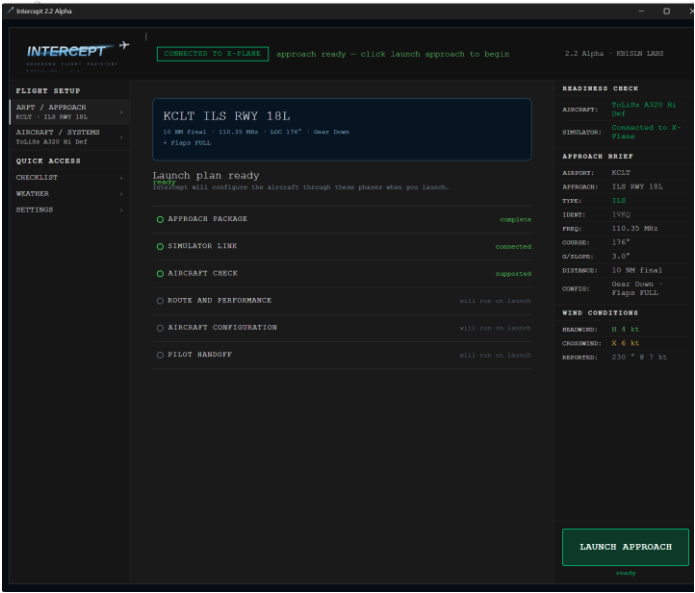




USER MANUAL

Approach practice for X-Plane 12

Version 1.1 Rev D • Windows • October 2026

SIMULATOR USE ONLY

Intercept is entertainment software for home flight simulation. It is not a certified training device and must not be used for real-world aircraft operation, navigation, instruction, or safety-critical decisions.

ToLiss Airbus (A319 to A340-600) • Zibo 737-800X • LevelUp 737NG family • Citation X (experimental)

How to use this manual

This manual covers Intercept 1.1 for ToLiss Airbus (A319 through A340-600), Zibo 737-800X, the LevelUp 737NG family, and, experimentally, the X-Plane 12 built-in Cessna Citation X, including ILS and RNAV/RNP setup, STAR arrivals, and the different aircraft-specific launch workflows.

Fast path

- **Installing for the first time:** Read Sections 2-4.
- **Moving between ToLiss and 737:** Read both aircraft-specific procedures in Section 6.
- **Flying an ILS:** Read Section 7.
- **Flying RNAV/RNP:** Read Section 8 in full.
- **Flying a STAR arrival:** Read Section 9. It assumes you know Section 7 or 8 for the approach that follows.
- **A launch stopped or failed:** Go to Section 10.

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Known limitations - read this first

Intercept 1.1 is a general-availability release. These are the known rough edges and what the app will do about them. None of them require action until you meet them.

- **Advanced RNP (AR) approaches.** Some RNP approaches are charted Authorization Required: real-world crews need special certification to fly them. Intercept shows a NOTE in the approach brief and turns the launch button amber when you select one. No authorization or action is needed in the simulator, but automatic guidance may not fully engage on these procedures. If it cannot, Intercept pauses the sim with the aircraft stable on the approach; unpause and fly it yourself, or relaunch. See Sections 8 and 10.
- A stopped launch is not a dead end. Whenever setup stops after positioning, the aircraft is left stable, configured, and on the approach path. The overlay tells you what did not engage and what you can do.
- **Supported aircraft only.** Three tiers; anything not listed, including the default Lamina 737-800, fails the aircraft check by design.
- **Full support:** ToLiss A319, A320, A321; Zibo 737-800X; LevelUp 737NG family (-600 to -900ER). ILS, RNAV/RNP, and STAR arrivals.
- **Early support:** ToLiss A330-900 and A340-600. ILS, RNAV/RNP, and STAR arrivals, same workflow as the A320 family. Newly added: you may encounter issues; please report them to support@kb1slnlabs.com.
- **Experimental:** X-Plane 12 built-in Cessna Citation X. ILS and RNAV/RNP (LPV where the approach offers it), no autothrottle, no STAR arrivals. Report issues to support@kb1slnlabs.com.
- Widebodies are early support. The A330-900 and A340-600 use the same launch workflow and prompts as the A320 family and are newly added, so you may encounter issues. Configure early: a heavy started high and clean needs more distance to slow down. If something looks wrong, please report it to support@kb1slnlabs.com with the log.
- **Citation X is experimental:** ILS and RNAV/RNP. STAR arrivals are not offered on it. On an RNAV/RNP approach its FMS flies LNAV/VNAV and couples the LPV glidepath where the approach offers one. The aircraft has no autothrottle: from handoff you own thrust, and the engines are likely at idle when you get the aircraft. Move your levers to the N1 on the card immediately. Above about 10 kt of crosswind the sim autopilot may not hold the localizer; the brief and a launch card warn you. Report what you find to support@kb1slnlabs.com.
- Long ILS starts (20 and 30 NM). The glideslope is not receivable that far out, and on some finals riding it in would bust a published crossing altitude. On the ToLiss, Intercept dials the platform altitude and engages managed descent before the takeover prompt; if it could not, the prompt reads DESCEND TO <alt> BY <fix>: set that altitude in the FCU and push for managed descent yourself (the FMGS honors the coded stepdowns). On the 737 and the Citation X, descend to the published platform altitude yourself, level there, and capture the glideslope from below.

- FLS/SLS approaches (ToLiss A320neo, A321neo, A330-900). You fly the descent. The in-sim card reads SET ALT <FAF> PUSH ALT AFTER <fix> / ARM APPR BEFORE THE FINAL TURN; do exactly that.
- ATC handoff (lower) only lowers long transitions. On a short transition the computed handoff altitude is not below the coded descent, so the coded altitude is used; the brief shows which is in effect.
- Start state matters. Launch from a runway or ramp with engines running and IRS aligned. A saved ToLiss situation can load with the IRS still aligning; give it time to finish or use a runway start, which aligns instantly.
- Hardware bindings can fight the app. A parking brake mapped to a button or axis can silently re-apply itself; unmap it and use the on-screen lever. ToLiss thrust levers must reach the CLB detent when prompted. A third-party hardware driver that keeps re-asserting a lever position can defeat gear or speedbrake changes.
- ToLiss company/SimBrief uplinks. Uplink messages can land in the MCDU while Intercept is programming it. Let uplinks finish or dismiss them before LAUNCH APPROACH.
- High-altitude ToLiss entries. Entries at 14,000 ft MSL and above trigger X-Plane physiological (hypoxia) effects because cabin pressurization does not establish after repositioning. Intercept warns before launch; disable X-Plane physiological effects or pick a lower entry.
- Navdata, scenery, and aircraft data can disagree. Your installed navdata cycle can be newer than X-Plane scenery or the aircraft's own data - renumbered runways, changed frequencies, or transitions that exist on the current chart but not in the sim. Intercept matches renumbered runways automatically, but chart-vs-sim differences of this kind are data lag, not an Intercept fault.
- Weather never blocks a launch. If live weather is unreachable, Intercept uses standard defaults and shows an amber advisory.

External hardware - set it up before your first launch

Intercept reads and sets the same cockpit controls your hardware drives. Hardware that silently re-asserts a position can undo a setup step or make a launch wait forever. Five minutes of setup prevents almost every hardware problem we have seen:

- Parking brake: if it is mapped to a hardware button or axis, unmap it and use the on-screen lever. X-Plane can re-apply the brake continuously from hardware, and the launch will wait on "release parking brake" no matter what you do on screen.
- Thrustlevers (ToLiss): calibrate the ToLiss ISCS detent sliders so your hardware CLB detent registers as CLB. The launch waits for CLB when prompted; do not push past CLB to force it.

- Autothrust disconnect buttons: check what the buttons on your throttle hardware are assigned to. An A/T or A/THR disconnect assignment can kick autothrust off during or right after setup.
- Toe brakes: verify both pedal axes register in X-Plane calibration. The takeover prompt needs a firm, continuous press on both pedals.
- Speedbrake lever: leave it RETRACTED or in ARM before launch. If it gets disturbed later, Intercept re-arms it automatically at the final pre-release check.
- Gear lever and driver software: hardware configuration tools that continuously re-sync lever positions (gear, flaps, speedbrake) can silently defeat the setup - a held gear lever can prevent gear retraction entirely. Disable per-lever sync in those tools, or keep the levers matching the selected configuration.
- During a launch, keep hands off all hardware unless the overlay names a control and asks for it.

1. What Intercept does

Intercept turns a selected approach, or a STAR arrival and its approach, into a repeatable simulator scenario. It loads the route and runway, prepares approach performance, configures the aircraft, positions and stabilizes it at the selected start, and hands the aircraft back to you.

The goal is more useful repetitions: practice the intercept, final approach, landing, or go-around without rebuilding the same setup by hand before every attempt.

Intercept does not replace normal pilot monitoring. After handoff, you are responsible for the flight path, automation state, energy, configuration, minima, landing, and go-around decision.

What Intercept is - and is not

- Intercept is a setup tool, and it is only active while LAUNCH APPROACH is running. During that window it programs the flight computer, configures the aircraft, positions it on the approach, and engages the aircraft's own automation.
- After "You have control," Intercept is done. It does not fly the aircraft, does not stay engaged, and does not monitor or correct anything after handoff. Everything you see after handoff is the aircraft's own autopilot and you.
- It is not an always-on plugin. Nothing from Intercept controls the aircraft while you fly, and Intercept does nothing in the background while X-Plane runs. The bridge plugin inside X-Plane only relays data and commands while a launch is in progress.
- The aircraft's own systems do the flying: AP/FMGS on the Airbus, AP/FMC on the 737 - exactly as if you had set everything up by hand and then flown it yourself.

2. Requirements and compatibility

- **Simulator:** X-Plane 12.
- **Operating system:** Windows 11.
- **ToLiss Airbus:** A319, A320ceo/A320neo, and A321ceo/A321neo (full support); A330-900 and A340-600 (early support).
- **Zibo:** 737-800X, including the standard and 4K packages.
- **LevelUp 737NG:** 600NG, 700NG, 800NG, 900NG, and 900ER variants.
- **Cessna Citation X (X-Plane 12 built-in aircraft):** experimental, ILS and RNAV/RNP.
- **Approach types:** ILS, RNAV/RNP, and STAR arrivals (a published arrival flown into an ILS or RNAV/RNP approach) on the listed ToLiss, Zibo, and LevelUp aircraft; ILS and RNAV/RNP on the Citation X, which has no STAR arrivals.
- **Not supported:** The default Lamina 737-800 and aircraft outside the families listed above.
 - **CHECK THE APP:** aircraft support is enforced by the current build. Before launching, open Aircraft / Systems and confirm the detected aircraft is shown as supported.
- **Access:** A valid Intercept license key (format INTC-XXXXX-XXXXX-XXXXX-XXXXX), activated over the Internet. Your license runs on one machine at a time; move it between your machines anytime with Deactivate this device.
- **Network:** Required for activation, current METAR retrieval, update checks, and protected downloads.

Live weather is not required to launch. If weather sources are unreachable, Intercept launches with standard default weather and shows an amber advisory.

WHAT'S NEW IN 1.1.3

Baro knob free after an arrival handoff (ToLiss). When you start above the transition altitude, the altimeter is still set to STD, but the baro knob is no longer locked at 29.92 after the handoff: you can pull it back to QNH as you descend through the transition level.

Intercept 1.1.2 (October 2026) brought:

Long scenery loads. When positioning the aircraft starts a long scenery load (heavy custom scenery can take a couple of minutes), the WAITING FOR SCENERY card now stays up for the whole load instead of going blank after about two minutes, and Intercept lets the aircraft settle for the rest of its four-minute positioning time before setup continues.

Intercept 1.1.1 (October 2026) brought:

STAR list matches the runway. The STAR list offers only the arrivals coded for the runway you selected, so the aircraft accepts every STAR you can pick. An arrival coded only for another runway of the airport no longer appears. See Section 9.

Altimeter set for the start altitude (ToLiss). When you start above the destination transition altitude, as on most arrivals, the altimeter is set to STD; below it, to the simulator QNH. See Section 9.

737 arrival handoff rebuilt. After release the autopilot captures the level itself, the cruise altitude is entered once as the level it holds, a direct-to puts the aircraft on the arrival leg, and thrust is held through the release so the FMC does not read it as a go-around. The handoff card shows a flight level only above the transition altitude, an altitude in feet below it. See Section 9.

ToLiss arrival setup robustness. The ARRIVAL page recovers when it opens on a remembered STAR list, the filed origin airport must have a paved runway at least 30 m wide, a NO NAV INTERCEPT message after release is cleared before the direct-to, and PERF APPR entry falls back to a step-by-step search when the fast path misses.

Intercept 1.1.0 (October 2026) brought:

STAR arrivals on ToLiss Airbus (A319 to A340-600), Zibo 737-800X, and the LevelUp 737NG family. Select a STAR together with the approach; Intercept files the arrival as a complete flight, programs the flight computer as filed, and spawns you level in cruise on the arrival with the aircraft's own top of descent ahead. You fly the descent. See Section 9.

737 RNAV transitions and IAF starts. Zibo and LevelUp now fly a named transition/IAF entry, as the ToLiss did: Intercept selects it on the FMC ARRIVALS page and verifies the selection before anything moves. See Section 8.

Citation X RNAV/RNP. The experimental Citation X lane now launches RNAV/RNP approaches through its native FMS: LNAV/VNAV, with the LPV glidepath coupled where the approach offers it. Still experimental; still no autothrottle. See Section 6.

ToLiss SLS/F-LOC handling improved, and long ILS starts descend for you. On 20 and 30 NM ILS starts the ToLiss now has the platform altitude dialed and managed descent engaged before the takeover prompt; if that could not be verified the prompt reads DESCEND TO <alt> BY <fix>.

A330-900 and A340-600 release fix. The nose-up after a clean (gear-up) release on the widebodies is

ILS, RNAV/RNP, and STAR arrivals at a glance

Choice	ILS	RNAV / RNP	STAR arrival + approach
Start point	Selected final distance	Final segment (the coded final, joined 2.5 NM before its first fix) or a named Full procedure/transition entry (all supported aircraft)	Arrival (STAR) + approach entry you pick, leading from a real origin
Distance control	5, 8, 10, 15, 20, or 30 NM	None. The spawn point comes from the coded procedure; the picker shows the resulting distance to the runway for information. The 5-30 NM list is used only if the coded path cannot be joined and Intercept falls back to a straight-in final.	None. The Entry List shows the touchdown for each from the aircraft's
Guidance	Let Intercept command the initial modes; verify the FMA after handoff	Follow the overlay and brief; verify the applicable guidance after handoff	Intercept hands control ahead; you start the says, then arm the (Section 9)

3. Install, activate, and update

Install Intercept

1. Close X-Plane 12 before starting the installer so the bridge plugins can be updated safely.
2. Run the Intercept Windows installer.
3. If Windows SmartScreen shows a publisher prompt, confirm the installer came from the official Intercept download before choosing to continue.
4. When prompted, select the root X-Plane 12 folder—the folder that contains the simulator and its Resources directory.
5. Optionally create a desktop shortcut, then complete the installer.
6. Launch Intercept from the Start menu or the desktop shortcut.

The per-user installer does not require administrator privileges. It installs Intercept and its bridge/MCDU support plugins in the selected X-Plane folder. To remove them, use Windows Settings > Apps > Installed apps > Intercept > Uninstall.

Activate Intercept

1. On the ACTIVATE INTERCEPT screen, enter your Intercept license key (format INTC-XXXXXX-XXXXXX-XXXXXX-XXXXXX).
2. Select Activate and wait for confirmation.
3. If activation fails, check the key, network connection, and device-limit message before retrying. A license already at its device limit shows "Device limit reached. Deactivate another device or contact support."

Activation is device-bound. Resolve any device mismatch, revoked/expired key, channel, or device-limit message before launching.

Intercept needs an Internet connection to activate, check for updates, and fetch weather. For normal flying, a recent successful license check keeps the app working when you are offline; the app refreshes its license in the background when you are online. If the app reports a license problem after a long time offline, connect to the Internet and restart it.

Manage your license

Open Settings > License to see your activation status. Select Deactivate this device to free this device's slot on your license, for example before retiring a machine or reinstalling Windows. Confirming shows:

"Deactivating frees this device's slot on your license. You will need to re-enter your key to use Intercept on this machine." Intercept returns to the license-key entry screen afterward.

A Windows reinstall creates a new device identity, which consumes a new slot on your license.

Deactivate the device before reinstalling Windows if you can, or email support@kb1slnlabs.com afterward to release the old device slot.

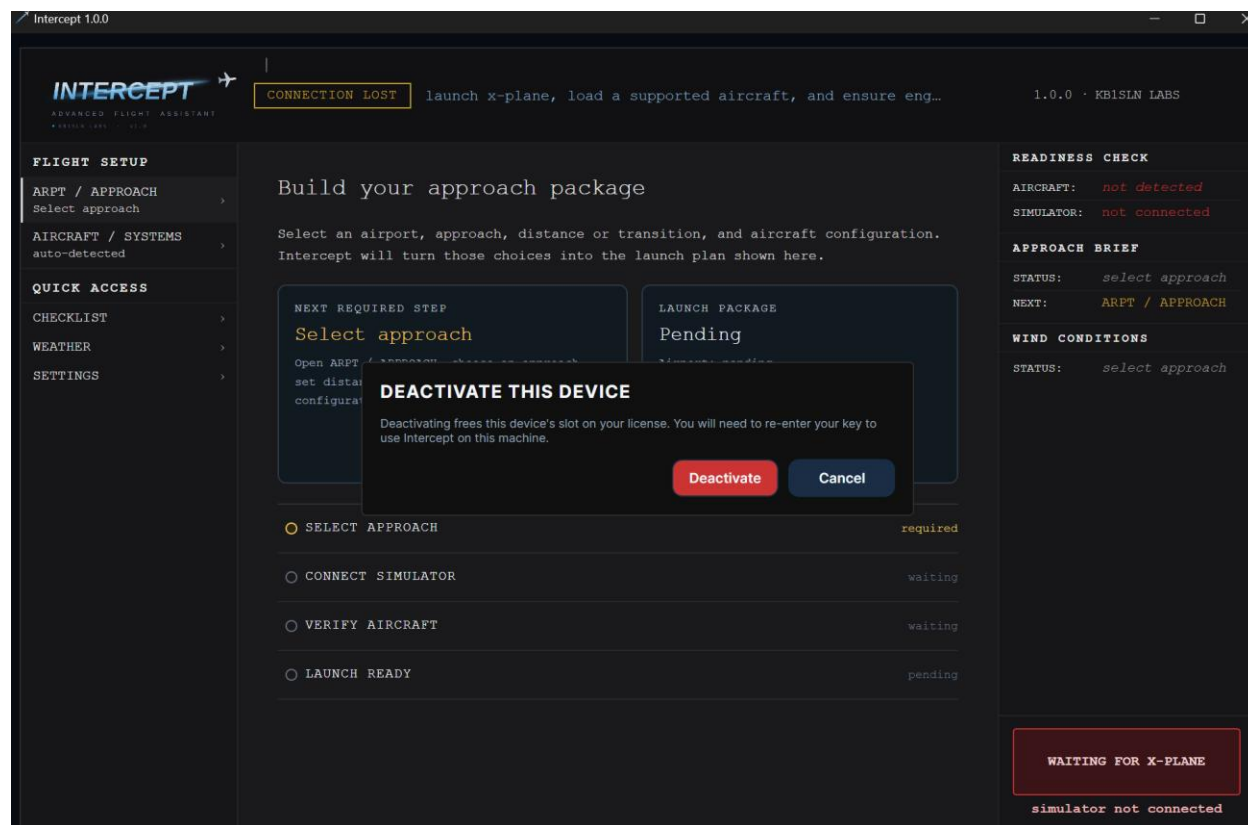


Figure 6. Settings > License: Deactivate this device confirm.

Updates

In Settings > Application, select Check for updates to check on demand. If an update is available, Intercept shows an update banner; if you are current, it shows "You're on the latest version (<version>)."; if the update server cannot be reached, it shows an honest failure notice rather than a false all-clear. Updates never install on their own. Select Update Now, wait for the download, then Install Now; close X-Plane first, since Intercept closes while the installer replaces the files.

DO NOT BYPASS A REQUIRED UPDATE

Required updates may contain compatibility or safety fixes for the app/bridge pair. If the download or installer cannot start, use the recovery guidance in Section 10.

[SCREENSHOT: Settings > Application card showing the Check for updates button, the update-available banner, and the "You're on the latest version" state — operator to capture]

4. Prepare X-Plane and connect

1. Start X-Plane 12 fresh.
2. Load a supported aircraft.
3. Start at the same airport where you intend to practice.
4. Prepare the aircraft to the expected pre-launch state below.
5. Start Intercept.
6. Wait for the connection banner to show CONNECTED TO X-PLANE and confirm the aircraft is detected.
7. Search the airport and wait for current weather to populate.

STARTING AIRPORT: RECOMMENDED, NOT REQUIRED

Loading the simulator at the airport you plan to fly is the recommended way to use Intercept: scenery is already loaded and everything stays predictable. Starting somewhere else works too. Pick your approach and Intercept repositions the aircraft to it, wherever you are. Expect a scenery load during positioning, and when you start far from the destination the terrain check runs at launch instead of when you press Apply. On heavy custom scenery the load can take a couple of minutes; the WAITING FOR SCENERY card stays up until the aircraft is in place, and Intercept waits about four minutes in total before it stops the launch.

If Intercept cannot find X-Plane

Open Settings, browse to the X-Plane 12 root folder, and select Confirm. Verify that the Simulator connection card reports the plugin path as ready, then start or restart X-Plane and allow a few seconds for the status to settle after an aircraft or scenery load.

Expected aircraft state before launch

Before selecting LAUNCH APPROACH, confirm:

- **Simulator:** X-Plane is unpaused and the flight is fully loaded.
- **Position:** The supported aircraft is stopped on the ground at the practice airport.
- **Power and navigation:** The aircraft is fully powered in a normal ready-to-taxi state, not cold-and-dark. Complete the aircraft's IRS/ADIRS alignment and confirm the navigation displays are available.
- **Engines:** The engines are running and stable.
- **Autopilot:** Autopilot/CMD is off before launch.
- **Parking brake:** Start with the parking brake set. On ToLiss, keep it set until the overlay explicitly tells you to release it. On the 737, do not release it yourself; Intercept manages the brake through setup and release. Relaunching right after landing: Intercept no longer asks you to release a parking brake you never set. If the autobrake is still engaged from rollout, it tells you to disengage the autobrake and waits.
- **Toe brakes:** Do not hold the toe brakes before launch. Use them only when the takeover prompt tells you to.
- **MCDU/FMC:** The unit is powered and responsive. On ToLiss, leave the MCDU1 scratchpad blank and avoid an active temporary flight plan or recurring company/AOC uplink.
- **Controls:** Leave thrust levers at idle and flight controls neutral. Do not touch controls, mode buttons, the MCDU/FMC, or physical cockpit levers after launch unless a prompt tells you to.

FOLLOW EVERY IN-SIM PROMPT

During LAUNCH APPROACH, watch the X-Plane overlay continuously and obey each Intercept instruction in order. On ToLiss, keep the parking brake set until told to release it and move the thrust levers only when told. On the 737, leave the parking brake and thrust levers alone while Intercept performs the release. Do not change modes or use the MCDU/FMC unless the live prompt instructs you.

WHAT INTERCEPT CHECKS

Intercept verifies or prompts for an unpaused simulator, running engines, a stopped on-ground aircraft, autopilot state, and required flight-computer readiness. IRS/ADIRS alignment remains pilot preparation: Intercept does not align it or independently prove that alignment is complete.

5. Dashboard orientation

INTERCEPT
ADVANCED FLIGHT ASSISTANT

7 approach(es) found. Select one to apply.

All ILS RNAV

RWY	APPR	ILS Freq	LOC	GS	Length / Surface	Wind
17R	ILS	111.75	179°	3.0°	10,034 ft Concrete	TW 1 kt XW 7 kt
18R	ILS	111.90	179°	3.0°	12,043 ft Concrete	TW 1 kt XW 7 kt
35L	ILS	110.50	359°	3.0°	10,034 ft Concrete	HW 1 kt XW 7 kt
35R	ILS	111.15	359°	3.0°	9,030 ft Concrete	HW 1 kt XW 7 kt
36L	ILS	111.90	359°	3.0°	12,043 ft Concrete	HW 1 kt XW 7 kt
36R	ILS	110.70	359°	3.0°	12,046 ft Concrete	HW 1 kt XW 7 kt

APPROACH SETUP

Distance or transition and aircraft configuration are applied with the selected approach.

Final distance: 10 NM

Aircraft configuration: Approach standard: Gear down + Flaps 30

Setup options

Autobrake: 1

☒ Turn on exterior lights for approach

Apply Cancel Close

Figure 1. Airport / Approach setup with Setup options: Autobrake and Turn on exterior lights for approach.

Dashboard controls

- **Connection banner:** Shows whether the bridge is live and whether X-Plane is ready.
- **Airport / Approach:** Search an ICAO, filter All/ILS/RNAV, select a procedure, choose its start point (Approach only, or Arrival (STAR) + approach), and apply it.
- **Aircraft / Systems:** Shows the detected aircraft and approach-type eligibility.
- **Checklist:** Summarizes selection, simulator, aircraft, configuration, and launch readiness.
- **Weather:** Shows the latest airport weather and where it came from. Intercept fetches the NOAA METAR first, falls back to a VATSIM METAR, and if neither is available uses standard default weather (QNH 1013, 15°C, calm wind). Stale or default weather shows an amber advisory on the brief and launch button; the launch still proceeds.
- **Approach brief:** Summarizes runway, approach type, course, start point, configuration, and wind.
- **Launch panel:** Explains the current guard or offers LAUNCH APPROACH when every required state is ready.
- **Settings:** Confirms the X-Plane location and connection, and holds the License card (activation status, Deactivate this device) and the Application card (app version, Check for updates, logs folder).

Status colors

- **Green:** connected, ready, complete, or successful.
- **Amber:** waiting, stale, blocked, or pilot attention required.
- **Red:** failed, unsupported, invalid, or unavailable.

6. Aircraft-specific launch workflows and handoff

After LAUNCH APPROACH, avoid changing the setup or touching the controls unless the overlay tells you to. Intercept progresses through guarded phases and stops if a required state cannot be proven.

ToLiss and 737 launch differences

Launch step	ToLiss Airbus	Zibo / LevelUp 737NG
Parking brake	Start set. Release only when the overlay tells you.	Start set. Intercept holds or sets it during FMC work and releases it automatically.
Launch trigger	After brake release, move the thrust levers to the CLB detent when prompted.	LAUNCH APPROACH is the consent signal. Keep thrust levers at idle; there is no CLB trigger.
Flight computer	Intercept programs the MCDU/FMGS, PERF APPR, and FCU targets.	Intercept programs the FMC route, ARRIVALS/LEGS, APPROACH REF, and MCP.
Landing config	Use the configuration shown in the brief.	Use Gear down + Flaps 30, Gear down + Flaps 15, or Clean, per the brief. Handoff speed matches the configuration.
Guidance after release	Follow the overlay for the applicable managed/approach modes.	ILS: HDG SEL/APP. RNAV: LNAV/VNAV, verified before handoff. Intercept commands the initial modes.
Pilot takeover	Hold both toe brakes continuously when prompted.	Hold both toe brakes continuously when prompted.

BRAKE RULE

Begin every launch with the parking brake set. On ToLiss, release it only when the overlay says Release parking brake to continue, then use the CLB detent when prompted. On the 737, do not release the parking brake or advance thrust yourself; Intercept performs the brake release and uses idle-thrust repositioning.

The 737 FMC setup can take roughly 60 to 90 seconds. A long pause while Intercept enters route and performance data is normal. Keep watching the overlay and do not interrupt the FMC, parking brake, or controls.

On airports with many coded procedures, the ToLiss route-loading phase can take an extra minute while Intercept pages through the full MCDU arrival list.

ToLiss Airbus launch process

1. Begin fully powered and aligned, engines running, stopped on the ground, autopilot off, parking brake set, toe brakes released, thrust levers at idle, and the MCDU available with a clear scratchpad.
2. Apply the approach, review the brief, and select LAUNCH APPROACH once. Keep the parking brake set and do not move the controls while Intercept prepares the MCDU/FMGS, PERF APPR data, ILS/LS/flight directors, FCU targets, spoilers, gear, and flaps.
3. Release the parking brake only when the overlay explicitly says Release parking brake to continue. If the overlay identifies toe brakes or a hardware axis instead, correct only the condition it names and keep watching the prompt. If ToLiss ISCS Smart Brake (Joystick tab, default ON) is holding the wheels on a stationary aircraft, Intercept names Smart Brake in a message and continues the launch; turn Smart Brake off if you would rather not see the message.
4. When the overlay says to advance the throttles, move both thrust levers into the ToLiss CLB detent and hold them there. Do not push beyond CLB. If the detent is not detected, verify the X-Plane throttle assignment and the ToLiss ISCS detent calibration.
5. Keep hands off while Intercept repositions and stabilizes the aircraft. About two seconds after release Intercept engages A/THR and AP1 together, then the selected or managed FCU guidance and the applicable approach phase/mode; the takeover prompt normally follows within 10 to 30 seconds.
6. For RNAV/RNP, follow the exact overlay wording. A Final segment launch, a Full procedure launch, FINAL APP, and an FLS/SLS-style path can require different APPR-arm or altitude-step actions. On an FLS/SLS start the card reads SET ALT <FAF> PUSH ALT AFTER <fix> / ARM APPR BEFORE THE FINAL TURN.
7. When instructed, press both toe brakes firmly and hold them for about three seconds. A light press shows TOE BRAKES DETECTED / PRESS HARDER AND HOLD; press harder until it changes to KEEP HOLDING. Wait for You have control before releasing them or changing modes.
8. After handoff, verify the FMA, AP1, A/THR, NAV/managed guidance, altitude, speed, configuration, and published path before continuing.

TOLISS PILOT ACTIONS

The pilot performs two deliberate launch actions: release the parking brake when prompted, then place the thrust levers in CLB when prompted. The toe-brake hold is the final takeover acknowledgement. Do not perform any of these early.

Zibo and LevelUp 737NG launch process

Zibo 737-800X and every supported LevelUp 737NG variant use the same Boeing launch workflow. The default Laminar 737-800 is not supported.

1. Begin fully powered and aligned, engines running, stopped on the ground, autopilot/CMD off, parking brake set, toe brakes released, thrust levers at idle, and the FMC powered and responsive.
2. Apply the approach, review the brief, and select LAUNCH APPROACH once. That click is the Boeing launch consent signal; there is no later brake-release or throttle trigger for you to perform.
3. Intercept confirms or sets the parking brake, then programs the FMC while the aircraft remains parked. It creates the same-airport route (a STAR launch files a real origin airport instead; see Section 9), selects the ARRIVALS runway procedure and your transition when one is selected, closes the LEGS discontinuity when present, enters performance data, and reads APPROACH REF/VREF. RNAV setup also requires a cruise altitude so VNAV can engage.
4. Intercept configures both flight directors, the landing flap/gear state, MCP speed/heading/altitude, TCAS TA/RA, and autobrake 2. On the LevelUp 737-800NG, autothrottle arms during setup and stays armed through handoff. For ILS, it tunes both NAV radios and sets course. Keep the FMC, MCP, brake, and physical cockpit controls hands-off during this work.
5. Intercept releases the parking brake automatically and launches with the thrust levers at idle. Do not release the brake yourself and do not advance the thrust levers; there is no ToLiss-style CLB step.
6. After release, Intercept engages A/T SPEED first, then CMD A and ALT HOLD. For ILS it commands HDG SEL and arms APP. For RNAV it executes a present-position direct-to, waits for the inbound track, engages LNAV, lowers the MCP altitude window, and engages VNAV; it uses ALT INTV only when needed to start a level VNAV descent.
7. Intercept holds the initial speed until the engines spool, then commands the release speed and arms the speedbrake. On an ILS this is VREF+5 for the landing configuration; on an RNAV entry the speed follows the charted profile (a coded entry-fix or FMC-predicted speed when one exists, otherwise the configuration speed), so a high full-procedure entry can legitimately hand off much faster than VREF+5. Do not press CMD, SPEED, HDG SEL, APP, LNAV, VNAV, or ALT INTV while this sequence is running.
8. When instructed, hold both toe brakes continuously for about three seconds. Like the ToLiss, the 737 shows "You have control. Fly the approach." after the hold. An ILS NO SIGNAL or RNAV LNAV NOT ENGAGED warning means the setup did not verify successfully.
9. After handoff, verify the FMA, CMD A, A/T SPEED, the expected ILS or LNAV/VNAV guidance, MCP windows, altitude, speed, configuration, and published path before continuing.

Citation X launch process (experimental, ILS and RNAV/RNP)

1. The X-Plane 12 built-in Cessna Citation X launches ILS and RNAV/RNP approaches through its native FMS. On RNAV/RNP the FMS flies LNAV and VNAV, and where the approach offers LPV the glidepath couples like an ILS glideslope. STAR arrivals are not offered on it. Support is experimental: you may encounter issues, and behavior may change in a later release. Please report what you find to support@kb1slnlabs.com with the log.
2. Begin powered, engines running, stopped on the ground, autopilot off, parking brake set, thrust levers at idle, and the FMS on. Apply the approach and select LAUNCH APPROACH once; that click is the consent signal. There is no brake-release or throttle trigger.
3. **ILS:** Intercept programs the native FMS through its own keys (origin, destination, arrival runway and ILS, activate), reads VAPP from the FMS LANDING page, tunes the ILS, and sets gear down and flaps 35. It positions the aircraft, presets a level-flight thrust, and after release engages the flight director, servos, heading and altitude hold, then arms APP; the localizer normally captures within about 15 seconds.
4. **RNAV/RNP:** Intercept programs the arrival runway and the RNAV approach with your selected transition (or the final only), closes the discontinuity the FMS leaves after the origin, and completes PERF INIT (cruise altitude and fuel) so the FMS can build its vertical path; the HSI source is switched to FMS. The start point is the same path join as on the other aircraft: 2.5 NM before the transition entry fix, or before the first fix of the final; the distance list is not used. After release Intercept engages the flight director, servos, heading and altitude hold, then NAV once the FMS has steering, arms APP, and arms VNAV with the altitude window at the FAF altitude. The FMS descends at its own top of descent in VNAV PTH and, on an LPV approach, the glidepath captures from below like an ILS. No direct-to is flown on this aircraft; the plan's first leg is the one you are on.
5. There is no autothrottle. Intercept presets thrust for level flight at the approach speed, but your throttle hardware overrides that preset as soon as X-Plane reads it, and the launch requires your levers at idle. Expect the engines to be at or near idle by the time you take control, with the speed already decaying. The handoff card reads THRUST IS YOURS - HOLD <speed> KT / LEVEL ~<N1>% N1, LESS ON G/S: move your levers to that N1 the moment you have control, before anything else, then reduce as the glideslope captures. Left at idle, the aircraft slows below approach speed and the autopilot can drop out.
6. Crosswind: the Citation's demonstrated crosswind is 10 kt. Above that the brief shows an amber CROSSWIND row and the launch shows CROSSWIND <n> KT, DEMONSTRATED 10 / AUTOPILOT MAY NOT HOLD - YOUR CALL for a few seconds. Nothing is blocked; be ready to fly the approach by hand.
7. When instructed, hold both toe brakes for about three seconds, then verify the flight director, servos, APP (NAV and VNAV on an RNAV/RNP approach), speed, and thrust before continuing.

What Intercept is doing

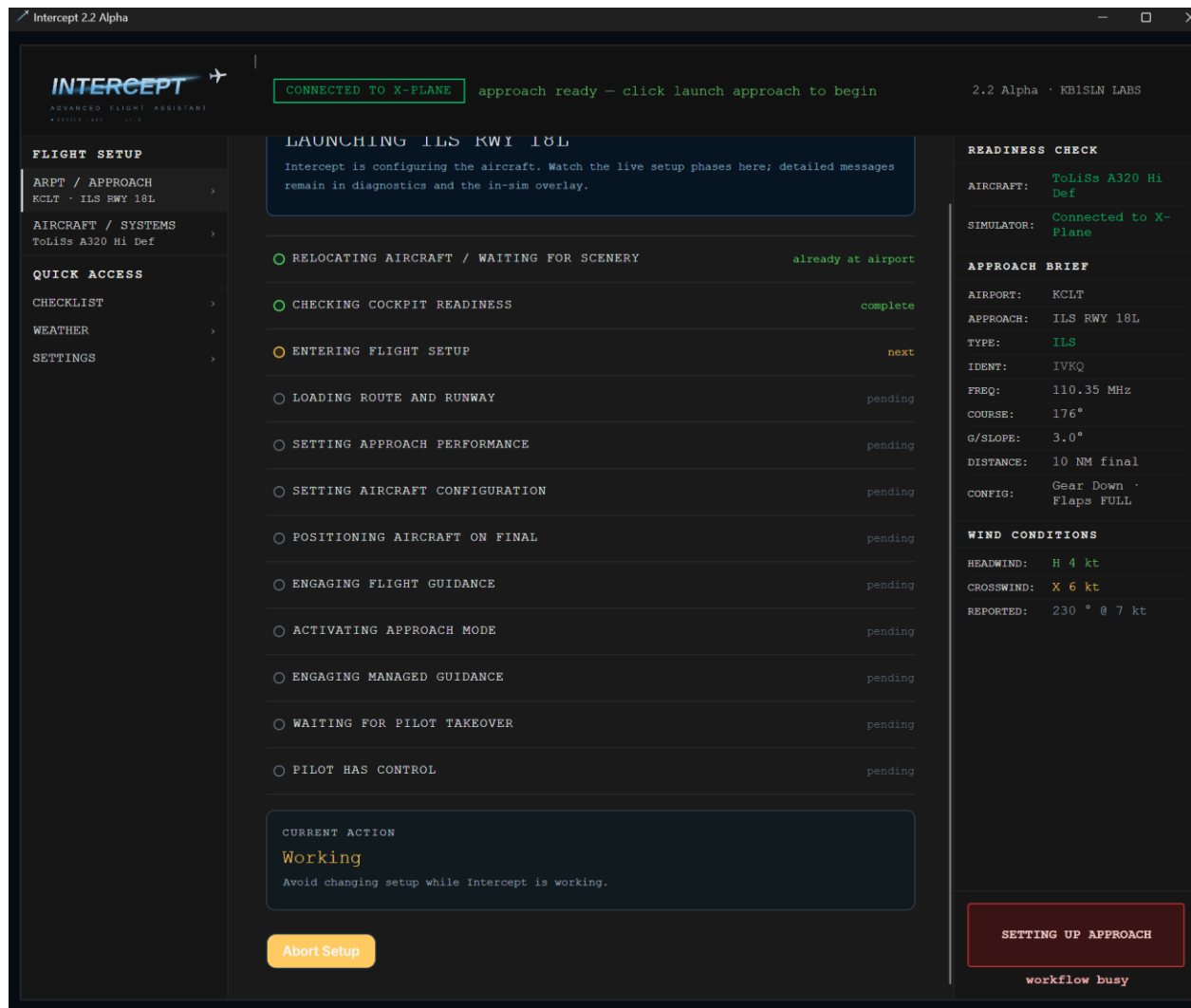


Figure 3. Launch progress in the application. The in-sim overlay carries the authoritative operational cues.

- Relocating aircraft / waiting for scenery
- Checking cockpit readiness
- Entering flight setup
- Loading route and runway
- Setting approach performance
- Setting aircraft configuration
- Positioning at the selected approach start
- Engaging flight guidance
- Activating the applicable approach mode

- Waiting for pilot takeover

Abort Setup

Abort Setup is available while the workflow is still in its pre-release setup phase. Use it if you selected the wrong scenario or must stop before the aircraft is released. Intercept returns to setup and clears the long-running in-sim prompt.

Once the aircraft-release phase begins, the abort action is no longer offered. Continue watching the aircraft and overlay. If the workflow reports a safety abort or failed handoff, do not assume the setup is complete; stabilize or reset the scenario before retrying.

Take control

1. When instructed, press both toe brakes firmly and hold them continuously for about three seconds.
2. Do not release them until the overlay confirms that pilot handoff is complete and you have control.
3. Verify aircraft attitude, speed, altitude, flight directors, autopilot/autothrust, navigation source, and FMA.
4. Continue the selected approach, land, go around, or discontinue as appropriate.



Figure 4. Completed handoff. Green phases confirm that Intercept reached the pilot takeover state.

7. ILS quick start

1. Open Airport / Approach.
2. Enter the four-letter ICAO for the airport already loaded in X-Plane, then select Search airport.
3. Choose All or ILS, then select the desired runway approach.
4. Review the ILS frequency, localizer course, glideslope, runway details, and wind.
5. Choose a final distance: 5, 8, 10, 15, 20, or 30 NM. For a first test, use 10 NM.
6. Choose the aircraft configuration. On the Airbus: Clean, Gear down + Flaps CONF 3, or Gear down + Flaps FULL. On the 737: Gear down + Flaps 30, Gear down + Flaps 15, or Clean. On the Citation X: Gear down + Flaps 35. Handoff speed matches whichever configuration you pick; on Clean, the gear retracts after release and is checked once the retraction has had time to finish.

Optionally check Turn on exterior lights for approach to have Intercept set the exterior lights for you (default off).

7. Select Apply.
8. Review the dashboard brief and confirm the launch panel says ready.
9. Select LAUNCH APPROACH once.
10. Follow the in-sim prompts until Intercept says you have control.

LET INTERCEPT COMMAND THE LAUNCH MODES

During setup and release, do not press LOC, APP/APPR, LNAV, VNAV, CMD/AP, or A/THR controls unless the overlay tells you to. Intercept commands the applicable initial modes. After confirmed handoff, verify the FMA and manage the approach using normal aircraft procedures.

Choosing a final distance

- **5-8 NM:** short setup; less time to assess energy and automation before intercept.
- **10-15 NM:** recommended for initial testing and ordinary repetitions.
- **20-30 NM:** longer setup for extended intercept and energy-management practice. At these distances the glideslope is not yet receivable: on the ToLiss, Intercept dials the platform altitude and engages managed descent before handoff; on the 737 and Citation X, descend to the published platform altitude yourself and capture from below (see Known limitations).

Distance changes the ILS start point. Reapply the setup after changing distance or configuration so the dashboard and launch plan describe the same scenario. Every spawn point is terrain-checked: if a chosen distance would put the aircraft too close to terrain, Apply blocks it and offers a dialog of alternative distances that clear terrain, with an explanation.

8. RNAV/RNP approaches

RNAV/RNP procedures and transitions come from the navdata installed in X-Plane. Intercept can only offer coded entries it can resolve and safely use.

Quick reference: pick the approach, pick a start (Final segment distance, or a transition), on the Airbus optionally pick a Join altitude, select Apply, select LAUNCH APPROACH, follow the in-sim prompts, and after "You have control": monitor the capture and the FMA, configure flaps/gear on schedule, then land or go around.

What Intercept does, and what you own

On an RNAV/RNP launch, Intercept programs the flight plan and approach, including your chosen transition, positions you on the coded path at the correct altitude, engages the automation (managed NAV on Airbus; LNAV/VNAV on the 737; NAV with the FMS as the source on the Citation X), arms approach mode, and hands off after the toe-brake hold. After "You have control," you own monitoring the capture, configuring flaps and gear on schedule if you are flying a non-landing configuration, the landing, and the go-around. To start on the arrival before the approach, see Section 9.

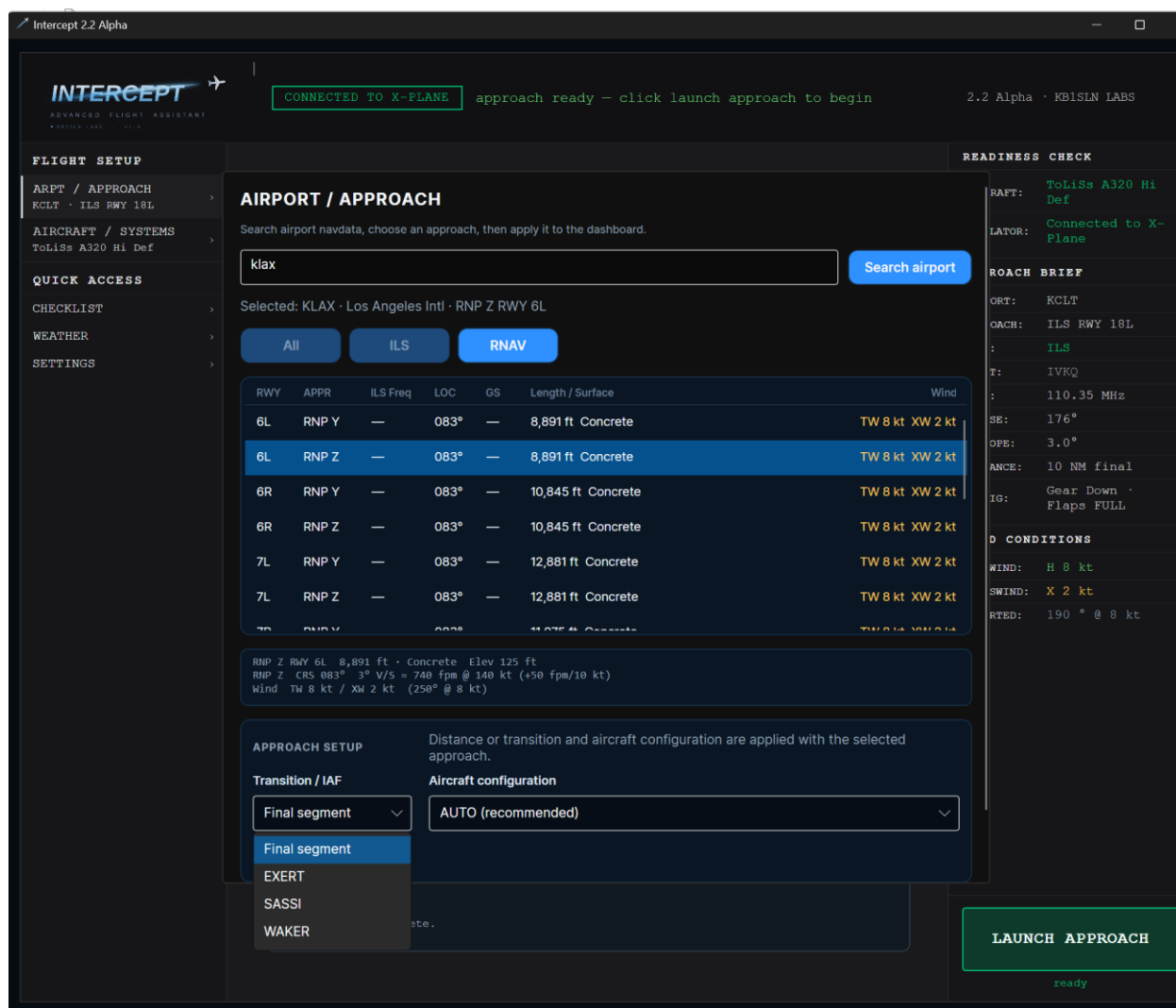


Figure 2. RNAV/RNP approach selection with the Transition / IAF picker.

Select an RNAV/RNP setup

1. Open Airport / Approach and search the airport already loaded in X-Plane.
2. Choose RNAV or All.
3. Select the required RNP/RNAV runway procedure.
4. Choose the start: Final segment (straight-in) for any supported aircraft, or a named Full procedure/transition entry, offered on ToLiss, Zibo, LevelUp, and the Citation X alike.
5. On the Airbus with a transition selected, choose the Join altitude: Coded descent (default) starts you at the top of the coded descent; ATC handoff (lower) starts you level a few thousand feet above the platform, the way ATC would hand you off. The field is not shown on the 737 and is greyed out for a Final segment start. On a short transition it can leave the altitude unchanged (see below).

6. Leave Aircraft configuration on AUTO when offered unless you deliberately need an override. On the 737, use Gear down + Flaps 30, Gear down + Flaps 15, or Clean.
7. Select Apply and read the approach brief before launching.

Final segment vs. Full procedure

- **Final segment:** Joins the coded final 2.5 NM before its first fix, at the coded altitude, on every supported aircraft. The picker shows the resulting distance to the runway.
- **Full procedure — ToLiss, Zibo/LevelUp, and Citation X:** Begins from the named coded procedure entry and flies that selected transition into the shared final segment.
- **Final distance: ILS only.** On RNAV/RNP the spawn point comes from the published path for both Final segment and Full procedure starts, so the distance list is not used; the Transition / IAF picker shows the distance to the runway for each entry. The list is used only if Intercept cannot join the coded path and falls back to a straight-in final, which the brief says.
- **Join altitude (Airbus, transition starts only):** Coded descent is today's behavior: the spawn altitude is the coded 3-degree profile at the entry fix, which on a long transition can be high (TGPY via LEXAS starts at 19,000 ft with 57 track miles to fly). ATC handoff (lower) instead places you level at the higher of the highest published minimum before the FAF and the platform altitude plus 4,000 ft, rounded up to the next thousand (6,000 ft at LEXAS), with managed descent already engaged; the FMGS holds that altitude and descends at its own top-of-descent, and every published minimum on the transition still applies. It is applied only when it is lower than the coded descent, so short transitions keep their coded altitude. The brief and the transition line show "ATC handoff join" when it is in effect. On a short transition the computed handoff altitude is usually not below the coded descent, so the coded altitude stays in effect and the brief says so.

NAVDATA CONTROLS THE CHOICES

A charted transition that is absent from the list may not be coded in the installed navdata cycle. Some curved-first procedures offer only a Full procedure entry. Full procedure entries beyond the build's launch range are refused rather than silently shortened.

Authorization Required (RNP AR) procedures

Some RNP approaches are charted AUTHORIZATION REQUIRED: in real-world operations they demand special aircraft and aircrew certification. Intercept detects the AR coding and shows a NOTE row in the approach brief - "Advanced approach type (RNP AR). Automatic guidance may not fully engage - be ready to fly the approach yourself." - and turns the launch button amber.

Nothing is blocked and no authorization is needed in the simulator. The note describes the real-world chart class and sets expectations: on some AR procedures the aircraft FMGS will not engage the approach guidance. If that happens, Intercept stops before handoff, pauses the sim with the aircraft stable on the approach path, and shows what did not engage (see Section 10). Unpause and fly the approach yourself - the aircraft is positioned, configured, and stable - or relaunch. Other AR procedures fly normally end to end; the live overlay is authoritative for each launch.

Configuration

AUTO uses the along-path distance from the spawn point to the FAF to choose a practical release configuration when it is offered. On the Airbus: more than 15 NM to the FAF gives Clean (gear up, flaps 0, green-dot speed), 5 to 15 NM gives CONF 3 (gear down), and 5 NM or less gives FULL. The 737 uses the same bands with its own flap settings: Clean above 15 NM, Gear down + Flaps 15 from 5 to 15 NM, Gear down + Flaps 30 at 5 NM or less. A long full-procedure join therefore starts clean; you configure on schedule as the approach develops. If you select a different configuration, the brief identifies it as an override and may warn that a long transition join in a landing configuration will produce extended slow flight. Handoff speed always matches the configuration in effect. If AUTO cannot derive a configuration for the selected start, the brief shows Clean with a note rather than guessing. If the coded procedure's speeds conflict with the chosen configuration, Intercept adjusts the release configuration and says so in the brief.

Turn on exterior lights for approach: optional, default off. When checked, Intercept sets the landing lights, nose/taxi light, strobes, beacon, and nav lights during aircraft configuration, on the Airbus and the 737 alike. A light switch that does not take produces a warning only; lights never block a launch.

ToLiss RNAV guidance and pilot actions

The vertical contract

Intercept programs the full coded approach, including its crossing altitudes, into the MCDU. On a Full procedure start it also flies the descent: after handoff the automation commands a direct-to along your selected transition and engages managed descent, and the FMGS flies the coded profile toward the FAF. With ATC handoff (lower) selected you start level at the handoff altitude with DES already engaged; the FMGS holds that altitude and starts down at its own top-of-descent, which can be after the first fix if the published minimums allow it. You do not need to enter altitudes or step the FCU down in the normal case. Monitor the FMA and confirm your baro is set; the overlay tells you if a particular launch needs anything more.

Worked example, MMMX runway 05R RNP Z: step 12,500 ft at EPRIM, 11,000 ft at VOLUN, 9,700 ft at MX901, and 8,900 ft at MX900 (the FAF). Rule of thumb: about 3 degrees is roughly 300 ft per NM.

Two vertical flavors can come out of the same setup. FINAL APP: no LS lights; the FMGS flies the final descent itself once past the FAF. FLS/SLS: LS on; a pseudo-beam final that you descend to like an ILS, following the SET ALT card. Check the FMA and LS state to see which one you got; both are normal.

If the vertical diamond will not capture, first confirm your baro is set, then fly the published stepdowns with FCU selections instead of waiting for a capture. Some third-party navdata procedures encode a vertical path this aircraft will not couple to; that is a data issue in the navdata, not something Intercept can fix.

ToLiss RNAV vertical behavior depends on the selected procedure and guidance mode. Read the approach brief, monitor the FMA, and follow the in-sim prompt exactly.

- A short Final segment join near the FAF may require prompt attention because final guidance can become active soon after handoff.
- A distant Full procedure join descends under managed guidance. If the aircraft levels off unexpectedly, check the FMA and see Troubleshooting.
- When the card reads SET ALT <FAF> PUSH ALT AFTER <fix> / ARM APPR BEFORE THE FINAL TURN, set that altitude in the FCU, push for managed descent once past the named fix, and arm APPR before the final turn. On a start without a coded FAF altitude the card reads FLY THE PUBLISHED PROFILE instead.
- F-G/S may or may not capture on an FLS/SLS final. Fly the published LNAV/VNAV profile and minima rather than waiting for an ILS-style capture; if it does capture, follow it.
- For pilot-flown verticals, the dashboard gives a 3-degree rule of thumb: about 740 fpm at 140 kt groundspeed, adding roughly 50 fpm per additional 10 kt, or roughly 300 ft per NM if you prefer to work from the chart's crossing altitudes and distances.

OVERLAY IS AUTHORITATIVE

Do not assume every RNAV/RNP approach uses the same APPR-arm or vertical-capture sequence. The live overlay reflects the mode Intercept found for that launch.

737 RNAV guidance

- Choose Final segment for a straight-in start, or a named transition/IAF for the full published procedure, exactly as on the ToLiss. Intercept selects the approach and the transition on the FMC ARRIVALS page, paging through the list and reading the selected rows back from the CDU before it continues; a transition row it cannot find or verify stops the launch before anything is moved. Approach variants are matched by letter (RNAV Y against RNAV Z), so the FMC flies the procedure you selected.

- With a transition selected you start 2.5 NM before the transition fix at its coded altitude, and LNAV flies the full charted route, including RF (curved) legs, into the final. A transition start is never terrain-blocked because it follows the published path.
- Intercept programs the FMC route, ARRIVALS/LEGS, cruise altitude, APPROACH REF, and the selected landing configuration while the parking brake remains set.
- After automatic brake release and repositioning, Intercept commands the FMC direct-to and engages LNAV, then VNAV as applicable. Keep the controls and MCP/FMC hands-off while this completes.
- Do not assume takeover succeeded until the overlay confirms the handoff. After handoff, verify LNAV/VNAV, altitude, speed, and the published path before continuing.

IF LNAV DOES NOT ENGAGE

Treat the launch as incomplete. Keep the aircraft under observation, discontinue or stabilize it safely, reset to a fresh stationary ground state, and retry the same or another offered entry. Do not force a transition and do not continue solely because the aircraft was repositioned.

9. STAR arrivals

A STAR (Standard Terminal Arrival Route) is the published arrival that takes you from the en-route structure to the start of an approach. Intercept 1.1 can start a scenario on the arrival instead of on the approach: pick a STAR together with the approach, and Intercept files the flight the way a crew would, programs the aircraft's own flight computer with it, and positions you level in cruise on the arrival with the top of descent ahead. The descent is yours.

Quick reference: pick the approach, switch START POINT to Arrival (STAR) + approach, pick the STAR and its Entry, select Apply, select LAUNCH APPROACH, follow the in-sim prompts, and after "You have control": start the descent at the T/D exactly as the card says, follow the arrival's altitude constraints, arm the approach when established, then fly the approach as in Section 7 or 8.

STAR arrivals are offered on the ToLiss Airbus family (A319, A320, A321, and the early-support A330-900 and A340-600) and on the Zibo 737-800X and the LevelUp 737NG family. They are not offered on the Citation X. A STAR can feed an ILS or an RNAV/RNP approach; once you are established, the approach is flown as described in Sections 7 and 8.

What a STAR scenario is

- **A filed flight, not a position.** Intercept builds a complete route: a real origin airport, a direct leg to the STAR entry you chose, the STAR, its approach transition, the approach, and the destination. The origin is picked by geometry: an airport 120 to 400 NM back along the arrival course, within 120 degrees of it, with a paved runway at least 5,000 ft long and 30 m wide, and present in the navigation database. It exists only so the flight computer has a real route to fly; you never fly from it. The ROUTE row of the brief shows the filed route.
- **You start on the arrival.** The aircraft is placed 12 NM before the STAR entry fix, on the leg from the origin, level and clean (gear up, flaps 0). Whatever configuration you selected, a STAR launch is Clean: the release is 50 to 200 NM from the runway. The Entry list shows the track distance to touchdown from that start point.
- **The altitude comes from the box.** On the ground, after the arrival is programmed and the plan is joined, Intercept reads the flight computer's own predicted altitude at the entry fix, rounds it down to the thousand, caps it at 35,000 ft, and uses that as your cruise altitude. Because the computed descent path never climbs toward the runway, the aircraft's own top of descent (T/D) is at or past the entry fix, ahead of you.
- **The box flies its own plan.** Intercept does not invent a descent profile and does not remove the arrival from the plan. The STAR's altitude and speed constraints stay in the flight plan, and the aircraft's own DES or VNAV logic honors them.

- **No controllers.** There is no ATC and no vectoring. Where a published STAR ends in "expect vectors", Intercept joins the arrival to the approach with one straight leg and tells you so in the picker (see Selecting a STAR). Every STAR coded for the selected runway is offered; none is greyed out. An arrival coded only for another runway of the airport is not listed, because the aircraft would refuse it.

Selecting a STAR

1. Open Airport / Approach and search the airport already loaded in X-Plane.
2. Choose All, ILS, or RNAV and select the runway approach you want to end on. Arrivals depend on the runway, so the approach comes first.
3. Under START POINT, select Arrival (STAR) + approach. The option is available only when the detected aircraft supports STAR launches and at least one published STAR serves the selected runway; otherwise it stays disabled and its tooltip says why.
4. STAR: pick the arrival. Every STAR coded for the selected runway that the navdata can resolve is listed; arrivals coded only for another runway are left out.
5. Entry: pick where you join the arrival. The list shows the first fix of the common route ("`<fix>` (common route)", or "`<fix>` (procedure start)" when the STAR has no transitions) and each en-route transition ("`<fix>` (transition `<name>`)"), each with the track distance to touchdown from your start point. A long transition is a long flight; the distance tells you how long.
6. Read the join sentence under the STAR and Entry fields. It is the flight as filed: Filed `<origin>` → `<entry>` (`<n>` NM) · `<STAR>` → `<exit fix>` · `<join>` · `<approach>`. The join reads one of: "joins the approach at `<fix>`" or "joins the approach via `<transition>`" (the STAR ends on the approach; nothing is bridged); "bridged `<n>` NM (`<d>`° turn, no published leg) to `<fix>`" (the STAR ends in vectors and Intercept adds one straight leg to the approach entry; that leg is not published); or "no published join within 40 NM — direct `<fix>` (`<n>` NM, `<d>`° turn)" (no join inside the normal limit, so the launch flies direct to the nearest approach entry). The Transition / IAF field is set for you to the approach transition the STAR feeds.
7. A STAR that cannot be launched says so in the same place: "no origin airport 120-400 NM back within 120° of the arrival course — not launchable", or "navdata could not resolve any approach entry — not launchable". Pick another STAR or entry.
8. Leave Aircraft configuration alone; a STAR launch is Clean regardless. Select Apply and read the brief: ROUTE shows the filed route and ENTRY shows where the arrival joins the approach.

READ THE CHART

Aircraft-category notes ("turbojet only", "turboprop and piston only") exist only on the chart; no navdata carries them, so Intercept cannot filter on them. At KIAH, for example, the BAZBL1 arrival is for turboprops and pistons and the jet arrival from the west is GUSHR3. Pick the arrival a crew in your aircraft would be given.

What Intercept programs, and where you spawn

The ground phase is longer than on an approach-only launch. On the ToLiss it adds the arrival programming and a page-by-page sweep of the flight plan; on the 737 the FMC work takes about a minute. Watch the overlay and keep your hands off the flight computer and controls.

- **ToLiss Airbus.** Intercept enters ORIGIN/DEST and a cruise level on INIT, inserts the STAR, its transition (VIA), and the approach on the ARRIVAL page, then pages through the F-PLN. It closes the discontinuity after the origin (that gap is the en-route leg, not a procedure); when the STAR ends in a vectors (MANUAL) leg it closes that gap too and compares the FMGS's own DEST distance before and after. If the distance grew, the FMGS drew a loop out of the vector, and Intercept deletes the vector fix and closes the gap again so the leg draws straight. Only then does it read the predicted altitude at the entry fix, set the cruise level below your spawn altitude so the FMGS releases in the cruise phase, and complete PERF APPR. Anything it cannot verify stops the launch on the ground and says why.
- **Zibo / LevelUp 737.** Intercept files ORIGIN and DEST on RTE, selects the STAR, the STAR transition, the approach, and the approach via on ARRIVALS, executes, closes LEGS discontinuities, and runs the same vectors check using the PROGRESS destination distance. It enters PERF INIT with the cruise altitude and cost index 40, reads the predicted entry altitude, and sets CRZ ALT to the spawn altitude. Every key is read back from the CDU and re-pressed if the FMC dropped it.
- **Positioning.** You are placed 12 NM before the entry fix, on the origin leg, at the box-read altitude (rounded down to the thousand, capped at 35,000 ft). The spawn is terrain-checked from the first approach fix that carries an altitude; a spawn that cannot be verified stops the launch on the ground: "Launch Approach stopped: the <STAR> arrival could not be terrain-verified - try this approach without the arrival, or a different runway." On the 737, an entry coded as an altitude window gives no prediction; the spawn then uses the floor of the window. On the ToLiss the altimeter is set to STD when the spawn altitude is above the destination transition altitude (from the X-Plane airport data; 18,000 ft when it carries none) and to the simulator QNH otherwise. Either way the baro knob stays under your control after the handoff, so you can set QNH as you pass the transition level.
- **After release (ToLiss).** AP1 and A/THR engage at release, the aircraft is levelled, NAV is engaged on the origin leg, and Intercept reads the flight plan once: if the entry fix has already sequenced it

flies a DIR TO the entry (clearing a NO NAV INTERCEPT message first if the FMGS posted one), and it clears a discontinuity if one is in view. It then sets the cruise level to your present level on the PROG page and dials the cleared altitude (the first constraint below you, normally the FAF altitude) into the FCU. It does not push for DES. If the plan shows the T/D already behind you, Intercept engages managed descent itself and the card says DESCENT CLEARED - DES TO <alt>.

- **After release (737).** CMD A and the autothrottle are engaged, and Intercept holds the thrust levers through the release until the autopilot captures the level in ALT HOLD, so the FMC does not read the release as a go-around. CRZ ALT is then entered once as the level the autopilot holds, so the FMC rebuilds its top of descent, and under the same EXEC a direct-to from your position to the STAR entry puts the aircraft on the arrival leg with LNAV engaged. Intercept sets the MCP altitude to cruise, engages VNAV, waits for the FMC cruise phase, then lowers the MCP altitude to the cleared altitude. If the FMC shows no top of descent after the entry, one recovery cycle re-enters the cruise altitude; if that fails too, the card reads NOT DESCENDING. VNAV holds cruise until the FMC's own T/D and descends there.

The handoff and the descent you fly

On a STAR launch the toe-brake prompt and the handoff card state the aircraft's condition and the exact action, in the aircraft's own terms. Read them in full before you take the aircraft.

ToLiss Airbus. The toe-brake prompt carries a state line, LEVEL IN CRUISE - T/D IN <n> NM (or LEVEL IN CRUISE - T/D AHEAD when the distance was not read), above HOLD TOE BRAKES / FOR 3 SECONDS. After the hold, the handoff card shows for 30 seconds: YOU HAVE CONTROL - CRUISE FL<nnn> / DESCEND VIA <STAR> - ALT <alt> SET / AT T/D: PUSH FCU ALT (DES) / ARM APPR WHEN ESTABLISHED.

Do exactly that. Keep NAV and managed speed, watch the T/D arrow on the ND, and at the T/D push the FCU altitude knob for managed descent (DES). The FMGS descends on its computed path and honors the arrival's constraints. If the card reads SET ALT <alt> instead of ALT <alt> SET, Intercept could not verify the FCU altitude: dial it before the T/D. When established on the approach (localizer, or the RNAV final), arm APPR; from there Section 7 or 8 applies. If the plan's T/D was already behind you at release, the card reads DESCENT CLEARED - DES TO <alt> and managed descent is already engaged.

Zibo / LevelUp 737. The card is shown with the toe-brake prompt: CRUISE FL<nnn> - T/D AHEAD / DESCEND VIA <STAR> - MCP <alt> / VNAV DESCENDS AT T/D / HOLD TOE BRAKES TO TAKE CONTROL (below the destination transition altitude the first line reads CRUISE <alt> in feet) (on an ILS the third line reads VNAV DESCENDS AT T/D - ARM APP). LNAV and VNAV are engaged, the MCP altitude is already at the cleared altitude, and the FMC flies level to its T/D and starts down on its own. Your job is to confirm that it does: watch the FMC go from cruise to descent and the VNAV PTH descent begin within a mile or two of the T/D. If the aircraft stays level past the T/D, press ALT INTV to start the descent. On an ILS, arm APP once established. When the third line reads WATCH SPEED - FMC CRZ <n> KT, the FMC's economy cruise speed at a low cruise altitude is slow: watch the speed and select one on the MCP if you need to.

If Intercept could not set the 737 descent up, the card says so and names the action: NOT DESCENDING - LEVEL AT FL<nnn> (or <alt> in feet) / DESCEND VIA <STAR> - SET MCP <alt> / START DESCENT WITH LVL CHG (or CHECK VNAV - DESCEND AT T/D, or FMC CRZ ALT ABOVE - CHECK PERF). Treat it as a hand-managed arrival: set the MCP altitude, start the descent yourself at the T/D with LVL CHG or VNAV, and follow the chart.

YOU FLY THE DESCENT

After YOU HAVE CONTROL, Intercept sends nothing more to the aircraft. On a STAR launch it does not start your descent: you push for DES at the T/D (Airbus), or you let VNAV descend at the T/D and watch that it does (737). A late push means a steep descent, exactly as it would after a late clearance from ATC; that is yours.

ToLiss and 737 at handoff

At handoff	ToLiss Airbus	Zibo / LevelUp 737NG
State	Level in cruise, AP1 and A/THR on, NAV, managed speed. Cruise level set to your present level.	Level in cruise, CMD A and A/T on, LNAV and VNAV engaged, FMC in the cruise phase.
Cleared altitude	Dialed in the FCU by Intercept (card: ALT <alt> SET). If not verified: SET ALT <alt>.	Set in the MCP altitude window by Intercept (card: MCP <alt>). If not: SET MCP <alt>.
Starting the descent	You push the FCU ALT knob for DES at the T/D arrow.	VNAV starts down at the FMC's own T/D. ALT INTV if it does not.
T/D already behind at release	Intercept engages DES; card DESCENT CLEARED - DES TO <alt>.	Card NOT DESCENDING - LEVEL AT FL<nnn>; start the descent yourself with LVL CHG or VNAV.
Approach arming	ARM APPR WHEN ESTABLISHED, on an ILS and on an RNAV/RNP final alike.	ILS: ARM APP once established. RNAV/RNP: LNAV/VNAV continue into the final.
Speed	Released at 240 kt, then managed speed. Above the path the FMGS accelerates toward the limit and asks for speedbrake.	The FMC cruise speed (cost index 40). WATCH SPEED on the card when it is slow.

What to watch

- **Altitude constraints.** The arrival's crossing altitudes and windows are in the flight plan, and the aircraft honors them in DES or VNAV PTH. Verify each against the chart as you go and compare the vertical deviation indication with the plate. If the aircraft levels where the chart has no level segment, check the FMA and the FCU or MCP altitude first.

- **Intercept does not descend early for you.** Pushing DES before the T/D gives the Airbus's constant 1,000 fpm descent converging on the path; pushing after the T/D puts you above the path, and the FMGS answers with idle thrust and speed toward the upper limit, 3,000 fpm or more. Both are real-world and both are yours. The clean way is one push at the arrow.
- **The T/D can be far ahead.** The spawn altitude follows the box's own prediction at the entry; on a high entry with a long arrival the T/D can be 40 to 50 NM away, which means minutes of level cruise. That is the arrival as filed, not a fault.
- **Speed.** The ToLiss releases at 240 kt and then flies managed speed. The 737 flies the FMC's cruise speed; at a low cruise altitude it can be slow and the card warns you. You arrive clean: configure flaps and gear on schedule as the approach develops.
- **Cabin altitude.** Most STAR spawns are above 14,000 ft, so the ToLiss cabin-pressurization warning in the brief applies (see Known limitations - read this first, and Section 10).
- **Airbus FMGS still in CLB.** Intercept sets the cruise level below your spawn altitude on the ground so the FMGS releases in the cruise phase. If after handoff the PROG or PERF page still shows CLB with a T/C ahead on the ND and a push on the altitude knob only arms the descent, pull the knob once and push again.

Known limitations

- **Aircraft.** ToLiss Airbus and Zibo/LevelUp 737 only. The Citation X and the default Laminar 737-800 do not offer the Arrival option.
- **Bridged arrivals.** When a STAR ends in vectors, the one straight leg Intercept adds is not a published leg; the picker says "bridged" or "direct". On the ToLiss, when the FMGS draws a loop out of a vectors leg, Intercept deletes the vector fix from the plan so the leg draws straight; the constraint at that fix leaves with it. On the 737 the same check uses the PROGRESS distance.
- **Origin airport.** If the flight computer does not know the chosen origin (ToLiss: NOT IN DATA BASE on INIT; 737: "this arrival has no origin airport the 737 FMC can file it from"), the launch stops on the ground and nothing is moved. Pick another arrival or entry, or launch the approach only.
- **Start point.** You always start 12 NM before the entry you picked; there is no way to start part-way down the arrival.
- **Chart notes are not filtered.** Aircraft-category notes, "expect vectors" remarks, and speed notes written as text on the plate are not in any navdata. Read the chart before you pick.
- **737 T/D close to the handoff.** When the FMC's T/D is within about 3 NM of the handoff, the FMC may stay in cruise past it. Press ALT INTV to start the descent.
- **It is a long flight.** A STAR launch is an arrival, not a final: expect 10 to 30 minutes from handoff to touchdown depending on the entry. The Entry list shows the distance.
- **Report what you find.** STAR arrivals are new in 1.1. Anything unexpected is worth a report to support@kb1slnlabs.com with the log and the STAR, entry, and approach you selected.

10. Troubleshooting and recovery

The launch button is unavailable

1. Read the guard text under the launch panel.
2. Confirm X-Plane is connected.
3. Confirm Aircraft / Systems marks the aircraft and selected approach type as supported.
4. Confirm an approach has been applied.
5. Resolve any license or required-update notice.

An amber LAUNCH APPROACH button with advisory text is still ready: amber describes the weather source (stale report or standard defaults), not a block.

Waiting for X-Plane / bridge not detected

- Confirm X-Plane is running.
- Confirm the installed Intercept bridge plugin is enabled.
- Open Settings, browse to the X-Plane root folder, and select Confirm.
- Intercept reconnects on its own after an aircraft reload or scenery load. A brief CONNECTION LOST message during that window is expected and clears within a few seconds without any action from you.
- If the connection truly stays lost (not just a brief reload blip), confirm X-Plane is running and the plugin is enabled, then restart X-Plane after correcting the plugin location.
- The app says CONNECTION LOST after I reloaded my aircraft: expected and self-recovering. Intercept reconnects on its own within a few seconds of an aircraft reload or scenery load. If it truly stays lost, confirm X-Plane is running and the plugin is installed.

Aircraft not detected or Apply is disabled

- Load a supported ToLiss, Zibo, or LevelUp aircraft (or the Citation X) and wait for the simulator to finish loading.
- Confirm the Aircraft / Systems card names the loaded aircraft and marks the selected approach type as supported.
- Do not use the default Lamina 737-800; it is intentionally rejected.
- You may browse airports and approaches while disconnected, but Apply remains blocked until X-Plane is connected and a supported aircraft is detected.

No approaches found

- Check the four-letter ICAO.
- Confirm Settings points to the correct X-Plane installation and navdata.
- Remember that the procedure list mirrors the installed navdata cycle.
- Search again after correcting the X-Plane location or navdata.

A chart shows a runway or approach the sim does not: your navdata cycle and the X-Plane scenery/aircraft data are from different eras. Renumbered runways are matched automatically; other gaps are data lag between sources, not an Intercept fault.

Weather is pending or unusable

Intercept no longer blocks a launch on missing weather. It tries the NOAA METAR, then a VATSIM METAR, then falls back to standard defaults (QNH 1013, 15°C, calm wind). An amber "weather report N min old" means the last report is stale but usable. An amber "no live weather — standard defaults" means both sources were unreachable; performance setup uses the standard values. If you want live weather, check your network and re-apply the approach; the card updates when a source recovers.

INTERCEPT ADVANCED FLIGHT ASSISTANT

CONNECTED TO X-PLANE approach ready — live weather unavailable, using sta... 2.3 Alpha · KB1SIN LABS

FLIGHT SETUP

ARPT / APPROACH
KJFK · ILS RWY 4L

AIRCRAFT / SYSTEMS
Boeing 737-800X (4k)

QUICK ACCESS

CHECKLIST

WEATHER

SETTINGS

KJFK ILS RWY 4L
10 NM final · 110.90 MHz · LOC 031° · Approach standard: Gear down + Flaps 30

Launch plan ready — weather advisory
no live weather — standard defaults
Intercept will configure the aircraft through these phases when you launch.

- APPROACH PACKAGE complete
- SIMULATOR LINK connected
- AIRCRAFT CHECK supported
- ROUTE AND PERFORMANCE will run on launch
- AIRCRAFT CONFIGURATION will run on launch
- PILOT HANDOFF will run on launch

READINESS CHECK

AIRCRAFT: Boeing 737-800X (4k)

SIMULATOR: Connected to X-Plane

APPROACH BRIEF

AIRPORT: KJFK

APPROACH: ILS RWY 4L

TYPE: ILS

IDENT: IHIQ

FREQ: 110.90 MHz

COURSE: 031°

G/SLOPE: 3.0°

DISTANCE: 10 NM final

CONFIG: Approach standard: Gear down · Flaps 30

WIND CONDITIONS

HEADWIND: PENDING

CROSSWIND: X -- kt

REPORTED: None — standard defaults

LAUNCH APPROACH
no live weather — standard defaults

Figure 5. The weather advisory state: launch stays available with standard defaults; amber describes the weather source, not a block.

The launch stopped after positioning: what the overlay means

When setup cannot verify a required state after the aircraft is already positioned on the approach, Intercept stops before handoff, pauses the sim, and leaves the aircraft stable, configured, and on the approach path. The overlay always has the same shape: a first line naming what did not engage, then SIM PAUSED - AIRCRAFT IS STABLE and UNPAUSE TO FLY IT, OR RELAUNCH.

You have two good options: unpause and fly the approach yourself from exactly where the aircraft is, or unpause and select LAUNCH APPROACH again. Neither is wrong.

First lines you may see, and what each means:

APPROACH MODE DID NOT ARM - the aircraft approach mode (APPR) did not illuminate when armed.

APPROACH GUIDANCE DID NOT ENGAGE - managed speed/heading guidance could not be confirmed.

LATERAL GUIDANCE NOT STABLE - the aircraft did not settle onto the lateral path.

AUTOTHRUST DID NOT ENGAGE - A/THR (or A/T) did not engage.

APPROACH PHASE DID NOT ACTIVATE - the MCDU approach phase did not activate.

LANDING FLAPS NOT CONFIRMED - the landing flap setting could not be verified.

AIRCRAFT NOT STABLE FOR GUIDANCE - the aircraft was not stable enough to engage guidance. Its second line reads SIM PAUSED - TAKE CONTROL: take the aircraft when you unpause.

FLIGHT GUIDANCE DID NOT ENGAGE (737) - LNAV/VNAV or the command modes could not be verified.

RUNWAY ALTITUDE NOT AVAILABLE / RUNWAY ALTITUDE NOT CONFIRMED (737) - the runway altitude for the MCP could not be derived or verified.

FMC APPROACH PHASE NOT CONFIRMED (737) - the FMC did not report the approach phase.

These stops are most common on Authorization Required (RNP AR) procedures; see Section 8.

Handoff cards (not stops) that can accompany HOLD TOE BRAKES / FOR 3 SECONDS or follow YOU HAVE CONTROL: ARM APPR ON FCU / LOC WILL CAPTURE (ToLiss ILS); YOU CONTROL THE DESCENT / FOLLOW CHART ALTITUDES and LEVEL AT CHART ALTITUDE / GLIDE CAPTURES AHEAD (ToLiss RNAV joins where the descent is yours); SET ALT <FAF> PUSH ALT AFTER <fix> / ARM APPR BEFORE THE FINAL TURN or FLY THE PUBLISHED PROFILE (FLS/SLS); THRUST IS YOURS - HOLD <speed> KT / LEVEL ~<N1>% N1, LESS ON G/S (Citation X); CROSSWIND <n> KT, DEMONSTRATED <limit> / AUTOPILOT MAY NOT HOLD - YOUR CALL (advisory, shown for a few seconds); LEVEL IN CRUISE - T/D IN <n> NM on the toe-brake prompt, then YOU HAVE CONTROL - CRUISE FL<nnn> / DESCEND VIA <STAR> - ALT <alt> SET / AT T/D: PUSH FCU ALT (DES) / ARM APPR WHEN ESTABLISHED (ToLiss STAR arrival); CRUISE FL<nnn> - T/D AHEAD / DESCEND VIA <STAR> - MCP <alt> / VNAV DESCENDS AT T/D (737 STAR arrival). STAR cards are explained in Section 9.

Launch stops before handoff

- **Engines not running:** Start the engines and relaunch.
- **Simulator paused:** Unpause when requested. If a safety abort left the aircraft airborne and paused, unpause, land/reposition or reset to a stationary ground state, then relaunch.
- **Aircraft moving or airborne:** Do not continue or force the trigger. Reposition/reset the aircraft stopped on the ground with engines running, parking brake set, and simulator unparsed.
- **ToLiss CLB trigger not detected:** Check the X-Plane throttle-axis assignment and calibrate the ToLiss ISCS detent sliders so the physical CLB detent snaps to the mapped CLB value. Move to CLB only when prompted; do not push beyond CLB to force detection.
- Launch says Smart Brake is holding the wheels: informational. Launch continues. Turn off ToLiss ISCS > Joystick > Smart Brake if you would rather not see the message.
- After landing, relaunch asks me to disengage the autobrake: expected. Disengage the autobrake and the launch continues.
- The approach was blocked for terrain: pick one of the offered alternative distances. A Full procedure/transition start is never terrain-blocked because it follows the published path.
- **ALT step prompt:** Set the FCU altitude increment to 100 feet, not 1,000 feet.
- **Setup readback or bridge timeout:** Reset the scenario and retry from a fresh X-Plane session with a known-good approach.
- **RNAV entry refused: Choose another offered entry. A transition I expect is not offered: the list comes from the current navdata cycle; some approaches genuinely have no transitions coded.**
- The aircraft never descends: check the FMA first. On a Full procedure start the automation engages the managed descent itself. If it has not, or the procedure encodes a vertical path the aircraft will not couple to (see Known issues), step the FCU altitude down per the approach chart before the FAF.
- The approach shows a note that it flies a straight final: the coded curve for that specific procedure cannot be flown on this aircraft yet, and Intercept is telling you what it will fly, not reporting a fault.
- An F-PLN DISCONTINUITY line appears after the origin on the MCDU: normal on a transition/Full procedure start and not a failure.

The arrival could not be terrain-verified, or has no origin airport the FMC can file it from: STAR launches only. Nothing was moved. Pick another arrival or entry, or launch the approach only. See Section 9, Known limitations.

ToLiss MCDU, route, or uplink interference

- Clear the MCDU1 scratchpad and return to a normal INIT or F-PLN page before retrying.
- Discard any stale temporary flight plan and exit a co-route review page if one is open.
- Pause or disable recurring AOC/ACARS/company uplinks while Intercept is programming the MCDU; repeated uplinks can overwrite the scratchpad or page selection.
- If the same failure repeats, reload the aircraft into a fresh powered, aligned, stationary state and retry the setup.

Full cockpit hardware keeps overriding Intercept

Some full-cockpit drivers continuously re-assert physical lever positions, causing repeated speedbrake, flap, altitude-step, or parking-brake failures. Before launch:

- Speedbrake lever: RETRACTED and ARM are both accepted. If the lever is anywhere else, Intercept prompts "Move the speedbrake lever to retracted (or to the ARM detent) to continue" and waits about two minutes before stopping.
- Set the flap lever to the Intercept landing configuration and the FCU altitude increment to 100 feet.

Gear lever: a hardware gear lever holding its position produces a warning only; the launch continues.

Leave it matching the selected configuration when you can. On a clean start the gear check waits for the retraction to finish before it reports; a warning names the hardware lever if it is held down.

- ToLiss: keep the parking brake set until the overlay says to release it, then fully release the physical control. 737: leave the brake alone; Intercept owns the set-and-release sequence.
- If hardware moves a value back, correct the physical control only when prompted and retry from a clean ground state after an abort.

737 handoff or guidance warning

- **NO ILS SIGNAL RECEIVED:** Treat the launch as incomplete. Verify the selected runway/procedure, navdata, frequency/course, and that the ILS is actually available; reset and retry.
- **LNAV NOT ENGAGED:** For RNAV, use the straight-in Final segment and retry from a fresh FMC/ground state. Do not continue solely because the aircraft was repositioned.
- **Toe-brake takeover not confirmed:** Press and hold both toe brakes firmly and continuously for about three seconds. On ToLiss, a light press shows TOE BRAKES DETECTED / PRESS HARDER

AND HOLD; increase pressure until it changes to KEEP HOLDING. Do not assume control until the overlay confirms the handoff.

After handoff: altitude or energy differs from the brief

Longer or higher releases may need time to settle onto the planned altitude and energy state. Verify altitude, speed, path, configuration, and automation immediately after handoff; discontinue or go around if the approach is not stable.

Update is not offered or installation fails

If Windows shows a publisher prompt, confirm the publisher and that the installer came from the official Intercept download before continuing.

Not seeing an update you expected? Updates are checked when the app starts and on demand via Settings > Check for updates - run a manual check to fetch the latest.

Confirm the network, restart Intercept, and check again. If support directs you to clear a stale result, close Intercept, delete %LOCALAPPDATA%\APT\license\update_check_cache.json, and reopen it. Close Intercept and X-Plane before retrying a blocked installer.

Diagnostics and logs

In Settings, select Open Logs Folder. When reporting a defect, include the newest log from %LOCALAPPDATA%\APT\logs\, Intercept version, aircraft variant, approach/setup, connected hardware, and overlay message.

Known limitations

High-altitude spawns and cabin pressure (ToLiss): spawning directly at a high transition altitude (roughly FL140 and above over the airfield) can leave the aircraft's cabin pressurization unmanaged, and X-Plane's hypoxia simulation can gray out or black out the view during the approach. This is aircraft initialization behavior on reposition, not something Intercept can set for you. Intercept warns before launch: an entry at 14,000 ft MSL or above shows a **WARNING** row in the approach brief and an amber launch button. **Workaround:** disable Failures/hypoxia effects in X-Plane settings before flying very high entries, or choose a lower entry.

ToLiss route loading time on dense airports: airports with many coded procedures add time to the route-loading phase while Intercept pages through the full MCDU arrival list. An earlier MCDU cadence change removed most of it; a long list still costs a few extra seconds per page.

Navdata vertical paths: some third-party navdata procedures encode a vertical path a given aircraft will not couple to. Fly the published stepdowns with FCU/MCP selections and minima; this is a navdata characteristic, not an Intercept fault.

Widebody early support and Citation X experimental: see **Known limitations - read this first**. Anything unexpected on these aircraft is worth a report to support@kb1slnlabs.com with the log.

Runway data mismatches ("view only" approaches)

Some approaches in the selector may be marked "runway data mismatch — view only", and attempting to launch one shows RUNWAY DATA MISMATCH. This does not mean the runway is missing from your scenery.

Real-world runways are renumbered from time to time as the earth's magnetic field drifts (for example, runway 02 can become runway 03). X-Plane's airport scenery and its navigation data are updated on different schedules, so for a while the two can disagree about a runway's number or exact position.

Intercept compares the runway named by the approach with the runways in your installed scenery. When it can confirm they are the same physical runway, the approach launches normally and the selector shows the matched scenery runway. When it cannot confirm the match, the approach stays view-only: Intercept will not position your aircraft rather than risk setting you up on the wrong runway.

What you can do:

- Update your airport scenery and navigation data (default or Navigraph) so they agree.
- If the airport looks correct in X-Plane and you believe the block is wrong, email support@kb1slnlabs.com with the airport code.

11. Safety, support, and glossary

SAFETY

Use Intercept only in a home simulator. Always verify the aircraft state after handoff. If the aircraft is unstable, automation is not behaving as expected, or the guidance does not match the published procedure, discontinue the attempt and reset the scenario.

Support

Support email: support@kb1slnlabs.com. We acknowledge support email within 1-2 days; some fixes are queued for a future update or release.

Website: <https://interceptapproach.com>. **Contact:** <https://interceptapproach.com/contact.html>.

EULA: <https://interceptapproach.com/eula.html>. **Privacy Notice:**

<https://interceptapproach.com/privacy.html>. Third-party notices are installed alongside the app as **THIRD-PARTY-NOTICES.txt**.

Glossary

Term	Meaning in this manual
A/T	Boeing autothrottle.
APPR	Aircraft approach mode. Whether and when to arm it depends on the approach and live prompt.
CMD A	The 737 command-autopilot channel used by Intercept for the initial coupled release.
FLS	FMS Landing System presentation used by supported ToLiss aircraft for some non-ILS approaches.
FMA	Flight Mode Annunciator. Verify it after handoff.
FMC	Boeing Flight Management Computer.
Full procedure	A named coded transition entry that Intercept can load and use as the scenario start.
Final segment	The coded final portion of an RNAV/RNP approach.
LNAV / VNAV	The 737 lateral- and vertical-navigation modes used for applicable RNAV launches.
MCP	Boeing Mode Control Panel.
MCDU	Airbus Multifunction Control and Display Unit.
RNP / RNAV	Area-navigation procedure types surfaced from X-Plane navdata.

Term	Meaning in this manual
Smart Brake	A ToLiss ISCS Joystick-tab option (default ON) that can hold the wheels on a stationary aircraft; informational for launch, does not block it.
Transition / IAF	A named entry point into a published RNAV/RNP procedure; picking one flies the full charted route into the final segment. On a STAR launch Intercept selects the transition the STAR feeds.
RNP AR	Authorization Required RNP procedure. Real-world crews need special certification. Intercept flags it with a NOTE and an amber launch button; nothing is blocked in the simulator.
Early support	A newly added aircraft (A330-900, A340-600) that runs the full workflow. You may encounter issues; please report them.
Experimental	A lane offered for evaluation (Citation X, ILS and RNAV/RNP). Behavior may change between releases. Report issues.
FINAL APP	ToLiss managed final-approach mode on RNAV/RNP: the FMGS flies the lateral and vertical path itself.
STAR	Standard Terminal Arrival Route: the published arrival from the en-route structure to the start of the approach. Intercept files it as part of a complete flight and starts you on it (Section 9).
STAR transition / Entry	A named en-route feeder into a STAR. In the picker, Entry is where you join the arrival: the common route (or procedure start) or one of its transitions. Each entry shows the track distance to touchdown.
IAF	Initial Approach Fix: the fix where an approach transition begins. A transition/IAF start flies the full charted approach from that fix.
Plan as filed	The STAR rule: the aircraft's flight computer flies the route exactly as filed (origin, arrival, transition, approach, destination). Intercept edits the plan only to close the gap after the origin and the gap after a vectors leg, and reads the computer's own predictions instead of estimating them.
T/D	Top of descent, computed by the aircraft's flight computer and shown as an arrow on the navigation display. On a STAR launch the descent starts there: you push for it on the Airbus; VNAV flies it on the 737.

END OF INTERCEPT 1.1 USER MANUAL