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Thank you!

Orbx would like to thank you for purchasing FTX NA ENSD

The next destination for FTX Norway is ENSD Sandane.

Sandane Airport is located at Anda in Gloppen, Norway. It is situated perpendicularly on a peninsula which cuts between Nordfjorden and Gloppefjorden. Both ends of the runway are close to sleep hillsides which dive into the fjords. Travel + Leisure included Sandane in its 2009 list of the world’s seventeen scariest runways. The aerodrome has a reference elevation of 60 meters (196ft).

The airport was opened on 1 July 1975 as the only public airport serving Nordfjord, four years after the other regional airports in Sogn og Fjordane. Originally the airport was served with de Havilland Canada Twin Otters. The airport was plagued with severe turbulence and low regularity. A terminal expansion took place in 1987 and the runway was slightly expanded in 2010. This work included levelling of the existing sloping runway to allow for the rerouting of the roadway via a tunnel under the runway.

The airport has an asphalt runway measuring 970 by 30 meters (3,182 by 98ft) and aligned 09/27. Services are provided by Widerøe on public service obligation with the Ministry of Transport and Communications. The airport is owned and operated by the state-owned Avinor and served 37,272 passengers in 2013.

The asphalt runway measures 970 by 30 meters (3,182 by 98ft) and is aligned 09/27. It has a takeoff run available (TORA) of 820 meters (2,690ft) and a landing distance available (LDA) of 760 meters (2,490ft). The airport is equipped with category 4 fire and rescue service. The airport is situated 10 kilometres (6.2mi) from Sandane.

Source Wikipedia: The Free Encyclopaedia
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 Norway** is also required for full functionality.

What will you miss out on if you don’t have Orbx FTX Norway 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 European houses and trees

Please visit https://orbxdirect.com/product/nor to purchase your copy of FTX Norway if you haven’t already done so.
Quick Installation Guide

Installing Orbx FTX ENSD 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 ENSD 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 ENSD 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
Wind shear/eddies/downshifts may occur on short final rwy 09/27 with wind 160°-260° above 15 KT and 310°-010° above 20 KT. Risk of turbulence during approach or climb out when wind at FL70 are more than 32 KT in sector 150°-270° or more than 40 KT in sector 270°-150°.

20 guidance lights are located around the airport: 4 West of AD, 3 Northwest of AD, 4 Northeast of AD and 9 East of AD.

There are no Circling lights.

Standard

TAKING-OFF

<table>
<thead>
<tr>
<th>DAY</th>
<th>NIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>60Dm</td>
<td>40Dm</td>
</tr>
</tbody>
</table>

NOT APPLICABLE

CHANGES: Runway elev., usable lengths, Notes, Lights, Minimums.

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ENSD/SDN

ORBX FTX ENSD Sandane Airport User Guide

MISSED APCH: Climb STRAIGHT AHEAD on 252° to AD Lctr, then turn LEFT (MAX 150 KT) to intercept 076° to STG NDB. Enter STG holding climbing to 6000'.

LOC not to be used outside 10° either side of centerline. LOC intercepts RCL less than 4594' (1400m) from threshold. This does not comply with PANS OPS criteria for STRAIGHT IN APPROACH. 12 guidance lights are located around the airport: 3 West of AD, 4 North of AD and 5 East of AD. There are no CIRCLING lights.

Not below minimum arrival route altitude.
Ensd/Sdn
Anda
Ndb 369
Final Approach Course 256°
Minimum Altitude 4500’
Mda/h 4522’
Apt Elev 196’
Rwy 178’

Missed Approach: Climb STRAIGHT AHEAD to AD Lct, then turn LEFT (MAX 130 KT) to intercept 076° to STG Ndb. Enter STG holding climbing to 6000’.

Alt Set: Npa Rwy Elev: 775’ Trans level: By ATC Trans alt: 6000’
1. WARNING: Steep Descent angle. 2. PCL 119.8. 3. 12 guidance lights are located around the apt; 3 West of AD, 4 North of AD and 5 East of AD. 4. Final approach track 9° offset from rwy centerline.

There are no Circling Lights.

STG Ndb
6000’
5500’
1 Min

Grid speed Kts

Descent angle FAF to Map
4.00°
496
637
708
850
991
1133

STG Ndb to Map
3.5
3.00
2.20
2.06
1.45
1.30
1.19

Standard
CIRCLE TO LAND
Not authorized South of airport

Pans Ops 4

Changes: Holding, Procedure, Minimums

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The ENSD Control Panel

The ENSD 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 ENSD 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 ENSD</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 ENSD.</td>
</tr>
<tr>
<td>Autogen density</td>
<td>Normal</td>
<td>Best FPS vs detail.</td>
</tr>
<tr>
<td>GA AI traffic</td>
<td>16-50%</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 ENSD 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 ENSD. Provided you adhere to the forum terms of use and have a legitimate copy of ENSD, 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 ENSD 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 ENSD Team

Lead Developer
- **Andreas Hegi**: 3D modelling, texturing, ground poly
- **Greg Jones**: ground imagery, seasoning, watermasking, terrain modification, road vector updates, APX, autogen annotation and user guide.

Additional Orbx Developers
- **Orbx Team**: Orbxlibs objects
- **Phil Speakman**: Supplementary autogen annotation
- **Holger Sandmann**: Aerial imagery acquisition

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

Beta Testing Team

Further Acknowledgements
- FTX Norway development team
End User License Agreement (EULA)

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

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