

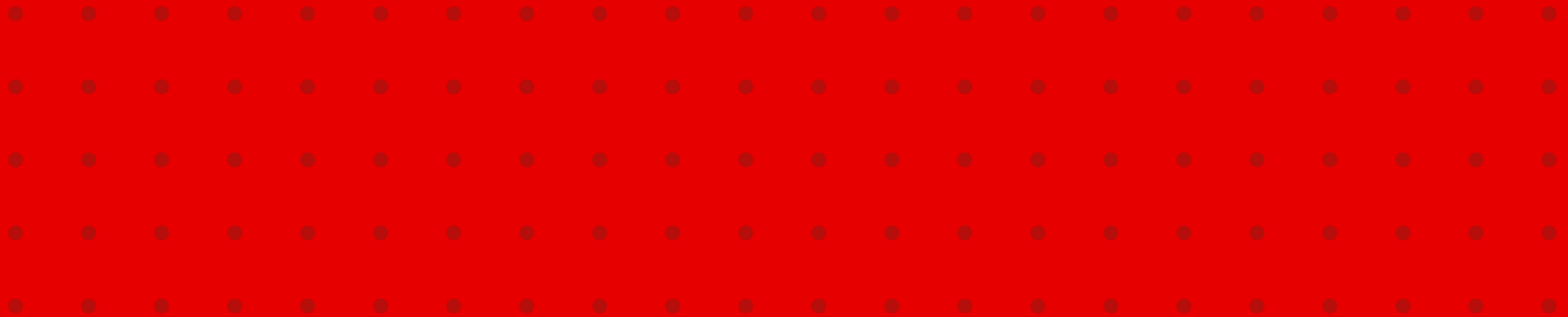
# Eyes în the Sky - Tehnologia UAV și Imagini de înaltă rezoluție pentru activități de Cadastru General

# Cadastru– evoluția tehnologiilor





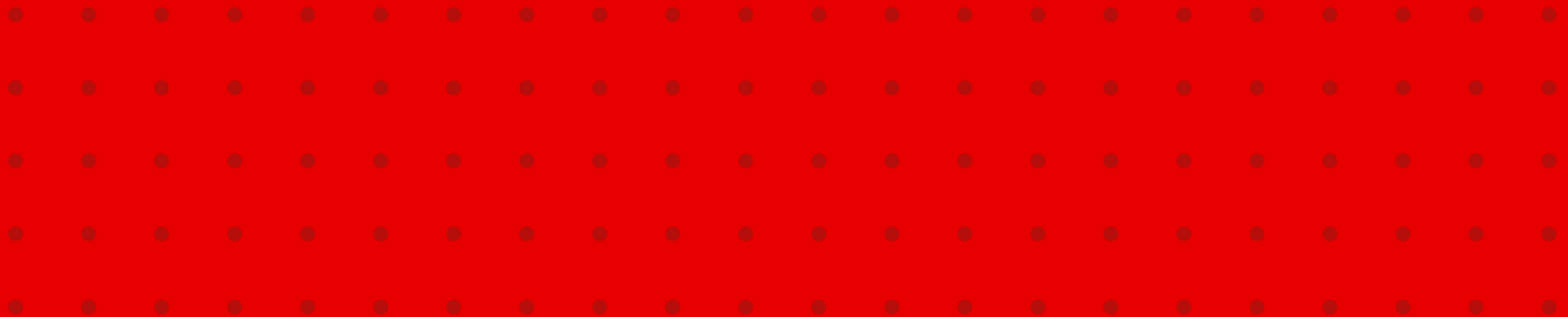
# De ce UAV?



## De ce UAV?

- Imagini de înaltă rezoluție (până la 1 cm/px);
- Costuri reduse;
- Productivitate sporită comparativ cu tehnicile tradiționale de măsurare;
- Plafon de zbor sub nori;
- Timp redus de obținere a produselor;
- Suportă o varietate mare de senzori: optic vizibil, multispectral, termal și video;
- Poate fi utilizat în zone greu accesibile;

# UAV marcaTeamnet

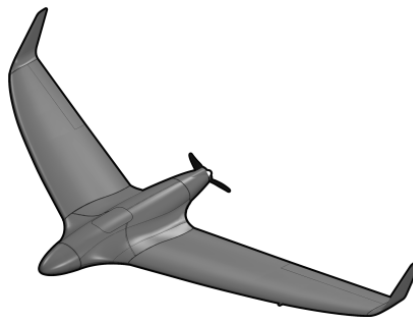


# Sistemul Hirrus UAV



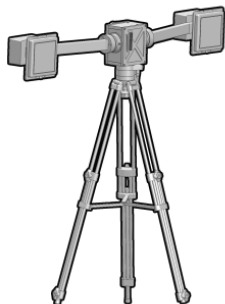
Teamnet

# Sistemul Hirrus UAV

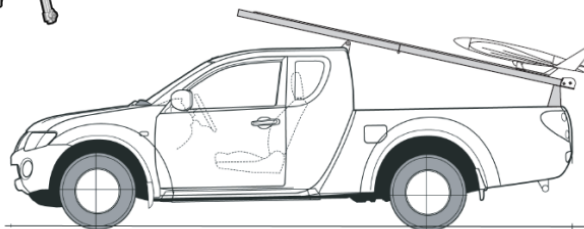


Aerial vehicle

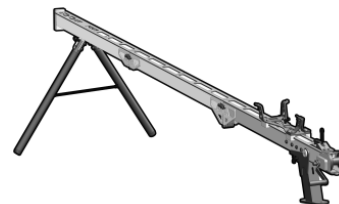
Ground Data Terminal



Ground Control Station



Launcher Vehicle



Launcher

# Sistemul Hirrus UAV

- **Masa totală:** 9 kg;
- **Motor:** electric;
- **Deschiderea aripilor:** 3,3 m;
- **Autonomie:** 3 ore/set de baterii;
- **Altitudinea maximă de zbor:** 3000 m;
- **Raza:** 30 km;
- **Sezori:** vizibil, termal, multispectral, video;
- **Sarcina totală:** 0.9 kg;
- **Viteza de croazieră:** 80 km/h;
- **Sistem de lansare:** catapultă automată;
- **Sistem de recuperare:** parașută;

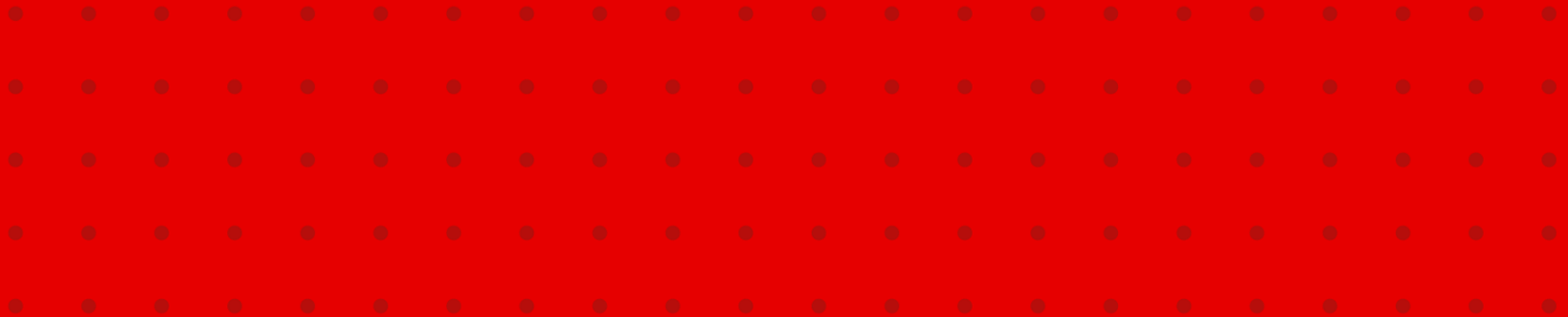


# Sistemul Hirrus UAV– Parametri fotogrammetrici

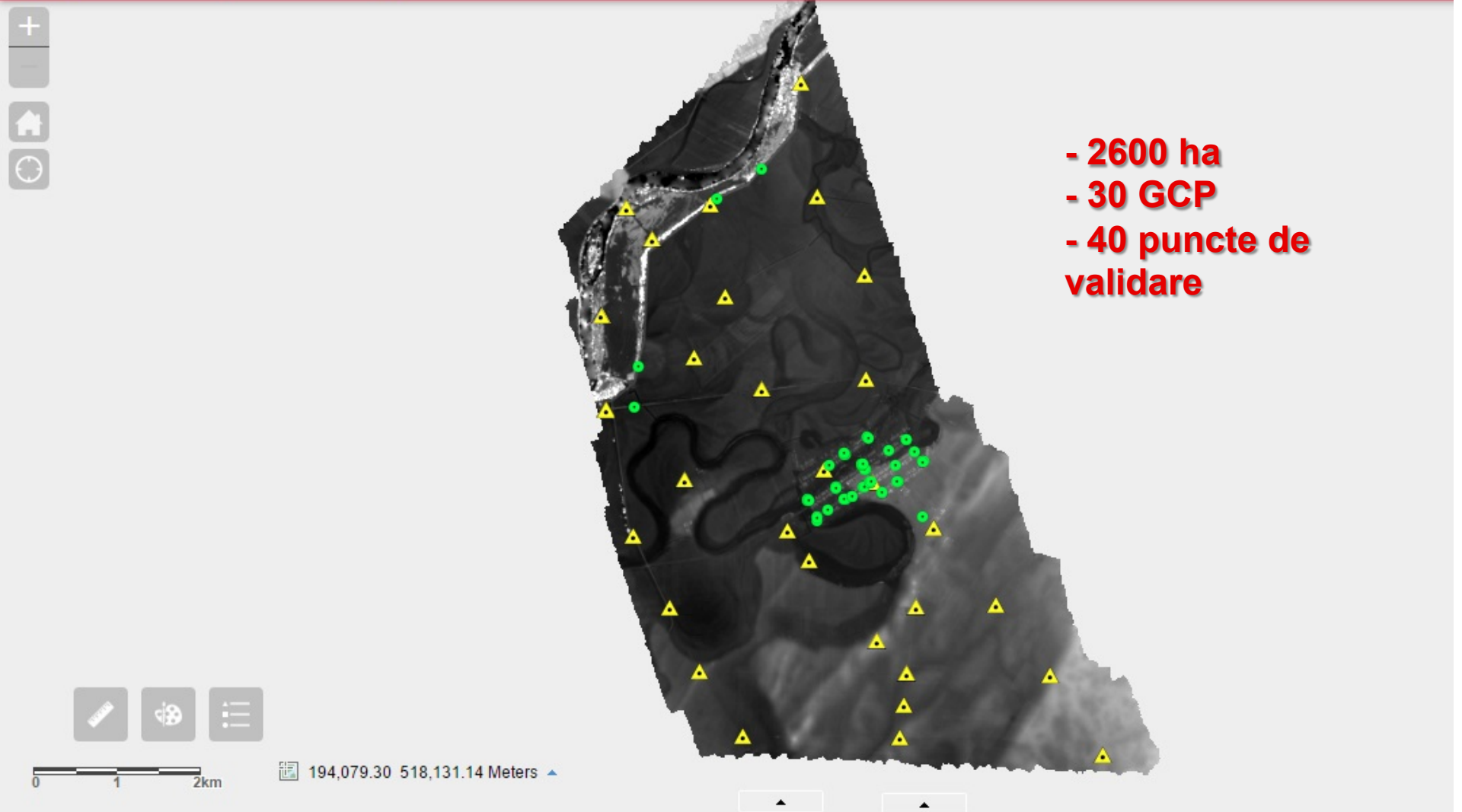
- **Senzor fotogrammetric**– gyro-stabilizat pe ruluu;
- **Zonă de acoperire/ 3 ore de zbor:**
  - 4000 ha la 10 cm/pixel,
  - 2000 ha la 5 cm/pixel,
  - 1000 ha la 2.5 cm/pixel
- **Număr de ore de zbor/ zi:** cu multiple seturi de baterii (3 ore/set)



# Produce



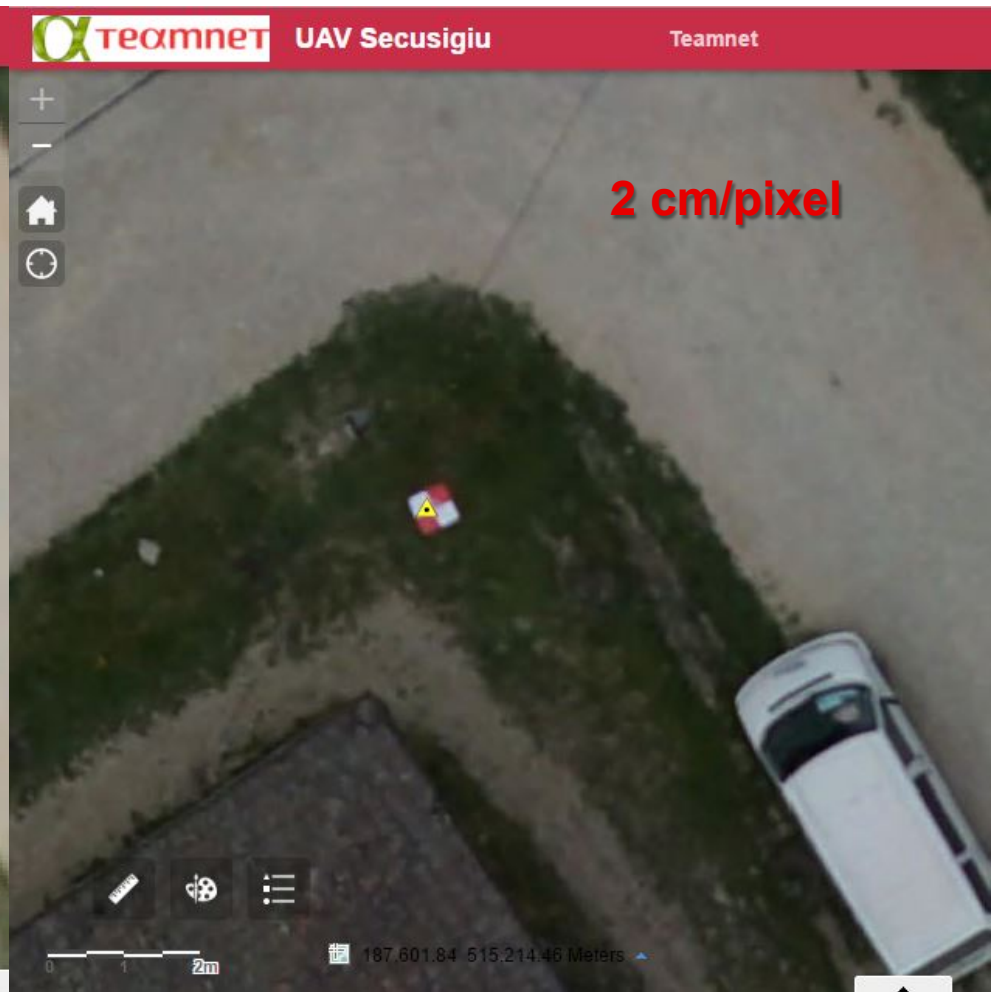
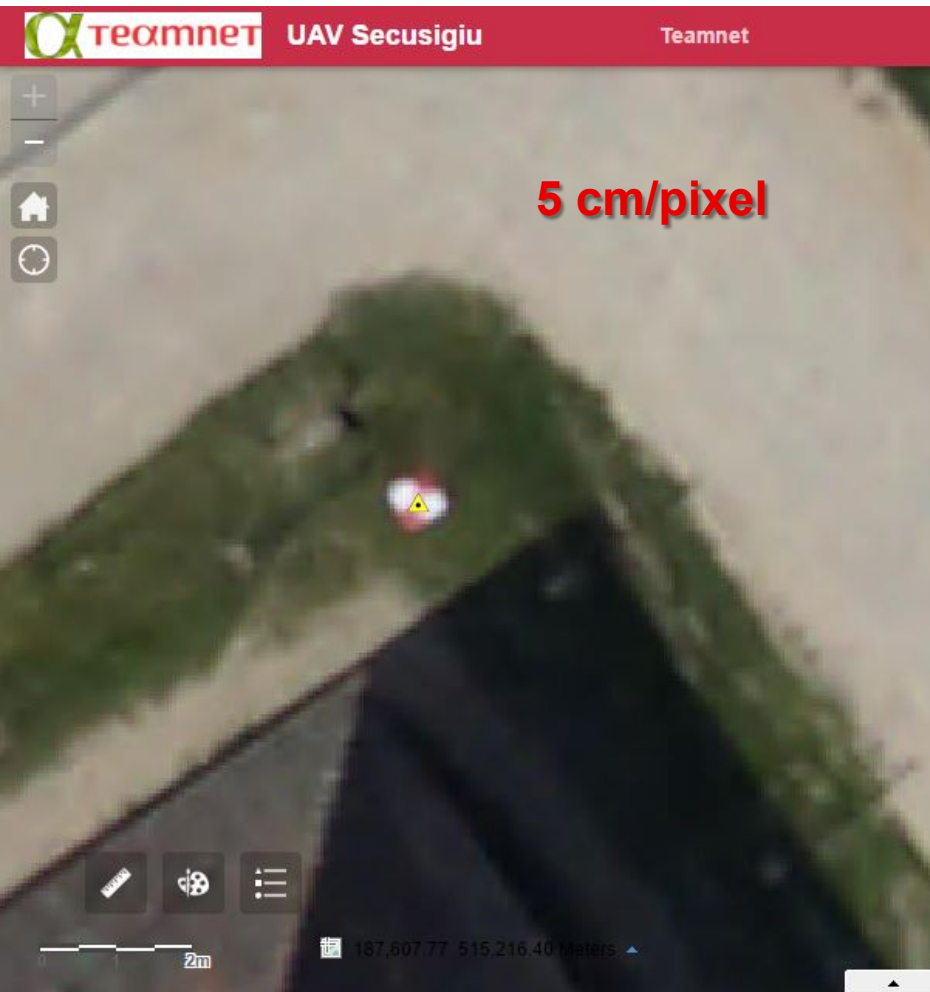




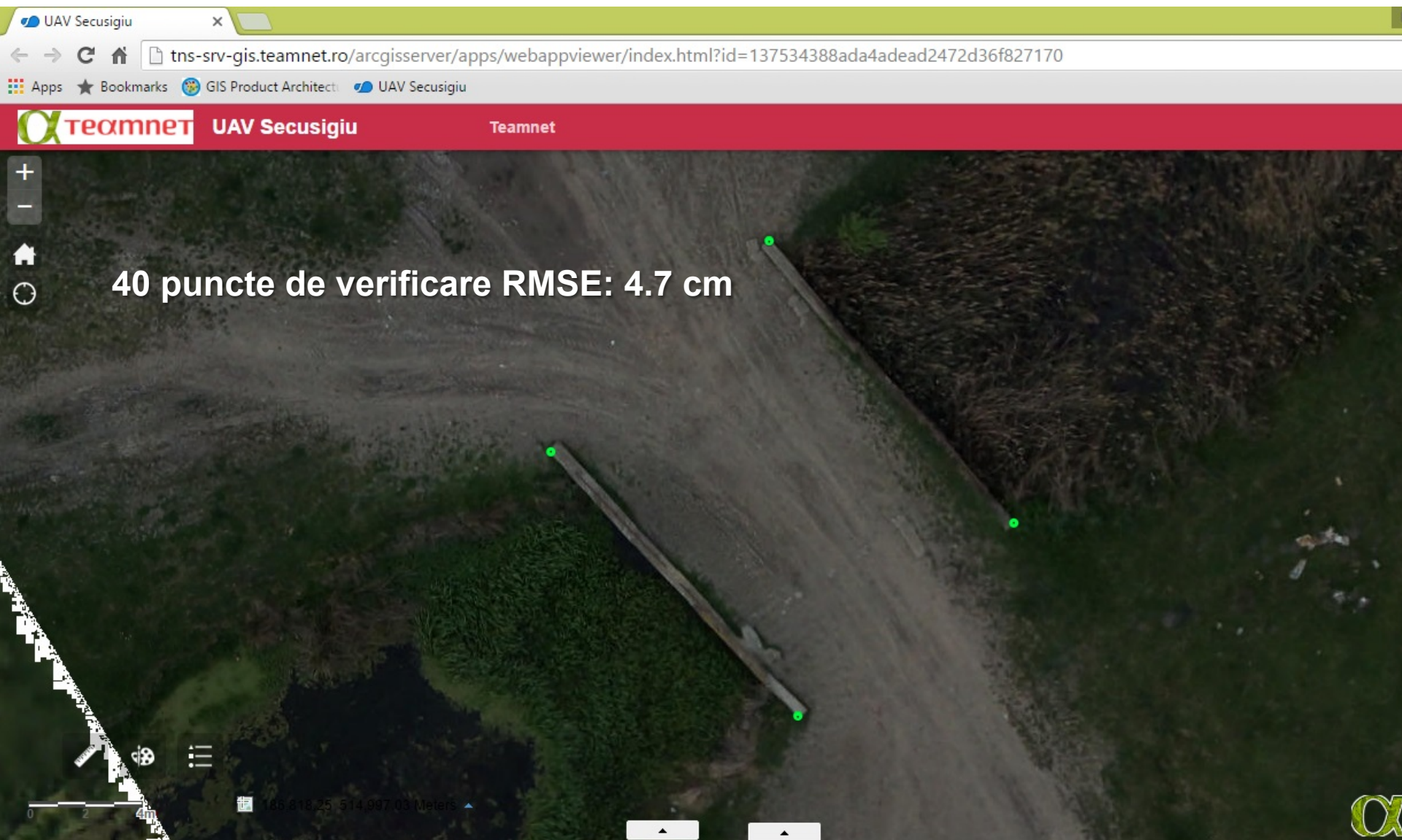




Markere 50x50 cm RTK 2 cm,  
30 GCPs RMSE 2.5 cm.



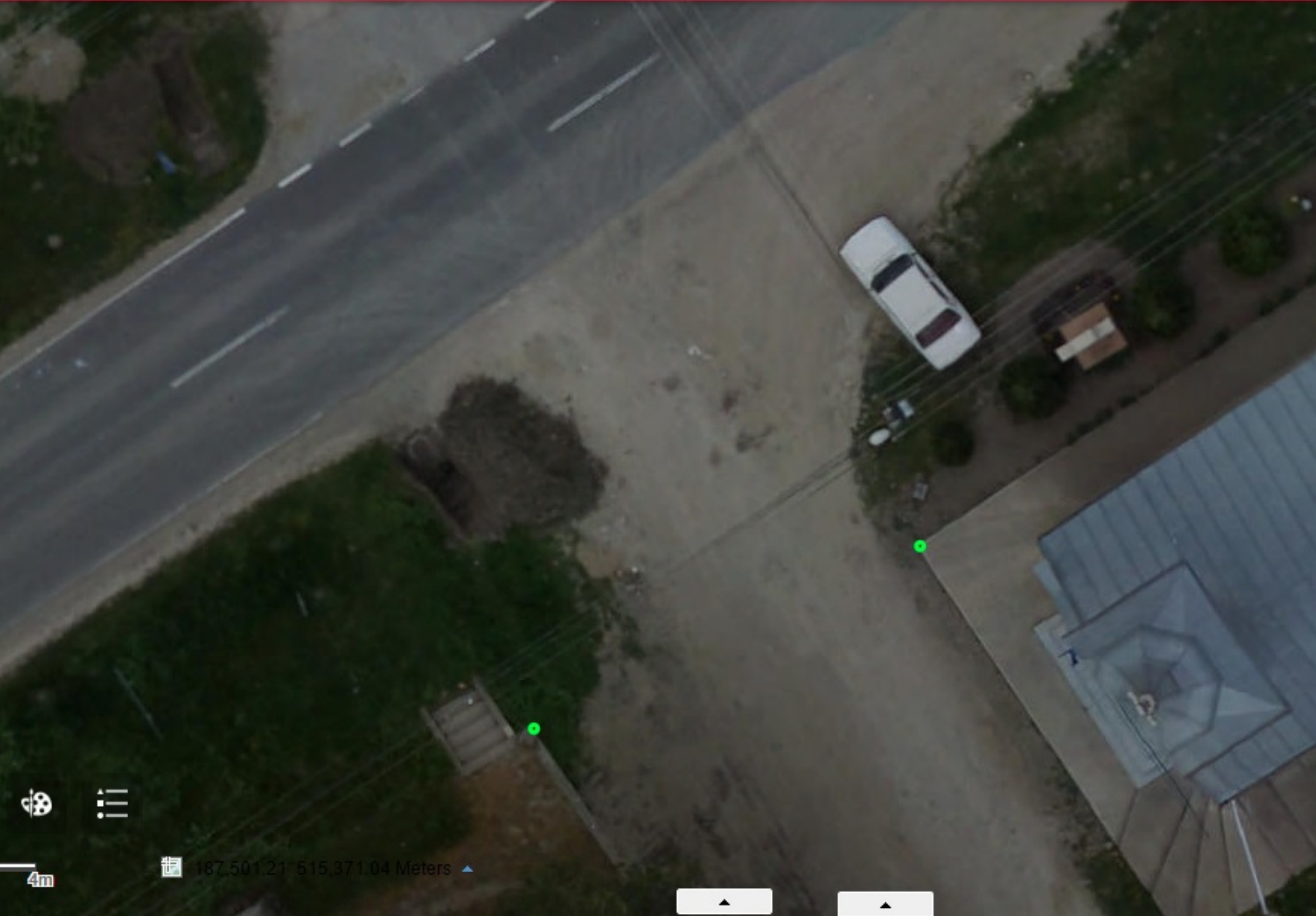
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An aerial photograph of a two-lane asphalt road with white dashed lane markings. The road runs diagonally from the top-left towards the bottom-right. On the left side of the road, there is a concrete curb and some green vegetation. On the right side, there is a concrete shoulder and a drainage ditch. Two small green circular markers with black dots in the center are placed on the road surface, one near the top-left and one near the bottom-right. The text "40 puncte de verificare RMSE: 4.7 cm" is overlaid in the center of the image.

40 puncte de verificare RMSE: 4.7 cm





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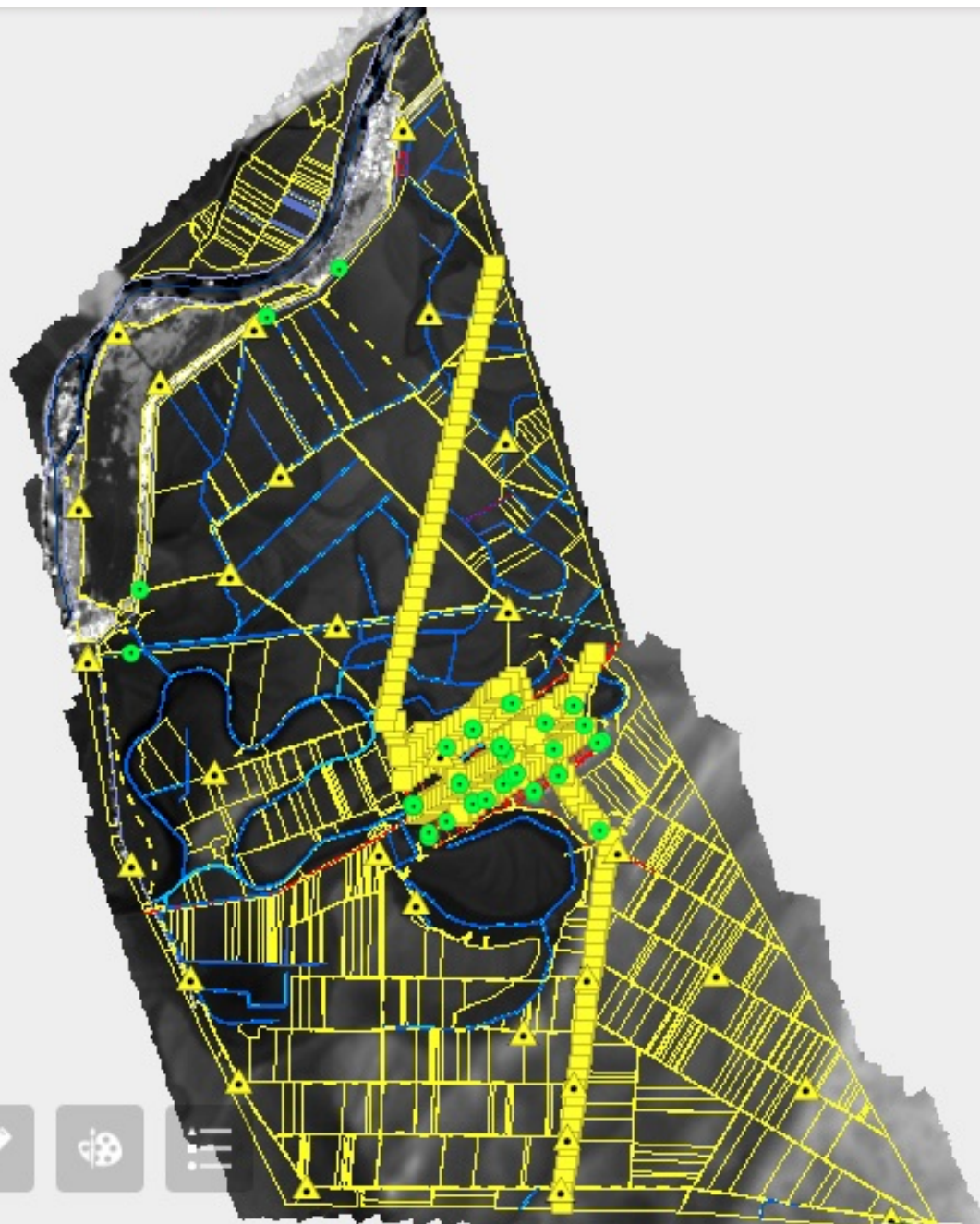


187,295.64 515,069.78 Meters









0 1 2km

189,684.49 520,745.78 Meters

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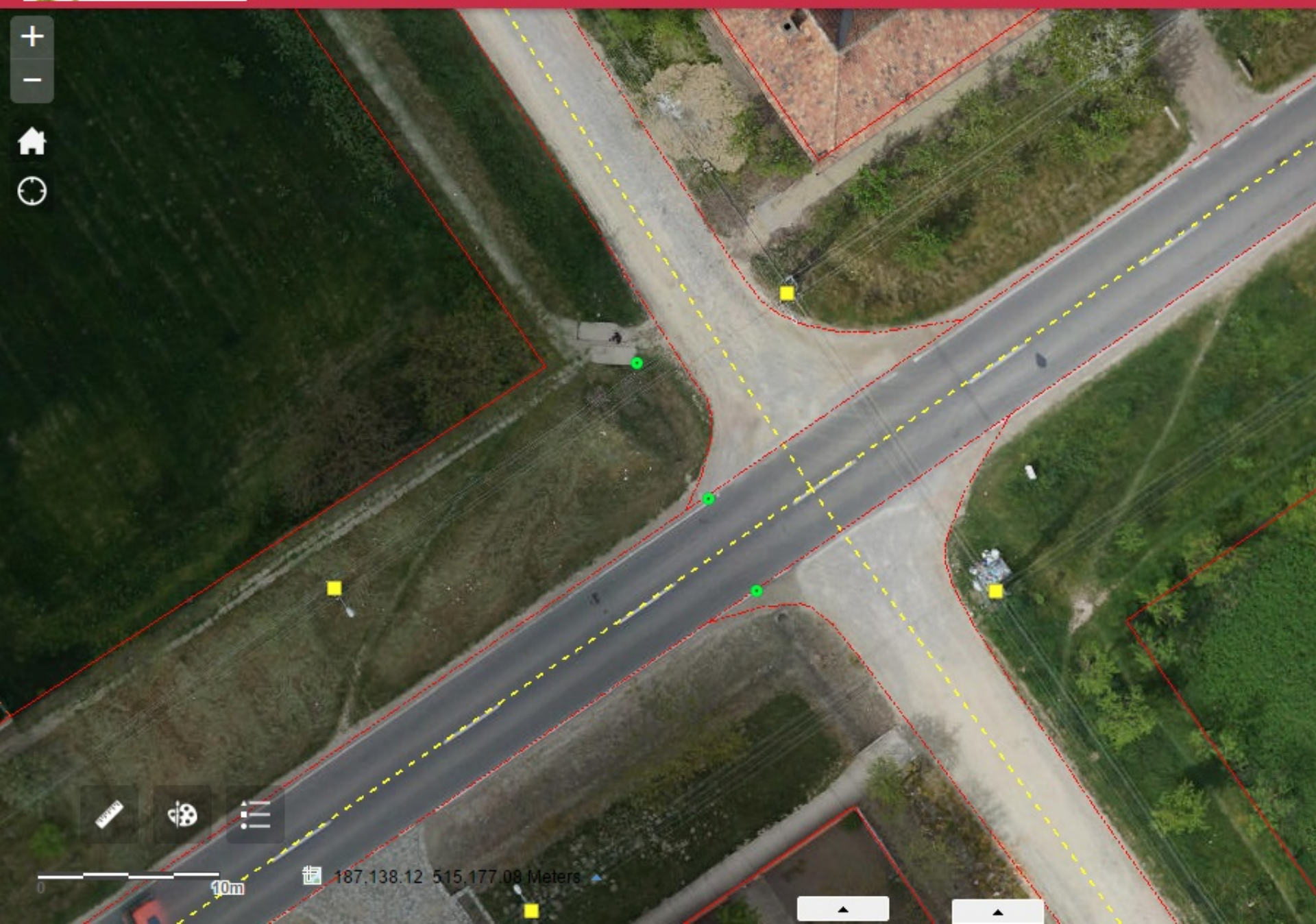
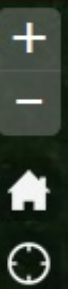












187,138.12 515,177.08 Meters







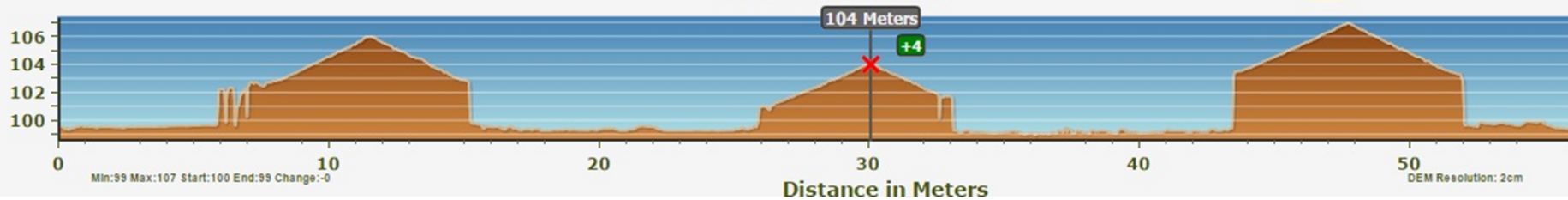
Elevation in Meters

## Elevations Profile



Meters


Line

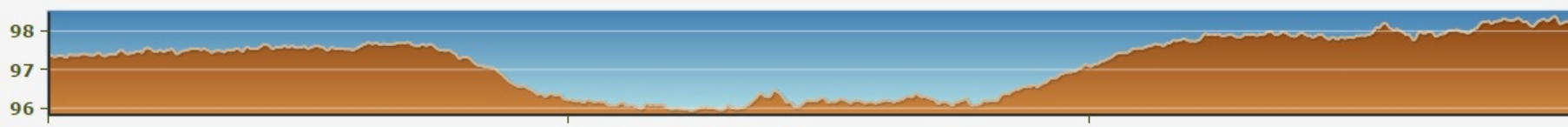




Elevation in Meters

### Elevations Profile

 Kilometers



Min:96 Max:98 Start:97 End:98 Change:1

Distance in Kilometers

DEM Resolution: 20

## Concluzii

- Este util pentru măsurători și validarea măsurătorilor existente;
- Se reduce timpul petrecut pentru măsurători clasice.