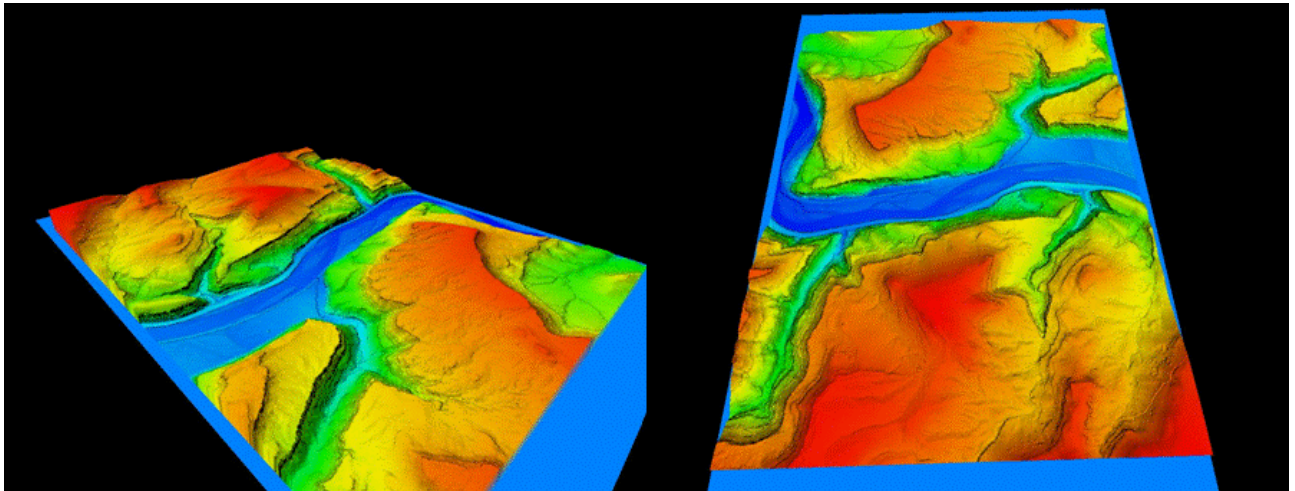


Product Specifications—Digital Elevation Model (DEM)

Product Description

A Digital Elevation Model (DEM) is a representation of the topology of the Earth's surface that can be used to generate orthophotography and contour elevation data and can be used in applications such as drainage modeling, land use studies, viewshed analysis, and other applications where an accurate model of the terrain surface is important. The grid points in the DEM are sampled to a regular, 5-meter spacing and contain both horizontal coordinates and vertical elevation information for locations on the Earth's surface. The Level 1 Ortho Only DEM is designed to support the rectification of 1-ft GSD orthophotography. The Level 2 5-ft Contour Capable DEM is designed to support both 1-ft orthophotography and the generation of 5-ft interval contour elevation data. Both products are created through softcopy stereo compilation of ADS40 digital sensor data flown to specifications designed to create 1-ft GSD orthophotography.



Features, Benefits, and Applications

Product Features	Product Benefits
Stereo compiled and edited	Eliminates warping and smear, increased accuracy of data
Current coverage of most major metropolitan areas	Recent data that includes new development and represents current ground conditions
Bare Earth data elevation data	Most accurate model of the ground surface

Specifications

Product Attribute	Level 1 DEM Ortho Only DEM Description	Level 2 DEM 5-ft Contour Capable DEM Description
Posting	5 meter	5 meter
Accuracy	Will support generation of 1-ft GSD orthophotography. Includes sufficient editing to prevent warped roads and man-made features.	Will support generation of 1-ft GSD orthophotography and 5-ft contour elevation data. Vertical accuracy will support an RMSE of +/- 1/2 contour interval at well-defined points defined by survey of higher accuracy. Spot elevations will support an RMSE of +/- 1/3 contour interval at well-defined points defined by survey of higher accuracy.
Acquisition Source	ADS40 push broom digital sensor	ADS40 push broom digital sensor
Production Method	Softcopy digital stereo models from Level 1 ADS imagery with a 1-ft GSD; AT production incorporates Level 1 data after processing differential airborne GPS and IMU data; incorporates measurement of Ground Control Points	Softcopy digital stereo models from Level 1 ADS imagery with a 1-ft GSD; AT production incorporates Level 1 data after processing differential airborne GPS and IMU data; incorporates measurement of Ground Control Points; additional stereo editing with sufficient breaklines, mass points, and spot points to support the generation of 5-foot interval contour elevation data.
Units	Meters	Meters
File Format	ASCII text, GeoTiff, ECW	ASCII text, GeoTiff, ECW
Projection	[State Plane, UTM, Geographic, Custom] [WGS84, NAD27, NAD83, Custom]	[State Plane, UTM, Geographic, Custom] [WGS84, NAD27, NAD83, Custom]
Datum	WGS84 (ellipsoidal heights)	WGS84 (ellipsoidal heights)
Metadata	FGDC Compliant	FGDC Compliant

Order Parameters	
Product Type	Level 1 Ortho Only DEM or Level 2 5-Ft Contour Capable DEM
File Formats	ASCII text, GeoTiff, ECW
Projection and Datum	[State Plane, UTM, Geographic, Custom] [WGS84, NAD27, NAD83, Custom]

Deliverables

Product is delivered on your choice of standard digital media with FGDC compliant metadata. Standard formats include ASCII text files, GeoTiff and ECW. Default projection and datum are UTM and WGS84 respectively.

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