NWCG Data Management Standards for Incident Complexes and Merged Wildfires

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These standards are intended to enable accurate and consistent interagency data management practices for incident complexes and merged wildfires.

DEFINITIONS

Note: The following definitions are under consideration for inclusion in the NWCG Glossary.

Incident Complex: Two or more distinct incidents in the same general area that, by management action, are managed under a single incident commander or unified command in order to improve efficiency and simplify incident management processes.
Definition Extension:
- An Incident complex is not a wildfire incident and is not interchangeable with a wildfire record.
- An Incident Commander or Incident Management Team may manage multiple wildfires without creating an incident complex.

Merged Wildfires: Two or more wildfires that burn together to form a single burned area and which, by management action, may be declared merged and managed as a single incident to improve efficiency and simplify incident management processes.
Definition Extension:
- Management can decide to declare wildfires as merged or not.
- A merged wildfire requires a Merged Date and association with the remaining active wildfire, i.e. Merged Parent, to be identified correctly in operational and historical data.

Note: Merged wildfires as considered here are individual ignitions that burn together. The processes of merging incident records in ROSS, e-ISuite and other data systems are distinct from and unrelated to the concept of merged wildfires discussed here. For ROSS, read more about it here: http://ross.nwcg.gov/user_guide/merge_incidents_v216_2014_0324.pdf).

Note: The use of the following four terms and definitions are exclusive to these standards and are not included in the NWCG Glossary. They are used only for the purpose of clarity.

Parent Incident: The incident within an incident complex or group of merged wildfires that, from a data hierarchy perspective, is the primary, or "parent" incident. For incident complexes and merged wildfires, the parent incident may have multiple child incidents. The "parent" and "child" terms establishes a hierarchical data construct for consistent management of data for multiple incidents that are combined into incident complexes or merged wildfires.

Child Incident: A single incident within an incident complex or merged wildfires that, from a data hierarchy perspective, is subordinate to the parent incident. A child incident may have only one parent incident. The "parent" and "child" terms establish a hierarchical data construct for consistent management of data for multiple incidents that are combined into incident complexes or merged wildfires.

Parent Records: Data records that are generated by the parent incident. Incident complex records are always parent records. Parent records may have multiple child records.

Child Records: Data records that are generated by a child incident. Child records may have only one parent record.

INCIDENT COMPLEX BUSINESS RULES

Establishing an Incident Complex
- Involved Agency Administrators should establish an incident complex based on wildfire activity and the benefits listed below. Ensure that this decision is made in consultation with involved agency administrators and incident commanders, and with an Incident Business Advisor (IBA).

Benefits of Establishing an Incident Complex
- Enables agency administrator to delegate management responsibility for multiple wildfires to a single incident management team (IMT).
- Simplifies ordering.
- Simplifies cost apportionment.
- Simplifies ICS incident reporting.
- Simplifies incident decision and decision support processes.

Incident Complex Data Standards
- For all Incident Complexes, use "CX" as the NWCG Data Standard.
- Never convert an incident complex record (CX) to a wildfire record (WF).
- Never convert a wildfire record (WF) to an incident complex record (CX).

Incident Complex Naming Conventions
- Include the word "Complex" in the incident complex name.
- Never name an incident complex after any wildfire that becomes part of the complex. For example, if the West Fork Fire is an incident being integrated into the incident complex, do not name the incident complex the West Fork Complex.

Note: An incident record with the word "complex" in the name that is not identified as a "CX" in the Event Kind/Category for Incident Complexes will be considered an error and will require correction. This will entail creating an Incident Complex following established *NWCG Standards for Incident Complexes and Merged Wildfires Data Management* and deleting the incorrect record.

Incident Complex Data Characteristics
- Do not establish a location (latitude/longitude) for the incident complex (the complex is a management tool, not an event on the ground).
- Use the latitude/longitude of the central location point (centroid) of the incidents in the complex to represent the incident complex on a map.
- Do not establish a start date/time for the incident complex (a date/time associated with the administrative creation of the incident complex record in an authoritative application will be established).
- Establish and use only one Unique Fire ID (Year + Unit ID + Local Incident Identifier) for the incident complex. Do not share this Unique Fire ID with any other record, including child incidents within the incident complex.
- Ensure that the Incident Complex record has at least two child wildfire incidents at the time of creation.
- Ensure that each child incident within the incident complex has its own Unique Fire ID.
- Add additional child incidents into the incident complex as necessary, without restriction on number or timeframe.
- Withdraw child incidents from the incident complex independently from other incidents as necessary. This should not be a common occurrence.

Note: Child incidents may participate in more than one incident complex during their lifetime, though at any given time they may only participate in a single incident complex.

Incident Complex Authoritative Data Sources (ADS)
- Use Computer Aided Dispatch (CAD) as the primary and preferred ADS for incident complex record creation and management. If no CAD is available, use ICS209 as the alternative.

Incident Complex Cost Coding
There are two preferred methods for incident complex cost coding. When selecting the method, include the appropriate personnel in the discussion. This should include, but is not limited to, the Agency Administrator(s), Incident Commander, Incident Business Advisor, Finance Section Chief and local Dispatch representative. It is important to have appropriate representation to ensure the chosen approach is implementable by all functionalities and does not cause undue burden. The preferred incident complex cost coding methods, in order of preference, are:

1. Establish a separate charge code for each child incident and do not establish an incident complex charge code.
   o This method provides the most accurate reflection of child incident costs, which can be important for cost apportionment, reporting and future planning efforts.

2. Establish a charge code for each child incident and also establish a new charge code for the incident complex.
   o This method simplifies cost accounting for shared costs and still allows actual costs to be charged to child incidents when known.
   o If any costs will be charged to the incident complex instead of to child incidents, the incident complex should have a unique FireCode that was not previously assigned to an incident.
   o Costs that are difficult to break out by incident can be charged to the incident complex.
   o The agency responsible for the incident complex will determine how to distribute shared costs among incidents.
   o If the incident complex includes multiple jurisdictions, the agencies will coordinate on how to apportion costs.

Alternatives to these methods are permitted. However, should the involved agency or agencies choose to implement an alternative cost coding method, the decision must be well documented and the process must be clearly stated, understood by the involved parties, and consistently implemented. As with the preferred methods described above, the objective is to ensure accurate and consistent apportionment and documentation of incident costs.

Several factors should be considered when determining the appropriate code requirements for complex incidents. Some of these factors include:
   o Agencies involved - single agency, multi-jurisdictional (federal, state, local)
   o Cost share agreement in place
   o Billable or reimbursable incident
   o Trespass incident with potential litigation
   o FMAG declaration

Note: USDA-Forest Service (FS) Specific Process on FireCode Application

The FireCode application enforces a one to one relationship between a FireCode record for an incident and a FireCode record for an incident complex. FS uses a single fire code for ABCD Misc incidents from year to year. This creates two issues for the FireCode application: 1) If multiple incidents are using the same ABCD Misc fire code, only one can be assigned to an incident complex in the FireCode application. 2) In the FireCode application, some of these ABCD Misc firecodes have been assigned to a FireCode incident complex record in the past and cannot be assigned to a current incident complex unless it is removed from the historical record.

The FireCode application only cares about incidents that have a unique FireCode. Because FS does not require a unique FireCode for every incident, there will be situations where a CAD or ICS209 will have one or more ABCD Misc incident(s) included in an incident complex that are not represented in the FireCode application. This is valid and simply means that an incident complex in the FireCode application may be a sub-set of the incident complex.

Table 1. Incident Complex Parent and Child Record Data - Recommended Data Elements for ICS209 Records.

Individual Child Report Data	Incident Complex Parent Report Data
Incident Name	Complex Name
	Dispatch Center ID
	GACC
	Jurisdictional Unit & Agency
	Protection Unit & Agency
FireCode (optional)	FireCode (optional)
	FSJobCode (optional)
	FSOverrideCode (optional)
	Incident Management Organization
	Fire Management Complexity
	Incident Commander Name
Residences Destroyed	
Other Structures Destroyed	Total Residences Threatened
	Total Other Structures Threatened
Estimated Cost To Date	Sum of Estimated Cost To Date
Fatalities	Sum of Fatalities
Injuries	Sum of Injuries
Daily Acres	Sum of Daily Acres
Estimated Containment Date	Estimated Containment Date
Percent Contained	Percent Contained
Percent Perimeter To Be Contained	Total Incident Complex Personnel
	Significant Events
	Life, Safety, Health Remarks
	Weather Concerns
	Projected Activity 12 24 48 72 hrs.
	Strategic Objectives
	Strategic Discussion
	Threat Summary Risk Info 12 24 48 72 hrs.
	Critical Needs 12 24 48 72 hrs.
	Planned Actions
	ICS209 Remarks
	ICS209 Report For Time Period From
	ICS209 Report For Time Period To
	ICS209 Report Status
Complex Parent Unique Fire ID (assigned by CAD or 209)	Event Category: CX

MERGED WILDFIRES BUSINESS RULES

Decision to Merge Wildfires
- Involved Agency Administrators should merge wildfires based on wildfire activity and the considerations listed below.

Benefits of a Merged Wildfire
- Being able to manage as one fire operationally.
- Makes sense to not have an arbitrary break between two incidents.
- Simplicity of management.
- Simplicity of explanation to the public.
- Ease of tracking cost after the merge.
- Risk of allocating resources to multiple incidents which would result in double reporting.
- When you continue to show two fires instead of one you are overstating the situation.

Considerations when Merging Wildfires
- Most wildfires that burn together should be merged and managed as a single incident. Exceptions are discussed below.
- The decision to merge two or more wildfires makes the most sense when the growth potential is low for the wildfire(s) identified as merged (or consumed).
- Consider the following factors when deciding which wildfire to keep active (the parent record), as there may be cost apportionment and/or administrative implications.
  - Origin ownerships/jurisdictions.
  - Pre-merge suppression effort and costs for each wildfire.
  - Portions of the merged wildfire where post-merge growth is likely to occur.
  - Jurisdictions likely to be affected by post-merge growth.
  - Portions of the merged wildfire where post-merge suppression effort is likely to be applied.
- Exceptions to merging wildfires that burn together may occur when made when:
  - It is administratively advantageous to separately manage two active wildfires that have burned together because:
    - Management responsibility for the wildfires will remain distinct.
    - Management activity and post-merge growth (reported acres and perimeters) can be split based on an identified geographic or administrative feature (e.g., creek, Zone boundary).
    - Growth potential on both wildfires is high.
  - An active wildfire burns into a current year wildfire that has already been called out. These fires should continue to be reported separately.
- When exceptions occur and managers decide to continue managing the wildfires independently, no change is made to the incident records.

Process for managing two or more wildfires merged into a single incident
- Designate one wildfire the parent incident to establish the parent record. This is generally the "consuming" wildfire.
- Designate all the other wildfires as child incidents to establish child records. These are general the "consumed" incidents.

- For all child incidents:
  - Freeze the incident records.
  - Include the following information each incident record:
    - Date of merger
    - Name of merged parent incident
    - Final acreage of the child incident
    - Final perimeter of the child incident
- For all parent incidents:
  - Consolidate and report all acres from all merged wildfires (all child incidents and the parent incident).
  - Ensure that the fire perimeter includes all burned acres from all merged wildfires (all child incidents and the parent incident).
  - Report all new acres (post-merge) as parent incident acres.
  - Ensure that the parent fire record retains the points of origin for all child incidents.
  - To retain ROSS and e-ISuite data integrity, transfer all resources to the parent incident (Do not merge incident records in ROSS or e-ISuite for merged wildfires).
- When the parent incident is called "out", all the associated child incidents will inherit that status and date.
- When merged wildfires are part of an incident complex (this may occur) follow established incident complex business rules (In this situation, the incident complex record would have an incident complex parent and a merged fire parent).

Merged Fire Data Standards
- The Fire Reporting and Geospatial Subcommittees will review existing data standards that may be impacted by the addition of the Merged Date and Merged Parent fields and request changes as needed.

Merged Fire Authoritative Data Sources (ADS)
- Update merged wildfire data in the CAD. If there is no CAD, initiate merge in ICS209.
- Validate and approve Merged Date and Merged Parent Wildfire in the Final Fire Report and GIS Fire Perimeter Data Standards.
- Validate and approve Merged Date and Merged Parent Wildfire in the Geospatial Fire Perimeter Data Standards, as well as accommodate two or more points of origin.