UNITED VIRTUAL

Flight Standards and Training – Office of the Chief Pilot

Introductory Guide to Planning and Flying a UVA Flight

Revision 5.0 – March 2014

Flight Standards and Training-Office of the Chief Pilot

March 17th , 2014.

This is an introductory guide intended to help you get started in the planning and execution of a United Virtual Airlines flight.

Now in its Fifth Revision (it was originally issued on October 27th, 2008), it is more focused on new pilots but can be useful for all. It is a quick overview. In time you will need to study the many resources available on the UVA website in the *Downloads* and the *Training Department (TD)* pages and the ever growing *Pilot Center Library*. But, this document will at least get you headed in the right direction – and that can be important when you're flying.

Comments are welcome at chiefpilot@united-virtual.com

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List of changes

List of changes in Revision 5.0 from Revision 4.0 (issued January 2014)

- Changes to reflect the many new website features
- Added screenshots of the website pages to ease the reservation and reporting of flights

List of changes in Revision 4.0 from Revision 3.0 (issued December 2011)

- Several changes in wording
- Introduction of the Dual Stream construct and Rated Pilots
- Addition of SimBrief and other planners
- Change of "PIREP" to "Flight Report"
- Changes to reflect new website features

List of changes in Revision 3.0 from Revision 2.0 (issued May 2011)

- Note regarding the "substitution" of equipment within the same Rating
- Few more notes on online flying
- Few more notes on the speeds/flaps in the approach, on the circling/visual procedures and on taxiing before takeoff and after landing
- Few minor edits and additions to the PIREP management after the flight
- Few minor corrections

List of changes in Revision 2.0 from Revision 1.0 (issued October 2008)

- Few corrections reflecting the "Rating" system instead of the old "Category" system
- Few corrections regarding codeshare operations
- Introduction to UVACARS and its basic functions
- Brief introduction to Teamspeak
- Few minor edits and corrections

Introductory Guide to Planning and Flying a UVA Flight

1. Choose & Reserve your Flight

1.1. Your Flight Room and Choosing a flight. First off, you need to select the flight you wish to fly. Login into the website, all functions will then be available and enter your Flight Room (Pilot Center|Flight Room). You will see your name and current rating listed, together with your last flight credit, along with the time elapsed since your last reported flight. Flight Currency advice will be posted here as well. Just above this, you will find a row of quick links to (see Figure 1; ❶):

- your Logbook,
- the online UVA Flight Planner,
- your personal Training Jacket,
- the Flight Primer,
- the extensive UVA Library,
- the Pilot Roster,
- your Profile, where you can make changes.

You will also see when your last flight was recorded in your Logbook (❷).

Your name, rank and UVA PID are highlighted here (❸). There are then several subsections such as the Mailbox (❹), where key messages from administration are displayed, your current Aircraft Eligibility (❺) and your current Status (❻) total hours, Region (Domicile), joining date, current IP (your Internet connection address) and Leave of Absence (LOA) options.

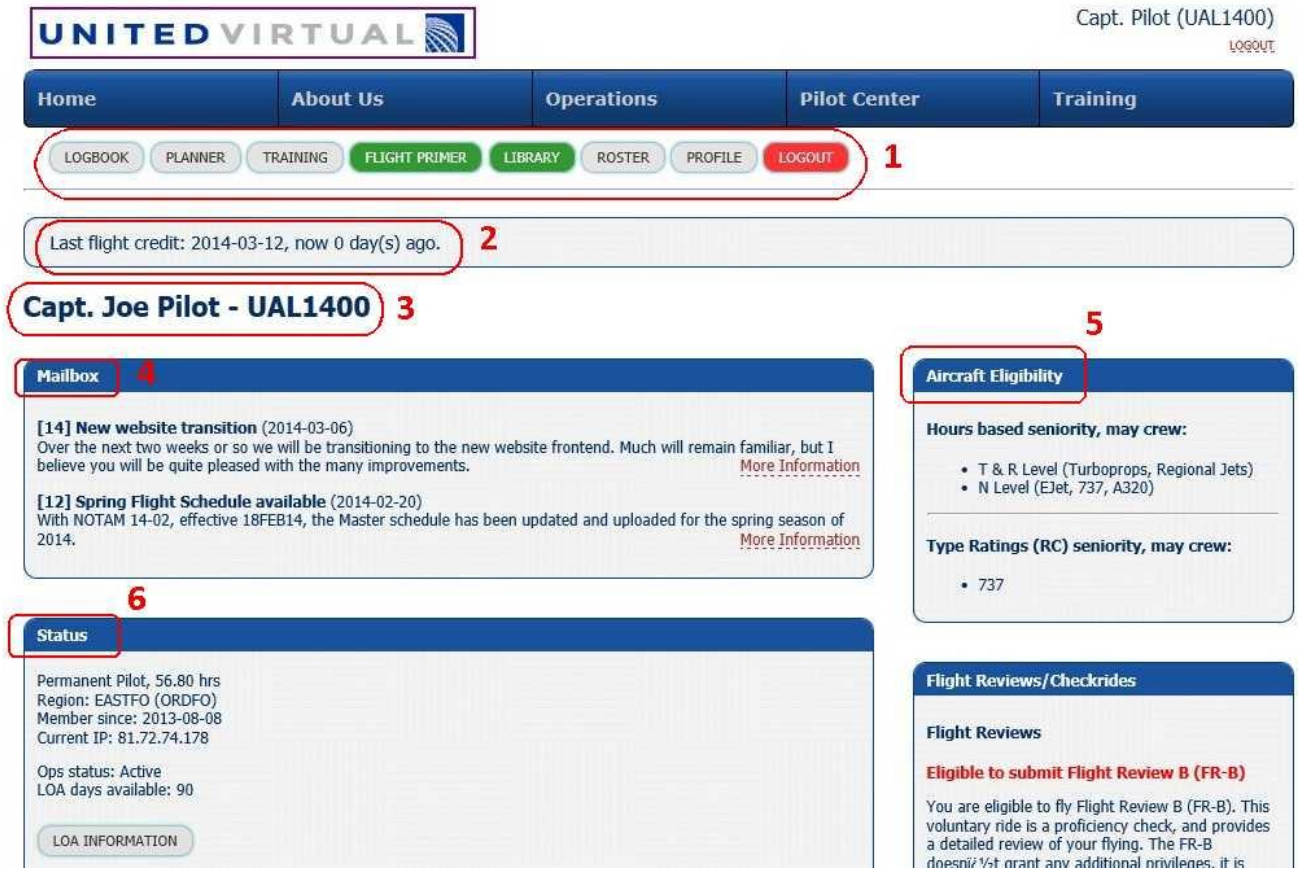


Figure 1 – The Flight Room Main Screen.

You can have a look at the Flight Schedule: it is a sub-menu item on the Operations tab (Operations|Flight Schedule).

The Flight Schedule page will let you to display, filter and sort flights by equipment or equipment families, by departure or by destination, airports or airport wildcards (e.g.: "K" will find all US airports in the 48 contiguous States), and flight length (see Figure 2 - ❶).

Each flight line (❷) shows:

- flight number, equipment used,
- departure time (Z or "Zulu" time, this is Greenwich Mean Time or GMT, not local),
- departure airport ICAO code (U.S. airports in the forty-eight contiguous States all start with "K", Hawaiian and Alaskan locations with "P", Canadian with "C", European airports start with "E" or "L", Japanese airports with "RJ" and so on),
- departure airport name,
- arrival time (Z),

- arrival airport ICAO code,
- arrival airport name,
- scheduled flight block time (from departure gate to arrival gate).

You can reserve a flight directly by simply clicking on the flight number in the list. You can also reach the Flight Schedule page to reserve a flight by pressing the "Reserve" button located at the bottom of your "Status" information box in the Flight Room.

Figure 2 – Flight Schedule Screen

1.2. Available equipment, substitutions and automatic pilot relocation. The system will only allow you to reserve a flight operated with equipment that you are certified to fly (either by hours flown or by earned Rating). You can replace the equipment listed for the flight you chose with an equipment that is permitted for substitution as per UVA regulations (see Figure 3); the list box will list these. Also, the system will inform you if an automatic relocation is required for that flight (e.g.: you are located in KLAX and chose a flight departing from KDEN, you will be informed of the relocation and immediately moved to KDEN).

1.3. Reserving a flight. After you selected your flight, you would go ahead and confirm the reservation or you can decide to discard it and choose a different flight. The reservation itself is not finalized until you confirm it. To cancel the reservation process, instead return to the

Flight Schedule page or to your Flight Room. If you wish to go ahead with the current reservation, select "Proceed" (see Figure 3).

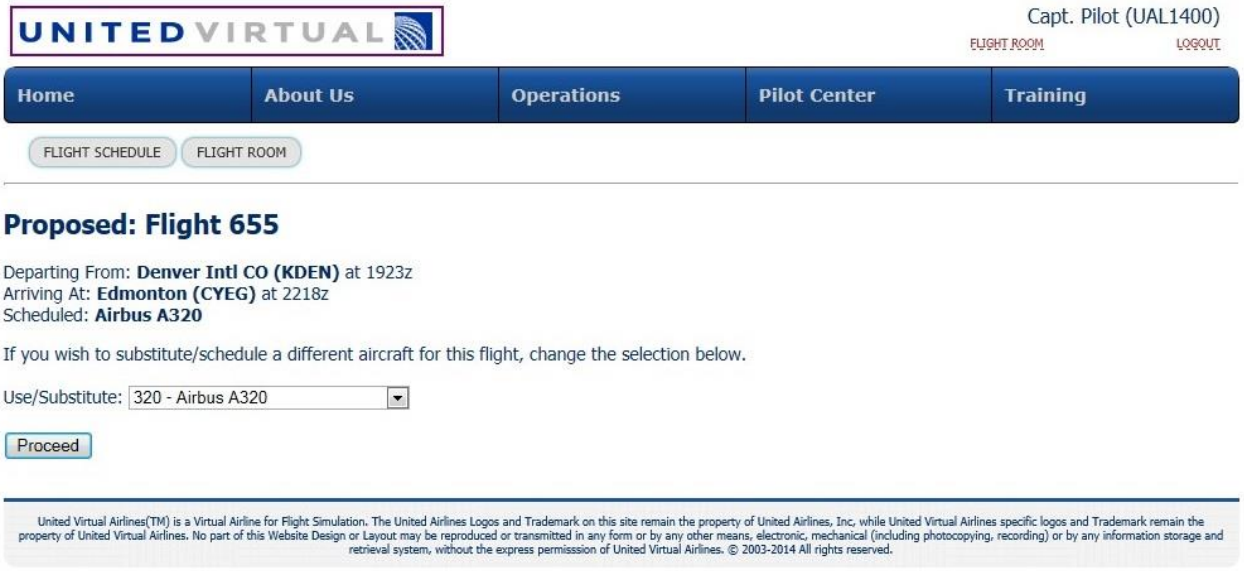


Figure 3 – Flight Reservation Screen

1.4. Automatic airplane relocation. If the equipment you chose is not available, it will be automatically relocated by Dispatch and a message will state that the relocation has been completed. You will then be shown a list of available aircraft (shown with their registrations, such as "N649UA", unless the flight chosen in operated as a code-share; in this case no further information is available). Select the one you wish to use, and then push the "Reserve" button.

Figure 4 – Flight Reservation Confirmation Screen.

1.5. Dispatch Summary. You will reach a new page (see Figure 5) with the details of your reserved flight: Flight Number, Airplane with registration ("C/S" if codeshare equipment) and SelCal (if available), Departure and Arrival Airports, Gates (gates are usually not available for codeshares and in some destinations) and Times (Zulu, not local), passenger numbers (detailed for each class). You should write them down, most of these items are required for flight reporting.

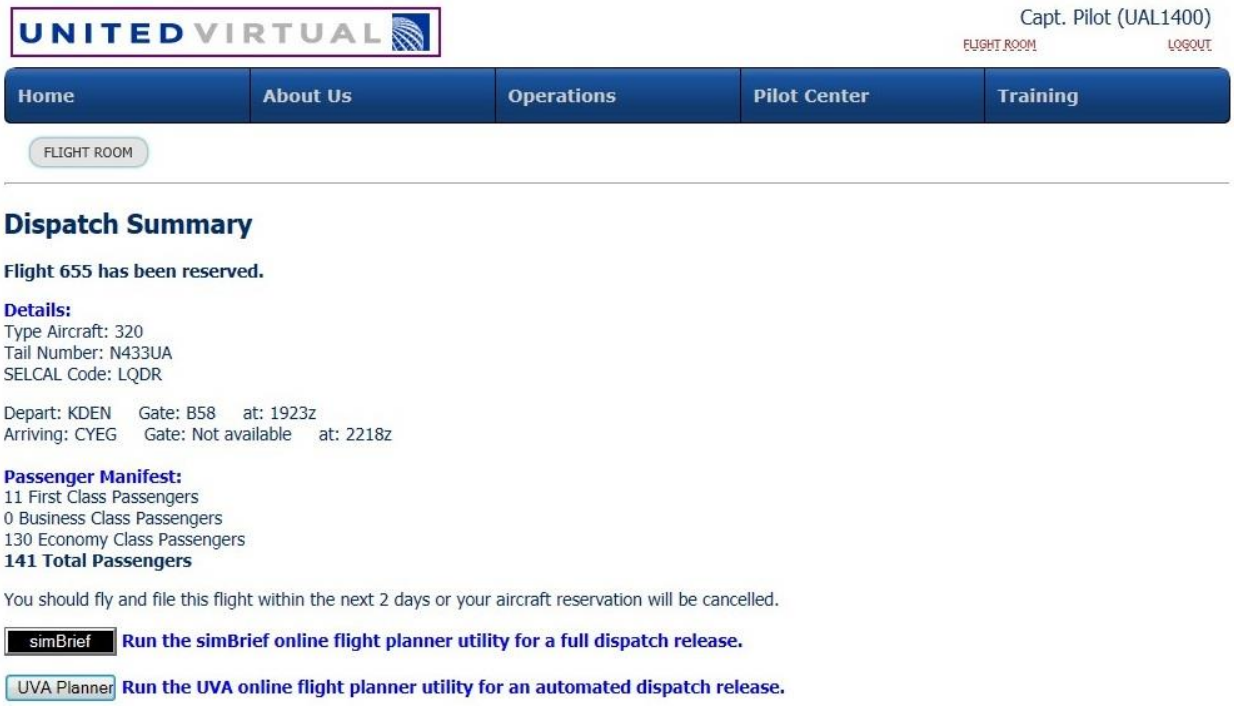


Figure 5 – Dispatch Summary Screen.

1.6. Flight Planner & Dispatch – There is a very powerful option available on this summary page. You should select "run the UVA online flight planner utility for an automated dispatch release", and then print out that Dispatch Release. This automates much of the basic flight planning as regards weights, speeds & fuel for you. You may wish to use also the powerful SimBrief online planner or any other available advanced planner (e.g.: PFPX).

1.7. Cancelling a reserved flight. Should you need to cancel a reserved flight, just go back to the Flight Room and hit the red button "Release".

2. Plan Your Flight

2.1. Flight planning basics. Now that you have selected and reserved your flight, you need to flightplan it. Remember that correct planning is a must for a successful and enjoyable flight. As a pre-requisite for this

step, you should have the relevant charts for your flight, such as the airport (taxi) and SID (if required) charts for your departure location, enroute charts for the planned area, STAR (if required), instrument approach plates and airport charts for your intended destination, and instrument approach plates and airport charts for your alternate if required. Also, you should get the weather for your route, departure, arrival and alternate airports. Many charts may be found online, at no cost.

2.2. Route. Choose a route: there are several ways to do that. You may wish to do it yourself, pouring over charts and weather data, and selecting from FAA preferred routes, or you may wish to just pick a recently used real world one. A valuable resource for all US routes, and many originating outside the US but US-bound, is flightaware). All of this is extensively discussed in the Flight Primer.

2.3. Fuel planning. Plan your fuel requirement carefully. If available to you, you may wish to use an advanced planner that will provide you with a waypoint-by-waypoint breakdown of your flight and a fuel calculation and even export your flight plan to several applications, including FS Planner and your favorite airplane FMC. This will save you the extra time needed to program the FMC. Some planners may even export the winds aloft forecast to your favorite airplane FMC. Or you may wish to use the data generated by the online UVA Fuel Planner and Dispatch Creator, mentioned above. There is also a spreadsheet format for the UVA Planner available that you can use. Both generate a printable (and do print it!) dispatch release, together with the calculated Vspeeds and Vref that you will need. Be careful with fuel planning: it is generally incorrect to fully top off the tanks for a shorter hop, but you also need to be careful to not run out of fuel. The UVA planner will let you make savvy decisions (with respect to airplane weights too) while being perfectly legal with UVA and FAR requirements.

2.4. Weather. Weather must enter into the fuel equation: you have to decide if you need an alternate, if you need more or less holding fuel and how the winds aloft will affect your route. Keep in mind that correct fuel planning is the key for a safe and cost-efficient flight. Of course, each airplane will have some kind of deviation from any fuel figure you calculate. The correct fuel burn for your particular model will come from experience.

2.5. Print the flight plan/dispatch release. Have the printed flight plan or dispatch release handy in your virtual cockpit together with a pen. You'll need to write down departure and arrival times, gates and fuel as a minimum, but also ATC clearances and weather reports. So, always have paper and pen available.

3. Prepare Your Airplane

3.1. Loading Flight Simulator. Now that you have reserved your flight, and fully planned it, you have to prepare your plane. Finally, it is time to start Flight Simulator. Select the plane, move it to the required location at the departure airport gate and load the required fuel and payload. For most models, you can do this with the FS Payload and Fuel utility, for others you may have to use a specialized utility; some high-end add-ons require that fuel and payload are entered exclusively using the appropriate methods (e.g.: dedicated utility or dedicated FS Setup FMC entries) and avoid using the FS utility. You may wish to start with the plane cold and dark.

3.2. Weather engines and UVACARS. This is the time to load the weather either through the FS weather engine or manually or using weather add-ons or online weather engines that come with VATSIM or the like. This is also the time, if you wish, to start the United Virtual ACARS (Aircraft Communication and Reporting System): this is a powerful utility which will automatically send your flight report once the flight is done. You just need to input Departure, Arrival and Alternate (if available) airports, registration, equipment, SelCal (if available), passenger and cargo loads (to match your flight plan weights) then click "Connect" and you're ready to go. It will record all required times, fuel usage and a lot of other data too. Also, you use it to get any real world current weather by inputting in the proper window the ICAO code for the airport you wish to have the weather report.

3.3. Cockpit preparation. Prepare your cockpit for the flight. You should always follow a checklist, either those provided with your payware add-on, the UVA Generic Checklist or the UVA type-specific checklists. Using the appropriate checklists either as a "Read & Do" or a "Flow" approach, will save you time and ensure that all steps have been correctly followed and sequenced. This is truly critical! In the cockpit preparation, you should include FMC programming (if available) and NAV radio tuning. You may wish to have ready at hand also the UVA ASOPS Quick Reference Guide.

3.4. Briefings. Brief your flight. This may sound strange, but you should do a complete "before flight" briefing, as if you had a virtual first officer beside you. In this way you'll discuss (with yourself) the taxi routing, the takeoff speeds and abort rules, the SID or initial routing, the fuel requirements. Do it out loud, you will remember the briefing much better. Sounds weird? In fact, this is the last time you may review your

planning and spot any incongruities and prepare yourself for the coming flight. Do the briefing!

4. Fly Your Flight

4.1. Ready to go. At last you are ready to go. Enjoy the flight!

4.2. UVA SOPs. Always, always, always, fly according to UVA standard operating procedures, as detailed in the ASOPS document.

4.3. Online flying. If you are flying online, this is the time to connect and send your flight plan. You can use your UVA PID or the flight number as a callsign, but the airline must always be United, abbreviated UAL. This is also the time to check the ATIS for the latest weather and runway in use too. If you're online, and there's no ATC available, be sure to state your intentions using the text UNICOM (as a bare minimum, state your callsign, your departure runway and your destination). You may wish to connect to TeamSpeak and see if there are other fellow UVA pilots there for some chit chat or to ask or answer questions. If you are flying along in one of our Groupflights, be sure to check in TeamSpeak. If there's no ATC online, TeamSpeak may become quite useful in doing some "self-coordination" at least with fellow UVA pilots flying in your area.

4.4. ATC clearance. Get your ATC clearance. Either online or offline; if the latter, you may elect to be your own self-ATC or use pay-ware add-ons that simulate it. We strongly discourage using FS ATC, it is not realistic, and will often lead you into trouble. Once you receive the clearance, you read it back. The read-back means that you are accepting it, so before reading it back be sure you understand the clearance and that you are able to fly it. See how that printed flight plan comes in handy to write clearances and weather and times and fuel?

4.5. Flying. Fly your flight. This implies not only flying the plane (and taxiing it) but also executing the appropriate checklists, navigating (the FMC is very useful, but you must always tune the available NAVAIDs during the flight, for an enhanced positional awareness) and communicating. The correct order is: aviate (fly the plane), navigate and then communicate. The following list highlights some of the more important steps to your flight. Some of these may yet be a little mysterious to you, they will become very clear once you are able to "dig in" to the rest of the resources available to you here.

a) Obey ATC instructions whether online or offline, but remember that you are the PIC and the full responsibility of the safe handling of your airplane rests with you. You may elect to refuse an ATC instruction that you are unable to comply with, but you must communicate that

to ATC and negotiate an alternative. If you're flying online and there's no ATC available, state in the text UNICOM at least your "basic" intentions and actions: taxi to runway, takeoff, initial and final approach, runway clear after landing. This will help other online traffic to get some situational awareness and avoid conflicts.

b) Taxi smoothly (max speed is 20 kts on straight segments, 10 kts in turns; speed must be reduced on slippery taxiways) avoiding abrupt power and control inputs; set the Vspeed bugs!

c) When cleared onto the active, check your heading with the published runway heading to avoid lining up on the wrong runway. If your airplane simulates it, use the "terrain" feature for additional obstacle awareness.

d) Once cleared for takeoff, execute a rolling takeoff or do the run-up, as circumstances dictate.

e) Fly a correct second segment climb, at a speed of V2+10 to V2+25 kts, attitude not exceeding 17 degrees nose up, and retract the gear at positive rate, that is when exceeding 1000 fpm.

f) At Acceleration height (1000ft AGL), lower the nose and build up speed, retracting flaps according to the schedule.

g) During cruise, tune the NAV radios as appropriate.

h) Calculate the desired point for the start of descent.

i) Check the weather at destination ahead of the start of descent, plan the probable approach (and missed approach) accordingly .

j) Check your Vref and correct it as per the ASOPS. Set the speed bugs!

k) As soon as you are given your arrival runway, be sure to select and tune and identify the necessary navaids; plan the approach and missed approach. Brief (again) the approach, landing, missed approach and taxi.

l) While it's always up to you, if available always elect to fly an instrument (better an ILS) approach - even in full VMC (visual conditions) - for the additional protection.

m) Extend the flaps according to the SOPs and reduce speed accordingly. Unless required by ATC or by STAR restrictions, at or below 10000 ft (AGL) start to reduce to 210 kts. You should be at 180 kts with the appropriate flap settings a few miles before intercepting the final approach course. Unless so required by ATC, do not slow too much early, this is an ineffective use of airspace and a useless waste of fuel, but also keep in mind that aircrafts are aerodynamically designed to be slippery and that slowing down can be a long affair!

Avoid being too fast when too close to the final approach intercept point. At Final Approach Fix (FAF) you should be fully configured for landing: gear down, landing flap and Vtgt. Banking is restricted to 20° below 1000 ft AGL (unless on a circle-to-land procedure) and to 5° once established on final approach.

n) Always be prepared to go-around: it may be that your approach is not stabilized or the preceding aircraft is slow in vacating, or the weather is going below landing minima. Your option to go around is open until touchdown if you're not satisfied with the landing.

o) If flying a circling or a visual approach, review the terrain around the airport and check altitudes and headings for your final maneuvering: a visual approach can become much more stressful than the familiar straight-in instrument approach! Banking is allowed up to 30° degrees below 1000 ft AGL when on a circling approach.

p) Once safely on the ground, use brakes (and/or auto-brakes), reverse thrust (down to a minimum of 70 kts) and spoilers to decelerate. Do not stop on the runway, take the first convenient exit. You may use a high speed taxiway up to 40 kts ground speed.

5. Report Your Flight

5.1. End the flight. Now that you are safely at your arrival gate, it's time to report your flight. If you were flying online, it's also time to disconnect from the VATSIM servers.

5.2. File the flight options. You can "flightrep" you flight in two ways, either logging into the Flight Room or using UVACARS.

5.3. File the flight through the Flight Room. Login to the Flight Room, scroll down to the "Status" area and you'll see your current reservation details (Flight number, From/To and times, Gates, Equipment and Tail number) To file your file, choose the "Flightrep" option (see Figure 6).

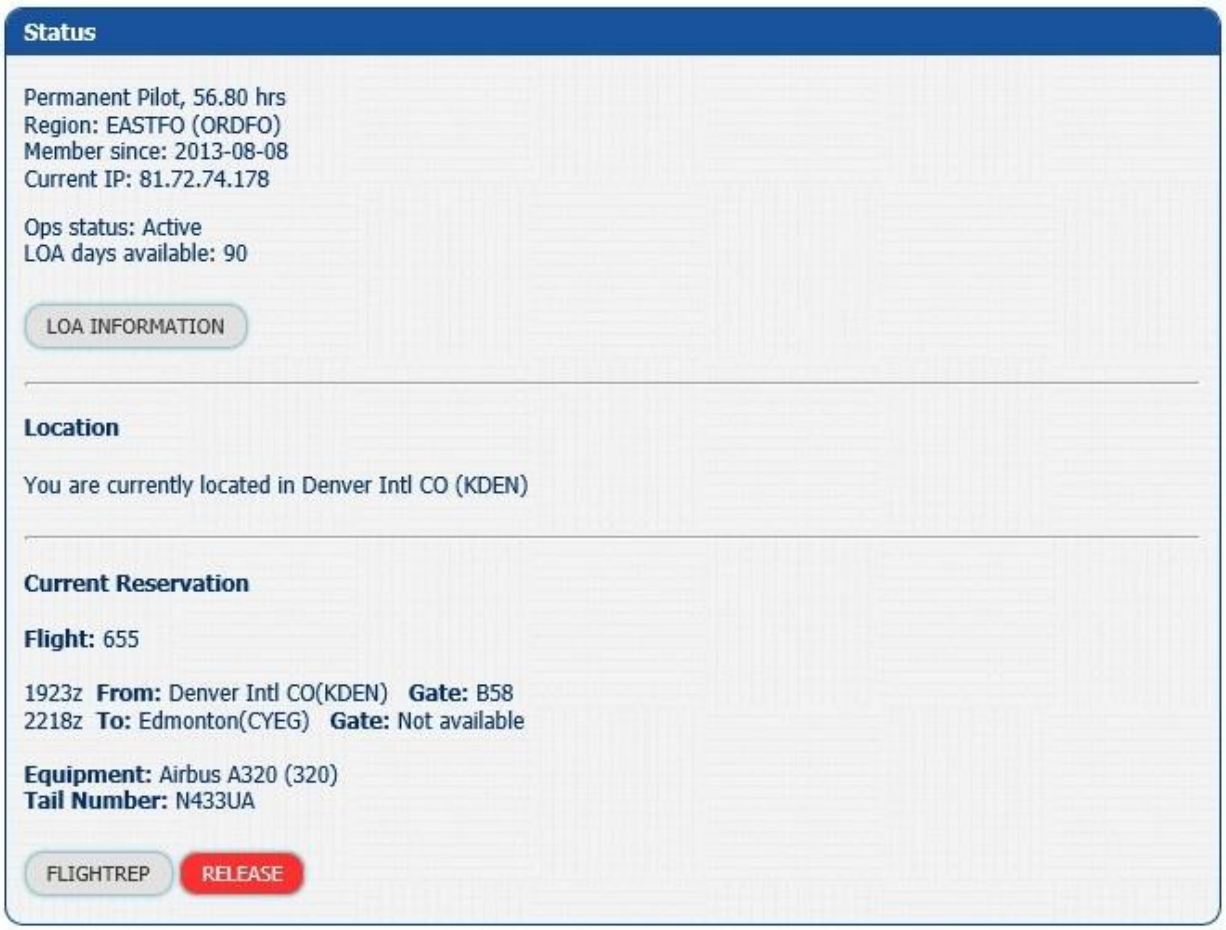
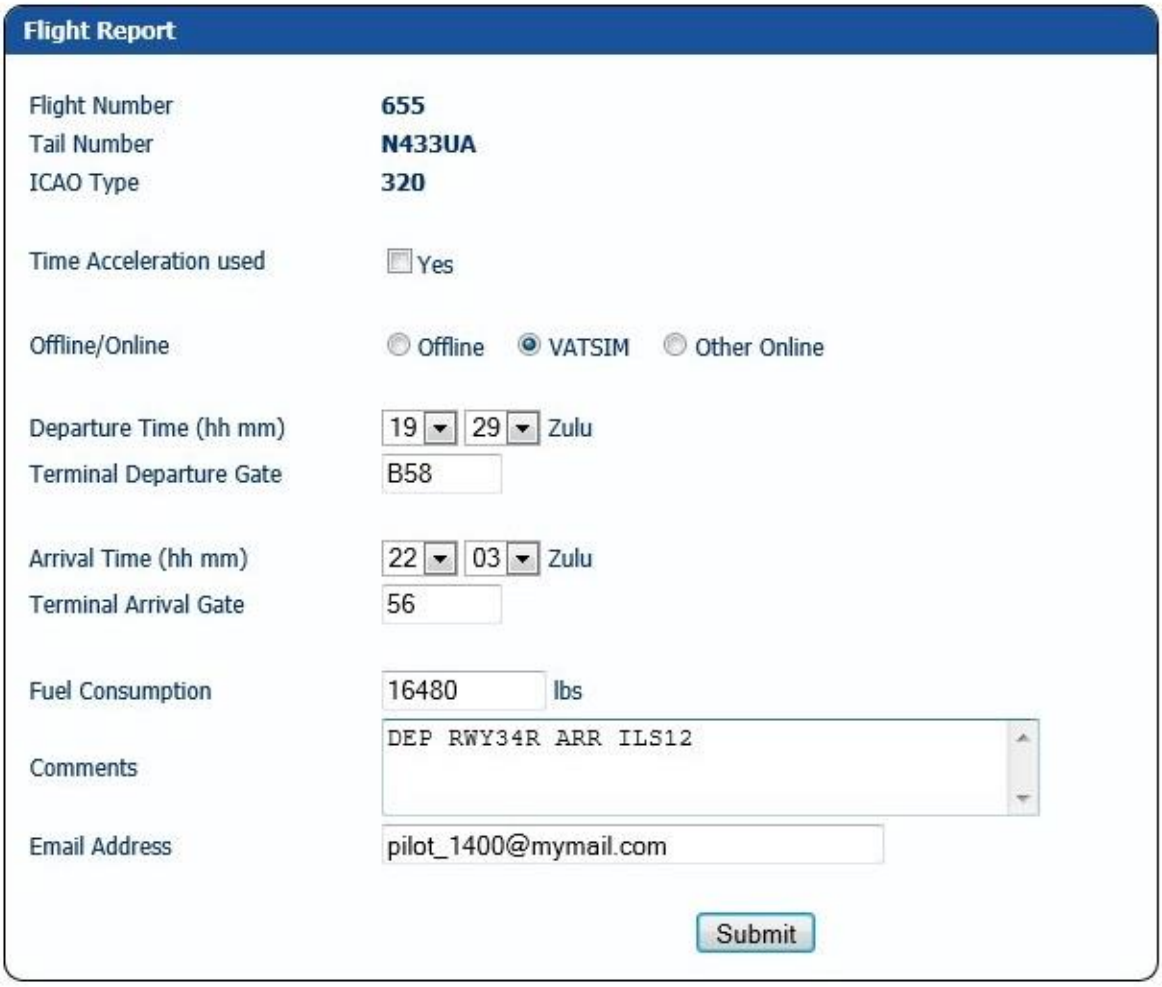


Figure 6 – Status Screen.

You will reach a new page where you can complete the Flight Report form. As you know, you have to input (that's why you had to write this down!) departure and arrival times (ensure you use Zulu time), the gates used, the total fuel usage and any additional remarks you wish to add in the "Comments" section. Also, you can check the appropriate "Time Acceleration used", "Offline", "VATSIM" and "Other online" entries. Once you have filled in all the required fields, you can submit the Flight Report. The system will do a flight hour computation (block time) and present it to you. You should check that all items (in particular the departure and arrival times) are correct. If so, process with "Yes", if not, correct it first.



5.4. File the flight through UVACARS. If all initial data were correct, when using the UVACARS application, you'll get a "summary" window of your flight as you finish it: just input the Departure and Arrival gates and any additional comments you may wish to record and either "save" (for later processing) or "process" the Flight Report. If you click "process", the Flight Report will be automatically processed to the UVA servers. If you become aware at a later stage that your Flight Report was incorrect, contact immediately your Regional Manager with the details to be edited.

And that's it, you have just completed a flight for UVA, congratulations !