

# Software Setup Guide

This guide details how to install the software necessary to control in the Reykjavik CTA (Iceland, Greenland, and the Faroe Islands) on VATSIM.

If you have any questions, please contact the current facility engineer for the Reykjavik CTA. **The current Reykjavik CTA facility engineer is Jonathan Fong (1308253).**

## Required Software

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Two pieces of software are required to control in the Reykjavik CTA:

- **Euroscope** - The controller client used in the Reykjavik CTA (and throughout VATSIM Scandinavia).
  - The currently-recommended version of Euroscope is **v3.2.3.2**. Download it here: <https://euroscope.hu/install/EuroScopeSetup.3.2.3.2.msi>
- **Audio for VATSIM (AFV) Standalone Client** - This client is necessary to connect to the VATSIM audio servers, as EuroScope still hasn't been updated to natively support the new Audio for VATSIM (AFV) codec.
  - *Link:* <https://audio.vatsim.net/docs/atc/euroscope>
  - Alternatively, one may also use the **VectorAudio** or **TrackAudio** AFV clients. These clients may offer a higher fidelity radio simulation, but do not support RDF (see the RDF section in this guide for more info on what that is.)

Windows is required for all of these pieces of software (except VectorAudio/TrackAudio.) MacOS and Linux users must use a virtual machine to run Windows and control, or use tools like Wine at your own risk.

## Setup Guide

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## Step 1: Install Euroscope

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Download and install Euroscope from the link above, following the prompts of the installer.

Make sure that you are running the **currently recommended version** of Euroscope, as listed above. Older versions may not have as much functionality, and newer versions may not be as stable.

## Step 2: Install the AFV Standalone Client

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This step is fairly easy. Download and install the AFV standalone client from the link above, following the prompts of the installer.

## Step 3: Download the Sector File

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The sector file, strictly speaking, is the file that contains all the airspace data for the Reykjavik CTA. The term "sector file" is also commonly used to refer to the associated settings files, plugins, etc. that make it possible to control in the Reykjavik CTA.

The Reykjavik CTA uses the platform Aeronav GNG to distribute updated sector files. Controllers should configure Euroscope to automatically download the most up-to-date sector file from Aeronav GNG. To do this, follow these instructions:

1. If you are reinstalling the sector file because of any bugs/issues with an old install, open File Explorer, go to `%AppData%\Euroscope`, and **delete all existing folders & files** that have names starting with "BIRD."
  - If you had a very old install of Euroscope before as well, you may also need to go to `%userprofile%\Documents\Euroscope` and do the same thing.
  - **For advanced users:** Be sure to save any custom settings files that you want to keep in your new install!
2. **Launch Euroscope** from the shortcut created during install (search "Euroscope" in the start menu.) Euroscope may ask you to select a profile — you can ignore this by pressing ESC. Euroscope will then load up with a blank radar scope.

- In the green toolbar at the top of your screen, click "**OPEN SCT,**" then in the dropdown menu that opens up, click "**Download Sector Files.**"
- Click "**Euroscope main sector file provider**", then press the "**Download**" button in the middle-right of the window (outlined below in red.)

Sector File Providers

Descriptor file:

Available sector file providers

Provider name	A	Local filename	Last downloaded	Next download
Alaska ARTCC Control File	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
Central & North Africa sector files	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
Cuba vACC Sector Files Provider	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
EuroCenter vACC Sector File Provider	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
<b>EuroScope main sector file provider</b>	<input checked="" type="checkbox"/>	<b>./euroscope_sector_providers.txt</b>	<b>20240221 1856Z</b>	<b>20240223 1856Z</b>
Latvia vACC Sector File Provider	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
LHCC - VACCHUN Sector Files	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
LRBB - ROvACC Sector Files	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
Polish vACC Sector Provider	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
Shanwick & Gander Oceanic	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
TRvACC.Org Turkish Virtual Area Control C...	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		

Name:

URL:

New URL:

Filename:

Provided Sector Files

Sector name	File name	Version	A	D	C	Download
						+ 25 provide

- Many more providers should now show up. Find "**AeroNav GNG Sector File Provider,**" tick "**A**" next to it, and press the middle-right "**Download**" button again.
- Even more providers will show up. Find "**Aeronav GNG VATSIM Scandinavia,**" tick "**A**" next to it, and press the middle-right "**Download**" button again.

- In the bottom half of your screen, you will see the **"Provided Sector Files"** section fill up with a big list of sector files. Click on the one named **"BIRD Install-Pack"** and press the bottom-right Download button (*not the one you were pressing earlier! See screenshot below.*)

Sector File Providers

The screenshot shows the 'Sector File Providers' window. At the top, there is a 'Descriptor file' field containing 'SectorFileProviderDescriptor.txt' and a 'Browse' button. Below this is a section titled 'Available sector file providers' which contains a table with columns: 'Provider name', 'A', 'Local filename', 'Last downloaded', and 'Next download'. The 'AeroNav GNG SCA VATSIM Scandinavia' provider is selected, indicated by a green checkmark in the 'A' column. Below the table are fields for 'Name', 'URL', 'New URL', and 'Filename', along with 'Download', 'Delete', 'New', 'Update', and 'Browse' buttons.

At the bottom of the window is a section titled 'Provided Sector Files' which contains a table with columns: 'Sector name', 'File name', 'Version', 'A', 'D', 'C', and a 'Download' button. The 'BIRD Update-Pack' file is selected, indicated by green checkmarks in the 'A', 'D', and 'C' columns. A '+ 0 provider' button is visible to the right of the table.

Provider name	A	Local filename	Last downloaded	Next download
AeroNav GNG OSTT Syrian vACC	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
AeroNav GNG OYSC Yemen vACC	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
AeroNav GNG PHZH Honolulu Control Facility	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
AeroNav GNG RPHI Philippines vACC	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
AeroNav GNG SBXX VATSIM Brasil	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
AeroNav GNG SCA VATSIM Scandinavia	<input checked="" type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...	20240221 1857Z	20240222 0657Z
AeroNav GNG Sector File Provider	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...	20230221 0412Z	
AeroNav GNG SPIM Lima	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
AeroNav GNG SRM Sri Lanka & Maldives vACC	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
AeroNav GNG UAAA Almaty Control	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		
AeroNav GNG UKBV vACC Ukraine	<input type="checkbox"/>	C:\Users\JF\AppData\Roaming\EuroScope\...		

Sector name	File name	Version	A	D	C	Download
ESAA Update_Only	ESAA-Sweden	20240125174856-240101-0001	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BIRD Update-Pack	BIRD-Update-Pack	20231221074933-231201-0009	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	+ 0 provider
ENOR Norway_NC_Update-Only	ENOR-Norway-NC	20240205182547-240101-0003	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ENOR Norway_NC_Full-Package	ENOR-Norway-NC	20240201160121-240101-0002	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BIRD Install-Pack	BIRD-Install-Pack	20231221075028-231201-0010	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ESAA Full_Package	ESAA-Sweden	20240125174759-240101-0001	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
EKDK EKDK_FIR-Update-Only	EKDK-EKDK-Copenhagen	20240126170043-240101-0001	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
EKDK EKDK_FIR-Full-Package	EKDK-EKDK-Copenhagen	20240126165954-240101-0001	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
EFIN DataFiles	EFIN-Do-not-install-sct	20240126071846-240101-0001	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- Once that is done downloading (the "D" column next to BIRD Install-Pack will be ticked), click on **"BIRD Update-Pack"** and press the bottom-right download button again.
- Tick "A" next to BIRD Update-Pack.** This will ensure your Euroscope will download updated sector files automatically.

10. **Close Euroscope.** If Euroscope asks you to save anything, just click on "**No**" or "**Cancel All.**"
11. **Relaunch Euroscope.** When Euroscope asks you to select a profile, this time, select "**BIRD\_TopSky.prf.**"
12. **Congratulations!** If you've done everything correctly, you should be looking at a blue/green/grey radar scope depicting the Reykjavik CTA's airspace.

## **Step 4: Disable Auto METAR Addition** (*Optional – Recommended for C1+ Controllers*)

The below is optional, because the issue of METAR list clutter is generally only an issue for C1+ controllers controlling BIRD, due to the amount of airports that may be "active" under their airspace.

For APP/TWR/GND/DEL positions, controllers may find it easier to leave "Auto display METARs" **ticked**. With only 1-2 active airports at most, there is no clutter in the METAR list, and it saves time to have the METARs for those airports displayed automatically by Euroscope.

For BIRD controllers covering Iceland top-down, to make sure that Euroscope correctly recognizes that you are responsible for departures and arrivals for Icelandic airports (including AFIS fields), all these airports are added as "active" airports whenever you log on as BIRD.

Unfortunately, this also means that Euroscope will try to add the METAR for every Icelandic airport which BIRD may be responsible for. This is because of how Euroscope currently handles the addition of METARs to the METAR list.

This can cause a lot of clutter for BIRD controllers in the METAR list. Thus, it is recommended to follow these steps as a workaround.

**Go to OTHER SET (in the green toolbar), click on "General Settings," and then UNTICK "Auto display METAR of active airports."** (The red option highlighted below.)

General Settings

Page 1 | Page 2

OK  
Cancel

Keys

Aircraft select key: Num + [Set]

Primary frequency send key: Num \* [Set]

Units of measure: Imperial (miles, feet, knots)

Squawk options

Squawk interval: 2600 2677 [Assign] [Random Squawk]

VFR squawks: 7000

WTC symbols

Light: L [Medium: M]

Heavy: H [A380: J]

Display options

Display airspace lines  Show route when accepting  Show CLAM warnings

Display FIX name at route points  Lock show route when accepting  Show RAM warnings

Display ETA at route points  Rotate texts along the route  Never close FREQ chat

Zoom center under the cursor  Rotate radar target symbol  Rotate flight plan track symbol

Show tooltips  Show conflict tool on temporary altitude setting

On the ground filter: altitude: 2000 ft, speed: 40 kts

TAG display options

Allow correlated aircraft tag untagged  Allow assumed aircraft tag untagged  Show rectangle over FP track

Allow concerned aircraft tag untagged  Show detailed over untagged  Show rectangle over ASEL

Miscellaneous options

Assume aircraft on the ground as STBY  Use calculated heading  Show 'A' for altitudes

Keep scratch pad content after direct  Compensate FS heading bug  Show 500 ft items for non VFR

Use hovering TAG for key commands  Auto Proxy connections  Highlight ASEL AC in lists

Auto messages for TEXT aircraft  Capitalize FP fields and scratch pad

Set active APT by owned sectors  Inhibit auto flight strip push on handoff

Auto display METAR of active airports  Use ISECT.TXT for scratch pad UNICOM 122.800

Coordination options

Do not use accepted coordination color  Put incoming coordinations to first place

Do not use refused coordination color  Allow direct beyond COPX point

Professional mode

Correlation mode: S-mode S-mode transponders: IEFGRWQ

Correlation distance: 30 NM Do NOT auto correlate the following squawks: 1200,2000,2200,7000,7700

Simulate radar coverage and outage  Do NOT auto correlate duplicated  Accept pilot squawk

Show VFR Flight Plan track  Show IFR Flight Plan track  Auto start FP tracks

This will mean that when you log onto any position, **no METARs will be added automatically**. You may add METARs *manually* to the METAR list for the airports you need by typing the command `.qd [ICAO code]`, e.g. `.qd BIKF`. Pressing the **F2** key is a shortcut for the `.qd` text command.

## Logging Onto The Network

To connect to VATSIM (or Sweatbox, the training server used for mentoring controllers), click on the big "CONNECT" button at the top-left of your Euroscope window.

A window will pop up asking for the details of your connection. Make sure that you review the following settings:

- **Select Connection Mode:** For typical controlling & observing on VATSIM, or if you are a *student* participating in a Sweatbox mentoring session, you should always select "**Direct to VATSIM.**"
  - "*Start SweatBox simulator session*" is for **mentors only**. Students should never need to select it.
  - Ignore the other options unless you really know what you are doing.
- **Callsign:** If you are logging onto a specific ATC position, use the dropdown menu to select it.
  - Selecting a position from the dropdown menu will automatically populate your INFO lines, as well as your Facility type.
  - If you are logging on as an observer, then manually type in your callsign as **[YOUR INITIALS]\_OBS**. E.g., If John Smith were logging on as an observer, their callsign should be "**JS\_OBS.**"
    - You will also need to manually change your **Facility** (dropdown menu directly to the right of Callsign) to "**Observer.**"
    - You may sometimes need to change your observer callsign if someone else with the same initials is also logged on, but this is very rare.
- **Real Name:** Input your name or CID here, following the approved name conventions outlined in [VATSIM Code of Conduct section A4\(b\)](#).
- **Certificate:** Input your VATSIM CID here.
- **Password:** Input your VATSIM password here.
- **Server:** If you are logging onto VATSIM itself, select "AUTOMATIC." If you are logging onto Sweatbox for a training session, select "SweatBox."
  - Whether you are on the main VATSIM network, or on Sweatbox, the **Connect to VATSIM** checkbox should **always be ticked**. (Sweatbox is not part of the "main" VATSIM network, but it is still operated by VATSIM.)

Once you have reviewed all of the above items, you should be ready to connect to the network!

If you are an advanced/knowledgeable controller, and know what you are doing, you may also consider reviewing the following items:

- **Logoff time:** Pretty self-explanatory. Lists when you plan to log off in UTC (Zulu) time.
- **INFO lines:** These lines, which provide essential information about your ATC position, are usually auto-populated whenever you select an ATC position in the Callsign dropdown.
  - However, controllers may sometimes wish to add additional information to the INFO lines, e.g., adding their CPDLC logon (if choosing to provide CPDLC service), or providing a link to their livestream (e.g., on Twitch.)
  - In these circumstances, controllers may make appropriate edits to the INFO lines. Any edits/additions should be kept brief & concise.

**Controllers should generally never touch the "Range" setting, unless specifically advised to do so by the facility engineer.** Position ranges are carefully adjusted to provide full coverage over a controller's airspace, without violating VATSIM's maximum visibility ranges (as defined in VATSIM Code of Conduct section C8.)

## Connecting an ATIS

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Thanks to the help & support of one of our controllers, Ollie Killean, the sector file is automatically configured with Euroscope to generate an ATIS.

At the top of your Euroscope window, you should see four small boxes labeled with dashes.



These represent the four ATIS's that you are allowed to connect to VATSIM. **These are set up for BIKF, BIRK, BIAR, and BGGH, in that order left-to-right.**

As a reminder, TWR controllers may only connect **one** ATIS — the one for the aerodrome they are controlling. APP & CTR controllers may connect multiple ATISes if they are covering multiple aerodromes top-down. **Given current SOP, there should never be an instance in which all four ATIS's are connected at once, since there is no single ATC position that controls BIKF, BIRK, BIAR, and BGSF top-down.**

To connect an ATIS, firstly, **select your active runways in Euroscope**. Then, click on the box corresponding to the airport whose ATIS you want to connect (e.g., to connect an ATIS for BIKF, click on the leftmost box.)

An ATIS setup window will open.

ATIS connection A setup

Text ATIS

ATIS callsign BIKF\_ATIS

ATIS frequency 128.300

Get METAR BIKF 212100Z 18009KT 9999 -SN BKN021 00/M01 Q0958

Current ATIS info - T +

ATIS maker URL https://atis.olliv.ovh/?arwy=\$arrwy(\$atisairportA)&drwy=\$deprwy(\$atisairportA)&metar=

Extracted URL

Automatically generate new ATIS using the URL

Test URL

Connect ATIS Disconnect ATIS Can not connect ATIS Close

Tick "**Automatically generate new ATIS using the URL,**" and then click "**Test URL.**" The Text ATIS section will automatically fill up with the appropriate ATIS text for your aerodrome, for example:

**Text ATIS**

KEFLAVIK ATIS T, ISSUED AT {2110} UTC. RWY {19} IN USE. EXP ILS OR RNP APCH, RWY {19}. RWY {01} CONDITION AT {1917} UTC. BRAKING ACTION GOOD, COVERAGE {100}, CONTAMINATION WET. WEATHER AT {2100} UTC. WIND {180} DEG {9} KT. VIS {10} KM OR MORE. LIGHT SNOW. BKN {2100} FT. TEMP {0}. DP MINUS {1}. QNH {958} HPA, {28.29} INCHES. TRL {90}. REPORT MACH NUMBER FOR OCEANIC CLEARANCE. ADVISE ON INITIAL CONTACT YOU HAVE ATIS T.

ATIS callsign

ATIS frequency

Get METAR

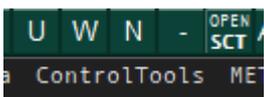
Current ATIS info

ATIS maker URL

Extracted URL

Automatically generate new ATIS using the URL

Check that the output looks correct (correct active runway included, etc.) If everything looks good, click "**Connect ATIS**" at the bottom-left of the window. You can then close the ATIS setup window. The boxes at the top left of your screen will change from showing dashes, to showing the current ATIS letter.



If you need to disconnect an ATIS (e.g., you are on APP/CTR and a controller has logged onto TWR beneath you, and they will take over the ATIS connection), simply click "**Disconnect ATIS.**" (If you are closing/logging off VATSIM, you do not need to click "Disconnect ATIS" — just disconnect yourself from the network, and all your ATISes will disconnect with you.)

## Optional Features

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### RDF

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RDF, or **Radio Direction Finder**, is a system used by some air traffic management systems which finds and indicates the location of incoming radio signals, allowing ATC to pinpoint who is transmitting.

RDF is not used in real life by Reykjavik ACC. However, as some controllers find RDF a helpful tool when controlling the large bandboxed BIRD airspace, options for it are present – but disabled by default – in the BIRD sector file. When enabled, the TopSky plugin will draw a circle around any aircraft currently transmitting.

### To enable RDF, follow these instructions:

- Go to `%AppData%\Euroscope\BIRD\Plugins` and open **TopSkySettings.txt**.
- Find the settings below in the text file:

```
; -- RDF --  
// -- RDF is not used IRL in the BIRD FIR, but you can enable it anyway by removing the  
slashes // below --  
// RDF_Mode=1  
// RDF_AntennaPos=0
```

- Remove the slashes `//` from in front of the bottom two lines (`RDF_Mode=1` and `RDF_AntennaPos=0`)
- Save the text file and close it.

The TopSky implementation of RDF only works with the "AFV for VATSIM" client. It does **not** work with TrackAudio or other such alternative solutions.

## Updating Your Software

### Euroscope

**Do not update Euroscope unless the facility engineer has announced that you should do so.**

**The most stable version of Euroscope is not always the newest one.**

Euroscope's development process can be somewhat unstable, and new releases may

have bugs that break or lower the quality of the controlling experience.

If the facility engineer has announced that controllers should update to a new version of Euroscope, follow the instructions provided by the facility engineer to update Euroscope. (Generally, you will just need to download the new installer from the Euroscope website.) Otherwise, **do not update** your Euroscope install.

## Sector File

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If you've followed all the steps listed above during the install process, then your sector file will automatically update whenever a new version is released. *(Generally, every 1-3 AIRAC cycles. There is not necessarily an update every AIRAC cycle, as many cycles do not have any significant changes within Icelandic/Greenlandic airspace.)*

When you start Euroscope, you may sometimes receive a notification that a new sector file has been downloaded. Euroscope will ask you if you want to use the new sector file in all of your ASR files (i.e., your radar views), and if you want to delete the old sector file. **Click on "yes" to both prompts.**

### Plugin Updates

Occasionally, one of the plugins in the BIRD sector file package may be updated by its developer. Due to Euroscope limitations, updating the sector file itself does not automatically update the plugins.

1. Close Euroscope.
2. Open this folder: %AppData%/Euroscope/BIRD/Plugins/Updated Plugins
3. Copy (CTRL+C) the DLL files of the plugins you want to update.
4. Go "back" one folder, to %AppData%/Euroscope/BIRD/Plugins
5. Paste and REPLACE the DLL files into that folder with the new DLLs you just copied.
6. Relaunch Euroscope & enjoy the updated plugins!

## AFV Standalone Client

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The AFV client will prompt you on startup if there is a new version to download. Follow the prompts the AFV client gives you to update itself.

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Created 21 February 2024 20:23:37 by Jonathan Fong (1308253)

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