

Report
on

QGIS Operations and Google Earth
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Submitted by

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1 How to calculate area from shape file:

Make the layer editable, then use the field calculator (Layer>Open attribute table>Field Calculator/Ctrl+I or right click shapefile>Open attribute table>Field Calculator/Ctrl+I). There is an operator "\$area" [1]that will calculate the area of each row in the table. All units will be calculated in the units of the projection, so you probably want to project it to a projection that uses feet or metres before doing that, rather than lat/lon.

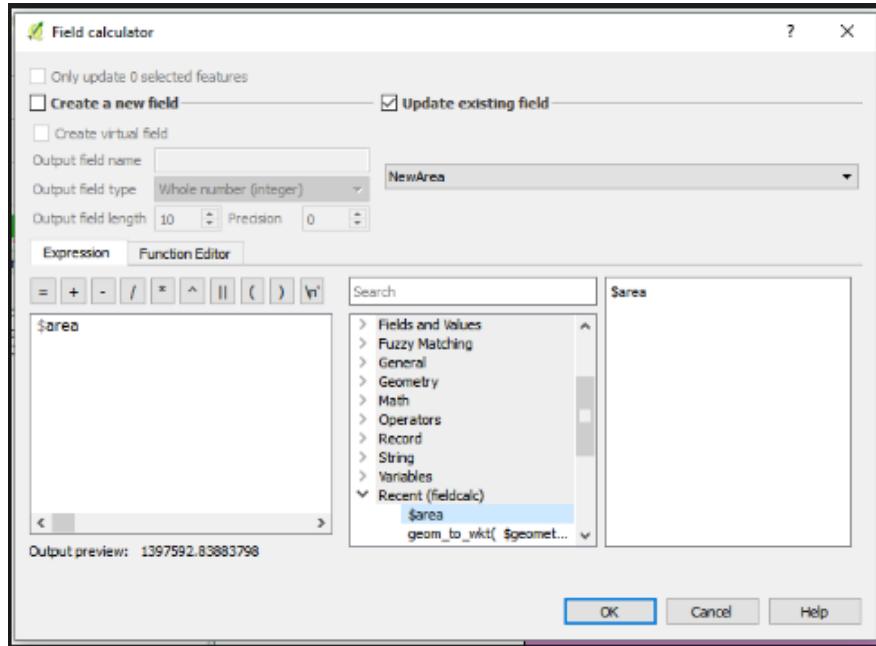


Figure 1: Area for Polygon

1.1 Calculate Lat Long for Point shape file:

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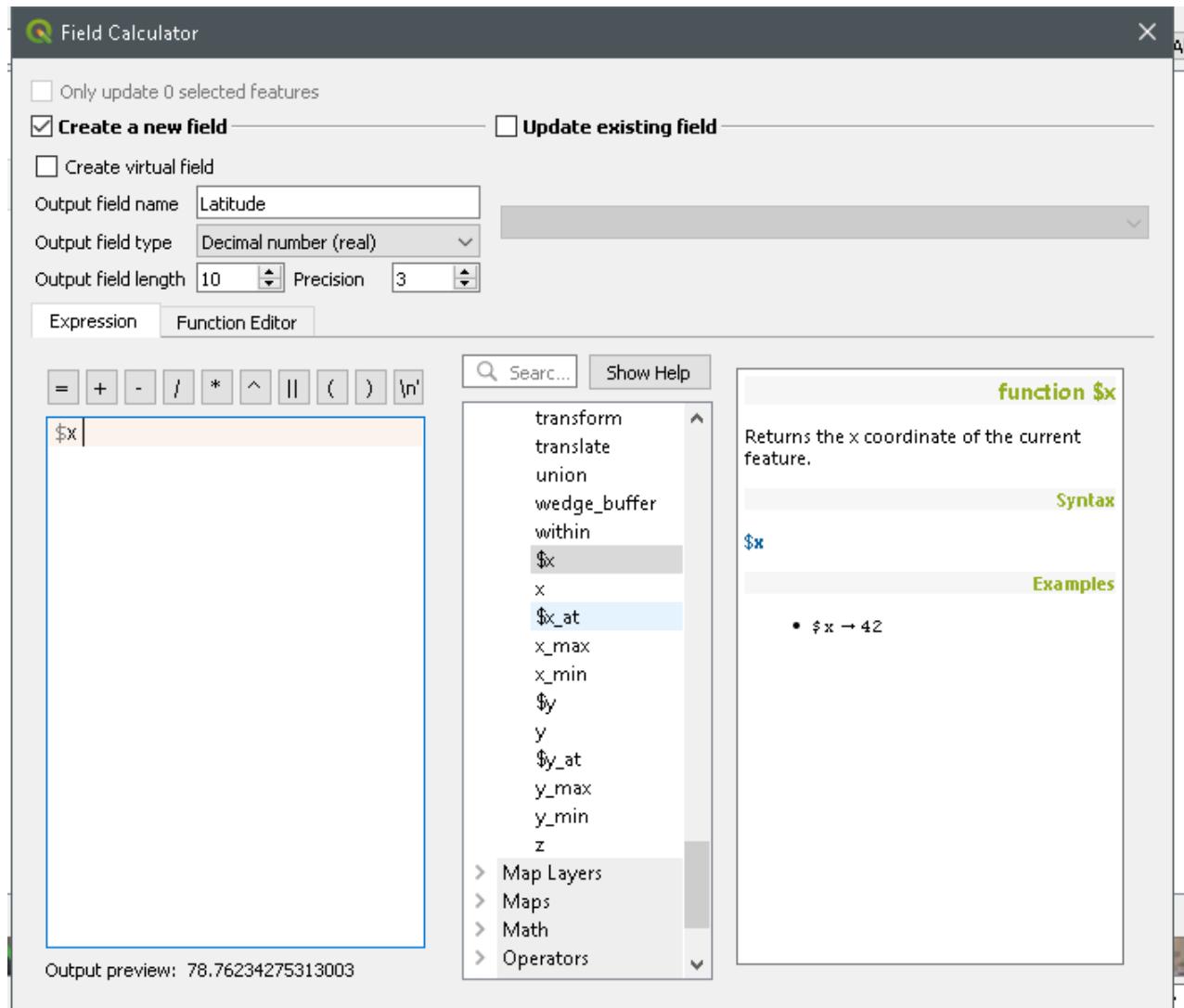


Figure 2: Lat/Long for Point

1.2 Calculate length of Roads shape file:

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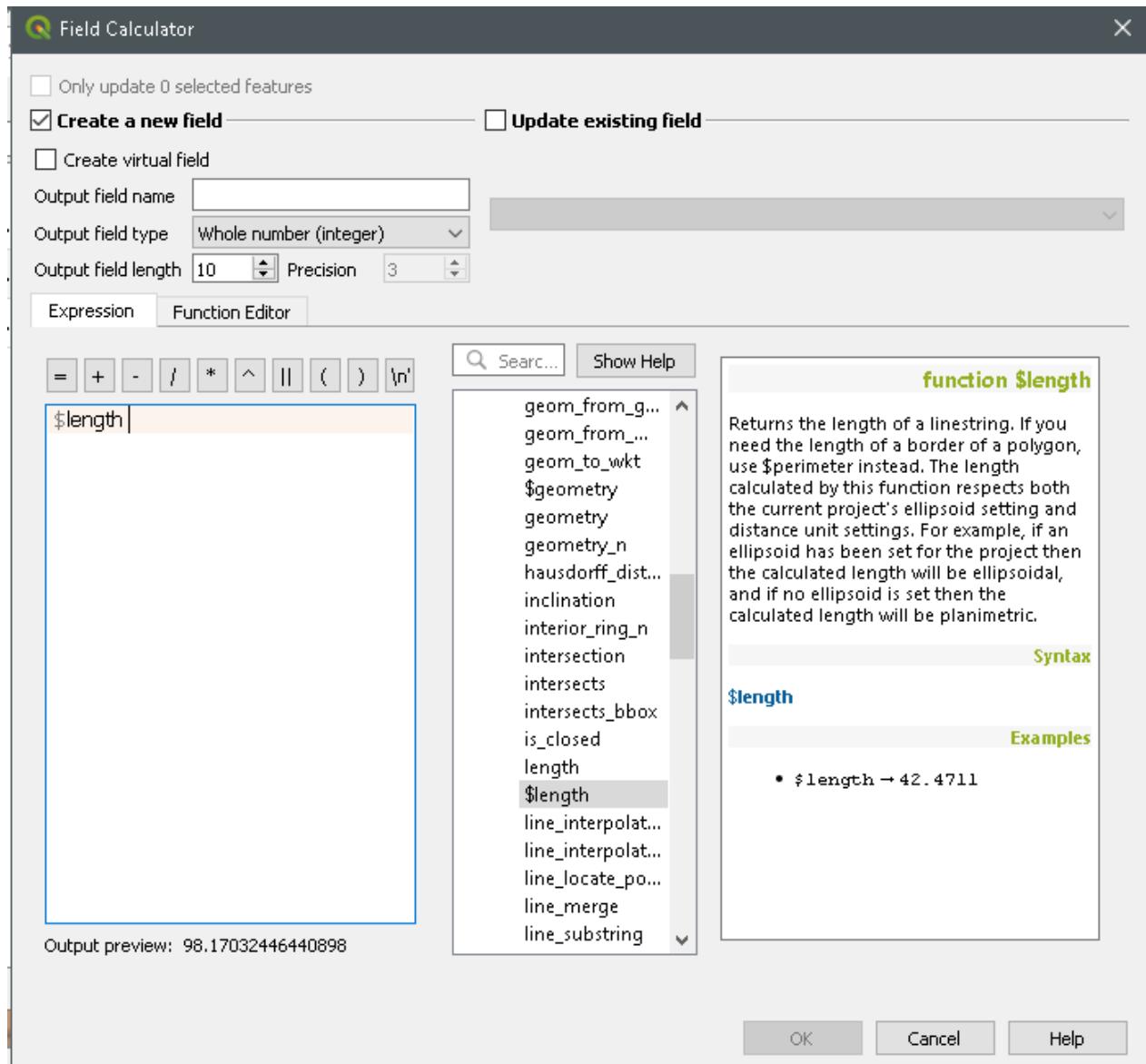


Figure 3: Length of road

2 Making Polygon on Google Earth And area calculation:

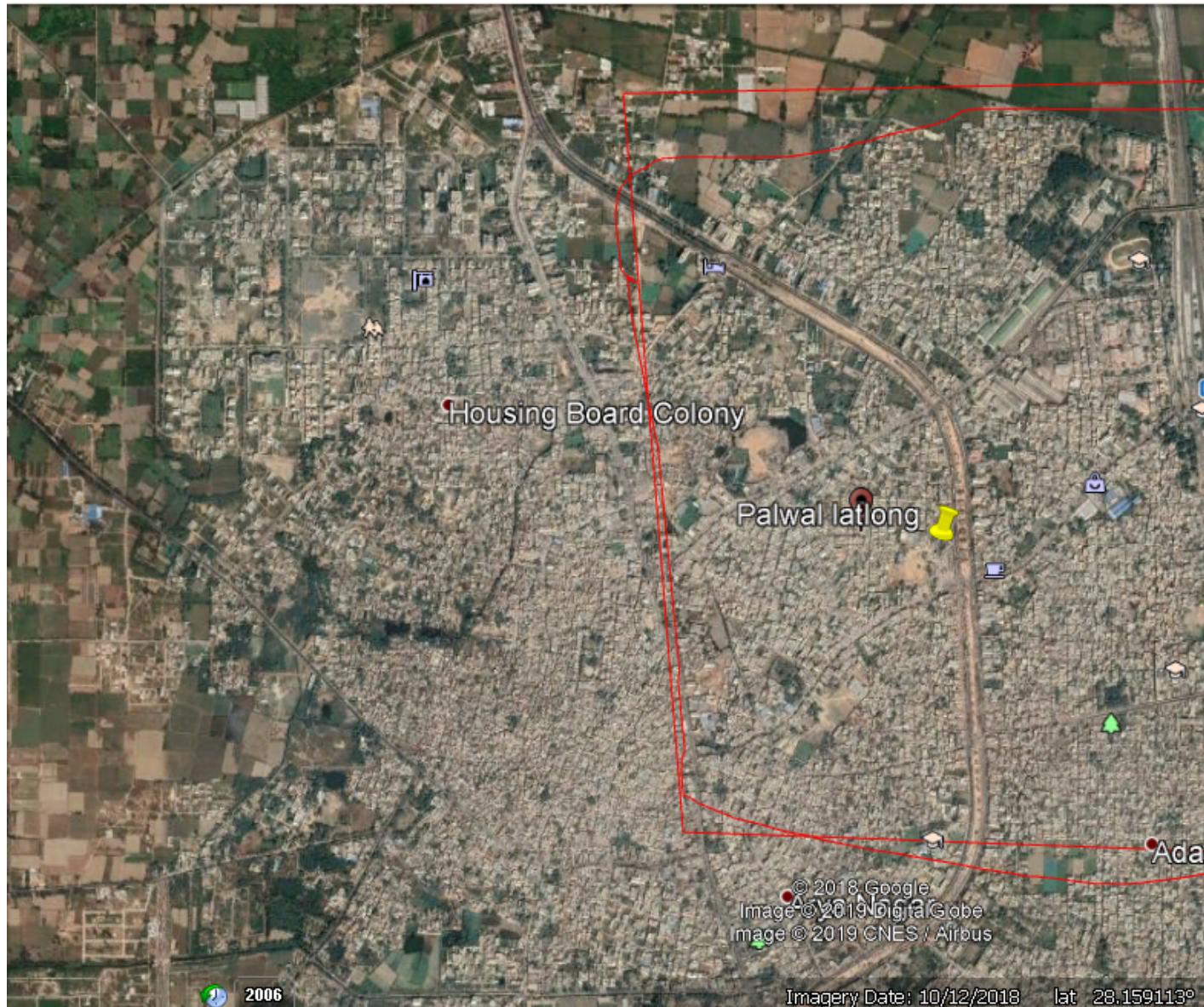
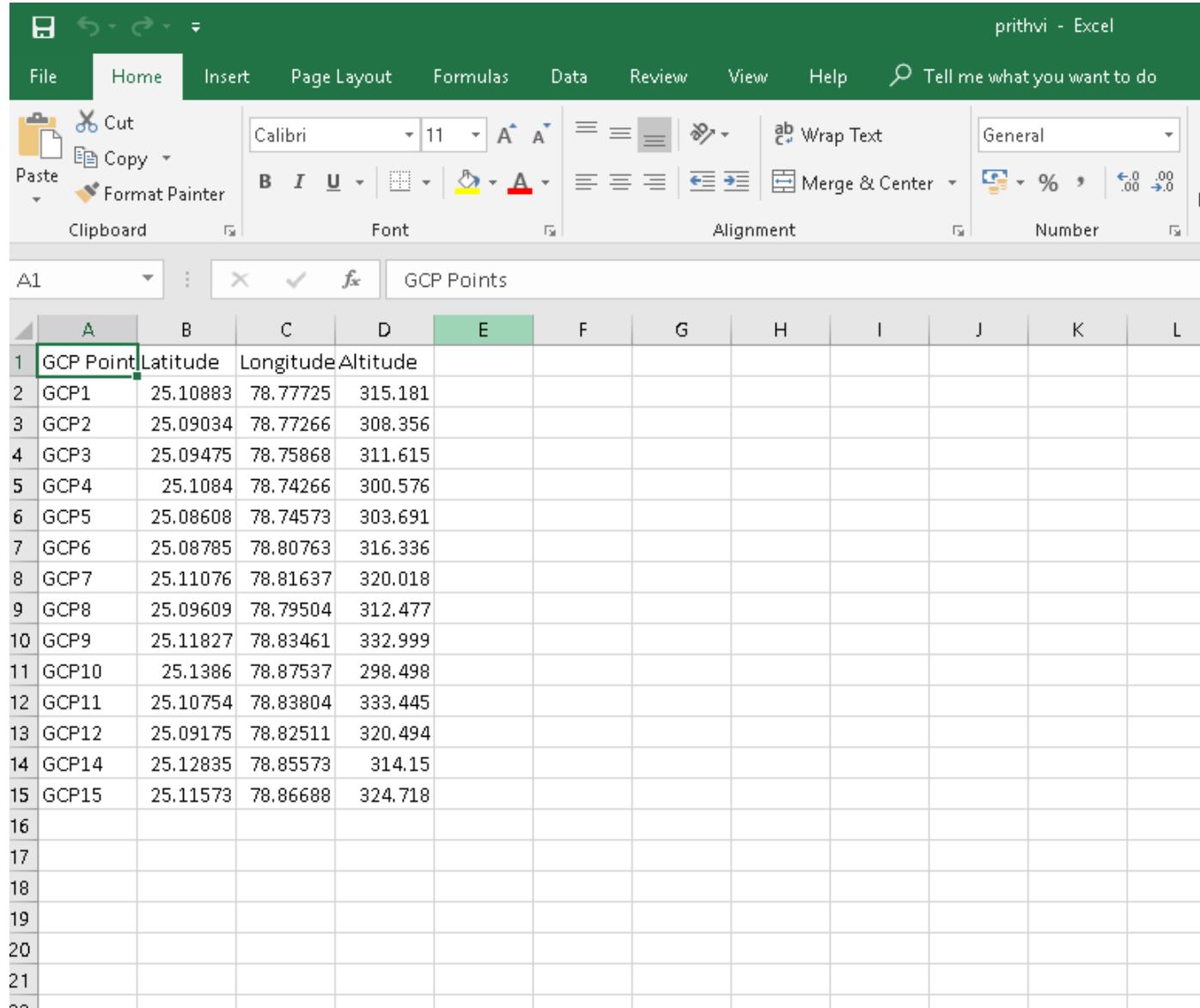


Figure 4: Polygon on Google earth

3 Converting DMS degree to DD:



	A	B	C	D	E	F	G	H	I	J	K	L
1	GCP Point	Latitude	Longitude	Altitude								
2	GCP1	25.10883	78.77725	315.181								
3	GCP2	25.09034	78.77266	308.356								
4	GCP3	25.09475	78.75868	311.615								
5	GCP4	25.1084	78.74266	300.576								
6	GCP5	25.08608	78.74573	303.691								
7	GCP6	25.08785	78.80763	316.336								
8	GCP7	25.11076	78.81637	320.018								
9	GCP8	25.09609	78.79504	312.477								
10	GCP9	25.11827	78.83461	332.999								
11	GCP10	25.1386	78.87537	298.498								
12	GCP11	25.10754	78.83804	333.445								
13	GCP12	25.09175	78.82511	320.494								
14	GCP14	25.12835	78.85573	314.15								
15	GCP15	25.11573	78.86688	324.718								
16												
17												
18												
19												
20												
21												
22												

Figure 5: Changing DMS to DD

3.1 Formula for DMS to DD conversion:

3.1 Formula for DMS to DD conversion:

Clipboard Font Alignment Number

E2 : X ✓ fx =B2+C2/60+D2/3600

	A	B	C	D	E	F	G	H	I	J	K
1	Description	Latitude					Longitude				
2	GCP1	25	6	31.799	25.10883		78	46	38.083	78.77725	
3	GCP2	25	5	25.233	25.09034		78	46	21.568	78.77266	
4	GCP3	25	5	41.105	25.09475		78	45	31.24	78.75868	
5	GCP4	25	6	30.238	25.1084		78	44	33.56	78.74266	
6	GCP5	25	5	9.889	25.08608		78	44	44.615	78.74573	
7	GCP6	25	5	16.27	25.08785		78	48	27.471	78.80763	
8	GCP7	25	6	38.738	25.11076		78	48	58.931	78.81637	
9	GCP8	25	5	45.911	25.09609		78	47	42.144	78.79504	
10	GCP9	25	7	5.754	25.11827		78	50	4.591	78.83461	
11	GCP10	25	8	18.95	25.1386		78	52	31.328	78.87537	
12	GCP11	25	6	27.14	25.10754		78	50	16.935	78.83804	
13	GCP12	25	5	30.29	25.09175		78	49	30.398	78.82511	
14					0					0	
15	GCP14	25	7	42.06	25.12835		78	51	20.623	78.85573	
16	GCP15	25	6	56.616	25.11573		78	52	0.755	78.86688	
17											
18											
19											

Figure 6: Formula DMS to DD

4 Adding GCP points on Google Earth:

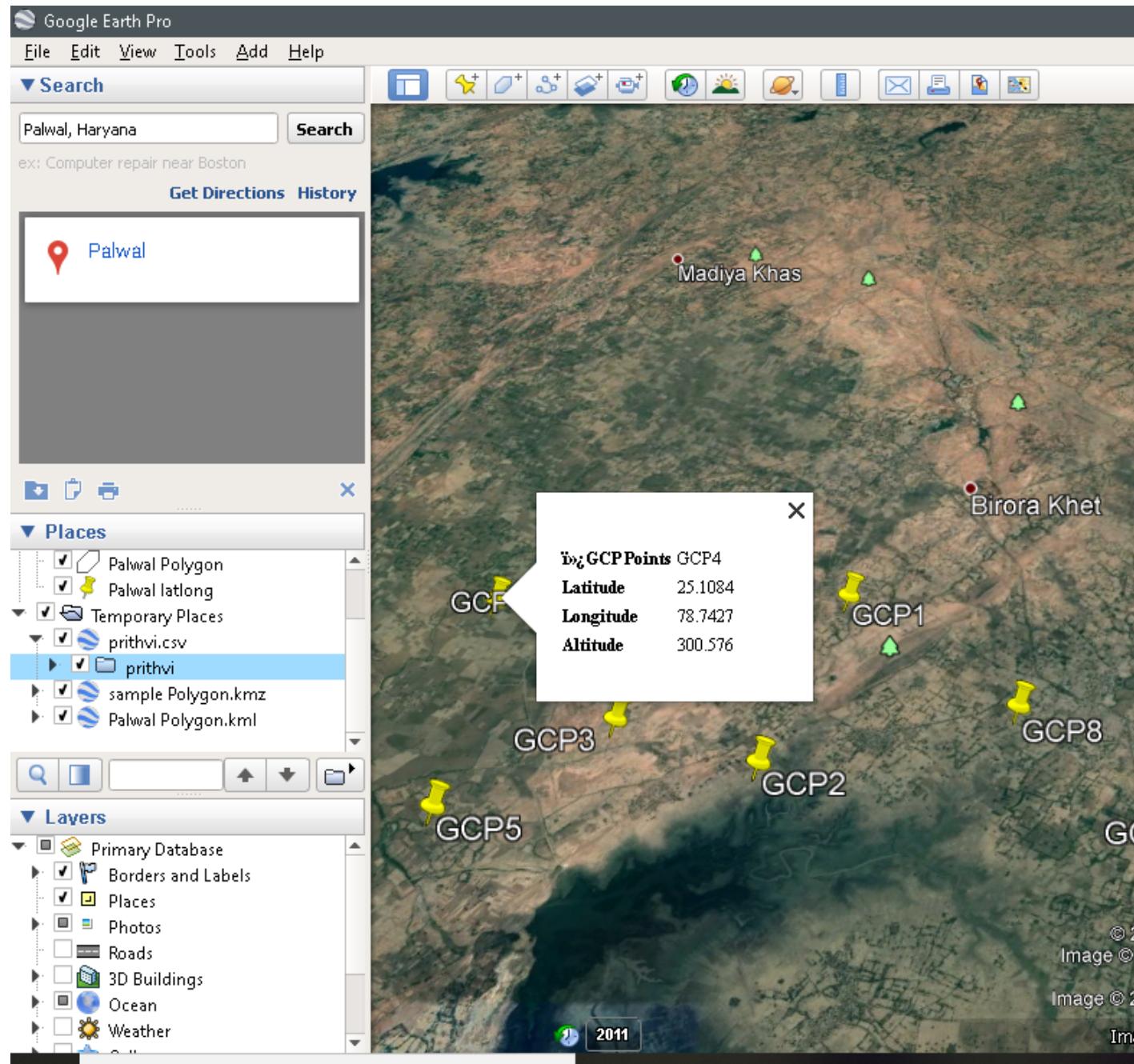


Figure 7: GCP Points

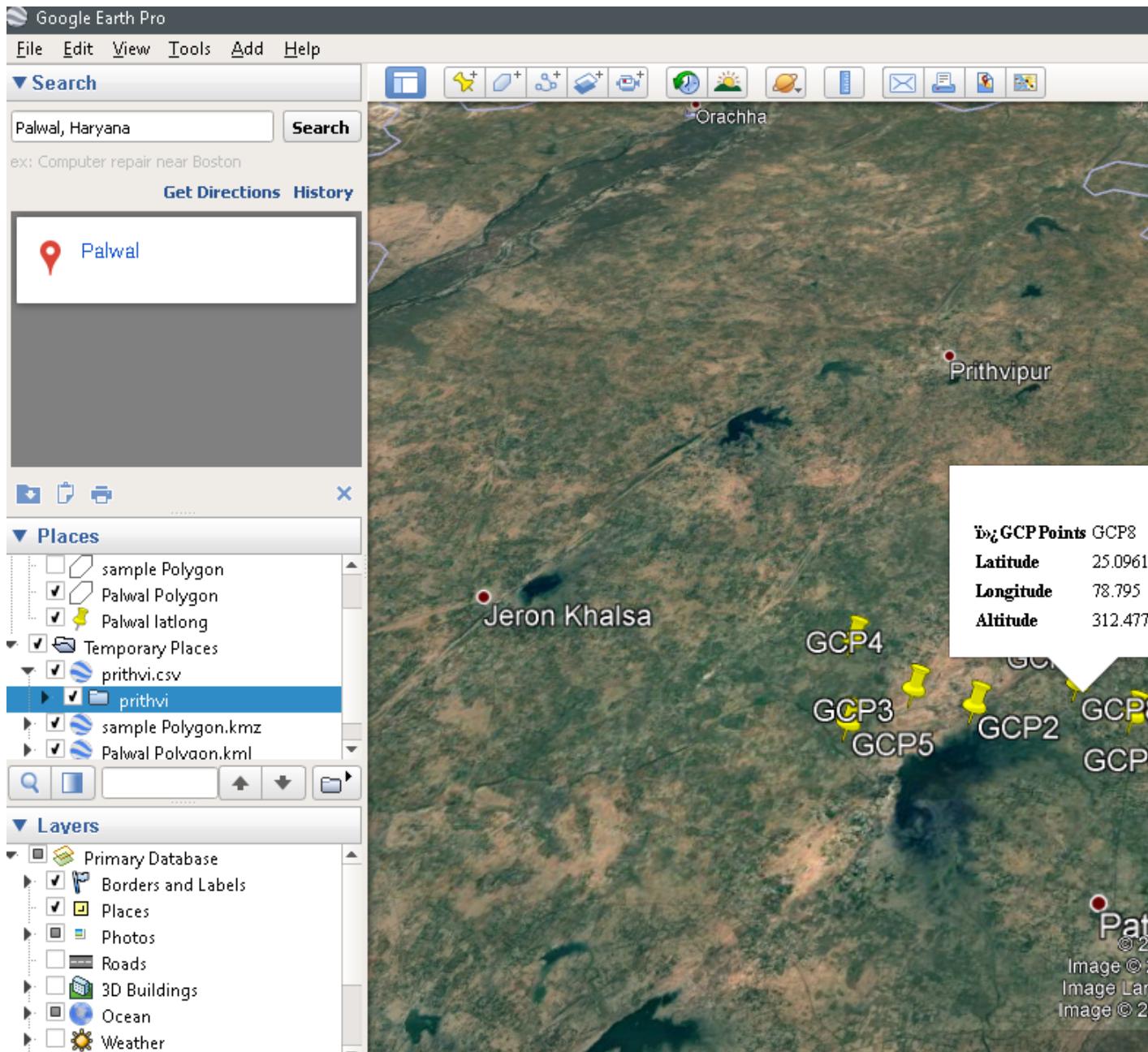


Figure 8: GCP Points

References

- [1] Todd C Patterson. Google earth as a (not just) geography education tool. *Journal of Geography*, 106(4):145–152, 2007.