

Version
2.1

FLIGHT OPERATIONS DIVISION (VHQFO)

Aircrew
Standard
Operating
Procedures

 **UNITED VIRTUAL**

United Virtual Airlines
Aircrew SOP
Version 2.0
Effective 03JAN10

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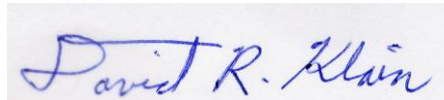
**United Virtual Airlines
Flight Operations Division**

03 January 2010

From: Chief Operations Officer
To: United Virtual Airlines Flight Personnel

Subj: AIRCREW STANDARD OPERATING PROCEDURES (Ver 2.1)

1. All of us at United Virtual Airlines are dedicated to enhancing the enjoyment of flight simulation enthusiasts by providing a realistic, hi-fidelity simulation of airline operations. We recognize that most of United Virtual's pilots do not have formal training in flight operations, the ATC environment, and IFR procedures. This manual provides basic information to help a new pilot get the most out of his flight simulation experience.
2. This manual details procedures used at United Virtual to safely complete a flight and provides specific guidance on actions that must be taken to: (a) receive credit for the flight on United Virtual's computer system, and (b) ensure seamless integration into the VATSIM virtual ATC network. This revision updates it to reflect current procedures and inclusion of the UVACARS software package. Changes are indicated with a black line in the left margin. Pilots with questions about any of the procedures detailed herein should refer them to their Domicile Manager, the Domicile Checkpilot, the Chief Pilot or the Flight Training forum.
3. Recommended changes should be forwarded to the Chief Pilot for consideration.
4. Fly safe and have fun!



David R. Klain
Chief Operations Officer
United Virtual Airlines

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Section One

1. Scope

- 1.1. Purpose: This manual details United Virtual Airlines' (UVA) Standard Operating Procedures (SOP). While most of the procedures apply solely to online flying, a number apply regardless of how the flight is flown and must always be complied with. Simply put, this SOP details "how we do business" from a flight operations perspective.
- 1.2. Scope: This SOP is approved by the Flight Standards Department and is directive in nature for all UVA pilots. Failure to comply may result in penalty points, administrative action or dismissal from the airline as described in the employee manual.

Section Two

2. Online vs. Offline flying

- 2.1. While not mandatory, pilots are encouraged to fly online using the VATSIM network (www.vatsim.net). This enhances the realism and social aspects of flight simulation through interaction with controllers, other pilots, and your fellow United Virtual pilots.
 - 2.1.1. When flying online, pilots are reminded that they represent UVA to the online community and must strictly adhere to the UVA standards of conduct.
 - 2.1.2. If you require assistance flying online (whether it a question of procedures or hardware/software setup), assistance is available from your Domicile Manager and the flight training forums. In addition, tutorials are available from the [UVA Flight Standards and Training Department website](#) and VATSIM [Pilot Resource Center](#).
- 2.2. If you are not able to fly online due to bandwidth limitations, we recommend using add-on AI traffic (freeware like [Project AI](#) or software like [Ultimate Traffic](#)) to increase the traffic density and enhance the realism of your flight.

Section Three

3. Flight Reservations and Pilot Reports (PIREPS)

- 3.1. At UVA, the flight assignment process is simple. At present it is not based on pilot seniority or number of logged hours (this may change in the future). Pilots may reserve a flight at any time, but are expected to complete the flight within four days of making the reservation. Reservations not completed within four days will be deleted. Pilots reserve a flight by logging into the website's *Pilot Center* with their United Virtual Pilot ID number (PID). Once a destination, flight number, and specific aircraft tail number have been selected, the pilot is eligible to complete the flight (*Note the pilot must meet the minimum category requirements to fly the aircraft in order to reserve a flight*).
 - 3.1.1. If the required type of aircraft to reserve a flight is not present (making the flight un-reservable), an aircraft can be repositioned using UVA's Aircraft Repositioning System (a link to it is automatically visible in the pilot center if no aircraft are available for reservation). Aircraft requests require the desired aircraft type. An unreserved aircraft located somewhere else in the system will be repositioned instantly and the pilot will then be able to reserve the flight.
 - 3.1.2. In the unlikely event every aircraft of that type is reserved and none can be repositioned, the pilot should reserve a flight using another kind of aircraft, "jump" to another airport or contact his/her domicile manager for assistance.
- 3.2. Once a flight is completed, a pilot report (PIREP) must be submitted to the UVA data servers. At present there are two options for PIREP submission, automatic submission by United Virtual's proprietary UVACARS software or manually by logging back into the website's *Pilot Center*, selecting the "File Flight" option, and entering in the appropriate data fields. This report must be submitted to receive credit for the hours flown and update the computer database as to the pilot's new location.
- 3.3. Required data fields (which must be noted prior to and after the flight) are: Departure Gate, Pushback Time (defined as the Zulu time the parking brake is released prior to pushback from the gate), Arrival Time (defined as the Zulu time the parking brake was applied once in position at the gate), Arrival Gate, and fuel quantity used (expressed in pounds of fuel (do not use commas)).
 - 3.3.1. Note the arrival and departure times must be submitted using the 24-hour military clock and must include all four digits (i.e., 0100 is 1 am, 1545 is 3:45 pm). Failure to enter times correctly will cause your flight time to be incorrectly calculated and credited by the system.
 - 3.3.2. For details on military time, see <http://www.spacearchive.info/military.htm>. In addition, <http://www.time.gov> provides an explanation on Zulu time and time zones.

3.4. Though United Virtual's system automatically tracks flight hours based on PIREPS, all pilots are encouraged to keep a personal logbook. This will be useful in reconstructing what occurred should there be a database malfunction and a PIREP not be processed correctly. A freeware electronic logbook is available on the [VHQCC-Downloads](#) web page. Should this occur, pilots should contact their Domicile Manager to resolve the discrepancy.

Section Four

4. Dispatch Procedures/NOTAMS/Preflight Planning


- 4.1. Prior to flying, pilots are required to review the Notice to Airmen (NOTAM) file to ensure they are familiar with all current United Virtual procedures.
 - 4.1.1. The [NOTAM file](#) is accessible to all registered users in the United Virtual forum, under the flight operations forum section. NOTAMs are numbered sequentially and all active NOTAMs are categorized as "announcements" and displayed at the top of the forum for ease of identification. In addition, a list of all currently active NOTAMs (with hyperlinks to the actual NOTAM) is provided on the [VHQFO homepage](#).
 - 4.1.2. Temporary alterations to these SOPs or other items of critical information will be detailed in the NOTAM file.
- 4.2. It is suggested that all UVA pilots perform some level of preflight planning before each flight. Doing this will lower the chances for confusion during the flight and help minimize task saturation during the busy portions of a flight. Flight planning consists of the following:
 - 4.2.1. Weather review. A thorough review of the departure, enroute, and destination weather is essential to the safe completion of a flight. Pilots are encouraged to use real-world weather though Flight Simulator weather controls or add-on software like [ActiveSky](#) or [FSMeteo](#). While modern airliners are capable of flying above *most* weather, during departure and arrival they cannot avoid the weather. Particular attention should be paid to current and predicted weather at the destination airport. The United Virtual Airlines [Weather Center](#) provides real-world aviation weather reports for every airport United flies to.
 - 4.2.2. Navigation. Calculating the route of flight is key. This process can be completed manually or through numerous programs like [FSBuild](#).
 - 4.2.2.1. Preferred Routes.
 - 4.2.2.1.1. In the United States, there are numerous preferred routes used by the nation's air traffic control system for traffic flow purposes. These routes are pre-coordinated between various ATC agencies (centers, towers, etc.) to allow for smooth handover between facilities.
 - 4.2.2.1.2. Preferred routes can be obtained from various ARTCC websites (www.vatusa.org and its subsidiary websites) as well as from many of the Domicile pages on the UVA website.

4.2.2.1.3. Failure to submit a preferred route in the flight plan may lead to a complicated re-routing to a preferred route when obtaining the IFR clearance prior to departure.

4.2.2.2. Altitudes. In the real world, aircraft operate at various altitudes during the cruising portion of the flight. These altitudes are not just chosen at random, but are assigned based on a pre-arranged system developed by the FAA and ICAO.

4.2.2.2.1. Aircraft flying under Instrument Flight Rules (IFR) fly on complete thousands (1,000', 2,000', 3,000', etc.), aircraft flying under Visual Flight Rules (VFR) fly on half thousands (1,500', 2,500', 3,500', etc.). All United Virtual Flights are flown under IFR.

4.2.2.2.2. Altitudes are selected based on direction of travel in accordance with the following table:



DRVSM
EFFECTIVE 1.20.05 0901Z

TRACK 180° ← 359° | 000° → 179°

FL 400	FL 410
FL 380	FL 390
FL 360	FL 370
FL 340	FL 350
FL 320	FL 330
FL 300	FL 310
	FL 290
FL 280	FL 270
FL 260	FL 250
FL 240	FL 230
FL 220	FL 210
FL 200	FL 190
FL 180	
16,000	17,000
14,000	15,000
12,000	13,000
10,000	11,000
8,000	9,000
6,000	7,000
4,000	5,000
	3,000

4.2.2.2.3. ATC always has the authority to assign altitudes different from this scheme for traffic separation purposes. In addition, aircraft certified for Reduced Vertical Separation Minimum (RVSM) operations will fly at a 1,000 vice 2,000 foot spacing above 29,000 feet.

4.2.3. Fuel Planning. Proper fuel planning is critical to the safe completion of a flight. Fuel load is critical as too much fuel increases aircraft weight, fuel burn, and the cost of a flight. Too little fuel can obviously have disastrous consequences.

4.2.3.1. All United Virtual flights operate under Part 121 of the Federal Aviation Regulations (FARS) and are flown under Instrument Flight Rules (IFR). For flight safety purposes, UVA SOPS exceed the minimum fuel reserves defined in the FARS.

4.2.3.2. UVA aircraft will pushback with enough fuel to complete the planned route of flight with a 40 kt headwind the entire route of flight, arrive at the destination, hold for 30 minutes, fly two IFR approaches, fly to the alternate airport, and still have 15 minutes of fuel onboard after departure . More simply stated, this means aircraft will load a total of 45 minutes' reserve fuel (at most fuel efficient setting) plus fuel required to fly from destination to alternate plus additional fuel required to complete the flight with the 40 kt headwind.

4.2.3.3. Aircraft departing from a busy airport where ground delays can be reasonably expected or where long taxi times are required to get to the departure end of the runway should also load fuel for this expected taxi time.

4.2.4. Chart review. A thorough understanding of the route of flight will enhance situational awareness.

4.2.4.1. Pilots are encouraged to obtain and use airport taxi charts. At large airports with multiple taxiways, they are essential for safe navigation around the facility and may be required to complete a taxi clearance provided by a ground controller. These charts may be downloaded free of charge from numerous sites on the Internet. A link to one site is provided in the flight operations portion of the UVA website. In addition, all United Virtual Domicile airports' taxi charts are available on the domicile page in the flight operations section of the website.

4.2.4.2. Navigation and approach charts are also useful when flying online. Charts may be downloaded from numerous sites on the Internet. VATSIM ARTCC websites typically provide approach and departure charts for the facilities they service. Charts for most of the United States can be found at <http://www.myairplane.com>. NAVDATA's website also provides detailed links to chart sites around the world.

4.3. Once the NOTAM file has been reviewed, pilots are in compliance with all NOTAMS, and flight planning is complete, the flight may be flown.

Section Five

5. Flying your Flight

- 5.1. We do not require that you fly your flight at the actual time it is scheduled but do recommend that you adjust your flight simulator's time to match the scheduled departure time to enhance the realism of your flight simulation experience.
- 5.2. As mentioned in the flight planning section, use of real weather through the "real world weather" functionality in MS Flight Simulator or any of the various add-on programs will also enhance your flight.
- 5.3. Flight Plan submission guidelines.
 - 5.3.1. Flight plans can be submitted either through the VATSIM web page, various VATSIM ARTCC web pages, or the pilot client program. Plans should be submitted no later than 15 minutes prior to scheduled departure time.
 - 5.3.2. When submitting a flight plan to the VATSIM Network, the following guidance is provided:
 - 5.3.2.1. Block 1 – All United Virtual flights are filed and flown as IFR flights.
 - 5.3.2.2. Block 2 – United Virtual callsigns are the pilot's UVA pilot ID # (i.e., UAL1234). *Do not use the flight number.*
 - 5.3.2.3. Block 3 – Aircraft type. Ensure you scroll down and select a "United Airlines" aircraft – this will ensure other pilots actually see you flying the United colors!
 - 5.3.2.3.1. All UVA aircraft are "/Q" for equipment type.
 - 5.3.2.3.2. If using Squawkbox, select "Advanced RNAV with RNP and RVSM" from the dropdown menu, this will make you "/Q".
 - 5.3.2.4. Blocks 4-10 – self explanatory
 - 5.3.2.5. Block 11 – The remarks field should contain the phrase "UNITED-VIRTUAL.COM" and your flight number (i.e., "UNITED-VIRTUAL.COM FLT #123").
 - 5.3.2.5.1. If using a pilot client to submit the flight plan, select the appropriate communications capability option. Otherwise, follow the guidance provided below.

5.3.2.5.2. If voice capable, the remarks should be preceded by "/V/" (i.e., "/V/VIRTUAL.UNI...").

5.3.2.5.3. If only capable of receiving voice transmissions, the remarks should be preceded by "/R/" (i.e., "/R/VIRTUAL.UNI...").

5.3.2.5.4. If only capable of communicating via text messages, the remarks should be preceded by "/T/" (i.e., "/T/VIRTUAL.UNI...").

5.3.2.6. Blocks 12-13 – self explanatory

5.3.2.7. Block 14 – Pilot's name is your name (no rank, just "John Smith"). For aircraft home base, enter the ICAO identifier of your assigned United Virtual Domicile (KORD, KLAX, etc.)

5.3.3. Proper submission of the flight plan, especially the remarks field (Block 11) is key to identifying your flight as a Virtual United flight to all VATSIM controllers.

5.4. Communications procedures and guidelines.

5.4.1. Using the multi-player chat window in flight simulator, you can communicate with various ATC organizations and other aircraft. The proper way to identify yourself is with your callsign, (for example "United 1234"). Many pilots frequently confuse their flight number and callsign. As described in paragraph 5.3.2.2 above, your callsign is your pilot ID number.

5.4.2. Voice Communications

5.4.2.1. Most ATC facilities are also voice capable. The VATSIM network pilot clients (Squawkbox, FSInn and XSquawkbox all support voice communications. Their specific sites as well as the VATSIM assistance forums provide guidance on configuring the software for voice communications. Voice communications are easier to conduct while flying the aircraft and also enhance the flight simulation experience.

5.4.2.1.1. When connecting to the network, a callsign must be entered which identifies you to the VATSIM server. The approved format for the callsign is your United callsign (for example, "UAL1234").

5.4.2.2. When not talking to ATC, all United Virtual pilots are encouraged to come up on the company channel and talk to other airborne UVA flights. United Virtual has a dedicated Teamspeak server for this purpose. Instructions on how to download the appropriate software and connect to the server can be found [here](#).

5.4.3. UVACARS software

5.4.3.1. UVA employs software called "FSACARS" to simulate the ACARS units installed on real United aircraft. The software, installation instructions, and an operations manual can be downloaded from the [VHQCC-Downloads](#) page.

5.4.3.2. As discussed in paragraph 3.2, UVACARS will automatically submit a PIREP once a flight is completed. Details on automated PIREP submission can be found in the [UVACARS manual](#). SACARS will eventually be used to file automated PIREPS for flights flown on- and off-line. At present the automated PIREP system is not functional but other FSACARS features can be used to support online flights and PIREPS can be submitted using the FSACARS website access option for flight plan submission.

5.5. Flight operations and conduct online.

5.5.1. We require all pilots to demonstrate professional and courteous behavior while on VATSIM network. Be respectful to Air Traffic Controllers and other pilots. We have to live up to the highest standards of professionalism set by real world United. Any reported occurrence of inappropriate behavior may result in immediate suspension of a pilot with loss of seniority and all logged hours and or even a permanent ban from membership at our UVA. Violations will also be reported through the "Pilot Watch" program.

5.5.2. Simply put, we fly in a professional, courteous manner. Specifically:

5.5.2.1. While pilots never relinquish the ultimate authority they possess as pilot in command, instructions from ATC will be followed unless they jeopardize flight safety. Should this be the case, the pilot is expected to report "unable" and resolve the conflict with the controller in a courteous manner.

5.5.2.2. Disrupting VATSIM operations, simulating emergencies (mechanical, hijacking, etc.), deliberately crashing into buildings or other aircraft is specifically prohibited.

5.5.2.3. Abusive or insulting language (either in voice or text communications) is also specifically prohibited.

5.5.3. Taxi Speeds

5.5.3.1. United Virtual aircraft will normally taxi at 20 knots or less and under no circumstances exceed 25 knots to preclude excessive wear and tear on the brakes.

5.5.4. Time acceleration.

| 5.5.4.1. Long-range flights greater than 5 hours in duration are authorized time acceleration subject to the following provisions:

| 5.5.4.2. ATC approval must be obtained (note, VATSIM controllers will not normally authorize time acceleration greater than 2X).