

Kneeboard Replacement Project

The goal of this project is to replace the existing legacy kneeboards which contain some outdated information that is no longer relevant to BMS 4.38 (e.g., the airport database, NAVAIDs, charts, etc.). While I did not like the previous pilot model, the game has changed with a very high quality pilot model with more realistic “Flyboys” style dual kneeboards (versus metal clipboards) worn by many military pilots. I recommend toggling off the pilot model when needed to access the cockpit panels and controls.

Goals:

- Include a condensed F-16 checklist like the previous one, but easier to read (larger font).
- Include some relevant “Inflight guide style” information.
- Include a blank lineup card that can be edited by the user until a more permanent solution exists to ease data card creation.

Pitfalls:

- Still requires a fair amount of manual work including using MS Paint (or other basic imaging app), a texture conversion tool to convert BMPs to DDS, copying files to directories, etc. I’ve tried to automate this as much as possible using a batch (.bat) file and shortcuts.
- DDS files are still hard to read unless using a “zoom” function due to texture resolution issues.

What’s included?

- Blank data card, Korea airport/navaid list & map, Kunsan and Osan airport diagrams, two “Smart cards” (explained below), takeoff/landing data, normal F-16 checklists, airspace charts, and emergency divert information. Other theaters may follow in the future.

These instructions supplement the information found in the BMS Technical manual and the BMS User manual. Below is a summary of the text found in the technical manual.

BMS has the capability to toggle 16 pages on each kneeboard for a total of 32 pages.

Any images can be displayed on the kneeboard by way of DDS textures located in the \Data\TerrData\Objects\KoreaObj folder. Specifically reserved textures are from 7982.dds to 7997.dds.

By modifying the DDS you may add any suitable content to the kneeboards.

Each texture has a resolution of 2048x2048 pixels and is divided into 2 parts. The left part is for the left kneeboard and the right part for the right kneeboard, respectively.

For now, the old single page DDS textures 1988.dds & 8019.dds are still available for compatibility reasons, e.g. they are used by 3rd party pilot models. Please note that this can change in the future.

If you are not interested in including a customized lineup card (i.e., one you create), you need not take any action. The kneeboards are already installed in 4.38, and the blank lineup card is also installed.

CREATING A CUSTOM LINEUP CARD

1. If you desire to create a custom lineup card, I recommend “printing” the briefing in the User Interface (which prints to either .txt or .html formats) and then editing the “BLANK_MDC.xls” (or the .PDF file).
2. After editing the xls file, print it to PDF (makes it easier to snap a picture of it). Then, you can take a screenshot of it using Adobe or the Windows Snipping Tool and then paste the graphic into 7982.bmp (open with MS Paint or other texture editor). You can be creative with graphics from the Recon screen or whatever you feel will help. Be sure you do not increase the resolution of the BMP (2048x2048).
3. After editing the BMP file, you must convert it to DDS format. Right-click on the “texconv.exe” and “Create shortcut”. Then, right-click on the shortcut and choose Properties. Add -f DXT5 -m 0 -o Output *.* to Target line after the exe's name. This will convert the files to the DDS format and place them in the “Output” directory. Run the shortcut.
4. Go to the Output directory, right-click on “Install_Cards.bat” and edit it with Notepad. Make sure it points to your BMS installation’s KoreaObj directory. (Default is C:\Falcon BMS 4.38\Data\TerrData\Objects\KoreaObj) Click the “Install_cards.bat” file in the Source folder to install all the cards.

DATA CARD INFO

Most of the fields on the datacard are self-explanatory. However, you can erase or replace any sections you might not use. The left card can accommodate up to 8 aircraft. The right card is for coordination with other aircraft, location of enemy assets, timelines, codewords, SPINs, CSAR info, etc.

SMART CARD INFO

The Smart Card combines a lot of airfield specific information into one card for easy reference. It includes communications, departure procedures, refueling rendezvous numbers, inflight reports, takeoff and landing speeds, fuel quantity numbers, stores jettison and ejection procedures, some divert airfield information, SFO (flame out landing) numbers, and a combined VFR/IFR graphic with VFR pattern procedures and ILS approaches to two runways. All procedures are based on real-world procedures for

Osan and Kunsan airbases. Additionally, an air refueling “cheater” card and HARTS maneuvers are included.