

## CHAPTER 60

### PREDICTIVE SERVICES

#### PREDICTIVE SERVICES OVERVIEW

Predictive Services is a decision support unit for federal, state and local land management agencies for operational management and strategic planning for wildland fire management resources. Predictive Services accomplishes this by analyzing weather, climate, fuels, fire activity, and fire behavior.

Intelligence gathering is a fundamental component of Predictive Services for federal, state and local land agencies. Intelligence staff accomplish intelligence coordination by compiling reports from each level of the firefighting organization and communicating with individual GACCs and local jurisdictions about their historic, current, and expected fire occurrence.

The products and services from Predictive Services provide support for proactive management of wildland fire with an eye toward safety, cost containment, efficiency, and ecosystem health.

#### Wildland Fire Weather Forecasts

The National Weather Service provides Wildland Fire Weather.

Local dispatch centers will have protocols in place for monitoring, requesting, and disseminating fire weather forecasts, spot weather forecasts, fire weather watches, red flag warnings and other severe weather events (e.g., severe storm warnings, flash flood warnings, tornado warnings) to firefighters, incident commanders, and field-going personnel.

#### PREDICTIVE SERVICES PRODUCTS

##### 7-Day Significant Fire Potential Outlook

The *National 7-Day Significant Fire Potential Outlook* is a composite of outlooks produced by each of the Geographic Area Predictive Services. The 7-Day provides a week-long projection of fuel dryness, weather and fire potential. The 7-Day depicts a nationwide view of the significant fire potential for the next seven days with links to the individual Geographic Area 7-Day Outlooks. The system is database-driven and is updated periodically as each Geographic Area Predictive Services posts its outlook. Each Geographic Area Predictive Services will determine whether to routinely produce a morning or afternoon product. Issuance times for each Area's outlook can be found in their respective Geographic Area Mobilization Guide and/or National Weather Service/Predictive Services Annual Operating Plan. Geographic Areas are required to provide 7-Day Outlooks daily, except when the Geographic Area Predictive Services is not staffed. Forecasts will include the forecaster's name or other agreed upon identifier to facilitate coordination.

## National Wildland Significant Fire Potential Outlook

The *National Significant Wildland Fire Potential Outlook* is prepared and distributed by NICC Predictive Services on the first day of each month. It is a composite of outlooks prepared by the individual Geographic Area Predictive Services units and National Discussions are prepared by NICC Predictive Services. The Outlook identifies areas where significant wildland fire activity is expected to be above or below normal levels, and provides fire managers with the information needed to make long-range decisions concerning resource staffing and allocation.

The Outlook covers a four-month period, divided into four one-month sections. Maps for each period display areas of below normal, normal, and above normal significant wildland fire potential. The report includes a brief synopsis of the current and predicted national and GACC situation. The Outlook begins with an executive summary which provides a brief synopsis of the past month's weather and a national overview of each of the outlook periods. The Past Weather and Drought section summarizes the weather of the past month and the evolution of any drought conditions to illustrate how fuels and fire conditions reached the current state. The Weather and Climate Outlooks section summarizes the broad climate patterns that will affect temperature and precipitation for the next four months. The Geographic Area Forecasts section provides brief but more specific weather, fuels and fire potential information for each of the Geographic Areas.

GACC monthly outlooks are mandatory. They provide greater detail than the national outlook issued by NICC. GACC monthly outlooks will adhere to the following protocols:

- GACC and NICC outlooks must be geospatially equivalent.
- GACC websites are required to link to the national outlook.
- GACCs are required to provide draft forecast maps, as well as narrative highlights for the outlook period to NICC no later than five business days before the end of each month.
- GACC monthly outlooks will be issued and posted to the web on the first business day of each month.
- Maps will show areas where above normal, normal and below normal significant fire potential are expected.
- Outlooks will include a discussion of fuel conditions, climate outlooks, and other pertinent information.

## Fuel and Fire Behavior Advisories

Fuels and Fire Behavior Advisories are alerts issued as needed to address an exceptional or extreme circumstance that could threaten firefighter safety. Conditions that could be reasonably expected normally do not warrant a Fuels and Fire Behavior Advisory. Advisories will focus on fuel conditions and fire behavior that have long-term impacts, not atmospheric conditions that can change significantly over short periods of time and found in other products.

Advisories will highlight conditions that are currently ongoing and give specific examples that have been experienced in the field. Advisories should be tailored so that firefighters at all experience levels can recognize the situation and act accordingly. Advisories should be coordinated with neighboring administrative units to ensure that all areas with similar conditions are being addressed. All Advisories that extend beyond a single local administrative unit or will be posted on the National Advisory Map must be coordinated with the NICC and Geographic Area Coordination Center Predictive Services.

Each Advisory must include a map of the affected area. Only one Advisory may be active at any time over any area. If multiple Advisory conditions are present incorporate them into one Advisory. Advisories will remain in effect for 14 days from issuance. If the Advisory conditions continue beyond the 14 days a new Advisory will need to be issued to update conditions and circumstances with more timely information. <https://www.nifc.gov/nicc/predictive-services/fuels-fire-danger>

### **Incident Status Summary (ICS-209)**

The Incident Status Summary (ICS-209) conforms to National Incident Management System (NIMS) policy and is used to report large wildland fires and other significant events on lands under federal protection/ownership. Lands administered by states and other federal cooperators may also utilize this report.

The ICS-209 is submitted by the agency with protection responsibility for the incident, regardless of which agency administers the land. If the protection agency is non-federal and chooses not to meet federal reporting standards, the federal agency which has administrative jurisdiction should submit the ICS-209. Geographic Area Intelligence Coordination staff will ensure that their local dispatch centers submit complete and accurate ICS-209 reports for any wildland fire meeting the requirements specified in the *When to Report Wildland Fire Incidents with an ICS-209* flowchart.

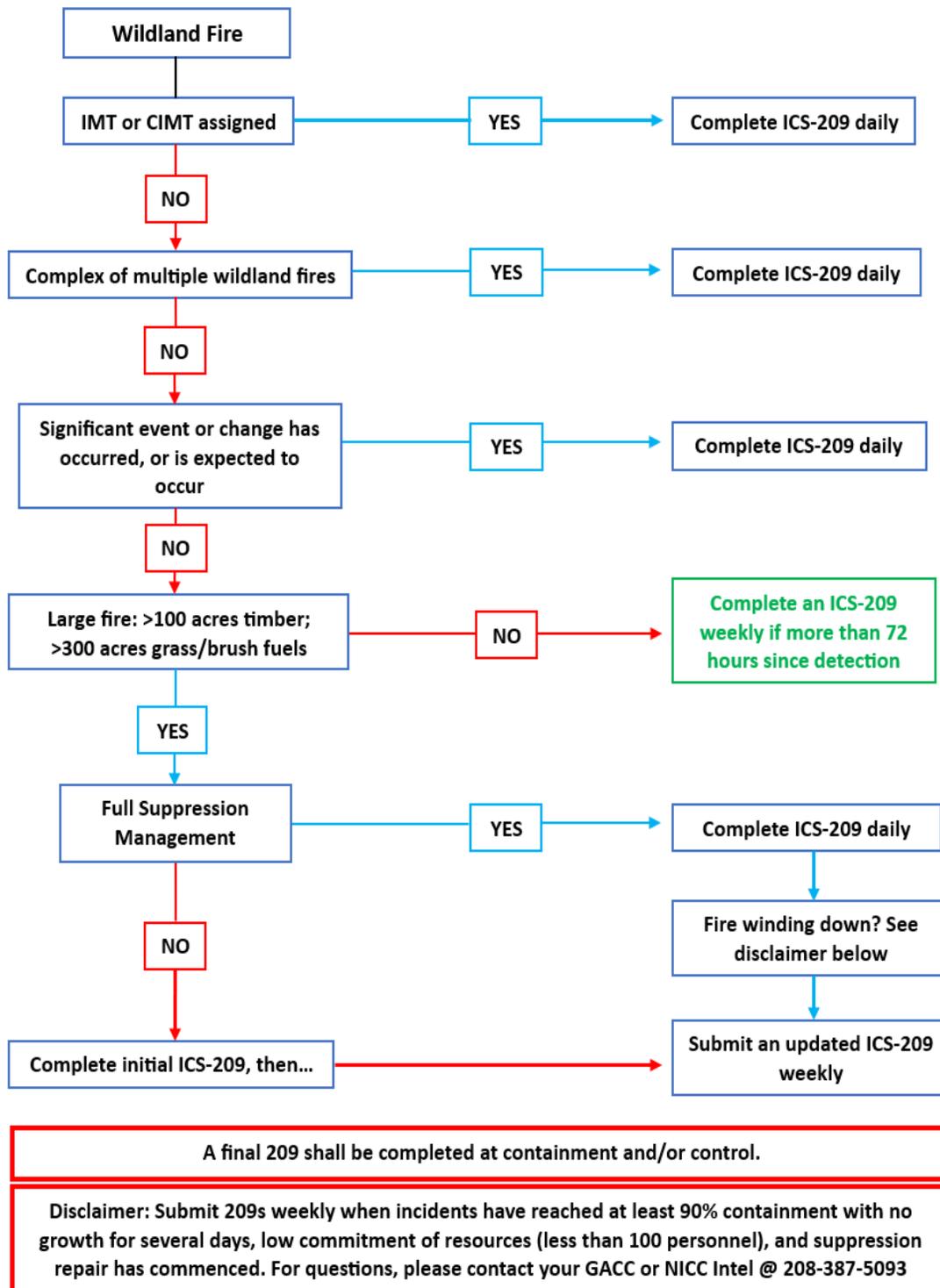
### **Required Reporting of Wildland Fires**

The NICC classifies large wildland fires as 100 acres or larger in timber or slash fuel models; and 300 acres or larger in grass or brush fuel models; or when a Complex, Type 1, or Type 2 Incident Management Team is assigned.

Wildland fires managed for complete perimeter control (full suppression) will submit an ICS-209 daily when that wildland fire meets large fire criteria by 0200 Mountain Time to report the previous day's activity until the incident is contained. Refer to GACC Mobilization Guides or agency policy for reporting requirements once containment is achieved.

Wildland fires managed under a Monitor, Confine, or Point Zone Protection management strategy will submit an ICS-209 following the guidelines outlined in the *When to Report Wildland Fire Incidents with an ICS-209*. For incidents that require daily reporting, ICS-209s should be submitted daily by 0200 Mountain Time to report the previous day's activity. For incidents that require weekly reporting, ICS-209s should be submitted weekly by Friday at 0200 Mountain Time.

### When to Report Wildland Fire Incidents with an ICS-209



### **Non-Fire Incidents**

An ICS-209 will be submitted for other events in which a significant commitment of wildland fire resources has occurred, or when a Complex, Type 1, or Type 2 Incident Management Team has been assigned.

Wildland fires within a complex should be aggregated and included in one ICS-209. A complex is two or more individual wildland fires located in the same general proximity, assigned to a single Incident Commander or Unified Command.

### **Interagency Situation Report**

GACC Intelligence staff will ensure that all dispatch centers within their geographic area submit Situation Reports through the SIT/209 Application at different frequencies throughout the year. The reporting period for this report is 0001 to 2400. NICC Intelligence staff will retrieve situation reports from the SIT/209 Application by 0200 Mountain Time. Fires and acres shall be reported by protection responsibility.

### **Incident Management Situation Report**

The National Incident Management Situation Report (IMSR) is issued at different frequencies throughout the year based on incident activity.

- The IMSR shall be issued weekly on Fridays at National Preparedness Level 1.
- The IMSR shall be issued daily, Monday through Friday, at National Preparedness Level 2.
- The IMSR shall be issued daily at National Preparedness Level 3 and above, or when incident activity and resource mobilization determine the need for a daily IMSR.

NICC Intelligence staff prepares the IMSR from information and data derived from the SIT/209 Application.

Large full suppression wildland fires are typically reported in the IMSR until:

- The incident is contained.
- The incident is 90% contained and has less than 100 personnel assigned.
- The incident is no longer demonstrating significant activity.
- The incident fails to submit an ICS-209 three (3) days in a row.

Wildland fires managed under a Monitor, Confine, or Point Zone strategy will initially be reported on the IMSR when the event exceeds 100 acres in timber or slash fuel models, 300 acres in grass or brush fuel models, or a Complex, Type 1, or Type 2 Incident Management Team is assigned.

Large, long-duration fires will be reported in the IMSR until activity diminishes, and thereafter when significant activity occurs (i.e., acreage increase of 1,000 acres or more since last reported, significant resource commitment, or a significant event occurs, etc.).

The Active Incident Resource Summary is updated daily in the IMSR. It includes the total count of large fires and acres with resources assigned reported in the SIT-209 program within the last seven days.