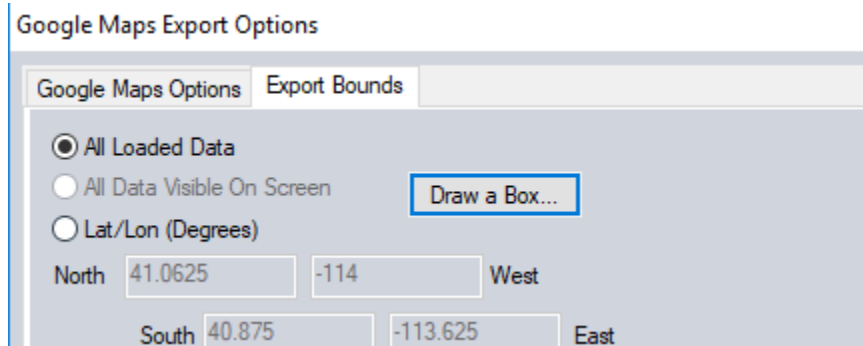
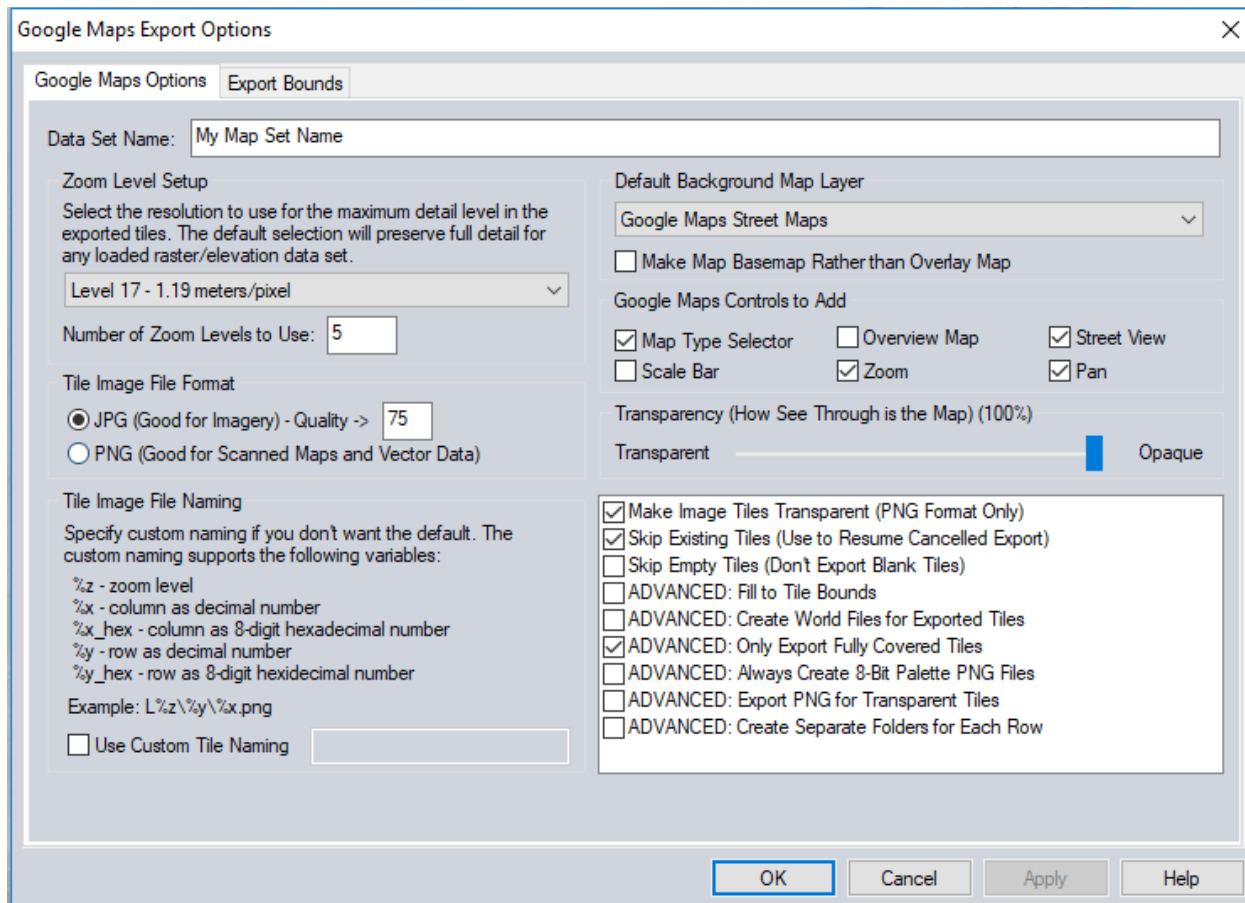


## GCS Requirements:

- Basemap - **Sensor Computer**
  - TIFF - geoTIFF with LZW compression
  - World File - Include
  - Geotags - Include
  - Projection or Geographic Coordinates - Projects on the fly
  - Multiple maps - Yes, but not in the same location. ie, multiple fires.
  - We were able to get the IMT PDF into SkyLink by converting it using GlobalMapper to a GeoTiff. No world file was needed.
  - Trillium suggests GeoPDF supported by SkyLink, need to verify.
- Basemap - **GCS computer**
  - Uses a custom version of Mission Planner. It can consume KML, KMZ and .shp files,
  - Basemaps can be loaded by exporting from Global Mapper as a Google Maps Tiles.
    - In Global Mapper
      1. Load exported GeoTiff from ArcGIS Pro or ArcMap into Global Mapper
      2. File → Export Web Format → select Google Maps Tiles
      3. Select the Export Bounds tab → select Draw a Box



4. Click OK
5. Click OK again
6. Select a location to save.
7. Zoom level 17 and 18 seem to be the best levels for time sake. Higher levels of zoom took considerable time to export
8. After Export transfer the files to the GCS computer
9. If the file path of the export and location on the GCS computer are different you will need to modify the .htm file on the GCS computer to match the file saved path. You can do this by changing the .htm to .txt and editing the file paths embedded in the file.

## Site Selection Requirements:

(Antenna height, preferred flight altitude, takeoff/landing area, etc.) Antenna height - 35 foot

Preferred flight levels - 3,500 agl

Launch and Recovery size - 200x200"

Needs access for crew cab truck and 25' trailer

2-3 hour duration, 4 hours max total.

## Data Processing:

(Format, conversion needed, FMV ready-yes)

### Sensor Display

- Displays where/how for which sensors?
  - Lat/Long: DDM
  - Gimbal angle for tilt and pan displayed: yes
- Basemap displayed?
  - Displays footprint of sensor FOV: yes
- Elevation model required?
  - Format: Will take Dted. .dt2 format

### Sensor Specs

- For each sensor: Trillium HD45/55 hybrid
  - Megapixels?
  - Resolution height and width (720p EO, 640 IR)
  - Sensor height and width (mm)
  - Focal length (mm)
  - IR
    - Pixel pitch (microns, if applicable)
    - Radiometric? generic adjustments
- For multiple optics
  - Boresighted: yes

### Data Collection

- Video
  - Closed circuit or IP? Internal WIFI for FMV
  - Setup to broadcast through Twitch, Zoom likely possible
  - Needs VZN or incident Internet access
- Stills
  - Yes
- Outputs KML points, polygon possible but deletes points.
- Outputs video, stills, and geopoints spreadsheet
- Possible increased point accuracy using TLE function in SkyLink

- Ability to collect stills while collecting video? Yes
- Stills watermarked? Yes

## Other:

### Storage

- Files archived on display device and/or onboard: GCS Computer
- Files backed up on server? no
- Files chunked based on size or time? unknown
- Transfer method? Thumb drive