

Eagle

Rotorcraft Simulations

Bell

206

User Manual



V1.0

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Overview

INTRODUCTION

In 2005, Owen Hewitt released his scratch built FS2004 Bell 206B JetRanger III. Over the years, it became a favorite of many helicopter enthusiasts. However, when FSX came along, past FS2004 owners were left with an obsolete model that didn't quite display right in the new simulator. Recently, we contacted Owen offering to do an FSX native upgrade to the model. He kindly accepted the offer and as soon as the files reached us, we went to work to bring this popular release to FSX. Eagle Rotorcraft Simulations is proud to present Owen Hewitt's Bell 206B JetRanger III for Microsoft Flight Simulator X.

We hope you enjoy this wonderful new addition to your virtual rotorcraft fleet!

INSTALLATION

To make installing the Bell 206B JetRanger III as quick and easy as possible, we have included an installer exe file which you can use to go through the installation process. Simply run the exe file from the download and follow each step of the installation that the exe presents to you.

When you reach the step in the installation dialog that lets you browse for a directory, ensure that the correct FSX main directory (folder) is listed. If not, click "Browse," locate the directory, and proceed to the next step.

SUPPORT

Please visit us at our homepage at <http://www.eaglerotorcraftsimulations.com> and be sure to register on our forums in order to receive support for any of our released add-ons. Please do not contact us via email or private messages with support requests.

Operations

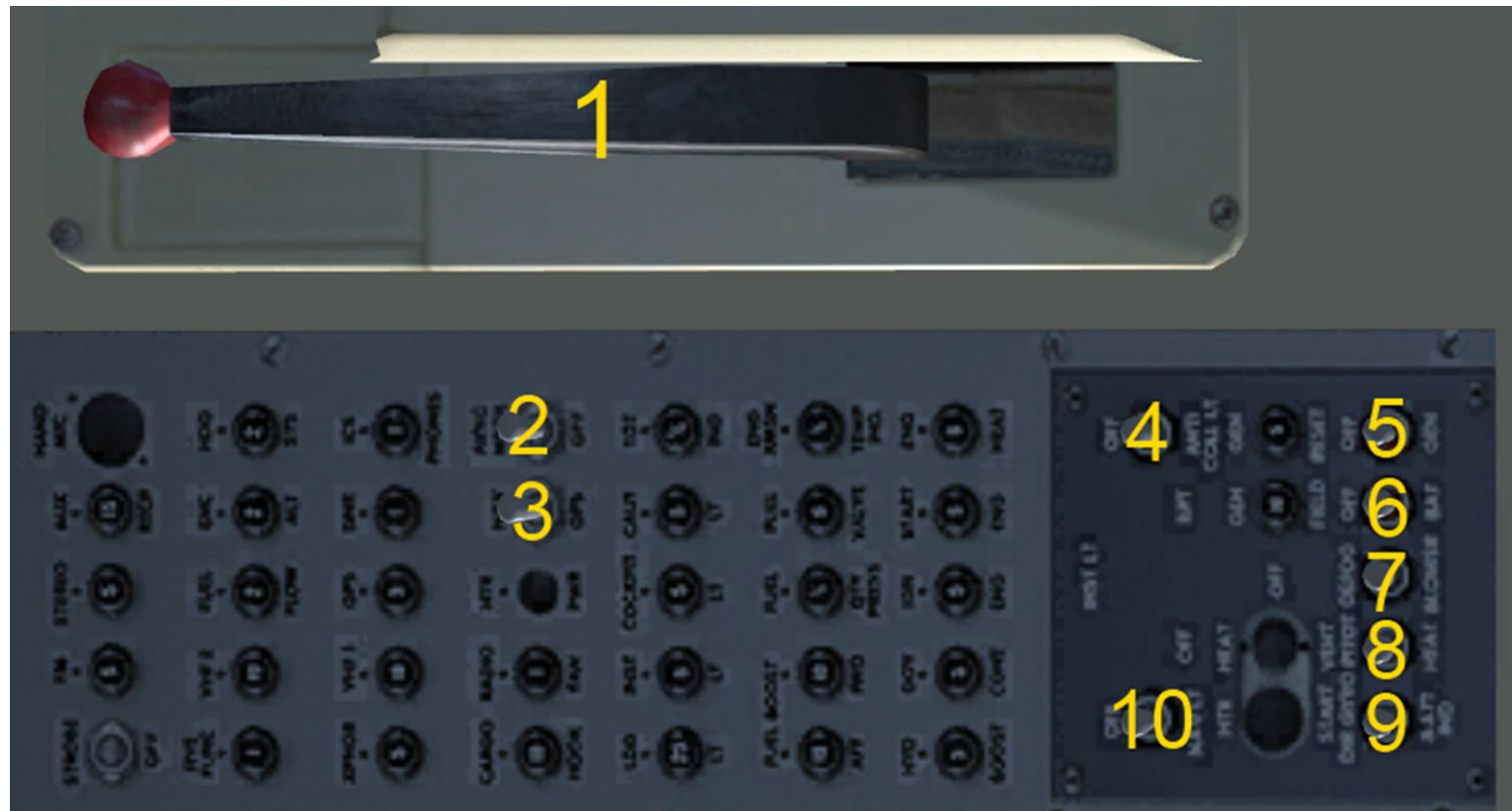
VIRTUAL COCKPIT

Cockpit Overview

The virtual cockpit of the Bell 206 is fairly basic. You don't necessarily need to be a real world pilot/expert to enjoy our 206 because of this. Several switches and knobs are clickable, including the door window vents and air vent knobs under the main panel.



1. Oil Temperature
2. Torque
3. Airspeed Indicator
4. Attitude Indicator
5. Altimeter
6. Transmission Oil Temperature
7. Turbine Outlet Temperature
8. Rotor/Turbine RPM
9. Horizontal Situation Indicator (HSI)
10. Vertical Speed Indicator (VSI)
11. Fuel Quantity
12. Gas Producer
13. Fuel Pressure
14. Clock
15. ADF Indicator
16. VOR 2 Indicator
17. Turn Coordinator
18. Fuel Valve (click red cover to expose switch)
19. Radios
20. Air Vents
21. Annunciator Panel



1. Rotor Brake (inoperative)
2. Avionics Master Switch
3. Nav/GPS Mode Switch
4. Anti-collision Light Switch
5. Engine 1 Generator Switch

6. Battery Switch
7. Blower Fan (animates, but does nothing)
8. Pitot Heat Switch
9. *No function*
10. Navigation Lights Switch



1. Engine RPM Control
2. Landing Lights Switch
3. Governor RPM Switch

Startup

Startup of the Bell 206 is very simple. If preferred, now is the time to open the door window air vents. Simply click the grip on the vents to open them. Same applies to the air vent switches under the main panel. Turn on the battery, avionics master, and generator switches. Turn on the anti-collision lights. If you are flying at night, also turn on the Navigation and landing light switches. (Press Shift+L to turn on the cockpit light switch.) Use the pitot heat as needed. Next, click the fuel valve cover to expose the switch, and then click the switch to start the engine. Then click the red cover to hide the switch again. This startup procedure is not very realistic, as this was just an FSX native upgrade to an older FS9 model that was not very complex either. Future updates may include a realistic startup procedure.

Shutdown

After landing, click the fuel valve cover, and then click the fuel valve switch to shut off the engine. Turn off all lights, the avionics master, battery, and generator. Close the door window vents and air vents if they were opened before start up.

FLIGHT DYNAMICS

Due to the wide range of users who will be operating our Bell 206, we have included two different AIR files. The AIR file contains much of the handling/performance characteristics of a helicopter in FSX. The default FDE that comes with the Bell 206 is the simple version. It is designed to be easy for beginners, as well as be perfect for flying around and enjoying scenery. The other FDE is the realistic version. This version has been extensively tested by two real world pilots who have flown the real Bell 206B JetRanger. To use the realistic FDE, browse to the "[FSX\SimObjects\Rotorcraft\Bell_206B_JetRanger_III_HS](#)" folder and rename the file named "[Bell_206B_JetRanger.AIR](#)" to "[Bell_206B_JetRanger_easy.AIR](#)." Then, rename the file named "[Bell_206B_JetRanger_realistic.AIR](#)" to "[Bell_206B_JetRanger.AIR](#)." This will change the AIR file that FSX looks for to the realistic one. To change back to the easy FDE, just follow the previous instructions backwards.

If you find the cyclic to be too responsive for your taste, open the [aircraft.cfg](#) file of each Bell 206 variant and change the [low_realism_stability_scale](#) from *0.3, 0.3, 0.3* to *0.6, 0.6, 0.3*.

Exterior

EXTERIOR OVERVIEW

The exterior on the Bell 206 is fairly basic and low poly. We did not change too many of the visuals from the FS9 version, except for the new rotor blur, glass reflections, and ability to create shiny repaints via the use of an alpha channel.

MODELS

We have included 18 different models configurations to ensure that most repaints done have a model in FSX that will fit them as closely as possible to the real version. The following are included:

- High Skid
- High Skid (1 Wire Cutter)
- High Skid (2 Wire Cutters)
- High Skid (No Doors)
- High Skid (No Doors, 2 Wire Cutters)
- Low Skid
- Low Skid (1 Wire Cutter)
- Low Skid (2 Wire Cutters)
- Low Skid (No Doors)
- Low Skid (No Doors, 2 Wire Cutters)
- TV
- TV (1 Wire Cutter)
- TV (Equipment Config 1)
- TV (Equipment Config 2)
- Floats
- Floats (2 Wire Cutters)
- Floats (No Doors)
- Floats (No Doors, 2 Wire Cutters)

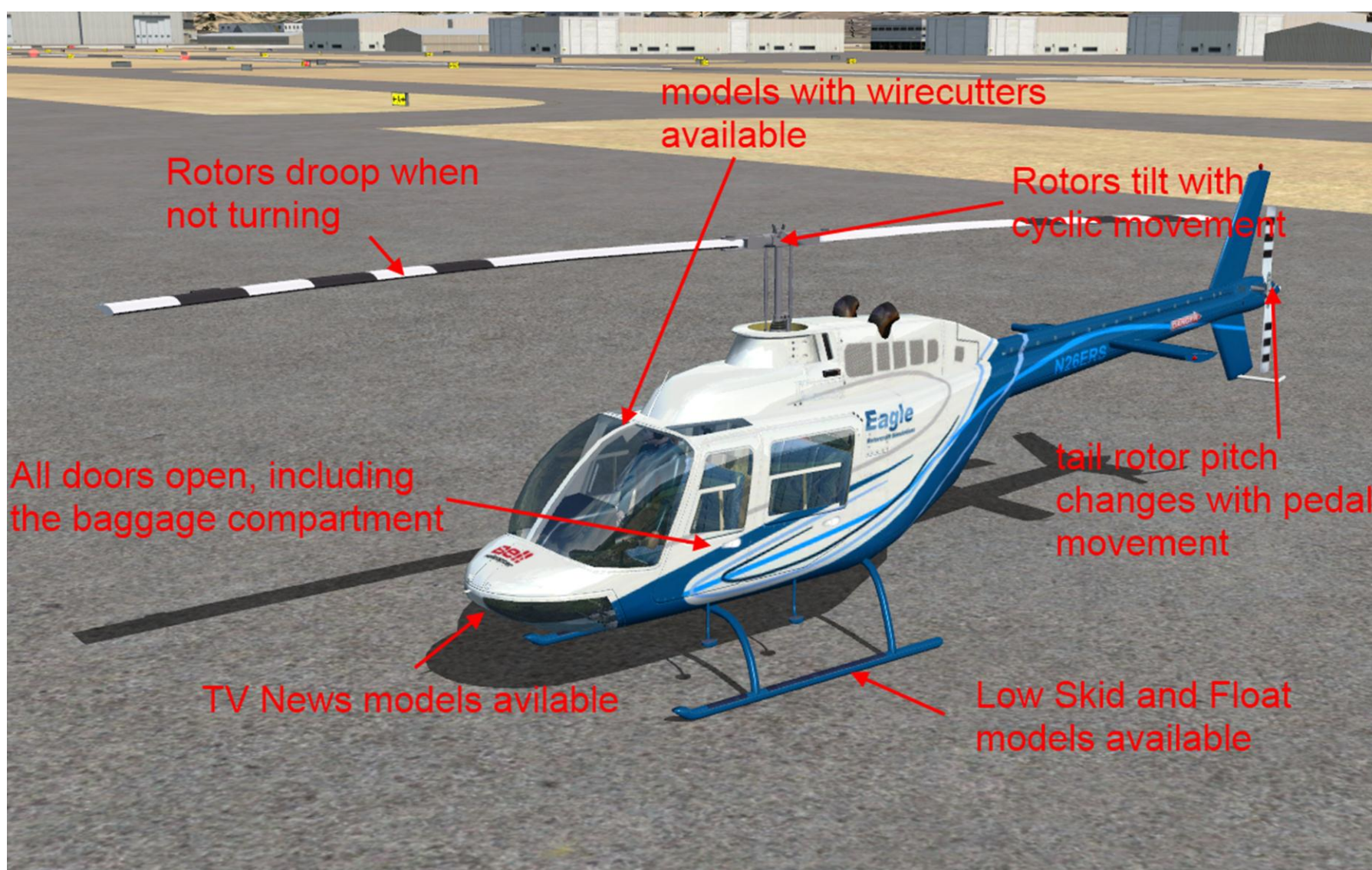
FEATURES

Basic animations that you would find on many helicopter add-ons have been simulated, as well as some that are not so common. They include:

- Main rotor cyclic/collective movement
- Tail rotor pitch change
- All doors open, including the baggage compartment
- Rotors flex upwards then lifting the collective for takeoff

We have added a few new visual goodies to this FSX version of the Bell 206. These include:

- Window glass and fuselage parts now reflect using a custom envmap by Enigma Simulations
- New 3D rotor blur which flexes upwards when raising the collective.
- Rotor blades now droop when in the still state
- Bump and specular maps used to take advantage of the new FSX visuals.
- DirectX 10 Compatible. Includes VC shadows when using DX10 Preview.



REPAINTING

A paint kit is available on our website on the FSX Bell 206 information page. In order to use it, you must have Photoshop, Paint.net, GIMP, or any other image editing software that supports the PSD format and layers. Save your final repaint just as you would any other for FSX. DDS DXT5 works best, and the alpha channel can be taken from any existing Bell 206 livery included. (Or you can make your own alpha channel) While there are a few new textures included in the FSX version of the 206, you do not need to include them when releasing paints, as the *texture.cfg* file in your repaint's texture folder aliases the files from the fallback texture folder. Keep in mind that all original FS9 repaints for Owen's 206 will work on the FSX version as well. Be sure to copy over a *texture.cfg* file to each paint's folder in order for the repaint to work properly.

We have included blank white spec maps in the fall back texture folder. You may either copy these over to your new repaints, not include any at all and FSX will use the white ones by default, or create your own. Making a spec map is a process that we do not feel needs to be covered in this manual. If you want to learn how, visit [FSDeveloper's forums](#). There are many talented developers there, and one will surely be able to assist you.

Credits

CREDITS

Brandon Filer	Exterior model upgrade, textures, flight dynamics, PDF User Manual
George A. Arana	Interior model upgrade, liveries, modified sound CFG
Owen Hewitt	Original GMax model, textures
Scott Swanberg	Flight dynamics tweaking
Enigma Simulations	Reflection texture

Thanks to Owen Hewitt for sharing the original GMax source files with ERS. We are very happy to see a new life given to this classic add-on.

DISCLAIMER

Although this package has been tested for quality and compatibility, we do not assume any responsibility should this package harm your computer, data, Flight Simulator X, or any other installed software, in any way. You are installing this package at your own discretion.

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