# UVACARS User Guide

## Version 1.0

*Effective 1 February 2015*


www.united-virtual.com

UNITED VIRTUAL

# Table of Contents

# List of Revisions

**Rev. 1.0** – Original Release

**Rev. 1.01** – Amended to reflect required use of automatic Flight Data retrieval

# Credits

Manual developed by Joe Pollock (UVACARS software developer), Enrico Zaffiri (Chief Pilot), and Sam Wozniak (Art, Graphics, and Publishing Standards).

# Introduction

UVACARS (*United Virtual Airlines Aircraft Communication and Reporting System*) Version 3 is a dedicated program developed by Joe Pollock for United Virtual Airlines and thoroughly tested and enhanced over the course of several years. It is intended for use with Flight Simulation platforms (Microsoft Flight Simulator 2004 and X are fully supported; UVACARS works with X-Plane and Prepar3D, but support is not currently available) in order to capture flight data used for both automatic flight reporting and training/statistics purposes.

Using UVACARS, UVA pilots can:

1. Automatically retrieve their current flight reservation or manually input the reservation details
2. Input the aircraft and payload data
3. Record a wealth of flight data (OUT, OFF, ON and IN times, block-to-block and air times, fuel used, touchdown vertical speed, flaps, spoilers and gear position throughout the flight, light usage, fuel quantity, winds aloft, indicated airspeed, groundspeed, geographical position during the flight)
4. Retrieve any weather information before and during the flight (METARs, TAFs, PIREPs, SIGMETs)
5. Add any gate/comments and the type of flight (offline, VATSIM, other online) before sending the report
6. Submit the flight report and have their logbook automatically updated.

Pilots may also submit their flight log to the Training Department, where it can assist the flight review process.

UVACARS may be used in “offline” or “online” mode. If flying “online”, UVACARS will forward the online network for display in the Operations Flight Tracker.

# Installation

To download the UVACARS installer, browse to: http://uvacars.united-virtual.com and click on the install link.

**IMPORTANT CAUTION**

UVACARS works with Microsoft Flight Simulator 2004 and X (fully supported versions). It can work with X-Plane and Prepar3D, but support is not provided at this time.

Both Flight Simulator **and** UVACARS must run with Administrator rights.

Your computer time ("Region and Language" in Windows Settings) **MUST** be set to U.S. format (i.e.: 2:33 PM).

UVACARS will work **ONLY** with Windows OS.

Once downloaded, unzip the application installation from the compressed file to a new folder on the desktop.

Run the setup.exe that was part of the compressed file and continue through the setup prompts.

**CAUTION**

Pilots who were already using the previous Version 2 can convert to Version 3 following the simple steps outlined below.

Be sure to keep the .SQL drivers installed from Version 2, as these are needed for database conversion.

Once the application is launched (a shortcut will be located on the desktop), a conversion window will appear as pictured:

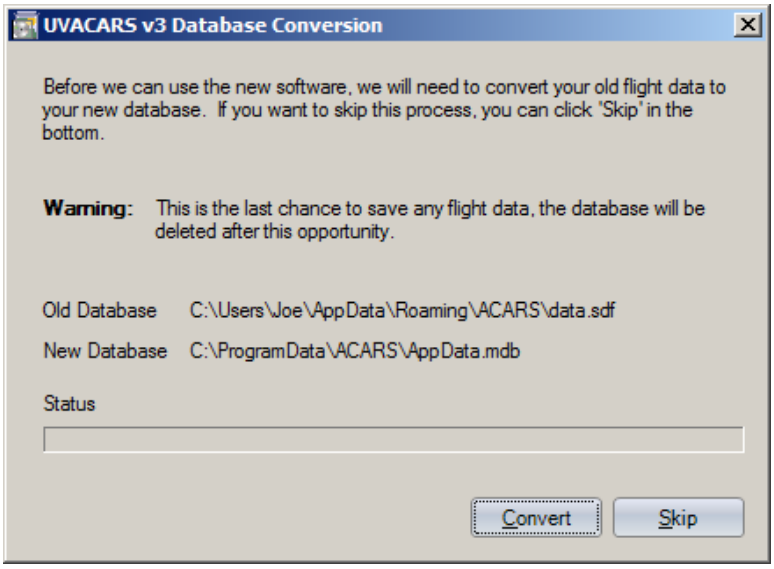


Figure 1 - Database Conversion from Previous Versions Window

Running the conversion program from the old Version 2 data to Version 3 is optional; the pilot may elect to skip the process.

| CAUTION |
| --- |
| Whether choosing “convert” or “skip”, the old database and registry settings related to Version 2 will be removed from the system. |

Information regarding mandatory patches or other issues will be posted as an announcement in the UVACARS support forum.

UVACARS installation will generate a desktop shortcut for a quick launch of the application.

## All UVACARS support is provided in the UVACARS Forum section.

Note that the following documentation steps and figures were taken from the initial public release of UVACARS Version 3, and may vary slightly from what you actually see when running the latest release software.

# Using UVACARS

## Getting Started

When UVACARS is first launched, the pilot number (UVA PID) management screen with appear.

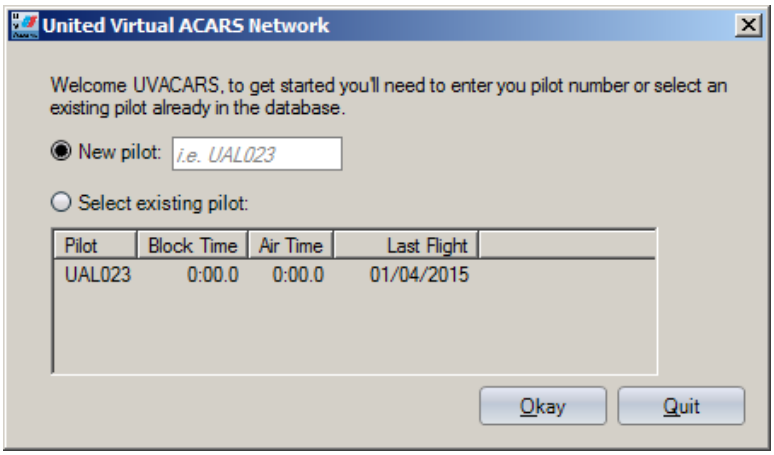


Figure 2 - Pilot Management Window

If you're upgrading from a previous version, a list of existing pilots will be available for selection. Select your choice and click "Okay".

If this is your first install of UVACARS, the list will be blank and the only possible choice will be "New pilot". In this case, simply enter your current UVA PID in the blank space and click "Okay".

The pilot management option is always available from the "File" drop-down menu of the main UVACARS window (either as a "Change Pilot Number" in case your UVA PID changes, or "Switch Pilot Number" to access from a list of available PIDs).

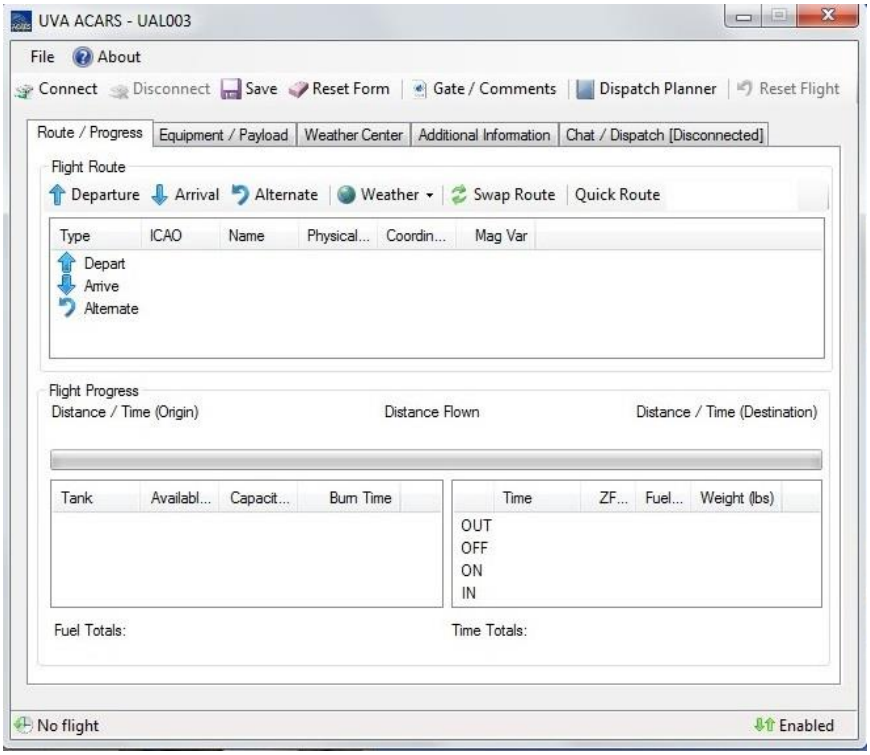


**Figure 3 - UVACARS Main Window**

The UVACARS Main Screen shows your current UVA PID in the title bar on the top of the window.

You can access several options by selecting the “File” in the menu option, on the left upper corner. The drop-down menu is as shown in Figure 4.

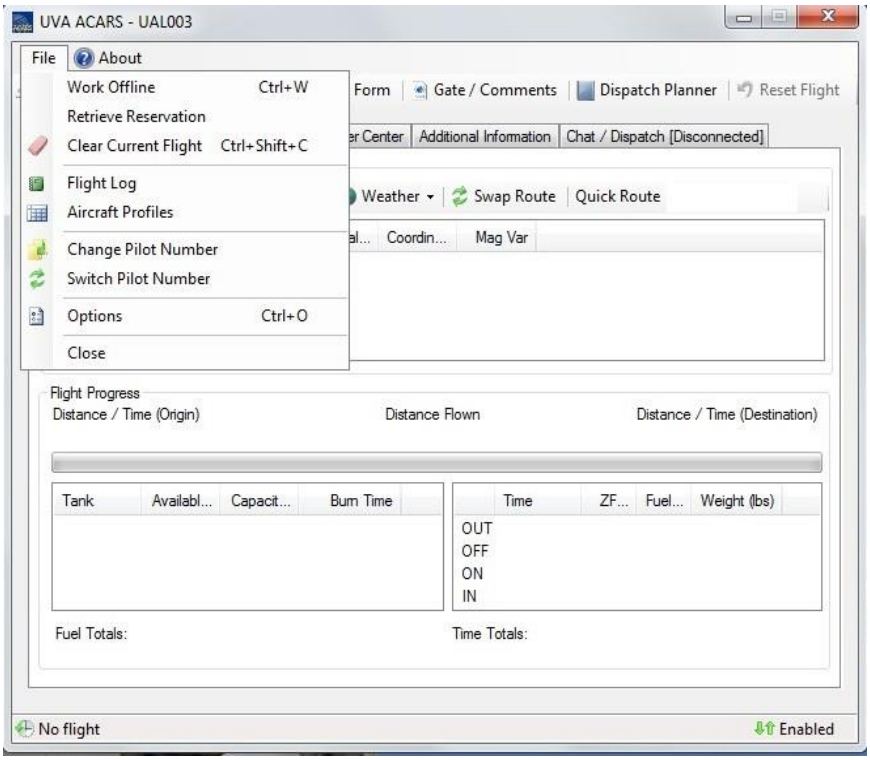


Figure 4 - File Menu

- **Work Offline** – allows you to fly without being connected to the UVA Flight Tracker. If you enable this option, your current flight (either offline or online) will not show on the UVA Flight Tracker. Note that this does not relate to your flying online or offline (e.g.: VATSIM), it just refers to the connection to the UVA Flight Tracker.
- **Retrieve Reservation** – allows you to connect to the UVA servers and retrieve your current flight reservation. It will open another window with the details of the reserved flight. Click on "Accept" if you wish to load the flight reservation data into UVACARS. Using this option will populate the "Departure", "Arrival", and "Equipment" fields of the program.
- **Clear Current Flight** – clicking on this option will erase all data stored for the current flight from UVACARS.
- **Flight Log** – allows you to access your current log of flights that have not been flight-repped yet. You will access this option to send your flight to the UVA servers for flight reporting once you have ended your flight.
- **Aircraft Profiles** – allows you to see all data for each airplane type as used by UVACARS.
- **Change** and **Switch Pilot Number** – allows you to change or switch your current UVA PID as used by UVACARS.
- **Options** – will open a dedicated window for several setup options. Available options include which Flight Simulator platform you're using and the correct installation path for UVACARS, the Airport Database source, the Automatic Reconnect options (time and maximum attempts allowed for UVACARS to reconnect to Flight Simulator), and Weight/Miscellaneous options, where you may

change standard passenger and carry-on baggage weights (in lbs.), standard fuel reserve (in minutes) and the Auto-Save Interval.

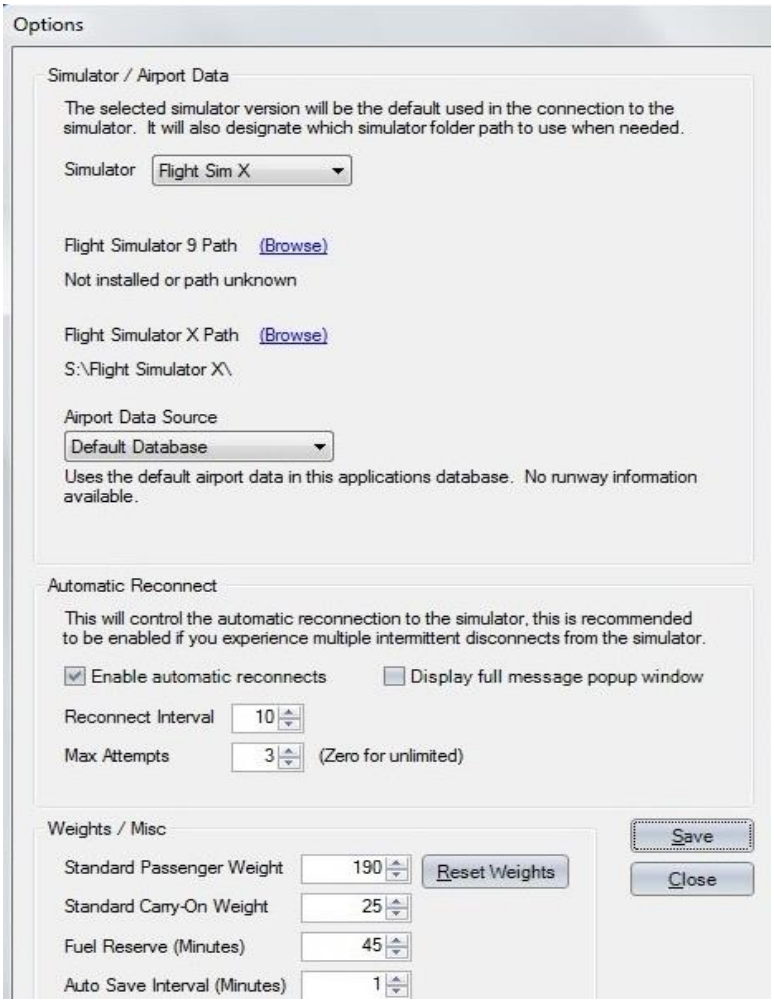


Figure 5 - Options Menu

# Preparing UVACARS for a Flight

Launch UVACARS and check if all options are set correctly (UVA PID, "offline" or "online" status for UVA Flight Tracker).

There are five main windows in UVACARS, each can be viewed by clicking on the appropriate tab:

- Route/Progress
- Equipment/Payload
- Weather Center
- Additional Information
- Dispatch

## *Reservation Retrieval*

To retrieve a reservation select "Retrieve Reservation" from the "File" drop-down menu; a new dialog window will appear (see Figure 6). If this is the flight you wish to fly and all information is correct (Route, Equipment and Network), click "Accept" and UVACARS will load the main data for the flight (Departure, Arrival, Equipment and Aircraft Registration). If you are not satisfied with any data, click "Cancel".


Figure 6 - Retrieve Reservation Window

The retrieved reservation automatically populates the Main Route window with the Departure and Arrival airports. You may add the "Alternate" airport (if any is needed) by clicking on the "Alternate" button and manually entering the alternate airport's ICAO code.

Once you have retrieved the reservation, the Main Route window will appear as in Figure 7.

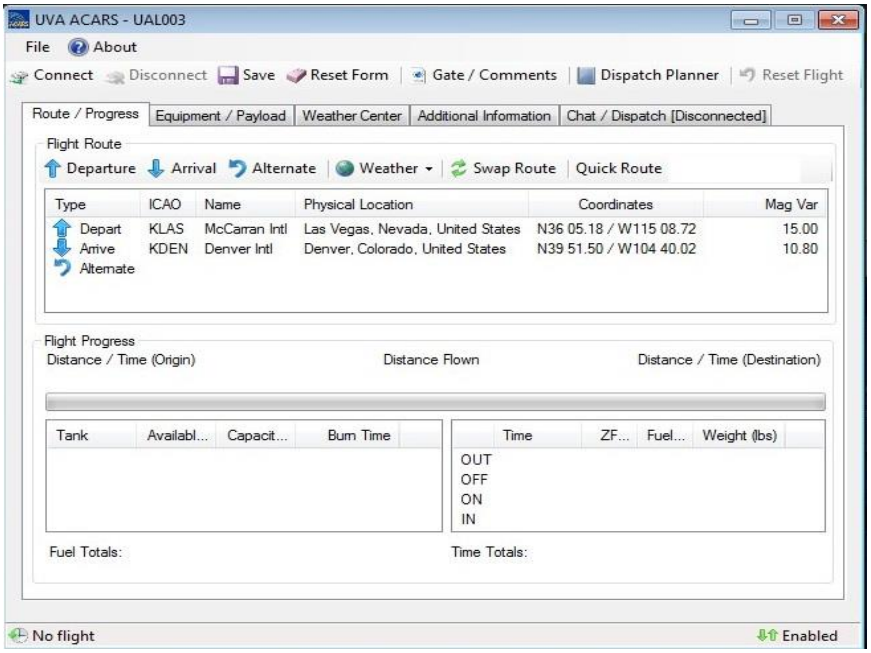


Figure 7 - Completed Main Route Window

## *Manual Flight Data Input*

**Manual Flight Data Input should no longer be used** to enter the flight information, except to complete the "Alternate" airport field, as required. In a future release Manual Flight Data will otherwise be disabled.

**Failing to use automatic Flight Data retrieval will generate an error** during the flight report process, and will cause operational issues with the Flight Tracker.

## *Equipment/Payload Data*

In the Equipment/Payload main window you must select the actual aircraft type you're using for your flight from the drop-down menu as shown in Figure 9.

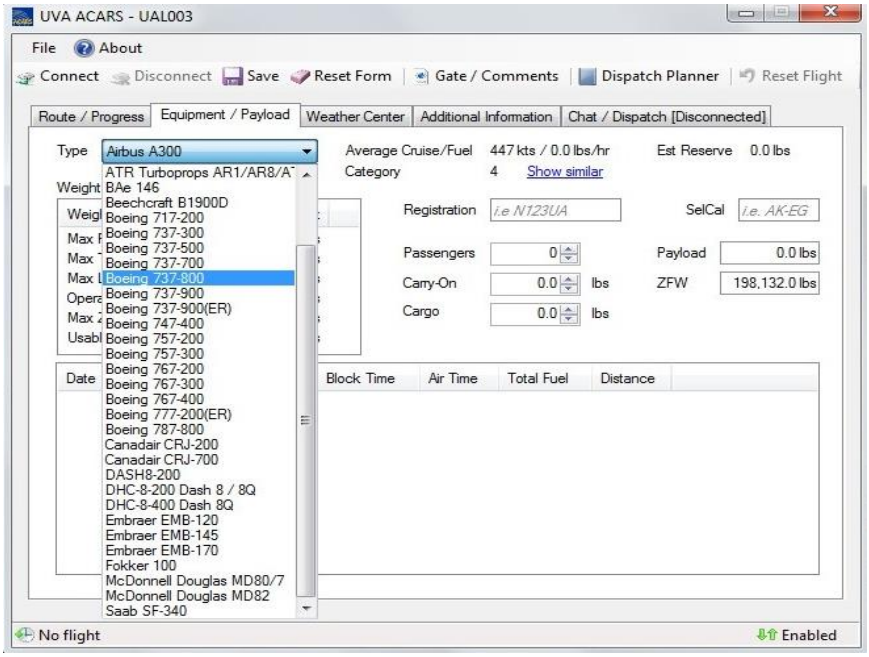


**Figure 8 - Type Selection Drop-down Menu in the Equipment/Payload Window**

Once you have selected the Type, you should fill the Registration, Passengers, and Cargo fields (Carry-On field will be automatically calculated as soon as the Passengers number is filled); the Selective Call (SelCal) code field is optional. If you have automatically retrieved the reservation, the Type and Registration fields will be already populated.

You should match the Zero Fuel Weight (ZFW) as calculated by UVACARS with the ZFW shown by your Dispatch release (generated either by the UVA Planner, the UVACARS Dispatch Planner, SimBrief, PFPX, or any suitable flight planner). The "Show Similar" link will detail any other similar equipment (same category) which can be used in this flight.

The list below the aircraft/load data shows all the other flights you flew this particular plane using UVACARS (date, from, to and block times).

At the end of the Equipment/Payload data process the window will look as in Figure 10.

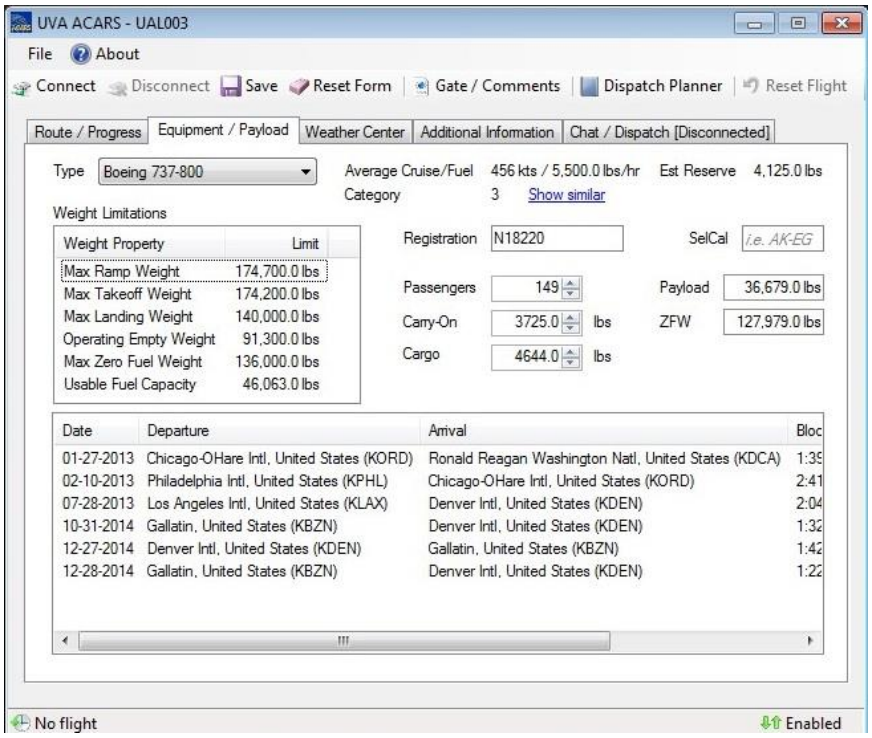


**Figure 9 - Completed Equipment/Payload Window**

You can also check the weather for your flight by clicking on the "Weather Center" tab; a new window will open, as shown in Figure 11.

Inserting the Departure and Arrival ICAO codes, selecting which reports to retrieve (METAR for current conditions, TAF for forecast, SIGMET for significant weather messages, PIREP for pilot weather reports), and clicking the "Get Weather Button" will generate a full weather report according to the chosen data.

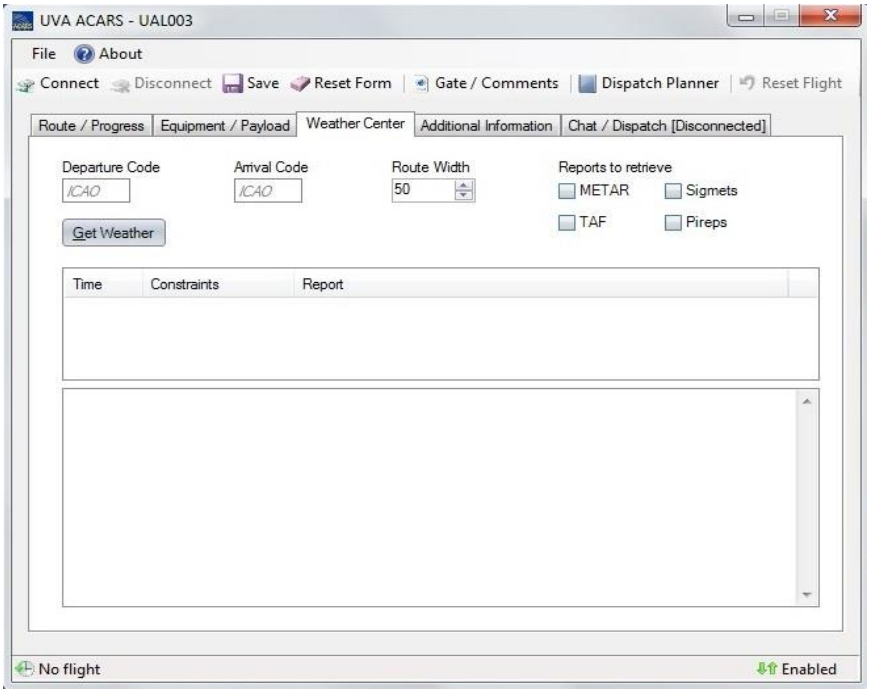


**Figure 10 - Weather Center Main Window**

Once your flight has been fully planned and all required data has been input, it's time to fly!

## Flying with UVACARS

When your flight is ready to depart and all pre-flight operations have been completed, connect UVACARS with Flight Simulator by clicking on the left upper corner link labelled "Connect" (connection is via WideFS or FSUIPC interfaces, or XUIPC for X-Plane). From this point on, until you disconnect, UVACARS will "talk" with Flight Simulator, capturing and recording several pieces of data.

Once you release your parking brake at the departure gate, UVACARS will record the "OUT" (off-block) time, along with other data (i.e. ZFW and fuel on board). Exterior light operation, flap and spoiler position, altimeter setting are also automatically captured, even on the ground.

On rotation, UVACARS records the exact time as the "OFF" time, along with your actual indicated airspeed, groundspeed, and some other pieces of data.

During the flight, UVACARS captures a variety of data from Flight Simulator, such as winds aloft and outside static temperature, actual heading, indicated airspeed and ground speed, vertical speed, autopilot operation, gear, flaps and spoilers position, fuel quantity and so on. It also periodically records the actual geographic position.

While cruising and not too busy with ATC, route check, or airplane handling, you may be curious as to what your actual vertical speed and altitude were when you commanded the gear up, retracted the flaps, switched off the landing lights, or changed the altimeter setting from local to standard. Just open the "Additional Information" window and have a look at the data available there.

A very useful feature of UVACARS is the Weather Center; you can closely monitor your arrival airport conditions or see if there are any important SIGMETs or PIREPs affecting your route. You can check what your likely landing runway will be well before receiving the arrival ATIS just by looking at the most current METAR. You may even decide in advance to divert, should the landing airport weather suddenly get worse.

As you touchdown, UVACARS captures the touchdown sink rate and records the "ON" time (the difference between the ON and the OFF times is the "air time", the total time you were airborne).

Once you set the parking brake at the arrival gate or parking position, UVACARS records the "IN" time (on-block); the difference between the IN and OUT times is the "block time", the total time between the departure and arrival gates. This is the time that will be recorded in your logbook.

Once your flight has concluded and you have finished your after-flight operations, UVACARS must be disconnected from the Flight Simulator by clicking on the "Disconnect" link in the upper area of the Main Window.

## Flight Report with UVACARS

After the flight, with UVACARS disconnected from Flight Simulator, it is possible to automatically send your flight report to the UVA servers by following these simple steps:

1. Click on the "File" link on the upper left corner in the UVACARS Main window.
2. Select "Flight Log" from the drop-down menu; this will open a new window.
3. From the Flight Log screen, select the entry that you wish to flight-rep either by choosing "View Entry" or "File Report" or "Gate/Comments" (Figure 12); this will open a new window.

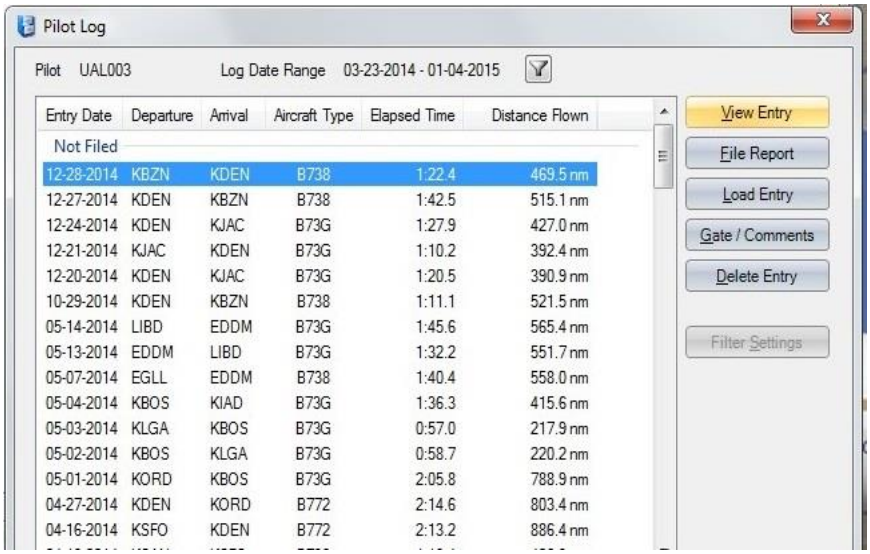


Figure 11 - Pilot Log

4. Opening the "Gate/Comments" dialog window allows you to input the departure and arrival gates. You may also amend the online environment in which you actually flew the flight (VATSIM, other online, offline) and add any remarks in the Comments area. Once complete, click on the "Save" button to continue or click "Cancel" to discard.

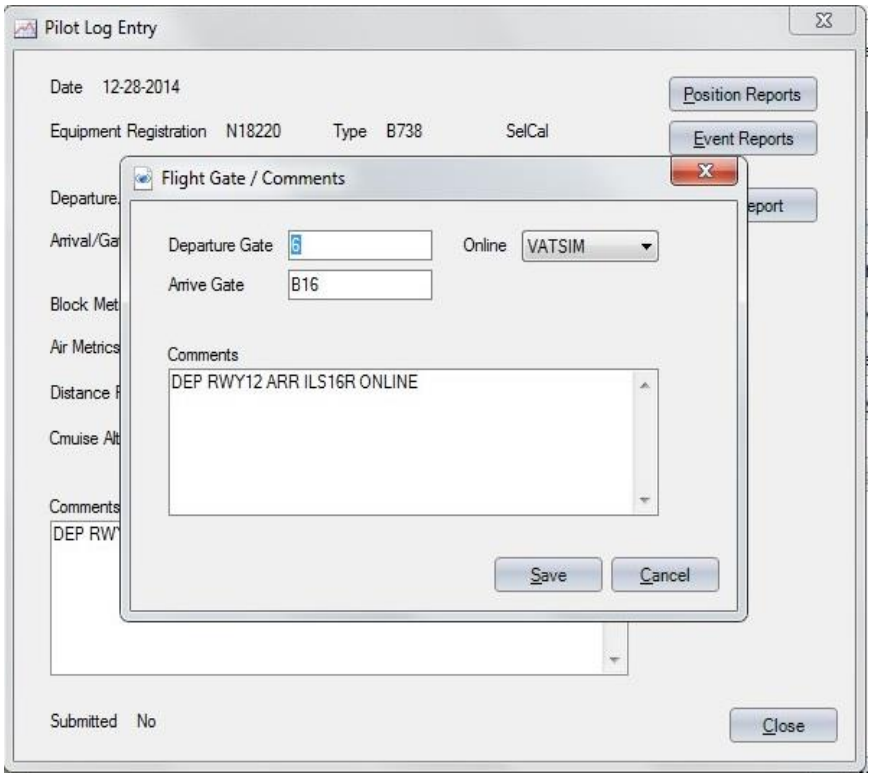


Figure 12 - Gate/Comments Dialog Window

5. In the Pilot Log Entry window, you will see many details of the selected flight (date, registration, type, departure and arrival, block and air times, fuel used, distance flown, route, great circle distance, extra distance flown versus direct distance in percentage, and a comment area). You can see further details of this flight by clicking the "Events Reports" and the "Position Reports" buttons.

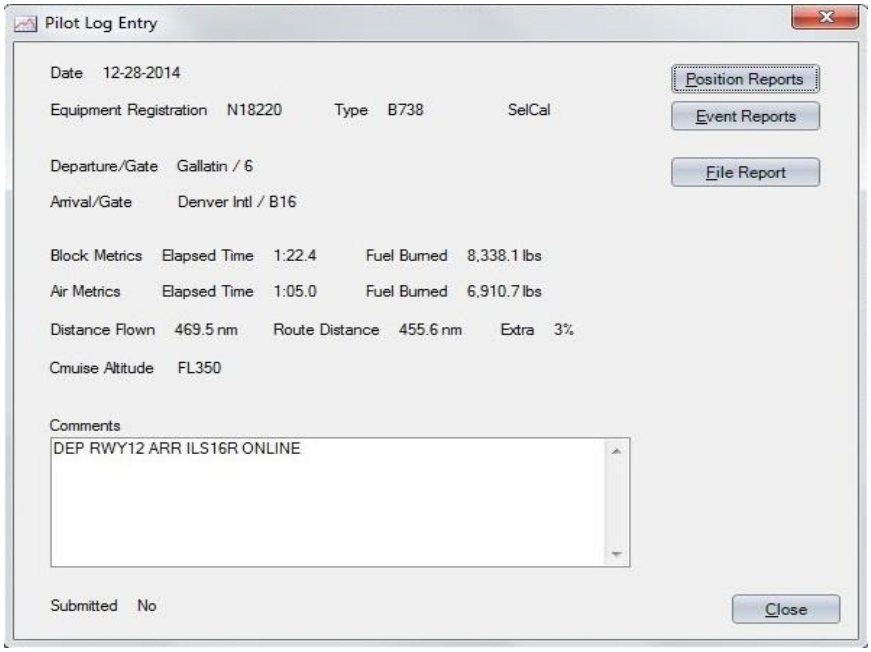


Figure 13 - Pilot Log Entry Window

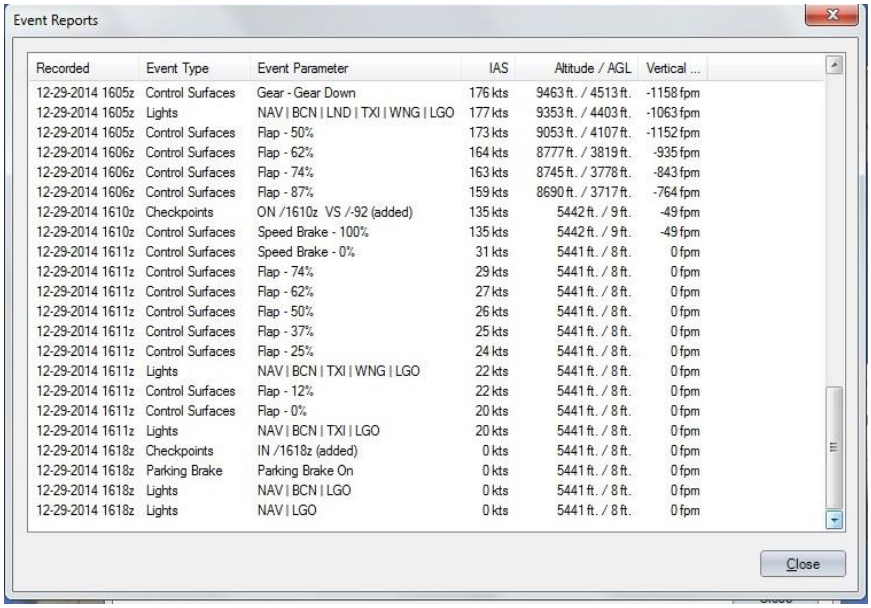


**Figure 14 - Event Reports Window**

6. Once you are satisfied with the pilot log entries and everything looks OK, send the flight report to the UVA servers by clicking on the "File Report" button. A new window will open, showing the progress of the operation and, once the report is filed, your logbook is automatically updated and this flight's reservation in your Pilot Room is deleted.
7. Log into your Flight Room and check your logbook to verify that it has been automatically updated with your last flight report. Should you spot any errors, contact your Regional Manager and detail what needs to be corrected.

# Flight Planning with UVACARS

UVACARS includes a built-in flight planner that can be used in lieu of the UVA online planner. It is fairly similar to the UVA Planner but allows you to plan your flight according to the three typical Dispatch methods: Domestic, Flag, and Re-Dispatch. For a full discussion about the Dispatching methods, refer to both the UVA FOM and the Flight Planning Pilot's Guide.

Begin planning your flight by clicking on the "Dispatch Planner" button. A new window will open showing the 3 dispatch methods. Choose the one you need by clicking on the appropriate link.

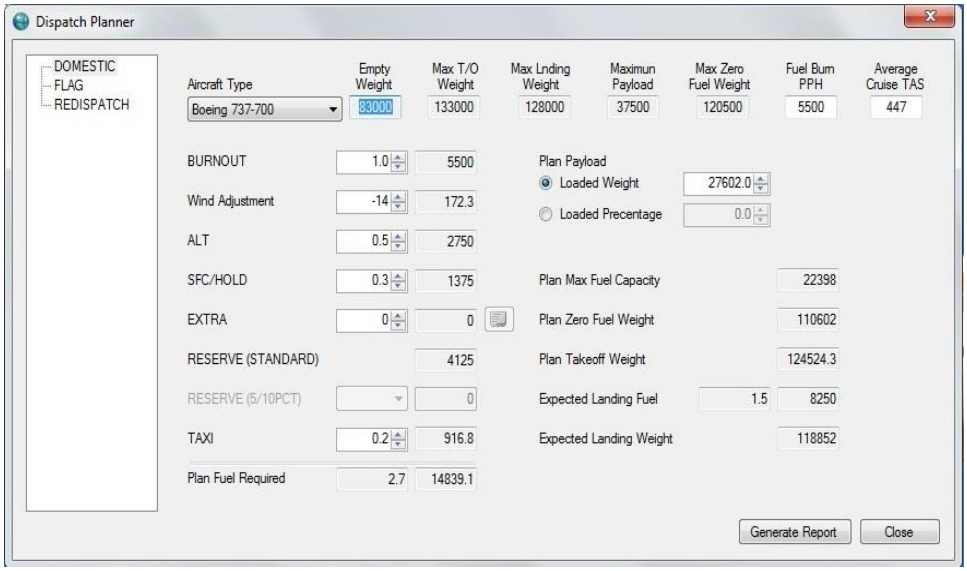


Figure 15 - Dispatch Planner Main Window

A drop-down menu allows for aircraft type selection. This will automatically populate the fixed aircraft data fields such as Empty Weight and Maximum Takeoff Weight (MTOW), but you must manually fill in the remaining planning fields. "BURNOUT", "ALT", "SFC/HOLD" and "TAXI" times are in hours and tenths of an hour; "EXTRA" is in pounds; "Payload" is in pounds or percentage of maximum payload. The planner will automatically calculate fuel and endurance, as well as ZFW, Takeoff Weight (TOW), expected landing fuel, weight and endurance at landing.

Clicking on the "Generate Report" button will open a "Report Parameters" window (Figure 17), where all fields may be filled at pilot's discretion depending on what is needed. The suggested minimum fields are: From, To, Alternate (if any), Flight and Aircraft Registration.

"Redispatch Fix" and "Redispatch Alternate" must be filled out only if using the Redispatch method.

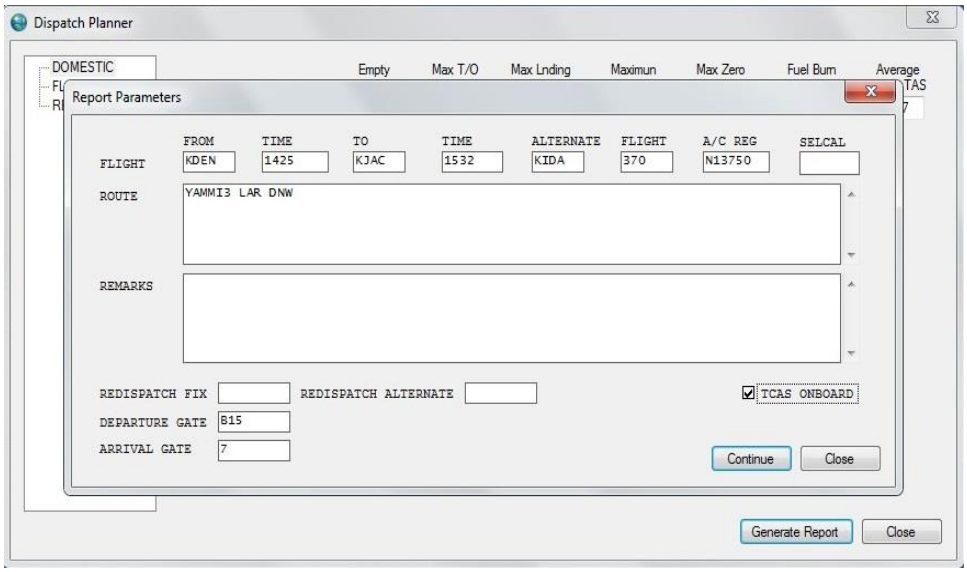


Figure 16 - Report Parameters Window

Clicking the "Continue" button will open the Dispatch Report final window, similar to that of the UVA Online Planner. You may print this release to have it handy in your virtual cockpit.

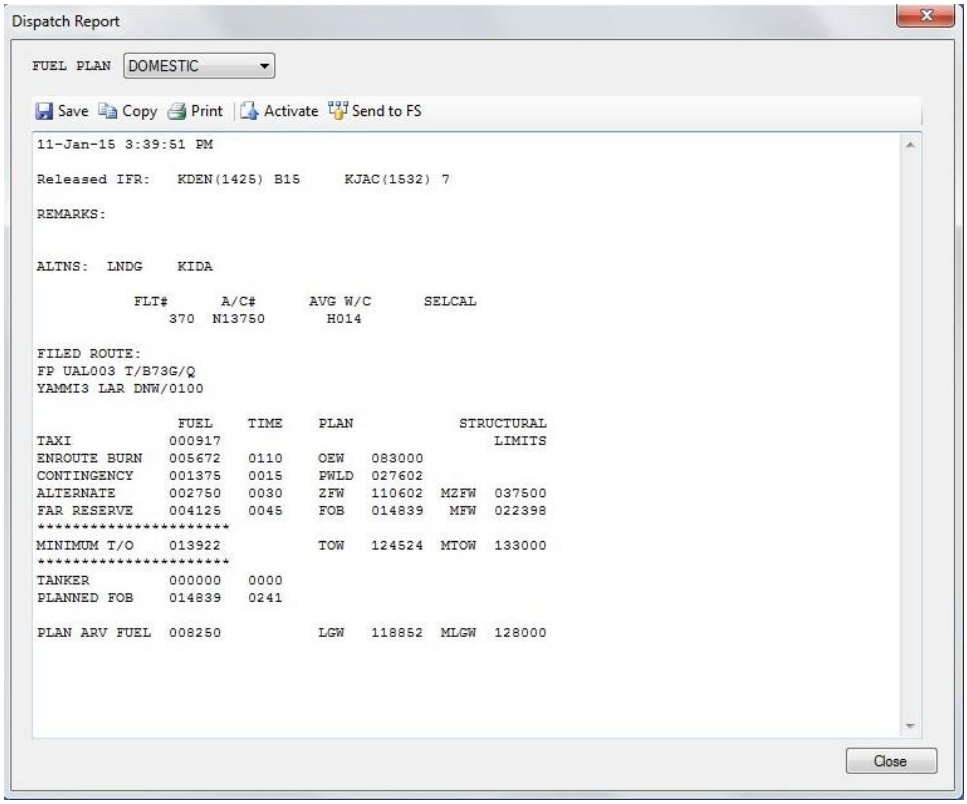


Figure 17 - Dispatch Report Window

Happy Flying!

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