

## nbac\_m3\_2023\_Feb22

### Shapefile



### Tags

2023 wildfires, fire perimeters, burned area, Canada

### Summary

The NBAC-M3 dataset is an interim fire product of the 2023 wildfires in Canada. Provisional fire perimeter maps from NBAC are compiled with Fire M3 perimeters to form a complete picture of fire activity for 2023. This data supports research in the manuscript "Canada Under Fire – Drivers and Impacts of the Record-Breaking 2023 Wildfire Season" (<https://doi.org/10.22541/essoar.170914412.27504349/v1>).

### Description

This NBAC-M3 dataset is composed of fire perimeters derived from high resolution image mapping using Landsat and Sentinel-2 satellites in NBAC (National Burned Area Composite), and buffered perimeters from thermal anomaly (hotspot) point detections in Fire M3 (Fire Monitoring, Mapping, and Modeling). Most of the burned area is mapped by NBAC (82%), including all large fires greater than 100k hectares. Efforts are underway to complete NBAC for the 2023 fire season, which will be available for download on the Canadian Wildland Fire Information System (<https://cwfis.cfs.nrcan.gc.ca/datamart>). When using this NBAC-M3 dataset for mapping activities and analysis, research, evaluation or display, please use the following citation referencing the article found here: <https://doi.org/10.22541/essoar.170914412.27504349/v1>.

Cite as: Piyush Jain, Quinn E Barber, Steve Taylor, et al. Canada Under Fire – Drivers and Impacts of the Record-Breaking 2023 Wildfire Season. ESS Open Archive . February 28, 2024. DOI: [10.22541/essoar.170914412.27504349/v1](https://doi.org/10.22541/essoar.170914412.27504349/v1)

### Credits

Natural Resources Canada, Canadian Forest Service

### Use limitations

There are no access and use limitations for this item.

### Extent

**West** -147.437846    **East** -39.164433  
**North** 73.257879    **South** 39.068872

### Scale Range

**Maximum (zoomed in)** 1:5,000

**Minimum (zoomed out)** 1:150,000,000

## ArcGIS Metadata ►

### Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE environment

\* CONTENT TYPE Downloadable Data  
EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION No

*Hide Topics and Keywords ▲*

### Citation ►

\* TITLE nbac\_m3\_2023\_Feb22  
CREATION DATE 2024-02-22 00:00:00

PRESENTATION FORMATS \* digital map

*Hide Citation ▲*

### Resource Details ►

DATASET LANGUAGES \* English (CANADA)  
DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

SPATIAL REPRESENTATION TYPE \* vector

\* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.5.0.6491

CREDITS  
Natural Resources Canada, Canadian Forest Service

ARCGIS ITEM PROPERTIES  
\* NAME nbac\_m3\_2023\_Feb22  
\* SIZE 186.568  
\* LOCATION file:///W-EDM-A144835\C\$\Projects\nbac\data\2023\NBAC\_M3\nbac\_m3\_2023\_Feb22.shp  
\* ACCESS PROTOCOL Local Area Network

*Hide Resource Details ▲*

### Extents ►

EXTENT  
GEOGRAPHIC EXTENT  
BOUNDING RECTANGLE  
EXTENT TYPE Extent used for searching  
\* WEST LONGITUDE -147.437846  
\* EAST LONGITUDE -39.164433  
\* NORTH LATITUDE 73.257879  
\* SOUTH LATITUDE 39.068872  
\* EXTENT CONTAINS THE RESOURCE Yes

## EXTENT IN THE ITEM'S COORDINATE SYSTEM

- \* WEST LONGITUDE -2119848.768896
- \* EAST LONGITUDE 2490189.540468
- \* SOUTH LATITUDE 439813.347912
- \* NORTH LATITUDE 3707139.809259
- \* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

## Spatial Reference ►

## ARCGIS COORDINATE SYSTEM

- \* TYPE Projected
- \* GEOGRAPHIC COORDINATE REFERENCE GCS\_North\_American\_1983
- \* PROJECTION Canada\_Albers\_Equal\_Area\_Conic
- \* COORDINATE REFERENCE DETAILS

## PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 102001  
 X ORIGIN -13825800  
 Y ORIGIN -7913700  
 XY SCALE 325738809.13730091  
 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  
 LATEST WELL-KNOWN IDENTIFIER 102001  
 WELL-KNOWN TEXT PROJCS["Canada\_Albers\_Equal\_Area\_Conic",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["Albers"],PARAMETER  
 ["False\_Easting",0.0],PARAMETER["False\_Northing",0.0],PARAMETER["Central\_Meridian",-  
 96.0],PARAMETER["Standard\_Parallel\_1",50.0],PARAMETER  
 ["Standard\_Parallel\_2",70.0],PARAMETER["Latitude\_Of\_Origin",40.0],UNIT  
 ["Meter",1.0],AUTHORITY["Esri",102001]]

## REFERENCE SYSTEM IDENTIFIER

- \* VALUE 102001
- \* CODESPACE Esri
- \* VERSION 4.0.0

[Hide Spatial Reference ▲](#)

## Spatial Data Properties ►

## VECTOR ►

- \* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

## GEOMETRIC OBJECTS

FEATURE CLASS NAME nbac\_m3\_2023\_Feb22  
 \* OBJECT TYPE composite  
 \* OBJECT COUNT 1192

[Hide Vector ▲](#)

## ARCGIS FEATURE CLASS PROPERTIES ▶

FEATURE CLASS NAME nbac\_m3\_2023\_Feb22  
 \* FEATURE TYPE Simple  
 \* GEOMETRY TYPE Polygon  
 \* HAS TOPOLOGY FALSE  
 \* FEATURE COUNT 1192  
 \* SPATIAL INDEX FALSE  
 \* LINEAR REFERENCING FALSE

*Hide ArcGIS Feature Class Properties ▲*

*Hide Spatial Data Properties ▲*

## Geoprocessing history ▶

## PROCESS

PROCESS NAME  
 DATE 2024-02-22 13:12:21  
 TOOL LOCATION c:\program files (x86)\arcgis\desktop10.5\ArcToolbox\Toolboxes\Data Management Tools.tbx\Append  
 COMMAND ISSUED  
 Append nbac\_m3\_2023\_Feb22\_v4 nbac\_m3\_2023\_Feb22\_final TEST # #  
 INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

## PROCESS

PROCESS NAME  
 DATE 2024-02-22 13:34:01  
 TOOL LOCATION c:\program files (x86)\arcgis\desktop10.5\ArcToolbox\Toolboxes\Data Management Tools.tbx\RepairGeometry  
 COMMAND ISSUED  
 RepairGeometry nbac\_m3\_2023\_Feb22\_final DELETE\_NULL  
 INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

## PROCESS

PROCESS NAME  
 DATE 2024-02-22 13:59:50  
 TOOL LOCATION c:\program files (x86)\arcgis\desktop10.5\ArcToolbox\Toolboxes\Data Management Tools.tbx\Append  
 COMMAND ISSUED  
 Append nbac\_missing nbac\_m3\_2023\_Feb22\_final TEST # #  
 INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

## PROCESS

PROCESS NAME  
 DATE 2024-02-22 14:01:54  
 TOOL LOCATION c:\program files (x86)\arcgis\desktop10.5\ArcToolbox\Toolboxes\Data Management Tools.tbx\Sort  
 COMMAND ISSUED  
 Sort nbac\_m3\_2023\_Feb22\_final W:\EDM\MAFiMS\mapping\burn23\M3\nbac\_m3\_2023\_Feb22\_final2.shp "NFIREID ASCENDING" UR  
 INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

## PROCESS

PROCESS NAME  
 DATE 2024-02-22 15:07:56

TOOL LOCATION c:\program files (x86)\arcgis\desktop10.5\ArcToolbox\Toolboxes\Data Management Tools.tbx\CalculateField  
COMMAND ISSUED  
CalculateField nbac\_m3\_2023\_Feb22 source "M3" VB #  
INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

[Hide Geoprocessing history ▲](#)

## Distribution ►

### DISTRIBUTION FORMAT

\* NAME Shapefile  
VERSION 1

### TRANSFER OPTIONS

\* TRANSFER SIZE 186.568

[Hide Distribution ▲](#)

## Fields ►

### DETAILS FOR OBJECT nbac\_m3\_2023\_Feb22 ►

\* TYPE Feature Class  
\* ROW COUNT 1192

### FIELD FID ►

\* ALIAS FID  
\* 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 FID ▲](#)

### 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 NFIREID ►

- \* ALIAS NFIREID
- \* DATA TYPE Double
- \* WIDTH 19
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Unique identifier for each fire event mapped in NBAC-M3

DESCRIPTION SOURCE

None

*Hide Field NFIREID ▲*

FIELD area\_calc ►

- \* ALIAS area\_calc
- \* DATA TYPE Double
- \* WIDTH 19
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Area in hectares

DESCRIPTION SOURCE

None

*Hide Field area\_calc ▲*

FIELD area\_calib ►

- \* ALIAS area\_calib
- \* DATA TYPE Double
- \* WIDTH 19
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Calibrated area in hectares for M3 perimeters.

DESCRIPTION SOURCE

None

*Hide Field area\_calib ▲*

FIELD SOURCE ►

- \* ALIAS source
- \* DATA TYPE String
- \* WIDTH 11
- \* PRECISION 0
- \* SCALE 0

## FIELD DESCRIPTION

Source of perimeter mapping

## DESCRIPTION SOURCE

None

## LIST OF VALUES

VALUE NBAC

DESCRIPTION Fire mapped using Landsat or Sentinel-2

ENUMERATED DOMAIN VALUE DEFINITION SOURCE None

VALUE M3

DESCRIPTION Fire mapped using buffered hotspots

ENUMERATED DOMAIN VALUE DEFINITION SOURCE None

[Hide Field source ▲](#)[Hide Details for object nbac\\_m3\\_2023\\_Feb22 ▲](#)[Hide Fields ▲](#)

## Metadata Details ►

\* METADATA LANGUAGE English (CANADA)

\* METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

METADATA IDENTIFIER 663C0F5E-03E1-489E-842B-ED650696B0DB

SCOPE OF THE DATA DESCRIBED BY THE METADATA \* dataset

SCOPE NAME \* dataset

\* LAST UPDATE 2024-02-29

## ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

METADATA STYLE North American Profile of ISO19115 2003

STANDARD OR PROFILE USED TO EDIT METADATA NAP

CREATED IN ARCGIS FOR THE ITEM 2024-02-22 13:12:21

LAST MODIFIED IN ARCGIS FOR THE ITEM 2024-02-29 16:15:22

## AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2024-02-29 16:06:46

[Hide Metadata Details ▲](#)

## Metadata Contacts ►

## METADATA CONTACT

INDIVIDUAL'S NAME Quinn Barber

ORGANIZATION'S NAME Natural Resources Canada, Canadian Forest Service

CONTACT'S POSITION Fire Science Analyst

CONTACT'S ROLE custodian

CONTACT INFORMATION ▶

PHONE

VOICE 587-337-1495

ADDRESS

TYPE

DELIVERY POINT 5320 122 Street

CITY Edmonton

ADMINISTRATIVE AREA Alberta

POSTAL CODE T6H 3S5

COUNTRY CA

E-MAIL ADDRESS quinn.barber@nrca-nrcan.gc.ca

*Hide Contact information ▲*

*Hide Metadata Contacts ▲*

**Thumbnail and Enclosures ▶**

THUMBNAIL

THUMBNAIL TYPE JPG

*Hide Thumbnail and Enclosures ▲*

**FGDC Metadata (read-only) ▼**