



OpenTopography Data Description Worksheet

Please provide the information below in order to help streamline the OpenTopography data ingestion process and insure data are properly acknowledged and attributed. If the information requested is explicitly specified in dataset metadata it is not necessary to duplicate it below (e.g. coordinates). For examples from other OT-hosted data see: opentopography.org/data.

1. DATASET FULL NAME (MAX LENGTH = 75 CHARACTERS)

Virginia Tech StREAM Lab Summer 2024 Drone Lidar Survey

2. RECOMMEND DATASET SHORT NAME (MAX LENGTH = 15 CHARACTERS E.G., ISMEP_BC)

SL_Summer2024

3. OVERVIEW DESCRIPTION (ONE OR TWO SHORT PARAGRAPHS – 3200 CHARACTERS MAX)

Two drone lidar flights were conducted on August 7, 2024, over the Virginia Tech StREAM Lab (https://www.bse.vt.edu/research/facilities/StREAM_Lab.html) during leaf-on conditions. The lidar data were collected using a Matrice 350 RTK drone (DJI, Shenzhen, Guangdong, China) with a Zenmuse L1 lidar unit (DJI, Shenzhen, Guangdong, China). From these two flights, a classified point cloud, a digital terrain model (DTM) with interpolated stream bathymetry (0.1 m resolution), and a canopy height model (CHM; 0.1 m resolution) were created. These data were collected to support ecohydrological modeling research. The drone lidar survey of the StREAM Lab was replicated in Spring 2017, Fall 2018, Winter 2021, Summer 2024, and Spring 2026. The point clouds and raster products from the Spring 2017 (<https://doi.org/10.5069/G95X275P>) and Winter 2021 surveys (<https://doi.org/10.5069/G9348HK3>) are available on OpenTopography.

4. HORIZONTAL COORDINATE SYSTEM (E.G. UTM Z12N WGS84 METERS)

NAD83(2011) / UTM zone 17N [EPSG: 6346]

5. VERTICAL COORDINATE SYSTEM (E.G. NAVD88)

NAVD88 [EPSG: 5703]

6. LOGOS (URLS OR ATTACHEMENTS, INC. PREFERRED DISPLAY ORDER)

NA

7. METADATA DOCUMENT (URL OR ATTACH – N.A. IF PROVIDED WITH DATA)

See MetaData_StREAMLabSummer2024_final.pdf

8. DATASET CITATION LANGUAGE

(MAX LENGTH = 1500 CHARACTERS. MORE INFO: [HTTP://WWW.OPENTOPOGRAPHY.ORG/CITATIONS/](http://www.opentopography.org/citations/))

Hession, W., Lehmann, L., Kobayashi, Y., Resop, J. (2026). Virginia Tech StREAM Lab Summer 2024 Drone Lidar Survey.

9. DATASET KEYWORDS (MAX LENGTH = 200 CHARACTERS)

StREAM Lab, Blacksburg, Virginia, floodplain, stream, Stroubles Creek, creek, deciduous, vegetation, deciduous vegetation, lidar, laser scanning, drone, UAS, UAV

10. PROJECT ROLES (INCLUDE ORGANIZATION URLS AND PREFERRED ABBREVIATIONS OR ACRONYMS)

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