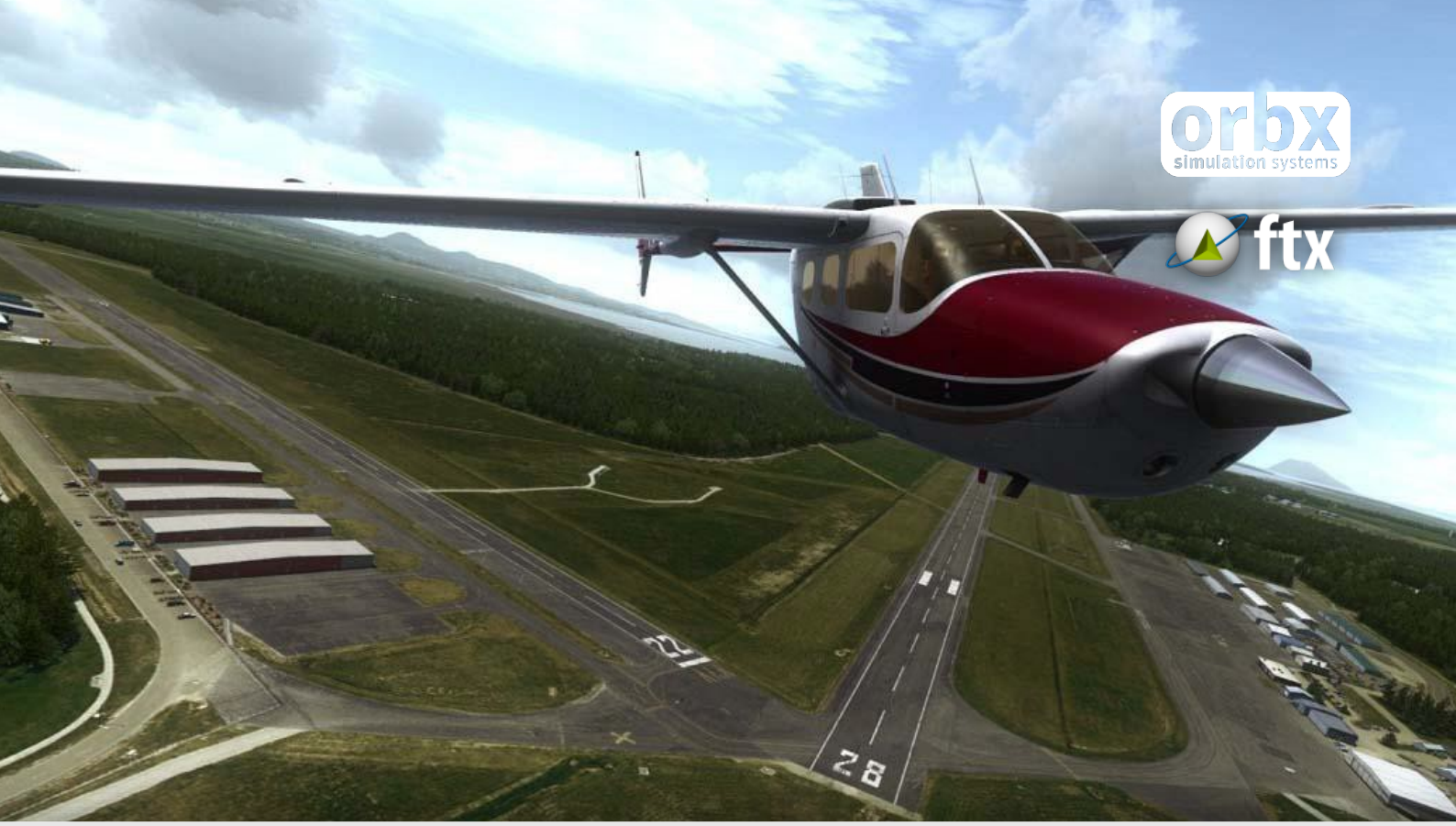



# KBVS

## Skagit Regional Airport

USER GUIDE SEPTEMBER 2016

# Contents

Thank you! ... 3
Product requirements ... 4
What will you miss out on if you don't have Orbx FTX Pacific Northwest installed? ... 4
Quick Installation Guide ... 5
Scenery Coverage Area ... 6
Airport Information and Charts ... 8
The KBVS Control Panel ... 12
Quick Reference Simulator Settings ... 12
Product Technical Support ... 13
Please do NOT email support requests ... 13
Use the forum search function ... 13
What to include in your support requests ... 13
FTX Community Forums ... 14
Thanks for reading! ... 14
The FTX KBVS Team ... 15
Lead Developer ... 15
Additional Orbx Developers ... 15
Specialist Roles ... 15
Further Acknowledements ... 15
Beta Testing Team ... 15
End User License Agreement (EULA) ... 16

# Thank you!

Orbx would like to thank you for purchasing FTX US KBVS Skagit Regional Airport (KBVS).

KBVS Skagit Regional is the debut North American airport from developer Hugh Johnston, whose previous projects include YSCB Canberra and YCNK Cessnock. The scenery covers a large area including the surrounding farms (including tulip farms in spring), the Memorial Highway twin bridges on State Route 20, plus an extensive area of mudflats adjoining Padilla Bay.

Skagit Regional Airport (IATA: MVW, ICAO: KBVS, FAA LID: BVS) is a public airport located three miles (5 km) west of the central business district of Burlington and northwest of Mount Vernon, both cities in Skagit County, Washington, United States. The airport is owned by the Port of Skagit County. It is situated in the Bayview Industrial Park.

Although most U.S. airports use the same three-letter location identifier for the FAA and IATA, Skagit Regional Airport is assigned BVS by the FAA and MVW by the IATA (which assigned BVS to Breves, Pará, Brazil)

**Facilities and aircraft**

Skagit Regional Airport covers an area of 1,835 acres (743 ha) which contains two asphalt paved runways with pilot activated lights: 10/28 measuring: 5,477 x 100 ft (1,669 x 30 m) and 4/22: 3,000 x 60 ft (914 x 18 m).

For the 12-month period ending October 31, 2006, the airport had 58,100 aircraft operations, an average of 159 per day: 96% general aviation, 3% air taxi and <1% military. At that time there were 151 aircraft based at this airport: 91% single engine, 2% multi-engine, 7% jet aircraft and 1% ultralights.

In the 1980s, Harbor Airlines operated commercial passenger flights into and out of MVW to Seattle-Tacoma International and to Oak Harbor, WA, using Britten-Norman Islander aircraft.

*Source: Wikipedia, the free encyclopedia*

# 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** and **Lockheed Martin Prepar3D v3.**

**Orbx FTX Pacific Northwest** is also required for full functionality.

### What will you miss out on if you don't have Orbx FTX Pacific Northwest installed?

- Blending of the airport photoreal into the surrounding terrain
- Moving traffic on roads, properly aligned to the photoreal ground terrain
- Enhanced FTX Global 3D lighting system with improved FPS in urban/township streets around the airport
- Orbx's modified houses and trees which match North American houses and trees

Please visit https://orbxdirect.com/product/pnw to purchase your copy of FTX Pacific Northwest if you haven't already done so.

# Quick Installation Guide

Installing Orbx FTX KBVS 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 purchased KBVS 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 KBVS 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

## WN51 Bayview Farms

As a bonus addition to further your enjoyment of the KBVS Skagit Regional Airport scenery, Hugh Johnston has also included another airfield (WN51 Bayview Farms) which is helpful for those wanting to do simple circuit work or touch and go's.

Here's two screenshots showing each location:

KBVS Skagit Regional

WN51 Bayview Farms

# Airport Information and Charts

## Burlington / Mt. Vernon / **Skagit Regional (Bayview)** / BVS

### Communications

AWOS-3 ..... 121.125
CTAF/UNICOM ... 123.075
PCL ..... CTAF (For MIRL, REILs, & VASIs Rwy 10/28; LIRL Rwy 04/28)

### Navigation

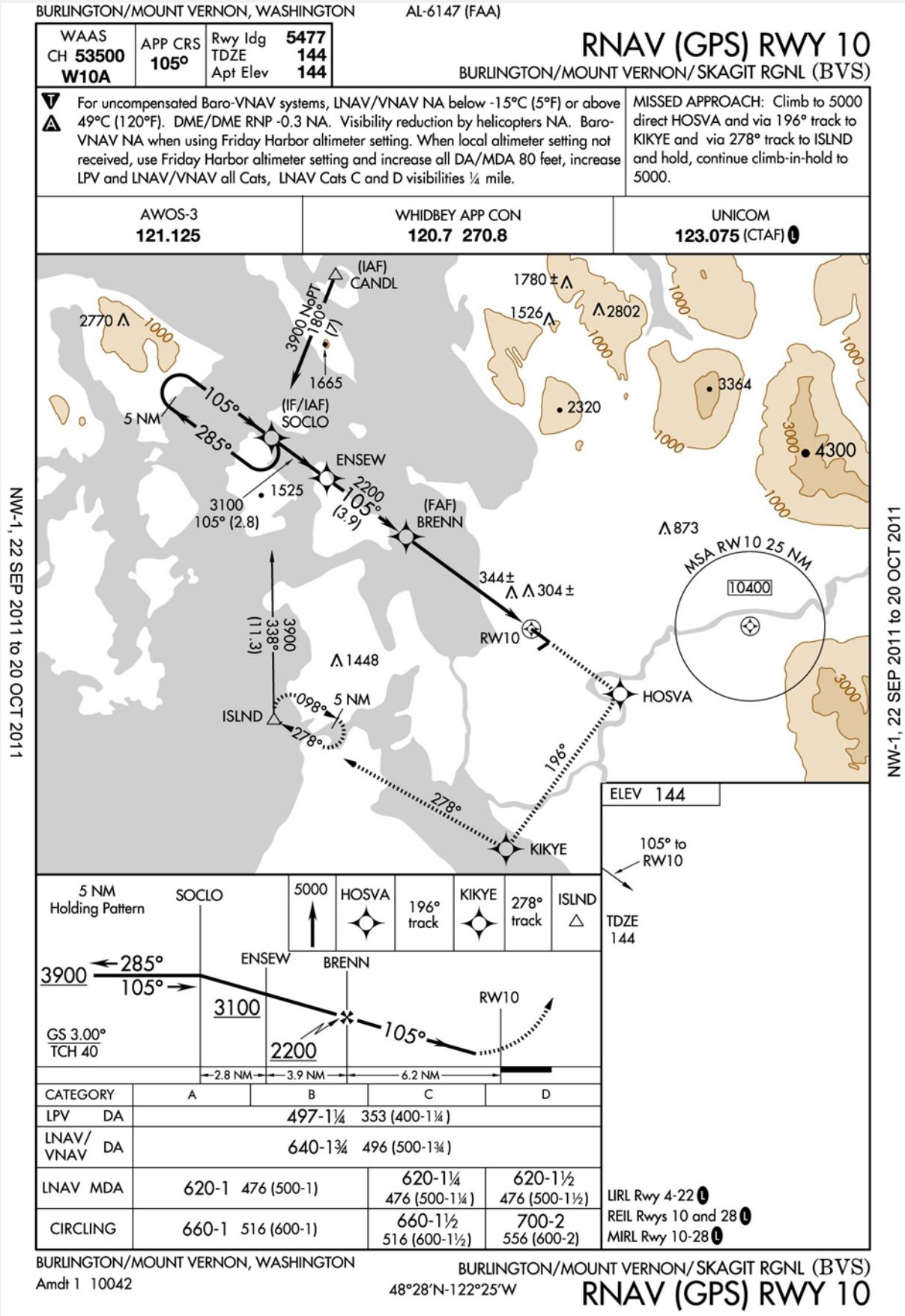
Elevation ..... 144′ MSL
TPA ..... 1144′ MSL (1000′ AGL); Ultralights 644′ MSL (500′ AGL)
Runway ..... 10/28; 5477′x100′; ASPH
04/22; 3000′x60′; ASPH
Lights ..... Dusk-dawn, MIRL, LIRL
Latitude ..... N 48° 28.25′
Longitude ..... W 122° 25.25′

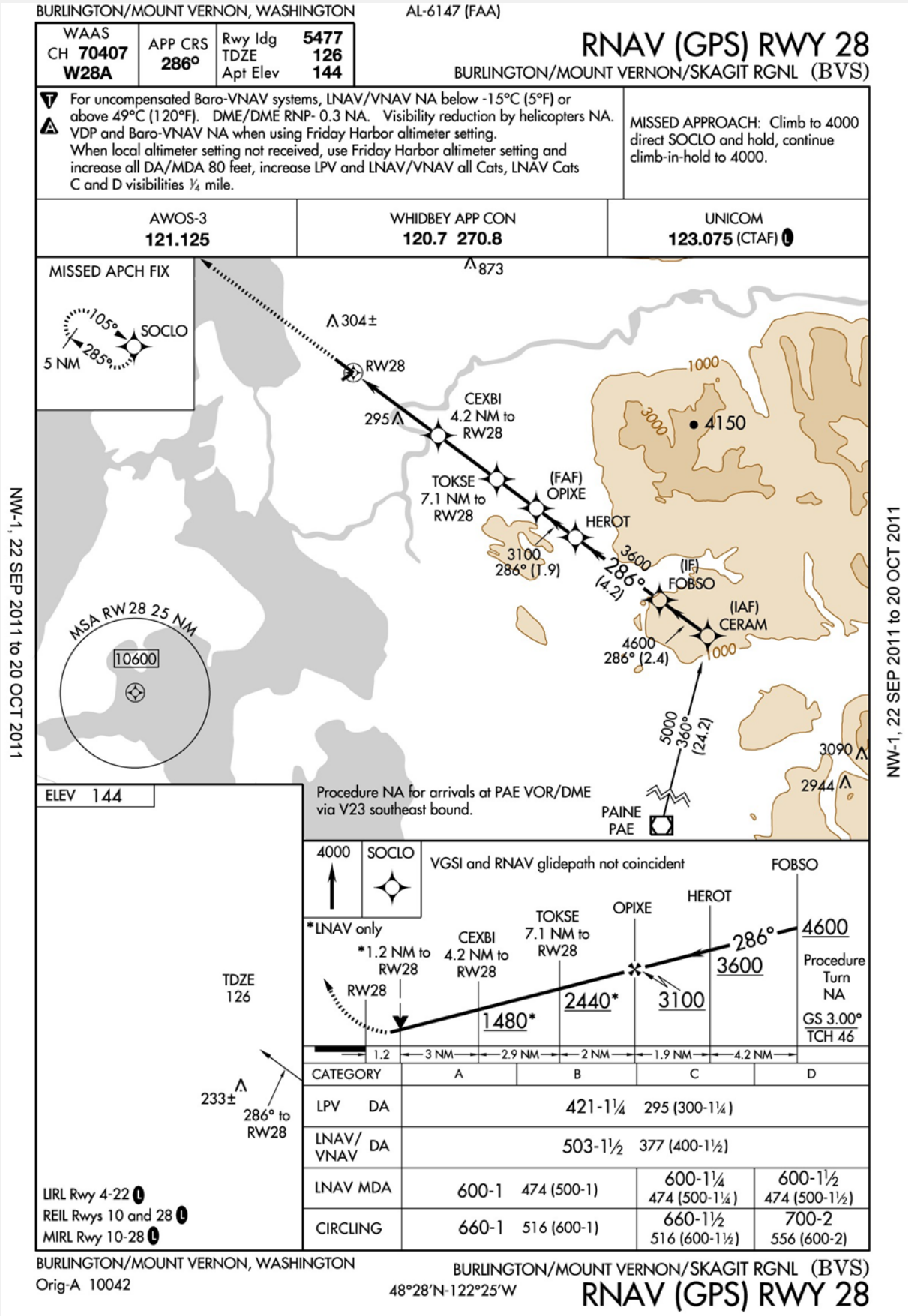
### Services

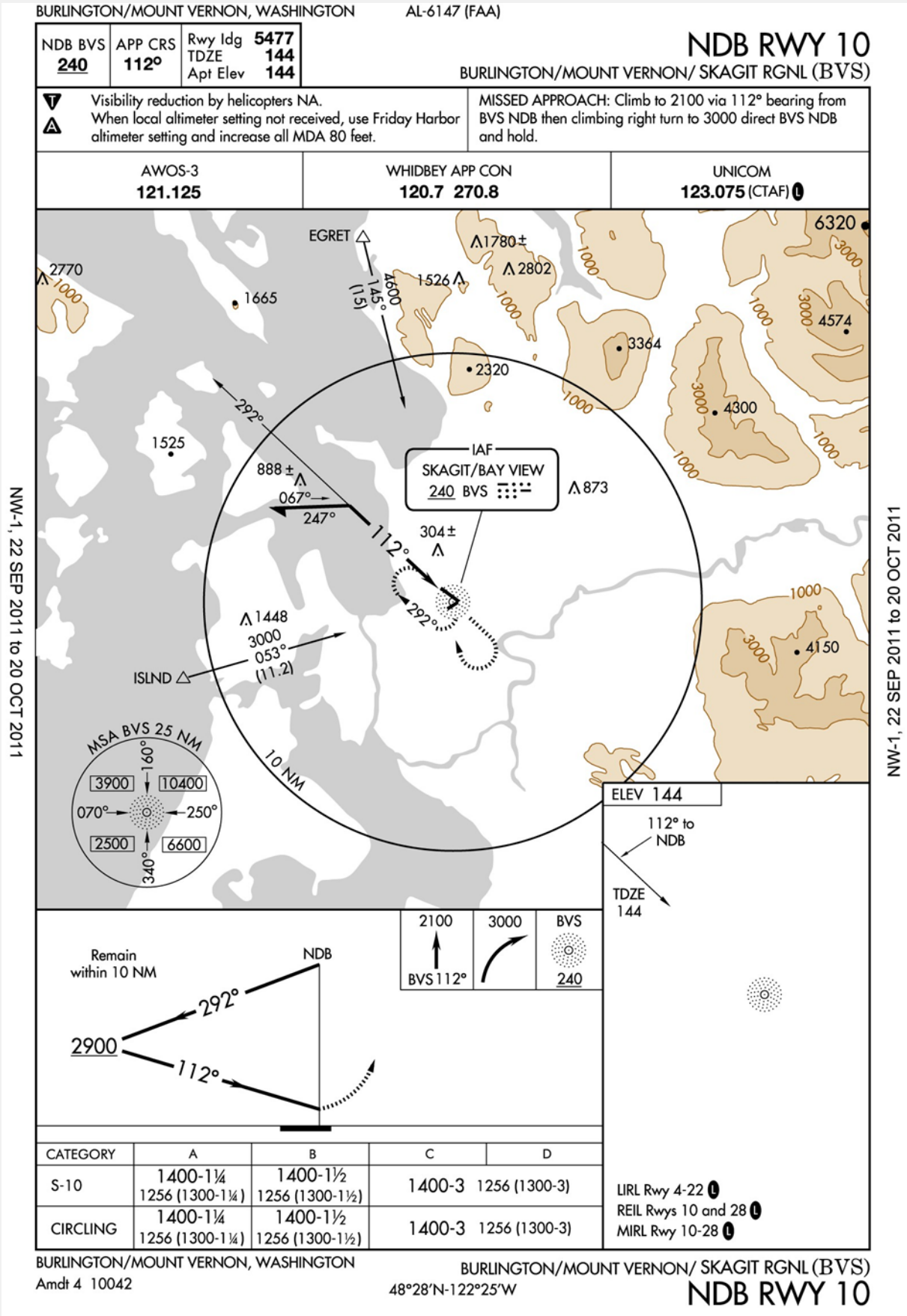
Fuel ..... 100LL, Jet A (24-hour credit card fuel services)

**Notes** Deer and birds on and in vicinity of runways. Helicopter training ops on airport with autorotations on runways.

Burlington / Mt. Vernon / **Skagit Regional (Bayview)** / BVS *Page 15*


BURLINGTON/MOUNT VERNON, WASHINGTON
AL-6147 (FAA)
WAAS CH 53500 W10A
APP CRS 105°
Rwy ldg 5477
TDZE 144
Apt Elev 144
RNAV (GPS) RWY 10
BURLINGTON/MOUNT VERNON/SKAGIT RGNL (BVS)
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. Baro-VNAV NA when using Friday Harbor altimeter setting. When local altimeter setting not received, use Friday Harbor altimeter setting and increase all DA/MDA 80 feet, increase LPV and LNAV/VNAV all Cats, LNAV Cats C and D visibilities ¼ mile.
MISSED APPROACH: Climb to 5000 direct HOSVA and via 196° track to KIKYE and via 278° track to ISLND and hold, continue climb-in-hold to 5000.
AWOS-3 121.125
WHIDBEY APP CON 120.7 270.8
UNICOM 123.075 (CTAF)
NW-1, 22 SEP 2011 to 20 OCT 2011
(IAF) CANDL
3900 NoPT 180° (7)
1665
(IF/IAF) SOCLO
105°
285°
5 NM
ENSEW
2200 105° (3.9)
3100 105° (2.8)
1525
(FAF) BRENN
344±
304±
RW10
3900 338° (11.3)
1448
ISLND
098°
278°
5 NM
HOSVA
196°
278°
KIKYE
MSA RW10 25 NM
10400
873
1780±
1526
2802
2770
2320
3364
4300
1000
3000
ELEV 144
105° to RW10
TDZE 144
5 NM Holding Pattern
SOCLO
5000
HOSVA
196° track
KIKYE
278° track
ISLND
3900
285°
105°
ENSEW
BRENN
3100
2200
105°
RW10
GS 3.00°
TCH 40
2.8 NM
3.9 NM
6.2 NM
CATEGORY A B C D
LPV DA 497-1¼ 353 (400-1¼)
LNAV/VNAV DA 640-1¾ 496 (500-1¾)
LNAV MDA 620-1 476 (500-1) 620-1¼ 476 (500-1¼) 620-1½ 476 (500-1½)
CIRCLING 660-1 516 (600-1) 660-1½ 516 (600-1½) 700-2 556 (600-2)
LIRL Rwy 4-22
REIL Rwys 10 and 28
MIRL Rwy 10-28
BURLINGTON/MOUNT VERNON, WASHINGTON
Amdt 1 10042
48°28'N-122°25'W
BURLINGTON/MOUNT VERNON/SKAGIT RGNL (BVS)
RNAV (GPS) RWY 10


BURLINGTON/MOUNT VERNON, WASHINGTON
AL-6147 (FAA)
WAAS CH 70407 W28A
APP CRS 286°
Rwy ldg 5477
TDZE 126
Apt Elev 144
RNAV (GPS) RWY 28
BURLINGTON/MOUNT VERNON/SKAGIT RGNL (BVS)
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA. VDP and Baro-VNAV NA when using Friday Harbor altimeter setting. When local altimeter setting not received, use Friday Harbor altimeter setting and increase all DA/MDA 80 feet, increase LPV and LNAV/VNAV all Cats, LNAV Cats C and D visibilities ¼ mile.
MISSED APPROACH: Climb to 4000 direct SOCLO and hold, continue climb-in-hold to 4000.
AWOS-3 121.125
WHIDBEY APP CON 120.7 270.8
UNICOM 123.075 (CTAF)
MISSED APCH FIX
105°
285°
SOCLO
5 NM
873
304±
RW28
295
CEXBI 4.2 NM to RW28
TOKSE 7.1 NM to RW28
(FAF) OPIXE
HEROT
3100 286° (1.9)
3600
286° (4.2)
(IF) FOBSO
(IAF) CERAM
4600 286° (2.4)
1000
3000
4150
MSA RW28 25 NM
10600
5000 360° (24.2)
3090
2944
Procedure NA for arrivals at PAE VOR/DME via V23 southeast bound.
PAINE PAE
ELEV 144
4000
SOCLO
VGSI and RNAV glidepath not coincident
*LNAV only
*1.2 NM to RW28
CEXBI 4.2 NM to RW28
TOKSE 7.1 NM to RW28
OPIXE
HEROT
FOBSO
286°
4600
3600
Procedure Turn NA
GS 3.00°
TCH 46
RW28
1480*
2440*
3100
1.2
3 NM
2.9 NM
2 NM
1.9 NM
4.2 NM
TDZE 126
233±
286° to RW28
CATEGORY A B C D
LPV DA 421-1¼ 295 (300-1¼)
LNAV/VNAV DA 503-1½ 377 (400-1½)
LNAV MDA 600-1 474 (500-1) 600-1¼ 474 (500-1¼) 600-1½ 474 (500-1½)
CIRCLING 660-1 516 (600-1) 660-1½ 516 (600-1½) 700-2 556 (600-2)
LIRL Rwy 4-22
REIL Rwys 10 and 28
MIRL Rwy 10-28
NW-1, 22 SEP 2011 to 20 OCT 2011
BURLINGTON/MOUNT VERNON, WASHINGTON
Orig-A 10042
48°28'N-122°25'W
BURLINGTON/MOUNT VERNON/SKAGIT RGNL (BVS)
RNAV (GPS) RWY 28




Charts *Source :* [http://skyvector.com/airport/BVS/Skagit-Regional-Airport](http://skyvector.com/airport/BVS/Skagit-Regional-Airport)

# The KBVS Control Panel

The KBVS 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

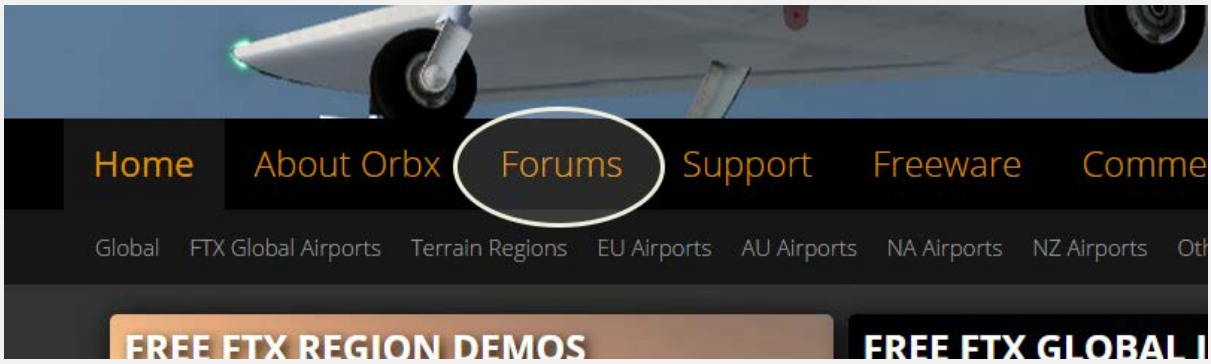
The table below lists in a handy reference the minimum recommended settings required in your simulator to enjoy KBVS the way Orbx designed it. These settings will run well on most PCs and take particular advantage of the custom mesh and photoreal imagery used in the scenery area.

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

| **Setting** | **Value** | **Why?** |
|---|---|---|
| Level of detail radius | Large | Reduces blurring of textures. |
| Global texture resolution | Max | Displays photoreal textures best. |
| Mesh complexity | 100 | Better terrain definition. |
| Mesh resolution | 5m | 5 m is required for KBVS |
| Texture resolution | 7 cm | Sharpest roads and freeways. |
| Scenery complexity | Extremely Dense | How Orbx designed FTX KBVS. |
| Autogen density | Normal | Best FPS vs detail. |
| GA AI traffic | 16-50% | Recommended for this scenery. |
| Road vehicle traffic | 16% | No need to set higher for FTX. |

# Product Technical Support

Orbx has a very simple support policy: no question unanswered. That means, should you have any questions about KBVS or its use, please feel free to register on the forums at orbxdirect.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 orbxdirect.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 KBVS. Provided you adhere to the forum terms of use and have a legitimate copy of KBVS, 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 KBVS 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 63,000 members as of September 2016. To visit the forums, just point your web browser to orbxdirect.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 KBVS Team

## Lead Developer

- **Hugh Johnston**: All 3D modeling, texturing, ground imagery, ground polys, build management, installer

## Additional Orbx Developers

- **Orbx Team**: Orbxlibs objects
- **Heiko Glatthorn:** Autogen annotation, industrial buildings placement
- **Graham Ecclestone:** AI Traffic
- **Holger Sandmann:** Roads/traffic adjustments, flattens

## Specialist Roles

- **John Venema**: Business management
- **Ed Correia**: Production Management
- **Ben McClintock**: FTX Central and website

## Further Acknowledements

- **Neil Hill**: Location photography

## Beta Testing Team

Wolter van der Spoel, John Dow, Edward Boyte, Iain Emms, Zach Hansen, Gary Garrison, Mike Mathiau, John Venema, Dontay Martin, Phil Manhart

# End User License Agreement (EULA)

For the most recent version of the EULA, see orbxdirect.com/eula.

END-USER LICENSE AGREEMENT (EULA) for Orbx Simulation Systems Full Terrain Experience (FTX) Scenery Addon for Microsoft Flight Simulator X and Lockheed Martin Prepar3D.IMPORTANT
PLEASE READ CAREFULLY: This End-User License Agreement ("EULA") is a legal agreement between you (either an individual or single entity) and Orbx Simulation Systems Pty. Ltd. ("ORBX") for the ORBX software product identified above, which includes software and includes associated media and "online" or electronic documentation ("SOFTWARE PRODUCT"). The SOFTWARE PRODUCT also includes any updates and supplements to the original SOFTWARE PRODUCT which may be provided to you by ORBX. By accessing or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, do not use the SOFTWARE PRODUCT.

SOFTWARE PRODUCT LICENSE
The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is sold as a single user license and no ownership is transferred, only the right to use the license software. The SOFTWARE PRODUCT may not be re-distributed, sold for non-profit or profit from subscription fees, repackaged, delivered on CD or DVD media or any other form of electronic media by any other persons or party, website, organisation or entity, other than the official e-commerce seller website(s) as contracted or authorised by ORBX.

1. GRANT OF LICENSE. This EULA grants you the following rights:

a. You may install, access, and run a SINGLE copy of the SOFTWARE PRODUCT on a SINGLE personal computer for your personal, non-commercial, non-profit use. Any party or organisation seeking to use the SOFTWARE PRODUCT under license for commercial use should see our Commercial Use License Agreement.

b. This SOFTWARE PRODUCT is for personal entertainment purposes only and may not be used for flight training purposes. This SOFTWARE PRODUCT is not part of an approved training program under the standards of any aviation regulatory agency or body worldwide, whether private or government.

c. Separation of Components. The SOFTWARE PRODUCT is licensed as a single product. Its original component parts created by ORBX may not be separated for use in other software or projects.

d. Trademarks. This EULA does not grant you any rights in connection with any trademarks or service marks of ORBX.

e. Rental. You may not rent, lease, or lend the SOFTWARE PRODUCT. You may not charge admission fees for any simulator, entertainment or training device which breaches this EULA by use of the SOFTWARE PRODUCT therein.

f. Support Services. This SOFTWARE PRODUCT is provided "as is", however ORBX will provide provision of support services in relation to the operation, installation or remedy of issues arising to the use of the SOFTWARE at its official support forum at orbxsystems.com/forum.

g. Termination. Without prejudice to any other rights, ORBX may terminate this EULA if you fail to comply with the terms and conditions of this EULA. In such event, you must destroy all copies of the SOFTWARE PRODUCT and all of its component parts.

h. The Orbx libraries (Orbxlibs) are licensed for use ONLY with Orbx products licensed by our customers. Whilst they are freely distributed on this site and our forums it is for the support of our own products only. It is EXPRESSLY FORBIDDEN to modify, use, call GUIDs, reference, extract or in any way make use of Orbxlibs in any software project be it freeware, donation ware or payware. Any mis-use of Orbxlibs will invoke legal action.

2. COPYRIGHT. All title and copyrights in and to the original created components of the SOFTWARE PRODUCT (including but not limited to any images, photographs, animations, video, audio, music, and test incorporated into the SOFTWARE PRODUCT), the accompanying documentation materials, and any copies of the SOFTWARE PRODUCT are owned by ORBX or its suppliers. All title and intellectual property rights in and to additional third party libraries and content (which are used under the terms of those components' distribution) which may be accessed through use of the SOFTWARE PRODUCT is the property of the respective content owner and may be protected by applicable copyright or other intellectual property laws and treaties. This EULA grants you no rights to use such content. This SOFTWARE PRODUCT contains documentation which is provided only in electronic form, and you may print multiple copies of such electronic documentation.

3. LEGAL JURISDICTION. This EULA is governed by the laws of the State of Victoria, Australia.

4. LIMITATION OF LIABILITY. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL ORBX BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF OR INABILITY TO USE THE SOFTWARE PRODUCT OR THE PROVISION OF OR FAILURE TO PROVIDE SUPPORT SERVICES, EVEN IF ORBX HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Microsoft Flight Simulator X is a © copyrighted trademark of Microsoft Corporation.
Prepar3D© is a Copyrighted trademark of Lockheed Martin Corporation
FTX and Full Terrain Experience are brands of Orbx Simulation Systems Pty. Ltd.