Weather Underground

Usability Testing Findings & Analysis

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Table of Contents

Executive Summary

We conducted this usability study to test several common tasks on Weather Underground's website.

Both positive and negative usability issues were observed during testing that spanned five participants.

Main takeaways include:
- Users easily found a way to find local weather forecasts.
- Navigation groupings and labels confused users for two of the tasks.
- The website features large ads that can affect how users find information and use navigation.
- Static content pages and their organization could be improved.

Research Goals

Our research goals were to:

- ○ Observe user patterns and behaviors as they attempt a set of common tasks
- ○ Identify how easily users accomplish common tasks
- ○ Understand users' experiences and expectations as they work with the website

Methodology

○ Our formative usability study followed the "think aloud" protocol by asking test participants to describe their thoughts as they attempted to complete three separate tasks.

○ We recruited five participants for this study. We used an unmoderated remote testing service called Validately, which recorded participants screens and audio. **Four out of five testers check the weather regularly.**

○ While five participants may appear small, most common usability issues can be identified with a small sample since we are more focused on qualitative feedback and general experiences.

Methodology

How the data was analyzed:

○ Each video was observed, which helped surface patterns and themes based on how users navigate the website and attempt the tasks.

○ From the initial observations and findings, themes were sorted and given prioritization based on frequency of the issue and other qualitative feedback. A set of questions were asked after the test, which also influenced the findings.

○ Using the findings, we developed recommendations or identified further areas of research.

Task Success

Task 1: Using Weather Underground's website, find out if it will rain in your city tomorrow.

Task 2: You want to learn about weather events. Find out more information about lighting and its potential dangers.

Task 3: You're thinking of adding a weather station to your house and connecting it to Weather Underground's data source. Find out more information about weather stations.

User	Task 1	Task 2	Task 3
P1	C	F	C*
P2	C	C	F
P3*	C	F	C
P4	C	C	C
P5	C	C	C

C=completed, F=failed, C*=completed with difficulty.
P3* - Participant 3 had issues loading some aspects of the website due to technical issues or bandwidth problems, however was still able to attempt the tasks.

Findings

Findings – Positives

1. The website gives users **different ways to navigate to local area forecasts**, which helps them easily accomplish their goals.

2. Forecast summaries for tomorrow's weather on the main weather forecast page **are helpful and give users valuable information** without adding unnecessary clicks.
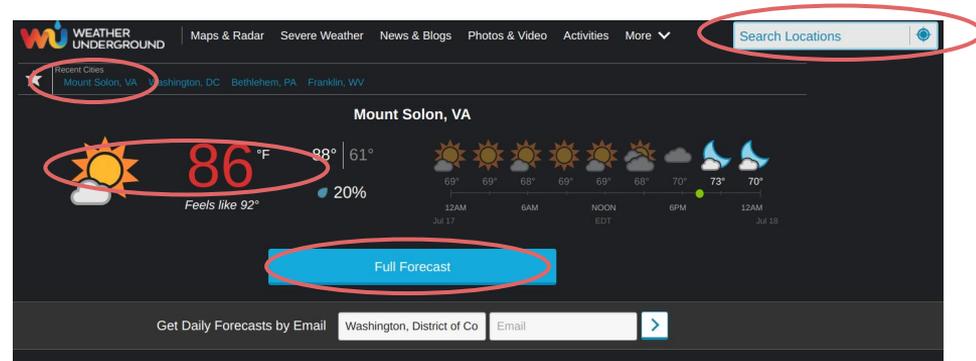
**Finding 1** - Homepage with different points of entry for local forecasts.

Finding 2 - Weather summary cards on the main forecast page.

Findings – Areas of Improvement

3. Users without ad blockers had difficulty navigating the website due to the large number of ads; many complained of **how intrusive and large they appeared**.

In one context, the top banner ad was so large, a user thought they were at the top of the page and didn't see or use the main navigation. "Those banner ads are giant." - Participant 5 (P5)

Navigation appears hidden above ad.
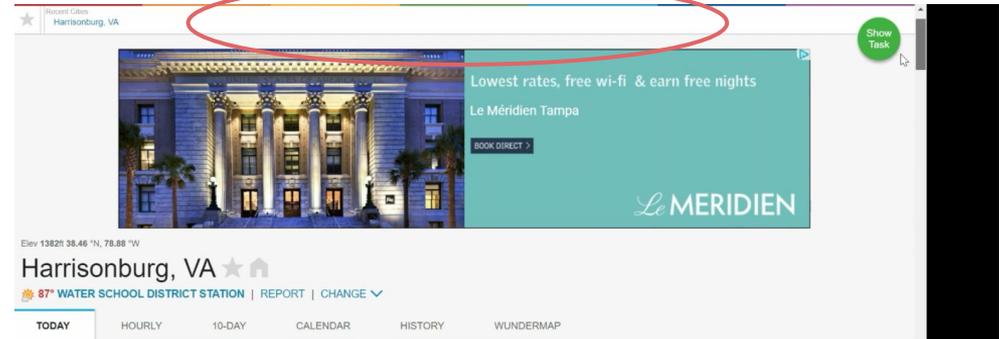
Finding 3 - Participant 1 (P1) was attempting to complete task 2, but didn't see the navigation on the forecast page since the top banner ad appeared to be the top of the page. This user got so frustrated, they searched on Google to attempt to complete the task.

Findings – Areas of Improvement

4. The Severe Weather menu dropdown items are **confusing and not clear to users.** Two out of five users first selected the "Map" feature to find out more about severe weather lightning safety tips. (Correct link: "Preparedness")

5. The "More" navigation dropdown section **disappears on some pages**, which is unexpected to users.
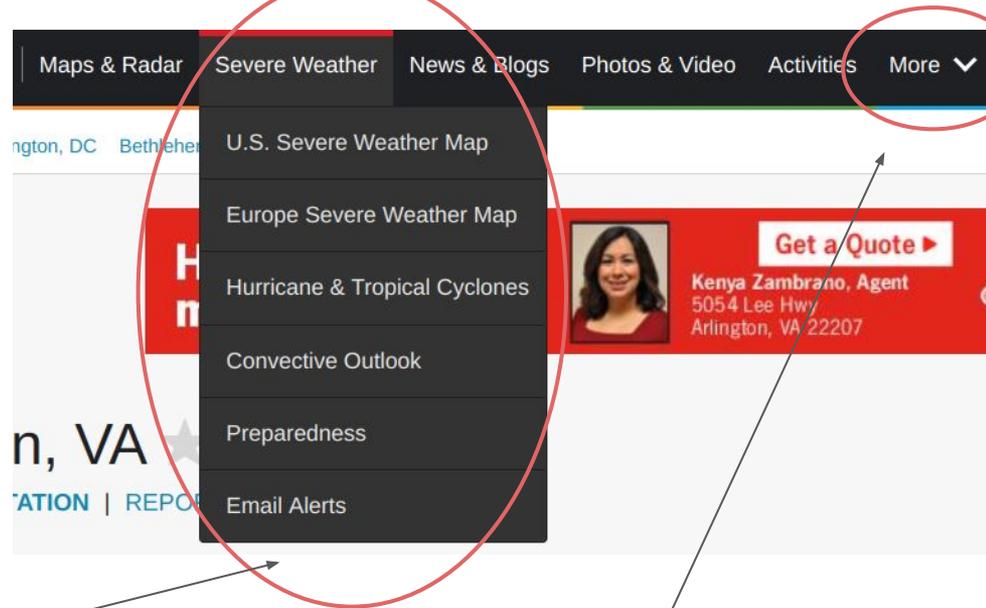
Finding 4 - Navigation choices appeared to confused users. "Very confusing for it [lighting safety tips] to be under Preparedness" - P2

Finding 5- The "More" dropdown link is not consistency present.

Findings – Areas of Improvement

6. The footer links are used, but **differ in language to the top-level navigation**. This inconsistency can lead to unexpected results.

7. The personal weather station overview page isn't clearly listed in the navigation; **three out of five users** first selected the "add weather station" link. (Correct link: "Weather Station Network")

Footer links

"More" dropdown - main nav
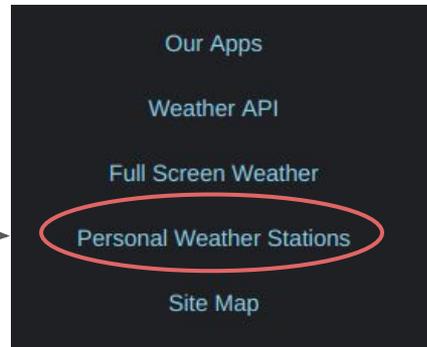
Finding 6 - The main nav link for the overview page is "Weather Station Network" whereas the footer link is "Personal Weather Stations" - both go to the same overview page.

Finding 7 - Nearly all users first selected "Add Weather Station" for task 3 (incorrect link).

12
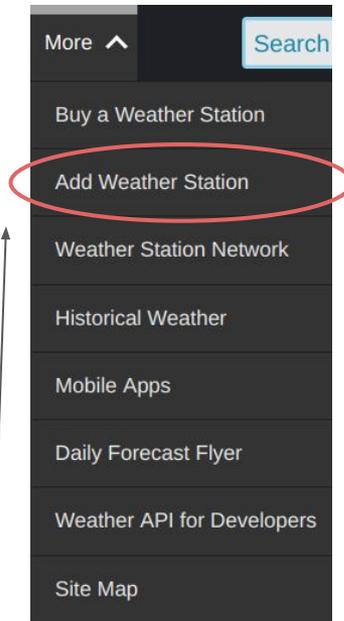
Findings – Areas of Improvement

8. The Personal Weather Station section of the website **has confusing steps and three separate tabs for information.** The tabs appear to act like breadcrumb navigation, which is unexpected to users.

- "That seems a little odd for me that I have breadcrumbs for something I haven't done." - P5

Users were confused by the tabs and how they differed from the step 1-4 process at the bottom. Certain links match while others, like "Install," don't.

Findings – Areas of Improvement

9. Many of the content-only pages (preparedness and weather stations) felt static and some users mentioned **they expected summaries or better ways to navigate** through the content.

- ○ "The annoying thing about this is that it is not giving me any information at the top - I have to scroll for a while." - P4
- ○ "[This page is] old looking" - P5

Preparedness pages, like Lighting, lack jump links or an organization that help users scan the page easily.

Findings – Areas of Improvement

10. The comparison of weather stations **lack important information** and an organization that users would expect (prices, explicit recommendations, and ways to compare side by side).

○ "No prices here which is weird." - P5

Finding 10 - Weather stations are not all listed side by side, limiting users' ability to compare them.

Additional products below

Findings – Areas of Improvement

11. The site **lacks a clear and explicit search** (outside of forecast search), and two users expressed they would have searched in two of the tasks.

○ "I don't see a search" - P3
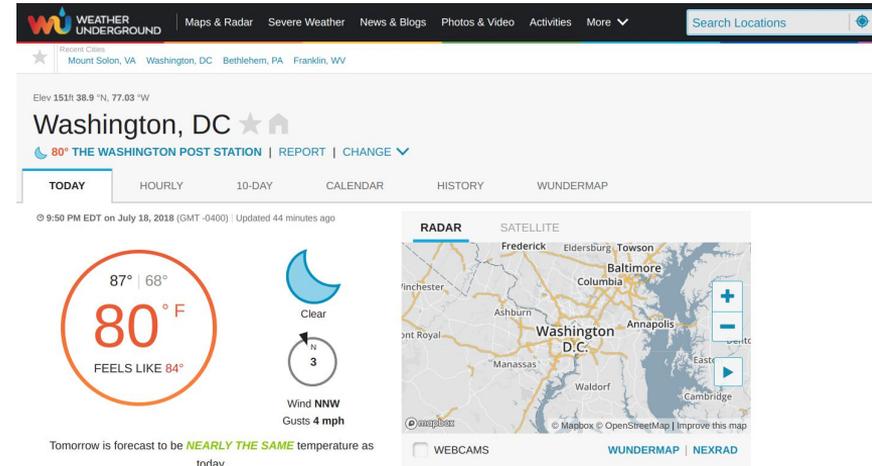
Finding 11 - Top right search is for looking up locations and related forecasts. There is no site search.

Recommendations

Recommendations – Navigation

- Change main navigation to be "sticky" as users scroll down the page to help orient users. **(Finding 3)**
- Keep all main navigation consistent and present, regardless of what page on the site you are on. **(F5)**

- The weather preparedness link is not clear; research if name change or different groupings would be more clear to users. **(F4)**
- Match language for weather station overview link (footer and navigation should be consistent). **(F6)**

Recommendations – Navigation

○ Remove "Add Weather Station" and "Buy a Weather Station" link from the main nav; change "Weather Station Network" to "Personal Weather Stations" **(F7)**

○ Redesign navigation tabs on secondary pages to avoid "breadcrumb-like" appearance. **(F8)**

Recommendations – Page Design and Ads

- Examine ad placements on pages and reduce size where appropriate. **(F3)**
- Design the weather station overview landing page to accommodate different user goals. Remove confusing tabs and consider featuring the steps more prominently. **(F8)**

- Redesign preparedness pages to match how users read on the web. Use more scannable headings, links, and break up the content into chunks. Consider using a side navigation with jump links. **(F9)**

Recommendations

- Improve the comparison of the weather station page; it's currently difficult to compare them all side by side. **(F10)**
- Investigate adding a site search as two users expected to be able to search but couldn't find a way to do it. Don't rely on Google to convert users. **(F11)**

- Investigate speed/loading times of various areas of the site; many users encountered slow loading pages or sections. Reduce load times where possible.

Additional Research Questions & Next Steps

Conducting further research will help identify answers to outstanding questions:

- What additional pain points do users encounter while attempting other common tasks?
- Do the navigation changes improve findability?
- Does consolidating the weather station link and related information make sense to users?
- Does featuring weather preparedness and severe weather information more prominently make that content more engaging?

Next Steps: Review recommendations and determine feasibility of changes.