

Identification_Information:

Citation:

Citation_Information:

Originator: Monterey Peninsula Water Management District

Publication_Date: 2003

Title: 686102.tif

Geospatial_Data_Presentation_Form: remote-sensing image

Publication_Information:

Publication_Place: Monterey, CA

Publisher: MPWMD

Online_Linkage:

\\filegish2o\xdrive\Data\Images\AMBAG2003_TIFF\MPWMD\686\686102.tif

Description:

Abstract: Orthophotos combine the image characteristics of a photograph with the geometric qualities of a map. The primary digital orthophoto is a 2-foot or 0.5-foot ground resolution, image cast on the California State Plane Projection on the North American Datum of 1983 (NAD83), zone 4. The geographic extent of the imagery is equivalent to a 2000 by 3000 foot rectangle. The normal orientation of data is by lines (rows) and samples (columns). Each line contains a series of pixels ordered from west to east with the order of the lines from north to south. For natural color imagery a digital number from 0 to 255 is assigned to each pixel but that number refers to a color look-up table which contains the red, blue and green (RGB) values, each from 0 to 255, for that digital number. Areas where the rectification process is incomplete due to incomplete data (i.e., lack of elevation data, gaps), are represented with the numeric value of 0. The metadata provided in the digital orthophoto contain a wide range of descriptive information including format source information, production instrumentation and dates, and data to assist with displaying and georeferencing the image.

Purpose: Digital orthophotos serve a variety of purposes, from interim maps to field references for earth science investigations and analysis. The digital orthophoto is useful as a layer of a geographic information system and as a tool for revision of digital line graphs and topographic maps.

Supplemental_Information: These digital orthophotos have been made available thru the Central Coast Joint Data Committee (URL <http://www.ccjdc.org/>). The data distributed by MPWMD is provided with FGDC compliant metadata.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003

Ending_Date: 2004

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -121.6875

East_Bounding_Coordinate: -121.625

North_Bounding_Coordinate: 36.5

South_Bounding_Coordinate: 36.4375

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: digital orthophoto

Theme_Keyword: digital image map

Theme_Keyword: aerial photograph

Theme_Keyword: rectified photograph
Theme_Keyword: rectified image
Theme_Keyword: orthophoto
Theme_Keyword: 2-foot orthophoto
Theme_Keyword: 0.5-foot orthophoto

Place:

Place_Keyword_Thesaurus:

U.S. Department of Commerce, 1977, Countries, dependencies, areas of special sovereignty, and their principal administrative divisions (Federal Information Processing Standard 10-3):Washington, D.C., National Institute of Standards and Technology.

Place_Keyword: US
Place_Keyword: Monterey
Place_Keyword: Carmel
Place_Keyword: Seaside
Place_Keyword: Pebble Beach
Place_Keyword: Pacific Grove
Place_Keyword: Carmel Valley
Place_Keyword: Del Rey Oaks
Place_Keyword: Monterey County

Access_Constraints: None

Use_Constraints:

Acknowledgement of the Monterey Peninsula Water Management District for products derived from these data.

The digital map, GIS, or database data provided are "as is" and the MPWMD expressly disclaims the spatial accuracy of the DATA and fitness for a particular purpose, and further expressly disclaims responsibility for all incidental, consequential or special damages arising out of or in connection with the use or performance of the digital data. The MPWMD does not warrant that the functions contained in the requested data will meet requestor's requirements, that the operation of the data will be uninterrupted or error free, or that data defects will be corrected by the MPWMD.

The digital data is intended for regional evaluation purposes and not for site-specific evaluation. Information in this data set is preliminary in nature and subject to revision. Conclusions drawn from such information, whether from individual use or aggregate use with other data, are the responsibility of the User. All products, digital, written or otherwise, which are derived from the DATA, shall provide full acknowledgement to the Monterey Peninsula Water Management District.

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Monterey Peninsula Water Management District

Contact_Person: Eric Sandoval

Contact_Position: Geographic Information Systems Specialist

Contact_Address:

Address_Type: mailing address

Address: PO BOX 85

City: Monterey

State_or_Province: CA

Postal_Code: 93942

Contact_Voice_Telephone: 831 658 5645

Contact_Electronic_Mail_Address: eric@mpwmd.dst.ca.us

Contact_Instructions: CCJDC URL:<http://www.ccjdc.org/> is providing this dataset via an online option.

Data_Set_Credit: This dataset was created by the Monterey Peninsula Water Management District and CCJDC. Please acknowledge the Monterey Peninsula Water Management District for derived products from this dataset.

Security_Information:

Security_Classification: Unclassified

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.1.0.722

Cross_Reference:

Citation_Information:

Originator: Monterey Peninsula Water Management District

Publication_Date: 2003

Title: Digital Orthophoto, MPWMD

Geospatial_Data_Presentation_Form: remote-sensing image

Publication_Information:

Publication_Place: Monterey, CA

Publisher: Monterey Peninsula Water Management District

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report: During photographic reproduction of the source photography, limited analog dodging is performed to improve image quality. Analog dodging consists of holding back light from certain areas of the sensitized photographic material to avoid overexposure. The diapositive is inspected to insure clarity and radiometric uniformity. Diapositive image brightness values are collected with a minimum of image quality manipulation. Image brightness values may deviate from brightness values of the original imagery due to image value interpolation during the scanning and rectification processes. Radiometry is verified by visual inspection of the digital orthophoto quadrangle with the original unrectified image to determine if the digital orthophoto has the same or better image quality as the original unrectified input image. Slight systematic radiometric differences can be detected between adjacent imagery files due primarily to differences in source photography capture dates and sun angles of aerial photography along flight lines. These differences can be observed in an image's general lightness or darkness when compared to adjacent photo file coverages.

Logical_Consistency_Report: No logical test were performed

Completeness_Report: All orthoimagery is visually inspected for completeness to ensure that no gaps, or image misplacement exist in the 2000 by 300 ft image area or in overedge coverage. Images may be derived by mosaicking multiple images, in order to insure complete coverage. All images are cloud free within the image area. Source photography is leaf-on in deciduous vegetation regions. Void areas having a radiometric value of zero and appearing black may exist. These are areas for which no photographic source is available or result from image transformation from other planimetric systems to the California State Plane projection. In the latter case, the void sliver areas are on the outside edges of the overedge area. The data set field content of each image header record element is validated to assure completeness prior to archiving in the MPWMD server.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report: The imagery horizontal positional accuracy and the assurance of that accuracy depend, in part, on the accuracy of the data inputs to the rectification process. These inputs consist of the digital elevation model (DEM), aerotriangulation control and methods, the photo source camera calibration, scanner calibration, and aerial photographs that meet National Aerial Photography Program (NAPP) standards. The vertical accuracy of the verified USGS format DEM is equivalent to or better than a USGS level 1 or 2 DEM, with a root mean square error (RMSE) of no greater than 7.0 meters. Field

control is acquired by third order class 1 or better survey methods sufficiently spaced to meet National Map Accuracy Standards (NMAS) for 1:12,000-scale products. Aerial cameras have current certification from the USGS, National Mapping Division, Optical Science Laboratory. Test calibration scans are performed on all source photography scanners. Horizontal positional accuracy is determined by Sanborn , LTD proprietary software. The program determines the accuracy by finding the line and sample coordinates of the passpoints in the image and fitting these to their ground coordinates to develop a root mean square error (RMSE). Additional information on this testing procedure can be found in Monterey Peninsula Water Management District, 2004, Technical Memoranda 04-02: 2003 AMBAG Regional Orthoimagery Project, Final Report, Monterey, CA. Adjacent images, when displayed together in a common planimetric coordinate system, may exhibit slight positional discrepancies across common image boundaries. Linear features, such as streets, may not be continuous. These edge mismatches, however, still conform to positional horizontal accuracy within the NMAS. Field investigations to validate imagery positional accuracy reliability were completed by Monterey Peninsula Water Management district in 2003.

Quantitative_Horizontal_Positional_Accuracy_Assessment:

Horizontal_Positional_Accuracy_Value: RMSE

Horizontal_Positional_Accuracy_Explanation: U.S.Bureau of the Budget, 1947, United States National Map Accuracy Standard.

Vertical_Positional_Accuracy:

Vertical_Positional_Accuracy_Report:

Vertical control was required to support the planimetric and contour mapping effort. Elevations (orthometric heights) are estimated from the GPS-derived ellipsoidal heights by means of using GEOID99. This technique typically yields an accuracy of 0.2' or better which easily meets the AT accuracy requirements for vertical control. All vertical control was required to be referenced to the North American Vertical Datum of 1988 (NAVD88).

The adjustment for the Monterey area was constrained to the NAD83 (epoch of 1998) NGS control values. None of the vector components in the area was flagged for possible rejection under the TauMAX - test at the 0.05 level of significance. None of the horizontal or vertical constraints were flagged. The a posteriori variance factor for the Monterey area was 1.1007.

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: SD

Vertical_Positional_Accuracy_Explanation: TauMAX - test at the 0.05 level of significance

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: Monterey Peninsula Water Management District

Publication_Date: 2003

Title: Digital Orthophoto, Monterey CA

Geospatial_Data_Presentation_Form: remote-sensing image

Publication_Information:

Publication_Place: Monterey, CA

Publisher: Monterey Peninsula Water Management District

Source_Scale_Denominator: 12000

Type_of_Source_Media: Digital Orthophoto

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003

Ending_Date: 2003

Source_Currentness_Reference: ground condition
Source_Contribution: The image data that was reformatted.
Process_Step:
Process_Description: Standard orthorectification of stereo photographs.
Source_Used_Citation_Abbreviation: tif
Process_Date: 2003
Process_Step:
Process_Description: Metadata created.
Process_Date: 2005
Process_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: Monterey Peninsula Water Management District
Contact_Person: Eric Sandoval
Contact_Position: Geographic Information Systems Specialist
Contact_Address:
Address_Type: mailing address
Address: PO Box 85
City: Monterey
State_or_Province: CA
Postal_Code: 93942
Contact_Voice_Telephone: 831 658 5645
Contact_Facsimile_Telephone: 831 658-9560
Contact_Electronic_Mail_Address: eric@mpwmd.dst.ca.us
Hours_of_Service: M-F 9-5
Process_Step:
Process_Description: Metadata imported.
Source_Used_Citation_Abbreviation:
C:\DOCUME~1\eric\LOCALS~1\Temp\xml104.tmp
Cloud_Cover: 0%
Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method: Raster
Raster_Object_Information:
Raster_Object_Type: Pixel
Row_Count: 4000
Column_Count: 6000
Vertical_Count: 1
Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Planar:
Map_Projection:
Map_Projection_Name: Lambert Conformal Conic
Lambert_Conformal_Conic:
Standard_Parallel: 36.000000
Standard_Parallel: 37.250000
Longitude_of_Central_Meridian: -119.000000
Latitude_of_Projection_Origin: 35.333333
False_Easting: 6561666.666667
False_Northing: 1640416.666667
Planar_Coordinate_Information:
Planar_Coordinate_Encoding_Method: row and column
Coordinate_Representation:
Abscissa_Resolution: 0.500000
Ordinate_Resolution: 0.500000
Planar_Distance_Units: survey feet
Geodetic_Model:
Horizontal_Datum_Name: North American Datum of 1983

Ellipsoid_Name: Geodetic Reference System 80
Semi-major_Axis: 6378137.000000
Denominator_of_Flattening_Ratio: 298.257222

Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label: Band_1
Attribute:
Attribute_Label: ObjectID
Attribute_Definition: Internal feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
Attribute:
Attribute_Label: Value
Attribute:
Attribute_Label: Count

Detailed_Description:
Entity_Type:
Entity_Type_Label: Band_2
Attribute:
Attribute_Label: ObjectID
Attribute_Definition: Internal feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
Attribute:
Attribute_Label: Value
Attribute:
Attribute_Label: Count

Detailed_Description:
Entity_Type:
Entity_Type_Label: Band_3
Attribute:
Attribute_Label: ObjectID
Attribute_Definition: Internal feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
Attribute:
Attribute_Label: Value
Attribute:
Attribute_Label: Count

Overview_Description:
Entity_and_Attribute_Overview: For natural color imagery a digital number from 0 to 255 is assigned to each pixel but that number refers to a color look-up table which contains the red, blue and green (RGB) values, each from 0 to 255, for that digital number. Areas where the rectification process is incomplete due to incomplete data (i.e., lack of elevation data, gaps), are represented with the numeric value of 0.

Distribution_Information:
Distributor:
Contact_Information:
Contact_Organization_Primary:

Contact_Organization: Monterey Peninsula Water Management District
Contact_Person: Eric Sandoval
Contact_Position: Geographic Information Systems Specialist
Contact_Address:
Address_Type: mailing address
Address: PO Box 85
City: Monterey
State_or_Province: CA
Postal_Code: 93942
Contact_Voice_Telephone: 831 658 5645
Contact_Facsimile_Telephone: 831 658 9560
Contact_Electronic_Mail_Address: eric@mpwmd.dst.ca.us
Hours_of_Service: M-F 9-5

Resource_Description: Digital Orthophoto

Distribution_Liability:

The digital map, GIS, or database data provided are "as is" and the MPWMD expressly disclaims the spatial accuracy of the DATA and fitness for a particular purpose, and further expressly disclaims responsibility for all incidental, consequential or special damages arising out of or in connection with the use or performance of the digital data. The MPWMD does not warrant that the functions contained in the requested data will meet requestor's requirements, that the operation of the data will be uninterrupted or error free, or that data defects will be corrected by the MPWMD.

The digital data is intended for regional evaluation purposes and not for site-specific evaluation. Information in this data set is preliminary in nature and subject to revision. Conclusions drawn from such information, whether from individual use or aggregate use with other data, are the responsibility of the User. All products, digital, written or otherwise, which are derived from the DATA, shall provide full acknowledgement to the Monterey Peninsula Water Management District.

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: image/geotiff

Format_Information_Content: Digital orthophoto image file stored as an extension to the TIFF file format to allow for geographic coordinate systems to be identified with the dataset. See URL:<http://www.geotiff.org/> for more details.

Transfer_Size: 0.000

Digital_Transfer_Option:

Online_Option:

Computer_Contact_Information:

Network_Address:

Fees: The online copy of the data set (when available electronically) may be accessed without charge.

Ordering_Instructions: Contact MPWMD. Copies of data have a \$5 fee per CD. Selective copies are charged at a nominal rate for staff time.

Metadata_Reference_Information:

Metadata_Date: 20061116

Metadata_Review_Date: 2006

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Monterey Peninsula Water Management District

Contact_Person: Eric Sandoval

Contact_Position: Geographic Information Systems Specialist

Contact_Address:

Address_Type: mailing address
Address: 900 N. Street
City: Sacramento
State_or_Province: CA
Postal_Code: REQUIRED: The ZIP or other postal code of the address.
Contact_Voice_Telephone: 831 658 5645
Contact_Facsimile_Telephone: 831 658 9560
Contact_Electronic_Mail_Address: eric@mpwmd.dst.ca.us
Hours_of_Service: M-F 9-5
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile
Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile
Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile