



Initializing Fire & Smoke

Sources of Wildland Fire & Smoke Information

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Introduction

- What fires are currently burning?
- What is the $PM_{2.5}$ forecast for the next day?
- Where can I get historical data on fire activity?
- Criteria
 - Publicly available
 - Canadian & US information
 - Access to data and/or analysis tools

Government of Canada / Gouvernement du Canada

Canada.ca | Services | Departments | Français

Natural Resources Canada

Energy | Mining/Materials | Forests | Earth Sciences | Hazards | Explosives | The North | Environment

Home > Forests > Forest Topics > Fire > CWFIS

Canadian Wildland Fire Information System

The Canadian Wildland Fire Information System (CWFIS) creates daily fire weather and fire behavior maps year-round and hot spot maps throughout the forest fire season, generally between May and September.

Forests

CWFIS

Background Information

Maps and Reports

Current Conditions

Fire Danger

Weather

Fire Weather

Fire Behavior

Fire M3 Hotspots

Interactive map

Monthly and Seasonal Forecasts

National Wildland Fire Situation Report

Historical Analysis

Fire Weather Normals

Fire Behavior Normals

Canadian National Fire Database

CWFIS Datamart

Publications

Fire Weather

[View the most recent Fire Danger map](#)

Fire Behavior

[View the most recent Head Fire Intensity](#)

Fire M3 Hotspots

[View the most recent Daily Hotspot map](#)

The Canadian Wildland Fire Information System is a computer-based fire management information system that monitors fire danger conditions across Canada. Daily weather conditions are collected from across Canada and used to produce fire weather and fire behavior maps. In addition, satellites are used to detect fires.

This site is divided into three main sections:

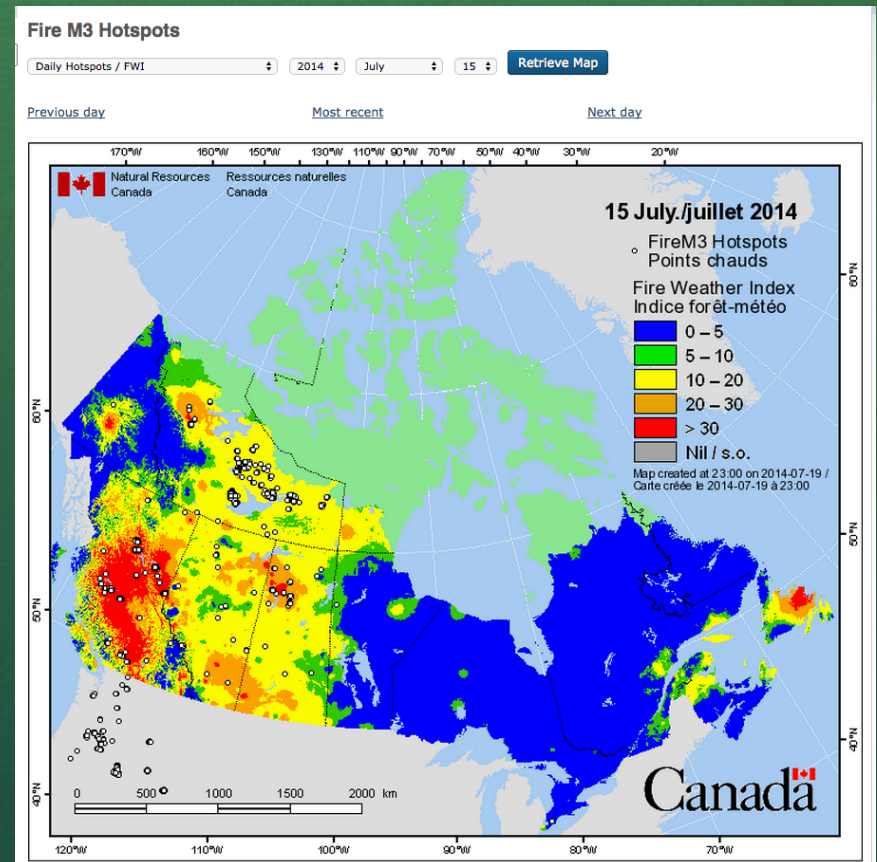
- The Background Information section contains data that provides details about the CWFIS and outlines the processes used to derive...

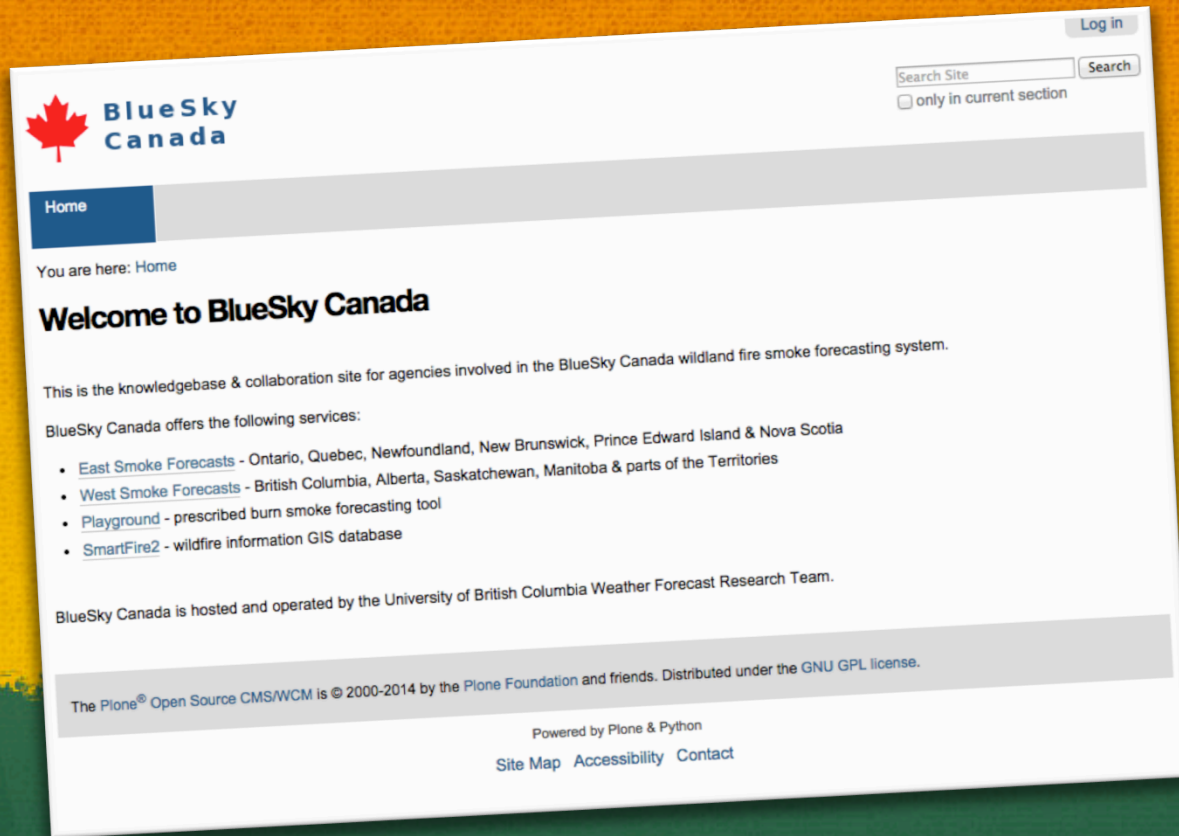
CWFIS

Canadian Wildland Fire Information System
Natural Resources Canada (NRCAN)

CWFIS

- Daily maps
 - Fire weather & fire behavior (year-round)
 - Hot spot maps (during forest fire season)
- Datamart
 - National Fire Database (polygon & point data)
 - Hot spots & ground reports (daily download)
- cwfis.cfs.nrcan.gc.ca



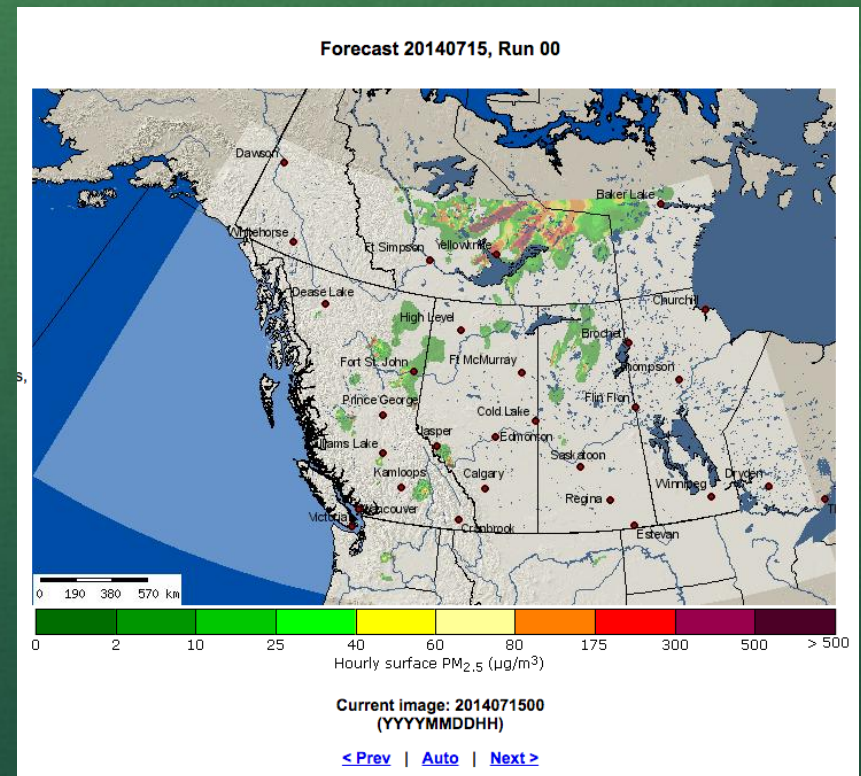


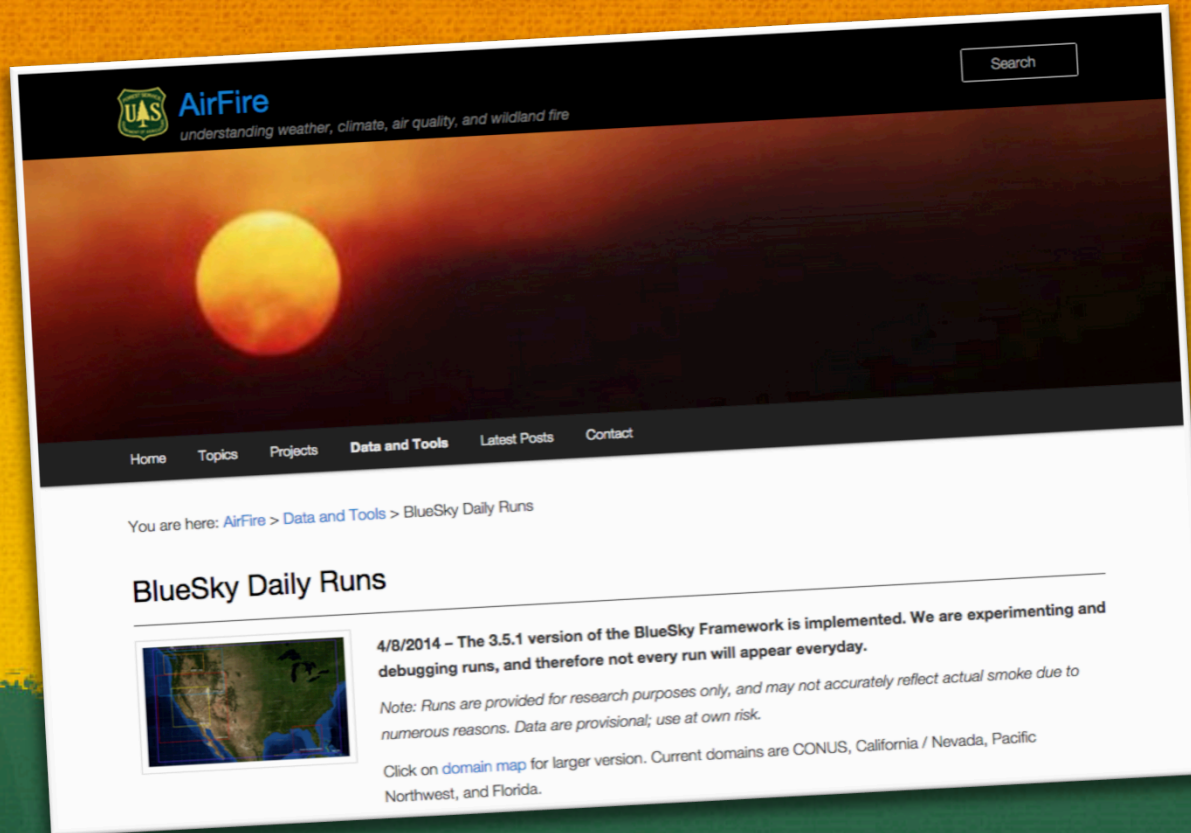
BlueSky Canada (BSC)

Partnership between the Canadian Safety & Security Program (CSSP), multiple provincial agencies, and the University of British Columbia

BlueSky Canada (BSC)

- SmartFire2 – fire GIS database
- Twice-daily smoke forecasts (BlueSky framework)
 - Animated maps & Google Earth files
 - Forecast data for download
- Playground – prescribed burn smoke modeling tool
- www.bcairquality.ca/bluesky (smoke forecasts)
- bluesky.eos.ubc.ca (project site)
- firesmoke.ca (future portal)





AirFire

AirFire Research Team
U.S. Forest Service (USFS)

AirFire

- Air Resource Advisors
- Smoke forecasts (BlueSky framework)
 - Point & regional
 - Trajectories
- Air quality tools
- Playground – smoke simulations
- airfire.org (team site, smoke forecasts)
- firesmoke.us (tools portal)

WILDLAND FIRE AIR QUALITY TOOLS PORTAL

Wildland Fire Air Quality Tools

WFDSS Integrated Tools v0.9 (Beta Test)
STATUS: IMPORTANT UPDATE 2/6/13 :
THIS PAGE IS BEING REDESIGNED AND REIMPLEMENTED FOR THE 2013 WESTERN WILDFIRE SEASON.
SOME FEATURES AND LINKS MAY BE BROKEN IN THE MEANTIME.
WE APOLOGIZE FOR THE INCONVENIENCE.

STEP 1
Set your fire location:

Map showing location near Kalispell, Coeur d'Alene, Missoula, and Lolo National Forest. Latitude: 47.50 °N, Longitude: -115.00 °E.

STEP 2
Select Your Tool:

- ▶ Smoke Guidance Point Forecast
- ▶ Smoke Guidance Regional Maps
- ▶ Diurnal Surface Wind Pattern Analysis
- ▶ Climatological Ventilation Index Point Statistics
- ▶ Current Air Quality Conditions Map
- ▶ Fire Information & Smoke Trajectories
- ▶ Customized Fuels, Consumption, & Smoke Modeling

Tool List
Current filter applied: none (viewing all products)

Smoke Guidance Point Forecast
localized text summary of atmospheric conditions affecting smoke
produced by: National FCAMMS

Forecast description (STC)	0807-12 0800-00 0800-12
Mixing height (m)	304 288 487
Mixing height (mi) (conv)	3 4 1.1
Mixing height (mi) (conv)	100 100 123
Transport wind (m/s)	1151 1454 969
Transport wind (mi/h)	3 2 2
Haines Index	3 3 3
Haines Index	2 2 2
PM2.5 (microg/m³)	999 999 999

Attributes: INSTANT ACCESS, EASY TO USE, LOCALIZED, text, ATMOSPHERIC CONDITIONS

OSPO Home > DOC > NOAA > NESDIS > OSPO

NOAA OFFICE OF SATELLITE AND PRODUCT OPERATIONS
NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE

ORGANIZATION SERVICES PRODUCTS OPERATIONS

Hazard Mapping System Fire and Smoke Product

Current HMS Analysis

Analysis for day 10/1/2014 last updated at 10/1/2014 15:11:55 GMT

Current HMS Fire and Smoke Analysis

Interactive GIS HMS Product

Google KML files: [Fire](#) | [Smoke](#)

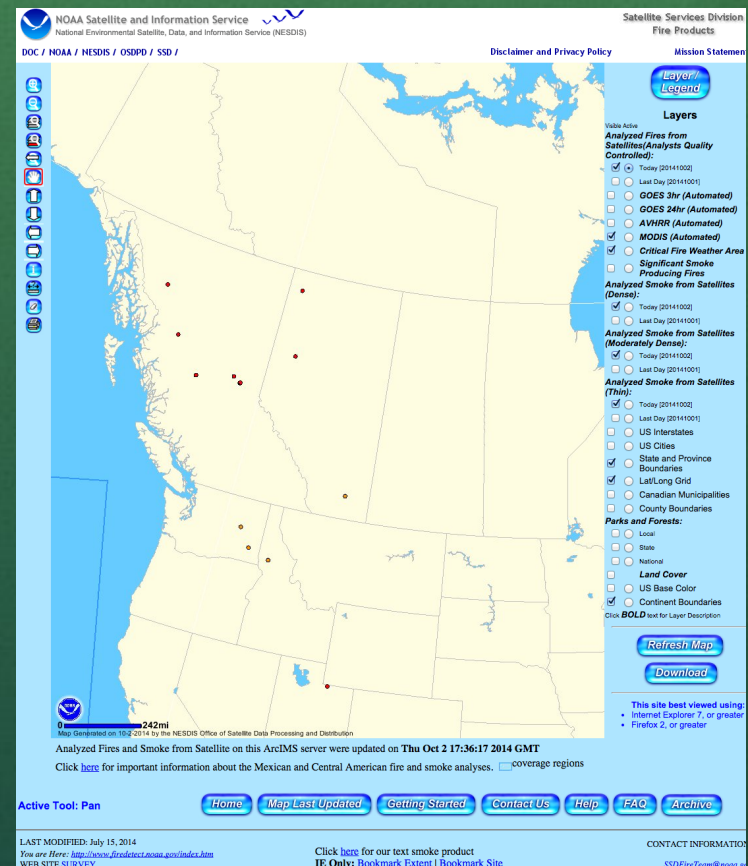
Real-Time Satellite Imagery Loops

Hazard Mapping System (HMS)

U.S. National Oceanic and
Atmospheric Administration (NOAA)

Hazard Mapping System (HMS)

- Analysis
 - Interactive GIS tool
 - Maps & Google Earth files
- Satellite imagery
 - GOES & active fires (NOAA)
 - MODIS (NASA)
- Links to more sites & tools
- www.ospo.noaa.gov/Products/land/hms.html



Recap

Organization	aka	URL
Canadian Wildland Fire Information System	CWFIS	cwfis.cfs.nrcan.gc.ca
BlueSky Canada	BSC	www.bcairquality.ca/bluesky bluesky.eos.ubc.ca firesmoke.ca
USFS AirFire Team	AirFire	airfire.org firesmoke.us
NOAA Hazard Mapping System	HMS	www.ospo.noaa.gov/Products/land/hms.html

Contact

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Canadian Safety
and Security Program



Natural Resources
Canada

Ressources naturelles
Canada



Government
of Alberta

Alberta

Manitoba 
Health



MINISTRY OF NATURAL RESOURCES



Environment
Canada Environnement
Canada

