

# Ringtail DESIGN

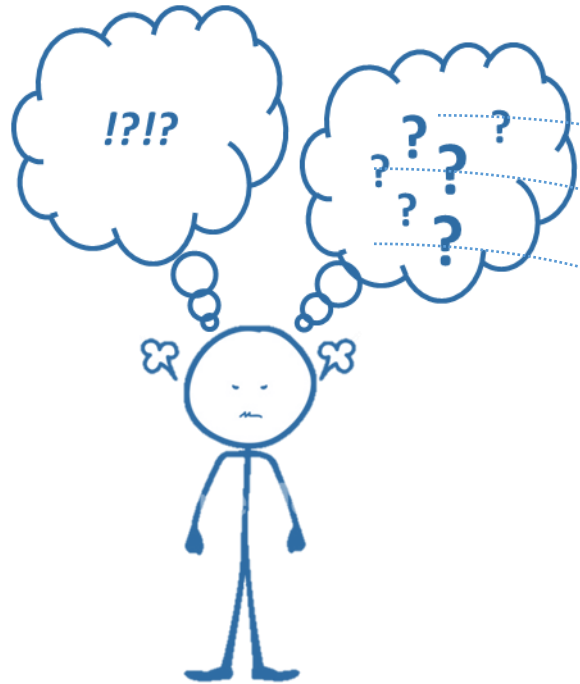
The logo features the word "Ringtail" in a large, rounded, blue font. Below the "i" in "Ringtail" is a small, semi-circular arc composed of several blue segments. To the right of "Ringtail" is the word "DESIGN" in a smaller, bold, blue, all-caps sans-serif font. A large, light blue dashed line forms a large, curved shape on the right side of the image, resembling a stylized tail or a large letter 'Q'.

UX Process

# THE UX BLUEPRINT

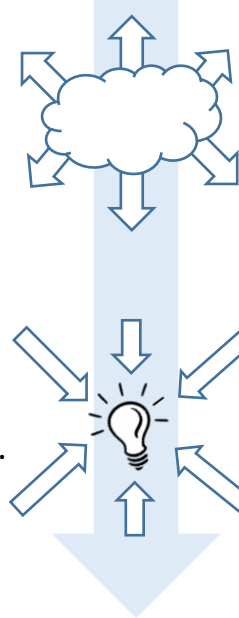
## the **Problem**

What are we trying to solve?  
What are the person's top frustrations, priorities & questions.



## the **Person**

Who are we trying to help?

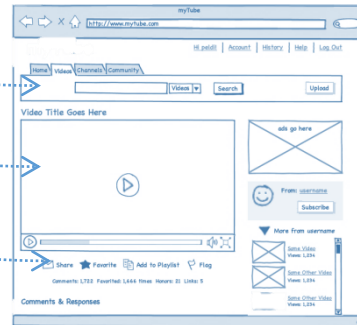


## Divergent Thinking

Seeking out inspiration, creative solutions, existing patterns that may lead to an improved User Experience.

## Convergent Thinking

Narrowing down the possible ideas using what you know about the Person and their Problem as criteria for what ideas work or don't work.



## the **Path**

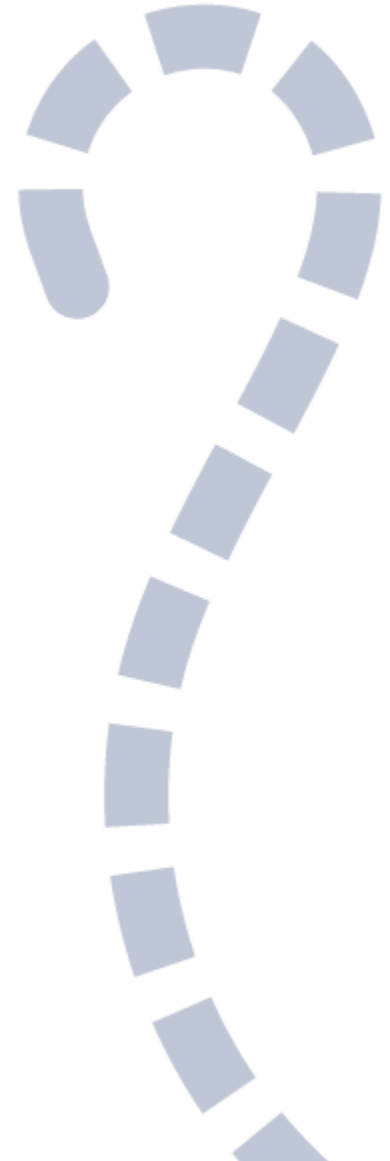
How does the design match the Person's mental model, answer their questions and address their Problems?

## the **Payoff**

Why are we doing this?  
What is the User Experience, what is the new improved workflow we'll deliver?

# the Problem

What are we trying to solve?



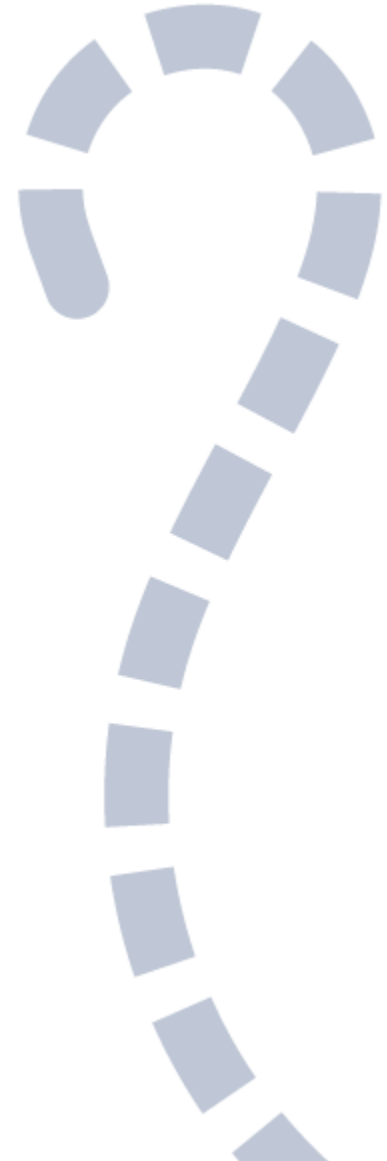
# Interviewing the User

Sitting down and talking with actual users allows us to get their perspective on items like:

- How they perform their tasks
- How they solve their problems
- What tools they currently use
- What is the most demanding part of their job
- What is the most frustrating part of their job
- What a better solution might be

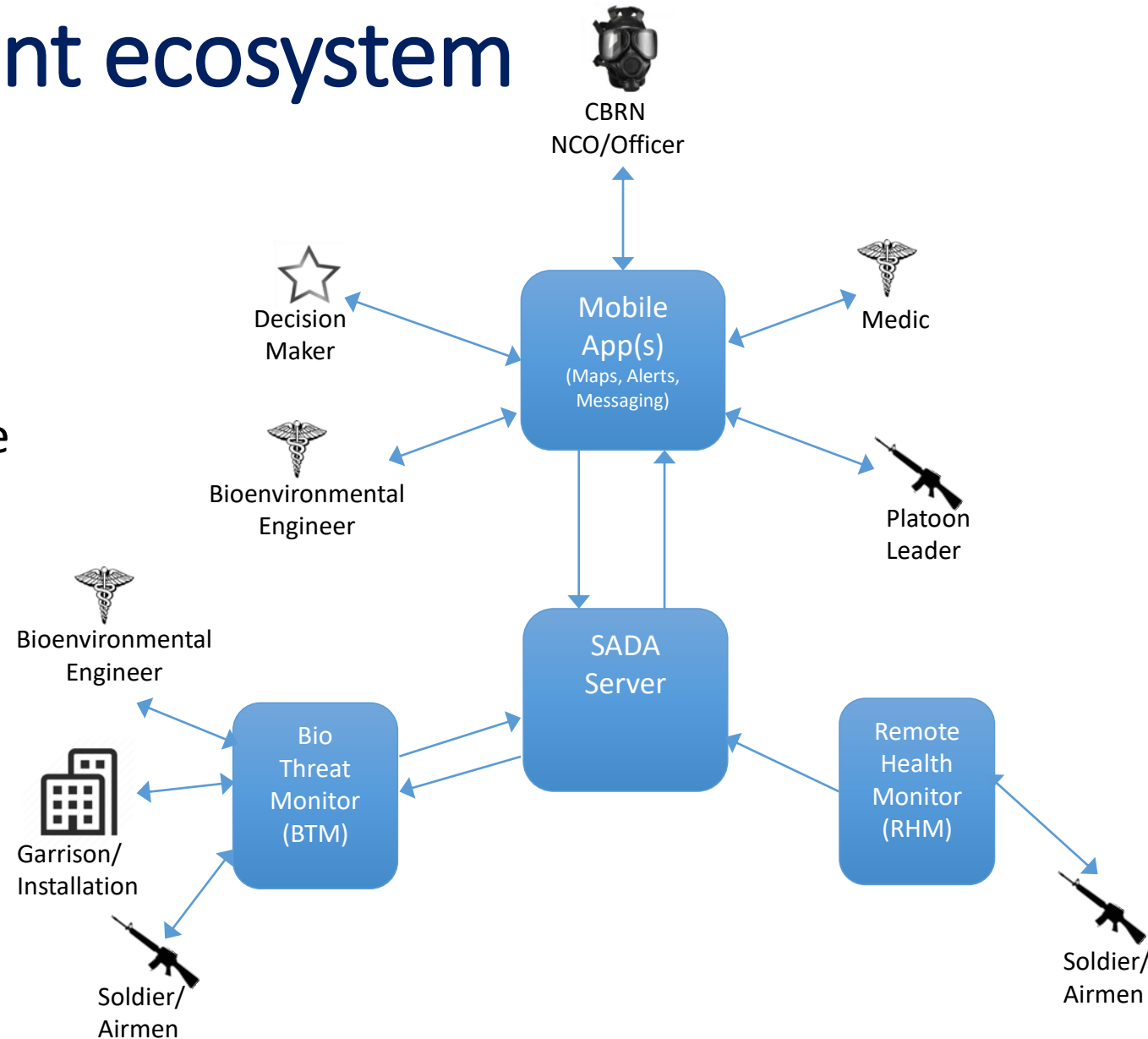
# Some tools we use...

the Problem



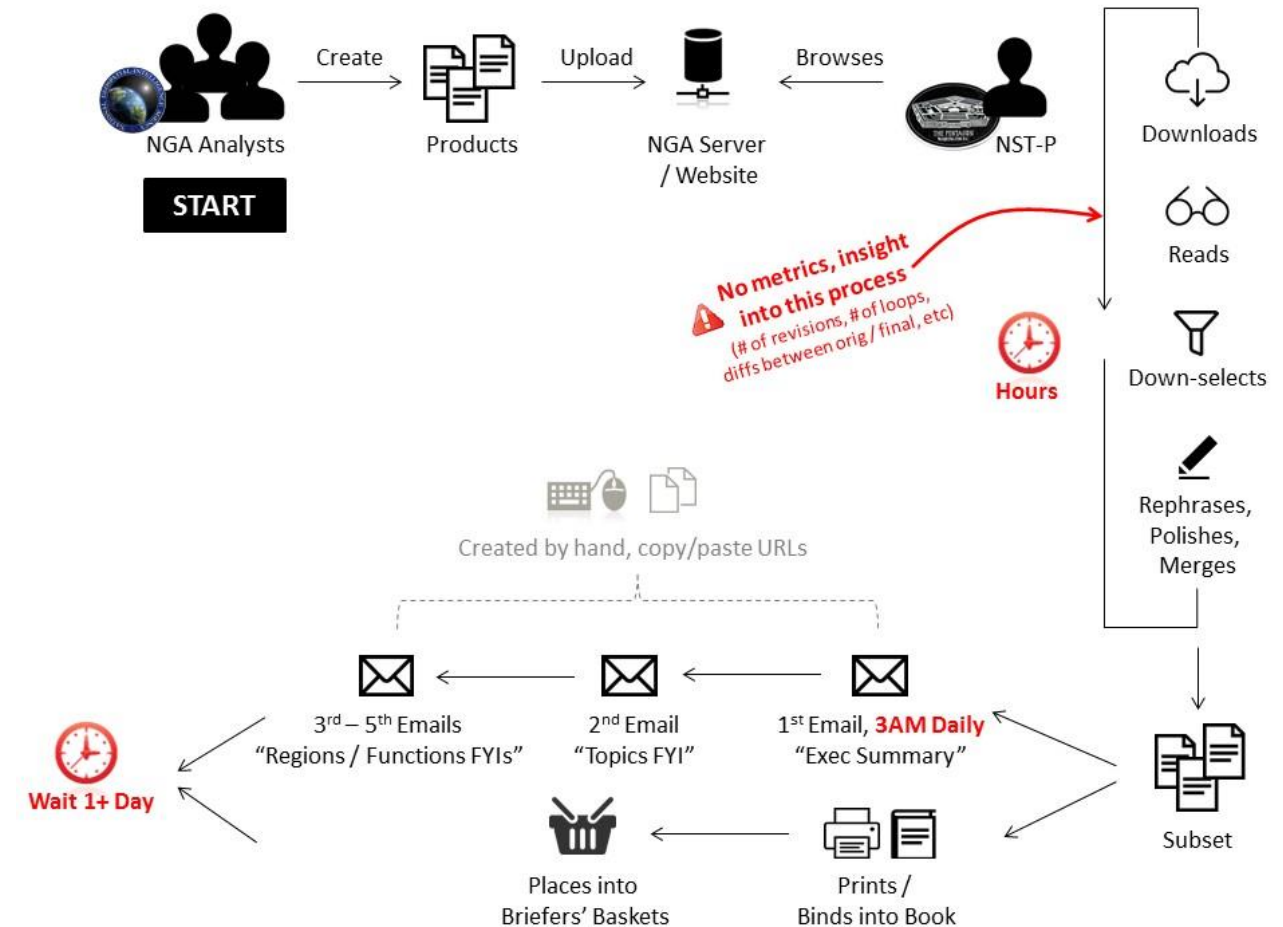
# Diagramming the current ecosystem

The ecosystem involves key activity spaces, contexts, organizations, and people who influence the experience. Creating a diagram of the ecosystem can uncover other opportunities to provide a better solution.



# Creating a flow chart of the current workflow

By analyzing their current workflow (how they work with data, software and other users) we can better understand their current mental models.



# Validate our understanding the problem

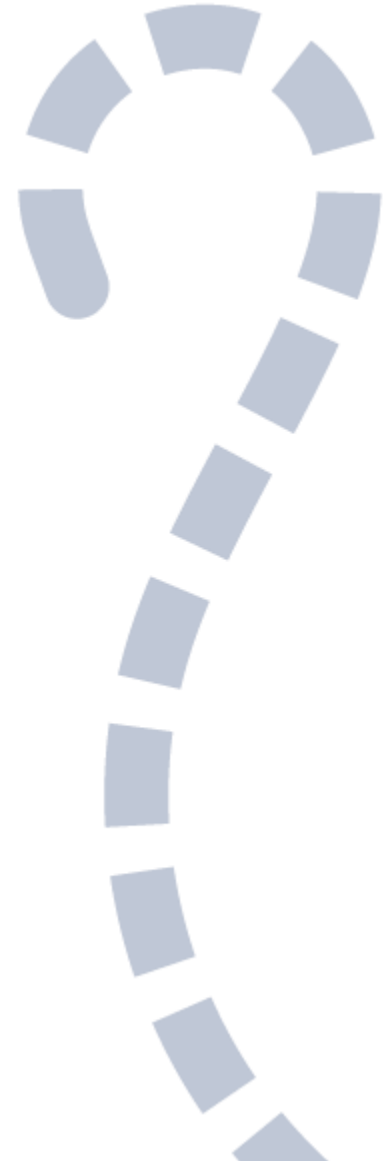
After completing our interviews and analysis of all the interviews, we validate our understanding of the problem by following up with the users and walking them through the our documents and diagrams.

- “Did we understand this right?”
- “Did we miss anything?”
- “Have you thought of anything else since we last talked?”



# the Person

Who are we trying to help?

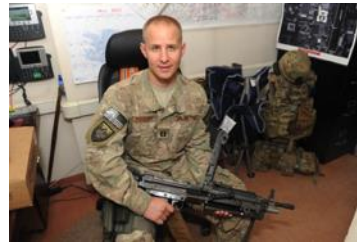


# Creating Personas

After interviewing users, we create personas from the users we interviewed. Personas allow us to identify common behavior patterns between all the users. Multiple personas may be created to represent different roles that may need to interact with the system in different ways. All decisions are then based those personas, serving as a “virtual user” to ensure we meet their needs and match their mental models.

# WHO

decision maker



## AGE

32-45

## RANK

Captain, Major, Lt. Colonel

## EDUCATION

Has Bachelor's degree, ~25% have master's degree,  
~7% have professional degrees and/or doctorates

## RESPONSIBILITIES

Personnel Health and Safety of unit.

Quickly assess situation and make decisions

## TOOLS

MS Office – Outlook, Excel, PowerPoint, Word

ArcGIS Map (Engineering Purposes)

Various tools to maintain Common Operating Picture  
and Situation Understanding

Mobile Device

## ENVIRONMENT

Garrison, FOB, TOC

Outside the wire executing missions

## INSIGHT & NEEDS

I need to know my airmen are safe so we can get the job done quickly, if there is a threat of chemical or biological agent I want to know quickly so we can don our MOP gear and start assessing the situation.

I also need that warning to go out to my crews, be it text message or even a warning blast they need to know to react quickly

I need to see the COP and understand the situation so I can make effective decisions to execute the mission. CBRN threats and events are part of that picture so I would like to see detected events, propagation of the plumes, and updated status on the progress of decontamination and treatment of injuring soldiers.

# WHO

## Tactical Users



### AGE

18-26

### RANK

E1-E9, O1-O2

### EDUCATION

Ranges from High School to Bachelors as well as specialized trained

Interests & Skills in weaponry, law, policies & procedures, governing, first aid

### RESPONSIBILITIES

Ensure the safety of all weapons, property and personnel from hostile forces

Leaders in this group command troops, make decisions, and execute missions

### TOOLS

Communication equipment, vehicles, intrusion detection equipment

Law enforcement tools

Mobile device

### ENVIRONMENT

Operates in various field environments

### INSIGHT & NEEDS

Concise, simple app that minimizes the amount of time I'm looking at the mobile phone instead of keeping my head on a swivel and hand on my weapon.

I just need the basics, location, status, and recommended course of action.

If I'm carrying the sensor, it's adding to what my current responsibilities are, I won't be overly concerned with what the monitor is doing unless something has gone wrong. I don't mind lugging around the extra baggage if it means I can keep my family safe.

# Validate our understanding of the person

After creating our personas, we validate our understanding of the user by following up with the users showing them the personas. We want to make sure we have captured their roles, responsibilities, needs and goals.

# Adding in User Stories for the Personas

User stories are discreet, structured information that describes a deliverable and testable piece of functionality for a user.

“As a <role>, I want <goal/desire> so that <benefit>”



### **Nivens McTwisp - Time Tracker**

Nivens has an area of interest with several entities that are potential threats. There is a UAV in the field surveying their movement. One of the entities, a Jeep Hurricane starts moving quickly in an unpredicted trajectory, toward a no-go zone. He needs to advise on when the Hurricane can be taken out before it crosses that line, and has less than a minute to do so.



### **Maj. James Caldwell - Ops Officer**

The 173rd abct has a Shadow out scoping out the situation in area X; it has a beacon but no radar tracking it. The BDE S2 reports that there is a party going on in area Z, about 16 clicks away, that needs attention. Maj Caldwell, needs to determine if the shadow can get there before it's over.

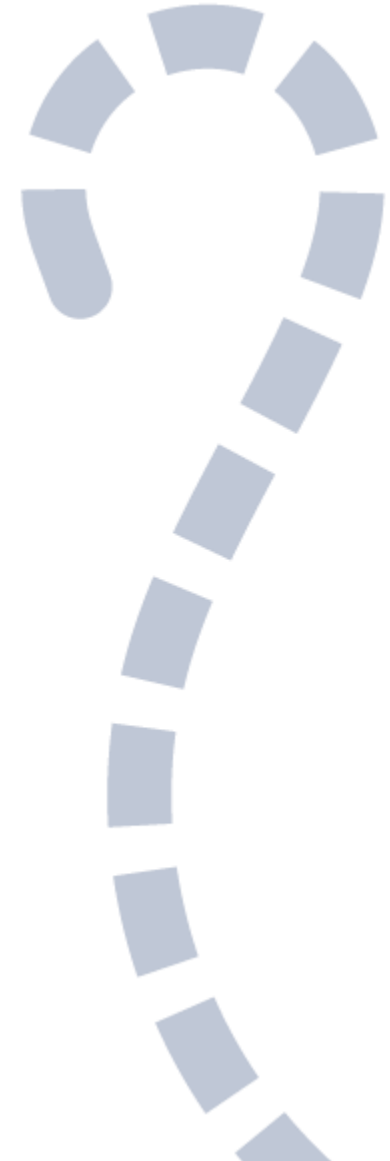


### **Commander**

My birds were sitting in the assault position on a 30 second recall waiting for the go – the target decided to stop and take a detour that effect the release point time for the assets and we were no longer in position. The time keepers tools were slow to react and we missed the opportunity for a successful interdiction.

# the Path

Divergent Thinking and Convergent Thinking





# Seeking out inspiration

We start by researching what is out there. What has already been done? What was good? What was bad?

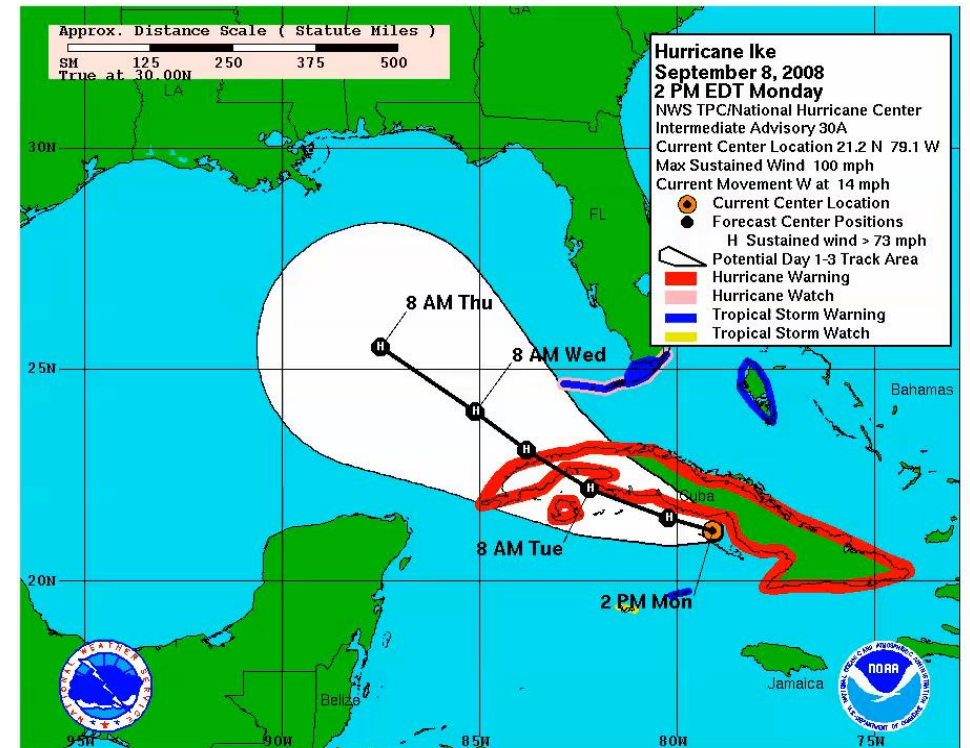
Nearly all problems will have corollaries or analogous workflows, often times from a completely different domain. Drawing on these patterns will help with terminology, workflow and improve likelihood of user adoption.

## Works

- Projection is updated as the map moves.
- The scale of probability is easy to understand with the enlarging circles.
- No controls for “windage”

## Doesn't Work

- Difficult to get scale for the different increments.
- Information on speed and bearing of target (eye) is hard to identify.
- No waypoints. How long will it take to hit the coast of LA?

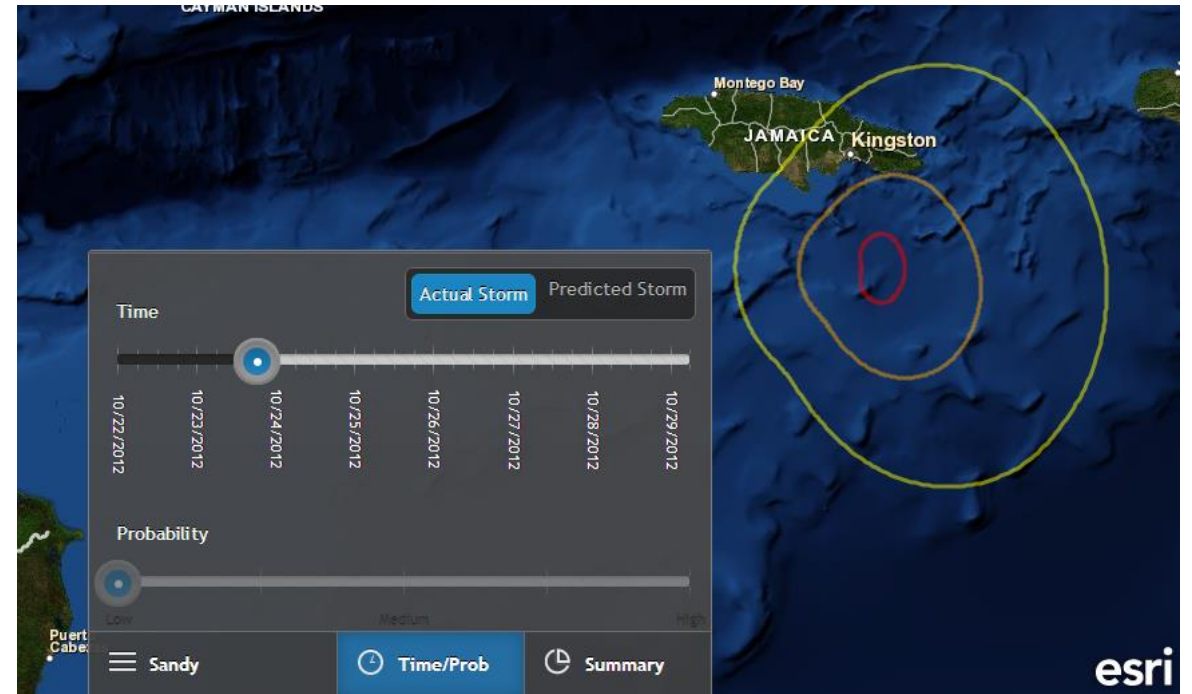


## Works

- Controls work well, sliders to let user explore the visual they want
- Simple visualization without obscuring the map

## Doesn't Work

- Not animated
- Hard to identify where the eye is, its speed, heading and other metrics
- No waypoints. How far is it to the end of Jamaica?



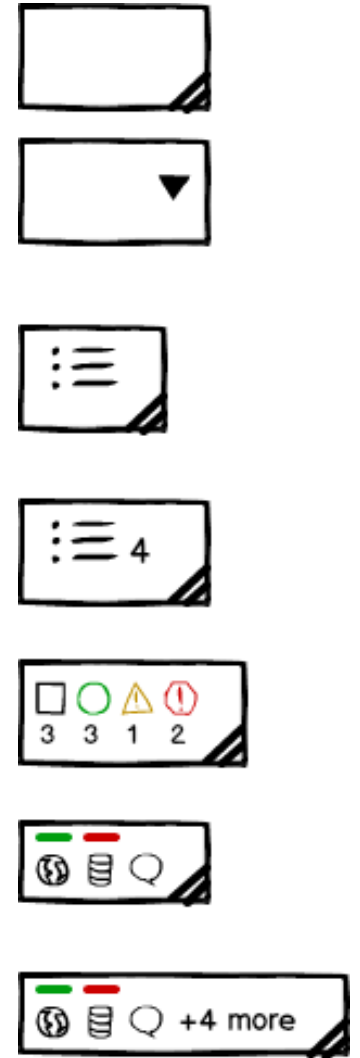
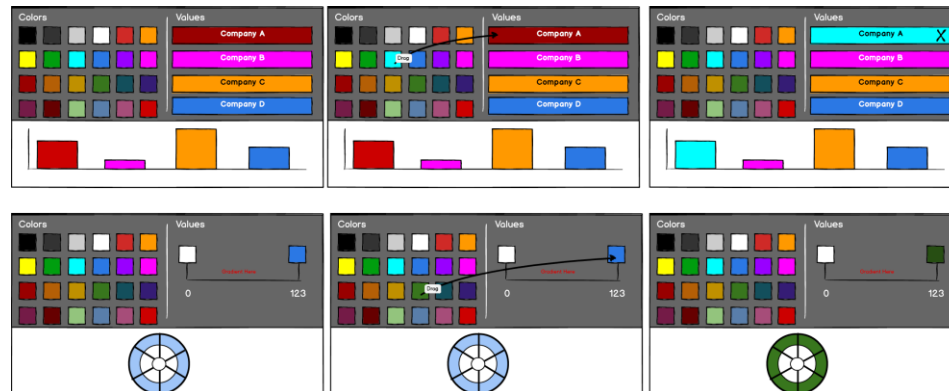
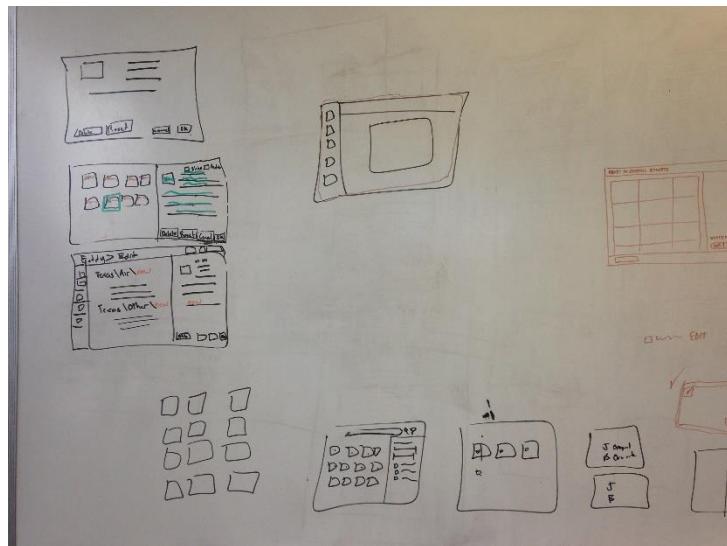
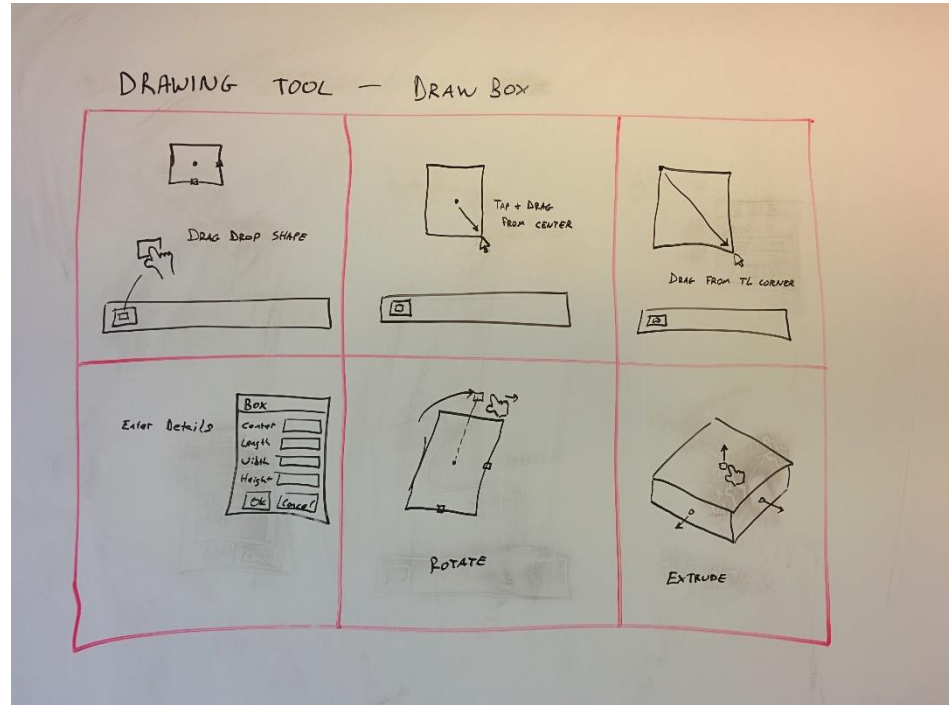
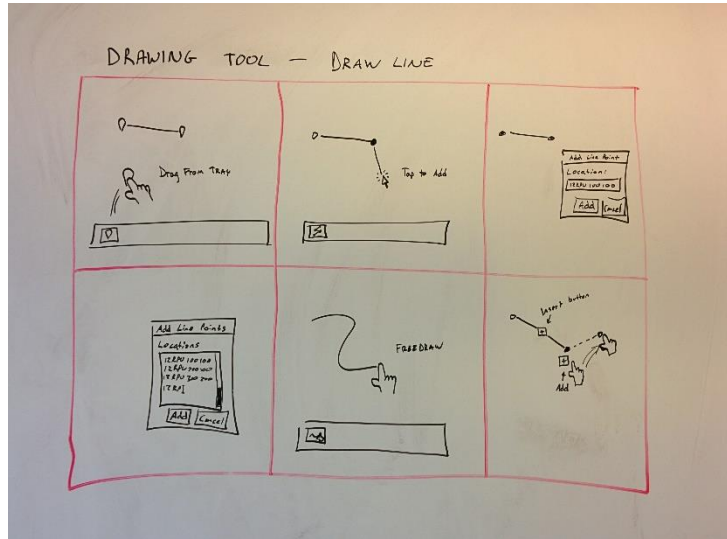
# Narrowing down the possibilities

Using what we have learned about the user, we start to focus our design efforts based on the created personas.

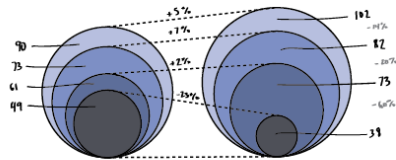
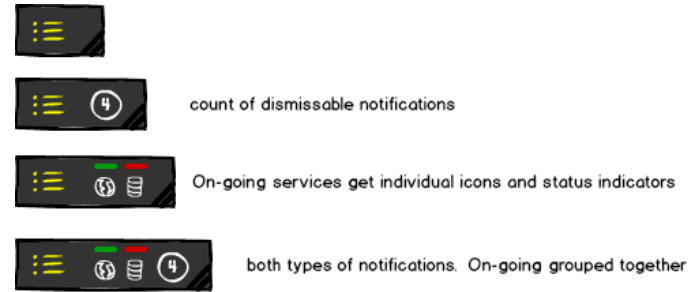
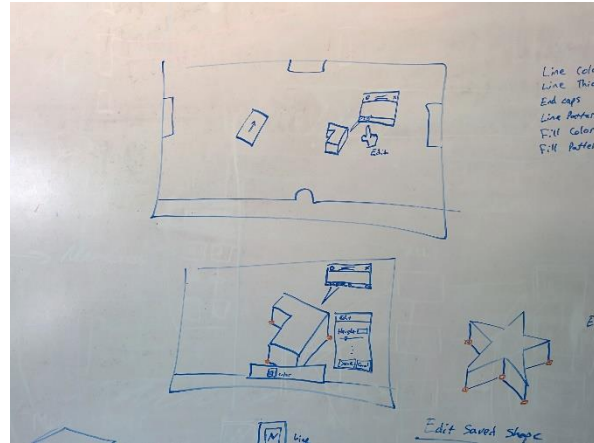
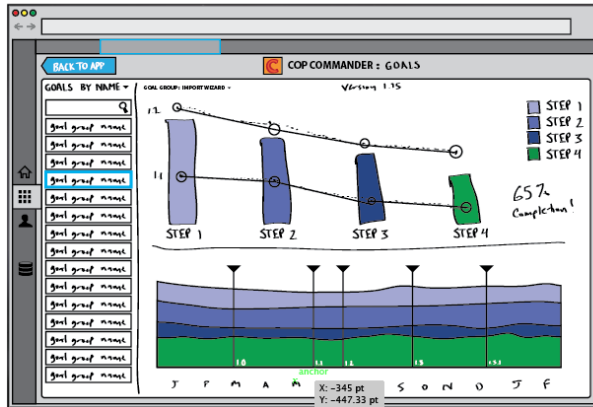
# Some tools we use...

the Path

# 6-Ups

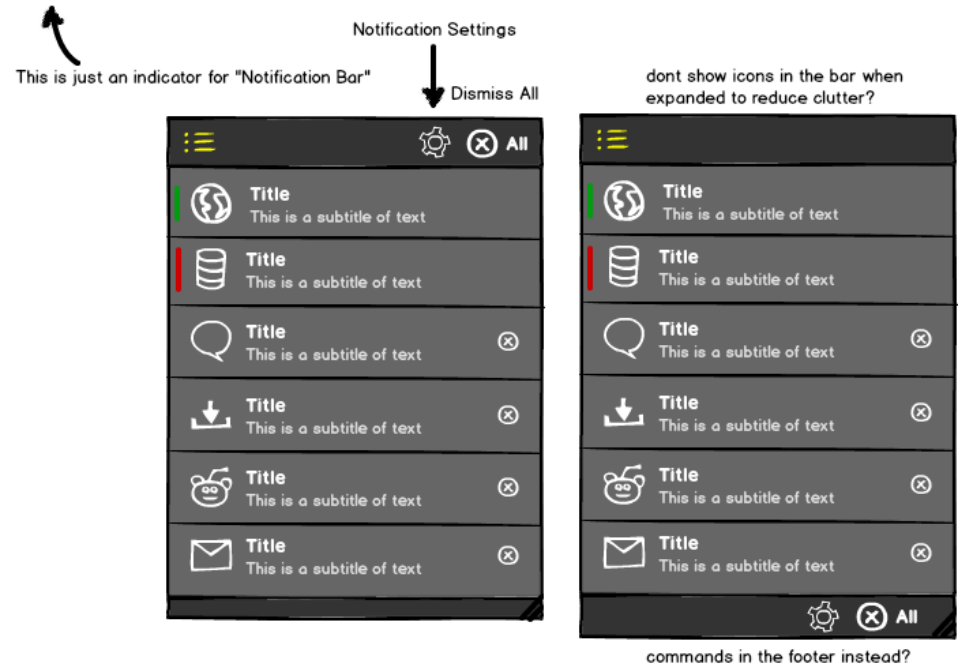
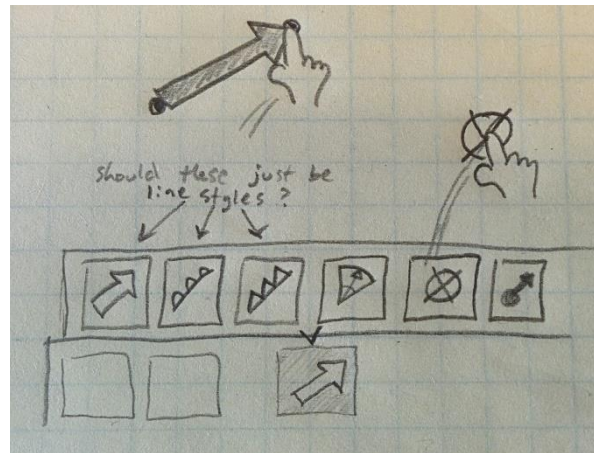
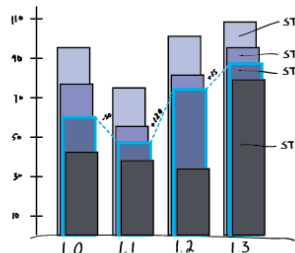


# Sketches

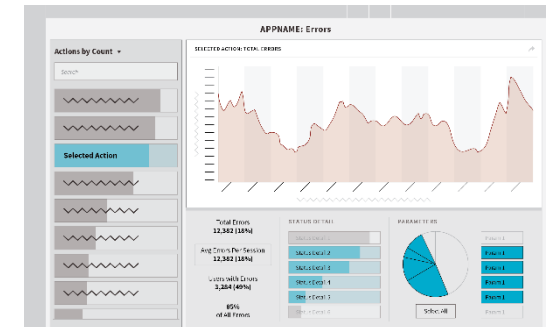
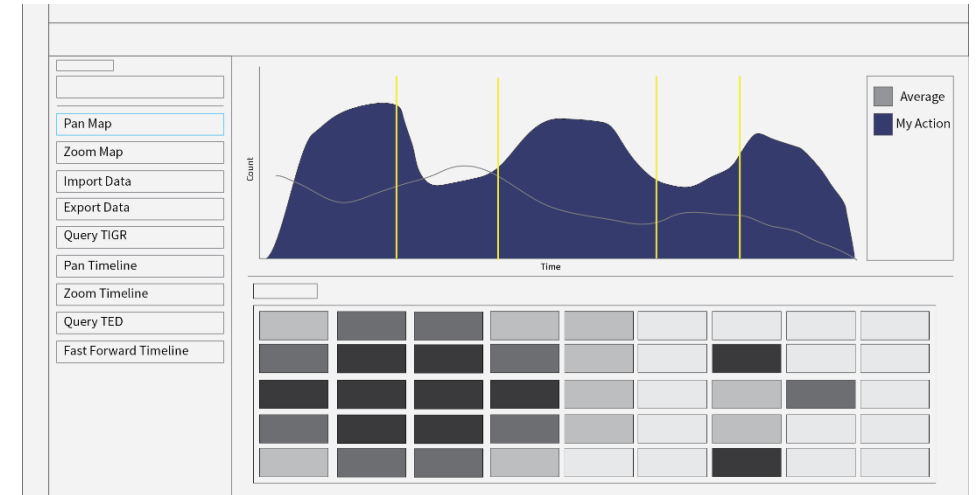
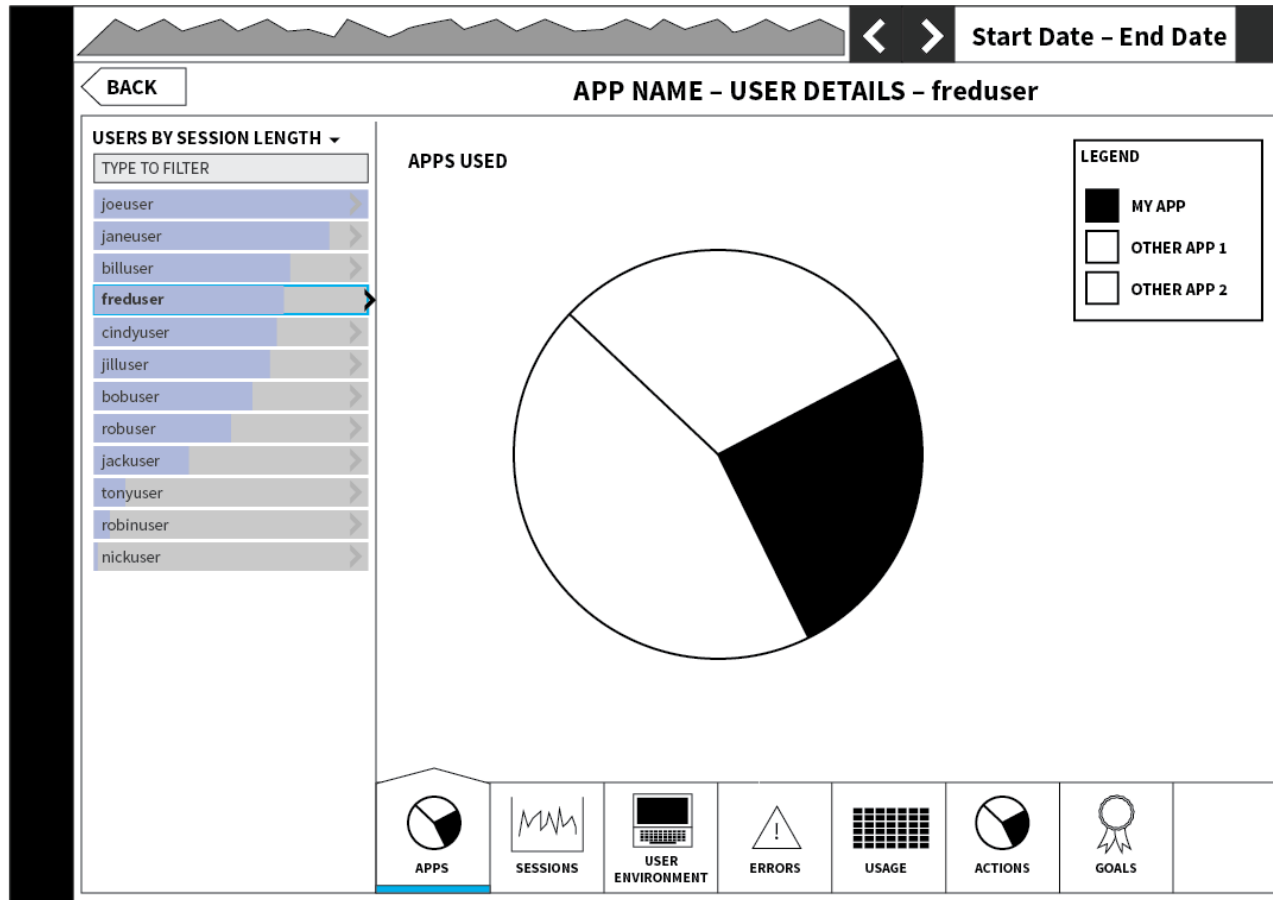


## SOME IDEAS

- Compare multiple versions of each other
- Show numeric and % change between steps
- Most successful | least successful ones



# Wireframes

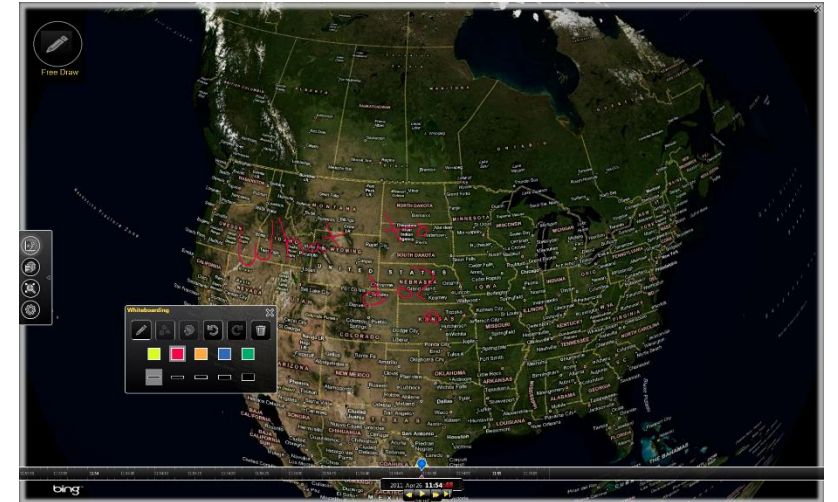
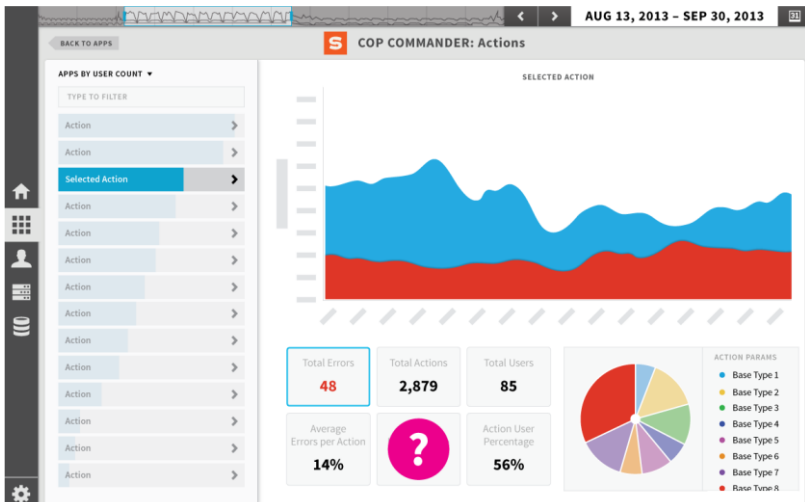
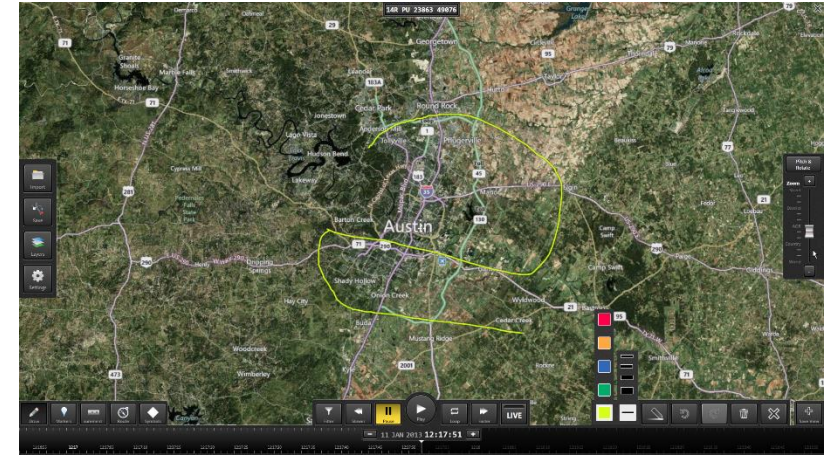
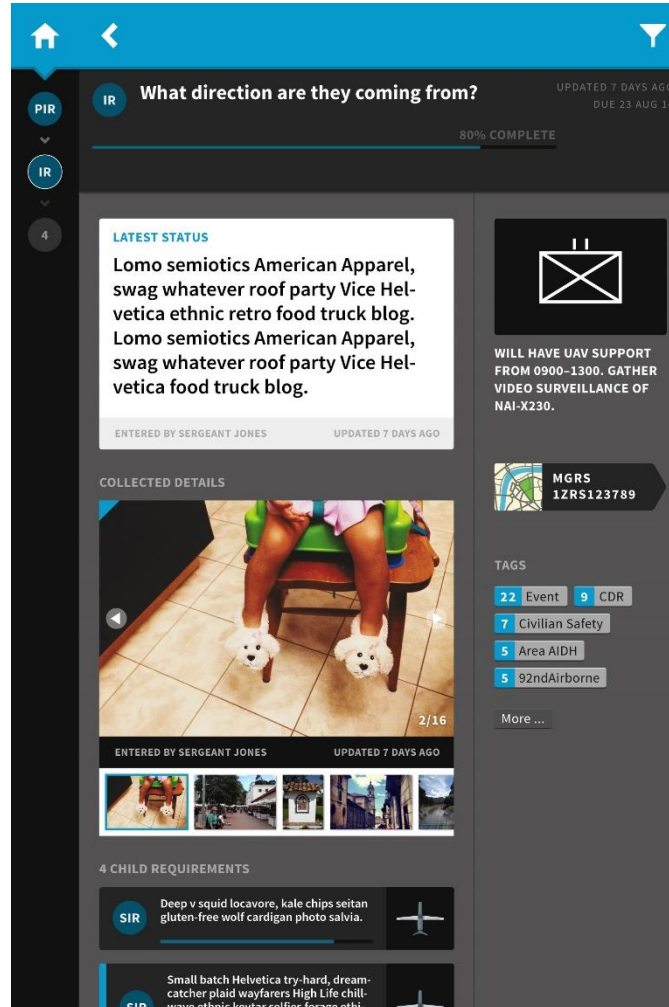
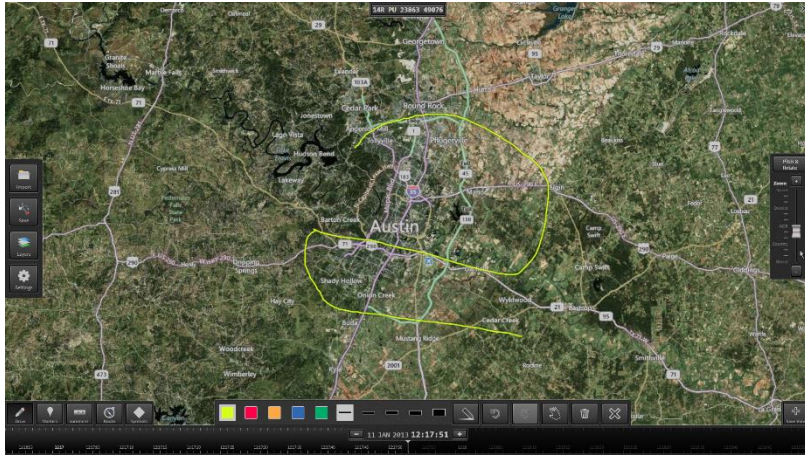




# Validate the direction of the workflow and layout

Throughout the design process, we follow up with users, showing them the ideas to ensure the UI meets their needs and mental models.

# Hi-fidelity Mockups



# Validate the direction of the design

Throughout the design process, we follow up with users, showing them the ideas to ensure the UI meets their needs and mental models.