

LIDAR in the Pines SD

Map File Version

Boyd Ostroff 12/22/2018

This version of **LIDAR in the Pines SD** only contains the map file for installation on a GPS device. If you want to use the map on your computer, you must download either the Macintosh or Windows version:

<https://boydsmaps.com/lidar-in-the-pines-sd/>

Learn more about the map by reading the documentation:

<https://boydsmaps.com/docs/lidar-in-the-pines-sd-for-windows.pdf>

<https://boydsmaps.com/docs/lidar-in-the-pines-sd-for-mac.pdf>

Compatibility

Maps created with this technique contain far more polygons than typical Garmin maps and require more resources to render on the screen. Computer programs such as Basecamp and Mapsource have no problem with this and zooming/dragging the map is very smooth. But GPS devices have much less powerful processors, and although the map is technically compatible with all Garmin devices, it is not likely to work acceptably on older models such as the Nuvi series.

This map has been extensively road-tested on a DriveSmart 61 (the current top of the line automotive device). Performance on this device is acceptable, although less responsive than simpler Garmin maps. One limitation is that the terrain only appears at zoom levels of 0.2 miles or less.

A test on a Dezl 760 (a 2012 model) resulted in immediate crashes after rendering the map. It has not been tested on older devices or handheld units – I will leave this as an exercise for the user, but suspect it will work best on premium automotive devices released since 2017.

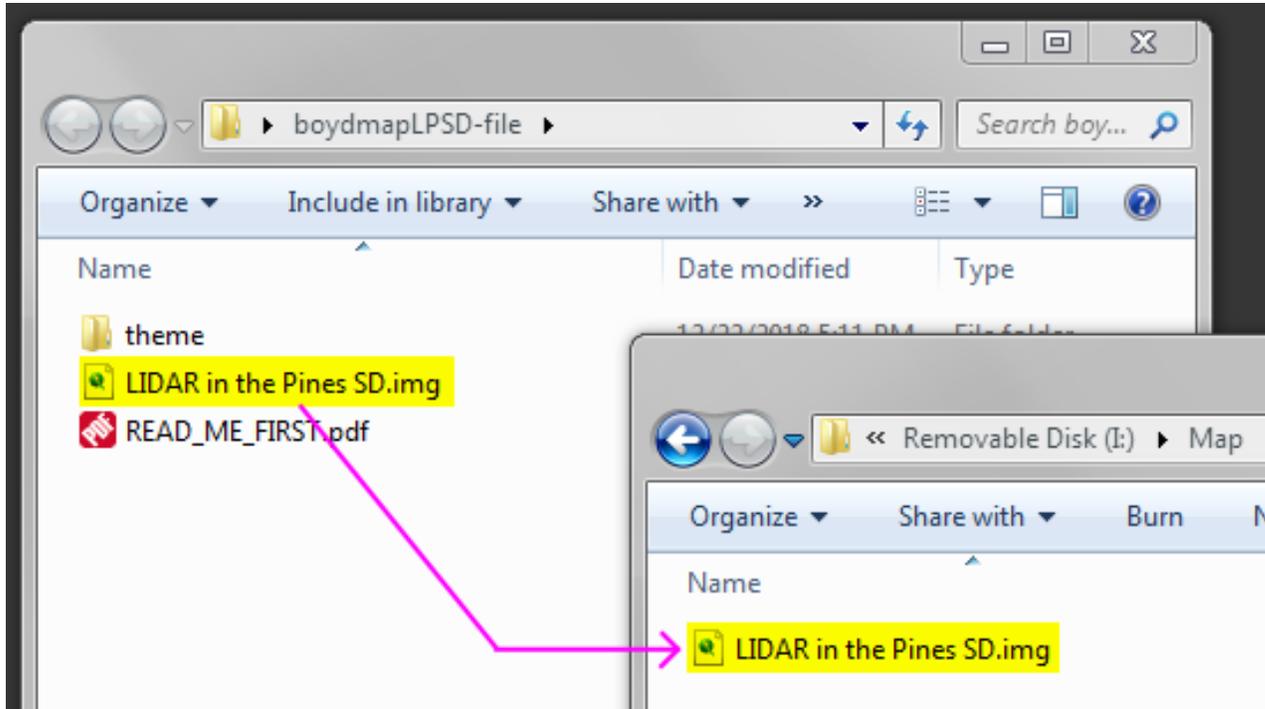
You should do your own testing to verify that this map works reliably on your device before using it for any applications where an unexpected shutdown/restart could be a problem.

Installing the map on your GPS

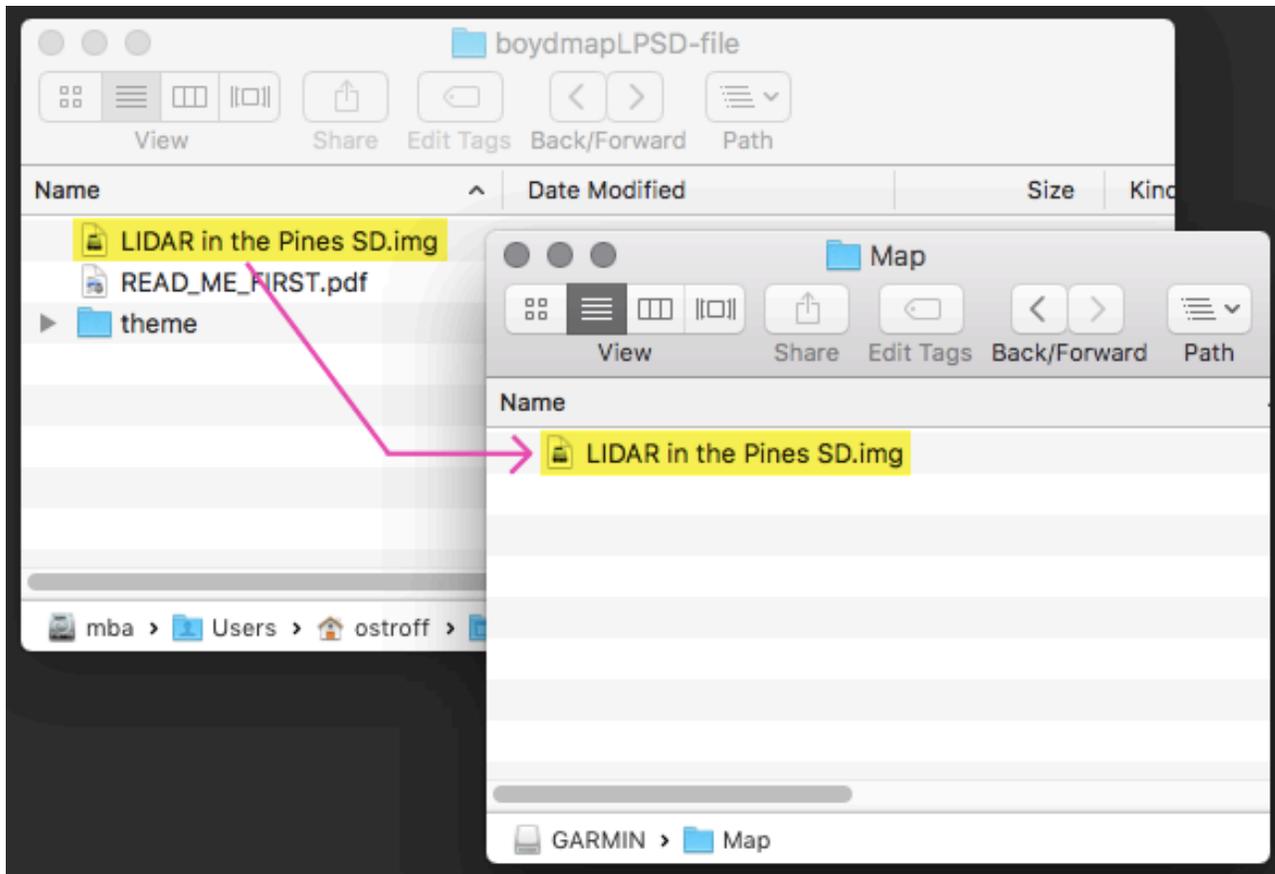
By proceeding with map installation, you agree to assume all risks associated with the process. The author will not be responsible for any computer or GPS problems resulting from following the instructions below. It should be simple and safe, but do not proceed if you aren't comfortable with assuming all responsibility. Before installing any maps, it's always wise to have a full backup.

Installation is very simple. Connect your device to your computer and browse to the folder named **Map**. If you don't see a folder named **Map**, create one. Now copy the file named **LIDAR in the Pines SD.img** to the **Map** folder. About 1.4 gb free space is required for map storage. If your device doesn't have enough free space, you can use a SD card for storage. Format the card as FAT32, create a **Map** folder and copy the file to it. Map access is faster when the file is stored in internal memory however, so use a fast SD card for the best results.

Copying the map file to the GPS with a Windows computer.



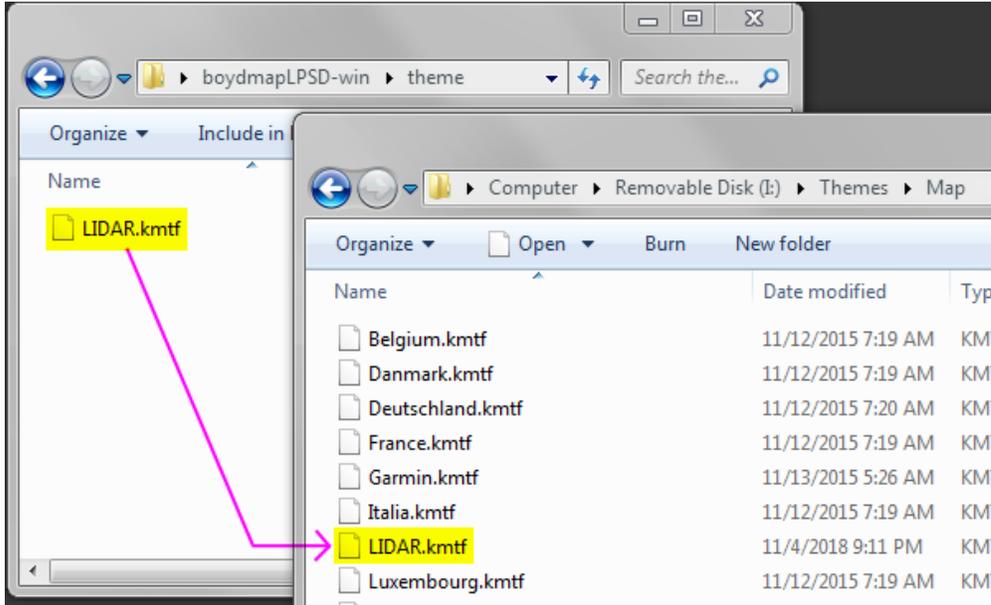
Copying the map file to the GPS with a Macintosh computer



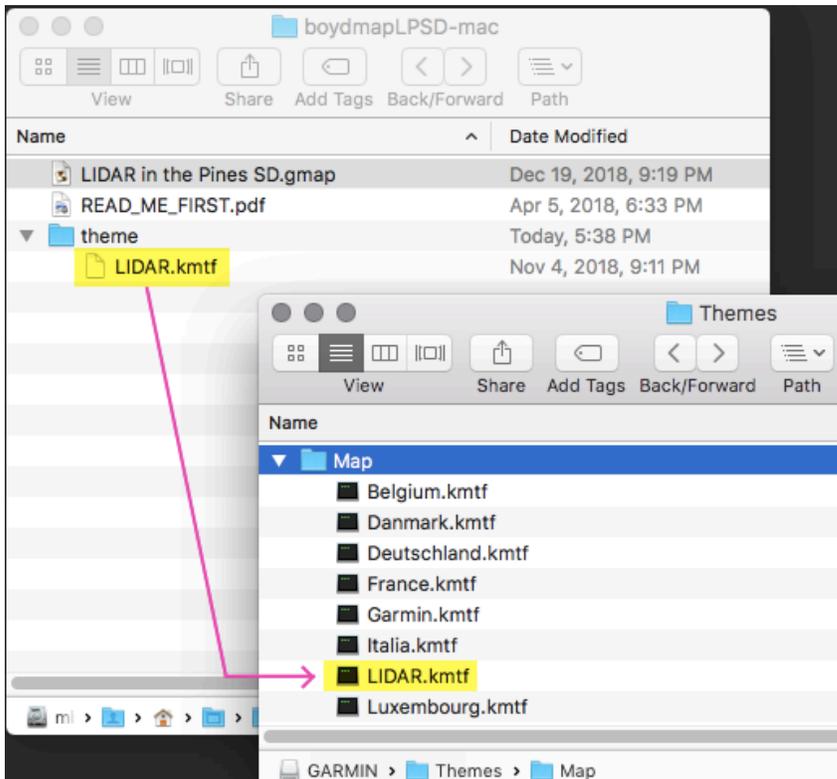
Install the map theme

Map themes allow road widths to be customized for use on different resolution screens. This theme is provided for the DriveSmart 61 and other recent models with 7-inch 1024x600 screens. Copy the **LIDAR.kmtf** file to the **Map** folder that is inside the **Themes** folder on the GPS.

Copying the theme file to the GPS with a Windows computer



Copying the theme file to the GPS with a Macintosh computer

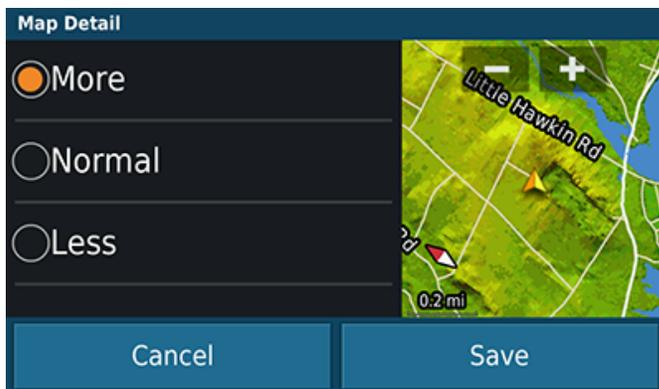


Using the map on your GPS

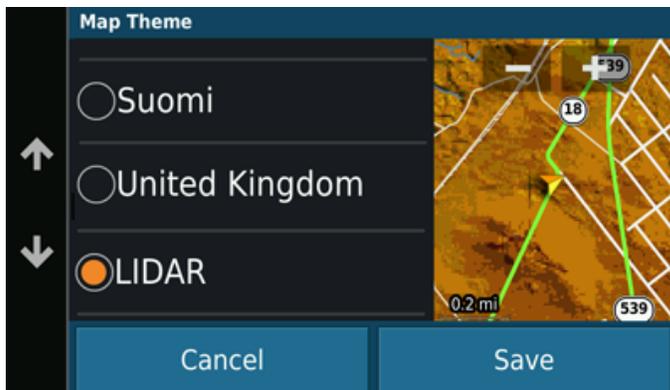
To enable the map, press **Settings > Maps & Vehicle** and choose **myMaps**. If you also enable **CN North America NT**, you can use all the standard features of your GPS while viewing the LIDAR map on the screen.



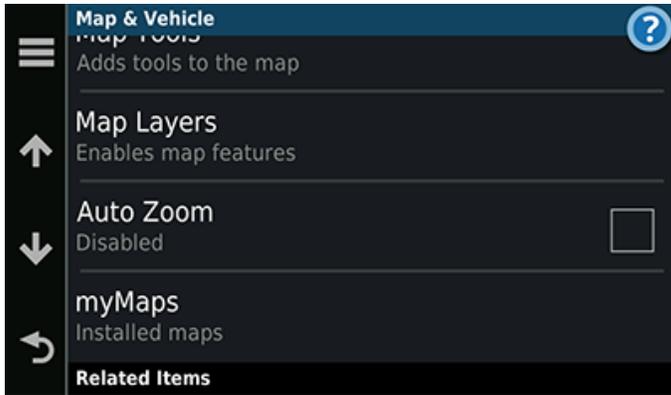
Press **Settings > Map & Vehicle > Map Detail** and choose **More**.



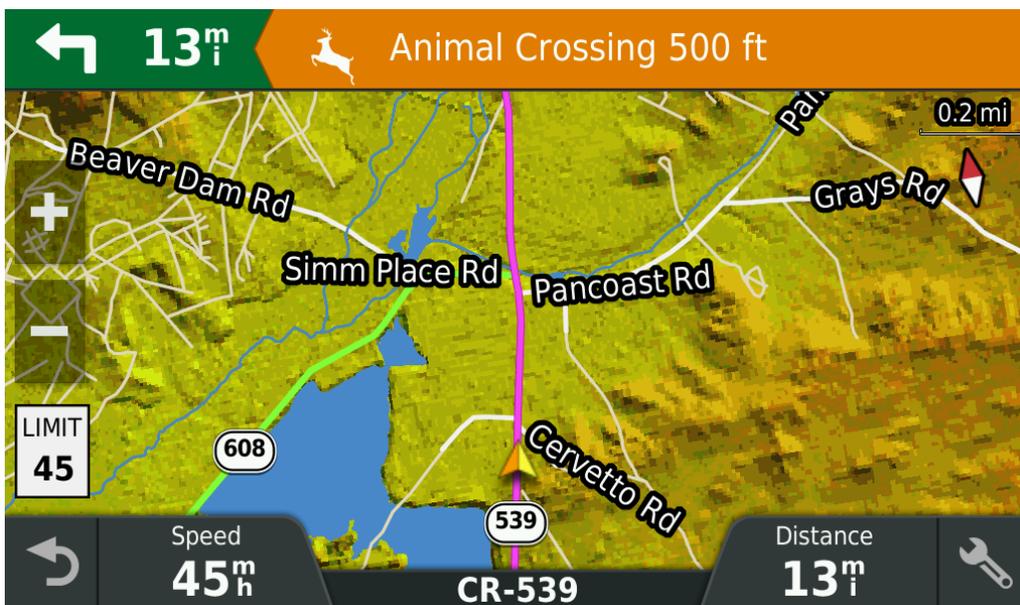
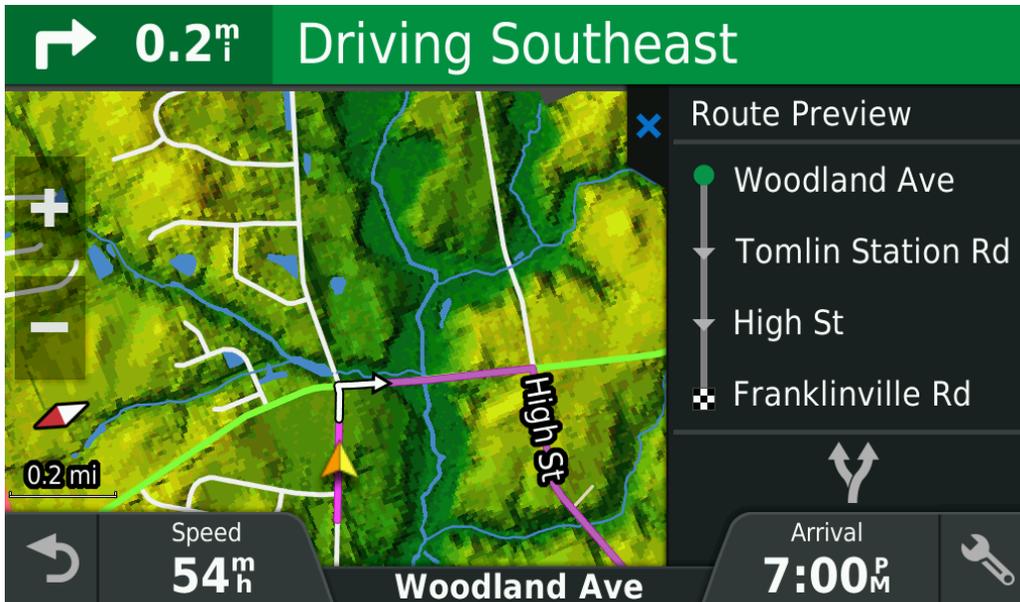
Now go to **Settings > Map & Vehicle > Map Theme**. The default theme is called "Garmin". If you like the appearance of the map, there is no need to change. However, I think the included "LIDAR" theme provides better line widths for the newest 7-inch automotive devices with 1024x600 screens. *Note that themes are global, so changing this setting may also affect the appearance of other maps on your device.*



I suggest un-checking **Auto Zoom** in the **Map & Vehicle** menu. Zooming out too far can cause the device to slow down or even crash. **The map will only appear at zoom levels of 0.2 miles or closer.**



If City Navigator is also enabled, you can use all the normal routing functions of your device.



Data Sources

Roads from the NJ Dept of Transportation, OpenStreetMap and US Census Bureau TIGER data
1,500 miles of HD unpaved South Jersey roads from the author's personal dataset
Trails from a variety of sources including legacy NJ State Forest maps, park websites and GPS tracks
Railroads from US Census Bureau TIGER data

City and town names from the USGS Geographic Names Information System (GNIS) and OpenStreetMap

Water features from NJDEP 2012 LU/LC data and the USGS National Hydrography Dataset

Terrain created from 1/9 arc second bare-earth LIDAR DEM data from the USGS 3d Elevation Program

License Agreement

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***The map** was created with techniques that are not generally used in Garmin format maps. This could result in unexpected shutdowns and restarts on some GPS devices. It is the sole responsibility of the user to perform their own testing to determine if **the map** is suitable for their use.*