

PROJECT BRIEF

Client:	AOPA	Deadline:	Dec. 1
Project Name:	Wings Pre-Flight App	Author:	Gillian Gahagan

THE ASK

What is the objective of the project?

Here you need to define the problem: the need statement that you have chosen to address, the target audience (who the apps users will be)

And describe your solution: what your mobile app will be and how it meets the need statement

The Need: Many hobbyist pilots are flying less due to the large amount of time and energy it takes for pre-flight planning. Pilots need a way to spend less time on pre-flight planning, so that they can spend more time doing what they enjoy; flying.

The target audience: Hobbyist pilots who have stopped flying or don't fly as much as they used to due to the large amount of time and energy it takes for pre-flight planning.

The solution to this problem is an app that can perform all of the necessary pre-flight calculations with inputs from the pilot. This meets the needs stated in the previous paragraph by taking the majority of work out of pre-flight planning. The app will do the calculations of a slide rule, and has access to weather data (storms/ possible turbulence, wind shear, etc) which it can use to create flight paths and adjust in flight compass headings if necessary. The target audience is hobbyist pilots.

What are the deliverables?

Here you need to define your minimum viable product - exactly what it will include (you should include the number of screens and what would be on each screen).

And describe your three additional features - exactly what they will be (and whether they will be embedded on existing screens or if they will add screens to the app). List them in order of priority.

Wings--An app that does pre-flight calcs for you the MVP will include:

Screen 1: Welcome screen with Wings logo and sign in field

Screen 2: Entering basic information: Departure and destination airfields from a drop down list. Entering departure date and time. From this basic information, the app will consult weather data and conclude a list of **3 possible** flight plans, with the top being the most recommended, etc. Based on windspeed data, the app will also calculate wind-drift, which will be calculated into the proposed flight plans.

Screen 3: An interactive navigational chart that shows the flight plan (bright red line) with headings. Tracks your flight via gps data. Has a compass rose like a real nav. chart, and a live compass that shows the current heading in the corner. Gives estimated arrival times, destination weather forecast, etc. Weather icons appear on map and move in real time.

Screen 4: Pre-flight Navigation log from the pregenerated list that is printable. Data from the logs can be archived. Has the ability to manually create your own flight plan and make wind drift adjustments,

but have the app do the calculations and fill in log data.

3 Potential Features:

1. Forecast updates and suggested flight path changes for severe weather. Pilots would be notified two ways--a notification bell that shows a number (for the number of notifications) A notification bubble with the pertinent information appears on the screen for 5 seconds. Tapping it when it is visible or swiping down and tapping the notification will open the notification page.
Emergency or urgent notifications will have an icon that suggests the seriousness of the notification.
App will make suggestions for changing the flight plan
2. Tracking your flight path on the ground via satellite data (shows you where you are via a bright red plane icon traveling over live satellite imagery.
3. Tracking your flight through the air using a generated 3d map based on satellite data. (You can do this on Delta flights--that's how I got the idea. They have a touch screen on the back of the chair in front of you and you can choose to see a life-like animation of the plane's flight through the air, with some ground perspective for reference.)

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