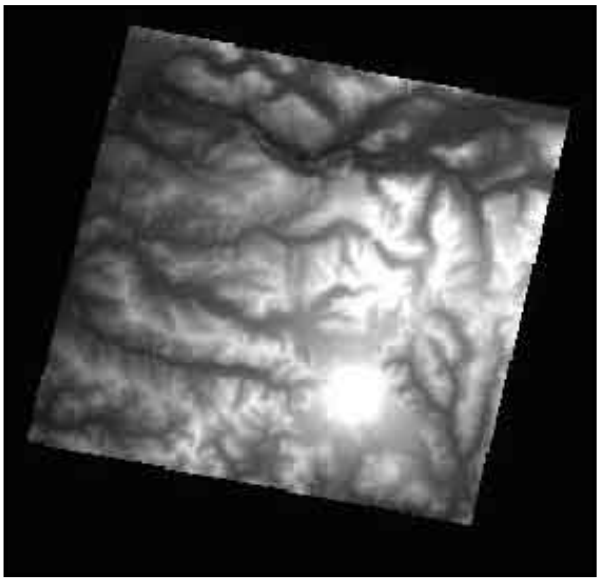

EDG Data Set Name
ASTER Digital Elevation Model

Granule Shortname
AST14DEM

Data Set Characteristics
Area = ~60 km x 60 km
Image Dimensions = 2500 rows x 2500 columns
Input Image Resolution: 15 meters
Output Image Resolution: 30 meters
File Size = ~25 MB
Data Type = 32-bit real
Valid Ranges = (-)2,147,483,648 to (+)2,147,483,648
Vgroup Data Fields = 1

Product Description
The ASTER Digital Elevation Model is a product that is generated from a pair of ASTER Level 1A images. This Level 1A input includes bands 3N (nadir) and 3B (aft-viewing) from the Visible Near Infra-Red telescope's along-track stereo data that is acquired in the spectral range of 0.78 to 0.86 microns. ASTER DEMs can be generated either with or without ground control points (GCPs). An Absolute DEM is created with GCPs that are supplied by an end-user who has requested the product. These DEMs have an absolute horizontal and vertical accuracy of up to 7 meters with appropriate GCPs and up to 10 meters without GCPs. Alternatively, a Relative DEM can also be generated without GCPs. These DEMs can be used to derive absolute slope and slope aspect which is good up to 5 degrees over a horizontal distance of over 100 meters. ASTER DEMs are expected to meet map accuracy standards for scales from 1:50,000 to 1:250,000.

These ASTER DEMs are produced upon customer requests made through the On Demand Processing Request form (http://e0ins02u.ecs.nasa.gov:10800). ASTER DEMs are unique in that they are the only on-demand product that are archived in ECS. You may search and order all previously requested DEM products through the EOS Data Gateway (http://edcimswww.cr.usgs.gov/pub/imswelcome/).

ASTER DEM Data Applications
ASTER DEMS are used to support a wide variety of scientific activities from contour and shaded relief generation to the creation of flood analysis models and the study of land surface characteristics.

EOS Data Gateway Search Tips

Data Center:	EDC-ECS
Sensor:	ASTER
Dataset:	ASTER Digital Elevation Model
Geographic Extent:	Type latitude/longitude range or delineate a geographic search window
Temporal Extent:	Enter image acquisition date range as an option

Ordering ASTER Digital Elevation Model
The process, procedures and instructions for ordering an ASTER DEM are described on the ASTER On-Demand Data Gateway (http://edcdaac.usgs.gov/asterondemand/index.html). As part of that process, you have to first select an

ASTER Level 1A granule from the EOS Data Gateway (http://edcimswww.cr.usgs.gov/pub/imswelcome/).

Product Information

Release Notes - Download Acrobat Reader
(http://asterweb.jpl.nasa.gov/products/DEM.PDF)

ASTER DEM Frequently Asked Questions (FAQ's)
(http://edcdaac.usgs.gov/aster/faq_aster_dem.html)

Algorithm Theoretical Basis Document (ATBD)
(http://eospso.gsfc.nasa.gov/eos_homepage/for_scientists/atbd/viewInstrument.php?instrument=ASTER)

ASTER Standard Data Products Catalog
(http://asterweb.jpl.nasa.gov/documents/ASTERHigherLevelUserGuideVer2May01.pdf)

ASTER JPL Web Page
(http://asterweb.jpl.nasa.gov/)

EOS Data Products Handbook Volume 1 (2000)
(http://eospso.gsfc.nasa.gov/ftp_docs/data_products_vol2.pdf)

Contact Information

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