AI towplane-scenario at EDFZ

by D-SVEN, glider pilot since 2016

Please read the instructions below to have a maximum of fun with this feature!

The following steps are required to activate and make use of the scenario:

1. Install the custom scenery as well as the towplane-scenario as described in the repo's README.md
2. Start FlightGear at EDFZ (Mainz Finthen) 26L in a glider capable of aerotow
3. Go to the menu bar (F10) → AI → AI Scenarios
4. Activate the scenario „EDFZ-Mainz towing"

You may also want to enable the „AI/MP-Sound" in your sound settings to enjoy the authentic Cessna sound!
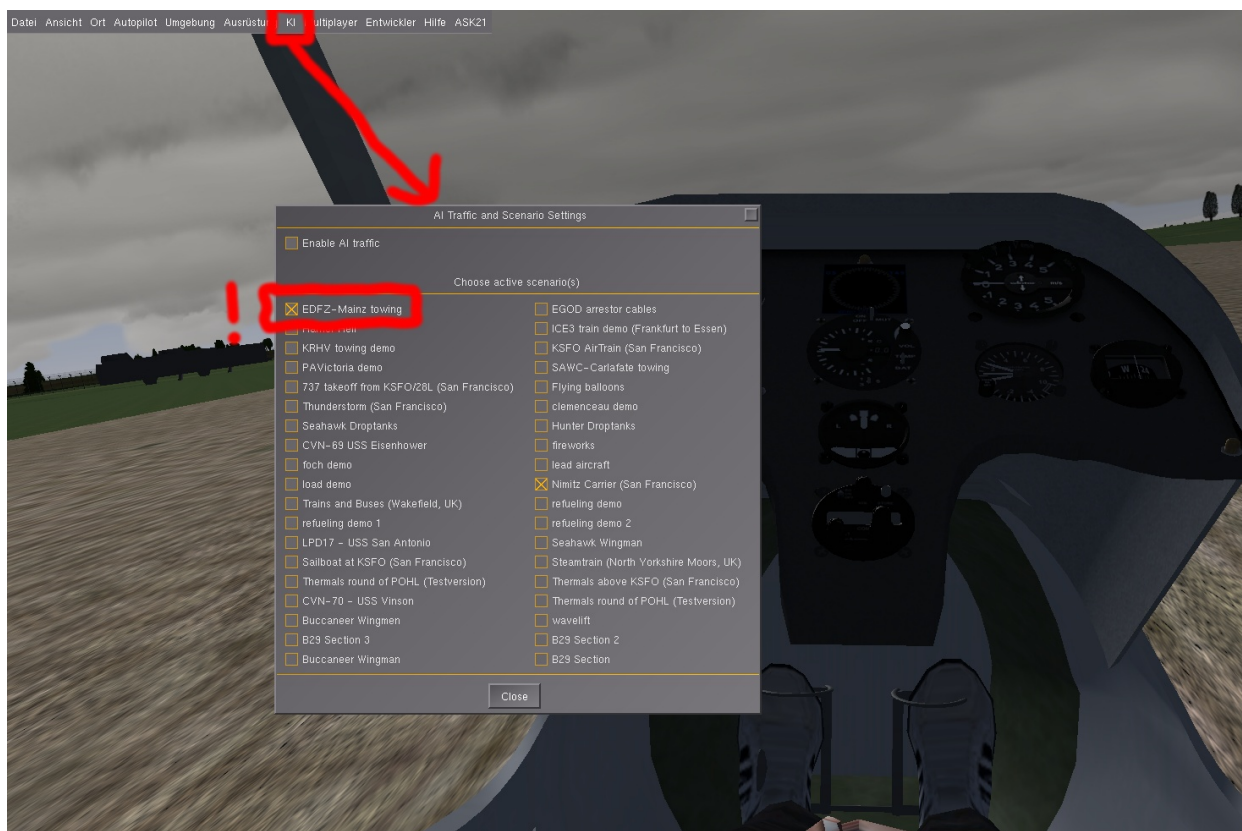
For training purposes, I tend to use the ASK-21 by D-ECHO!

The procedure:

The towplane is now on it's way from the hangar to runway 26L, which may take some time. If you are impatient, you can timewarp until the towplane comes closer (key a/A).

Once the Cessna is in front of you, it will turn around and line up with the runway. By that time you should connect to the towrope (ctrl + O in most gliders). The plane will now slowly speed up.

5 Tips for flying in aerotow:

1. <u>Rolling:</u> Upon rolling, **heavy rudder corrections** are needed to keep the wings levelled! Also **pull back slightly** to keep the tail balanced and gain lateral control! Also use the **speedbrakes** in case the rope is not tighten.
2. <u>Liftoff:</u> When the speed exeeds **about 70km/h**, the glider will lift off (about half down the runway). Keep flying **as low as possible** until the towplane lifts off as well.
3. <u>Flying:</u> Once both planes are in the air, follow the towplane but keep the glider **slightly above** the towplanes trail due to the wake turbulence.
4.<u>Turning:</u> In turns, the glider pilot shall aim for the **towplane's higher wingtip**. E.g. in left turns, keep the nose facing the right wingtip of the towplane.

5. <u>Hooking off:</u> At about 2200ft MSL, the tow comes to an end (towplane starts descending). The glider pilot disconnects and always makes a **hard right turn** away from the towplane.

Reasons to abort the aerotow:

If...
1. ... the glider's wing impacts the ground/a foreign object on takeoff roll.
2. ... the towplane's engine fails.
3. ... the glider gets too high/low or overshoots the towplane somehow.
4. ... the towplane pilot makes constant aileron movements to show that he wants you to disconnect.

Credits to Herbert Wagner (alias HerbyW) for improvements on the procedure as well as on the Cessna 177. Thank you!