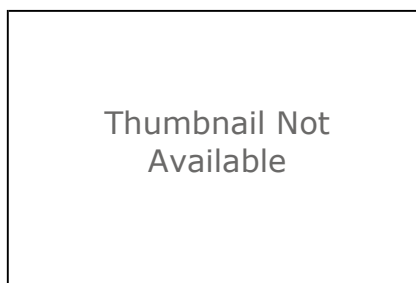


Station_Soil_Moisture_USDA

File Geodatabase Table



Tags

SMAPVEX12, USDA, soil moisture, soil temperature, calibration

Summary

This table was generated for use in analysis and validation associated with the SMAPVEX12 (Soil Moisture Active-Passive Validation Experiment 2012) project.

Description

This table presents data recorded at hourly intervals using forty USDA small footprint soil moisture sensors deployed between June 7 and July 19 in the SMAPVEX12 study area. Stations consist of a Stevens Hydra Soil Moisture Sensor, a datalogger, and solar panel. Data presented include calibrated soil moisture and soil temperature.

Credits

Grant Wiseman Senior Geomatics Scientist – Scientifique principal en géomatique Agriculture and Agri-Food Canada – Agriculture et Agroalimentaire Canada Telephone - Téléphone: 204-984-4080 Cellular - Cellulaire: 204-293-6074 Facsimile - Télécopieur: 204-983-2178 200-303 Main Street, Winnipeg, MB R3C 3G7 grant.wiseman@agr.gc.ca

Use limitations

All SMAPVEX12 data (except those already on public domain servers) will be placed on the University of Sherbrooke site. Access will be limited by password that will be provided to principle investigators and co-investigators listed below. It will be up to the principle investigators and co-investigators to ensure that staff, graduate students and post docs respect the terms of the agreement on usage and distribution. Access to the website will be restricted until July 1, 2013 for preliminary research and quality control. After July 1, 2013 all data will be transferred to a SMAP DAAC. Principle Investigators Heather McNairn, Agriculture and Agri-Food Canada Tom Jackson, USDA, ARS Hydrology and Remote Sensing Laboratory Co-Investigators Aaron Berg, University of Guelph Amine Merzouki, Agriculture and Agri-Food Canada Andreas Colliander, JPL Anne Walker, Environment Canada Brenda Toth, Environment Canada/MSCHAL Catherine Champagne, Agriculture and Agri-Food Canada Craig Smith, Environment Canada Dara Entekhabi, MIT Eni Njoku, JPL Grant Wiseman, Agriculture and Agri-Food Canada Jarrett Powers, Agriculture and Agri-Food Canada Jiali Shang, Agriculture and Agri-Food Canada John Fitzmaurice, Agriculture and Agri-Food Canada Mahta Moghaddam, University Southern California Mike Cosh, USDA, ARS Hydrology and Remote Sensing Laboratory Narendra Das, JPL Paul Bullock, University of Manitoba Peggy O'Neill, NASA GSFC Ramata Magagi, University of Sherbrooke Rotimi Ojo, University of Manitoba Sab Kim, JPL Stéphane Bélair, Environment Canada - NWP and Data Assimilation Alicia Joseph, NASA GSFC Erika Podest, JPL John Kimball, University of Montana Kalifa Goïta, University of Sherbrooke Marco Carrera, Environment Canada, Meteorological Research Division Steven Chan, JPL Vanessa Escobar, NASA GSFC

ArcGIS Metadata ►

Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE environment, geoscientificInformation

* CONTENT TYPE Downloadable Data

Hide Topics and Keywords ▲

Citation ►

* TITLE Station_Soil_Moisture_USDA

PRESENTATION FORMATS * digital table

Hide Citation ▲

Resource Details ►

DATASET LANGUAGES * English (CANADA)

DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

SPATIAL REPRESENTATION TYPE * text table

* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; ESRI ArcGIS 10.0.5.4400

CREDITS

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983-2178 200-303 Main Street, Winnipeg, MB R3C 3G7 grant.wiseman@agr.gc.ca

ARCGIS ITEM PROPERTIES

* NAME Station_Soil_Moisture_USDA

* LOCATION file:///\\mbwinfs106\gis\data8\projects\land\soil\SMAPVEX12
\data\Geodatabase\SMAPVEX_MASTER.gdb

* ACCESS PROTOCOL Local Area Network

Hide Resource Details ▲

Resource Points of Contact ►

POINT OF CONTACT

INDIVIDUAL'S NAME Grant Wiseman

ORGANIZATION'S NAME Agriculture and Agri-Food Canada – Agriculture et Agroalimentaire Canada

CONTACT'S POSITION Senior Geomatics Scientist – Scientifique principal en géomatique

CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

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FAX 204-983-2178

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TYPE both

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CITY Winnipeg

ADMINISTRATIVE AREA Manitoba

POSTAL CODE R3C 3G7

COUNTRY Canada
E-MAIL ADDRESS grant.wiseman@agr.gc.ca

[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

Resource Maintenance ►

RESOURCE MAINTENANCE
UPDATE FREQUENCY as needed

[Hide Resource Maintenance ▲](#)

Resource Constraints ►

CONSTRAINTS
LIMITATIONS OF USE

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Principle Investigators

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Tom Jackson, USDA, ARS Hydrology and Remote Sensing Laboratory

Co-Investigators

Aaron Berg, University of Guelph
Amine Merzouki, Agriculture and Agri-Food Canada
Andreas Colliander, JPL
Anne Walker, Environment Canada
Brenda Toth, Environment Canada/MSCHAL
Catherine Champagne, Agriculture and Agri-Food Canada
Craig Smith, Environment Canada
Dara Entekhabi, MIT
Eni Njoku, JPL
Grant Wiseman, Agriculture and Agri-Food Canada
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Jiali Shang, Agriculture and Agri-Food Canada
John Fitzmaurice, Agriculture and Agri-Food Canada
Mahta Moghaddam, University Southern California
Mike Cosh, USDA, ARS Hydrology and Remote Sensing Laboratory
Narendra Das, JPL
Paul Bullock, University of Manitoba
Peggy O'Neill, NASA GSFC
Ramata Magagi, University of Sherbrooke
Rotimi Ojo, University of Manitoba
Sab Kim, JPL
Stéphane Bélair, Environment Canada - NWP and Data Assimilation
Alicia Joseph, NASA GSFC
Erika Podest, JPL
John Kimball, University of Montana

Kalifa Goïta, University of Sherbrooke
 Marco Carrera, Environment Canada, Meteorological Research Division
 Steven Chan, JPL
 Vanessa Escobar, NASA GSFC

[Hide Resource Constraints](#) ▲

Data Quality ►

SCOPE OF QUALITY INFORMATION ►

RESOURCE LEVEL non-geographic dataset

[Hide Scope of quality information](#) ▲

[Hide Data Quality](#) ▲

Distribution ►

DISTRIBUTION FORMAT

* NAME File Geodatabase Table

[Hide Distribution](#) ▲

Fields ►

DETAILS FOR OBJECT [Station_Soil_Moisture_USDA](#) ►

* TYPE Table

* ROW COUNT 42160

DEFINITION

Calibrated soil moisture and soil temperature recorded at hourly intervals using forty USDA small footprint soil moisture sensors deployed in the SMAPVEX12 study area.

DEFINITION SOURCE

AAFC

FIELD [OBJECTID](#) ►

* ALIAS OBJECTID

* DATA TYPE OID

* WIDTH 4

* PRECISION 0

* SCALE 0

* FIELD DESCRIPTION

Internal feature number.

* DESCRIPTION SOURCE

ESRI

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

[Hide Field OBJECTID](#) ▲

FIELD [DATE](#) ►

* ALIAS DATE

* DATA TYPE String

* WIDTH 254

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Date of soil moisture\temperature reading.

DESCRIPTION SOURCE

AAFC

Hide Field DATE ▲

FIELD TIME ►

* ALIAS TIME

* DATA TYPE String

* WIDTH 254

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Central Daylight Time of soil moisture\temperature readinG.

DESCRIPTION SOURCE

AAFC

Hide Field TIME ▲

FIELD USDA_FIELD ►

* ALIAS USDA_FIELD

* DATA TYPE String

* WIDTH 254

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Identification number of the field in which the USDA station was installed.

DESCRIPTION SOURCE

AAFC

Hide Field USDA_FIELD ▲

FIELD CAL_MOISTU ►

* ALIAS CAL_MOISTU

* DATA TYPE String

* WIDTH 50

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Volumetric soil moisture in m3/m3, calibrated using a field-specific equation.

DESCRIPTION SOURCE

AAFC

Hide Field CAL_MOISTU ▲

FIELD CAL_TEMP ►

* ALIAS CAL_TEMP

* DATA TYPE String

* WIDTH 50
 * PRECISION 0
 * SCALE 0

FIELD DESCRIPTION

Soil temperature is in degrees Celsius, calibrated using a field-specific equation.

DESCRIPTION SOURCE

AAFC

[Hide Field CAL_TEMP ▲](#)

[Hide Details for object Station_Soil_Moisture_USDA ▲](#)

[Hide Fields ▲](#)

Metadata Details ►

* METADATA LANGUAGE English (CANADA)
 * METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

METADATA IDENTIFIER 61C062C6-18AC-420B-BE10-93268107ACC2

SCOPE OF THE DATA DESCRIBED BY THE METADATA * non-geographic dataset
 SCOPE NAME * dataset

* LAST UPDATE 2013-01-10

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0
 METADATA STYLE FGDC CSDGM Metadata
 STANDARD OR PROFILE USED TO EDIT METADATA NAP

CREATED IN ARCGIS FOR THE ITEM 2012-12-20 12:37:07
 LAST MODIFIED IN ARCGIS FOR THE ITEM 2013-01-10 16:14:22

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes
 LAST UPDATE 2013-01-10 16:14:22

[Hide Metadata Details ▲](#)

Metadata Maintenance ►

MAINTENANCE

UPDATE FREQUENCY as needed

[Hide Metadata Maintenance ▲](#)

FGDC Metadata (read-only) ►

Entities and Attributes ►

DETAILED DESCRIPTION
 ENTITY TYPE

ENTITY TYPE LABEL Station_Soil_Moisture_USDA

ENTITY TYPE DEFINITION

Calibrated soil moisture and soil temperature recorded at hourly intervals using forty USDA small footprint soil moisture sensors deployed in the SMAPVEX12 study area.

ENTITY TYPE DEFINITION SOURCE AAFC

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 DATE

ATTRIBUTE DEFINITION

Date of soil moisture\temperature reading.

ATTRIBUTE DEFINITION SOURCE AAFC

ATTRIBUTE

ATTRIBUTE LABEL TIME

ATTRIBUTE DEFINITION

Central Daylight Time of soil moisture\temperature reading.

ATTRIBUTE DEFINITION SOURCE AAFC

ATTRIBUTE

ATTRIBUTE LABEL USDA_FIELD

ATTRIBUTE DEFINITION

Identification number of the field in which the USDA station was installed.

ATTRIBUTE DEFINITION SOURCE AAFC

ATTRIBUTE

ATTRIBUTE LABEL CAL_MOISTU

ATTRIBUTE DEFINITION

Volumetric soil moisture in m³/m³, calibrated using a field-specific equation.

ATTRIBUTE DEFINITION SOURCE AAFC

ATTRIBUTE

ATTRIBUTE LABEL CAL_TEMP

ATTRIBUTE DEFINITION

Soil temperature is in degrees Celsius, calibrated using a field-specific equation.

ATTRIBUTE DEFINITION SOURCE AAFC

Hide Entities and Attributes ▲