

Metadata Report

Note: This is a suggested template for descriptive metadata for datasets uploaded to the OpenTopography Community Dataspace. Information below is optional, but please fill in fields as appropriate. The goal of this document is to enable data reuse, so please provide as much information as possible.

Project Name

High Resolution Topography of the Yingwang Shan, Northern China, December 2023.

Summary

This data is a 0.84-m-resolution digital elevation model (DEM) of a drainage divide segment in the Yingwang Shan area of the Loess Plateau, North China. We used a small four-rotor Unmanned Aerial Vehicle (UAV), the DJI Phantom 4, to acquire stereo images of the area. Based on the Structure-from-Motion (SfM) method, we obtained the DEM with a spatial resolution of 0.84 m (the Yingwang Shan_UTM49N.tif). The data is a supplementary material for the manuscript “Quantifying the migration rate of drainage divides from high-resolution topographic data” submitted to the “Earth Surface Dynamics” journal. This study is supported by the CAS Pioneer Hundred Talents Program (E2K2010010) and the Fundamental Research Funds for the State Key Laboratory of Earthquake Dynamics (LED2021A02).

Personnel

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Site Information

- Site description

A drainage divide segment in the Yingwang Shan area of the Loess Plateau, North China.

- Site objective

The drainage divide of the Yingwang Shan and the hillslopes and river channels on its both sides.

- Site location (GPS cords and/or map)

36 ° 05 ' 31 " N; 109 ° 50 ' 09 " E.

- Site conditions
- Date/time spent at each site

2 Days.

Survey Results

- Equipment used

A four-rotor Unmanned Aerial Vehicle, the DJI Phantom 4.

- GPS solutions
- Errors
- Alignments
- Collection methods

Aerial photography.

Products

- Date of dataset collection

April, 2021

- Coordinate system of datasets

UTM 49N (WGS84)

- Spatial resolution

0.84m

- Horizontal Accuracy
- Vertical Accuracy
- Data formats

GeoTIFF

- Data processing methods

Structure-from-Motion

Misc Notes