**Process**

For this assignment, we were tasked to make a navigation chart using the NOAA custom chart tool. After reading the instructions, and checking the requirements for the map we are to create for this Assignment, I set off to actually try this UI, initially I had no issue, I clicked the search bar, typed in ‘Yaquina bay’ and my screen was in the rough area of the bay which is acceptable, I can't complain about being in the general direction, but from here on I started to have some issues.

Before I touch on those issues though, I will preface with my overall thoughts on the steps I needed to take to accomplish the task. After I learned the basics of the tool, it was surprisingly easy to make maps, and adjust the information that I needed from the map. I’m still not entirely sure if what I produced is exactly what was wanted, but I believe it is serviceable. Initially starting was quite cumbersome though, as it's not immediately apparent what is clickable, and what is modifiable, after consulting the quick start guide though, I had few issues navigating the interface. My first attempts did have a few walls though.

The first big issue that I had encountered was trying to define an ‘extent’, it was simple enough to find the button to create one, but when attempting this I came into an issue of not being able to figure out how to adjust from a portrait frame to a landscape frame, as well as adjusting the size. After navigating through the settings button and not seeing any information pertaining to the size or orientation, I consulted the quick start guide. The guide showed me the ‘Define a Product’ interface, which I didn't know was clickable due to mousing over not changing the mouse icon to indicate that I can interact with it. The ‘Design a Product’ interface has a minor issue in that it says scale, but it does not indicate what the units are, it defaults to ‘25000’, but I do not know what this number is measuring, 25000 inches? Feet? Miles? The world may never know...

The next big issue I came across was while trying to delete some of my attempts made before, after the previous issue, I know now that the top buttons are usable, and I figure the one with the x will either delete it all, or just delete the most recent ones. After clicking it, nothing had happened, through some trial and error I managed to learn that you needed to navigate the side menu to display what extents you currently have active, and select one to make it active. Mousing over the button displays a tooltip that reads ‘clear selected extents’, if this had displayed as a clickable item it would have been more apparent that there are selected items, but still would not have resolved the issue with locating how to target items.

**FEEDBACK**

After documenting some of the bigger issues I happened upon during my usage of the NOAA website, I tried to brainstorm a few ideas on how to resolve them, and drew up some approaches on what it would look like when implemented. I narrowed down a large number of ideas to what would be simple, but would also drastically improve the application’s convenience towards the user. My three key issues were with feedback, placement of key features, and making sure a user knows what they can and can't do with parts of the interface.

While going through this activity, there was a big pattern that had noticed with some of the basics of the interface is a lack of feedback to user interaction, I change a value in the settings, like the scale in the ‘Define a Product’ tab, but I don't know if it has accepted it or not. I try to delete a chart that I had previously made, but don't select it, yet I don't get an error. If I do select a chart and delete it, it will prompt me ‘are you sure you want to delete x?’, but it still will not display a ‘delete successful’ or any indication that the chart is gone other than the item not being on the screen anymore. This makes me question if the application has even taken or commited my input, or if it will save what I tried to do.

An idea to fix the issue of feedback could be to add a notification somewhere that what the user was working with has been updated, this could even be a prompt towards the bottom left or right so it does not get in the way of the user’s ability to see the application, but the user can still know they had an impact on what has happened. This prompt could also extend to the user trying to do something that's impossible, like deleting a extent, when there is not one selected.

Another thing that I thought was strange in my personal use of the application was that there seems to be a focus on using the selected extents, as you need to have an item selected to delete, or export. However, it hides the extents out of the first pane of the menu. This was something I had to figure out when I had wanted to delete items, and it did not seem to be the most intuitive approach.

A few approaches to resolve this issue could be to make the selector the first tab that appears on the side menu, have a persistent menu that displays all of your current extents, or, and my personally preferred one, if you try to delete an item without anything selected, it automatically redirects you to the list of extents so you can select what one you are interested in deleting. All of these are satisfiable ways to approach the problem, but I feel that the second and third options allow for the interface to flow into its other features much more easily.

The last issue that I happened upon was not knowing what is clickable and what is not within the top menu, outside of mousing over items and then waiting for the tooltips, its very difficult to tell what is usable upon initial mouseover. The items don't pop out in any specific way, and at first I was unable to tell if the ‘Define a Product’ button was a save button or if it was a button at all. I also addressed in my initial issue description, the mouse icon did not change to a clickable state when I had moused over the top row of buttons, this made me think that they may just have been there for show.

To resolve this, I can think of two big changes to the design that I’d implement, the first change being making each of those buttons give some kind of feedback (like being pronounced, and then ‘sinking’ when you click) to display not only that it is a button, but that you can interact with it, and show that that it has at least acknowledged that the user has clicked it. The second change being to make the mouse icon display that each button is clickable, as users may use this as a way to determine where/what they can click on (or at least, that's how I tend to navigate a new interface).

**CONCLUSION**

Overall, I don't think this website it *too* terrible, but I do believe it has a lot of work that can be done to improve its usability. After I found the Quick Start guide, I didn't have too much trouble making a basic map for my submission. However, as stated in my feedback section, I believe that there are a few key things that can be done to make the interface more tolerable to a new user. These summed up to giving feedback of sorts to the user, placing key features in more prominent place, and making tools actually look like they are usable. With those features, I believe that the usability of the website for new users will greatly increase, as there will be more flow to the interface, and the user will have a much more streamlined experience.