AVSIM Commercial FS9/FSX Utility Review

TOPCAT

Product Information
Publishers: [TOPCAT Sim](#)
Description: Scenery add-on .

Download Size: 10 MB	Format: Download	Simulation Type: FS9/FSX

Reviewed by: **Marlon Carter** AVSIM Staff Reviewer - June 6, 2010

Introduction

What is TOPCAT?

TOPCAT is an acronym for **Take-Off and Landing Performance Calculation Tool** and is a highly realistic, easy-to-use planning tool for all serious flight simulator enthusiasts. It brings into a single application all of the calculations required to plan for safe and repeatable take-offs and landings.

TOPCAT will provide you, the captain, with Load Sheets, Take-Off and Landing performance analysis, Individual Runway Tables including all relevant speeds (V1, VR and V2), optimum thrust and flaps configurations, de-rated and assumed/flex temperatures and stop margins.

TOPCAT is similar to real-life software and was developed by professional airline pilots.

FAQ's about TOPCAT is featured on their website however; I thought it would be helpful to post some of this information in this review.

Installation
TOPCAT comes as Win32 executable installation package. There is one single file for the Trial, Download, Standard and Deluxe version. Run the executable file and follow the instructions on the screen. When installing TOPCAT from CD, insert the disc into your drive. The installation program should launch automatically. If not, go to your CD-ROM drive and run TOPCAT_Setup.exe.

Updates
There are frequent FREE updates available for TOPCAT. The auto check for update function will detect a new version, if available. To install the new version, just run the installation package executable. There is no need to uninstall previous version of TOPCAT before installing a new one. All settings will be retained.

Activation / License
Depending on where you have purchased your license, you may either have received an Activation Key (15 characters) or a Registration Key (10 characters). If you have an Activation Key, you need to activate the product before usage. Please note that one license is limited to one user. It's no problem at all to install on more than one device, as long as it's for your personal use. We think that the price for our tool is very remote. So please understand that we can not accept keys given away to friends and their friends.

Download/Boxed/Deluxe Edition
There is no difference between the Download, Boxed and Deluxe Edition. All versions have the same features. The only difference is the type of delivery (the Standard and Deluxe versions come on CD in a box) and its accessories (the Deluxe version comes with a printed User's Guide).

Aircraft Types
We receive a lot of questions about new aircraft types or instructions to make these by oneself. As take-off and landing performance calculation is a very complex task, there is no easy way to get adequate results. For every type we need to digitize dozens of pages of graphs and numbers, which takes several hours. Furthermore, acquiring the required data for certain aircraft types is nearly impossible. Once this is finished, we need to adapt the performance file for a wide variety of add-ons.

Payload/Fuel update
TOPCAT allows update of fuel and payload for most add-ons. However, there are some limitations we can not overcome. When updating via FSUIPC for example, the maximum number of stations is limited to 60. As this is enough for most add-ons, some use more than 60 stations (e.g. Captain Sim). Unfortunately, we can not overcome this FSUIPC limitation. Other add-ons (like PMDG for FSX)

block fuel update via FSUIPC. In this case TOPCAT will inform you accordingly and you have to use the refuel function of the respective add-on.

N1/EPR differences
TOPCAT has been developed using real-life data. However, some add-ons cheat in regard to the required take-off N1/EPR. We highly suggest ignoring the indicated N1/EPR values. They are not linked to the performance calculation. Rather rely on the given assumed/flex temperature, as this is the primary value used for performance determination. So if TOPCAT gives a certain assumed temperature, use this value in your add-on's FMC as well.

Fuel Calculation
TOPCAT also does fuel estimates for its aircraft types and a given departure/destination airport. These calculations are based on LRC (Long Range Cruise) at given weight. The values also include fuel to an alternate and 30 minutes final reserve. While these calculations are fine for most flights, TOPCAT was not designed to be a fuel planner. So manual adjustments might be required under certain circumstances (strong headwinds, long route, etc...)

Documentation and Installation

The installation and registration process for this program is quite straight forward and it doesn't require anything more than following the instructions given during the installation. The documentation provided is hands down one of the most thorough and fully comprehensive 88 page manuals I have come across. It not only explains how to use the program, but it also gives information that teaches the novice user everything they need to know about aircraft performance, it's almost like being taken to flight school.

One of the features I appreciated the most was the thorough explanation of how to read load sheets, as well as takeoff and landing reports. This really came in handy and I am sure that even experienced simmers will enjoy this.

How good is it?

At first glance I thought that this program would be very complicated to use. After reading the entire manual I had absolutely no doubt in my mind that I would be able to use this tool as it was intended. The documentation is very thorough and it leaves no gray areas or any aspect of the program unexplained.

I have always longed to replicate all aspects of real world flying, after all, when you have information such as weather, cargo/passenger loads, wet/dry runway to name a few, it enables you as a pilot to know exactly what to expect of your aircraft from the time you throttle up for takeoff to braking upon landing.

Out of the box so to speak, TOPCAT is compatible with many of your favorite aircrafts from PMDG, Quality Wings, PSS and other payware and freeware aircraft. This allows not only users of high quality aircraft add-ons to enjoy accurate aircraft performance, but also freeware aircraft users.

Here is a general layout of the program. We are going to examine each page and discuss what it does.
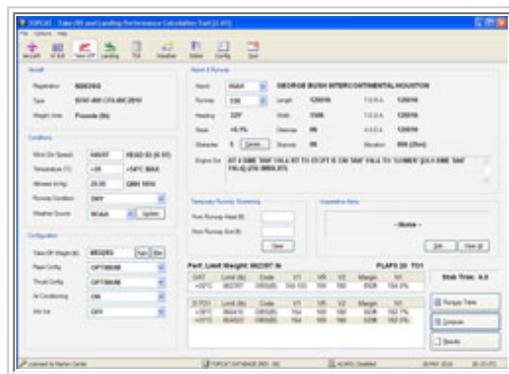
Aircraft
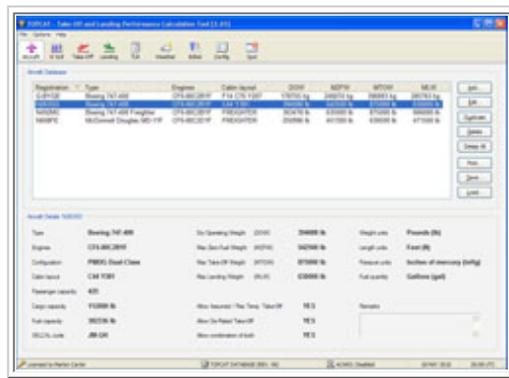
Since each aircraft is unique, this page allows you to select and register your aircraft. It also allows you to configure the weights and thrust policies. These features enable you to give various aircraft specific settings and handling characteristics.

Weight and Balance
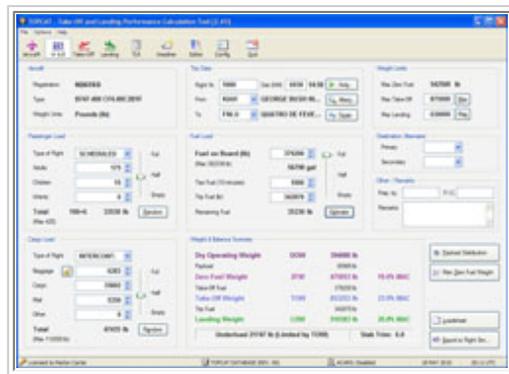
The data shown in the screenshot shows a flight from KIAH to FNLU (Angola) This page may seem intimidating to anyone who is not familiar with weight and balance but it is quite simple. This page allows you to set up passenger, cargo and fuel loads for your flight. If you are unsure of how to calculate fuel on your own or you do not know how many passengers or the amount of cargo allowable for a specific flight, TOPCAT has an "auto" feature that calculates fuel based on the length of the trip and your payload. Loadsheets are also products automatically and they can be exported to Microsoft Flight Simulator thereafter.

Takeoff

Take off data is extremely important. The performance of an aircraft varies sometimes dramatically due to varying weather conditions. This page allows you to calculate takeoff performance using real world current weather information for any given airport utilizing information from various sources (more on this later). TOPCAT is also able to optimize flap settings and thrust settings for any given runway. This feature is extremely useful and one that I find highly practical.

Landing
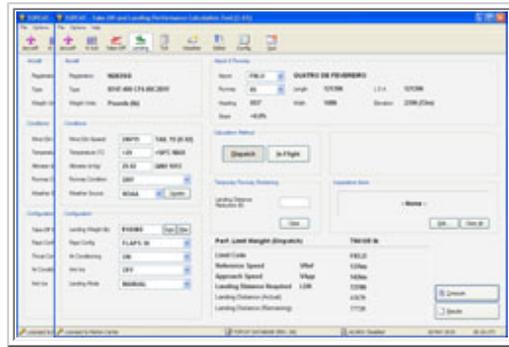
Not much different from the takeoff page, the landing page offers performance data based on various weather conditions and airport operational conditions such as a shortened runway perhaps due to maintenance in effect. TOPCAT calculates the reference speeds and landing distances for varying brake settings and inoperative items on your aircraft.

TLR (Takeoff/Landing Report)
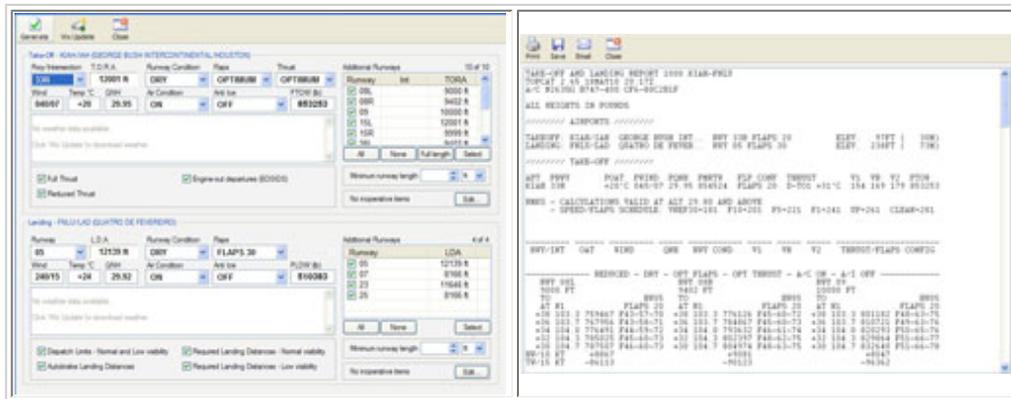
Take off and landing reports can be generated and printed from this page. This is extremely useful when flying in various weather conditions and while using specific runway lengths.

Weather
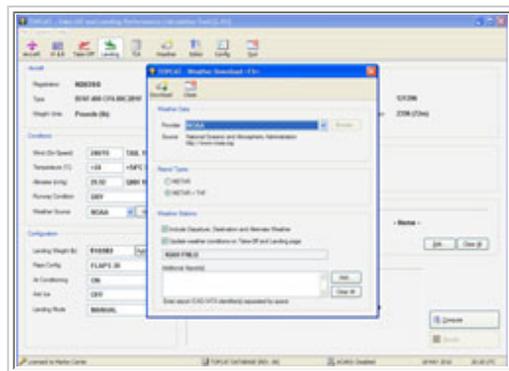
This page is self explanatory. This page allows you to update weather information from various sources such as IVAO, VATSIM, NOAA and ActiveSky. There is also a choice of whether you require METAR or TAF reports.

What about ACARS? Well if you fly for a virtual airline that operates a dispatch system, you will be able to receive loadsheets for your flight directly to your flight deck via ACARS. This feature utilizes Jeroen Hoppenbrouwers ACARS system. For more information see the TOPCAT manual and Jeroen Hoppenbrouwers website.

In closing, the default fuel and payload manager that comes with MSFS is very limited to say the least. I believe that this program takes flight planning to another level of realism that will, in the long run, help you and me both to become more proficient on any given aircraft and also better airmen.

The developers of this program have obviously put a lot into it and they deserve thumbs up for their efforts. Many simmers are already using this program and have all commented that it is an extremely useful tool in flight planning.

Before the era of TOPCAT, I relied heavily on first hand knowledge and limited performance information that was made available by aircraft developers. But now I can confidently say that this program is so comprehensive, that performance charts may now rarely be needed since all of your takeoff and landing data can be calculated and printed at the click of a button.

Summary / Closing Remarks

The TOPCAT tool for me has been the missing link in having that true to life flying experience. Performance calculations are an everyday part of flying whether you are a private pilot or a commercial pilot. Mimicking these tasks within the flight simulator can be extremely difficult without aircraft manuals, charts and accurate weather data but thankfully TOPCAT makes it all very easy for the majority of your favorite aircraft.

Is this product for you? Well it depends on how much of an enthusiast you really are. Some prefer to keep things simple by loading up an aircraft and flying to the destination of their choice without giving too much attention to cargo weights, density altitude, V-speed calculations and other preparations that have to be made before a flight.

If you are a hardcore simmer who enjoys all aspects of flying, including the preflight paper work and calculations then this program is a must have. It will not only increase the realism of your flying experience, but it will also help you to gain a deeper understanding of the physics of flight and aircraft performance.

What I Like About TOPCAT
• Easy to use program • Fully comprehensive instructional manual • Actual load sheets are generated and exported to flight simulator • No more reloading aircrafts in order to change fuel and cargo/ passenger loads • ACARS capabilities

What I Don't Like About TOPCAT
• I couldn't honestly think of anything I didn't like about the product. It's a useful tool that teaches the novice pilot all he needs to know to become a better pilot.

Printing

If you wish to print this review or read it offline at your leisure, right click on the link below, and select "save as"

TOPCAT

(adobe acrobat required)

Comments?

Standard Disclaimer
The review above is a subjective assessment of the product by the author. There is no connection between the product producer and the reviewer, and we feel this review is unbiased and truly reflects the performance of the product in the simming environment as experienced by the reviewer. This disclaimer is posted here in order to provide you with background information on the reviewer and any presumed connections that may exist between him/her and the contributing party.

Tell A Friend About this Review!

© 2010 - AVSIM Online
All Rights Reserved