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Thank you!

Orbx would like to thank you for purchasing **FTX LEBB Bilbao Airport**

Welcome to the Basque country! Bilbao is the largest city in the Biscay province and the Basque Country as a whole, beautifully located at the northern Spanish coastline. The Basque Country may often be overlooked by the sun seekers traveling to Spain, due to it’s often unpredictable rainy weather. On the other hand, it has proven to be a popular destination for food junkies, hikers and surfers as it possesses incredible nature, great waves and world famous food. San Sebastián, 40 minutes from Bilbao, attracts Europe’s best chefs for inspiration and work, being in second place with most Michelin stars per capita in the world. Bilbao Airport is an important hub for the northern region and serves destinations all across Europe. Beautifully located in close proximity to the city area, the airport offers fascinating approaches through the mountain range and via the ocean, crossing over the harbour and other parts of the city on final descent. With the nickname “La Paloma” (The dove), the main terminal has become famous for it’s unique architecture. Designed by Santiago Calatrava and opened in 2000, it serves over 4 million people a year.

Our scenery contains the whole city of Bilbao with important buildings added, and the whole harbour upgraded and of course the airport in it’s full glory. We sincerely hope you will enjoy Bilbao,

Created by Marcus Nyberg & Philip Schall.
Product requirements

This scenery airport addon is designed to work in the following simulators: Microsoft Flight Simulator X, Lockheed Martin Prepar3D v1, Lockheed Martin Prepar3D v2, Lockheed Martin Prepar3D v3 and Lockheed Martin Prepar3D v4.

**Orbx FTX Global Base Pack** is also required for full functionality.

What will you miss out on if you don’t have Orbx FTX Global Base back installed?

- Blending of the airport photoreal into the surrounding terrain
- Enhanced FTX Global 3D lighting system with improved FPS in urban/township streets around the airport
- The FTX Central application, which is used to launch all of the Orbx tools and to switch between different Orbx regions.
- If you don’t have any of the Orbx FTX regions or FTX Global, there will be no trees around the airport.

We also highly recommend FTX Vector for perfect blending with the surroundings and a more correct rendition of Spain.

Please visit [https://www.fullterrain.com/product/ftxglobal](https://www.fullterrain.com/product/ftxglobal) to purchase your copy of FTX Global Base Pack if you haven't already done so.
Quick Installation Guide

Installing Orbx FTX LEBB is all managed by our FTX Central application. This app is responsible for many aspects in maintaining your Orbx installation. Please visit the support forums to learn more.

Once you have added LEBB it will be added to your account and you can have FTX Central download and install it for you. The appropriate scenery library entries will also be managed by FTX Central. You may also manually download LEBB and then have FTX Central manage the installation for you once downloaded.

An internet connection is required for FTX Central to validate your license.

Please note that the above all refers to FTX Central 3. Earlier versions of FTX Central are no longer supported but will still function as before. The integration of FTX Central with your OrbxDirect account is only available with FTX Central version 3 and above.
Scenery Coverage Area
Airport Information and Charts

Orbx FTX LEBB Bilbao Airport User Guide
LEBB/BIO
BILBAO
BILBAO, SPAIN
VOR DME Rwy 10

**ATIS**
118.82

**Final Approach**
120.7

**Minimum Alt**
118.5

**Ground**
121.7

**BLV**
115.9

**Apch Crs**
101°

**MDA(H)**
2700′ (2584′)

**Apk Elev**
138′

**Rwy 116′**

**BLV DME**
6.0

**ATLITUDE**
2100′

**Rwy Elev**
4.0

**Trans level**: By ATC

**Final approach track offset** 1° from rwy centerline.

**MAX IAS 210 KT**

**Grid speed Kts**
70 90 100 120 140 160

**Descent Gradient**: 6.0%
425 347 268 222 179 151

**MAP at D2.0**

**JAR-OPS**

**CIRCLING TO LAND**

Not authorized

**South of airport**

**EFB**

**BILBAO**

**D11.0**

**SANTU**

**D8.0**

**D5.0**

**D4.0**

**D2.0**

**VOR**

**5000′**

**Rwy 116′**

**FL**

**PAPI**

**PAPI**

**Rblv**

**Rblv**

**Rblv**

**PANS OPS 4**

**CHANGES**: Communications.

Orbx FTX LEBB Bilbao Airport User Guide
LEBB/BIO

APR ELW 138'
N43°18.1' W002°54.6'

JEPPESEN

BILBAO, SPAIN

N11 Feb 05

TOWER

118.82

8530'

121.7

2000'

118.5

2660'

LEGEND

D3 Taxiway
E2 Runway Segment
D2 Apron Segment
LDIN

Apron South not visible from Tower.
Rwys 10 and 30 right-hand circuit.

JAR-OPS

TAKING-OFF

Rwy 12/30
LVP must be in force

Approved Operators
HIRL, CL
& multi., RVR req

RL, CL
& multi., RVR req

RL & CL

LVP must be in force
RCM (DAY only)
or RL

RCM (DAY only)
or RL

NIL (DAY only)

All Rwy

A
125m

250m

400m

500m

B
150m

200m

C
150m

D
200m

300m

Operators applying U.S. Ops Spec:
CL required below 300m; approved guidance system required
below 150m.

Source: http://www.virtualairlines.eu/charts/LEBB.pdf
The LEBB Control Panel

The LEBB Control Panel can be accessed from the main FTX Central interface by clicking the Configure button. The Control Panel will enable you to disable or enable certain scenery features of the airport to allow it to perform in accordance with the PC hardware you have. By default, all scenery options are enabled by the installer. If you have a high end PC, enable all the CP options. For low to mid-range PCs it is recommended to try disabling some settings.
Quick Reference Simulator Settings

The table below lists in a handy reference the minimum recommended settings required in your simulator to enjoy LEBB the way Orbx designed it. These settings will run well on most PCs and take particular advantage of the custom mesh and photoreal imagery used in the scenery area.

If you use the settings below you will be guaranteed the highest fidelity experience and the best balanced performance.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
<th>Why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of detail radius</td>
<td>Large</td>
<td>Reduces blurring of textures.</td>
</tr>
<tr>
<td>Global texture resolution</td>
<td>Max</td>
<td>Displays photoreal textures best.</td>
</tr>
<tr>
<td>Mesh complexity</td>
<td>100</td>
<td>Better terrain definition.</td>
</tr>
<tr>
<td>Mesh resolution</td>
<td>5m</td>
<td>5 m is required for LEBB.</td>
</tr>
<tr>
<td>Texture resolution</td>
<td>7 cm</td>
<td>Sharpest roads and freeways.</td>
</tr>
<tr>
<td>Scenery complexity</td>
<td>Extremely Dense</td>
<td>How Orbx designed FTX LEBB.</td>
</tr>
<tr>
<td>Autogen density</td>
<td>Normal</td>
<td>Best FPS vs detail.</td>
</tr>
<tr>
<td>AI traffic</td>
<td>0-50%</td>
<td>Recommended for this scenery.</td>
</tr>
<tr>
<td>Road vehicle traffic</td>
<td>16%</td>
<td>No need to set higher for FTX.</td>
</tr>
</tbody>
</table>
Product Technical Support

Orbx has a very simple support policy: no question unanswered. That means, should you have any questions about LEBB or its use, please feel free to register on the forums at fullterrain.com and then log a support question in the FTX Payware Support Forum section. Orbx FTX experts will be available to review your support questions and you will usually get a reply on the forums within 12 hours, often much sooner than that.

To visit our support forums, click on the “Forums” button shown on the homepage of fullterrain.com.

Please do NOT email support requests

Orbx provides world-class support on our forums, and it’s the only way in which you can receive support for LEBB. Provided you adhere to the forum terms of use and have a legitimate copy of LEBB, you will always be offered our support at no cost as we work toward a resolution to your problem each time.

Use the forum search function

Before you post a question, please try searching for the answer first, using the forum’s built in search function located on the forum menu bar.

What to include in your support requests

If at all possible, this is what we’d like to see provided for each request you log:

- A separate post on the FTX support forums for each issue (don’t tag new issue reports onto existing threads).
- Include your ORDER NUMBER from your LEBB purchase in your post or forum signature section.
- A screenshot to highlight what you are talking about.
- A descriptive post title which clearly states what the issue is.
- Detailed comments in your post about what you are reporting on.

The Orbx support team is always on standby to assist you with any problems you may have, or will comment on your issue reports. Please remember, our priority is fixing any urgent issues first, and addressing bug reports second. Clearly though, any “show stopper” bugs will be given top priority though.
FTX Community Forums

FTX already has quite a thriving and active user community on the forums, with over 71,000 members as of June 2017. To visit the forums, just point your web browser to fullterrain.com and from the front page click the “Forums” menu item.

You don’t need a user account to view other people’s posts and information posted by Orbx staff, but if you’d like to join in on the discussion there, simply create an account. It’s instant and no validation email is required. We like to keep things simple☺.

We hope to see you there soon!

Thanks for reading!

You’ve stuck with us through all these pages of information, and we appreciate you taking the time to read the user guide. We hope it gave you some tips and insights. See you on the forums!
The FTX LEBB Team

Lead Developers
- Marcus Nyberg & Philip Schall

With Assistance from
- Orbx Team: Orbxlibs objects
- Vicente Lozano: On-site photography & expertise
- Xabier Larrañaga: On-site photography & expertise
- David Aquino Waldo: Moving gates system
- Jon Murchison: Dynamic Lighting for P3D v4
- Edward Boyte: AFCAD

Specialist Roles
- John Venema: Business Management
- Ben McClintock: FTX Central and website
- Ed Correia: Production Management

Beta Testing Team
Friedi Gulder, Rob Abernathy, Ross Casey, Eberhard Haberkorn, Jon Murchison, Phil Manhart, Nick Cooper, Voyager & John Dow
For the most recent version of the EULA, see fullterrain.com/eula.

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