?



### **Intent**

Determine how easy it is to find the historical data page and measure how well the design of that page assists the user in finding information relevant to them.

### **Verification**

At the end of this task, the user was asked questions based on the data they just looked up and their opinion on the ease of finding that information.

# Task 2: Results

Not easy but not hard

## Why so low?

- **There are at least two ways to find the answer.**
  - The intended pathway is via a page designed for showing historical data. This page is one-stop shopping, but **finding it and realizing that you found it can be tricky.**
  - The other way is through brute force—enter dates into a calendar and click submit until you think you have enough data. **One user clicked through 54 pages before they had enough.**

“ Trying to find the yearly historical data was very difficult and not straightforward. ”

## Interesting Fact

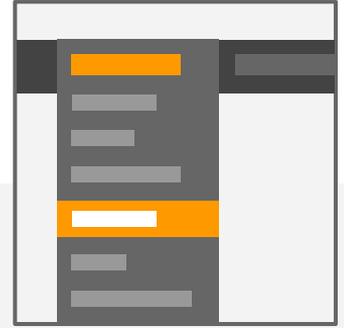
80% of users rated this task as easy-to-medium difficulty and 60% thought the amount of data on the historical page was perfect.

Success Rate

40%

# Task 3: Breakdown

Can you find the page on the website that has data on hurricanes & tropical cyclones?



## **Intent**

Determine if there is difficulty finding the link to the tropical cyclone tracker page.

## **Verification**

At the end of this task, the user was asked if they had any difficulty finding the link.

# Task 3: Results

Easy

## Interesting Fact

Again, the failure here was caused by a user clicking on ads.

Success Rate

80%

# Task 4: Breakdown

You are doing research on Hurricane Sandy. Can you find a map showing the path the storm travelled, from the time it formed to the time it made landfall?



## Intent

Determine how well the design supports finding specific weather events from the past.

## Verification

At the end of the task, users were asked if they had any difficulty finding the map.

# Task 4: Results

Easy for most

## Why so low?

- Participants clicking on ads
- One participant abandoned the task

## Interesting Fact

The participant who abandoned this task **did not register success on any other task except the very last**. Their follow-up questionnaire responses were generally negative, indicating dissatisfaction with all site features and unlikeliness to use any of the features in the future. **It is possible that this participant held expectations for the site that don't align with that of the archetypal Weather Underground user.**

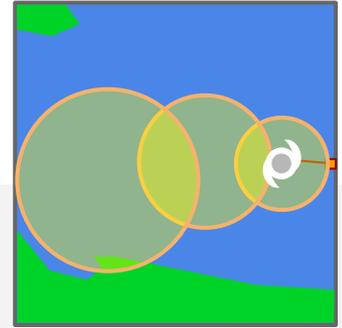


Success Rate

60%

# Task 5: Breakdown

You want to track Tropical Cyclone Nathan, an active storm. Can you find the map showing TC Nathan's predicted path?



## Intent

Determine how well the design supports finding an active weather event.

## Verification

At the end of the task, users were asked questions pertaining to the storm they just looked up and their opinion on the ease of finding that information.

# Task 5: Results

Easy

## Interesting Fact

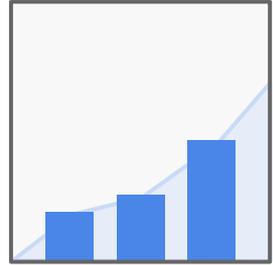
The participant who held the most negative opinion of the site and had major difficulty with all other tasks leading up to this one seemingly had no trouble at all here.

“ Could not find the country name in the path of the typhoon, only that it was in the South Pacific with coordinate info. ”

Success Rate

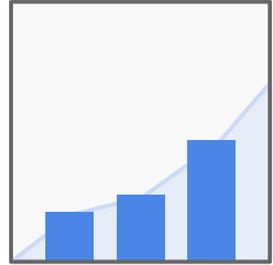
100%

# Debriefing: Participant Experience



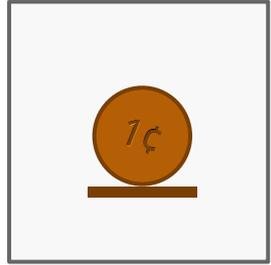
- **All self-report competence with online research, i.e.:**
  - Used all of the major search engines
  - Performed personal/professional online research
  - Confident in ability to use unfamiliar research tools
- **Very few have experience with traditional academic research tools**
- **Very few have experience with [WeatherUnderground.com](http://WeatherUnderground.com)**

# Debriefing: Participant Satisfaction



- **Most had no trouble understanding the tasks**
  - One participant reported not being aware that there would be questions pertaining to the information they just looked up.
- **Most felt that the interfaces contained just the right amount of data**
- **The site didn't knock anyone's socks off**
  - Responses were generally indifferent to slightly positive.
- **Most would probably not use the hurricane tracker in the future**
  - This is most likely due to geographic differences between participants—a person who lives further inland is more likely to be concerned about other types of destructive weather events than tropical storms.

# Conclusion



- **The data is there, but you have to work for it.**
  - The easy stuff is big and right at the top, but once you start looking for anything deeper, it feels like the current design doesn't make drilling down easy. The link to the historical weather data page that users need was buried beneath 3 clicks from the "*Denali National Park*" search result page.
- **Google banner ads are *simply irresistible*.**
  - Either there is a technical issue with Loop11's method of tracking clicks or this particular set of participants **really enjoys** clicking on ads.