

A. Appendix

A.1. Aerial Imagery Source Files

The imagery in the KAKUMAAERIAL dataset was generated from the raw aerial imagery scenes listed in Table 4.

A.2. OSM Query Details

Buildings were queried using all values for the `building` tag, along with `man_made=water_tower` and `amenity=shelter`, since these structures, though not tagged as buildings in OSM, resemble them in the imagery. For solar-related features, we queried `generator:source=solar` for solar-powered generators, as well as `lamp_type=solar_lamp` for solar-powered street lamps. Sanitation facilities were retrieved using the `amenity=toilets` tag. To ensure consistency across annotations, point features such as toilets and solar lamps were converted into polygons.

Title	URL
Kalobeyi Mission 1	https://oin-hotosm.s3.amazonaws.com/6399cfd844f576000605a203/0/6399cfd844f576000605a204.tif
Kalobeyi 3A Flight 1	https://oin-hotosm.s3.amazonaws.com/63b434b73fb8c100063c55e1/0/63b434b73fb8c100063c55e2.tif
Kalobeyi 3A Flight 2	https://oin-hotosm.s3.amazonaws.com/63b436403fb8c100063c55e4/0/63b436403fb8c100063c55e5.tif
Kalobeyi 3A Flight 3	https://oin-hotosm.s3.amazonaws.com/63b436403fb8c100063c55e4/1/63b436403fb8c100063c55e6.tif
Kalobeyi 3A Flight 4	https://oin-hotosm.s3.amazonaws.com/63b436403fb8c100063c55e4/2/63b436403fb8c100063c55e7.tif
Kakuma Mission 15A	https://oin-hotosm.s3.amazonaws.com/63d28fd0a72c5f000668856d/0/63d28fd0a72c5f000668856e.tif
Kakuma Mission 15B	https://oin-hotosm.s3.amazonaws.com/63b460383fb8c100063c55fb/0/63b460383fb8c100063c55fc.tif
Kakuma Mission 17A Flight 1	https://oin-hotosm.s3.amazonaws.com/63b457ba3fb8c100063c55f0/0/63b457ba3fb8c100063c55f1.tif
Kakuma Mission 17B Flight 1	https://oin-hotosm.s3.amazonaws.com/63b45f083fb8c100063c55f5/0/63b45f083fb8c100063c55f6.tif
Kakuma Mission 17B Flight 2	https://oin-hotosm.s3.amazonaws.com/63b45f083fb8c100063c55f5/1/63b45f083fb8c100063c55f7.tif
Kakuma Mission 17B Flight 3	https://oin-hotosm.s3.amazonaws.com/63b45f083fb8c100063c55f5/2/63b45f083fb8c100063c55f8.tif

Table 4. Scene titles and URLs for the 11 scenes used to generate the KAKUMAAERIAL benchmark dataset. The dataset and additional details can be found on Zenodo at <https://zenodo.org/records/14607339>.