

Endless ATC instructions (PC)

Vectors to an ILS approach

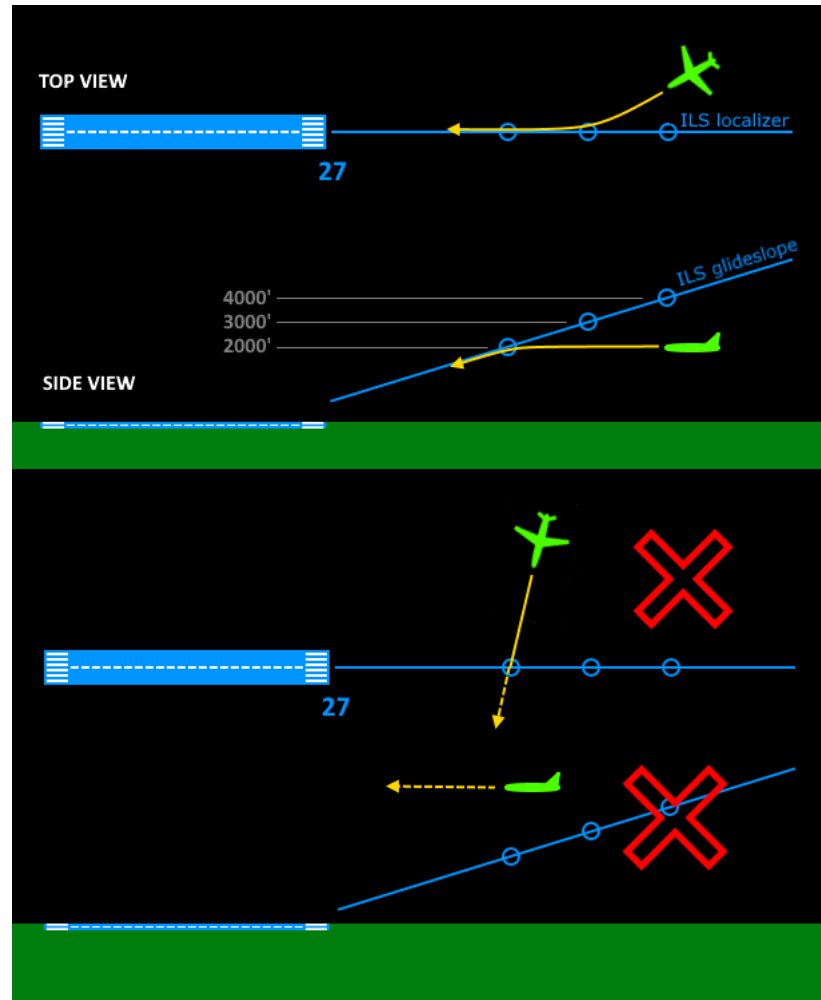
Guide the planes safely towards the ILS line, while maintaining 3 mile/1000 feet separation. Planes that are fully established on the ILS will be handed off to the tower, and then your skill value will increase. Separation incidents cost skill points. The higher the skill value, the more planes you will have to control at a time. A high skill value also opens more runways.

Planes should intercept the localizer at 30 degree angle (approximately), with ILS mode enabled. Make sure that planes intercept the glideslope 'from below'; see the altitude markers (blue circles) indicating 2000, 3000 and 4000 feet. Once on the localizer, maintain extra distance behind heavy planes ('H' or 'J' labeled) to avoid go-arounds due to wake turbulence. For more detailed instructions, [see the blog](#).

Handoffs

Handoffs are optional. Handed off planes cannot be given instructions anymore, but plane separation remains your responsibility until the plane has left the airspace. When a plane is established on the localizer, it can be handed off to the tower by pressing the H/O button. If you don't handoff the plane, it will switch to the tower automatically at 4 miles from touchdown, without any penalty.

For departures, the handoff button may be used when a plane is high enough and clear of any traffic. If you don't hand off the departure manually, it will be handed off automatically when it crosses the ceiling of the airspace, without any penalty.



Areas and weather

In some airspaces, there are certain areas with an altitude restriction. Planes must fly at or above the displayed area altitude, otherwise it's a violation of the airspace: the skill value will decrease, and the separation incident counter will increase. There is one exception: if the name of the area matches the 'destination tag' of a plane, then the plane may enter that area without penalty (for example, a plane inbound 'RD' airport may enter a '30/RD' area while flying below 3000'). Note that planes inbound the main airport (green label) have an 'empty' destination tag, so these planes may enter any unnamed areas.

In the Weather menu you can enable wind, as well as clouds (thunderstorms) which are displayed as orange blocks. When planes fly through these clouds, it's counted as a separation incident. For simplicity, clouds can be avoided laterally only. To start a game with random weather, see the Realism menu and click the Random Wx button.

To enable air pressure simulation, go to the Realism menu and click Pressure. This adds a pressure setting to the Weather menu. Higher pressures increase the height of the flight levels. By default, pressure simulation is off and flight levels are relative to standard pressure (1013 hPa or 2992 inHg).

The wind direction and speed settings represent the conditions at the surface. At high altitudes the wind speed is larger and the wind direction is slightly different. The wind speed/direction displayed at the top of the sidebar corresponds to the wind at a height of 3000 feet above the surface. Note that the effect of wind, in combination with thinner air at high altitudes, can result in large differences between ground speed/ground track versus the instructed (indicated) airspeed/heading of a plane.

Parallel runways

The 3 mile/1000 feet separation rules apply, until both planes are established on a different localizer. So to avoid incidents, intercept the localizers with a 1000 feet altitude difference between the planes (for example one at 3000 and the other one at 4000 feet). Also make sure that the planes intercept the localizers at a sufficiently large distance from the runway, to avoid incidents when one plane captures the glideslope before the other plane is on its localizer. Planes with ILS mode enabled will select the nearest runway by default. If you want to intercept the other ILS, then long-press the ILS button; this will enable the 'alternate ILS*' mode, so the plane will cross one localizer before intercepting the next one.

Settings

The game can be played in 3 different ways: with normal traffic, custom traffic, or scenario traffic.

1. Normal mode: the amount of random traffic adapts to the skill level, and high scores/goals can be achieved. More runways will open automatically when the score increases.
2. Custom mode: the amount of random traffic can be set to a specific level (either skill or flow). Custom traffic disables the 'game elements' (such as high scores and goals). If you want to set high scores again, you must start over with a new game. In custom mode, the number of active runways is determined by the 'custom score' setting in the Runways menu. The amount of traffic can be set by selecting one of the following 4 options:
 - o Skill fixed: lets you set the skill value; keeps the number of planes in control constant.
 - o Skill cap: capped skill mode; skill can change like in normal mode, but it has an upper limit.
 - o Flow fixed: fixed flow (planes per hour) of arrivals and departures to/from the main airport.
 - o Flow var: varying flow between the minimum and maximum flow setting (1 hour cycle).
3. Scenario mode: non-random traffic during 30 minute challenges. Each of the 9 airports has one scenario which can be unlocked by completing the previous scenario without incidents. To start the first scenario, switch to EHAM airport, then go to the Traffic menu and click the scenario button. The Goals screen also shows which scenario is available to play.

By enabling pilot speech in the Sound menu, text-to-speech voices from the US and UK language packs from Windows will be used (if they are installed). To troubleshoot (in case no voices can be heard), press Windows + R and run:

C:\Windows\sysWOW64\speech\SpeechUX\SAPI.cp1

In the Menu, there are some hidden options available:

- Press and hold the Menu button to temporarily increase the simulation speed to 20x.
- In the Display menu, long-pressing Line will toggle between straight or curved heading lines, and long-pressing Circle doubles the circle size. Long-pressing Bar moves the sidebar to the bottom of the screen.
- The following keyboard inputs are available to further fine-tune settings:
 - "SWEEP043" (set radar update interval to 4.3 seconds)
 - "HLINE15" (set heading line length to 1.5 minutes)
 - "SPEED03" (set simulation speed to 3x)
 - "NOBAR" (no sidebar)
 - "WIND23012" (set surface wind at 230 degrees, 12 knots)
 - "PRESSURE1013" (set QNH 1013 hPa)
 - "EVENT200" (set chance of event 1 in 200 planes)
 - "ERROR200" (set chance of pilot error 1 in 200 commands)
 - "CURSOR" (draws a bigger cursor on screen)
 - "TIMELAPSE02" (saves images every 2 seconds into the /img folder)
 - "CLEARTRACKS" (clear plane tracks from pause screen).

Controls

Press the F7 key (or click About/Controls) to finetune the mouse controls or change key bindings. Controlling the sim by mouse is the easiest way. Most commands can be given by mouse buttons only, or by clicking on the sidebar buttons. Additionally, keyboard shortcuts can be used. It's even possible (although less intuitive) to play by keyboard only (Text Input): type a call sign to select a plane (Spacebar to autocomplete), then type commands separated by spaces, followed by Return. Text Input is enabled by default. If you assign other functions to keys in the A-Z or 0-9 range, then it's better to disable Text Input by pressing F6 to avoid key conflicts.

Mouse Controls

right click	pan view, distance tool
long-press DCT button	HOLD mode at current position
long-press ILS button	alternate ILS* mode (cross one localizer, intercept the next one)
long-press SID button	direct to SID waypoint and set altitude to maximum value
double-click altitude +/- buttons	expedite climb/descend (increase vertical speed)
long-press altitude digits on sidebar	LLZ mode (avoids glideslope interception if ILS mode is on)
left click + Shift key	change label position by dragging from plane

Text input, separated by spaces

Space bar	autocomplete call sign
A30	Altitude 3000 feet
S210	Speed 210 knots

L360	Left heading 360
R360	Right heading 360
H360	Heading 360 (shortest turn)
DPAM	Direct to beacon "PAM"
T360	After beacon fly heading 360 ("then heading")
I18R	Cleared ILS approach runway 18R
I	Cleared ILS approach nearest runway
LLZ	Cleared ILS localizer only
D	Direct to beacon nearest to current heading
E	Expedite climb/descent
HO	Hold at current position
SID	Cleared SID
APP	Cleared to follow the approach route*
NAV	Cleared to follow the lateral part of the approach route*
B	Handoff ("bye")

Examples (make sure Text Input is enabled; if not, press F6):

"KLM123A A30 H260" (KLM123A, altitude 3000 feet, heading 260)

"KLM123A DPAM T270" (KLM123A, direct to PAM, then heading 270)

"KLM123A S200 I" (KLM123A, speed 200 knots, cleared approach)

*Approach routes are only available as an option in *custom airports*. Custom airports can be added to the game by putting *txt* files into the */locations* folder. More information can be found [here](#).

Keypad Text Input (no spaces required)

0-9	Select Plane by call sign
/	Altitude
*	Speed
-	Heading
+	ILS
Del	DCT

Example:

"123-30+" (KLM123A, heading 030, cleared approach)

Contact

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June, 2024