

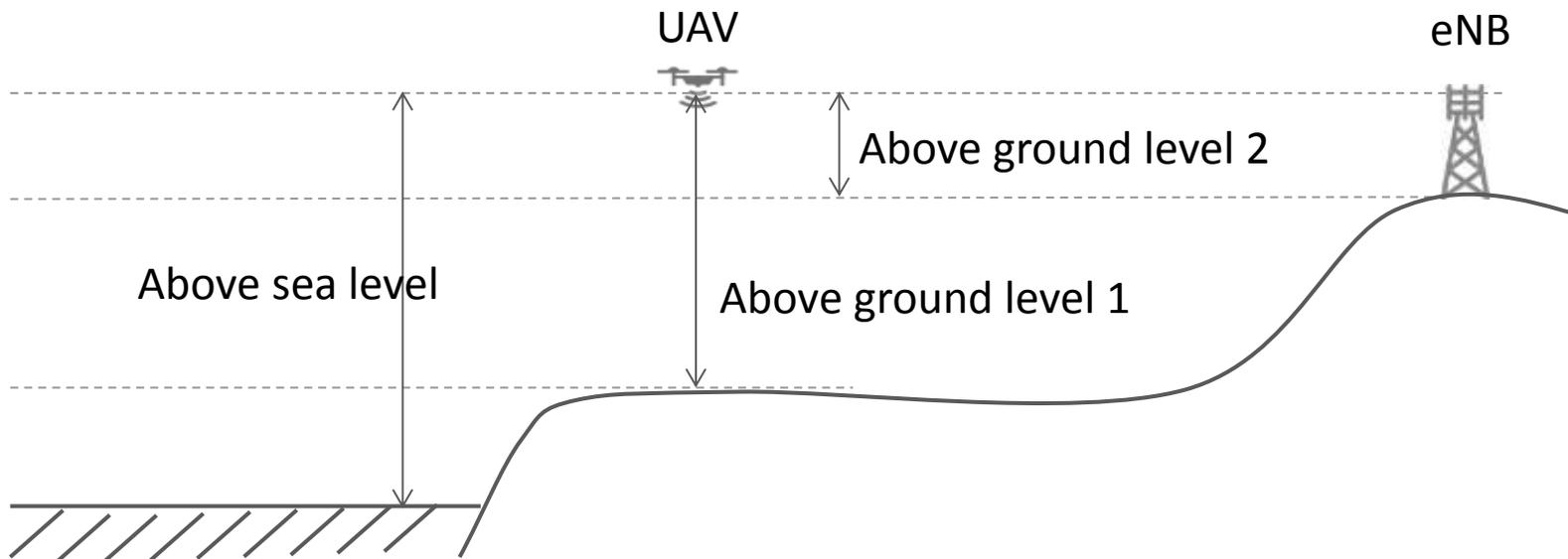
Discussion on the height range for eventH1

KDDI Corporation, Kyocera

1. Clear definition for above ground level

Proposal 1 : RAN2 should have clear understanding for what “above ground level” means (e.g. 1 or 2) , and should capture the definition for “above ground level” in Spec

1. UAV above sea level - the ground level of UAV
2. UAV above sea level - the ground level of eNB



2. Devices for height measurement

GPS



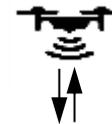
- Altitude above the WGS84 reference ellipsoid
- Measured results can be converted to above sea level

Barometer



- Atmospheric pressure
- Measured results can be converted to above sea level

Lidar



- Measuring distance by sending pulsed laser and detecting the reflection
- Lidar can measure above ground level

Observation : If UAV has Lidar, it can measure above ground level directly. Otherwise UAV has to calculate above ground level from above sea level, so UAV should have the data of ground level for calculation. Some UAVs may not have the ground level data for calculation.

Proposal 2 : RAN2 should introduce both “above ground level” and “above sea level”

3. Height range

Amsterdam 0m



Reno 1,373m



La Paz(Bolivia) 3,640m



Munich 520m



Mexico City 2,250m



Mount Fuji 3,775m



Proposal 3 : The height range should be as follows

Pictures from Wikipedia

- For above ground level, from 0 to 300 (20m step, 4bit) (aligned with SI conclusion)
- For above sea level, from -20 to 5080 (20m step, 8bit)

4. Conclusion

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