



Manual

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IMPORTANT – PLEASE PERFORM THIS INSTALLATION STEP

In order to use FSFlyingSchool with Flight Simulator 2020 you must install John Dowson's and Peter Dowson's award winning **FSUIPC version 7**. If you already have FSUIPC7 installed on your PC, you do not need to install it again. To install it, simply launch its installer application - which is now included with FSFlyingSchool – it is inside the folder where you installed FSFlyingSchool on your PC.

The FSUIPC7 version you need is free - you do not need to buy (register) it.

FSFlyingSchool functions as a DEMO version until a registration code is put into its Credits Screen when FSFlyingSchool is running.

When flying with FSFlyingSchool MSFS 'Travel To' teleporting, MSFS 'Active Pause' and MSFS 'Simulation Rate' should not be used.

NOW includes

NEW! FSFlyingSchool Beechcraft Baron G58 Detail Pack

(See FSFlyingSchool Baron G58 Detail Pack Manual on your PC).
Adds an expert layer of instruction when flying the Baron G58!
You must use instructor Mr Smith with this pack.

NEW! FSFlyingSchool Taxiway Tutor Pack

(See Appendix C at end of this manual).
Adds monitoring of and instruction on taxiways, runways, markings and signs!
You must use instructor Mr Smith with this pack.

NEW! FSFlyingSchool Cessna 208B Detail Pack

(See FSFlyingSchool Cessna 208B Detail Pack Manual on your PC).
Adds an expert layer of instruction when flying the Cessna 208B!
You must use instructor Mr Smith with this pack.

NEW! Automatic Support for 84 Popular Aircraft

All the way from a Cessna 152 to a Boeing 747
Now your instructor is ready to fly with you TODAY!

FSFlyingSchool Voice Command add-on Pack

(See FSFlyingSchool Voice Command Pack Manual on your PC).
Now your instructor is listening to YOU!

FSFlyingSchool Beechcraft King Air 350 Detail Pack

(See FSFlyingSchool Beechcraft King Air 350 Detail Pack Manual on your PC).
Adds an expert layer of instruction when flying the King Air 350!
You must use instructor Mr Smith with this pack.

Airport add-ons are designed using many different methods and we make no claim that FSFlyingSchool will function as described with all airport add-on products for your simulator or with all airports included with the simulator.

FSFlyingSchool's software is not to be considered, in any way, implied, certified, suitable or valid for the training of any person for the operation of any aircraft, vehicle or equipment of any kind.

Introduction

Welcome to FSFlyingSchool 2023! To get the most out of this product, please read this manual. FSFlyingSchool uses sophisticated logic to analyze your flying technique, to help you refine and demonstrate your flying skills. Several of FSFlyingSchool's methods will be new, even to veteran simulation pilots, so please read about them in this manual, to discover how FSFlyingSchool works, what it is telling you, and why.

System Requirements

FSFlyingSchool recommends a PC well equipped to run the version of Flight Simulator you have selected. If the PC can run Flight Simulator at a good pace, without problems, FSFlyingSchool will run fine with it. If the PC is *struggling* to run Flight Simulator then FSFlyingSchool will be unable to give its best performance.

FSFlyingSchool's requirements are no more than Microsoft Flight Simulator 2020's requirements - if you meet Flight Simulator's requirements - that is all that is needed.

Installation

IMPORTANT! For FSFlyingSchool to install and to run correctly, you must be a *Computer Administrator* user and not a *Limited Account* user.

To install, simply run the installation EXE program supplied by FSFlyingSchool.

FSUIPC7

FSFlyingSchool uses John and Peter Dowson's excellent FSUIPC7.

You do not need to register FSUIPC7 in order to use FSFlyingSchool as FSUIPC7 works splendidly with FSFlyingSchool, whether registered or unregistered.

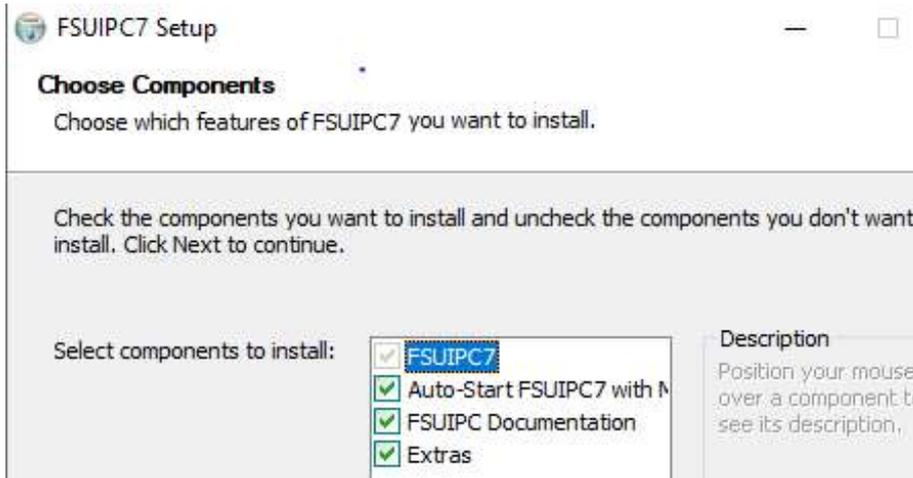
To use the free version of FSUIPC7, just press CANCEL or SKIP at the FSUIPC7 registration screen.

An installer for FSUIPC7 is included in the FSFlyingSchool installer program.

Microsoft Flight Simulator 2020

To configure Microsoft Flight Simulator 2020 to work with FSFlyingSchool:

- FSUIPC7 must be used – if it is already installed you do not need to install it again. **SKIP AHEAD to “Launch Microsoft Flight Simulator”** below.
- If it is not already installed, shut down FSFlyingSchool if it is running and then shut down Microsoft Flight Simulator.
- The install program for FSUIPC version 7 is included in the install program for FSFlyingSchool.
- Launch the FSUIPC v 7 **install program** to install FSUIPC7 on your PC.
- We **recommend** that you use the option in the FSUIPC7 installer which will **Auto-Start FSUIPC7 with Microsoft Flight Simulator** (as shown below)



- Launch Microsoft Flight Simulator. Once Microsoft Flight Simulator has loaded, get into an aircraft on the ground and ready to fly.
- If you chose *not* to let FSUIPC7 'Auto-Start' with Microsoft Flight Simulator, you will now need to launch FSUIPC7.
- Launch FSFlyingSchool. "FS2020" will be detected and FSFlyingSchool can then start monitoring it.

If your PC is struggling to run FS2020 it will not be ideally suited to running *any* other software at the same time. We have witnessed a noticeable delay in the response from *any* other software, including FSFlyingSchool, when running on a PC which can barely run FS2020. The solution of course is to upgrade your PC to run FS2020 smoothly.

Demo and Registered Versions of FSFlyingSchool

The FSFlyingSchool installation program downloaded from a web site, installs the *DEMO* version of FSFlyingSchool.

It can be unlocked to become a full version when registered with a registration key.

Differences between the demo and registered versions:

Demo:

- Pilot cannot submit scores to web tables
- Pilot must fly within area centered on Green Bay (KGRB)
- Cannot submit Flight Maps to web

Registered:

- Pilot can submit scores to web tables
- Pilot may fly anywhere in the world
- Can submit Flight Maps to web

Registration keys issued for *earlier* versions of FSFlyingSchool are not compatible with FSFlyingSchool 2023 for Microsoft Flight Simulator 2020.

This product **always** functions as a DEMO until it is registered.
If you like it and would like to own the full version, you will need to purchase the registration codes and **you** can then register the product.
Everyone starts with the **DEMO**.

In order to register FSFlyingSchool, you will need to enter the codes which came with your purchase. Download customers are sent registration codes.

Copy and paste your registration data into the Credits Screen of FSFlyingSchool 2023 for Microsoft Flight Simulator 2020.

Your registration data contains 4 sets of numbers.

They will look similar to these - (use the codes you bought - these are non-functional examples).

54755234

54755234

54755234

CA53-6A32-6443-CAB5-6501

After installation, launch FSFlyingSchool and just copy and paste the 4 individual numbers into the Credits Screen of FS FlyingSchool and then press the Register Program button.

If you have correctly registered the program, the fields will all turn gray to indicate that they cannot be changed and the Register Program button will also turn gray.

We do NOT recommend that you type the codes as the slightest mistake will mean it does not work.

Once your program is registered you will no longer be in DEMO mode.

You do not need to be connected to the internet when you enter your codes.

IMPORTANT TIP!

If the registration codes are rejected - the two most common reasons are:

1. The codes have not been entered correctly. **Always** use **COPY** and **PASTE** unless you are typing from a label inside the boxed version.
2. The user is entering the codes into *the wrong product!* Your codes will work **only** with **FSFlyingSchool 2023** for Flight Simulator 2020. They are not for any other product!

FSFlyingSchool News Updates

FSFlyingSchool will check for news updates for you when FSFlyingSchool is started. This is a great way to stay informed about news headlines in the world of FSFlyingSchool. New products, free updates and more!

If you prefer not to get the latest news, you can turn this off at the Settings Page (see below).

Quick Start

Please read this manual if you want to get the most out of flying with FSFlyingSchool.

If you would prefer to do this later and want to jump right into the cockpit, here's what you should do next:

- Launch Flight Simulator.
- Create or select a flight in Flight Simulator using an aircraft supported by FSFlyingSchool. Start with something simple like the Cessna 172. Do not choose a helicopter, glider, aerobatic plane or fighter as such flying is not supported by FSFlyingSchool at present. Aircraft supported are...
 - Aeroplane Heaven Cessna 140
 - Aerosoft CRJ 550
 - Aerosoft CRJ 700
 - Aerosoft CRJ 900
 - Aerosoft CRJ 1000
 - Aerosoft DHC6-100 Wheels Cargo
 - Aerosoft DHC6-300 Wheels
 - Asobo 103 Solo
 - Asobo A320 NEO
 - Asobo Aviat Husky A-1C Big Wheels
 - Asobo Aviat Husky A-1C Small Wheels
 - Asobo B747 8i
 - Asobo B787 10
 - Asobo Beech Baron G58
 - Asobo Beech King Air 350
 - Asobo Bonanza G36
 - Asobo Cap10C
 - Asobo Cessna 152 (Std)
 - Asobo Cessna 172
 - Asobo Cessna 172 G1000
 - Asobo Cessna 208B
 - Asobo CJ4
 - Asobo DA40 NG
 - Asobo DA40 TDI
 - Asobo DA62
 - Asobo DR400
 - Asobo Icon A5 (land operations)
 - Asobo Pipistrel
 - Asobo Savage Cub
 - Asobo SR22
 - Asobo TBM930
 - Asobo VL3
 - Asobo X Cub
 - Big Radials JRF-6B (land operations)
 - Black Box Britten Norman BN2 Islander
 - Carenado Beechcraft V35 Bonanza
 - Carenado C170B
 - Carenado C170B Tundra
 - Carenado CT182T Skylane
 - Carenado C195 Businessliner
 - Carenado C337 Skymaster
 - Carenado M20R Ovation
 - Carenado/MS Beechcraft D18S
 - Carenado PA28 Arrow III
 - Carenado PA34 Seneca V
 - Carenado PA44 Seminole
 - Carenado Pilatus PC12
 - DC Designs Concorde
 - FlightFX MG HJet HA420
 - FSReborn Sting S4
 - Iris J160
 - Iris J170
 - Just Flight BAE 146 100
 - Just Flight BAE 146 100 CC2
 - Just Flight BAE 146 200
 - Just Flight BAE 146 200QC
 - Just Flight BAE 146 200QT
 - Just Flight BAE 146 300
 - Just Flight BAE 146 300QT
 - Just Flight PA28 Arrow
 - Just Flight PA28 Warrior II
 - Just Flight PA28 Turbo Arrow III
 - Just Flight PA28 Turbo Arrow IV
 - Indiafoxtecho Long EZ
 - Mario Noriega C-22J Ventura
 - Microsoft Douglas DC-3
 - Microsoft Goose G21 (land operations)
 - Microsoft Junkers Ju52 1939
 - Microsoft Junkers Ju52 Modern
 - Microsoft Pilatus PC-6 G950 Wheels
 - Microsoft Pilatus PC-6 Gauges Wheels
 - Milviz Cessna 310R
 - Milviz PC-6/B Turbo-Porter Tundra
 - Milviz PC-6/B Turbo-Porter Wheels
 - Nemeth Designs Aerolite 103
 - NextGen EMB-110 Bandeirante
 - Parallel 42 Fox2
 - Parallel 42 Freedomfox
 - Simworks Kodiak Tundra
 - Simworks Kodiak Wheels
 - Simworks Van's RV-14
 - Simworks Van's RV-14A
 - Simworks Zenith CH701 STOL Skis
 - Simworks Zenith CH701 STOL Wheels
- Get that plane ready to fly, either in mid-air or on the ground. Get yourself at the controls of the plane.

- If you chose *not* to let FSUIPC7 'Auto-Start' with Microsoft Flight Simulator, you will now need to launch FSUIPC7.
- Launch the FSFlyingSchool program.
- Press the *Connect Button* in FSFlyingSchool.
- Switch back to Flight Simulator and enjoy your flight with FSFlyingSchool by your side!
- **But – you really should read this too...**
It is essential that you and your instructor agree on what stage of your flight you are presently executing. Are you taxiing, taking off, cruising or landing? FSFlyingSchool calls this your *Flight Mode* (continued next page)...
- FSFlyingSchool will attempt to detect this automatically during flight, but this can also be achieved by advancing (or backing up if you make a mistake) your *flight mode* using the following shortcut keys (for more information read *FSFlyingSchool Flight Modes* in this manual):

Shortcut	Default
Advance Flight Mode	[Ctrl-Shift-Z]
Back Up Flight Mode	[Ctrl-Shift-X]

NOTE: When flying with a Detail Pack in FSFlyingSchool for Microsoft Flight Simulator 2020

Ctrl-Shift-N tells the instructor to read the next appropriate checklist for that aircraft.

Ctrl-Shift-N toggles the NAV1 radio frequency in Microsoft Flight Simulator 2020 by default so you may wish to reassign that key command in Flight Simulator to a different key, or simply turn it off.

Getting the most from FSFlyingSchool

FSFlyingSchool is an add-on for Flight Simulator 2020 and as such depends on the pilot to operating Flight Simulator in a sensible manner. Although FSFlyingSchool contains many checks to stop it being misled by the pilot's actions, it is not impossible for it to be forced into losing track of what is actually happening in Flight Simulator. This will occur if the pilot makes drastic changes such as changing the aircraft *during* a flight, slewing the aircraft or changing the time of day or map location *during* a flight. If FSFlyingSchool detects an extreme change to the simulated flight, it will disconnect from Flight Simulator as it cannot support this style of operation. The reason for the disconnection will be described in the FSFlyingSchool *Log Book* Page.

Note that FSFlyingSchool is not intended for use with helicopters, gliders, aerobatics or combat flying at present.

The FSFlyingSchool Interface

Under normal circumstances, you will first launch Flight Simulator, get an aircraft on the ground and ready to fly, launch FSUIPC7 if not already running and then launch FSFlyingSchool. If FSFlyingSchool is correctly configured, it will successfully detect Flight Simulator. If it does not detect Flight Simulator, FSFlyingSchool will display the warning "No Flight Simulator Found" and you will not be able to press FSFlyingSchool's *Connect* button to start communications with Flight Simulator.

FSFlyingSchool's *Connect* button opens communications between FSFlyingSchool and Flight Simulator. In addition, FSFlyingSchool has a number of screen pages which control different aspects of configuration and use of FSFlyingSchool:

- Information
- Pilots
- Flight Plan
- Aircraft
- Log Book
- Settings
- Credits

Tips of the Day

A randomly selected tip is displayed when the user launches FSFlyingSchool. The tips can be examined one by one if the user prefers and this feature can be turned on or off as desired. The tips contain a wealth of information about how to get the most from FSFlyingSchool.

Information Page

The Information Page has handy information on how to fly different types of flight with FSFlyingSchool and also a convenient link direct to the FSFlyingSchool web site's Tutorials Page so that the user can jump to a set of detailed narrated video tutorials on how to get the most from FSFlyingSchool. There is also a button to launch the FSFlyingSchool Manual (this document you are reading) in PDF format. If you are using the DEMO (unregistered) version of FSFlyingSchool you may also want to take a look at the DEMO AREA MAP available from the Information Page.

Connect Button

The *Connect* button, when pressed, tells FSFlyingSchool to interact with Flight Simulator; Flight Simulator must of course already be running for this to occur and in order for a connection to be established, Flight Simulator must not be *paused*. (*If it is paused the actual connection will occur at the instant the pause is released in the simulator*).

The FSFlyingSchool *Connect* button will become a *Disconnect* button after you press it. You will normally leave FSFlyingSchool connected to Flight Simulator as you fly with your favorite FSFlyingSchool instructor, but if you wish to change key areas of the simulation, such as your Flight Simulator aircraft or location, you will need to disconnect FSFlyingSchool from Flight Simulator. You will also need to disconnect should you wish to change any key values in FSFlyingSchool, such as your pilot data.

Note that disconnecting FSFlyingSchool *will end your current flight with FSFlyingSchool*.

When you are ready to end your session in FSFlyingSchool, press the *Disconnect* button to end communications between FSFlyingSchool and Flight Simulator.

As you can see, disconnection can take place because you have told FSFlyingSchool to disconnect, or because FSFlyingSchool has detected a drastic change in the simulated situation and *must* disconnect. In either case, FSFlyingSchool's *Log Book* Page will display the reason for disconnection; this is not part of your flying record and so this information is not saved in your pilot's log book.

FSFS-Tip If, while in Flight Simulator, you are unsure if FSFlyingSchool is connected, you can request a “communications check” from your instructor by changing the frequency selected on your COM2 radio. If you wish you can use the COM2 standby switch to toggle the frequency back and forth. Your instructor will not say much, but you’ll hear a lot of throat clearing which tells you that FSFlyingSchool is connected and functioning.

Pilots Page

FSFlyingSchool gives you the tools to create a varied team of pilots, each with their own preferences and styles, so you can fly just the way you want. You may wish to create different pilot profiles for flying props and jets, for heavies and lights, or whatever else interests you.

FSFlyingSchool comes with 2 default pilot profiles to get you started. They are ‘HeavyIron’ and ‘LightSpeed’. The former likes to fly big planes and the latter likes them small. Note how their pilot profiles differ.

Pilots

- Pilot
This is the name of the pilot, either supplied by us or created by you. You may wish to indicate the type of aircraft this pilot prefers such as “Harry Heavies” or “Laura Lights”
- New Pilot
Press this button to create a new pilot.
- Load Pilot
Press this button to load an existing pilot.
- Save Pilot
Press this button to save the current pilot data. You should always do this if you change *any* of the data on the *Pilots Page*. Make sure the file name you use follows the usual Windows file naming conventions.
- Select Image
If you wish to give your pilot a face or perhaps a colourful logo, place the image you want to use into the

C:\FSFlyingSchool\2023\PilotRoster\Images

folder (or perhaps in another folder if you chose a different installation path). The image must be in the GIF, JPG or BMP file format and must be no more than 80 pixels high by 80 pixels wide. Press the *Select Image* button to select the image file you want.

The image will be shown in FSFlyingSchool when that pilot is selected and will also appear in the full pilot log book HTML file.

- Current Pilot File
This is the pilot file currently in use.

Sound Setup

- Instructor
Select any one of your installed FSFlyingSchool instructor voice sets from the list box. **Mr Smith has more to say than any other instructor...**
- Listen to Instructor
Press this button to hear the instructor speak.
- Disable sound
If you want to fly with an instructor who never speaks, check this box to silence FSFlyingSchool. Remember that your instructor is still watching your every move and will evaluate your performance and record the results in your log book.
- Background chatter
Your FSFlyingSchool instructors are a friendly, helpful team. They will offer tips and observations as you fly, but if you would prefer not to listen to these, clear this box to turn them off.
- Background humour
Your instructors make the occasional joke, but if you would rather they did not, check this box to keep things humourless and also keep your aircraft free of the mysterious grumpy stowaway child.

- Announce Nearest Airport
Instructor optionally *automatically* announces nearest airport within an approximately 35 NM radius. A great way to get familiar with an area.
- Want taxiing in wind advice
Correct use of ailerons and elevator while taxiing in a light aircraft on a windy day is a challenge in itself. Check this box if you want your FSFlyingSchool instructor to evaluate your performance in this important area.
- Monitor Use of Lights
Flying is more of a challenge if you are trying to use your aircraft lights correctly. Check this box if you want the instructor to monitor the correct use of any lights which you have indicated *for the current aircraft at the Aircraft Page*
- Waypoint Advice
Get help navigating waypoints in a flight plan by having your instructors announce them before you reach them. They'll tell you what they are and advise you on the turn you'll need to make when you get there.
- VOR/NDB Advice
Get a taste of VOR and NDB navigation by asking the instructor to give automatic advice on tuning and using these NAVAIDs at flight plan waypoints.
- Monitor NAV1 VOR
Mr Smith will be watching closely when you are navigating using VOR navigation aids. He will let you know the meaning of the different indications and components of your aircraft's VOR Indicator, such as the TO/FROM/OFF flag, the Omni Bearing Selector (OBS), and the Course Deviation Indicator (CDI). You'll get this information as you fly and change settings and of course as the instruments themselves react to your flight path. He'll also describe at length the general aspects of the different elements of VOR navigation as you fly along.
As you would expect, this information is not given if you have the NAV/GPS switch set to GPS.
All information given applies only to NAV1 and to VOR navigation. It does not apply to NAV2 nor to ILS, LOC, NDB or GPS navigation.
- Monitor Autopilot
Interactive help with the operation of the autopilot from Mr Smith right when you need it. **See full details in Appendix A at the end of this manual.**
- Monitor Weather
Interactive help with temperature, dew point, surfaces and more from Mr Smith right when you need it. **See full details in Appendix B at the end of this manual.**
- Monitor Crosswinds
Interactive help with crosswind take-off and landing from Mr Smith right when you need it. **See full details in Appendix B at the end of this manual.**
- Monitor Taxiways
Get ready for announcements of taxiways, runways, markings and more when you are in taxi mode at an airport with named taxiways. **See full details in Appendix C at the end of this manual.**

Control Setup

- I have yoke pressure
If you have a yoke with pressure feedback, such as those with a spring inside, then you will want to turn on this checkbox. When on, this control causes your FSFlyingSchool instructor to remind you to use your trimmers correctly. You may wish to do this even if you do not have yoke pressure feedback, though the effect will be more difficult to control.
- I use a rudder controller
If you have rudder pedals or a rudder control on your joystick, you will want to turn on this checkbox. When on, this control causes your FSFlyingSchool instructor to remind you to use your rudder appropriately to keep your turns coordinated. You may wish to do this even if you do not have a rudder controller, though the effect will be more difficult to control.

Automatic Detection Setup

- Cruise Mode
The pilot can indicate if cruise mode is to be automatically detected as the aircraft levels off after takeoff. *Experienced pilots prefer to turn this OFF once they have become familiar with FSFlyingSchool so that they can control this flight mode.*
- Landing Mode
The pilot can indicate if landing mode is to be automatically detected as the aircraft maintains a continuous descent. *Experienced pilots prefer to turn this OFF once they have become familiar with FSFlyingSchool so that they can control this flight mode.*

Automatic Radio Tuning Setup

- ILS
Instructor optionally tunes NAV1 (Navigation Radio One) to ILS (Instrument Landing System) at destination airport. Things can get busy so you can have your instructor take care of this for you if you wish.
- ATIS/AWOS/ASOS
Instructor optionally tunes COM2 (Communications Radio Two) to ATIS (Automatic Terminal Information Service) at destination airport. Handy to save time and COM2 will not interfere with ATC communications. If there is no ATIS, the instructor will tune AWOS or ASOS if available. In addition, the instructor will tune these services for you if they are present at the last 'nearest airport' announced. Remember that the *nearest airport* is announced automatically, if the pilot has chosen that option.
- VOR
Instructor optionally tunes NAV1 (Navigation Radio One) to the frequency of the next VOR NAVAID in your flight plan, when it becomes the next waypoint in your flight plan. Another time saver for when things are getting busy and ideal for working on VOR navigation.

Flight Plan Page

Several of the features of FSFlyingSchoolPro depend on the pilot filing a flight plan with FSFlyingSchoolPro. It only takes a moment and really does lead to a far richer experience when your flight instructor knows where you are going and how you intend to get there! Flying with Flight Simulator and FSFlyingSchool is a richer experience if you load a flight plan into FSFlyingSchool before starting your flight.

In order to use a flight plan with FSFlyingSchool:

1. Create or load an existing flight plan in Flight Simulator.
2. Select the *Flight Plan* page in FSFlyingSchool. Browse to your Flight Simulator flight plan folder and press the *Load Flight Plan* button. A dialog window will now list the available flight plans. Select the flight plan you loaded into Flight Simulator and press the *Load Plan* button. FSFlyingSchool will list the waypoints of the flight plan. If the plan contains more than 25 waypoints, the list will be abbreviated, but the destination waypoint will always be shown.
If FSFlyingSchool cannot find the FSFlyingSchool runway data it will advise you.
3. Fly your flight as normal, but take care to pass the waypoints within 1 nautical mile in a light aircraft or within 3 nautical miles in a heavy. As you pass within this minimum distance, your instructor will bring this to your attention. When a waypoint in a flight plan is reached, your instructor will announce this, and announce the number, name, distance and heading of the next waypoint.

The *Flight Plan Page* also allows you to specify V_1 , V_r and V_2 speeds for your flight and these will be called off by your instructor as you reach them.

You can also specify a transition altitude, which your instructor will be watching to make sure you use your altimeter correctly. You can change the transition altitude during the flight if this is appropriate. For your convenience, the transition altitude is saved with FSFlyingSchool's data – it will be the same the next time you launch it.

In addition, you may choose to end the flight, after landing, when the aircraft is:

- Stopped or Taxiing
- Stopped and the parking brake is set
- Stopped and the parking brake is set and the engine(s) are off

If you choose to cancel the current flight plan, simply press the *Clear Flight Plan* button in FSFlyingSchool.

You can even load a new plan during a flight, but FSFlyingSchool will expect you to start it from the beginning of the plan.

Aircraft Page

FSFlyingSchool comes with its own data files for several of the Flight Simulator community's favorite aircraft.

The fields on the Aircraft Page are as follows:

Other Data

- Retractable Gear
Checked if the aircraft has landing gear which can be raised during flight.
- Float Plane
Checked if the aircraft can land on water.
- Flaps allowed down during taxi
Checked if it is normal practice to taxi with this aircraft's flaps down.
- Spoilers
Checked if the aircraft has spoilers.

IAS Data

- Clean Stall
Stall speed with flaps up.
- Landing Configuration Stall
Stall speed with flaps configured for landing.
- Max Gear Extension
Maximum speed at which the landing gear can be extended.

Monitor Engines

- Check this box if you want your instructor to monitor your use of aircraft engines.
- As an added convenience, this can be turned on and off *while flying*. There is no need to disconnect FSFlyingSchool to do this.

Monitor Lights

- The checkboxes here allow you to select precisely which lights you want monitored or not for the aircraft in question. You can monitor none, some or all of the lights.
Note that this is used in conjunction with the **Monitor Use of Lights checkbox at the Pilots Page**, which if off, will mean that no lights are ever monitored.
- As an added convenience, these checkboxes can be turned on and off *while flying*. There is no need to disconnect FSFlyingSchool to do this.

Flap Settings

- Position
For each flap setting this is the flap Position in degrees of flaps, using decimal fractions when required. If the aircraft has flaps, these entries will never be zero. For example: 20 (degrees)
- Max Speed
For each flap setting, this is the maximum speed (KIAS) at which the aircraft can be flown. If the aircraft has flaps, these entries will never be zero. For example: 110 (KIAS)

Sound Settings for this Aircraft

Configure FSFlyingSchool's sound the way you want it to work with this particular aircraft.

- Instructor Volume
The loudness of your FSFlyingSchool instructor will not need to vary much, but you can fine tune it to suit the background noise of your selected aircraft. This will in turn depend on the volume settings you have chosen within Flight Simulator. Note that the setting you choose here relates to the specific aircraft you are flying in Flight Simulator; you may have different settings for each of your favorite aircraft. If the aircraft noise is loud then choose a loud setting for your FSFlyingSchool instructor; if quiet then choose a quieter one.
- Listen to Instructor
Press this button to hear the instructor speak at the chosen volume level.
- Disable Instructor Altitude Calls
If you are flying an aircraft which has its own built in ground proximity warning system (GPWS) then you may wish to check this box in order to tell your instructor that you don't need any such information from FSFlyingSchool. Also inhibits instructor descent rate calls at landing.

Cessna 172 Options (Accessible only when connected to this aircraft)

Configure the way you want to work with one of FSFlyingSchool's major features.

- Monitor Cessna 172
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the Cessna 172 the standard, more relaxed FSFlyingSchool treatment.

Cessna 152 Options (Accessible only when connected to this aircraft)

Configure the way you want to work with one of FSFlyingSchool's major options.

- Monitor Cessna 152
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the Cessna 152 the standard, more relaxed FSFlyingSchool treatment.

Beechcraft King Air 350 Options (Accessible only when connected to this aircraft)

Configure the way you want to work with one of FSFlyingSchool's major options.

- Monitor Beechcraft King Air 350
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you!
Alternatively, if you want the quiet life, turn this off, and the instructor will give the Beechcraft King Air 350 the standard, more relaxed FSFlyingSchool treatment.

Cessna 208B Options (Accessible only when connected to this aircraft)

Configure the way you want to work with one of FSFlyingSchool's major options.

- Monitor Cessna 208B
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you!
Alternatively, if you want the quiet life, turn this off, and the instructor will give the Cessna 208B the standard, more relaxed FSFlyingSchool treatment.

Baron 58 Options (Accessible only when connected to this aircraft)

Configure the way you want to work with one of FSFlyingSchool's major options.

- Monitor Baron 58
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you!
Alternatively, if you want the quiet life, turn this off, and the instructor will give the Baron 58 the standard, more relaxed FSFlyingSchool treatment.

Log Book Page

As when flying in the real world, your log book becomes an invaluable record of your flights. FSFlyingSchool enhances basic real world log book data by the introduction of a written review of each and every flight you have flown with an FSFlyingSchool instructor. A brief version of this information is shown on the FSFlyingSchool Log Book page – to see more, click on the View Full Pilot Log Book button on the Log Book page.

When a flight flown with FSFlyingSchool ends, the FSFlyingSchool log book will display your instructor's detailed analysis of your flight, containing the following elements:

- Summary information on the pilot, aircraft, flight start, end, duration, visibility, wind, Flight Simulator version, aircraft model, registration, flight number, airline and flight plan.
- All failures which occurred during the flight, with an indication of whether the system is *still* inoperative and the total duration of the failure. This enables pilots to see if they correctly diagnosed those systems which failed during the flight and also gives an indication of how serious those failures were. Failures affect your score. Scores are increased in proportion to the severity and duration of the failure.

Example:

Failure(s):

COM1 Radio inop for 202 secs, still inop

Electrical System inop for 3.5 secs

Fuel Indicator(s) inop for 26.5 secs, still inop

Turn Coordinator inop for 47.5 secs

- Failures which occurred during flight are reported in detail in the log book, listing the instrument or system involved and the time at which the failure occurred. In addition, if a failed instrument or system should start working again, because the pilot has chosen the option of 'loose wire' failures, this is also listed. Pilots can see if they correctly diagnosed systems which failed during flight and may even discover a few they missed.

Example:

Failure Event(s) (Zulu Time):

Failure: Z21:11:17 Heading Indicator

Failure: Z21:15:36 Altimeter

Working: Z21:17:46 Altimeter

- Failure bonus.
- Flight duration.
- Landing score and evaluation. Any corrective advice that your instructor gave you during your landing will be listed here and often a lot more besides, including acknowledgement of those things you did correctly.
- Flight score and evaluation. Take note of the items to which your instructor draws your attention. Take credit for those you did well.
- Circuit score and evaluation. If you flew a circuit around one of your favorite airports, your demanding FSFlyingSchool instructors will let you know all about any areas of your circuits you need to improve.

At the end of a flight you will be presented with links to the FSFlyingSchool online score tables. The links shown will depend on what type of flight you have just flown. You must have an open internet connection when you click on the link in order to submit scores.

- Submit landing score to the online table
Press this link to submit your best landing scores to the online table.
- Submit flight score to the online table
Press this link to submit your hard earned flight scores to the online table.
- Submit circuit score to the online table
Press this link to submit your circuit scores to the online table.

FSFlyingSchool records your log book entries so that you can review your performance over time. To access this information, click on the View Full Pilot Log Book button on the Log Book page.

Career Analyzer

For an in depth analysis of the pilot's flying career with FSFlyingSchool, press the Career Analyzer button (this cannot be done while *Connected* to the simulator – so if *Connected* press the FSFlyingSchool *Disconnect* button first).

At first, FSFlyingSchool will open your browser to display a graph of the *Landing Scores* of the currently selected pilot, but this is just the beginning...

FSFlyingSchool's unique Career Analyzer examines over 70 different aspects of the pilot's performance during landings, circuits and flying in general. The following controls are provided to control the graph:

- Aircraft
Use this list box to restrict the pilot's Career Analyzer to a single aircraft.
- Show
Use this list box to choose the flight parameter you wish to examine.
- Compare with
Use this list box to choose the second flight parameter you wish to examine.
- Show all values
Check this box to show all flights flown regardless of date.
- Date slider
Use this slider to adjust the period of time under analysis.

At first, the graph shows flight, circuit and landing information gathered from the last 20 landings the pilot performed, but the horizontal scroll bar at the bottom of the graph can be moved to show data all the way back to the start of the pilot's career.

Flight parameters of a true or false nature (such as *Wings not Level near Ground*) are displayed as single points rather than graphed.

The pilot's career is analyzed only after the pilot has achieved at least *two landings*.

To examine the career of a different pilot, simply select a different pilot at the Pilots Page.

FSFS-Tip Use the Career Analyzer to find areas of your performance which need attention and concentrate on getting them just right. Areas such as *Landing Vertical Speed* and *Rough Turns* are good places to start.

When you have finished using the Career Analyzer, close its window to return to FSFlyingSchool.

Pilot Briefing

If you've ever wondered which areas of your performance you need to concentrate on, the Pilot Briefing will provide the answers you need. Click the Pilot Briefing button (this cannot be done while *Connected* to Flight Simulator – so if *Connected* press the FSFlyingSchool *Disconnect* button first). Use the drop down to select a pilot's log book information. Then click the load button and so long as the pilot has saved a few flights in his/her log book, you will be shown the areas which that pilot:

- Has no improvement
- Is improving
- Is mastering
- Has mastered

In order to keep the information concise and to the point, areas in which the pilot has had no trouble are not listed. You will be looking at aspects of flying that have proven to be problems.

FSFS-Tip Use the Pilot Briefing before a flight to get the low down on which areas of performance you need to improve in the next flight. Keep practicing and you will soon have them mastered.

When you have finished using the Pilot Briefing, close its window to return to FSFlyingSchool.

Traditional Log Book

For a traditional pilot log book, showing one line for each flight completed, press the *Traditional Log Book* button (this cannot be done while *Connected* to Flight Simulator – so if *Connected* press the FSFlyingSchool *Disconnect* button first).

FSFlyingSchool will display a list of all flights flown by the currently selected pilot.

The log records multiple columns of data which are traditionally maintained, in real aviation, for each flight.

The following controls are provided to control the Traditional Log Book:

- Aircraft
Use this list box to restrict the pilot's Traditional Log Book to a single aircraft.
- Previous Page
Press this button to flip back to the previous log book page.
- Next Page
Press this button to flip forward to the next log book page.
- Print Page
Press this button to print the page currently displayed on the screen.

The following columns are shown in the Traditional Log Book:

- Date
Date flight began.
- Type
Aircraft type, such as *Cessna* or *Boeing*.
- Ident
Aircraft registration.
- Airline
Abbreviated airline.
- Flight
Flight number.
- Depart
Departure time.
- Arrive
Arrival time.
- Day
Hours flown during day.
- Night
Hours flown during night.
- Inst
Hours flown using an IFR flight plan. For this item of data, for simplicity's sake, pilot's use of IFR plan is checked once, when the aircraft lands.
- Total Length
Total length of flight.
- Distance
Distance of flight.
- Block Time
Time of flight from pressing FSFlyingSchool *Connect* button to end of flight.

The vertical scroll bar at the right of the page can be moved to scroll the displayed data up and down the current page.

To examine the log book of a different pilot, simply select a different pilot at the Pilots Page.

FSFS-Tip Use the Traditional Log Book to monitor how many hours you're clocking up, especially on instruments and also to keep track of data for your membership in a **Virtual Airline!**

When you have finished using the Traditional Log Book, close its window to return to FSFlyingSchool.

Save & View Google Map of Flight (displayed after Disconnect pressed)

Wouldn't it be nice to be able to review your flight paths over real world satellite terrain using Google Maps? And... wouldn't it be just great to be able to store them and look back over them at your leisure? How about sharing them with friends? Oh - and how about tracking taxi routes too?

You can do all of this with FSFlyingSchool's Flight Mapping feature!

In order to share a map - just copy the URL in the browser's web address field at the top of the screen and email them the address.

View all Flight Maps

This button will open a browser which lists all the *Flight Maps* you have logged with FSFlyingSchool. You can review them at your leisure!

Settings Page

This page displays miscellaneous information about FSFlyingSchool's connection to Flight Simulator and FSUIPC, and provides a means to generate runway data for FSFlyingSchool.

See Voice Command Pack Manual for details on settings here for the Voice Command Pack.

In order to generate the runway data for FSFlyingSchool, simply press the appropriate button at the Settings Page.

The process will launch 2 external programs in separate windows and will take a few minutes

You only need to perform this operation once, unless you update your Flight Simulator runway data, in which case you should run it again.

FSFlyingSchool News Updates

You can click this button to either turn on or turn off (toggle) whether FSFlyingSchool will check for news updates for you when FSFlyingSchool is launched. This is a great way to stay informed about news headlines in the world of FSFlyingSchool. New products, free updates and more!

You can also turn on several types of spoken tips at this page.

FS & FSFS Tips

These tips relate to the operation of the FSFlyingSchool and Flight Simulator programs and are spoken by the instructor directly to you the PC user - they are not "in the character" of the instructor and talk about keys and other PC procedures.

Aviation Tips

These require that the "background chatter" be turned **on** at the FSFlyingSchool Pilots Screen. If these tips are turned on, then during flights, the instructor will talk about aviation basics, such as cockpit instruments, etc.

Instant Help

If turned on the pilot will get spoken tips on aircraft instruments, switches and controls when they are used during flights.

Autopilot Tips

If these are turned on, you'll get tutorial tips on getting the most out of the autopilot, best practices and much more.

Weather Tips

If turned on, you'll get tutorial tips on temperature, runway elevation, dew point, precipitation, cloud cover, low light, crosswinds and much more.

Taxiway Tips

If these are turned on, you'll get tutorial tips on taxiways, runways, markings, lights and more when you are in taxi mode at an airport with named taxiways.

Credits Page

This is where we acknowledge those behind the FSFlyingSchool concept and the help we have received from the dedicated team of enthusiasts who have made FSFlyingSchool what it is today and will be tomorrow.

The registration section of this page allows users with a registration key from FSFlyingSchool to register the program and enjoy the benefits. Help for the registration process is available by pressing the *Registration Help Movie* button.

FSFlyingSchool Instructors

FSFlyingSchool gives you the unlimited services of several different FSFlyingSchool instructors. The role of the instructor is to praise good work, give you flying tips, tell you immediately whenever you do something wrong, score your performance in several areas, record what you did in your log book and much more.

You choose from an eclectic team of male and female instructors, each with their own personality, nationality and style.

Your actions and the current stage of your flight will determine what your FSFlyingSchool instructor says to you. The instructor knows better than to bother you with mere details when you are just about to land, and will not ask general questions about your flight during crucial periods.

In many cases, your instructors will give you tips on what to do next and warn you before you make a mistake that would cost you points.

Scoring Points

Think you've got what it takes to be a great pilot? Prove it!

One of FSFlyingSchool's most exciting and innovative features is its detailed evaluation of your flying skills, where a precise score is assigned to each of several aspects of your flight.

FSFlyingSchool invites you to "Put your money where your mouth is."

Points can be earned in these areas of flying:

Flight

Your FSFlyingSchool instructor will keep an eye on your performance throughout your flight and give you an overall score. If you want to do well, fly realistically. No aerobatics; no combat manoeuvres.

See the information later in this manual which describes what your instructor is watching during each flight.

Landing

Because landing is such a crucial, demanding stage of any flight, FSFlyingSchool evaluates it separately. This feature is also a great tool for those pilots who enjoy practicing landings repeatedly until they can get them 'just right'. Once you can get your aircraft down perfectly, move on to something trickier or larger and add in a gusting crosswind and some rotten weather.

See the *Landing* section later in this manual.

Circuits

If you would like to try your hand at flying circuits, your FSFlyingSchool instructor is ready to grade you on your performance. You will need to stay within some pretty demanding limits to get your best score.

See the *Circuits* section later in this manual.

Airmanship Challenge

For those who are wondering if they have mastered some of the most basic flying skills, the Airmanship Challenge gives you an instant answer. Simply press [Ctrl-Shift-C] while flying (without autopilot) and your FSFlyingSchool instructor will set you an immediate task to perform. Some will be quite simple; others very hard. Still too easy? Add in some heavy weather and see how well you do...

See the *Airmanship Challenge* section later in this manual.

Autopilot effect on scoring

If your aircraft has an autopilot and it is used for an appreciable period during your flight, your scores are affected as follows:

Scoring	AP Effect
Flight	Reduced by 33%
Landing	Reduced by 33%
Circuits	Reduced by 33%
Airmanship Challenge	No points

The *exceptions* to this rule are when:

- In cruise mode in a light aircraft above 1000 feet AGL
- In a heavy aircraft and cruising, or taking off and above 600 feet AGL, or landing and above 900 feet AGL

In these cases, no points are lost by having the autopilot engaged. This gives the pilot a chance to use the autopilot on long flights without losing points, but note that the aircraft must be significantly above the ground.

Scoring is affected by visibility and wind at your destination airfield and by the weight and speed of the aircraft you are flying. Failures affect your score in proportion to their length and severity..

In order to get a *flight score* you must *take off and land*. If you started in the air, you will still have your flight evaluated when you land, but will not score points for your *flight*. In addition, you must fly for a minimum of 30 seconds to get your flight evaluated.

You must fly for a minimum of 30 seconds to get your *landing* evaluated.

After your landing, flight or circuit has been evaluated, you may wish to take a look at your FSFlyingSchool log book, either inside FSFlyingSchool or by launching the HTML log book by clicking on the *View Full Pilot Log Book* button on the Log Book page of FSFlyingSchool.

When a flight ends, you may wish to share your performance with other users by submitting your score to the FSFlyingSchool website.
For more information see the Log Book Page section of this manual.

FSFlyingSchool Flight Modes

FSFlyingSchool flight modes reflect the current stage of your flight. They are:

- *Taxiing*
- *Take Off*
- *Cruise*
- *Landing*

Your FSFlyingSchool instructor will evaluate certain sections of your flight depending on the current flight mode.

It is normally up to you, as pilot in command, to tell the FSFlyingSchool instructor what your intentions are; in other words, which flight mode you are in.

FSFlyingSchool's approach is that the pilot has to think in terms of what stage of the flight he or she is in. We feel that this is not much of a chore, considering a *real* pilot announces intentions to:

- himself/herself - before deciding which checklist to check
- the passengers - even in general aviation, so they know what's coming up next
- the 1st officer - as part of normal procedures

Many simmers often fly a little looser than would be expected in real flight, and the main focus of FSFlyingSchool is to help the pilot behave more like a real one - especially in terms of control of the aircraft.

It is essential that you and your instructor agree on what stage of your flight you are presently executing.

- FSFlyingSchool will attempt to detect this automatically during flight, but this can also be achieved by advancing (or backing up if you make a mistake) your flight mode using the following shortcut keys.

Shortcut	Default
Advance Flight Mode	[Ctrl-Shift-Z]
Back Up Flight Mode	[Ctrl-Shift-X]

FSFS-Tip Our team at FSFlyingSchool like to map these keys to yoke and joystick buttons. You can assign these key combinations to your yoke or joystick using their manufacturer's keystroke assignment mapping software, or by using the key mapping facilities in a registered version of FSUIPC.

Flight modes are arranged in the sequence they naturally occur in real flights. You begin in *Taxi Mode*, advance to *Take off Mode*, move onto *Cruise Mode*, then *Landing Mode*, perform a landing and finally return to *Taxi Mode*.

FSFlyingSchool will automatically change the flight mode for you if it is *obvious* that this is appropriate:

- If you taxi very fast or leave the ground while taxiing, you will go into *Take Off Mode*.
- If you level off at a sensible altitude, you will advance to *Cruise Mode*.
- If you start a steady descent you will go into *Landing Mode* unless at a high cruising altitude.
- If you touch down, you will go into *Landing Mode* if you are not already in it.
- When you stop on the ground during a landing, you automatically advance to *Taxi Mode*.

Taxiing

If you connect to FSFlyingSchool when your aircraft is on the ground you will be automatically placed into *Taxi Mode*. If you started in the air, once you complete your landing, use [Ctrl-Shift-Z] or a programmed button to advance the flight mode to *Taxiing* (this will happen automatically if you stop on the ground).

While you are taxiing, your FSFlyingSchool instructor will be watching out for:

- Dangerous taxiing turns - these cause discomfort and stress
- Poor attention to taxi speed - dangerous to yourself and others
- Throttle and brakes during taxi - bad for many systems
- Harsh braking - taxi gently and brake smoothly
- Use of flaps while taxiing - up or down as appropriate

If you are piloting a small aircraft, your FSFlyingSchool instructor will also be watching out for:

- Poor elevator control during taxi in wind - danger of flipping
- Poor aileron control during taxi in wind - danger of flipping

Take Off

Before you tell your FSFlyingSchool instructor you are ready to take off, get lined up with the runway centre line. Set NAV1 OBS (the omni-bearing-selector of navigation radio one) to the exact heading of your departure runway.

Using Ctrl-Shift-Z or a programmed button, advance the flight mode to *Take Off*.

While you are taking off, your FSFlyingSchool instructor will be watching out for:

- Poor steering during takeoff - stay in the centre of the runway
- Braking during takeoff - watch those feet
- Late rotation - when V_r is reached - take off
- Loss of altitude during takeoff - climb smoothly

Cruise

If you connect to FSFlyingSchool when your aircraft is in the air you will be automatically placed into *Cruise Mode*. If you started on the ground, once you complete your take off and climb to cruise altitude, FSFlyingSchool will detect this and change to *Cruise Mode*. If your flying suggests otherwise and this has not occurred, use [Ctrl-Shift-Z] or a programmed button to advance the flight mode to *Cruise*.

If you have loaded a Flight Simulator flight plan into FSFlyingSchool, then take care to navigate so as to pass the waypoints on the plan within 1 nautical mile in a light aircraft or 3 nautical miles in a heavy, and in the correct sequence, in order to score points with your FSFlyingSchool instructor.

If you begin a steady descent, you will be automatically placed into *Landing Mode*, unless your aircraft is still at a high altitude.

If you are not already in *Landing Mode*, you should advance the flight mode to *Landing Mode* before you descend below 1000 feet AGL (Above Ground Level), or your FSFlyingSchool instructor may reduce your score due to flying too low at too great a speed.

Landing

If you connect to FSFlyingSchool when your aircraft is in the air and below 1000 feet AGL (Above Ground Level), you will be automatically placed into landing mode.

In all other cases, when you have finished cruising and are about to begin your approach, FSFlyingSchool will detect a steady descent and advance you to *Landing Mode*. If the situation has suggested otherwise and this has not occurred, use [Ctrl-Shift-Z] or a programmed button to advance the flight mode to *Landing*.

Before entering *Landing Mode*, NAV1 OBS (the omni-bearing-selector of navigation radio one) should always be set to the exact heading of the runway you intend to land at, regardless of whether the approach is to be flown visual or using ILS. If you frequently perform ILS approaches, you will already be familiar with this concept. In FSFlyingSchool it is essential, as many aspects of your flight and the score which your FSFlyingSchool instructor awards you are based on the bearing set on NAV1 OBS.

If the aircraft's NAV1 radio is tuned to a runway ILS, the instructor will announce this with reference to the NAVAID at the runway and also which specific runway has been selected. This helps the pilot confirm that the correct ILS signal is being received and is a convenient reminder of where to land.

While you are landing, your FSFlyingSchool instructor will be watching out for:

- Landing too hard – this may damage your aircraft or landing gear
- Landing too fast – you may float and you will use a lot of runway
- Wings not level – you may clip the ground or damage your gear
- Landing away from the centre line
- Pitching down hard at touch down – can damage your aircraft
- Pitching up hard at touch down – can damage your aircraft
- Nose up too high – poor visibility and danger of tail strike
- Nose down too low – danger of failing to land on main gear
- Poor alignment with the runway – point down the runway centre
- Throttle(s) not idle
- Poor alignment with runway during approach
- Poor tracking of glideslope during approach
- Poor steering after landing
- Glideslope lost before you flared
- Failure to use spoilers correctly
- Amphibian plane landing with retractable gear down on water

If you are piloting a heavy aircraft, your FSFlyingSchool instructor will also be watching out for:

- Failure to use flaps

If you are piloting a small aircraft, your FSFlyingSchool instructor will also be watching out for:

- Failure to use flaps if no appreciable crosswind

In order to get any kind of ILS based glideslope and localizer score, your equipment must detect an ILS signal when you descend through 500 feet AGL (Above Ground Level) during your landing.

Your tracking, during your approach, of the ILS glideslope and localizer, or the visual glideslope and runway centre line, affect your landing score to an extent.

They are verbally evaluated, separately, upon landing with their own scores, out of a hundred.

For example, you might score 80 for the glideslope and 70 for the localizer.

This score is used to produce some of the points for your final landing score.

In a simple landing, the maximum landing points to be gained from glideslope and localizer performance is 20 points.

As an example, in the simplest landing situation, if you tracked the glideslope and localizer perfectly, you would get a

- glideslope score of 100

and a

- localizer score of 100

These are read to you by your instructor when you land.

This would add a total of 20 points to your final landing score, because your performance on the glideslope and localizer is only part of what makes a good landing.

Note that when landing at a runway which is part of add-on scenery, the location of the runway in FSFlyingSchool's whole world runway data or the signal of the ILS on an ILS approach, *may* not match the physical position of the runway in the add-on scenery.

We have seen ILS signals direct us down into a lovely field next to the runway... or worse...

If such mismatched runways are used for visual approaches with FSFlyingSchool, this may lead to poor scores and confusing instruction, *because the runway is not where the data says it is!*

If such mismatched runways are used for ILS approaches with FSFlyingSchool, this may lead to poor scores and confusing instruction, *because the runway is not where the ILS says it is!*

In the end, you should try an approach to the add-on scenery runway and see how it feels.

General aspects of good airmanship

While you are out there flying, your FSFlyingSchool instructor will be watching out for:

- Airspeed too low - risking stalls
- Ballooning during landing - needs practice
- Exceeding flap speeds - your flaps may be damaged
- Exceeding gear speed - your landing gear may be damaged
- Exceeding maximum speed - you may damage the aircraft
- Excessive G forces - your passengers will feel rather unwell
- Excessive speed at low altitude - may result in loss of licence or worse
- Excessive speed during approach - reduce speed earlier
- Flaps not down on time - plan your landing next time
- Narrowly missed obstacles - plan your safety altitudes
- Narrowly missed tail strike - watch your pitch: could be very bad
- Nose held too high - spilt drinks and worried expressions
- Nose held too low - we're not on a combat mission
- Poorly coordinated turns - use the rudder correctly
- Poorly trimmed aircraft - trimmers are there to help: use them
- Rapid descent - dangerous and uncomfortable
- Rough pitch control – feels like a rollercoaster
- Rough turns - your passengers will spill their drinks and have a pain in their necks
- Stalls – in a word: dangerous
- Steep banking - save your aerobatic flying for some other time
- Wings not level near ground - danger of clipping a wing or damaging your gear

Pre-flight checks

Your instructor will be looking for *pre-flight* checks in the following areas:

- Rudder – full motion left and right (checked only if you have indicated you are using a rudder controller)
- Elevator – full motion up and down
- Ailerons – full motion up and down
- Flaps – lower full flaps and retract them
- Run up – check magnetos (piston aircraft)

Factors which affect your score

Your FSFlyingSchool instructor will make adjustments to your basic score based on the following criteria:

If your score was already good then:

- Aircraft weight
FSFlyingSchool generally considers heavier aircraft to be more demanding to fly than smaller machines. As a result, your score is increased in proportion to the weight of your aircraft. Flying the heavies has its rewards.
- Aircraft speed
Faster aircraft are considered by FSFlyingSchool to be to be more demanding to fly than slower aircraft and therefore your score is increased in proportion to the speed of your aircraft. If you can handle it, speed matters.

- Wind
If you have flown in a wind which is greater than 4 knots and which was more than 20 degrees deflected from the runway heading at landing, your score is increased in proportion to the strength of the wind. The nastier the crosswind, the higher your score will be.
- Visibility
When flights are flown in less than 1 mile visibility, your score is increased in inverse proportion to the visibility. When visibility gets very low, your score can get very high.

Regardless of your score:

- Autopilot
If an autopilot is engaged for a total of more than 10 seconds during the flight, your score is reduced by 33%, unless
in cruise mode and in a **light aircraft** above 1000 feet AGL
or
in a **heavy aircraft** and cruising, or taking off and above 600 feet AGL, or landing and above 900 feet AGL
Keep in mind that this can still produce excellent scores if you are flying a challenging aircraft in difficult conditions.
- Simulation rate
If your simulation rate is anything other than normal (simulation speed 1) for a total of more than 10 seconds during the flight, your score is zero; FSFlyingSchool does not support this kind of flying.

Visual Approaches

If an aircraft's NAV1 radio is tuned to the destination runway's Instrument Landing System (ILS) frequency, FSFlyingSchool uses the ILS to measure the pilot's adherence to the glideslope (vertical) and localizer (horizontal) signals from the destination runway. This provides an extremely accurate measure of how closely the pilot is following the correct approach to landing.

Alternatively, FSFlyingSchool also supports landings at airfields which do not have an ILS, or landing at runways which have ILS, but without using ILS.

FSFS-Tip To get set for a visual approach, you must be **lined up with the runway you intend to land at** and that runway **must be in front of you as you descend through 500 feet above ground level in landing mode** on your final approach. If you do not do this, your instructor won't know where you are going and you should perform a missed approach (climb and circle back to the runway once more) and try it again.

Remember:

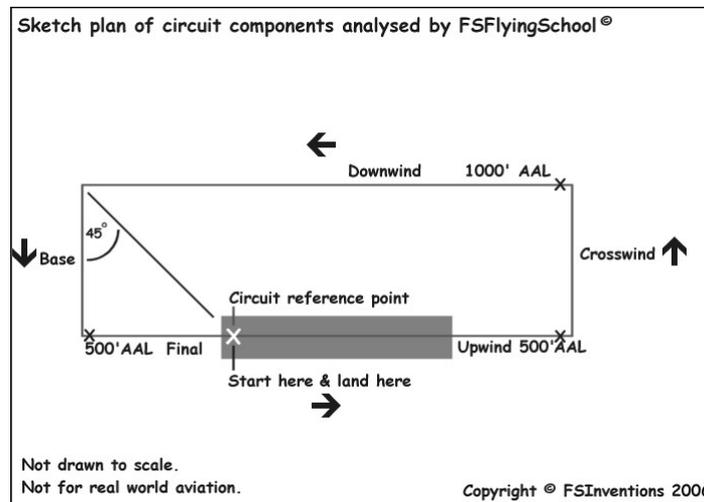
- In FSFlyingSchool's landing mode
- Lined up with the runway you intend to land at
- Runway in front of you as you descend through 500 feet above ground level

If FSFlyingSchool has information for a visual approach to the destination airport, but an ILS is detected (because NAV1 is tuned to it), it will use the ILS to evaluate the landing and will not use the visual approach information **even if you land on another runway which is not the one with the ILS signal. So.. don't do this!**

Circuits

Your FSFlyingSchool instructor is always ready to help you practice flying circuits around your favorite airports. This version of FSFlyingSchool supports left hand circuits only. Circuits are not supported in heavy aircraft.

FSFlyingSchool instructors will not evaluate circuits until the pilot has proven basic proficiency at flying and landing the aircraft. **A Landing Score above 70 and a Flight Score above 80 must be achieved before circuits can be flown with FSFlyingSchool.**



If you wish to fly a circuit, you should get into position, ready for take off on your departure runway, located at the point you intend to *land* and which will also be used for reference in turning from Downwind onto Base. Make sure you are lined up exactly with the runway centre line. NAV1 OBS should be set to the runway heading.

At this point, press [Ctrl-Shift-Space] to let your FSFlyingSchool instructor know you wish to fly circuits. If you have already achieved the required Landing and Flight scores, this will place you into *FSFS Circuit Mode* which will mean your FSFlyingSchool instructor will treat your flight as a circuit. You can exit this mode at any time by pressing [Ctrl-Shift-Space].

FSFlyingSchool records your *exact position* on the runway when you enter *FSFS Circuit Mode*. This is your *Circuit Reference Point*. FSFlyingSchool compares this to your position when you are flying the Downwind leg in order to determine when you should turn onto Base. This is normally done when this reference point is in the *8 o'clock* position (behind you over your left shoulder). If you pass this point, your FSFlyingSchool instructor will remind you to make the turn.

Once you lift off, your FSFlyingSchool instructor will announce that you are flying a circuit and give you a general guideline of how to fly each leg of your circuit as you enter it. If you wander from the basic parameters of the circuit, this will cost you points and your FSFlyingSchool instructor will give you tips on how to correct your mistakes.

Should you decide you would rather not continue flying a circuit, simply press [Ctrl-Shift-Space] to cancel *FSFS Circuit Mode*, but think first, because once you cancel your circuit, you cannot start a new one unless you are on the ground in *Taxi Mode* or *Take off Mode*.

FSFlyingSchool circuit legs reflect the current stage of your circuit; they are:

- *Upwind*
- *Crosswind*
- *Downwind*
- *Base*
- *Final*

Your FSFlyingSchool instructor will evaluate your flight depending on the circuit leg you are currently on. Unlike FSFlyingSchool *flight modes*, you do not need to tell your FSFlyingSchool instructor which leg of your circuit you are on; your instructor will determine that. Circuit legs are arranged in the sequence they naturally occur in real flights. You begin on the runway, take off into the upwind leg, turn onto crosswind, turn onto downwind, turn onto base and ultimately turn onto final. Landing ends your circuit.

When flying a circuit you should concentrate on the following points:

- Note exactly where you were when you entered *FSFS Circuit Mode*. This is your *Circuit Reference Point*. An effective method of orientation is to switch to the overhead view in Flight Simulator. Make certain you know exactly where you are on the runway.
- Carefully check that your heading indicator is set to the correct heading. This can be done by pressing *D* in Flight Simulator. Note that you may need to reset this *during* flight.
- Note the runway heading. The path of your circuit will be based on this. You may wish to set your autopilot heading bug (if available) to the runway heading as a reminder.
- Note the altitude of the *airfield*. You must be aware of your Above Airfield Level (AAL) during your circuit. Your instructor will talk to you in terms of your altitude above the airfield during the circuit. This is unlikely to be the same as the altitude above sea level.
- After lifting off, climb smartly to 500 feet AAL while maintaining a track extending from the runway centreline.
- At 500 feet AAL make a climbing turn Crosswind onto a track which is at 90 degrees to the runway heading.
- At 1000 feet AAL make a level turn Downwind onto a track which is parallel to the runway and maintain this altitude.
- When the *Circuit Reference Point* is in the *8 o'clock* position (behind you over your left shoulder), make a descending turn onto Base on a track which is at 90 degrees to the runway heading. Press *NumberPad1* key for a quick peek over your left shoulder.
- When ready, make a descending turn onto Final on a track which leads straight down the runway centre line. Plan to arrive on final while still at least 500 feet AAL.
- Land on the runway within 300 feet of your *Circuit Reference Point*.
- You must achieve a *landing score* of at least 50 in order to get a *circuit score*.
- Circuit legs must be flown within the following limits to qualify as a real circuit:

Leg	Minimum Duration	Maximum Duration
Upwind	20 seconds	6 minutes
Crosswind	20 seconds	6 minutes
Downwind	30 seconds	6 minutes
Base	05 seconds	6 minutes
Final	10 seconds	6 minutes

- When flying a circuit, keep in mind that your instructor is evaluating how well you are following the correct *ground track* for the circuit. This can be very difficult to achieve with a good crosswind – can you do it?

Airmanship Challenge

A short sharp test of your flying skills is never far away with the FSFlyingSchool Airmanship Challenge. With your autopilot off, simply press [Ctrl-Shift-C] at any time while in *Cruise Mode* and after a few seconds your FSFlyingSchool instructor will test your ability to maintain a randomly selected combination of:

Bank Angle
Altitude
Heading
Indicated Airspeed
Pitch

NOTE: Ctrl-Shift-C decreases cowl flap in Microsoft Flight Simulator 2020 by default so you may wish to reassign that key command in Flight Simulator to a different key, or simply turn it off.

You will quickly learn that this is relatively easy when flying straight and level, but becomes much harder when flying, for example, in a steeply banked climbing turn.

Any use of the autopilot during the test will cancel the test and result in a score of zero.

Advanced Airmanship Challenges

Whereas all of the basic Airmanship Challenges were based on *maintaining* a heading, airspeed, altitude, pitch or bank, these additional tests require the pilot to both **set up and maintain** up to 4 different flight parameters at the same time!

"Turn to 273 degrees, while climbing to 5,200 feet and accelerating to 85 knots indicated airspeed".

Are you flying at this level of precision? Can you prove it?

This is your chance to show Mr Smith you've got what it takes!

Advanced challenges are automatically mixed in evenly with basic challenges - so you need to be ready!

FSFS-Tip Make sure you start your airmanship challenges at an altitude that is several thousand feet above ground level as several of the tests will require that you descend.

Basic Challenge

Once a basic challenge starts the instructor will describe the flight parameters you are required to "maintain" and this will take a few seconds. At 10 seconds your performance will be monitored for a further 10 seconds. Finally you will be given your score which is also displayed on screen.

Advanced Challenge

Once an advanced challenge starts the instructor will describe the flight parameters you are required to "set and maintain" and this will take a few seconds. It will also take you a little time to achieve the required flight parameters such as altitude, speed, etc. At 20 seconds your performance will be monitored for a further 10 seconds. Finally you will be given your score which is also displayed on screen.

FSFS-Tip We hope that you are flying with your aircraft configured *realistically* in your simulator. If this is the case *gyro drift* will be ON meaning for example that a Heading Indicator will *drift* during flight. Just as in the real world, you should adjust this to match the magnetic 'whiskey' compass periodically. As a shortcut you can do this by pressing **D**.

Finally, keep in mind that some of the advanced challenge manoeuvres will require actions that are not necessarily part of the smooth, uneventful flight the FSFlyingSchool instructors want. As a result, you may, for example, be told off for "lowering your nose" if the test requires you to lose a lot of altitude, but this will not affect your Airmanship Challenge score.

Good luck and have fun learning with these challenges!

Adding Instructors

Each instructor has his or her own set of WAV files which are stored in a folder bearing the instructor's name.

The instructor folders are all in

FSFlyingSchool2023\Sound

or perhaps in another folder if you chose a different installation path.

Be sure to have a complete set of files for each instructor or you will hear only silence when FSFlyingSchool attempts to play missing files.

The audio format of all FSFlyingSchool files is

Microsoft PCM 11.025 kHz, 8 Bit, Mono

You may download extra instructor files which appear on the FSFlyingSchool.com website.

You can also create your own instructors using any tool capable of recording WAV files in the format shown above.

Try to make the files as short as possible and be certain to trim off any wasted space at the start and end of the file. This is essential to prevent long queues of audio files building up which will tend to lead to files not being played as they are too far out of sequence. Keep the files short and they will work splendidly.

The best way to go about creating your own instructor file sets is to create a new instructor folder, copy an existing set of files into it and then work your way through those files, replacing them with your own recordings as you create them. You will need to leave the *file names* exactly as they were; do not alter any of them.

Test any new FSFlyingSchool instructor file sets by selecting the instructor of your choice and using the *Listen to Instructor* button on the Pilot or Aircraft page.

Adding Aircraft by Installing New FSR Files

New FSFlyingSchool aircraft data (FSR) files are always being worked on and are published from time to time - these files allow you to fly with additional aircraft.

In order to install new aircraft FSR files into FSFlyingSchool:

1. Place the new FSR file into

C:\FSFlyingSchool2023\Aircraft

or perhaps in another folder if you chose *a different installation path*.

Location Triggered Sounds

FSFlyingSchool enhances your immersion in the simulation by playing files that depend on your location. These files are played when you are within a specific distance of the latitude and longitude coordinates contained in the filename of the associated sound file. For example, the file

"N52_28_46#E13_23_29 [Berlin Tempelhoff].wav"

will play when you are close to Berlin Tempelhoff airport.

Files with the prefix "LANDED#" will play only when a landing takes place in the specified region, not merely when flying over it. For example the file:

"LANDED#N41_58#W87_54 [Chicago OHare].wav"

will play when you land at Chicago O'Hare airport.

Files defined in degrees (with no minutes) are triggered within that exact area. Files defined in minutes are triggered if the pilot is within +/- 2 minutes. Files defined in fractions of minutes are triggered if the pilot is within +/- 0.02 minutes.

We have included several files which will play as you explore the world with FSFlyingSchool.

You can add your own 'location' files to be played when you fly over some of your favorite places using these simple steps:

1. Record the file you wish to play at the location you have chosen. Be sure to save the file in the following format:

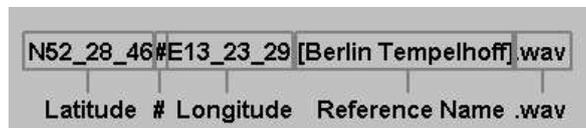
Microsoft PCM 11.025 kHz, 8 Bit, Mono

Make sure you trim off any unnecessary silence at the start and end of the recording. Keep the recording fairly short or it may clash with the other things happening during your flight with FSFlyingSchool.

2. Save your recorded file in

FSFlyingSchool2023\Locations

or perhaps in another folder if you chose a different installation path. The filename must follow this format:



Note that the latitude and longitude are given in degrees and minutes.

Flying FSFlyingSchool – help us build the add-on you want!

The most important thing you can do, of course, is take to the skies with FSFlyingSchool!

Be sure to start with landings and very short flights first so that you fully understand how FSFlyingSchool behaves before investing your time in long flights or demanding circuits.

Why not try out a range of different types of flights and report the results back to us?

Try flights with a variety of: aircraft; weather; times of day; hemispheres; durations; with and without flight plans; VFR and IFR; ILS and visual approaches.

Try flights with unusual parameters such as bad weather and even just plain bad flying!

At the end of each session you fly, you can submit your account of your experience with FSFlyingSchool to support@FSFlyingSchool.com

We'd like to hear:

- What you did - you can be brief because your log book (see below) will provide us with a lot of data.
- What you liked.
- What you did not like.
- Your suggestions.
- Error messages.
- Incorrect behavior or information.
- Performance problems.

In addition we would like to see any files you may have created yourself for:

WAV – Location files

WAV – Landing files

WAV – Instructor files

BMP/GIF/JPG – Pilot image files

Thanks – we look forward to hearing about your flights with FSFlyingSchool!

How to improve your flying (and your scores!) in FSFlyingSchool

Here are some tips on flying well in your simulator with FSFlyingSchool and for keeping those chatty instructors happy.

The following is a list of tricks and tips for flying with FSFlyingSchool with specific reference to what *does*, and *does not* matter when your instructors are up there with you in the virtual skies.

This is not an operating manual or checklist for any particular aircraft and the tips described apply in general to all powered aircraft except where noted.

We are concerned here with those elements of your flights with FSFlyingSchool that are noted by instructors. Flights in *real* aircraft involve a great deal of planning, inspections, communications and more and these details are not our subject here.

And of course, we are describing tips for flying well, with happy instructors and scoring points *in FSFlyingSchool*. *This is not to be used for real aviation.*

Pre-flight planning

- Weather has no effect on *increasing* your scores except at approach and landing. You can enjoy your flight with clear or challenging weather, but dealing with bad weather well will only *increase* your points scored when you are on approach and landing. If you choose bad weather for the whole flight, you may lose some points for rough handling of the plane as your instructors only take flying well in bad weather into consideration on... approach and landing.
- File a flight plan. This not only makes the whole flight more chatty, informative, realistic and interesting, but also means you'll pick up points for crossing waypoints in the correct sequence.
- Size matters. Heavier aircraft mean more points. They are harder to manoeuvre and must generally be flown faster than lighter aircraft so take one on and see your points go up, so long as you can handle it well!

Taxi out and take off

- Watch your taxi speed and use gentle turns and braking on the ground. Keep the whole thing smooth and easy; no darting this way and that.
- Just before advancing FSFlyingSchool to 'take off mode' make sure you are pointing straight down the runway center line. The instructor will expect you to stay on that line until you are airborne.
- Keep that airplane straight on your take off run. Remember to use your rudder pedals for steering. You may find that on a small propeller plane you need to kick in some right rudder to neutralize a tendency to yaw to the left.
- When rotation speed is reached - rotate! Your instructor expects you to do so; don't continue to use up runway when you can fly.
- Be sure to keep those wings level when you are very close to the ground or things could get dangerous and expensive.
- If you've taken off with some flaps down, get them up at the appropriate time. Don't forget or you could damage them and your instructor certainly won't like it.
- Climb smoothly and do not descend when in 'take off mode'.

Cruising

- Advance your FSFlyingSchool flight mode to 'cruising' once you reach the altitude at which you will cruise. Remember that cruise mode does not penalize descents which may be called for by ATC so you want to get into this mode as soon as you are at cruise altitude.
- Know the autopilot points deduction rules in FSFlyingSchool! If your aircraft has an autopilot and it is used for an appreciable period during your flight, all your scores are reduced by 33%, except when:
 - (a) In cruise mode in a light aircraft above 1000 feet AGL (Above Ground Level)
 - (b) In a heavy aircraft and cruising, or taking off and above 600 feet AGL, or landing and above 900 feet AGLIn these cases, no points are lost by having the autopilot engaged. This gives the pilot a chance to use the autopilot on flights without losing points, but note that the aircraft must be significantly above the ground.
- Watch your airspeed and stay well away from stall speed and from overspeed. The former will mess up your flight path and score. The latter is likely to destroy your aircraft in seconds.
- If you filed a flight plan, be sure to cross all your waypoints in the right sequence. Cross within 1 nautical mile a light aircraft and 3 nautical miles in a heavy.
- The instructors expect banks of no more than 30 degrees, so watch your attitude indicator carefully when turning.
- Always attempt to fly smoothly with low G forces and a gentle touch on the controls.

Landing

- To achieve high scores, you want low visibility and a significant crosswind during approach and landing.
- Advance your FSFlyingSchool flight mode to 'landing' when you are getting ready to begin your final approach and have slowed to a speed at which you can lower your first notch of flaps (if present).
- Once in landing mode, get some flaps down, but only of course if you are slow enough. Same for the gear.
- Arm your spoilers if you have them.
- Get lined up with your destination runway before you descend below 500 feet AGL.
- Follow the glideslope from the VASI or PAPI lights on a visual approach or on your instruments if flying an ILS approach.
- Stay lined up with the runway using visual cues on a visual approach or your localizer instruments if flying an ILS approach.
- Note that in some senses, flying an ILS approach may be easier due to the cues coming from the instruments rather than the outside visual cues.
- Touchdown as soon as is practicable after crossing the runway threshold or you'll lose points for an excessively long landing.
- Have your throttle(s) idle at touchdown.
- Touchdown at a recommended speed of course, but generally you want it to be slow and pretty close to stall speed. We don't want to have to force the plane to stay on the ground.

- Touchdown softly, but don't get distracted about it being lighter than a feather or you may use up a lot of runway and have to brake very hard. Moreover, there are reasons that you will want to land a 'heavy' aircraft with a firm hand especially on a wet runway.

- Pitch is crucial at touchdown. Be sure to know *in advance* what makes sense. You never want the nose down and watch out for a tail strike (pitch too high) especially in nose wheel airliners. Always land on your main wheels.

- Take care to gently bring the nose down if there is a nose wheel or the tail down on a tail dragger.

- Keep it straight on landing until you slow to taxi speed (FSFlyingSchool will then change to 'taxiing mode' automatically) at which point you can of course turn off the runway.

That's it! If you can follow most of these tips most of the time, you'll certainly have pretty respectable scores. If you can follow all of them all of the time, you're one heck of a simulator pilot!

Let's not miss some of the best features of FSFlyingSchool

They are there... so let's use them!

Let's talk about some of those features...

Registered version

Right now, you may be using the free demo of FSFlyingSchool. With the registered version you can fly *anywhere in the world* with an instructor and you can submit your best scores to our website tables and your flight maps to our website too, so you can see the flights you flew with Google Maps. Zoom in right down to the runways and taxiways!

Scoring points

You always score points when you land and also for your flight if you *took off* (did not start in mid-air). This is recorded in your log book so you can follow your progress. You can only submit your scores to the web if you are registered.

Pilot briefing

Once you have flown several flights you can see how you are progressing by looking at the Pilot Briefing at the log book screen of FSFlyingSchool. This will soon give you an idea of those areas you need to work on.

Career Analyzer

You can also see graphs of over 70 aspects of your flights at the Career Analyzer at the log book screen of FSFlyingSchool. You'll see at once which things you need to improve.

Flight Plans

Flights in FSFlyingSchool are always more fun and more interesting if you also file a flight plan in FS2020, because this of course means that the instructor knows *exactly* where you are supposed to be going for the entire flight. He/she will give you tips on upcoming waypoints and will reward or deduct points depending on how well you follow them!

Aircraft Variety

Don't make the mistake of thinking that FSFlyingSchool is only for little single engined propeller aircraft! Fly with any powered airplane you like - your instructors will adjust what they say and expect based on the airplane details and also on general concepts of what is appropriate for the class of airplane you are flying.

Airmanship Challenges

Best to read the manual for the details here - but don't miss out on these. Press a key and the instructor will instantly challenge you to fly exactly as specified. Can you hold your airspeed, altitude and more to precise requirements? All good pilots can!

Circuit Training

Once you've managed a few good landings and flights you are allowed to engage in circuit training (flying circuits within the traffic pattern at an airport). This is one of the most demanding features of FSFlyingSchool as the instructor knows how to fly a perfect circuit and will be expecting you to do your best.

And more... so read those manuals!

FSFlyingSchool has many, many more features - too many to list here - so take a look at those manuals that came with the product and try them out! There are so many features and add-on packs included with the product that it comes with multiple manuals for you to enjoy.

Precision Flight Paths

One of the great things about the flight mapping feature of FSFlyingSchool is that it provides a great way to practice flying particular patterns in the sky.

Whether you are fine tuning your approaches, working on more precision for your 'holding patterns' or perfecting turns across a road, you can save the flight map, view it on Google Maps and see how well you did.

With the FSFlyingSchool flight mapping feature, you can review dozens of your own maps and monitor your progress.

So... why no give it a shot this weekend?

Just how precisely can **you** fly specific patterns...?

Master flying heavy aircraft

If you want to master flying heavy aircraft, keep in mind that the simulator may configure your airplane to have *full tanks* unless you change the amount of fuel.

This is simplistic, but not realistic. The aircraft could easily be too heavy to fly within its manufacturer's limits and will handle far more sluggishly than if realistically fuelled.

This is especially apparent on approach and landing, when you need that bird to be as responsive as she can be and reducing fuel will also lower the stall speed, making things easier to manage.

So... look at the stats for the airplane and be sure to put in an appropriate amount of fuel for the job at hand, but don't let the simulator simply "Fill her up!"

Try it - we think you'll like it!

More Top Tips

If you want to score lots of points (and why not?!) then think... big plane + low visibility + stiff crosswinds at landing.

Using trim correctly is a vital skill which pilots must master. Turning on 'I have yoke pressure' at the Pilots Screen of FSFlyingSchool will mean your instructors will be watching your use of elevator trim and expecting you to use it correctly.

If you want more control over your flights, turn off the 'Automatic Detection Setup' option at the Pilots Screen of FSFlyingSchool so that **you** tell the instructor when you enter cruise and landing modes.

Aircraft have lots of lights and using them correctly is something you'll want to learn. FSFlyingSchool helps you master their correct use and lets you control exactly which lights the instructors are watching.

Want to spice up your taxiing time? Turn on the option at the Pilots Screen of FSFlyingSchool to have your instructors comment on the winds and how you should taxi correctly. Correct use of ailerons and elevator while taxiing in a light aircraft on a windy day is a challenge in itself.

We hope these TOP TIPS help!

Notes from the designer

You will get the most out of FSFlyingSchool if you read this manual and you handle your aircraft realistically. By this, we mean that you fly in such a manner that your passengers are neither ill nor terrified at the end of the flight and the aircraft is still in good shape.

FSFlyingSchool is about airmanship, the handling of the plane. It is not about checklists or operating the FMC. You can still do this, (we do), but this is not the reason we built this add-on. We want virtual pilots to think about what they are doing to themselves, their passengers, their aircraft, ATC and the traffic they are sharing the virtual skies with.

It can be very easy to get reasonable landing, flight, circuit and airmanship challenge scores when flying a simple plane in dead calm weather... but where's the challenge in that? Set up a nasty gusting crosswind at your destination, lower the visibility at the airfield and try something *heavy*. This is where your scores can really get good!

One of our guiding principals at FSFlyingSchool is that we create products which can be enhanced and extended by us, by you and by the flight simulation community at large. As a result, FSFlyingSchool allows us, you and them to add:

- Instructors
- Location ambience sound files
- Landing ambience sound files
- ...so try creating some of your own – there's nothing quite so rewarding as creative play!

Finally, we thought you might like to hear about some of the enhancements we are considering for FSFlyingSchool.

Many ideas suggested by fans have already been added to the software!

- Monitoring pilot's performance based on the changing factors which affect use of flaps, approach speeds, etc, such as current pressure, current temperature and current aircraft weight.
- Support for SIDs & STARs
- Support for helicopters
- Support for gliders
- Support for aerobatic and combat flying
- Touch and go landings
- Right handed circuits

Good luck with your flights and have fun!

- Jeff Preston
December 9 2022

Troubleshooting

General

When connected to FSFlyingSchool the following features of Microsoft Flight Simulator 2020 should not be used:

- 'Travel To' teleporting instantly from one place to another
- 'Active Pause'
- 'Simulation Rate' changes

FSFlyingSchool Forum

Check the FSFlyingSchool Forum: [www.FSFlyingSchool.Com/Forum]

Whatever difficulty you may experience, others may be able to help.

You can also contact us at: support@FSFlyingSchool.com

If you got some results into your log book (you didn't merely fly for a few seconds or wreck or crash the aircraft) you can send us the following files from the

FSFlyingSchool2023\PilotRoster

folder

(you may have installed this to a different folder on your PC)

.PLT file (your pilot configuration file)

.HTM file (your pilot's FSFlyingSchool log book file)

.CSV file (raw debugging data useful to us at FSFlyingSchool)

For example, if you had created a pilot called Sebastian, then we would like you to send us:

FSFlyingSchool2023\PilotRoster\Sebastian.plt

FSFlyingSchool2023\PilotRoster\Sebastian.htm

FSFlyingSchool2023\PilotRoster\Sebastian.csv

Application Priority

Windows applications can have their *Priority* configured higher than normal. This means they are taking an unusually large amount of the PC's processing power for themselves, at the expense of other applications running on that PC.

FSFlyingSchool should not be used when applications on the same PC have a *Windows Priority* set other than at normal.

The most likely effect of having an application, such as Flight Simulator, with its priority set higher than normal is that FSFlyingSchool's instructor's voice will seem to lag behind the events which are occurring. This can be simply solved by making other applications on the PC run with normal priority. To change the priority of an application back to normal, please consult Microsoft's technical help literature or their help on the Web.

Controllers are Recommended

Flying smooth, realistic flights with splendid landings is a lot easier, in our opinion, with good flight controls. If you can get hold of them, use a joystick or yoke. If you have funding to spare, get a throttle and rudder pedals. These make a huge difference in smooth aircraft control and of course in your own immersion in the simulation.

Footnotes

- Note that if FSFlyingSchool's shortcut keys conflict with an add-on, you will often be able to change the key assignments in the add-on to something which does not conflict with FSFlyingSchool.

Some Technical Terms

- **Transition altitude**
Typically, in the USA, a pilot climbing through 18000' should set the altimeter to 29.92" Hg (1013 hPa). Descending through 18000', the pilot will set the local altimeter setting. This altitude is very different in other countries and can vary within the same country.

Aircraft Lights

- **Beacon**
If an engine is on, have the beacon on.
- **Nav**
If an engine is on, have nav lights on.
- **Taxi**
If in taxi mode at night, or in taxi mode in a heavy aircraft, taxi lights on.
- **Strobe**
If not in taxi mode, strobe lights on.
- **Landing**
If not in taxi mode, landing lights on, unless above 10,000 feet MSL in a heavy aircraft or in cruise mode in a light aircraft..

Note that each aircraft has its own set of lights. Some will have more than those listed above and some will have fewer.

If the instructor is talking about a light which the aircraft does not have – turn off the monitoring of that light at the Aircraft Screen of FSFlyingSchool. Easy!

If the instructor does not talk about a light which the aircraft has even though monitoring of that light is ON at the Aircraft Screen, this is because the values being returned to FSFlyingSchool by the light are not standard values and so the light has to be excluded by the instructor.

Some aircraft have lights which function completely automatically and as the pilot has no control of these they are excluded by the instructor.

END-USER LICENSE AGREEMENT

This End-User License Agreement ("EULA") is a binding legal agreement between yourself and FSFlyingSchool; when you click to "agree" when installing this software, you indicate your approval of these terms and conditions, at which point this EULA becomes a legally binding agreement between yourself and FSFlyingSchool.

FSFlyingSchool disclaims any and all responsibility for the software program and its data or liability connected to the software program and its data. The software program and data are provided by FSFlyingSchool "as is" and "with all faults" and FSFlyingSchool makes no submissions or warranties of any kind concerning the quality, security or suitability of the software, either expressed or implied, including, without limitation, any implied warranties of fitness for a particular purpose or non-infringement. Further, FSFlyingSchool makes no representations or warranties as to the genuineness, accuracy or completeness of any statements, information or materials concerning the software program and data on the FSFlyingSchool website and in no event will FSFlyingSchool be liable for any circuitous, punitive, particular, incidental or consequent damages however they may arise and even if FSFlyingSchool have been previously advised of the possibility of such damages. FSFlyingSchool cautions you to make sure that you completely understand the potential risks before downloading any of the software as you are solely responsible for adequate protection and backup of the data and equipment used in connection with any of the software, and FSFlyingSchool will not be liable for any damages that you may suffer in connection with using, modifying or distributing any of the software even if FSFlyingSchool have been previously advised of the possibility of such damages. Before you purchase from FSFlyingSchool, please download and test any demo of the software you are considering purchasing to make certain you are satisfied with what the product is and does and are satisfied with the way it performs on your own computer. Before buying from FSFlyingSchool, please read the documentation for the product so you can be sure it is what you want to buy and ask questions by email if you need further information prior to your purchase. FSFlyingSchool makes no representation that any web or internet-based service will be available at any time even if this product requires it to function. FSFlyingSchool disclaims any and all responsibility for charges incurred through the use of its software. FSFlyingSchool's software is not to be considered, in any way, implied, certified, suitable or valid for the training of any person for the operation of any aircraft, vehicle or equipment of any kind. Weather add-ons are designed using many different methods and we make no claim that Weather Tutor will function as described with all weather add-on products for your simulator. The FSFlyingSchool Beechcraft King Air 350 Detail Pack will function with the King Air 350 included with Flight Simulator. Other add-on Beechcraft King Air 350s might function with it but might not. The FSFlyingSchool Cessna 208B Detail Pack will function with the Cessna 208B included with Flight Simulator. Other add-on Cessna 208Bs might function with it but might not. The FSFlyingSchool Baron G58 Detail Pack will function with the Baron G58 included with Flight Simulator. Other add-on Baron G58s might function with it but might not. This program will send usage data to FSFlyingSchool to help improve future versions unless turned off by a registered user. All support is via email. Simulated autopilot units are designed using many different methods and we make no claim that Autopilot Tutor will function as described with any autopilot unit except the units supplied with Flight Simulator. Autopilot Tutor does not function with Airbus aircraft and does not function with some others. Airport add-ons are designed using many different methods and we make no claim that FSFlyingSchool will function as described with all airport add-on products for your simulator or with all airports included with the simulator. FSFlyingSchool supports flight plans created by Microsoft Flight Simulator 2020. When flying with FSFlyingSchool 'Travel To' teleporting and 'Active Pause' should not be used. Not all aircraft files contain all the data the instructor is designed to report. You are given a license to use FSFlyingSchool and you must not sell, give, rent or transfer copies or originals of FSFlyingSchool software or its registration keys to any other person or organisation. This license is for personal use and is expressly not for commercial use. You are granted a license to use this software on one PC. Software is licensed to be used with Microsoft Flight Simulator 2020 alone.

Last revision – October 18 2022

APPENDIX A - Autopilot Tutor Pack

Autopilot units are common nowadays and can save the pilot a great deal of effort when used correctly.

Your chief instructor Mr Smith will help you master the autopilot.

Correct use of the autopilot can be challenging so it is essential that you read this full detailed description of this feature, which explains what it does for FSFlyingSchool pilots.

- **Mr Smith must be used with Autopilot Tutor**
As your chief instructor, he's the one with autopilot expertise, ready to give tips, monitor your autopilot skills and so much more!
- **Autopilot Units**
The Autopilot Tutor Pack has been developed using the autopilot units supplied with Flight Simulator. Other units may also work well with the Autopilot Tutor Pack, but some will not. Simply try out the Autopilot Tutor Pack by flying FSFlyingSchool within the free demo area.
- **Interactive Autopilot advice is optional**
If you want to hear it, turn on the 'Monitor Autopilot' option at the Pilots Screen of FSFlyingSchool. You'll hear your instructor describing the autopilot and giving instruction and advice on it, including:
Autothrottle
Speed hold
Speed Selection
Heading Hold
Heading Selection
Altitude Hold
Altitude Selection
Vertical Speed Selection
Autopilot Master
Approach Hold
Back Course Hold
NAV Hold
- **Autopilot tutorial advice is optional**
If you want to hear this general advice, turn on the 'Autopilot Tips' option at the Settings Screen of FSFlyingSchool. Chief instructor Mr Smith will give you general instruction on the autopilot unit and more when you are flying during quieter periods. In order to avoid these tips sounding repetitive, they are chosen randomly so you won't keep hearing the same advice each flight.
- **Get ready to learn - here are some of the areas Mr Smith will explain to you**
Intersecting the ILS glideslope from below
How to slow down to a target speed
Disengaging autopilot (or not) before landing
Speed management required to keep on glideslope
Importance of correcting drifting heading indicator
Wasted turns through poor use of heading bug
Immediate firm control of aircraft after autopilot is disengaged
Disengaging autopilot if flight path is not right
...and a lot more!

Autopilot Tutor does not support Airbus aircraft.

END OF APPENDIX A

APPENDIX B - Weather Tutor Pack

Get ready to learn about the effects of temperature, elevation, dew point, crosswinds and a great deal more. Your chief instructor Mr Smith can help in Microsoft Flight Simulator!

This can be a complex subject and it is essential that you read this full detailed description of this feature, which explains what it does for FSFlyingSchool pilots.

IMPORTANT - In order to use the real crosswind techniques described by Mr Smith, you need to make sure that the 'auto-rudder' feature of your simulator is turned OFF as you need to be able to control the rudder and ailerons *separately*.

While all of the features in the Weather Tutor pack apply to small and medium sized aircraft, some of them will not be heard when the pilot is flying a large aircraft as they are not applicable.

- **Mr Smith is the man for Weather Tutor**
As your chief instructor, he's the one who explains temperature, elevation, dew point, precipitation, crosswind techniques and more!
- **Interactive weather advice is optional**
If you want to hear it, turn on the 'Monitor Weather' option at the Pilots Screen of FSFlyingSchool. You'll hear your instructor describing the current weather and giving instruction and advice on it.
- **Interactive crosswind advice is optional**
If you want to hear it, turn on the 'Monitor Crosswinds' option at the Pilots Screen of FSFlyingSchool. You'll hear crosswind take off and landing instruction right when you need it!
- **Weather and crosswind tutorial advice is optional**
If you want to hear this general advice, turn on the 'Weather Tips' option at the Settings Screen of FSFlyingSchool. Chief instructor Mr Smith will give you general instruction on weather and more when you are flying during quieter periods. In order to avoid these tips sounding repetitive, they are chosen randomly so you won't keep hearing the same advice each flight.
- **Get ready to learn - here are some of the areas Mr Smith will explain to you**
(Note that in addition to weather, the Weather Tutor covers several bonus subjects that are not strictly weather but still essential to safe flight.)
 - Effects of temperature-dew point spread
 - Considerations when flying in low light
 - Considerations when flying in low visibility
 - Considerations when flying in the presence of clouds
 - Considerations when flying in low temperatures
 - Crosswind landing technique
 - Crosswind take-off technique
 - Crosswind take-off roll aileron use
 - Crosswind landing roll aileron use
 - Take-off from a high elevation
 - Landing at a high elevation
 - Take-off at a high temperature
 - Landing at a high temperature
 - Take-off from a wet grass runway
 - Take-off from a dry grass runway
 - Landing at a wet grass runway
 - Landing at a dry grass runway
 - Landing at a wet paved runway
 - ...and a lot more!
- **Weather Add-Ons**
Weather add-ons are designed using many different methods and as you can imagine we make no claim that Weather Tutor will function as described with all weather add-on products for your simulator.

END OF APPENDIX B

APPENDIX C - Taxiway Tutor Pack

It has been said that the hardest part of some flights is taxiing to and from the runway! Now your chief instructor Mr Smith can help in your simulator.

This can be a complex subject and it is essential that you read this full detailed description of this feature, which explains what it does and what it does *not* do.

- **Generate your runway data**
Taxiway Tutor is supplied with default runway and taxiway data, but we advise you to generate your own runway/taxiway data as soon as possible using the 'Generate runway data' button at the Settings Screen of FSFlyingSchool. This guarantees that the data matches all your airports, including any add-on airports on your PC.
- **Some airports will produce a different experience to others**
Taxiway Tutor will revolutionize your experience at most medium to large airports all over the simulated world, as you soon find yourself familiar with taxiways, runways, markings, lights and more. In order to get the Taxiway Tutor experience, the airport must have *named* taxiways. Only *named* taxiways and their junctions and holding positions are considered by Taxiway Tutor. It is sometimes the case that an airport, even in the default simulator, has taxiways which are named graphically on the screen, but not in the underlying computer data defined for the airport. In such cases, Taxiway Tutor will not see the taxiways.
IMPORTANT - Simulator airports are designed and constructed using many different methods and we make no claim that Taxiway Tutor will function as described at all airports.
Some airports have encoded taxiway data which has a single taxiway broken into parts and yet joined together in certain situations. In such cases the instructor will announce the junction of e.g. "Alpha and more of Alpha".
- **Mr Smith must be used with Taxiway Tutor**
As your chief instructor, he's the one who explains signs, markings, lights and more!
- **Taxiway and runway announcements are optional**
If you want to hear them, turn on the 'Monitor Taxiways' option at the Pilots Screen of FSFlyingSchool.
- **Taxiway and runway tutorial advice is optional**
If you want to hear this advice, turn on the 'Taxiway Tips' option at the Settings Screen of FSFlyingSchool.
- **All taxiway and runway announcements are made in taxi mode and at airports with *named* taxiways**
Get ready for announcements of taxiways, runways and more when you are at an airport with *named* taxiways.
In addition, Mr Smith knows you'll want to hear this when you are *in taxi mode*, so he'll keep quiet about this when you are not.
- **All tutorial advice is in taxi mode and at airports with *named* taxiways**
Just as with taxiway and runway announcements, you'll get tutorial advice on taxiways, runways, markings, lights and more when you are at an airport with *named* taxiways. Our pilots explained to us that they don't want to get this advice when they are bush flying or at a tiny quiet airport!
Furthermore, Mr Smith knows pilots want advice on taxiing *when they are taxiing*, so you will get this when your flight mode is 'taxiing' and not in any other flight mode.
In order to avoid these tips sounding repetitive, they are chosen randomly so you won't keep hearing the same advice as you start each flight.
- **Suppression of advice or of announcement**
As with all of FSFlyingSchool, if the instructor is already talking about something else, he/she may not make a particular statement. You have one instructor with you in the aircraft, not two. For example, if you are listening to a checklist while crossing a junction of taxiways, you will not hear the taxiways announced.
In addition, our pilots tell us they do not want the instructor talking constantly about taxiways and so the instructor will not necessarily announce every single junction, runway, end, holding position etc.
- **Announcement of runway holding positions**
As you arrive at a runway holding position, your instructor will announce this and explain what to do.
- **Announcement of ILS critical area holding positions**
As you arrive at an ILS critical area holding position, your instructor will announce this and explain what to do.

- **Announcement of runway you occupy**
As you move from a taxiway onto a runway, your instructor will announce this.
- **Announcement of approach to taxiway junction**
As you near a taxiway junction with a taxiway or a runway, your instructor will announce this.
- **Announcement of approach to end of taxiway**
As you near the end of a taxiway, your instructor will announce this.
- **Announcement of arrival at end of taxiway**
On reaching the end of a taxiway, your instructor will announce this.
- **Announcement of arrival at taxiway junction**
As you arrive at a taxiway junction with a taxiway or a runway, your instructor will announce this.

END OF APPENDIX C