



VHQTD – Office of the Chief Pilot

Introductory Guide
to
Planning
and Flying a UVA Flight

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

Now at its Third Revision (it was originally issued on October 27th, 2008), it is mainly focused on new pilots (but it is intended for use by all pilots as well), and by design it is a very quick overview. In time you will need to study the many resources available on the UVA website in the *VHQCC Downloads* and the *VHQTD* pages. But, this document will at least get you headed in the right direction – and that can be important when you're flying.

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

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

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

- a few corrections reflecting the “Rating” system instead of the old “Category” system
- a few corrections regarding codeshare operations
- introduction to UVACARS and its basic functions
- brief introduction to Teamspeak
- a few minor edits and corrections

Introductory Guide to Planning and Flying a UVA Flight

1. Choose & Reserve your Flight

- 1.1. First off, you have to choose the flight you wish to fly. To assist you, you can download the current schedule (available on the Downloads page) in Excel format. This file will let you to sort flights according to equipment or by departure or by destination, airport, flight length or any other criteria.
- 1.2. Login in the Pilot Center, using your UVA PID and password.
- 1.3. Once you're logged in, you'll see a welcome message (stating your name and current rank and rating), where you are currently located and if you've already reserved a flight or not. You may wish to (or need to) jump to another airport to find a suitable flight, as it may be that there is no flight for your current Rating at your current location. To jump to another airport, simply select the "Jump Location" link; this will instantly move you to the selected location. Think of this as "dead-heading" to a new airport.
- 1.4. Once you're at your chosen airport, select the "Reserve one" link: this will open the "United Airlines Route Finder: Choose Destination" page. On this page, you are presented with two drop down lists. The list on top is grayed out and has the name of your current location (eg: KORD – Chicago O'Hare); the bottom list (labeled "Select Destination") has all the destinations available with a departure from your current location, for all categories. It includes codeshares as well. The list is in alphabetical order of the ICAO codes of the airport. U.S. airports in the forty-eight contiguous States all start with "K", Hawaiian with "P", Canadian with "C", European airports start with "E" or "L", Japanese airports with "RJ" and so on. So now you select a destination and click on it. You'll get a new page with a list of all available flights from your location to the selected destination. Each line will show: United Flight Number, Departure and Destination Airports ICAO codes, Departure and Arrival Times (in "Z", Zulu time, that is Greenwich Mean Time or GMT) and the Equipment. Now select the flight you wish to fly. The system will only allow you to reserve a flight operated with equipment that you are certified to fly (that is, according to your current Rating and below). Note that you can substitute the equipment listed in the flight you choose with an equivalent equipment you like, in the same Rating category. This holds true for all the Ratings, except the W1-RAT, where 757 and 767 operated flights must be flown with the listed equipment.
- 1.5. If the equipment you chose is not available, you will be prompted to ask Dispatch to relocate a plane for you. This is done by clicking the appropriate link, which will open a new page where you'll find a drop-down list of equipment. Just choose the one you need and click on it. You'll get a plane repositioned to your location.
- 1.6. Then, you'll be shown a list of available aircraft (that are shown with their registrations, such as "N649UA", unless the flight chosen is operated as a code-share; in this case registration will show as "C/S"). Click on the one you wish to use, and then on the "Reserve" button. You'll get a new page 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, passenger numbers. You should write them down, most of these items are required for PIREPing.

- 1.7. 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.
- 1.8. And there you are, your flight is reserved!

2. Plan Your Flight

- 2.1. 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. 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 typical resource for all US real routes, and many originating outside the US but US-bound, is flightaware). This is up to you: there are a number of sites available for help. All of this is extensively discussed in the Flight Primer.
- 2.3. Plan your fuel requirement. If available to you, you may wish to use an advanced planner. These 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. That will save you the extra time needed to program the 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 Vs speeds 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 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 wind 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. 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.** 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. You may wish to start with the plane cold and dark.
- 3.2.** 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 PIREP 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.** Prepare your cockpit for the flight. You should always follow a checklist, either those provided with your payware add-on or the UVA Generic Checklist. 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.
- 3.4.** 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.** At last you are ready to go. Enjoy the flight!
- 4.2.** Always, always, always, fly according to UVA standard operating procedures, as detailed in the ASOPS document.
- 4.3.** If you are flying online, this is the time to connect, send your flight plan (remember that you should use your UVA PID as a callsign and put the real flight number plus the link to our VA in the Remarks section of the flight plan.) This is the time to check the ATIS for the latest weather and runway in use. 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 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. Get your ATC clearance. Either online or offline; if the latter you may elect to be your own self-ATC or use payware add-ons that simulate it. We strongly discourage using FS ATC, it is not very realistic, and will often lead you into trouble. Once you receive the clearance, you read it back. The readback 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. 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 seek 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.
 - d) Once cleared for takeoff, do the runup.
 - e) Fly a correct second segment climb, at a speed of V_2+10 to V_2+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 V_{ref} and correct it as per the SOPs (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, plan to be at around 240 kts at and below 10000 ft (AGL) and start reduce to 210 about 10 to 15NM before the final approach intercept point. 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. Avoid being too fast when too close to the final approach intercept point. Banking is restricted to 20° below 1000 ft AGL 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 and take the first convenient exit (you may use a high speed taxiway up to 40 kts ground speed).

5. Pirep Your Flight

- 5.1. Now that you are safely at your arrival gate, it's time to PIREP your flight. If you were flying online, it's also time to disconnect from the VATSIM servers.
- 5.2. Login again to the Pilot Center, choose the "File this Flight" option and you'll get a new page.
- 5.3. Complete the PIREP 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 consumption and any additional comments you wish to add in the "Comments" section.
- 5.4. Once you have filled in all the required fields, you can submit the PIREP. The system will do a flight hour computation 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. If all initial data were correct, if you're using the UVACARS application, you'll get a "summary" window of your flight as soon as you finish your flight: 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 PIREP. If you click "process", the PIREP will be automatically processed to the UVA servers. If you become aware at a later stage that your PIREP was incorrect, contact immediately your DOM Manager with the details to be edited.

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