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Webinar on the provision of Terrain and Obstacle (TOD) and AIP Datasets

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From regulation to operational
use of digital datasets



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Operational Use Case

From regulation to operational use of digital datasets



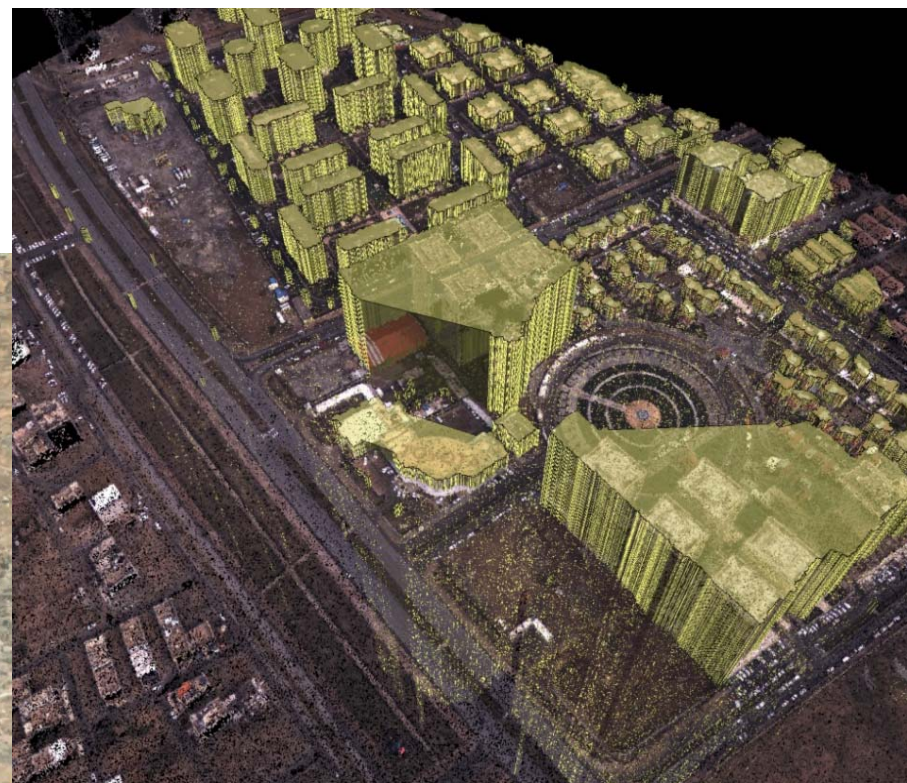
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Step 1 : eTOD acquisition (2016-2017)

- 80850 raw pictures
 - 1 Tb raw data
 - 150 flights
-
- ✓ 0.3m native resolution
 - ✓ 0.3m vertical accuracy





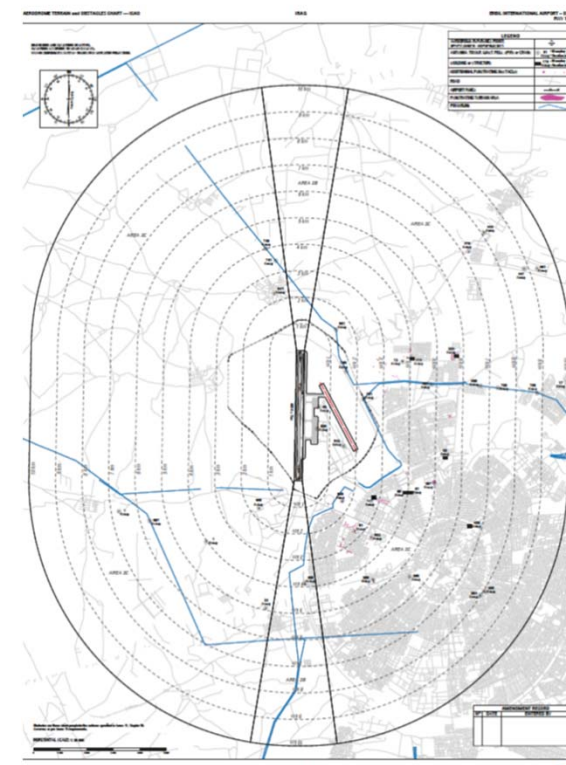
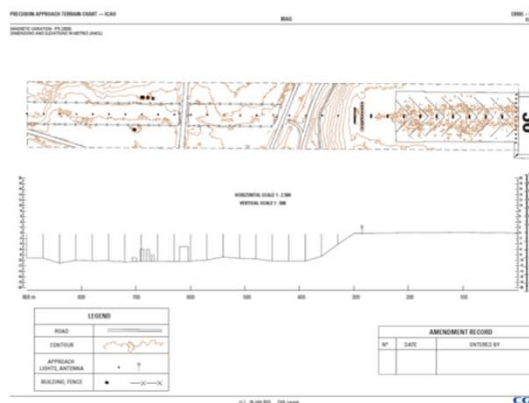
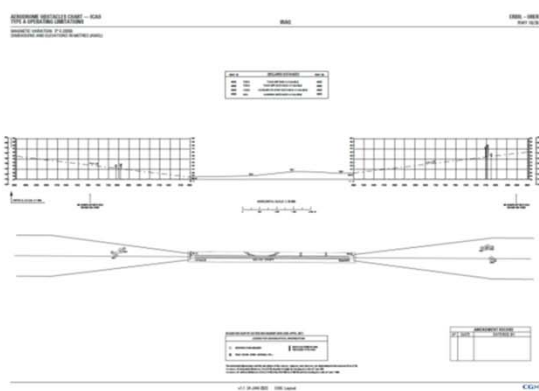
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Step 2 : eTOD dataset post-treatment (1/3)

- ICAO Annex 15 surfaces assessment
 - TOD chart creation (area 2, 3)
 - ICAO PATC chart creation (area 4)
 - ICAO type A chart creation (area 2b)





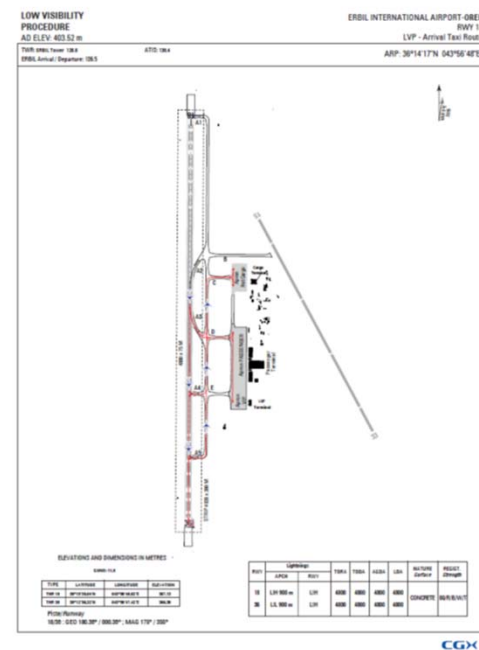
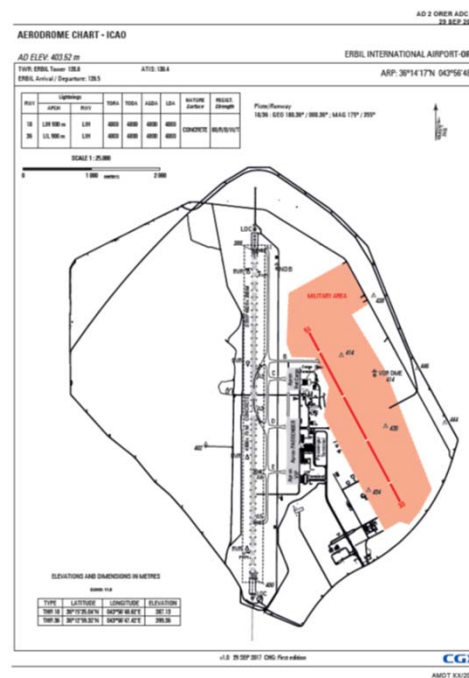
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Step 2 : eTOD dataset post-treatment (2/3)

- AMDB-like creation
 - ADC chart creation
 - PDC chart creation
 - LVP charts creation (customer need)





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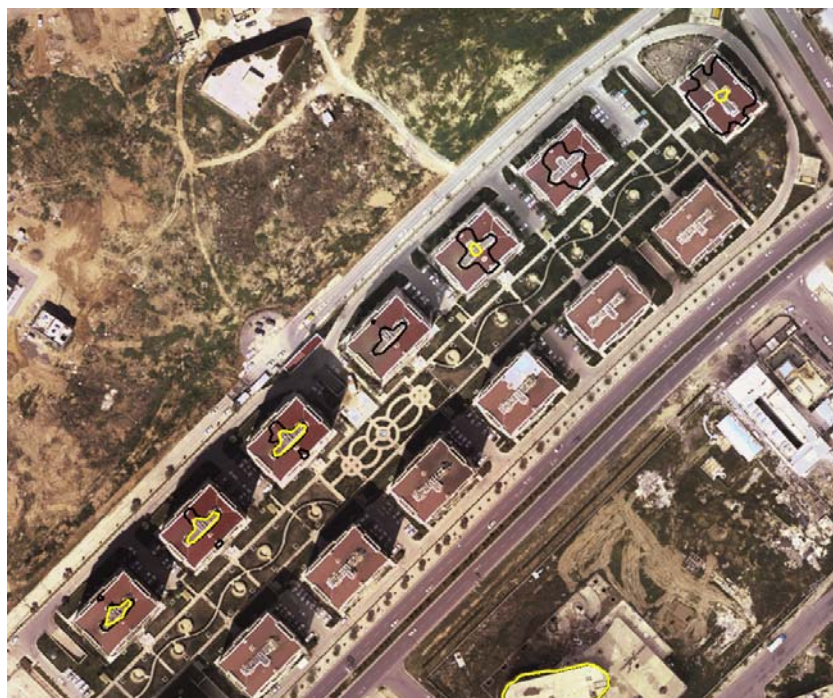
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eTOD key highlight

Annex 15 surfaces

Continuous 1.2%
climb



Annex 14 surfaces

Flat inner
Horizontal surface



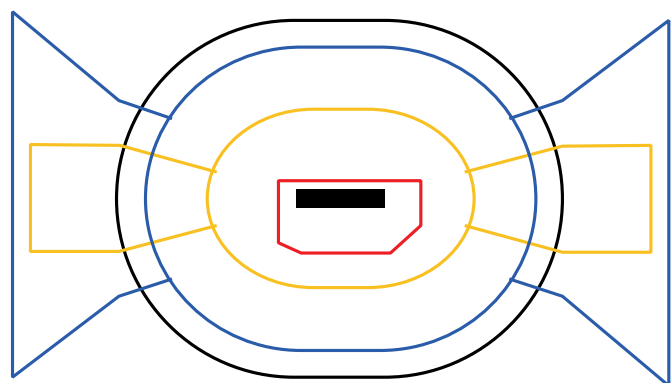
eTOD key highlight



eTOD is not covering all the airport needs

eTOD is focused on airline operation. Additional obstacle survey shall be performed for Annex 14 or IFP design needs

➔ **Opportunity** to mutualize the data acquisition and costs



- eTOD AOI
- Airport Operations AOI
- Airport Mapping AOI
- Procedure Design AOI





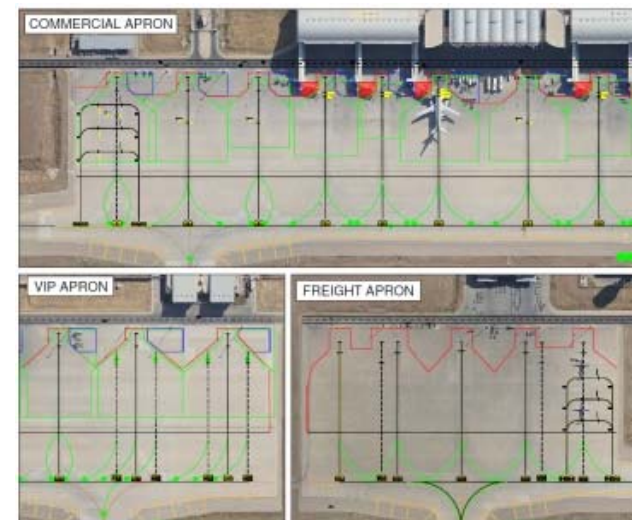
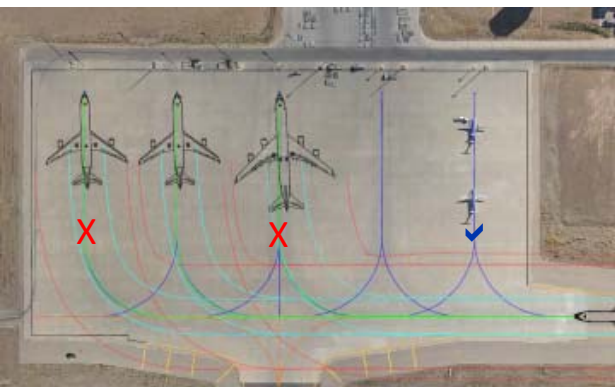
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Step 3 : Airport conformity assessment (2017)

- Detection of inappropriate markings layout from aerial imagery & AMDB
- ➔ full update of airport markings





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Step 4 : IFP update (2019)

Review and upgrade of IFPs

- Study of ILS cat II minima in prevision of system upgrade
- Implementation of RNP to ILS approaches
- Creation of LNAV/VNAV minima
- New strategy for SIDs / STARS as per new country routes



Step 5 : OLS optimization (2019)

Coordination between airport and city

- Need to release the constraint of OLS around the airport
- Anticipation of ICAO Annex 14 modification

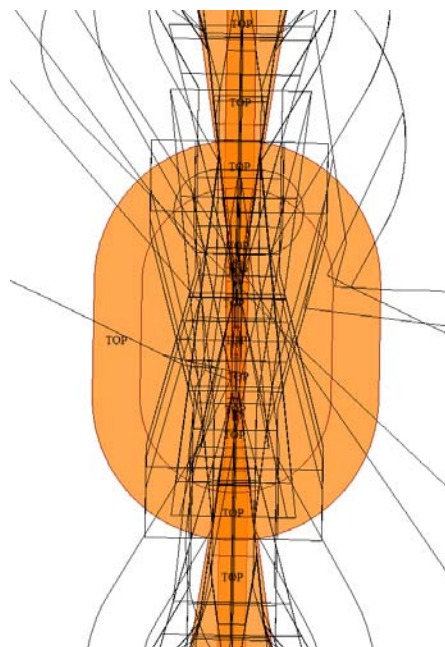
⇒ Analysis of the use of each OLS surface individually
⇒ Definition of a new Concept of Operation



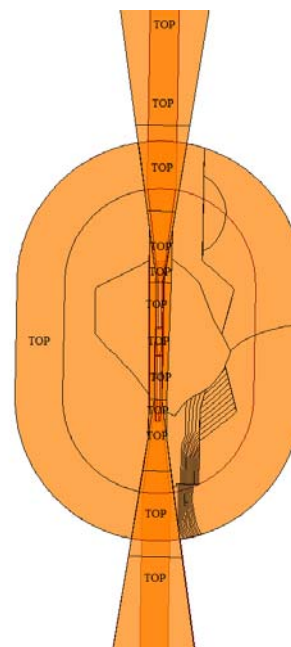


Step 5 : OLS optimization (2019)

- Overlay of current OLS with 3D IFP surfaces



- Definition of **adapted** OLS surfaces to allow maximum building height





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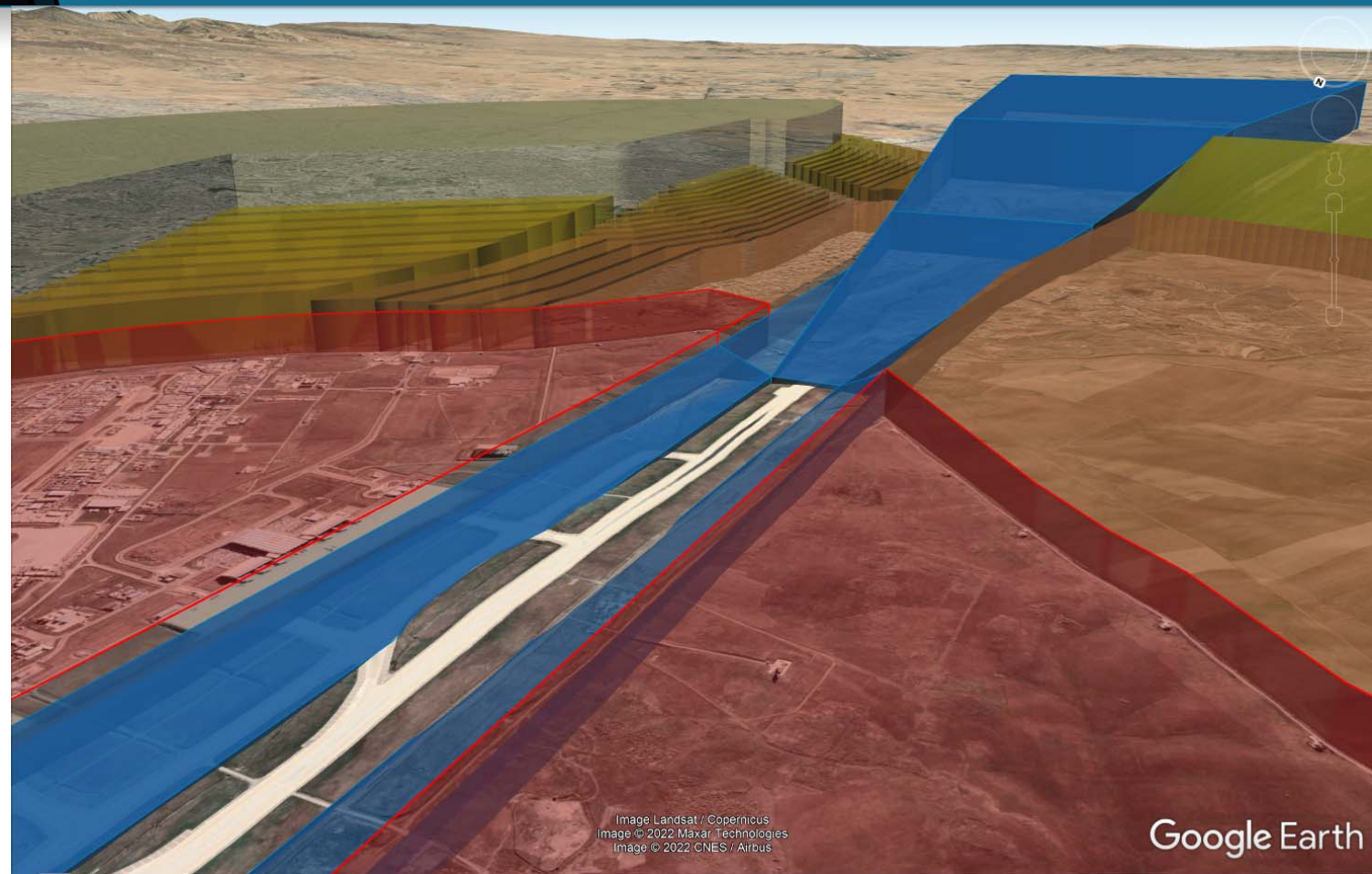


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Google Earth



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Step 6 : What's next ?

- **Monitoring** of obstacle environment between airport and city
- Regular **IFP maintenance** (at least every 5 years)
- Focus on **development** projects



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THANK YOU

