ATC Script Cheeker App

First get the info from the flight plan on the radar client. Here is what it would look like.

A screen shot of a computer

AI-generated content may be incorrect.Then enter It into the program. And press update flight plan.

A screenshot of a computer

AI-generated content may be incorrect.

**ATC\_Script\_Checker** does most of the calculations I need, but I need to update it to use the new GUI found in the "in\_progress" folder.

**Inputs**

* **Frequency** – Only for the output text.
* **Call sign** – Searches the airlines.csv for a match (e.g., "AAL"). If it finds one, it outputs the airline name instead of the code (e.g., "American" instead of "AAL").
* **Aircraft type** – If the aircraft is a **prop**, the pilot needs to maintain **3,000 feet**. If it is a **jet**, it will maintain **5,000 feet**.
* **Departure & Destination** – Searches airports.csv for the code. If found, it uses the latitude and longitude to calculate a heading from departure to destination.
* **Route** – This is checked because some pilots accidentally file **nighttime-only routes** or use a route they aren't allowed to.
* **Altitude** – Used for output, and also to ensure pilots are flying the correct heading for their altitude.
* **Squawk** – Only for the output text.

**Calculations**

* **Altitude vs. Direction of Flight**
  + If the pilot is flying **North or East** (between **000° and 179.999°**) and above **2,900 feet**, they must fly an **odd** flight level (FL) (e.g., FL290, FL310, FL330 up to FL390).
  + If flying **South or West** (between **180° and 359.999°**), they must fly an **even** altitude (e.g., FL300, FL320, FL340 up to FL380).
  + Once you get to **FL410**, the pattern changes: FL410 is for **NE** traffic, **FL430** is for **SW**, **FL450** for NE, and **FL470** for SW.
* **Other calculations are mostly formatting for output**, such as:
  + Converting codes to full names (e.g., "American123" instead of "AAL123").
  + Displaying full airport names (e.g., "San Francisco International Airport" instead of "KSFO").
  + Flagging restricted departures (e.g., preventing pilots from using **nighttime-only** routes when they aren’t allowed).

**CSV Files**

* **airlines.csv** – Used for looking up airline codes and outputting the full name.
* **airports.csv** – Contains airport codes, names, and latitude/longitude for calculating flight direction.
* **routes.csv** – Contains a list of departure routes:

| **ID** | **Route** | **Fix** | **ALL** | **Time** | **VFR/Prop** |
| --- | --- | --- | --- | --- | --- |
| (ID) | Route name | Fix name | (Unused) | "T" = time-bound (nighttime-only), "N" = not time-bound | "JT" = jets only, "VP" = VFR, props, and all others |

**Notes**

* I need the **inputs from GUI.py**, and I prefer its style.
* I'm **struggling to transfer the calculations over** and switch from lists to using CSV files instead.
* The **VFR tab** will look similar but will remain blank for now.
* The output format needs to be changed so it says:  
  **"via {route} departure, {fix} transition,"** instead of combining them the way it does now.