

SP_Dune_Field_Centroid.doc
Mars Global Digital Dune Database: MC-30
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2012
(<http://pubs.usgs.gov/of/2012/1259>)

Summary

See Pamphlet.doc, Mars Global Digital Dune Database Purpose.

Description

See Pamphlet.doc, Mars Global Digital Dune Database Abstract.

Credits

There are no credits for this item.

Access and use limitations

There are no restrictions.

ArcGIS Metadata

Resource Identification

Citation Title: Sp_Dune_Field_Centroid_Geog
Alternate Titles: South Pole Dune Field Centroid
Presentation Format: digital map
Collection Title: Mars Global Digital Dune Database
Responsible Party:
Individual's Name: Rosalyn K. Hayward
Organization's Name: USGS, Astrogeology
Contact's Position: Geologist
Contact's Role: Originator
Contact Information:
Phone:
Voice: (928) 566-7022
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Delivery Point: 2255 N. Gemini Dr.
City: Flagstaff
Administrative Area: Az
Postal Code: 86001
Country: United States
E-Mail Address: rhayward@usgs.gov

Publication Information:

Publication Place: Reston, Virginia

Publisher: U.S. Geological Survey

Online_Linkage: <http://pubs.usgs.gov/of/2012/1259>

Themes Or Categories Of The Resource :

geoscientificInformation

Tags For Searching: Dune, Aeolian, Mars, Database, GCM

Discipline Keywords: Planetary Science

Place Keywords: Mars

Theme Keywords: Dune

Theme Keywords: Aeolian

Theme Keywords: Database

Theme Keywords: GCM

Dataset Languages: English (United States)

Dataset Character Set Utf8 - 8 Bit Ucs Transfer Format

Status: Completed

Resource Maintenance:

Update Frequency: Not Planned

Scope Of The Updates: Dataset

Resource Constraints:

Constraints:

Limitations Of Use:

There are no restrictions.

Spatial Representation Type: Vector

* Processing Environment: Microsoft Windows Server 2008 R2 Version 6.1 (Build 7601) Service

Pack 1; Esri Arcgis 10.0.2.3200

Other Extent Information:

Geographic Extent:

Bounding Rectangle:

* Extent Type Extent Used For Searching

* West Longitude -180.000000

* East Longitude 180.000000

* North Latitude -64.910145

* South Latitude -81.467190

* Extent Contains The Resource: Yes

Point Of Contact:

Individual's Name: Rosalyn K. Hayward

Organization's Name: USGS, Astrogeology

Contact's Position: Geologist

Contact's Role: Originator

Contact Information:

Phone:

Voice: (928) 566-7022

Fax: (928) 566-7014

Address:

Delivery Point: 2255 N. Gemini Dr.
City: Flagstaff
Administrative Area: Az
Postal Code: 86001
Country: United States
E-Mail Address: rhayward@usgs.gov

Reference System

Reference System Identifier

Value 104905
* Codespace Esri
* Version 10.0.0

Data Quality

Scope Of Quality Information

Resource Level: dataset

Lineage:

Process Step:

See Pamphlet.doc, Mars Global Digital Dune Database Process.

Data Quality Report - Completeness Omission:

See Pamphlet.doc, Mars Global Digital Dune Database – Completeness of Database.

Data Quality Report - Conceptual Consistency

Measure Description:

All attributes were verified by displaying the lines in both the database and the spatial coverage and they are believed to be logically consistent.

Data Quality Report - Topological Consistency

Measure Description:

These data are believed to be logically consistent. Line geometry is topologically clean.

Data Quality Report - Absolute External Positional Accuracy:

Measure Description:

The horizontal accuracy is derived from the accuracy of the Mars Orbiter Laser Altimeter (MOLA) dataset [Smith and others, 2001]. The globally adjusted MOLA dataset has an absolute horizontal accuracy on the order of 100 m, but individual features in images can probably only be tied to MOLA-derived shaded-relief digital image models with a precision on the order of 200 m. Other bases used included Thermal Emission Imaging System (THEMIS) digital images [Archinal and others, 2003, Christensen and others, 2004]. The digital features were drawn at 20K to 100K scale with a node spacing of approximately 0.3 km to 2 km.

ESRI Metadata and Item Properties

Metadata Properties:

Arcgis: Arcgis1.0

Metadata Style: FGDC CSDGM Metadata
Metadata Standard Or Profile: FGDC
Created In Arcgis: 2012-05-14t13:03:12
Last Modified In Arcgis: 2012-06-03t15:08:05
Automatic Updates:
Last Update: 2012-06-03t15:06:39
Have Been Performed: Yes

Item Properties

Name: SP_Dune_Field_Centroid_Geog
Content Type: Downloadable Data

ESRI Spatial Information

Extent In The Item's Coordinate Reference

Bounding Rectangle:

- * West Longitude -180.000000
- * East Longitude 180.000000
- * North Latitude -64.910145
- * South Latitude -81.467190
- * Extent Contains The Resource: Yes

Coordinate Reference

Type: Geographic

Geographic Coordinate Reference: GCS_Mars_2000

Coordinate Reference Details

Geographic Coordinate
System

Well-Known Identifier: 104905
X Origin: -399.99999999999989
Y Origin: -399.99999999999989
XY Scale: 1000000000.0000001
Z Origin: -100000
Z Scale: 10000
M Origin: -100000
M Scale: 10000
XY Tolerance: 1.6870604858115214e-008
Z Tolerance: 0.001
M Tolerance: 0.001
High Precision: True
Left Longitude: -180
Well-Known Text
GEOGCS["GCS_Mars_2000",DATUM["D_Mars_2000",SPHEROID
["Mars_2000_IAU_IAG",3396190.0,169.8944472236118]],PRIMEM
["Reference_Meridian",0.0],UNIT["Degree",0.0174532925199433],A
UTHORITY ["ESRI",104905]]

ESRI Feature Class

Feature Class Name: SP_Dune_Centroid_Geog

- * Feature Type: Simple
- * Geometry Type: Polyline
- * Has Topology: False
- * Feature Count: 1998
- * Spatial Index: True
- * Linear Referencing: False

ESRI Fields and Subtypes

SP_Dune_Field_Geog Feature Class

* ROW COUNT 746

DEFINITION

Dune fields on Mars between lat 65° and 90° S. (~750 records).

DEFINITION SOURCE

Mars Global Digital Dune Database

FIELD OBJECTID_1

* ALIAS OBJECTID_1

* DATA TYPE OID

* WIDTH 4

* FIELD DESCRIPTION

Internal feature number.

* DESCRIPTION SOURCE

ESRI

* DESCRIPTION OF VALUES Sequential unique whole numbers that are automatically generated.

FIELD Shape

* ALIAS Shape

* DATA TYPE Geometry

* FIELD DESCRIPTION

Feature geometry.

* DESCRIPTION SOURCE

ESRI

* DESCRIPTION OF VALUES Coordinates defining the features.

FIELD Dune_ID

ALIAS Dune_Lon_Lat_ID

* DATA TYPE String

* WIDTH 10

FIELD DESCRIPTION

Each dune field has a unique ID number constructed after the method used by Barlow (2003) to assign ID numbers to craters. Longitude is listed first and both values are extended to one decimal place. The + or – sign of the latitude is given, indicating the break between the two values. Thus 122.5 east longitude, -34.5 south latitude, becomes 1225-345. The longitude is always four digits and the latitude is always three digits,

filling in with leading zeroes where necessary.

Metadata Details

Metadata Language: English
Metadata Character Set: Utf8 - 8 Bit Ucs Transfer Format
Scope Of The Data Described By The Metadata: Dataset
* Scope Name: Dataset
Metadata Contact:
Individual's Name: Rosalyn K. Hayward
Organization's Name: USGS, Astrogeology
Contact's Position: Geologist
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Administrative Area: Az
Postal Code: 86001
Country: United States
E-Mail Address: rhayward@usgs.gov
* Last Update: 2012-06-03
Maintenance:
Update Frequency: Not Planned
Scope Of The Updates: Dataset