Advisory Circular

FLIGHT SIMULATOR COMPLIANCE ADVISORY

REGULATORY AGENCIES MAY DECERTIFY YOUR FLIGHT SIMULATOR IF THERE IS A KNOWN SOFTWARE LICENSING OR APPROVAL CONFLICT.

Subject: **Simulators Using Non-Approved Software**   **Date: 03/07/2012**
Approved Devices,
Basic Aviation Training Devices (BATD)
Advanced Aviation Training Devices (AATD)

1. **Purpose:**

   a. Retail software such as Microsoft Flight Simulator 9 (FS9), Microsoft Flight Simulator X (FSX) and X-Plane (retail version) are <u>not</u> licensed for commercial use.

   b. Owners of FAA-approved aviation training devices should check their FAA Letter of Authorization and/or Qualification and Approval Guide (QAG), provided by their simulator's manufacturer, to insure that they have received <u>authorized</u> software such as Microsoft ESP, Lockheed Martin Prepar3D, or X-Plane Professional, and that the software installed on their system matches those approvals.

   c. The FAA does not recognize FS9, Microsoft Flight Simulator FSX or X-Plane (retail version) as approvable software.

   d. If an FAA-approved aviation training device utilizes FS9 or FSX software, both the manufacturer and the end user may be in violation of Microsoft's EULA (End User Licensing Agreement) as well as their agency approvals.

   e. If an FAA-approved aviation training device utilizes X-Plane (retail version), both the manufacturer and the end user may be in violation of X-Plane's EULA (End User Licensing Agreement) as well as their agency approvals.

2. **Your simulator may be out of regulatory compliance.**

   a. In many cases, simulation software is "licensed for use" to the manufacturer and incorporated into the device. The manufacturer is then required to obtain a "compatibility statement" from the software developer, which may, at the FAA's discretion, be used to satisfy the software compliance requirement. **Software developers will not provide compatibility statements for improperly integrated non-compliant software.**

   b. If you suspect that your system may not be in compliance, determine which software is installed on your system and compare this to the Qualification and Approval Guide (QAG) that was issued to the manufacturer of your system to insure that both match and both are in compliance. Instructions on how to check your software are found in Appendix A.

   c. If a system is found to utilize non-approved software, contact your local FAA Flight Standards District Office (FSDO) and the FAA administrator:

   <div align="center">
   Mel Citroen/James Viola
   Federal Aviation Administration
   AFS-810
   800 Independence Avenue SW
   Washington DC 20591
   202-385-9592
   703-466-01888
   james.viola@faa.gov
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   The following statement is cited on FAA approval letters for aviation training devices, **"Any changes or modifications to these devices which have not been reviewed, evaluated, and approved by AFS-800 will cause FAA's approval to become null and void".**

   This statement refers to any changes to a compliant system, or any approved use of a non-compliant system. According to the FAR's, the approval of a non-compliant system is null and void until the system has been reapproved. This requires the manufacturer to bring the system into full compliance, submit for recertification, and obtain an updated approval from the administrator. This may require a site visit for system inspection.

   *Flight time logged on a non-compliant simulator may be disallowed if it is determined that a simulator was not in full compliance with its agency approvals.

   d. The list below, while not exhaustive, includes software that is licensed by its developers to be used in FAA-approved aviation training devices:

   - Microsoft ESP
   - Lockheed Martin Prepar3D
   - X-Plane Professional

The list below includes software that is <u>not</u> licensed by its developers to be used in FAA-approved aviation training devices:

- Microsoft Flight Simulator 9 (FS9)
- Microsoft Flight Simulator X (FSX)
- X-Plane (any retail version)

3. End User Licensing Agreements (EULA):

a. Microsoft Flight Simulator 9/X EULA:

The licensed device is the device on which you use the software. You may install and use one copy of the software on the licensed device. Except where this software is sold with development tools, <u>this software is for entertainment purposes only</u>. Where this software is sold with development tools, it may be used with those development tools as well as for entertainment purposes. In any event,<u> this software must not be part of an approved training program under the standards of the FAA or any other regulatory agency</u>. Use of this software or any part of it to transfer data to another program not related to this software is prohibited.

For further information regarding Microsoft's software EULA, contact Microsoft at:

Corporate Intellectual Property & Licensing
Microsoft Corporation
Steven Fricke - Senior Attorney
One Microsoft Way
Redmond, WA 98052
(425) 538-2580
steven.fricke@microsoft.com

b. X-Plane (retail version) EULA:

<u>You agree to use X-Plane for non-commercial use. See www.x-plane.com for commercial-use keys for X-Plane.</u> You agree to not make copies of X-Plane. You agree to not distribute the artwork from X-Plane, or any derivative of that artwork, without permission from Laminar Research.

For further information regarding X-Plane's software EULA, contact Laminar Research at:

Laminar Research
Austin Meyer
5001 Radcliffe Rd
Columbia, SC 29206
(803) 738-1156
info@x-plane.com

Appendix A

A quick and easy way to check the software installed on your simulator is described below.

1) Go to www.recover-keys.com website.

2) Download Recover Keys Free Demo.

3) Install on the computer you wish to check and run the Recover Keys installer as shown below.

4) Follow remaining instructional steps reflected below. This process takes approximately 5 minutes.
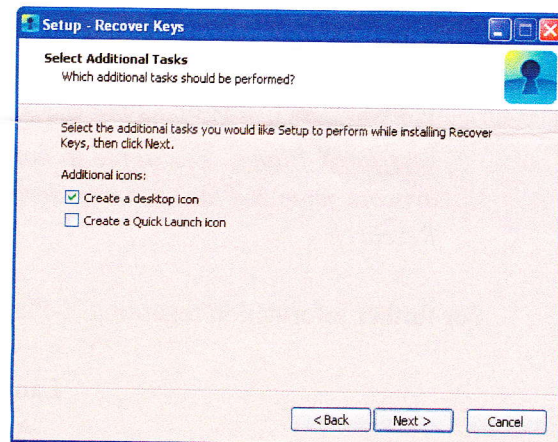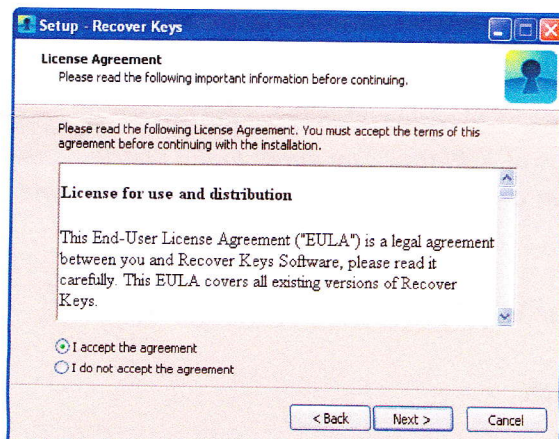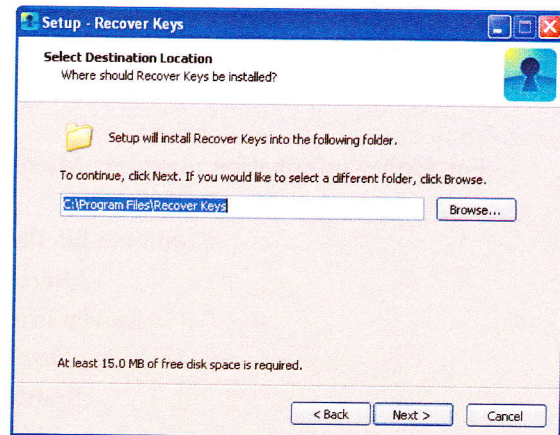
Double click on the Recover Keys icon to run the program. An example of what you will find will look similar to the image below:
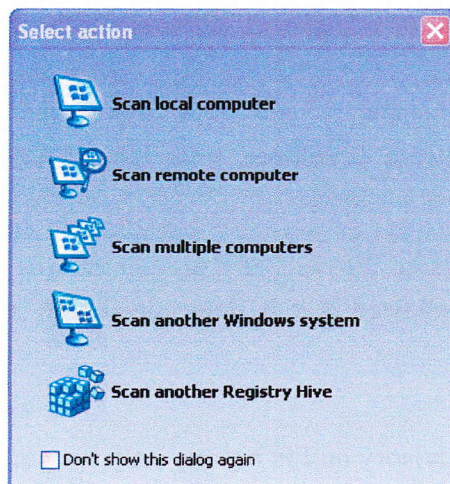
Select the option for "Scan local computer".

Note: You may wish to install "Recover Keys" software on a memory stick and then transfer to your simulator in question, or you may download this software directly to the computer that runs your simulator.

Your results will vary. Below is a sample screen shot where Microsoft Flight Simulator X (10) software was found to be installed.

Product Name	License Key
Acrobat3D 9.0 Win	1380 - hidden for demo purposes
Adobe Acrobat Distiller 8.0	1118 - hidden for demo purposes
Adobe Acrobat Distiller 9.0	1380 - hidden for demo purposes
Adobe Adobe Acrobat 8.0	1118 - hidden for demo purposes
Adobe Adobe Acrobat 9.0	1380 - hidden for demo purposes
MS Premium CS3 Win	1355 - hidden for demo purposes
Microsoft Expression Web 2007	DDWJ - hidden for demo purposes
Microsoft Internet explorer	22TK - hidden for demo purposes
Microsoft Office Enterprise 2007	KGFV - hidden for demo purposes
Microsoft Office Project Professional 2007	HCFP - hidden for demo purposes
TechSmith SnagIt 8	37as - hidden for demo purposes
Windows 7 Ultimate	22TK - hidden for demo purposes
flight simulator 10.0	8388 - hidden for demo purposes

Be advised: If your qualification guide and/or your computers reflect that your system is configured with Flight Simulator 9 or 10, or X-Plane (retail) software, your simulator is in violation of the software's End User Licensing Agreement (EULA). Further, if the software specified in your approval documentation does not match what is actually installed on your system, your system is not in compliance with its approvals.*

Report any unauthorized software use to the appropriate software developer, your local FAA FSDO, and the FAA Administrator.

*Flight time logged on a non-compliant simulator may be disallowed if it is determined that a simulator was not in full compliance with its agency approvals.

Note: The Recover Keys software is not affiliated with this advisory and is not the only way to verify if your system includes properly licensed software. Simply go to the Program Files folder as shown, click on "Program Files/Microsoft Games/Flight Simulator 9 or 10" and look for the executable file. X-Plane software is even simpler to find and resides on any drive on the computer. Just look for the X-Plane executable (xplane.exe) and run the software. You will then be able to see whether you have retail or professional software installed. X-Plane Professional software requires a security key (USB dongle) for professional licensing and functionality.