

2020 Updates to the National Incident Feature Service and Event Geodatabase

2/07/20

Due to the slow 2019 fire season, the 2019 Updates are included below in addition to the 2020 Updates.

2020 Updates

1. Server-Side Acreage Calculations

- As part of the InFORM project requirements, the Acreage within EventPolygon will be automatically calculated within the National Incident Feature Service. This process will overwrite values in the GISAcres field whenever an edit is made to the feature.

Please email wildfireresponse@firenet.gov with any discrepancies or concerns.

2. GeoOps

- GSTOP has been retired and is being replaced by [NWCG Standards for Geospatial Operations, PMS-936](#). GeoOps for short.

This official NWCG document contains all the relevant standards for implementing Geospatial Operations on a wildland fire incident.

3. Event Schema Changes

- *Completed Line* has been changed to *Contained Line* in the Event Line feature category domain.

Along with this change comes a clearer intent on how the feature category should be used:

- i. The entire fire perimeter should be covered by either *Uncontrolled Fire Edge* or *Contained Line* (i.e. there should be Event Line features of only these two categories coincident with the entire fire polygon). This will simplify containment calculations.
 - ii. Different types of completed line (dozer, hand, etc) should still be tracked where they exist using the appropriate feature categories. They should be placed coincident with a *Contained Line* feature when they are the containment line.
- The *Defensible Space* domain for the Structure Triage feature class has been updated to use plain text instead of the >< (greater/less than) symbols, which caused issues with the HTML tags in the Data Driven Pages template.

4. Folder Structure Changes

- A folder named *edit* has been added under *\incident_data* for the **Edit GDB**. This is to be used in lieu of a Local Copy when internet connectivity is unavailable.
- Pre-named, ancillary GDBs have been added for Annotation and Progression under *\incident_data*.

All related data for each should be stored in the appropriate GDB.

5. File Namer

- The File Namer spreadsheet has been updated to match all new GeoOps standard naming conventions. It also now follows the same order as the GISS Workflow and contains lines for new items such as AGOL Web Layers and ancillary geodatabases.

- i. The GeoOps standard naming convention updates include, but are not limited to:
 - Datum/CRS is no longer required for data files that store that information but it is still optional and must be included on non-spatial files that store spatial information such as .txt and .csv.
 - Feature Type (point, line, or polygon) is longer required for spatial data files.

6. ProProjectTemplate.aprx

- All data editing and map production in ArcGIS Pro will start with the *ProProjectTemplate.aprx*. After updating the folder and GDB names for the incident, “Save As” should be used on this APRX to create the project files for the **Edit Project** and all **Master Projects**.

Layout templates are included for many standard page sizes that come preconfigured with dynamic text.
- A table called *DynamicTextUpdate* is included in the *other_incident_data.gdb*. When **Master Projects** are properly saved from the *ProProjectTemplate.aprx*, the dynamic text in every layout will reference the incident wide attributes in the table for fast and efficient map production. This allows the Incident Name and Local ID to prepopulate and the Acreage statement to be updated everywhere simultaneously with the replacement of the **Master Incident GDB**.

The rest of the text elements are sources from the Map Properties and will apply to every Layout template in that APRX. This allows all project-specific elements to be updated at once (Title, Date and OP of Use, Author).

Each Layout template contains instructions for updating the Dynamic Text.
- The 2019 job aid *Prepare and Configure the Event GDB using ArcGIS Pro.pdf* has been included in the *\tools* folder for reference. The 2020 process will be very similar. For the most up to date instructions, please check the GISS Workflow on the [NWCG Website](#).

Note: All links in this document will be broken because they point to the old FireNet hosting which is no longer available.

7. Open Data site: <http://data-nifc.opendata.arcgis.com/>

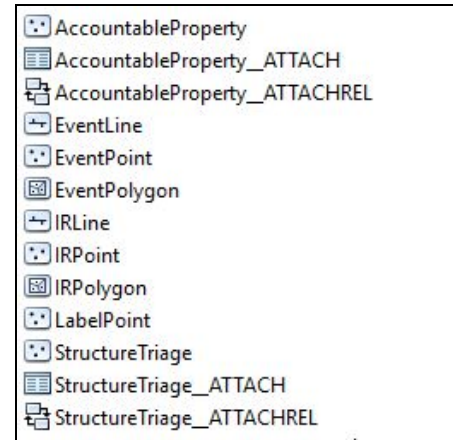
- [Current wildfire perimeters](#) - replaces NIFS Public feature service
- [Archived current year wildfire perimeters](#)
- GeoMAC perimeters from 2000 - 2019
- For more information on these layers please see their respective topics in the Wildfire Response GIS GeoNet group.

2019 Updates (3/13/19)

For 2019, the National Incident Feature Service (NIFS) and underlying Event geodatabase feature classes have received some significant updates. Based on user suggestions over the last two seasons, these updates are designed to improve capabilities and field user experience through a better editing workflow by adding several additional feature classes.

Updates to the 2019 NIFS and Event GDB include:

1. Additional feature classes.
 - *Accountable Property* (Point)
 - *IR Point/Line/Polygon* with minimal attributes to facilitate exchange of IR data
 - *Label Point* to store Division and Branch label locations
 - *Structure Triage* (Point with attachments)
2. Updates to the Event Point/Line/Polygon feature classes.
 - Additional Feature Categories (See table below)
 - IR Feature Categories were moved to new feature classes (See table below)
 - Additional field for Archeological Clearance, *ArchClearance*, added to Point and Line feature classes
 - Additional field *LandOwner* added to Point and Line feature classes
 - Additional field *LineWidthFeet* (for suppression repair activities) added to Line feature class
 - Geodatabase Split Policy for *FeatureAccess* and *FeatureStatus* changed to 'Duplicate' so lines split during an edit session retain the original value
 - Updated the *DeleteThis* domain to include 'No,' 'Yes - No Longer Needed,' and 'Yes - Editing Mistake'
3. Updates to the National Incident Feature Services hosted by EGP.
 - Creation of *Collector Edit*, *View*, and *Repair* services to improve Collector workflow and better manage what edits can be made in the field: [description of Collector services](#); please use the [Incident Web Map Template](#) as a starting point for Collector maps
 - Creation of services for IR feature classes for View in Collector and Edit by GISS.
 - Creation of services for Structure Triage feature classes for View in Collector and Edit by GISS
 - Creation of a 'Public' feature service displaying any features with attributes of *FeatureAccess* = 'Public' and *FeatureStatus* = 'Approved.' This will facilitate the creation of public facing AGOL web maps without having to create copies of the incident data
 - Archive service is being updated to provide better access for the GISS. In the enterprise SDE database backend Archiving is enabled so any edit made to the service is maintained. We are working on a better recovery process that will allow the GISS to access older data from the service that is no longer visible (eg. deleted by mistake)



Feature Category Domain (2019 Changes Only)

Event Point	Event Line	Event Polygon
Repair Point	Repair Line	Wildfire Final Fire Perimeter
Bridge	UAS Launch and Recovery Zone	IR Heat Perimeter
Culvert	Fence	IR Intense Heat
Fence - Cut/Damaged	Road Repair	IR Scattered Heat
Hazard Tree	Edge of Imagery	Cloud Cover
Dozer Push		Area Covered by IR Flight
Retardant in Avoidance Area		
Road Repair	IR Point	IR Polygon
Stream Crossing	Possible IR Heat Source	IR Heat Perimeter
Structure Wrap	IR Isolated Heat Source	IR Intense Heat
Clean Up Area		IR Scattered Heat
Water Development or Draft Site	IR Line	Unburned Island
Resource Location	Edge of Imagery	Cloud Cover
Hazard		Area Covered by IR Flight
Landing or Log Deck	Accountable Property	
Possible IR Heat Source	Other Property	
IR Isolated Heat Source	Pump	
Pump	Water Tank	
Water Tank		
Fire Location		Added
Wind Speed & Direction		Removed
		Moved