

8 September 2015 – [G. Hrasko](#)

KLN90B GPS for FSX/P3D

Beta version 0.77B information



Version history

V0.76B

At the beginning of 2015 [Dutch](#) had picked up the development of the PT KLN90B GPS and made many clarifications, debugging and enhancements. A list of those developments is available on the [The KLN90B for FSX/Prepar3d in beta](#) discussion on [FSDeveloper.com](#). The last complete installation pack is available from the opening post (link is also [here](#)).

THIS IS A BETA VERSION FOR TESTING PURPOSES.

V0.77B

In August the code was handed over to me to make improvements especially on the SID/STAR handling that had been disabled in v0.076B due to frequent crashes.

V0.77B improvements

Several improvements had been made in this version, but it had not been tested very thoroughly yet.

1. SID/STAR bugs are fixed and feature is re-enabled.
2. Besides the current navigation pack, support for three [Navigraph FMS packages](#) are added.
3. SID/STAR transition support is added to APT+7 pages (see KLN 90B Pilot Guide chapter 6.2 *SID/STAR Procedures*). Available if used with any of the Navigraph FMS packages.
4. Offers adding the STAR airport to the flight plan if it is not yet included (see KLN 90B Pilot Guide chapter 6.2.2 *Selecting a STAR point 7*)
5. Removes possible duplicate waypoints at the end of the SID and at the beginning of the STAR.
6. Maximum number of flight plan points is increased from the real life 30 to 50 to support longer SID/STARs. In later versions this might be going in the config file as parameter to support those who want to stick to the real life limitations.
7. Displaying UTC time on the INIT page.
8. ILS frequencies are added correctly for airports with add-on sceneries.
9. Fully qualified debug file name can be defined in the config file.
10. Storing only live flight plan points into the flight plan file (no garbage points at the end of each FP).

Supported FMS packages

The following FMS packages are supported:

1. PT proprietary package (no updates are planned)
2. **EADT KLN 90B** from Navigraph
3. **PSS Airbus/Boeing/Dash** from Navigraph
4. **vasFMC Flight Management** from Navigraph

The numbers above are acting as package identifiers.

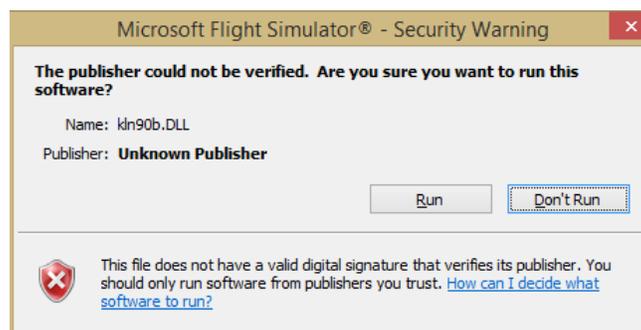
The packages can be installed to anywhere (maybe together with another add-on) and the location of the FMS folder can be defined in the [KLN90B] section of the KLN configuration file (spaces in path are allowed). Example below:

```
[KLN90B]
NAVDATA=4           ; Navigation data package number (0-4)
                   ; 0: no external navigation database
                   ; 1: traditional PTT database (no transitions)
                   ; 2: "EADT KLN 90B" pack
                   ; 3: "PSS Airbus/Boeing/Dash" pack
                   ; 4: "vasFMC Flight Management" pack
NAVDIR=D:\SIM\FSX\KLN90B\DB\VASFMC ; Navigation data directory
```

Installation

This version does not have a separate installer. Follow the below process to install:

1. Install v0.76B with its installer.
2. Overwrite the kln90b.dll with the new DLL in the Gauges directory of FSX.
3. Install any of the supported [Navigraph FMS Data packs](#). No such package is provided with the KLN90B package itself.
4. Make the necessary modifications in the KLN90B.CNF config file in the KLN90B directory of FSX
5. Delete the PTT_XXX.DAT files in the KLN90B folder and let the program to re-generate them on startup.
6. Run FSX. It might ask you to allow using the new version of the DLL. Acknowledge it.



SID/STAR selection

SID and STAR selection is rather similar with small differences. At any point of the selection procedure you might press CRSR to cancel the procedure selection without adding any points to the flight plan.

Some airports define SID transitions to connect the SID exit points to the main route start fixes. In the same way main route endpoint fixes might have been connected to the STAR starting points by STAR transitions. Not every airports are using transitions and if they use there might be SIDs or STARS without transitions, while others have transitions. Always check the appropriate charts for SID/STAR and transition information.

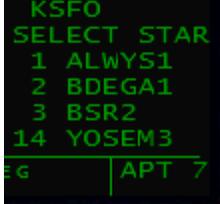
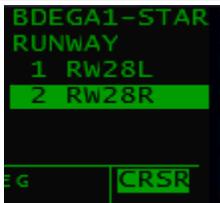
SID selection

If SID transitions exist KLN90B offers selecting the transition after runway selection. If there is no transition for the airport or if only one exists, this step is skipped.

	<p>Select the APT page and within that the APT7 page. If there are no SIDs available for the airport in the database the following message is displayed: "NO SID/STAR FOR THIS AIRPORT IN DATABASE"</p>
	<p>With the right outer knob (mouse right button) select the SID name and press ENT.</p>
	<p>With the right outer knob (mouse right button) select the runway and press ENT.</p>
	<p>With the right outer knob (mouse right button) select the transition and press ENT. This step is skipped automatically if zero or one transition is defined for the SID.</p>
	<p>With the right outer knob (mouse right button) step through the waypoints of the SID until you reach LOAD IN FPL and press ENT. The SID and the transition are loaded to the active flight plan (FPO). Any point duplications at the end of the SID are removed.</p>

STAR selection

If STAR transitions exist KLN90B offers selecting the transition after STAR selection. If there is no transition for the airport or if only one exists, this step is skipped.

	<p>Select the APT page and within that the APT7 page. If there are no STARs available for the airport in the database the following message is displayed: “NO SID/STAR FOR THIS AIRPORT IN DATABASE”</p>
	<p>With the right outer knob (mouse right button) select the STAR name and press ENT.</p>
	<p>With the right outer knob (mouse right button) select the transition and press ENT. This step is skipped automatically if zero or one transition is defined for the STAR.</p>
	<p>With the right outer knob (mouse right button) select the runway and press ENT.</p>
	<p>With the right outer knob (mouse right button) step through the waypoints of the SID until you reach LOAD IN FPL and press ENT. The transition and STAR are loaded to the active flight plan (FPO). Any point duplications at the beginning of the STAR/transition are removed.</p>
	<p>If the airport is not loaded to the flight plan, KLN90B asks if it should add the airport to the flight plan automatically. Press ENT to add the airport. Press the (right) CRSR not to terminate the procedure selection without adding the airport.</p>

Planned improvements in further releases

I am planning to improve the following features:

- Adding APT8 Approach pages (see KLN 90B Pilot Guide chapter *6.1 Non-Precision Approach Operations*). Will not be supported by PSS FMS packages.

- Selecting local time and other time zones in INIT page besides UTC (see KLN 90B Pilot Guide chapter 3.2 *Turn-On and Self Test* point 7).

Improvements proposed by Dutch:

- Enable altitude reporting with the ALT key.
- Look for CNF and FPLS files in airplane folder first
- Version that uses Direct Input
- Version with screen only that is controlled by Lvars
- TRIP pages
- CALC pages
- OTHER pages

Contact information

[The KLN90B for FSX/Prepar3d in beta](#) forum at FSDeveloper.com.