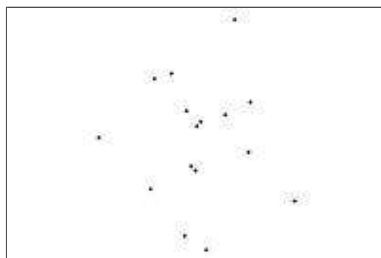


Station_Weather

File Geodatabase Feature Class



Tags

SMAPVEX12, precipitation, temperature, soil moisture, Environment Canada, MAFRI, WeatherFarm

Summary

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

Description

This shapefile contains the point locations of 16 permanent weather recording stations situated within 50 km of the SMAPVEX12 study area. The stations are variously operated Environment Canada, Weatherfarm, and by Manitoba Agriculture, Food and Rural Initiatives (MAFRI).

Credits

Grant Wiseman 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/MS/HAL 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 ►

* **CONTENT TYPE** Downloadable Data

Hide Topics and Keywords ▲

Citation ►

* **TITLE** Station_Weather

PRESENTATION FORMATS * digital map

RESOURCE IDENTIFIER

VALUE Station_Weather

[Hide Citation ▲](#)

Resource Details ►

DATASET LANGUAGES * English (CANADA)

DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

SPATIAL REPRESENTATION TYPE * vector

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

CREDITS

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grant.wiseman@agr.gc.ca

ARCGIS ITEM PROPERTIES

* NAME Station_Weather

* SIZE 0.000

* LOCATION file:///\\mbwinnfs106\gis\data8\projects\land\soil\SMAPVEX12\data\Geodatabase\SMAPVEX_MASTER.gdb

* ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

Extents ►

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

* WEST LONGITUDE -98.679470

* EAST LONGITUDE -97.285167

* NORTH LATITUDE 50.167800

* SOUTH LATITUDE 49.113079

* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE 523385.735000

* EAST LONGITUDE 622496.717300

* SOUTH LATITUDE 5441383.098600

* NORTH LATITUDE 5557339.086700

* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

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 ►**PHONE**

VOICE 204-984-4080

FAX 204-983-2178

ADDRESS**TYPE**

DELIVERY POINT 200-303 Main Street

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**

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/MS/CHAL

Catherine Champagne, Agriculture and Agri-Food Canada

Craig Smith, Environment Canada

Dara Entekhabi, MIT

Eni Njoku, JPL

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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 ▲](#)

Spatial Reference ►

ARCGIS COORDINATE SYSTEM

- * TYPE Projected
- * GEOGRAPHIC COORDINATE REFERENCE GCS_North_American_1983
- * PROJECTION NAD_1983_UTM_Zone_14N
- * COORDINATE REFERENCE DETAILS
 - PROJECTED COORDINATE SYSTEM
 - WELL-KNOWN IDENTIFIER 26914
 - X ORIGIN -5120900
 - Y ORIGIN -9998100
 - XY SCALE 10000
 - Z ORIGIN -100000
 - Z SCALE 10000
 - M ORIGIN -100000
 - M SCALE 10000
 - XY TOLERANCE 0.001
 - Z TOLERANCE 0.001
 - M TOLERANCE 0.001
 - HIGH PRECISION true
 - WELL-KNOWN TEXT PROJCS["NAD_1983_UTM_Zone_14N",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Transverse_Mercator"],PARAMETER["False_Easting",500000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-99.0],PARAMETER["Scale_Factor",0.9996],PARAMETER["Latitude_Of_Origin",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",26914]]

REFERENCE SYSTEM IDENTIFIER

- * VALUE 26914
- * CODESPACE EPSG
- * VERSION 7.4.1

REFERENCE THAT DEFINES THE VALUE ►

RESOURCE IDENTIFIER

VALUE UTM NAD83 Zone14N

[Hide Reference that defines the value ▲](#)

[Hide Spatial Reference ▲](#)

Spatial Data Properties ►

VECTOR ►

- * LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME Station_Weather

- * OBJECT TYPE point
- * OBJECT COUNT 16

[Hide Vector ▲](#)**ARCGIS FEATURE CLASS PROPERTIES ►**

* FEATURE TYPE Simple
 * GEOMETRY TYPE Point
 * HAS TOPOLOGY FALSE
 * FEATURE COUNT 16
 * SPATIAL INDEX TRUE
 * LINEAR REFERENCING FALSE

[Hide ArcGIS Feature Class Properties ▲](#)[Hide Spatial Data Properties ▲](#)**Data Quality ►**

SCOPE OF QUALITY INFORMATION ►
 RESOURCE LEVEL dataset

[Hide Scope of quality information ▲](#)[Hide Data Quality ▲](#)**Geoprocessing history ►****PROCESS**

PROCESS NAME

DATE 2012-10-22 09:51:33

TOOL LOCATION c:\program files (x86)\arcgis\desktop10.0\ArcToolbox\Toolboxes\Data Management
 Tools.tbx\Project

COMMAND ISSUED

```

Project MAFRI_Stations P:\SMAP\Soil_Moisture\Weather_Data\MAFRI_Stations_NAD83.shp PROJCS
['NAD_1983_UTM_Zone_14N',GEOGCS['GCS_North_American_1983',DATUM
['D_North_American_1983',SPHEROID['GRS_1980',6378137.0,298.257222101]],PRIMEM
['Greenwich',0.0],UNIT['Degree',0.0174532925199433]],PROJECTION
['Transverse_Mercator'],PARAMETER['False_Easting',500000.0],PARAMETER
['False_Northing',0.0],PARAMETER['Central_Meridian',-99.0],PARAMETER
['Scale_Factor',0.9996],PARAMETER['Latitude_Of_Origin',0.0],UNIT['Meter',1.0]] WGS_1984_
(ITRF00) To NAD_1983 GEOGCS['GCS_WGS_1984',DATUM['D_WGS_1984',SPHEROID
['WGS_1984',6378137.0,298.257223563]],PRIMEM['Greenwich',0.0],UNIT
['Degree',0.0174532925199433]]
  
```

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2012-10-22 09:53:49

TOOL LOCATION c:\program files (x86)\arcgis\desktop10.0\ArcToolbox\Toolboxes\Data Management
 Tools.tbx\Merge

COMMAND ISSUED

```

Merge MAFRI_Stations_NAD83;WeatherFarm_Stations_NAD83;'Environnement Canada Stations'
P:\SMAP\Soil_Moisture\Weather_Data\SMAPVEX12_WeatherStations.shp "STATION_NA "STATION_NA"
true true false 254 Text 0 0 ,First,#,MAFRI_Stations_NAD83,STATION_NA,-1,-1;LATITUDE
"LATITUDE" true true false 19 Double 0 0 ,First,#,MAFRI_Stations_NAD83,LATITUDE,-1,-
1;LONGITUDE "LONGITUDE" true true false 19 Double 0
0 ,First,#,MAFRI_Stations_NAD83,LONGITUDE,-1,-1;STATION "STATION" true true false 254
Text 0 0 ,First,#,WeatherFarm_Stations_NAD83,STATION,-1,-1,Environnement Canada
Stations,STATION,-1,-1;LONG "LONG" true true false 16 Double 6
15 ,First,#,WeatherFarm_Stations_NAD83,LONG,-1,-1;LAT "LAT" true true false 16 Double 6
15 ,First,#,WeatherFarm_Stations_NAD83,LAT,-1,-1"
  
```

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2012-10-22 10:03:02

TOOL LOCATION C:\Program Files (x86)\ArcGIS\Desktop10.0\ArcToolbox\Toolboxes\Data Management Tools.tbx\CalculateField

COMMAND ISSUED

CalculateField SMAPVEX12_WeatherStations SOURCE "MAFRI" VB #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2012-10-22 10:04:06

TOOL LOCATION C:\Program Files (x86)\ArcGIS\Desktop10.0\ArcToolbox\Toolboxes\Data Management Tools.tbx\CalculateField

COMMAND ISSUED

CalculateField SMAPVEX12_WeatherStations SOURCE "EC" VB #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2012-10-22 10:04:30

TOOL LOCATION C:\Program Files (x86)\ArcGIS\Desktop10.0\ArcToolbox\Toolboxes\Data Management Tools.tbx\CalculateField

COMMAND ISSUED

CalculateField SMAPVEX12_WeatherStations SOURCE "WeatherFarm" VB #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2012-10-22 14:04:43

TOOL LOCATION c:\program files (x86)\arcgis\desktop10.0\ArcToolbox\Toolboxes\Conversion Tools.tbx\FeatureClassToFeatureClass

COMMAND ISSUED

```
FeatureClassToFeatureClass W:\data8\projects\land\soil\SMAPVEX12
\data\Kurt\WeatherData\SMAPVEX12_WeatherStations\SMAPVEX12_WeatherStations.shp W:\data8
\projects\land\soil\SMAPVEX12\data\Kurt\SMAP_tables.gdb\SMAPdatasets
SMAP_Weather_Stations # "LATITUDE "LATITUDE" true true false 19 Double 0
0 ,First,#,W:\data8\projects\land\soil\SMAPVEX12
\data\Kurt\WeatherData\SMAPVEX12_WeatherStations\SMAPVEX12_WeatherStations.shp,LATITUDE,-
1,-1;LONGITUDE "LONGITUDE" true true false 19 Double 0 0 ,First,#,W:\data8
\projects\land\soil\SMAPVEX12
\data\Kurt\WeatherData\SMAPVEX12_WeatherStations\SMAPVEX12_WeatherStations.shp,LONGITUDE,-
1,-1;STATION "STATION" true true false 254 Text 0 0 ,First,#,W:\data8
\projects\land\soil\SMAPVEX12
\data\Kurt\WeatherData\SMAPVEX12_WeatherStations\SMAPVEX12_WeatherStations.shp,STATION,-
1,-1;SOURCE "SOURCE" true true false 50 Text 0 0 ,First,#,W:\data8
\projects\land\soil\SMAPVEX12
\data\Kurt\WeatherData\SMAPVEX12_WeatherStations\SMAPVEX12_WeatherStations.shp,SOURCE,-
1,-1" #
```

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

[Hide Geoprocessing history ▲](#)**Distribution ►**

DISTRIBUTION FORMAT

* NAME File Geodatabase Feature Class

VERSION ArcGIS 10

TRANSFER OPTIONS

* TRANSFER SIZE 0.000

[Hide Distribution ▲](#)**Fields ►**

DETAILS FOR OBJECT [Station_Weather](#) ▶

- * TYPE Feature Class
- * ROW COUNT 16

DEFINITION

Point locations of 16 permanent weather recording stations situated within 50 km of 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 [Shape](#) ▶

- * ALIAS [Shape](#)
- * DATA TYPE [Geometry](#)
- * WIDTH 0
- * PRECISION 0
- * SCALE 0
- * FIELD DESCRIPTION
Feature geometry.
- * DESCRIPTION SOURCE
ESRI
- * DESCRIPTION OF VALUES Coordinates defining the features.

[Hide Field Shape](#) ▲

FIELD [STATION](#) ▶

- * ALIAS [Station](#)
- * DATA TYPE [String](#)
- * WIDTH 254
- * PRECISION 0
- * SCALE 0
- * FIELD DESCRIPTION
Weather station name.

DESCRIPTION SOURCE

AAFC

[Hide Field STATION](#) ▲

FIELD [Data_Source](#) ▶

- * ALIAS [Data_Source](#)
- * DATA TYPE [String](#)
- * WIDTH 50
- * PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Weather station operator and data provider.

DESCRIPTION SOURCE

AAFC

LIST OF VALUES

VALUE MAFRI

DESCRIPTION Manitoba Agriculture, Food and Rural Initiatives

ENUMERATED DOMAIN VALUE DEFINITION SOURCE AAFC

VALUE Environment Canada

DESCRIPTION Environment Canada Weather Office

ENUMERATED DOMAIN VALUE DEFINITION SOURCE AAFC

VALUE WeatherFarm

ENUMERATED DOMAIN VALUE DEFINITION SOURCE AAFC

[Hide Field Data_Source ▲](#)

FIELD X ►

* ALIAS X

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

[Hide Field X ▲](#)

FIELD Y ►

* ALIAS Y

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

[Hide Field Y ▲](#)

[Hide Details for object Station_Weather ▲](#)

[Hide Fields ▲](#)

Metadata Details ►

* METADATA LANGUAGE English (CANADA)

* METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

METADATA IDENTIFIER 3D749D3A-BC4B-4644-8C4D-03FD231A7AC8

SCOPE OF THE DATA DESCRIBED BY THE METADATA * dataset

SCOPE NAME * dataset

* LAST UPDATE 2013-01-10

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

STANDARD OR PROFILE USED TO EDIT METADATA NAP

METADATA STYLE FGDC CSDGM Metadata

CREATED IN ARCGIS FOR THE ITEM 2012-12-20 12:37:13

LAST MODIFIED IN ARCGIS FOR THE ITEM 2013-01-10 16:19:27

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2013-01-10 16:19:27

[Hide Metadata Details ▲](#)

Metadata Maintenance ►

MAINTENANCE

UPDATE FREQUENCY as needed

[Hide Metadata Maintenance ▲](#)

Thumbnail and Enclosures ►

THUMBNAIL

THUMBNAIL TYPE JPG

[Hide Thumbnail and Enclosures ▲](#)

FGDC Metadata (read-only) ►

Entities and Attributes ►

DETAILED DESCRIPTION

ENTITY TYPE

ENTITY TYPE LABEL Station_Weather

ENTITY TYPE DEFINITION

Point locations of 16 permanent weather recording stations situated within 50 km of 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 Shape

ATTRIBUTE DEFINITION

Feature geometry.

ATTRIBUTE DEFINITION SOURCE ESRI

ATTRIBUTE DOMAIN VALUES

UNREPRESENTABLE DOMAIN

Coordinates defining the features.

ATTRIBUTE

ATTRIBUTE LABEL STATION

ATTRIBUTE DEFINITION

Weather station name.

ATTRIBUTE DEFINITION SOURCE AAFC

ATTRIBUTE

ATTRIBUTE LABEL Data_Source

ATTRIBUTE DEFINITION

Weather station operator and data provider.

ATTRIBUTE DEFINITION SOURCE AAFC
ATTRIBUTE DOMAIN VALUES
ENUMERATED DOMAIN
ENUMERATED DOMAIN VALUE MAFRI
ENUMERATED DOMAIN VALUE DEFINITION
Manitoba Agriculture, Food and Rural Initiatives
ENUMERATED DOMAIN VALUE DEFINITION SOURCE
AAFC

ATTRIBUTE DOMAIN VALUES
ENUMERATED DOMAIN
ENUMERATED DOMAIN VALUE Environment Canada
ENUMERATED DOMAIN VALUE DEFINITION
Environment Canada Weather Office
ENUMERATED DOMAIN VALUE DEFINITION SOURCE
AAFC

ATTRIBUTE DOMAIN VALUES
ENUMERATED DOMAIN
ENUMERATED DOMAIN VALUE WeatherFarm
ENUMERATED DOMAIN VALUE DEFINITION SOURCE
AAFC

ATTRIBUTE
ATTRIBUTE LABEL X

ATTRIBUTE
ATTRIBUTE LABEL Y

Hide Entities and Attributes ▲