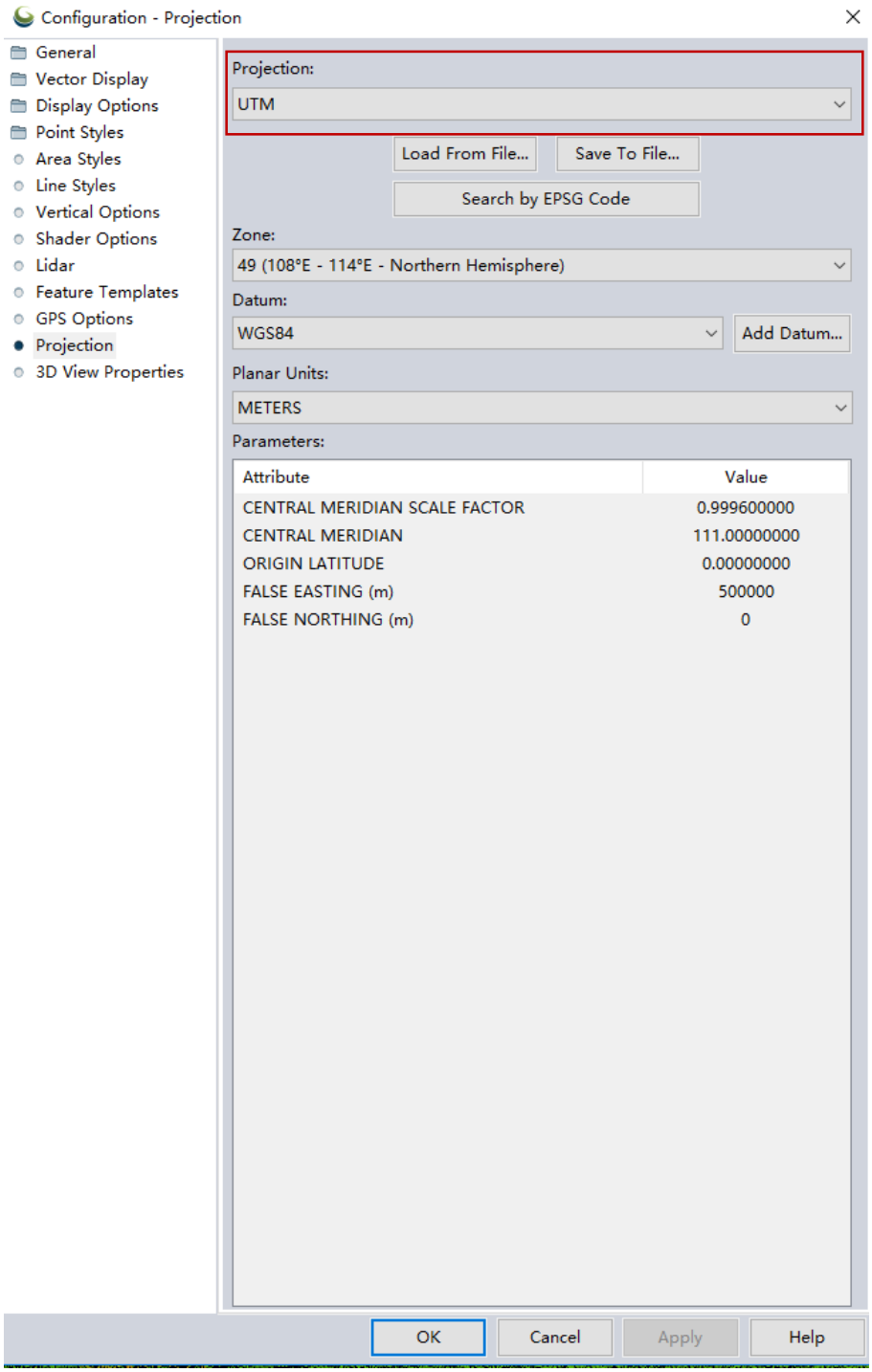
P4 RTK Terrain Follow Instruction

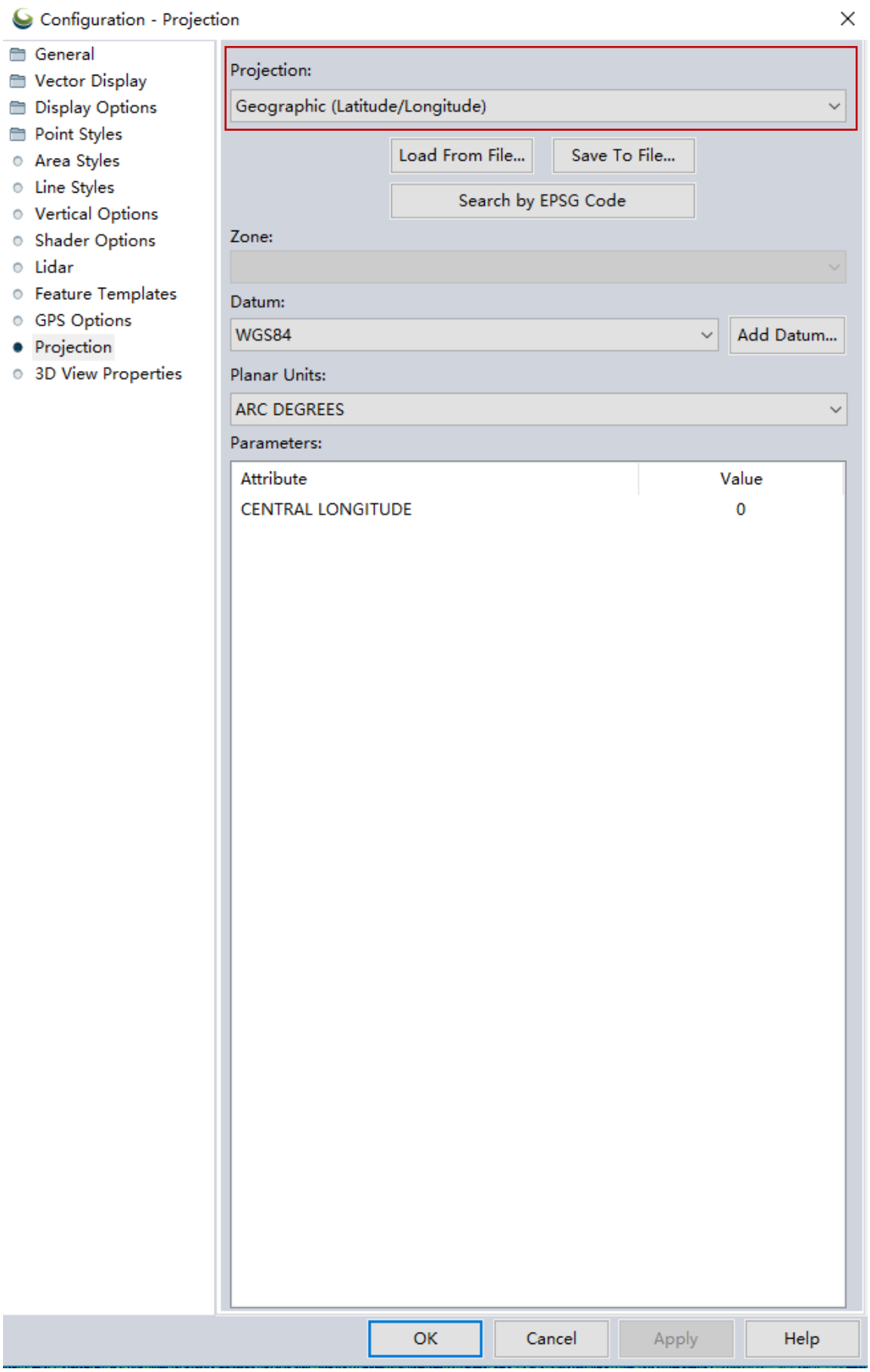
P4R will only support tfw+tif data format and the DSM has to under geographic coordinate system (If the DSM has a projection on it, it will not successfully import to GSR App)

The transformation from projection to geographic system：

Example using GlobalMapper to do the transformation

Importing DSM to global mapper click on the tool——Configure——Projection， as indicated below: From UTM to geographic(Latitude/Longitude)



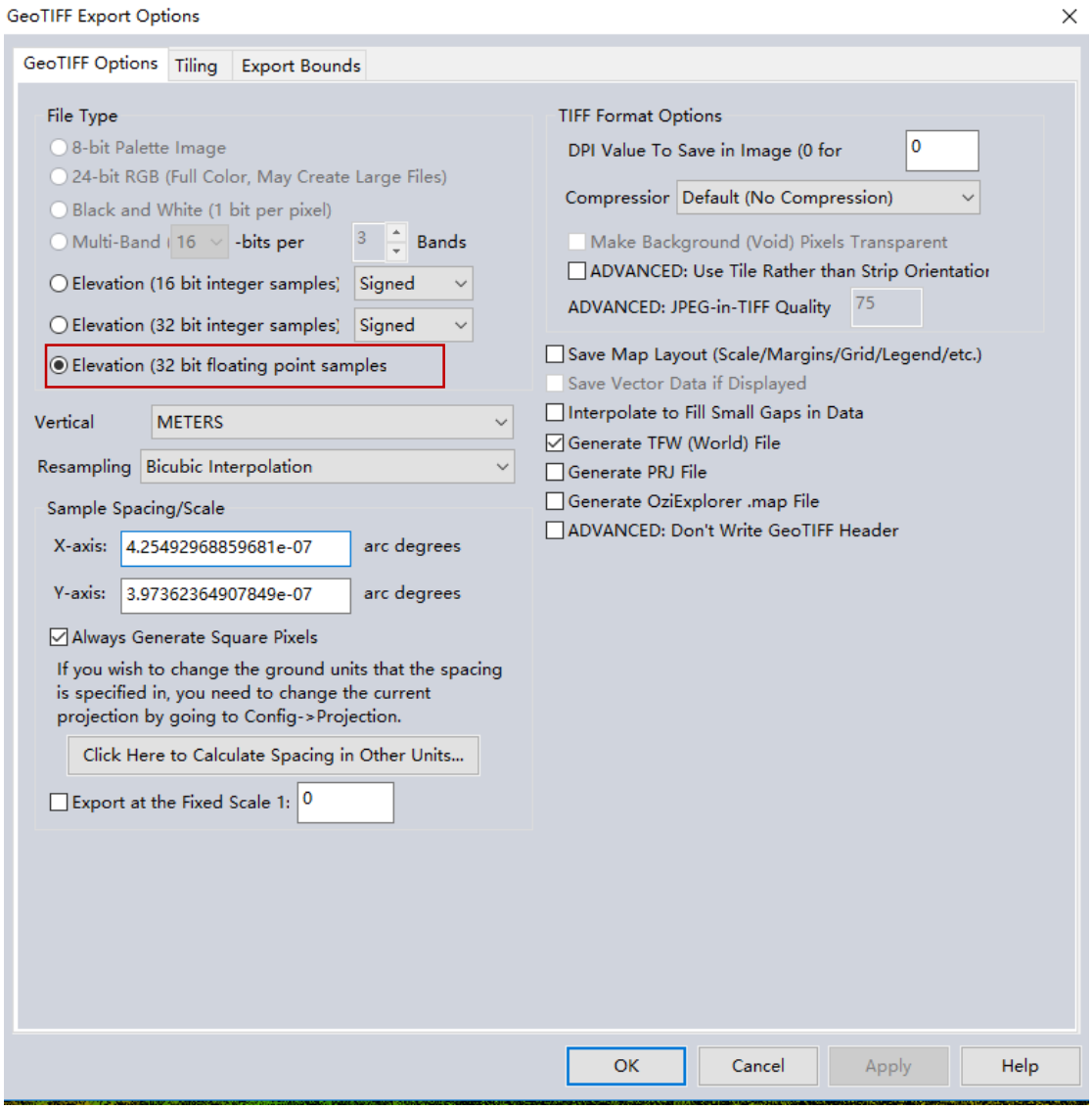

Configuration - Projection
General
Vector Display
Display Options
Point Styles
Area Styles
Line Styles
Vertical Options
Shader Options
Lidar
Feature Templates
GPS Options
Projection
3D View Properties
Projection:
Geographic (Latitude/Longitude)
Load From File...
Save To File...
Search by EPSG Code
Zone:
Datum:
WGS84
Add Datum...
Planar Units:
ARC DEGREES
Parameters:
Attribute
Value
CENTRAL LONGITUDE
0
OK
Cancel
Apply
Help

TFW Generation

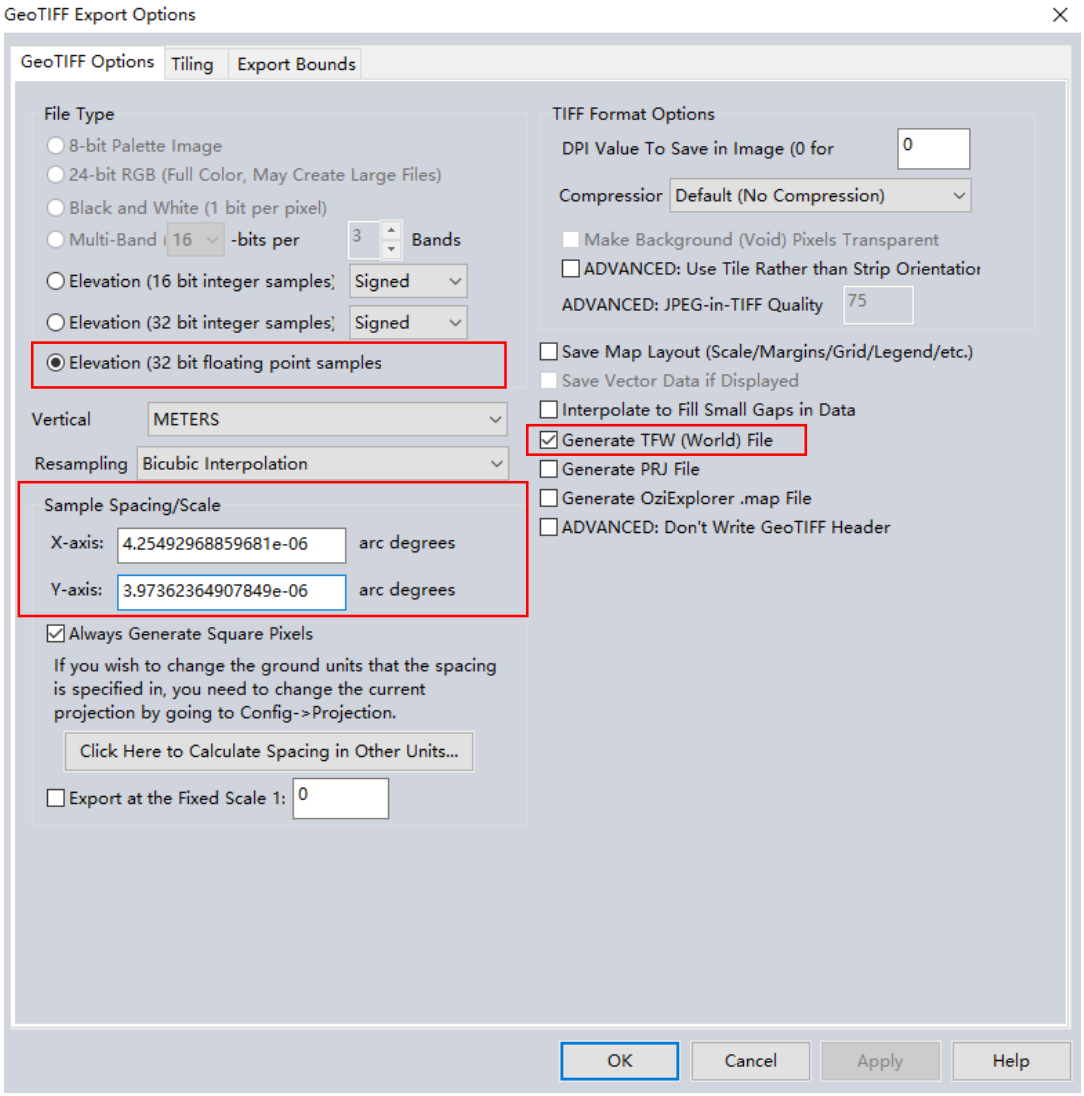
Step 1.
Based on DSM to create TFW data(Sample data Created by DJI Terra)

Use Globalmapper to create TFW data

1. Importing Geotiff DSM data first
2. Click “File”——“Export”——“Export Elevation Grid Format”， select GeoTIFF
3. Check “Generate TFW” and Elevation(32-bit floating point samples)



4. Please note the DSM that generated from DJI Terra was at their original resolution, however in order to achieve Terrain follow feature we do not need such high resolution. If we import the DSM as original size, it may cause a crash or can't be used by GSR(over 100MB), so it's necessary to reduce the resolution of DSM that was created by DJI Terra. Below is the sample instruction. Normally after transformation from projection to geographic coordinate system, the "Sample Spacing/Scale" is at negative 7th power, change it to the negative 6th power.



5. Select location to save exported data

Step 2

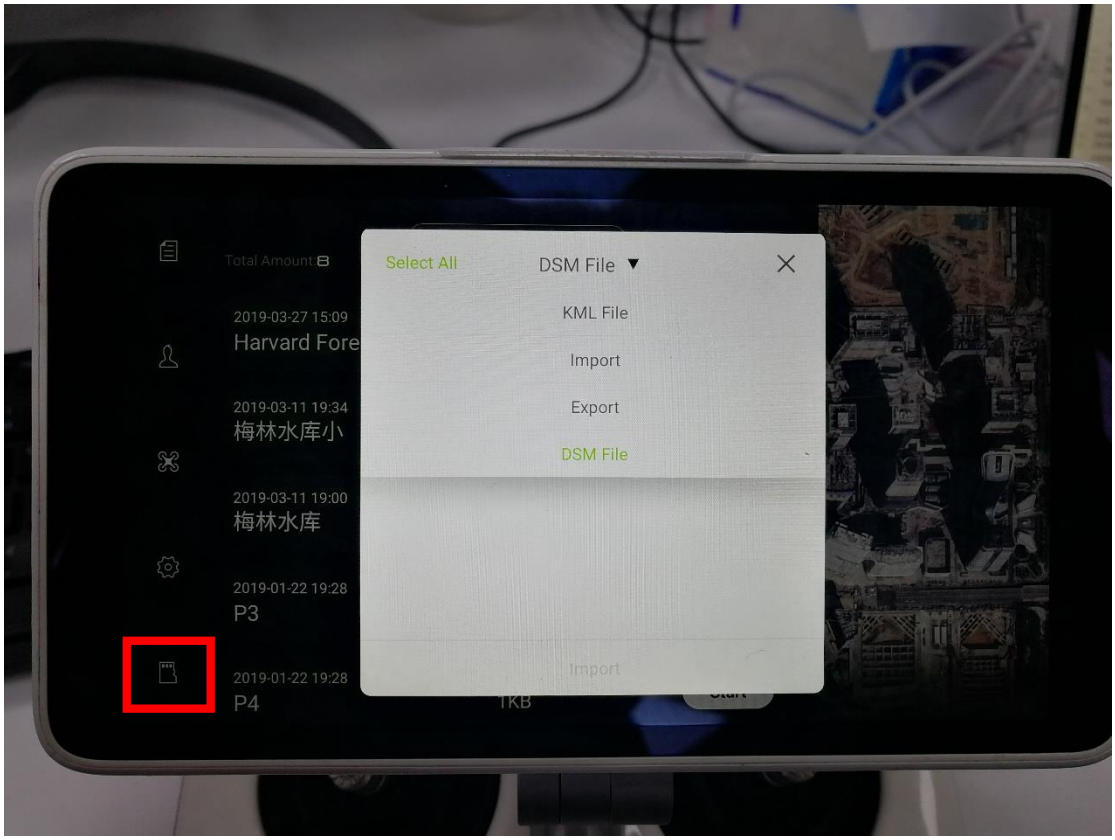
Import DSM and TFW

1. Create a folder call DJI
2. Under DJI create a folder called DSM
3. Under DSM create a folder for every single mission for example task1
4. Only import DSM and TFW files into the task1 folder(do not import other folders)

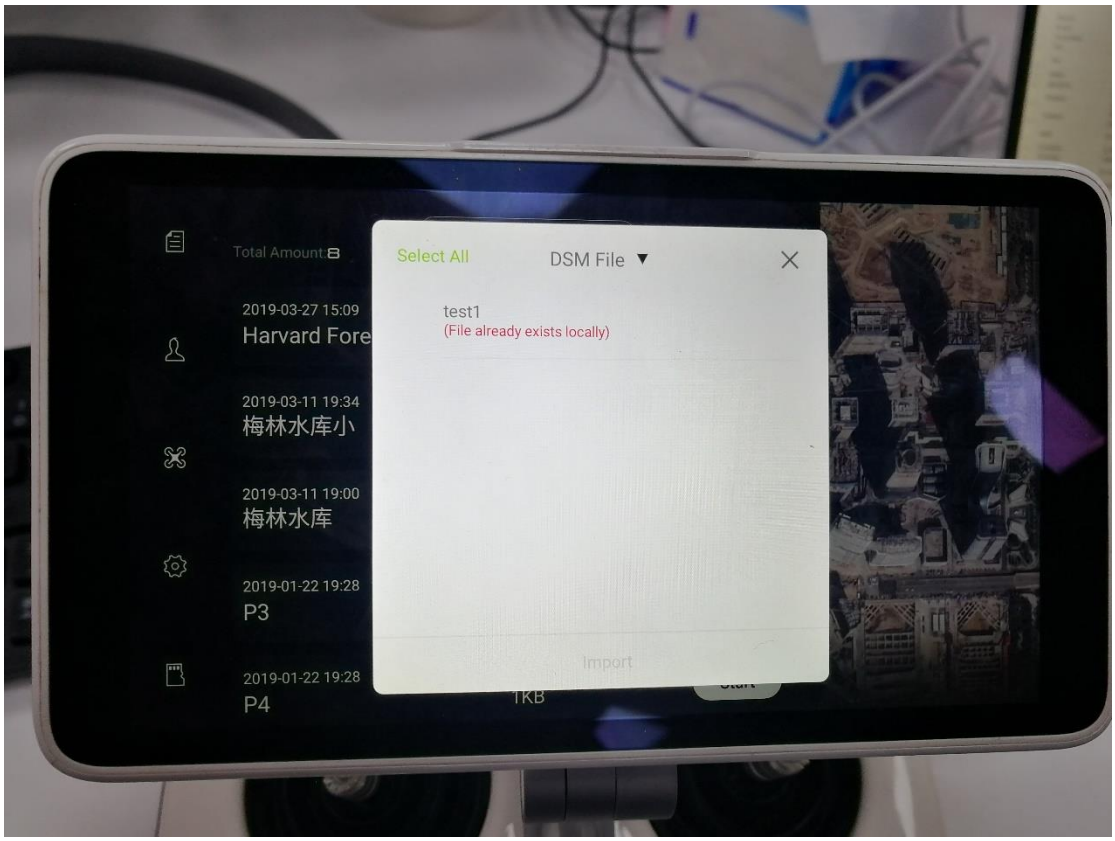
Step 3

Import DSM into GSR

1. Click SD logo select DSM File

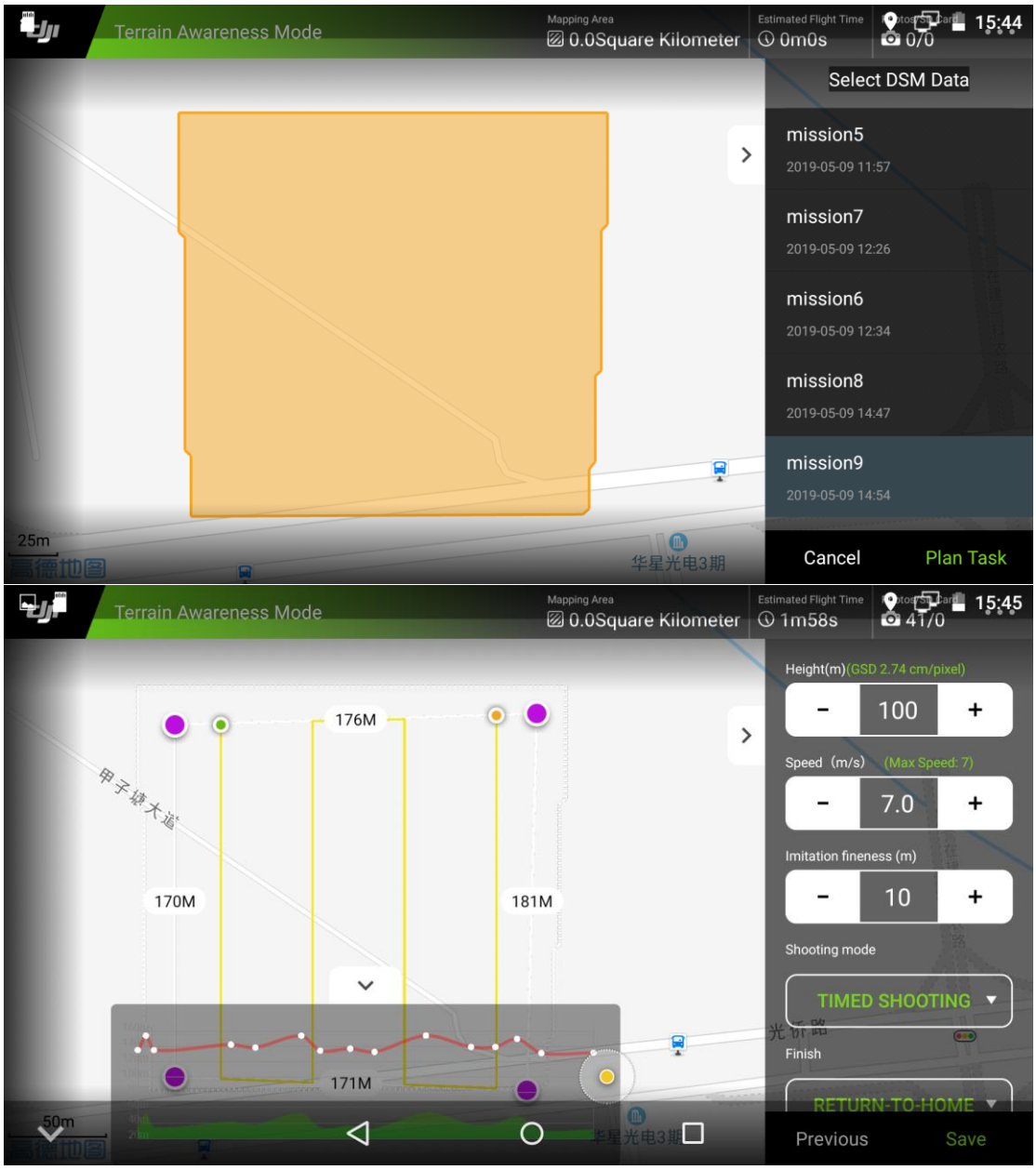


2. Select DSM data that you wish to import



3. Select Terrain Awareness Mode

4. Select the DSM that you wish to use



Now, you know how to use terrain follow feature!