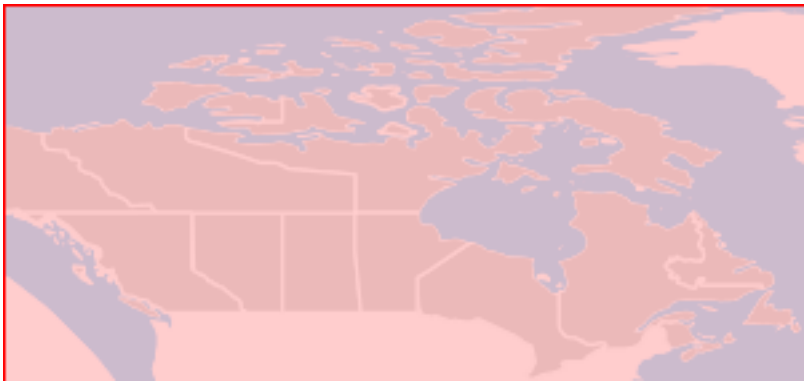
Fire M3 Hotspots

Description

A hotspot is a satellite image pixel with high infrared intensity, indicating a heat source. Hotspots from known industrial sources are removed; the remaining hotspots represent vegetation fires, which can be in forest, grass, cropland, or logging debris. A hotspot may represent one fire or be one of several hotspots representing a larger fire. Not all fires can be identified from satellite imagery, either because the fires are too small or because cloud cover obscures the satellite's view of the ground. The Fire M3 hotspots are obtained from multiple sources: 1. Advanced Very High Resolution Radiometer (AVHRR) imagery, courtesy of the U.S. National Oceanic and Atmospheric Administration (NOAA) National Environmental Satellite, Data and Information Service (NESDIS). 2. Moderate Resolution Imaging Spectroradiometer (MODIS) imagery, courtesy of the National Aeronautics and Space Administration (NASA) Land, Atmosphere Near real-time Capability for EOS (LANCE) Fire Information for Resource Management System (FIRMS), and from the Active Fire Mapping Program, Remote Sensing Applications Center (RSAC), USDA Forest Service. (https://fsapps.nwcg.gov/afm/) 3. Visible Infrared Imaging Radiometer Suite (VIIRS) imagery, courtesy of NASA LANCE FIRMS, University of Maryland and RSAC. Fire M3 maps and reports are updated daily from May through September. More information about Fire M3 is available at: http://cwfis.cfs.nrcan.gc.ca/background/dsm/fm3

Geographic Extent	SW:-141.003 41.676, NE:-52.617 83.114



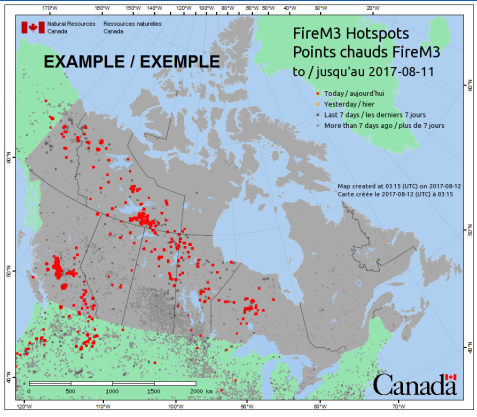
Time Period	From:1994 - To:2020

Resources

Resource Name	Resource Type	Language	Format
Fire M3 Hotspots	Web Service	English, French	WMS
Daily Hotspots	Dataset	English	CSV
Daily Hotspots Map	Web Service	English, French	PNG
Canadian Wildland Fire Information System	Web Service	English, French	HTML
Fire M3 Hotspots - Full Metadata	Supporting Document	English, French	XML
Attributes for FireM3 Hotspots	Supporting Document	English, French	PDF

Additional Information

Preview Image



Data Classification

GC Core Subject Thesaurus	Forest fires, Remote sensing
Topic category	Environment

Metadata Contact

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Protocol	http
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Data Contact

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Dataset Identification

Date	2020 (Publication)
Date Type	Publication
Date	2019-09-09 (Creation)
Date Type	Creation
Status	On going
Maintenance and Update Frequency	Daily
Use Limitation	Open Government Licence - Canada (http://open.canada.ca/en/open-government-licence-canada)
Access Constraints	License
Use Constraints	Other restrictions
Use Constraints	License End User
Other constraints	Please note, an End-User Agreement is required for accessing these data. Please refer to this agreement for information regarding restrictions of use: http://cwfis.cfs.nrcan.gc.ca/downloads/EUA/End_User_Agreement_gen_EN.html.php When the Data is displayed, in print, electronically, or otherwise, the source (i.e., Natural Resources Canada) must be acknowledged along with the following citation: Canadian Forest Service. 2020. Canadian Wildland Fire Information System (CWFIS), Natural Resources Canada, Canadian Forest Service, Northern Forestry Centre, Edmonton, Alberta. http://cwfis.cfs.nrcan.gc.ca.
Spatial representation type	Vector
Metadata language	English
Supplemental Information	The Fire Monitoring, Mapping, and Modeling System (Fire M3) began operations in 1998 as an initiative of the Canada Centre for Remote Sensing and the Canadian Forest Service, both agencies of Natural Resources Canada. The goals of Fire M3 are to use low-resolution satellite imagery to identify and locate actively burning fires on a daily basis; to estimate daily and annual area burned; and to model fire behavior and biomass consumption from fires. Hotspot locations and attributes are obtained from the US National Oceanic and Atmospheric Administration (NOAA), the US National Atmospheric and Space Administration (NASA), the US

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Forest Service, and the University of Maryland. Hotspots are identified from infrared satellite imagery acquired by the Advanced Very High Resolution Radiometer (AVHRR), Moderate Resolution Imaging Spectroradiometer (MODIS) and the Visible Infrared Imaging Radiometer Suite (VIIRS).

Subsequent processing of hotspot data involves combining the datasets from multiple sources, estimating fire weather conditions and fire behavior potential at hotspot locations using the Canadian Forest Fire Danger Rating System, and mapping burned area. In addition to images and reports for the web, data is made available to partners in fire management and industry, and it is used as input to other models such as smoke forecasting.

More information about Fire M3 is available at: http://cwfis.cfs.nrcan.gc.ca/background/dsm/fm3

Distribution Information

Distribution format

Name	SHP
Version	ESRI shapefiles geospatial vector data format

Distribution format

Name	CSV
Version	Comma separated text files

Distribution format

Name	WMS
Version	PNG, PNG8, JPEG, GIF, TIFF, TIFF8, GeoTIFF, GeoTIFF8, SVG, PDF, GeoRSS, KML, KMZ, OpenLayers

Distribution format

Name	WFS
Version	GML2, GML3, Shapefile, JSON, JSONP, CSV

Metadata Record

File Identifier	a7710f05-84dc-4ce2-a732-1a3fe67b600e
Hierarchy Level	Dataset
Date Stamp	2020-06-17T22:06:51
Metadata language	English (Other language:French)
Character set	UTF8

Metadata standard name	North American Profile of ISO 19115:2003 - Geographic information - Metadata
Metadata standard version	CAN/CGSB-171.100-2009

Reference System Information

Unique resource identifier	EPSG:3978
Codespace	http://www.epsg-registry.org