

# Predictive Services Handbook

## Predictive Services Handbook – NFAEB Signature Page

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#### 10 Purpose

At the 2005 Annual Predictive Services Meeting, a recommendation was put forth to develop national guidelines for the Predictive Services program. This document is a result of that recommendation, and became a requirement in the winter of 2006 when the National Predictive Services Group (NPSG) became chartered under the National Fire and Aviation Executive Board (NFAEB). It is designed to provide guidance and direction on the overall Predictive Services program at both the National Interagency Coordination Center (NICC) and the Geographic Area Coordination Centers (GACC). This handbook details:

- Program management and organization
- · Roles and responsibilities
- Products and services
- Communication, training, and support requirements

This document is to be the standard by which the Predictive Services program operates.

### 10.1 Review and Update Process

The Predictive Services Handbook will be reviewed and updated annually. Any proposed changes will be submitted to the Meteorological and Intelligence Working Group Chairs two weeks before the annual Predictive Services meeting. Proposals will then be presented to all members of the Predictive Services program at the annual meeting for discussion and an acceptance or rejection decision. Decisions will be made according to the process outlined in the Predictive Services Handbook.

#### 11 Background and History

Until recently, the wildland fire management community was recognized as being much more reactive than proactive. Little large-scale or long term logistical planning was done and fire management resources were often allocated as the need arose or became imminent. This approach was adequate as long as there were more than enough fire management resources to meet the demand. There was a distinct lack of integrated planning and decision tools that considered the interrelationship between weather, fuels, and incident resource requirements.

Through the 1990s, continued ad hoc attempts to blend weather, fuels and resource information into effective fire management planning were complicated by increasing hazardous fuel treatment targets, declining budgets, more complex and restrictive policies, and a restructuring of the National Weather Service (NWS) Fire Weather Program. The need for integrated planning and decision tools for fire management increased further as All Hazard Response incidents increased in number and began to compete for the available resources. The complicating factors multiplied and the consequences of under informed decisions became more far reaching. In recognition of this need, the concept of Predictive Services emerged in the late 1990's from discussions between staff at the Geographic Area Coordination Centers (GACCs). Initially, the Intelligence Coordinators at the GACCs produced monthly and seasonal outlooks which blended long-term weather outlooks with fuels and fire danger information. In the California GACCs, US Forest Service and NWS fire meteorologists worked collaboratively and interfaced with the Intelligence Coordinators and the remainder of the GACC staff. In 1999, the Northwest Coordination Center hired a fire meteorologist to bring interdisciplinary expertise to their emerging Predictive Services program. This approach of teaming fire meteorologists with GACC Intelligence Coordinators would later become the primary model for the National Predictive Services Program.

The severity and extent of the 2000 fire season further revealed the need for a more holistic approach to managing wildland fires, as national fire management resources were overwhelmed by a destructive season that raised public and political awareness at the national level. In the post-analysis, it became apparent that there was no lack of information pertinent to the fire environment (weather, fuels, resources), but that no centers of expertise existed to integrate it into effective planning and decision tools. The update of the National Fire Plan following the 2000 season provided funding for 20 fire meteorologists to join with the existing Intelligence staff at the GACCs and the National Interagency Coordination Center (NICC), to form the National Predictive Services Program. Later, a Wildland Fire Analyst position was added to the NICC Predictive Services staff. The intent was for Predictive Services units to act as centers of expertise to produce integrated planning and decision tools that would enable more proactive, safe and cost-effective fire management.

#### 12 Predictive Services Vision

Wildland fire management emphasizes safety, cost containment, efficiency, and ecosystem health through the proactive use of Predictive Services decision support products.

#### 13 Predictive Services Mission

#### Predictive Services Handbook

The Predictive Services program supports the wildland fire community and others with information and decision support products.

#### 14 Predictive Services' Goals

Relevant decision support tools are available to support user needs.

The timeliness and effectiveness of fire management decisions are increased through the use of Predictive Services.

Predictive Services actively partners with cooperating agencies, internal programs, academia, research, and the private sector.

Organization, structure, staffing, technology, and resources are in place to ensure the success of the Predictive Services program.

#### 15 Predictive Services Program Guiding Principles

SAFETY - We promote the protection or the health and safety of employees and the lives, property, and natural resources of the all the people in the United States.

COOPERATION – We define our business practices by listening to our cooperators. We address our needs and the needs of others through collaboration.

ADAPTIVE LEADERSHIP – We value initiative and flexibility in leadership throughout all levels of our organization. We target our efforts toward the work that matters most.

INNOVATION – We respond to the changing needs locally and nationally. We share information with each other and with our cooperators. We seek out, introduce, and evaluate new practices; both our successes and failures contribute to our professional expertise.

EMPOWERMENT – We support empowering individuals to achieve program goals.

INTEGRITY – We promote informed and credible decisions. We champion and strive to improve quality data, appropriate analysis, and well-supported decision making.

EFFICIENCY – We strive to use science-based and appropriate methods to accomplish our goals. We support validation of our products and the use of standard practices to streamline operations.

PRIDE IN SERVICE – We take pride in our mission, our program and the unique skills of each individual.

#### 20 National Program Organization and Management

#### 20.1 Program Organization

The Predictive Services Program is national in scope and serves the needs of local, tribal, geographic area, and national users.

User communities range from national agency administrators to regional fire managers to firefighters on the ground. Periodic user assessments, workshops and focus groups will help improve the understanding of user needs.

The National Predictive Services Program encompasses Meteorologists and Intelligence Coordinators at each GACC and NICC. Included in this program are the NICC Wildland Fire Analyst and any Fire Behavior or Long-Term Analysts detailed to GACCs during the fire season. Personnel in these positions come from the different Federal and/or State Land Management Agencies.

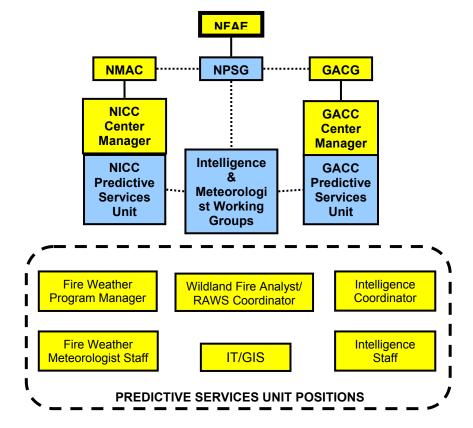
## 20.2 Program Management and Coordination

The National Fire and Aviation Executive Board (NFAEB) chartered the National Predictive Services Group (NPSG) to provide the Predictive Services program with oversight, leadership, and direction. NPSG will collaborate with the Geographic Area Coordinating Groups (GACGs) and GACC Center Managers to develop a National Predictive Services strategic plan and operational handbook. The NPSG Charter is found in Appendix A.

National Predictive Services program direction will flow from NFAEB through NPSG to the National and Geographic Area Coordinating Groups, Center Managers, Intelligence and Meteorological Working Groups, and in turn, to the respective Predictive Services staff at each of the Coordination Centers. Information flow will be two-way, which means information requests and program concerns can be submitted from the field upwards to the NFAEB if needed.

The GACC Center Managers will provide daily supervision of their respective Predictive Services program, including developing GACC specific operational plans. These plans will encompass the daily activities of the GACC Predictive Services program, including supervision, the flow of information within the GACC and geographic area, and the products produced for intra-geographic area and national purposes.

The National Predictive Services Organizational Chart is shown below. *Each individual GACC may have a separate organizational chart that details the organization and any supervisory roles.* 



#### 30 Roles and Responsibilities

The role of the Predictive Services Program is to provide a focal point for gathering, analyzing, producing and disseminating situation, meteorological, fuels, fire danger, fire potential, and resource status products. Predictive Services is a decision support organization, providing products and services to wildland fire decision makers in order for those decision-makers to place resources where they are most needed.

More specifically, Predictive Services is designed to enhance proactive wildland fire management that emphasizes safety, cost containment, efficiency and ecosystem health by successfully anticipating critical fire events through the integration of climate, weather, fuels, fire danger, situation and resource status information. Additionally, Predictive Services will advance the state of science through collaborations with cooperating agencies, academic and research partners and the private sector.

## 30.1 National Fire & Aviation Executive Board (NFAEB)

The NFAEB has the responsibility of overseeing the National Predictive Services program. The NFAEB is a self-directed group comprised of the federal agency Fire Directors established to resolve wildland fire management issues common to its members. The board seeks to improve coordination and integration of federal fire and aviation programs and to provide a forum for better utilization of fire management resources, while recognizing individual agency missions.

#### 30.2 National Predictive Services Group (NPSG)

The NPSG is chartered and operates under the direction of the NFAEB. NPSG is composed of members representing specialized groups and administrative personnel consisting of ten members plus two advisors (NFAEB liaison and NICC Manager).

The NPSG is chartered to provide a forum for the discussion, coordination, and resolution of Predictive Services issues at the national level. It was established to help identify user requirements and develop opportunities for improving current processes for gathering, using, and disseminating climate, weather, fuels, situation, and resource status information, as well as advance intelligence and predictive capability for safe, efficient resource prioritization and utilization.

NPSG also strives to standardize products where possible, and develop action items as needed. More specifically, the NPSG is responsible for:

- A. Linking key users of Predictive Services products and the research community.
- B. Being an interagency partner in managing, developing, addressing, and making recommendations for Predictive Services products and services.
- C. Serving as advocate for initiatives coming forward from the field.
- D. Providing coordinated program-wide leadership on issues such as research, information flow and access, product guidelines and standardization, problem identification, and issue resolution.
- E. Developing a framework for using climate, weather, situation, resource status, and fuels information to provide decision support tools.

#### 30.3 Geographic Area Coordinating Groups (GACG)

The GACGs are comprised of Geographic Area (State and/or Region) lead administrators or fire managers from agencies that have jurisdictional or support responsibilities, or that may be significantly impacted by resource commitments. During elevated fire potential or activity, GACGs function as Geographic Area Multi-Agency Coordinating (GMAC) Groups. GMAC responsibilities include

- · Establishing incident priorities for the geographic area
- Acquiring, allocating, and reallocating resources
- Issuing coordinated and collective situation status reports

GACGs are responsible to provide advice and recommendations on products, services, or capabilities to NPSG and to the Area Predictive Services Unit. To facilitate this, one of the members on NPSG has been reserved for a GACG representative.

#### 30.4 GACC Center Managers

There are 11 GACCs, each of which serves a specific geographic portion of the United States. Each GACC interacts with local dispatch centers as well as with NICC and neighboring GACCs.

The principle mission of each GACC is to provide the cost-effective and timely coordination of emergency response for all incidents within their specified area. GACCs are also responsible for determining needs, coordinating priorities, and facilitating the mobilization of resources from their areas to other geographic areas.

The role of the GACC Center Manager is to provide management, oversight, and daily supervision of the entire GACC, including the Predictive Services staff. The GACC Center Managers meet twice a year to discuss and resolve issues. They are responsible for providing feedback, advice, and recommendations on products, services or capabilities within the Predictive Services program. In order to facilitate this, they are represented on the NPSG with both a member and NICC manager advisor.

#### 30.5 NICC and GACC Predictive Services Units

The NPSG has defined the Predictive Services Unit mission as "support [to] the wildland fire community and others with information and decision-support products."

With this in mind, it is the role of the National and GACC Predictive Services Unit to provide timely products and services to meet the needs of their local, tribal, geographic and national users.

The Predictive Services Unit responsibilities include:

- A. Management of the NICC and GACC Predictive Services units.
  - 1. Units shall be organized and staffed to prepare and distribute briefings, products, tools, instructional memorandums, and information bulletins in order to meet the Predictive Service mission.
    - a. Schedules, detailers, and other staffing needs will be identified so that each unit is capable of staffing seven days per week (as needed) during their active fire season.
- B. Collaboratively working together in a team concept to produce products and services essential to the wildland fire community.
- C. Ensuring that the proper fire, fuels and weather data are collected, analyzed, and forecasts passed on to firefighting personnel.
- D. Collection, analysis and dissemination of incident-specific and decision support information.
  - 1. Predictive Services is the gateway to ensuring accuracy and efficiency in the information flow process.
  - 2. Information is passed to units, zones, areas, Multi-Agency Coordinating (MAC) Groups, NICC, and independent agencies, as well as unspecified non-government agencies that may require incident information on an infrequent basis.
  - 3. Information that may be useful to the fire community must flow efficiently to the individuals who will utilize the information required.
  - 4. Coordination with zones, areas, units and dispatch offices to collect daily information.
    - a. Resources committed and available
    - b. Situation assessment
    - c. Incident critical needs
    - d. Maintain accurate accounts of current incident size and complexity
  - Analyze and forecast fire danger, weather and resource capabilities to determine current and forecasted estimates of wildland fire potential.
    - a. Under the direction of NPSG, the NICC Predictive Services Unit will implement a quality assurance program to ensure NICC and GACC products meet the standards set forth in Appendix A. Periodic reports will be forwarded to NICC and GACC Center Managers.
  - 6. Institute and maintain a system to status and analyze resources, make predictions regarding possible needs, and suggest incident priorities as needed.
  - 7. Compute daily preparedness levels and recommend appropriate responses to the Center Manager.
  - 8. Establish and maintain area-wide incident history data for all agencies.
  - 9. Prepare and conduct written and verbal intelligence briefings for agency administrators, fire managers, MAC groups, political representatives, special briefings for the media, VIPs.
  - 10. Provide a daily written brief for area-wide distribution to agencies detailing current fire activity.
  - 11. Provide reports and briefings as necessary.

- E. Providing Agency Fire Managers with products to aid in their decision-making process.
- F. Monitoring new technology to provide better and more accurate information to fire managers. It is the responsibility of the Predictive Services unit to ensure the best representation of valid information.
- G. Using Geographic Information Systems (GIS) capabilities to produce up-to-date mapping products, or aerial photos from infrared flights.
- H. Utilizing weather products and information from the National Weather Service and the states as needed.
- Providing the Public Affairs office with the most current information available for dissemination to the media and the general public.
- J. Utilizing Computer Application Programs such as:
  - 1. National Sit Report Program
  - 2. National 209 Program
  - 3. Weather Information Management System -WIMS
  - 4. FireFamily Plus
  - 5. National Fire Danger Rating System NFDRS
  - 6. Canadian Forest Fire Danger Rating System
  - 7. BehavePlus
  - 8. FARSITE
  - 9. CHEETAH
  - 10. RERAP
  - 11. ROMAN
  - 12. Specific Area/ District Programs
  - 13. FX-Net
  - 14. ROSS
  - 15. ACCESS
  - 16. DDS for Query Building
  - 17. Miscellaneous Weather Programs
- K. Responding to inquiries and resolving Intelligence and Meteorological related problems as they arise.
- L. Supervision of assigned personnel.
  - 1. Detailers
  - 2. Fire Behavior Analyst (GACC)
- M. Training field personnel.
  - 1. Training will be provided to the degree that it does not interfere with regular Predictive Services operations, development and research.

#### 30.6 Predictive Services Intelligence Coordinators

Predictive Services Intelligence Coordinators, both at the NICC and GACC level, collect, collate, analyze, produce, prioritize, and disseminate specific situation and resource information. Duties and responsibilities for Predictive Services Intelligence Coordinators may vary among the 11 Geographic Areas and at NICC.

Specific responsibilities of Intelligence Coordinators include:

- A. Coordination with zones, areas, units and dispatch offices to collect daily information on:
  - 1. Resources committed and available
  - 2. Situation assessment
    - Numbers, sizes, and locations of incidents
    - b. Threats to natural resources, improvements, infrastructure and communities/structures
    - c. Incident critical needs
  - 3. Wildland fire potential
  - 4. Maintain accurate accounts of current incident size and complexity.

- B. Analysis and interpretation fire danger indices and current and forecasted weather patterns, as well as historical fire occurrence levels in order to develop estimates of wildland fire potential.
- C. Working closely with dispatchers and fire management officers to track and monitor the commitment and availability of resources, including maintaining and instituting a system to status and analyze resources, make predictions regarding possible needs, and suggest incident priorities as needed.
- D. Computing daily preparedness levels and recommending appropriate responses to the Center Manager.
- E. Establishing and maintaining area-wide incident history data for all agencies.
- F. Preparing and conducting written and verbal intelligence briefings for agency administrators, Fire Management Officers, MAC groups, political representatives, special briefings for the media, VIPs, and others, as necessary.
- G. Providing a daily written brief for area-wide distribution to agencies detailing current fire activity.
- H. Working with Predictive Services Meteorologists and Wildland Fire Analysts (FBAN or LTAN) on collaborative products produced for the area or for NICC Predictive Services.
- I. Providing user training and oversight for the ICS-209 and Situation Reporting Programs to ensure that information is submitted in a timely, accurate manner.

## 30.7 Predictive Services Meteorologists

Predictive Services Meteorologists collect, analyze, predict and disseminate specific data and information on weather and its impact on fuels and fire potential. Duties and responsibilities for Predictive Services Meteorologists vary among the 11 Geographic Areas and at NICC.

Specific responsibilities of Predictive Services Meteorologists include:

- A. Evaluating the impact of current and predicted weather on fuel dryness and condition.
- B. Analyzing and evaluating weather and climate patterns to predict critical fire events and determining significant fire potential including:
  - 1. Location
  - 2. Time frame of occurrence
  - 3. Severity / impacts
- Identifying and forecasting weather events that initiate fires or significantly impact the behavior of existing fires.
- D. Implementing wildland fire management decision support tools to assist with:
  - 1. Safety of public and firefighting personnel and equipment
  - 2. Safety of public and private property
  - 3. Mobilization of firefighting resources
  - 4. Protection of natural resources
- E. Research and development
  - 1. Advancing state of the science through research of fire weather and fire potential.
  - 2. Development of new tools and methodologies to predict wildland fire and its impacts.
  - 3. Contribute to firefighting knowledge base.
- F. Technology and data transfer
  - 1. Improve methods for dissemination of critical weather, fuels and fire information.
  - 2. Improve data quality.
- G. Education
  - 1. Facilitate the instruction of firefighting personnel and the general public.

### 30.8 NICC Wildland Fire Analyst

The role of the NICC Wildland Fire Analyst is to provide analysis of weather, climate, vegetation, fuels, fire danger and/or fire behavior conditions in order to identify potential safety concerns, problem areas, and opportunities for allocating or repositioning resources, and to develop reports for the NICC Center Managers and National Multi-Agency Coordination Group (NMAC) members, and other entities as requested. This position can also provide assistance to GACCs with fire danger/behavior skills prior to, or during, increased fire activity to help develop short-and long-term outlook products.

#### 30.9 National Fire Danger Rating (NFDRS) Specialist (when working under Predictive Services)

- 1. WIMS Station catalog review and advice
- 2. Fuel Model Managing advice
- 3. Provide technical assistance to Units
- 4. Coordinate problems/questions
- 5. Boise Help Desk contact
- 6. Assist Intel WIMS, FireFamily Plus
- Assist GACC Meteorologists and Intelligence personnel to establish quality control monitoring of WIMS inputs.
- 8. Make recommendations to NPSG or Agency Fire Directors for actions needed to resolve issues with the Remote Automated Weather Stations (RAWS).
- 9. Special request sessions on forests to deal with Fire Danger and WIMS issues
- 10. Program Reviews

### 30.10 GACC Wildland Fire Analysis/RAWS Coordinators who work under Predictive Services.

The role of the GACC Wildland Fire Analyst/RAWS Coordinator is to provide analysis of weather, climate, vegetation, fuels, fire danger and/or fire behavior conditions in order to identify potential safety concerns, problem areas, and opportunities for allocating or repositioning resources, and to develop reports for Center Managers and Geographic Area MAC groups. They provide assistance to GACCs with fire danger/behavior skills prior to, or during, increased fire activity to help develop short- and long-term outlook products. In addition, they are responsible to:

- A. Assure that the Automated Sorting, Conversion and Distribution System (ASCADS) database for the region is complete and current.
- B. Process requests for IDs and transmit times for new RAWS stations and/or moved stations.
- C. Monitor the network to make sure that the assigned transmit times meet the needs of the users. Coordinate with National RAWS Coordinator to obtain better times as necessary.
- D. Notify the National RAWS Coordinator when new stations are purchased, or old stations are taken down or moved.
- E. Assure that maintenance information is tracked in ASCADS for each station.
- F. Prepare the Regional Annual Operating Plan (AOP) for the RAWS weather station network. This needs to be done by the reply due date established in annual letter requesting the AOP (usually September of each year).
- G. Facilitate information sharing throughout the Region on new technology, changes in procedures, overall network design and operation.
- H. Represent Region at weather/RAWS meetings (FS and interagency).
- I. Call upon the National RAWS Coordinator, manufacturer's representatives, and/or the BLM RAWS Depot for the latest technology information.
- J. Recognize maintenance deficiencies and take steps to correct problems. Those steps can include, but are not limited to:
  - 1. Monitor RAWS Watchdog and notify forests when problems have not been responded to in a timely
  - 2. Monitor the quality of data coming out of the RAWS network through WIMS.
  - 3. Work one-on-one with the local units to train and assure proper maintenance methods are understood and followed.
  - 4. Assist Forests with station maintenance needs
  - 5. Special request sessions on forests to deal with RAWS and WIMS issues.
  - 6. Share training opportunity information that becomes available.
- K. Establish quality control monitoring of WIMS inputs in cooperation with GACC meteorologists and intelligence personnel.

- L. Make recommendations to regional fire managers for actions needed to resolve issues with the RAWS program.
- M. Contact the National RAWS Coordinator, manufacturer representatives, or the BLM RAWS Depot for support as necessary.

#### 40 Products and Services

Predictive Services provides national and geographic area specific products designed to meet local, regional and national interagency needs. National products are standardized to ensure consistency and comprehension by all users.

Geographic area products vary widely across the country and are designed to meet the specific, and sometimes unique, needs of the GACC and local users. All products provided by meteorologists, intelligence staff, and wildland fire analysts are considered Predictive Services products.

#### 40.1 National Predictive Services Products

The NICC produces a number of national products for dissemination to decision makers throughout the country. Their target group is wide and varied to include National Fire Directors, Congressional staffs, other Federal, State, and local partners. NICC products and services are produced as a collaborative effort between the meteorologists, wildland fire analysts, and intelligence staff in coordination with geographic area Predictive Service units.

#### A. Incident Management Situation Report (IMSR)

Issued daily: At 0530 MST May through October and as activity warrants. (0800 on weekends and holidays).

Issued weekly: At 1000 MST on Fridays, November through April, unless incident or resource activity levels warrant daily reporting.

The Incident Management Situation Report provides a synopsis of significant incidents nationally. The IMSR provides key incident information to many agencies and offices within government, as well as many groups and entities outside of government with an interest in wildland fire activity. The IMSR includes large fire activity, Predictive Services Discussion, Six Minutes for Safety topic, fire statistics and resource commitments in a synopsized format. The Report is prepared by NICC Intelligence staff from information and data derived from Interagency Situation Reports and ICS-209 reports submitted through the National Fire and Aviation Management Web Applications (FAMWEB) reporting system.

The criteria for including large wildfires and other incidents in the IMSR are described in the National Interagency Mobilization Guide, Chapter 20.

The IMSR contains a national "Predictive Services Discussion" section written by the NICC Predictive Services Unit. This discussion focuses on significant weather and fire potential over the next few days.

#### B. National Wildland Significant Fire Potential Outlook

The National Wildland Significant Fire Potential Outlook is prepared and distributed by NICC on the first business day of each month. This report consists of a national monthly map (delineating areas of belownormal, normal, and above-normal significant fire potential), as well as a seasonal map covering months 2-4 that is a trend off of the monthly map (delineating areas of persisting, increasing to, or decreasing from above normal significant fire potential). A brief synopsis of the current and predicted national situation is included in the report. National Wildland Significant Fire Potential Outlooks will utilize information from individual GACC Predictive Services units, as well as other sources of climate, weather, and fire danger data. This product is updated and produced each month of the year as a collaborative effort by all personnel in the NICC Predictive Service unit.

Monthly conference calls are hosted by NICC with various climate and fuels partners, and GACC meteorologists on the fourth Wednesday of the month to discuss factors that may influence fire potential for the following month and season. Another conference call is held approximately two business days before the end of the month to coordinate the national outlook maps among the various Predictive Services units. All GACC Predictive Service units are strongly encouraged to provide written input to the National Wildland Significant Fire Potential Outlooks.

Seasonal Assessment Workshops are held annually to provide a coordinated in-depth analysis of climate and fuels factors among Predictive Services and various partners. Workshop reports are generated annually summarizing the findings of the workshops.

#### C. Fuels and Fire Behavior Advisories National Map

NICC will post a national map to display areas with current Fuels and Fire Behavior Advisories posted that includes links to archived advisory messages.

Once a situation elevates to become a national concern (multiple Geographic Areas involved, likelihood of resources from around the country being engaged, or elevated safety concerns), the Predictive Services staff at NICC will coordinate with Safety and Health Working Team (SHWT) representatives to issue a "Safety Advisory" through the SHWT Safety Alert Program.

- D. Other national products and services include:
  - 1. Briefings
  - 2. Requested reports and summaries
  - 3. Program management
  - 4. Verification and quality assurance
  - 5. Web site, database, and systems management
  - 6. Training
  - 7. Participation on national teams
  - 8. Product development, support and implementation

#### 40.2 GACC Predictive Services Products

The GACC Predictive Services units are responsible for producing and posting the following products outlined below on their respective web pages. They also need to prepare and submit data and reports to NICC regarding current and projected information on wildland fire, weather, fuels, fire danger, and resource status. This information is used by NICC to prepare and distribute national reports, outlooks and other products.

Other Geographic Area products vary widely across the country and are designed to meet the specific, and sometimes unique, needs of the GACC, Multi-Agency Coordination Groups, and local users. The following link can be used to view GACC web pages and individual products: http://gacc.nifc.gov/

- A. GACC 7-Day Significant Fire Potential
  - 1. The 7-Day Significant Fire Potential product contains projected fire weather, fuel dryness, fire danger, fire potential and resource status information. See Appendix B for sample.
  - 2. Posted daily, by 1000 Local Time, to the GACC web site. Product posting will begin at least one month before and extend to one month after each Geographic Area's primary fire season\*\* or at anytime during the year when at Preparedness Level is 2 or higher (not including support-only periods). Product may be posted only during the regular work week outside of the primary fire season due to limited staffing capability.
  - 3. Data from this product is also to be posted to the Predictive Services FTP website (ftp://ftp.nifc.gov/Predictive\_Services/Fire\_Potential/RSAC\_7-Day/) by 11:30 MST and is used to generate a 7-Day Significant Fire Potential national map on the Predictive Services Geospatial Portal web site.
    - \*\* Primary fire season defined as period when GACC is staffed 7 days per week to support within-area wildfire incidents.
- B. GACC Monthly and Seasonal Wildland Significant Fire Potential Outlooks

GACC monthly and seasonal outlooks are optional, but strongly encouraged as they provide greater depth of detail than the national outlook issued by NICC. GACC monthly or seasonal outlook products will adhere to the following protocols:

- a. GACC and NICC outlooks are required to align
- b. GACC websites are required to link to either Geographic Area or national outlooks
- c. GACCs are strongly encouraged to provide draft forecast maps as well as narrative highlights of monthly and seasonal significant fire potential on a monthly basis to NICC.
- d. GACC monthly and seasonal outlooks will be issued and posted to their websites on the first business day of each month. The monthly maps will delineate areas of below-normal, normal, and above-normal significant fire potential. Seasonal map covering months 2-4 will trend off the monthly map and delineate areas of persisting, increasing to, or decreasing from above normal significant fire potential. A discussion of fuel conditions, climate outlooks and other pertinent information will be included in the outlooks.
- C. Fuel and Fire Behavior Advisories

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Predictive Services and Coordination staff at all levels should be involved with the issuance of any fuels/fire behavior advisories covering a large percentage of their Geographic Area(s) so they can carefully consider both the content and intended audience of the messages.

#### When a situation arises that warrants an advisory message:

- 1. Determine area of extent
  - a. If local area only (single agency unit or county) Local area should issue advisory or safety message (Use of Standard Template strongly recommended). No other GACC action needed.
  - b. If geographic in scope (multiple units, counties, or significant portion of geographic area):
    - i Involve and coordinate with Predictive Services unit staff to get their input/feedback
    - ii Discuss message on 09:30 Coordinators call to determine if other GACCs are facing same issue
    - iii Review & tailor message for content, accuracy, suitability and distribution (Predictive Services staffs at Geographic and/or National levels, as appropriate, will coordinate to ensure message is appropriate for entire area of concern)
- 2. Post advisory according to protocols listed below.

#### Posting Protocols

- 1. Use Standard Template (available from NICC)
- 2. Post Fuels/Fire Behavior Advisories on the Fuels/Fire Danger Web page
- Once advisories are finalized, send a copy and the URL link to NICC. Include detailed description of area affected.
- 4. NICC will post to a national map and archive messages
- 5. It is recommended that URLs and email messages posted or sent out by the GACCs informing users about the advisory contain a link to the NICC Fuels/Fire Behavior web page and national map (this will inform users about other fuels/fire behavior advisories that are posted across the country)
  - a. GACC webpages may include "thumbnails" of national map
- 6. GACCs will determine when the advisory message is no longer valid and contact NICC to remove the advisory link off the webpage and map

#### E. Other GACC Products and Services

1. GACC Predictive Services units produce and provide a wide variety of weather/intelligence briefings, situation reports, resource summaries, data calls and other ad hoc reports. These products and services are tailored to meet user needs and may serve local, regional or national users.

#### 40.3 Incident Status and Other Upward Reported Information

#### A. Incident Status Summary (ICS-209)

The Incident Status Summary (ICS-209) is the primary method used to report large wildfires, Wildland Fire Use (WFU) events, and other significant incidents on lands under federal protection or federal ownership. States and other federal cooperators may also report incidents using FAMWEB. The ICS-209 form (or simply the 209) details specific incident information on a daily basis (reporting requirements may vary depending on the type and nature of the incident), and is submitted via the Fire and Aviation Management Web (FAMWEB) application known as the 209 Program. The ICS-209 is a key source for incident information beyond the local unit, and provides valuable information at the geographic and national levels.

The federal agency that has primary protection responsibility for the incident is responsible for completing the ICS-209. If the protecting agency is non-federal and chooses not to meet federal reporting standards, then the federal agency which has administrative jurisdiction shall submit the ICS-209. GACCs should ensure that incidents and dispatch centers submit complete and accurate ICS-209 reports into the FAMWEB system by the specified time.

For national reporting purposes (agency, geographic area and local requirements may vary) an ICS-209 shall be submitted according to the following guidelines:

- 1. Wildfires 100 acres or larger where the primary fuel type is timber (fuel models 8 to 13), or 300 acres where the primary fuel type is grass or brush (fuel models 1 to 7), or when a Type 1 or 2 Incident Management Team (IMT) is assigned. An ICS-209 should be submitted daily until the incident is contained, unless special circumstances allow otherwise.
- WFU events following the same criteria for wildfires, except that daily ICS-209 updates are not necessary unless an IMT or FUMT is assigned, the WFU reaches 1,000 acres in size, or doubles in size thereafter. Any time significant activity occurs, a 209 should be submitted in FAMWEB. A 209 shall also be completed when a WFU moves from Stage I to Stage II as defined in the Wildland Fire Implementation Plan (WFIP).
- 3. Non-fire events where a significant commitment of wildland resources has occurred, or when a Type 1 or Type 2 IMT has been assigned.
- 4. Incidents within complexes should be combined and reported on one ICS-209 as defined in the National Interagency Mobilization Guide.

Specific instructions for completing the ICS-209 form and using the 209 Program are located in the User's Guide at <a href="http://www.fs.fed.us/fire/planning/nist/sit.htm">http://www.fs.fed.us/fire/planning/nist/sit.htm</a> The 209 Program is located at <a href="http://famweb.nwcg.gov/">http://famweb.nwcg.gov/</a> See Appendix B for a sample 209 form.

## B. Interagency Situation Report

The Interagency Situation Report is a FAMWEB application known as the Sit Report Program. Dispatch centers are required to submit Situation Reports daily from May through October regardless of the level of fire activity. Situation Reports shall be submitted weekly from November through April whenever there is wildfire activity (including WFU and prescribed fires), an increase in wildland fire resource commitments, or whenever a unit's fire danger is very high or extreme. Reporting is required for all prescribed fire activity year-round according to the schedule listed above. The reporting period for the Situation Report is 0001 to 2400. GACCs shall ensure that all of their dispatch centers have submitted complete and accurate Situation Reports as outlined in each GACC Mobilization Guide. The NICC will retrieve Situation Reports from FAMWEB by 0200 MDT.

The Sit Report Program shares incident information with the 209 Program for certain summaries and reports. Specific reporting requirements and program instructions are located in the Sit Report User's Guide located at: <a href="http://www.fs.fed.us/fire/planning/nist/sit.htm">http://www.fs.fed.us/fire/planning/nist/sit.htm</a>.

## Predictive Services Handbook

## 40.4 Continuity of Operation Plan (COOP)

The GACCs and NICC will develop and maintain Predictive Service backup plans for transferring or assuming operational responsibility during failures, emergencies or staffing shortages. Backup plans will become part of NICC and GACC Continuity of Operations Plans (COOP).

#### 50 Coordination and Communication

Coordination and communication are integral parts of Predictive Services. Coordinating details concerning data gathering, analysis and final product ensures smooth transitions between GACCs and provides a consistent message to the users of Predictive Services products. Proper transfer of information to a multitude of users through established communication methods is necessary to ensure programmatic goals are met. These are not mutually exclusive terms. Failure in one area will result in less than satisfactory results in the other. Therefore, it is appropriate to refer to the pair as a single process for clarity.

There are three kinds of coordination and communication: lateral (horizontal) and vertical within the organization, and external.

#### 50.1 Lateral - coordination and communication at the same organizational level.

- A. Within GACC
- B. Between GACCs.
  - 1. Monthly Intel and Meteorologists conference calls
    - a. Intel: 1200 MST, 2<sup>nd</sup> Tuesday of each month
    - b. Mets: 1200 MST, 2<sup>rd</sup> Wednesday of each month
  - 2. Coordination call for monthly outlook product: On or about the 20<sup>th</sup> of each month, time TBA
  - 3. Daily meteorologist coordination call with NICC (fire season only): 1300 MST or as announced

#### 50.2 Vertical - coordination and communications with different organizational levels.

- A. Between GACCs and lower organizational levels.
  - 1. Dispatch Centers
  - 2. District Offices, Forest Units, Parks, Monuments, etc.
  - 3. Firefighting units (i.e., incident teams, crews, etc.)
- B. Between GACCs and higher organizational levels.
  - 1. State Offices, Regional Offices
  - 2. National Office/Washington Office
  - 3. Agency Directors
  - 4. Cabinet members or Congressional members
- C. Between GACCs and NICC
  - 1. Primary communication is through NPSG via Intel and Met Working Group Chairs
  - 2. Secondary communication is through NPSG via Center Managers and Coordinating/MAC Groups

## 50.3 External – coordination and communications with parties outside the organizational structure.

- A. State and local governments
- B. Special interest groups (i.e., environmental groups, community groups, etc.)
- C. News media
- D. Other federal agencies (i.e., National Weather Service, Federal Emergency Management Administration, military, etc.)

#### 50.4 Means of coordination and communication

- A. Phone
- B. Email
- C. Meetings, conference calls, workshops, etc.
- D. Products

E. Annual Operating Plans, National and State Mobilization Guides

### 50.5 Conflict Resolution

Should a conflict arise between the Predictive Services units (NICC or GACCs) or between them and the NPSG that cannot be resolved directly, the chair for the appropriate NPSG Working Group (i.e. Intel or Met) will perform as the intermediary towards an agreeable solution. Disputes will only be elevated to the Center Manager/Coordinating Group level if a mutually agreeable solution is not attained and the appropriate Intel or Met Working Group chair concurs.

#### 60 Decision-Making Process

Predictive Services practitioners will utilize the following decision process for making program-wide group decisions.

#### **60.1** Predictive Services Decision-Making Process

- A. Proposals will be presented to the affected members (task group, Met Working Group, Intel Working Group) with a clear statement expressing the decision to be made and the time frame during which the decision is to apply (i.e. A proposal to produce daily weather graphics, to be considered by the Met Working Group, to stand for one year).
- B. Proposals will be followed by a period of time for comments and questions.
- C. Votes will be either "yea" or "nay", with no abstentions. One vote is allowed per Predictive Services Unit (PSU). If a PSU cannot be represented (due to illness, emergency, etc.) the proposal can be voted upon and adopted temporarily, but only until the missing vote can be counted.
- D. PSUs voting "nay" will be asked to explain their opposition and offer a recommendation for resolution.
- E. If (a) dissenting PSU(s) cannot be accommodated, the proposal is rejected.
- F. If all PSUs vote "yea", the proposal is adopted, and the decision will be binding on all.
- G. The proceedings will be recorded by the appropriate group chair or task group leader and distributed to all PSUs with meeting notes or task groups updates.

#### 60.2 Additional Guidelines

- A. Votes may be presented to the members during annual meetings, monthly conference calls or in any other venue which guarantees complete representation and an opportunity for comment and question.
- B. In most cases, decisions will be in force through the following fire season, to be reviewed during the postseason Predictive Services Annual Meeting. In special cases, a different review period may be proposed, approved and adopted. If unforeseen adverse impacts arise, the matter may be reviewed before the originally scheduled review time.
- C. Requests for additional data or products from any Predictive Services unit must be accompanied by the necessary resources to complete the proposed task.
- D. Local GACC requirements will typically be given a high priority, but a minimum national product workload will be agreed upon prior to the commencement of each fire season.
- E. Consensus is our goal, and recognizing our commitment to local needs, all members will attempt to support the needs of the group. We can expect any approved proposal to be supported fully, even if it is not the first choice of any individual member.

### 70 Training and Development

The following table outlines the training courses and skills for Predictive Services positions. Except where ICS qualifications are required, the skill and training elements below do not constitute hiring criteria. Individual employee training plans should reflect those courses or skills needed.

*(C)OURSE or (S)KILL	Intel Coordinator	Met	Met (Prog. Mgr)	Wildland Fire Analyst
Agency Requirements	X	Х	X	X
I-100 OR I-200 (C)	Х	R	R	Х
S-130 (C)	R	R	R	X
S-190 (C)	R	R	R	Х
I-203 (C)	R			
I-400/401 (C)	S			S
S-290 (C)	R	R	R	X
S-390 (C)	R	R	R	X
S-490 (C)	R	R	R	X
S-491 (C)	R	R	R	Х
S-492 (C)		R	R	X
S-493 (C)		S	R	Х
S-590 (C)		S	R	Х
D-110 (C)	R			
D-310 (C)	R			
M-410 (C)	R	R	R	R
M-480 (C)	R			
ICS-209 (S)	X	S	S	R
SIT Report (S)	X X S S			R
Rx-410 (C)	S	R	R	R
Advanced NFDRS (C)	S	R	R	R
INTS (C)	Х			
INTL (C)	Х			
FFPLUS (S)	R	Х	X	X
BEHAVE PLUS (S)	R	R	R	X
ArcGIS (S)	R	R	R	R
WIMS/KCFAST (S)	X	Х	X	X
ASCADS (S)	S	R	R	S
FX-NET (S)		Х	X	S
BASIC STATISTICS (S)	R	Χ	X	X
EXCEL & ACCESS (S)	X	Х	X	X
BASIC UNIX/LINUX (S)		R	X	
WFSA WORKSHOP (S)	R			R
CHEETAH (S)	R	R	R	R
ROSS (S)	X commended (Seel			

X – Required R – Recommended (Seek to obtain within 3 years of hire)
S – Suggested additional training and/or skills
\* (C) = Successful Course Completion
\* (S) = Skill Acquired Through OJT or Formal Training
\* Where a position requires ICS qualifications, course and skill requirements listed here may be in addition to those required by the ICS position.

## Recommended Training, Experience or Skills for Intel:

## A. Fire experience

Recommended Training, Experience or Skills for Mets:

## A. Recommended reading:

- Mountain Meteorology: Fundamentals and Applications, Author: C. David Whiteman
   Fire Weather NFES Publication 1174
- 3. NFDRS Weather Station Standards PMS 426-3
- 4. ASCADS, WIMS, and KCFAST users guides

#### 80 Support Requirements

The Predictive Services program requires the following staffing, funding and infrastructure to be capable of successfully meeting program objectives. Actual program support varies from and will be iterated in local Operational Handbooks.

#### 80.1 Staffing

#### A. NICC Level

- 1 National Fire Weather Program Manager
- 1 Assistant National Fire Weather Program Manager
- 1 Fire Analyst
- 1 Intelligence Coordinator
- 1 dedicated Intelligence Officer
- 1 seasonal Intelligence Officer

#### B. GACC Level

- 1 Geographic Area Fire Weather Program Manager
- 1 Fire Weather Meteorologist
- 1 Intelligence Coordinator (dedicated to PS)
- 1 Intelligence Officer (dedicated to PS)
- Additional seasonal staffing or detail assignments as needed

#### 80.2 Funding

In addition to funding related directly to staffing, funding sufficient for each employee to attend a minimum of two 3-5 day national meetings or workshops annually and to replace or upgrade vital supplies is required. Individuals assigned to chair or participate on regional and national committees and working groups will require twice the support funding commitment. Ten percent of employee's total salary (including benefits) is recommended. *In general, the table below assumes full staffing at step 5 of full performance levels, FERS, benefits at 40% of salary, and support funding at 10% of salary and benefits combined.* 

Funding Agency										
	BLM	USFS	NPS	FWS	BIA	Total				
Mets	\$1,180,028	\$680,748	\$620,041	\$493,644	\$115,591	\$3,029,112				
Intel	\$184,698	\$815,104	\$92,349	\$0	\$92,349	\$1,184,500				
Fire Analyst	\$0	\$131,624	\$115,591	\$0	\$0	\$0				
Total	\$1,364,726	\$1,627,475	\$827,981	\$493,644	\$207,940	\$4,521,766				

#### 80.3 Infrastructure

- A. Information Technology Computer hardware and software sufficient for rapid computation of advanced statistical models, display and printing of complex color graphics, and storage of large volumes of data (i.e. 250+ GB). Immediate capability to install standard programmatic and necessary off-the-shelf software, and modify system settings to optimize performance. LAN and Internet access at T1 or higher rate, with backup redundant Internet access at 250 mbps or greater.
- B. Data and Reporting A complete and accurate data set of weather (RAWS) and fire occurrence (federal and state) information from 1985 to present, with formats and specifications according to agency standards. This includes up-to-date daily situation reporting (i.e. SIT/209) and NFDRS observations.
- C. Geographic Information Systems ArcGIS version 9.0 (or more recent version) installed on the computers of all personnel, and access to on-site GIS expertise and map plotters.

#### 90 Personnel Management

#### 90.1 Recruiting and Retention

Recruiting is accomplished through open recruitment as well as circulating announcements through fire weather operations at all partnering and coordinating agencies. National and Geographic Areas are responsible for circulating notifications of employment opportunities through their appropriate channels. Personal phone calls may be provided as a courtesy to specific potential candidates that have previously made their interest in Predictive Services known.

Retention is encouraged through training, career development opportunities, and new product creation and implementation with all positions within Predictive Services. Annual reviews should be conducted by Program Managers, Intelligence Coordinators, or other supervisors to discuss career goals and formulate appropriate plans of action.

### 90.2 Details and Assignments

Details and assignments will periodically be necessary to serve the wildland fire community as well as the national Predictive Services program. Within the wildland fire community, details and assignments are necessary to become familiar with different aspects of fire management, to interact with coordinating user groups, and to transfer technology. Within Predictive Services, details and assignments are necessary to assist different Areas in accomplishing objectives as well as a means to share ideas and expertise. Details and assignments will be performed on an as-needed basis.

#### 100 Predictive Services Strategic Plan

#### Predictive Services Vision

Wildland fire management emphasizes safety, cost containment, efficiency, and ecosystem health through the proactive use of Predictive Services decision support products.

#### **Predictive Services Mission**

The Predictive Services Program supports the wildland fire community and others with information and decision support products.

#### **Predictive Services Goals**

**Goal 1 – Products and Services** – Relevant Decision Support tools are available to support user needs **Goal 2 – Use of Products and Services** – The timeliness and effectiveness of fire management decisions are increased through the use of Predictive Services

**Goal 3 – Partnerships** – Predictive Services actively partners with cooperating agencies, internal programs, academia, research, and the private sector

**Goal 4 – Infrastructure** – Organization structure, staffing, technology and resources are in place to ensure the success of the Predictive Services program

#### Predictive Services Objectives and Strategies

#### Goal 1 - Products and Services

#### **Objectives**

- Improve the data infrastructure that supports the integration of Predictive Services and the Wildland Fire Program
- Product Development and Evaluation Team is in place
- Specific tools are developed to support user needs
- Maintain accurate data
- Provide standardized fire potential, observations and predictions
- Local products are in alignment with national standards
- Products and services meet the need of the users
- Remain knowledgeable in emerging technology and use appropriately

#### **Strategies**

- Establish and implement performance standards for products and services
- · Develop and implement a user assessment process
- Establish and implement data quality standards
- Develop and implement a periodic review process
- Develop and implement a product validation process
- Establish and implement a well-defined process for technology transfer
- Establish priorities and initiate/support tool development efforts
- Develop products that utilize best business practices
- Develop a plan/process to influence the data quality of data we do not control
- Establish a continuous improvement process to assess and make modifications to the products and services provided by Predictive Services

#### Goal 2 - Use of Products and Services

#### **Objectives**

- Fire management is trained in the use of Predictive Services products and services
- Workload spikes are anticipated and the opportunities for mitigation are identified
- Proactive resource allocation are commonly implemented
- · Firefighter situation awareness is improved
- · Risk analysis is used to guide tactical decisions
- Cost benefits of the Predictive Services program are quantified and understood

#### **Strategies**

- Integrate Predictive Services into wildland fire management training and operational policy and procedures
- Assess current product and service capability of Predictive Services
- Develop and implement process for technology transfer
- Develop and implement a communication plan
- Incorporate decision science in fire management processes
- Perform a cost-benefit analysis
- Enterprise architecture
- Develop and implement a marketing plan
- Develop requests for resources to augment staffing requirements as needed
- Engage training as a strategic partner

## Goal 3 - Partnerships

#### **Objectives**

- · Leverage relationships with other entities to accomplish objectives and goals
- Nurturing partnerships
- · Accomplish objectives and goal with the help of other entities

## **Strategies**

- Foster relationships with increased outreach
- Develop and implement partnership plan

#### Goal 4 - Infrastructure

### **Objectives**

- Organization structure and governance is in place
- All resource requirements for the Predictive services program are satisfied
- Technology needs are satisfied for Predictive Services staff
- Information Technology support for Predictive Services is met
- Geographic Information Systems (GIS) support for Predictive Services is met
- Adequate capability and structure is in place to meet the expectation and requirements of the community

• Fuels, fire danger, fire analysis skills and talent are available to meet program needs

## Strategies

- Develop, implement and codify a Predictive Services Handbook
  - o Standard Operating Procedures or Operating Procedures
  - o Structure lines of authority
- Provide proficiency for Predictive Services personnel
- Develop staffing and funding requirements for the program based on workload analysis
  - Staffing
  - o Funding
  - Support (technology)
- Develop and implement annual operating plans
- Develop and implement a training plan for Predictive Services

## CHARTER NATIONAL PREDICTIVE SERVICES GROUP

#### I. BACKGROUND

In 2000, the National Fire Plan provided for the development of Predictive Service Units at the Geographic Area Coordination Centers (GACCs) and the National Interagency Coordination Center (NICC) in order to integrate climate, weather, situation, resource status and fuels information into products that will enhance the ability of managers to make sound decisions for both short- and long-range strategic planning and resource allocation decisions, and ensure the safety of firefighting and emergency personnel. The concept behind this effort was to blend the functions of intelligence, meteorological forecasting and fire analyst capabilities into one cohesive group called "Predictive Services" in order to place emphasis on predictive capability at the Geographic Area and National levels.

To develop a framework and provide leadership for the Predictive Services program, the National Predictive Service Group (NPSG) was formed and chartered under the Geographic Area and National Interagency Coordination Center Managers on December 11, 2002. NPSG, through collaborative leadership, with input from user groups at all levels, strives to continually improve the quality, accuracy, and relevance of decision support products provided through the multi-agency coordination system to fire managers and customers nationwide.

Enhanced decision support and incident prioritization was identified as a priority issue in the Quadrennial Fire and Fuels Review (QFFR), released in June 30, 2005. The QFFR stated:

"The Predictive Services staff at the national and geographic locations should play a much bigger future role in large fire strategy selection and resource allocation. Inputs from these meteorological and fire behavior experts, coupled with topographical and vegetative information, would enable local, geographic, and national managers to make better informed decisions to allocate precious fire resources. These experts will provide information on which fires have the potential to most severely impact communities and critical infrastructure. The availability of centralized real-time evaluations would free local fire managers from the time-consuming predictive assessment and allow them to focus on incident management and public safety. The National Predictive Services Unit should continue to provide NMAC with the information necessary to reinforce portions of the country that are approaching critical fire indices."

To ensure strong national leadership and advocacy for the Predictive Services program, the National Fire and Aviation Executive Board (NFAEB) agreed to charter NPSG at their November 9, 2005 meeting.

#### II. NAME

The National Predictive Services Group; hereinafter referred to as NPSG.

#### III. MISSION

The mission of NPSG is to provide interagency oversight, leadership, strategic direction, and vision to improve the quality, accuracy, and relevance of decision support products and information provided by Predictive Services through the multi-agency coordination system to fire managers and users nationwide.

#### **IV. GOALS**

NPSG will collaborate with Area Coordination Center Managers and the Geographic Area Coordination Groups to develop a framework, strategic plan, and operational handbook to meet the following goals:

- Relevant decision support tools are available to support user needs.
- The timeliness and effectiveness of fire management decisions are increased through the use of Predictive Services.
- Predictive Services actively partners with cooperating agencies, internal programs, academia, research and the private sector.
- Organization structure, staffing, technology, and resources are in place to ensure the success of the Predictive Service program.

### V. ORGANIZATION

NPSG operates under the direction of the National Fire & Aviation Executive Board. A member of NFAEB is assigned as a liaison for the group's activities.

NPSG is composed of members representing specialized groups, and administrative personnel consisting of ten (10) members plus two advisors (NFAEB liaison and NICC Manager). Membership will strive to achieve full National Wildfire Coordinating Group (NWCG) agency and National Weather Service (NWS) representation. Members will serve a minimum of two years to provide continuity in representation. Members representing specific groups will be replaced at the request of that group (i.e. National Association of State Foresters [NASF], Geographic Area Center Managers, Meteorologist and Intelligence Working Groups, NWS, and NFAEB) or when no longer able to serve as a member to NPSG. Field Level Representative candidates will be solicited from external subject matter experts and candidates will be interviewed for selection by the executive committee. The Field Representative will serve a minimum two year term, which may be extended for an additional two years upon approval by the executive committee. Other subject matter experts may be contacted to assist NPSG as needed.

Standing working groups operate under the direction of NPSG. Each standing working group will be represented on the NPSG. Standing working groups submit charters, operating plans and project proposals to NPSG for approval. Standing working groups are:

- Intelligence Working Group (IWG)
- Meteorological Working Group (MWG)

Note: Other standing working groups or task groups may be organized as needed.

NPSG leadership will consist of a two-person executive committee, including a Chair and Vice-Chair. The Chair and Vice Chair shall hold national or regional-level positions, be recommended by NPSG members, and approved by NFAEB. The Chair and Vice Chair will serve a minimum two (2) year term. At the end of that time, NPSG members will recommend any changes to the Chair and/or Vice Chair positions for the next two (2) year term. There is no limit on the number of terms a Chair or Vice Chair may serve. The retiring Chair or Vice Chair may assume member status after they vacate their executive committee positions. The NFAEB will approve any changes to the executive committee.

#### A. Members

- · Geographic Area Center Manager
- Geographic Area Coordination Group Representative
- Meteorologist Working Group Representative
- Intelligence Working Group Representative
- National Fire Weather Program Manager
- NICC Intelligence Coordinator
- NICC Fire Analyst
- State/NASF Representative
- Field Level Representative
- National Weather Service Representative

#### B. Administration

- Chair (from member list above)
- Vice-Chair (from member list above)
- NFAEB Liaison (Wildland Fire Agency Fire Director)
- Note taker at meetings (as needed)
- · Facilitator (as needed)

#### C. Strategic Partners

Strategic partners, such as Geographic Area Center Managers and Coordinating Groups, will provide advice, products, services, or capabilities to NPSG that are essential to accomplishing its mission. Likewise, NPSG may be identified as a Strategic Partner to another NWCG WT or outside entity (e.g. FENWT). The addition of strategic partners will be evaluated on a periodic basis and their inclusion will be documented in the NPSG operation plan. Strategic Partner representatives will be selected by the entity they represent.

#### **VI. AUTHORITIES AND RESPONSIBILITIES**

#### **Executive Committee:**

- Draft program of work and any budget requests for approval
- Develops agenda for regularly scheduled meetings
- · Schedules special meetings as needed
- · Makes decisions on behalf of NPSG between meetings as needed
- Charters Standing Working Groups
- Submits an annual project status and accomplishments report to the NFAEB. Once approved, these reports will be posted on the NPSG Website.

#### Predictive Services Handbook

#### Chair:

- Submits a 5-vear Strategic Plan and Operations Handbook to NFAEB
- Represents NPSG in presenting recommendations or issues to the NFAEB.
- Serves as NPSG spokesperson when it is deemed appropriate especially with outside individuals or groups.
- Presides over the meetings.
- Recommends the need for further resources and authority when it becomes evident.
- Assigns work for special projects or assignments.
- Selects ad hoc subject matter experts to assist in issue resolution.
- Solicits replacement team members as vacancies occur
- Prepares and signs correspondence approved by the members.

#### Vice Chair/Secretary:

- Responsible for tracking on-going projects and the development and implementation of NPSG procedures.
- Provides follow-up on projects assigned to members and/or working groups to ensure timely completion.
- Documents all meeting agreements in the form of minutes or delegates this function.
- Maintains a permanent file of NPSG activities.
- · Sends meeting announcements, agenda items, etc., to NPSG members and others as needed.
- Draft annual accomplishment report.
- Acts in the capacity of the chair in the absence of the chair.

#### **VII. MEETINGS AND REPORTS**

A. Meetings/Conference Calls: Two to three meetings will be held annually. One of the annual meetings will be designated to review the program of work, review project proposals, and make budgetary decisions. Decisions are made by consensus. A decision model detailing the team decision making process may be developed by NPSG. Topics will be addressed thoroughly from all angles, including those not represented on the team.

B. Reports: Special findings and reports will be appropriately published after being approved by the NFAEB. Accomplishment reports will be submitted to the NFAEB annually. Meeting schedules, financial considerations, recommended areas of investigation, work schedules, and work area descriptions will be submitted with the annual report.

When appropriate, video conference calls may be used in lieu of meetings to minimize travel expenditures.

An agenda will be distributed to all NPSG members two weeks prior to the scheduled meeting. Minutes of the meetings will be kept and distributed to NPSG members after the meetings.

Travel expenses are the responsibility of NPSG members (except when assistance is required by State or non-Federal representatives, stakeholders, or subject matter experts).

#### VIII. APPROVAL

This Charter is effective as of the date of approval by the NFAEB. The Charter may be revised upon recommendation of a majority of NPSG members with the concurrence of the NFAEB.

(Charter approved by NFAEB on April 10, 2006 - Signatures on record)

### **APPENDIX B - FORMS AND STANDARD PRODUCTS**

29: Resources threatened (kind(s) and value/significance):

#### ICS-209

#### Incident Status Summary (ICS-209) 3: Initial Update Final 1: Date 4: Incident Number 5: Incident Name 7: Start Date / Time 8: Cause 6: Incident Kind 9: Incident Commander 10: IMT Type 11: State-Unit 12: County 13: Latitude and Longitude 14: Short Location Description (in reference to nearest town): Lat: Long: Current Situation 18: Line to Build 19: Costs 20: Declared Controlled (# chains) to Date: 15: Size/Area 16: % Contained or 17: Expected Involved MMA Containment Time: Time: 21: Injuries this 22: Injuries to Date: 23: Fatalities 24: Structure Information Reporting Period: Type of Structure # Threatened # Damaged # Destroyed 25: Threat to Human Life/Safety: Evacuation(s) in progress Residence Commercial No evacuation(s) imminent Potential future threat No likely threat Property Outbuilding/Other 26: Communities/Critical Infrastructure Threatened (in 12, 24, 48 and 72 hour time frames): 12 hours: 24 hours: 48 hours: 72 hours: 27: Critical Resource Needs (kind & amount, in priority order): 1. 2. 28: Major problems and concerns (control problems, social/political/economic concerns or impacts, etc.) Relate critical resources needs identified above to the Incident Action Plan.

ICS-209 (06/03) NFES 1333 Previous editions obsolete

## Predictive Services Handbook

redictive Sei	vices nationous		
30: Current Weather Wind Speed: mp Wind Direction:	Conditions h Temperature: Relative Humidity:	31: Resource benefits/obje	ctives (for prescribed/wildland fire use only):
32: Fuels/Materials Ir			
l			in the adjacent box to the right.
List additional fuels a	and/or materials involved in	the block below.	
33: Today's observed	fire behavior (leave blank	for non-fire events):	
34: Significant events	today (closures, evacuation	ons, significant progress ma	de, etc.):
		0 11 - 1	
	-	Outlook	
35: Estimated Contro Date and Time:	I 36: Projected Final Size:	37: Estimated Final Cost:	38: Tomorrow's Forecasted Weather Wind Speed: mph Temperature: Wind Direction: Relative Humidity:
39: Actions planned f	for next operational period:		
40: Projected inciden	t movement/spread during	next operational period:	
41: For fire incidents, 1. Growth Potential -	describe resistance to con	trol in terms of:	
Difficulty of Terrain			
		ate will be met, given the cur	rent resources and suppression/control
strategy?	it containment control targe	ots will be mot, given the ear	Total Tosourous and Supplession Control
43: Projected demob	ilization start date:		
44: Remarks:			
			ICS-209 (06/03) NFES 1333 Previous editions obsolete

						45: (	Commi	tted F	Reso	urce	S				
A	CR	W1	CR	W2	HEL1	HEL2	HEL3	EN	GS	DO	ZR	WTDR	OVHD	Camp	Total
Agency	SR	ST	SR	ST	SR	SR	SR	SR	ST	SR	ST	SR	SR	Crews	Personne
			П												
			Н												
			Н				_	$\vdash$		-					
			Н												
			Ш					_		_					
								$\perp$							
Total															

46: Cooperating and Assisting Agencies Not Listed Above:

Approval Information									
47: Prepared by:	48: Approved by:	49: Sent to:	by:						
		Date:	Time:						

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### **IMSR Predictive Services Discussion (example)**

Rain and mountain snow for much of California this week. A storm system will move across California this week with significant rain and high elevation snow mainly in the northern and central portions of the state. A trend to warmer and drier conditions will begin on Friday and continue through the weekend. Dry weather will persist across much of Florida and the southeastern states.

## 

## 7 Day Significant Fire Potential (example)

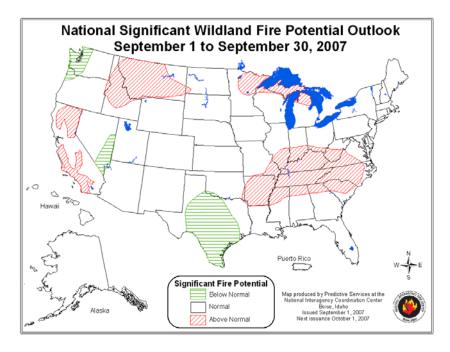
## 7-Day Significant Fire Potential National Map (example)



## **Significant Wildland Fire Potential Outlook Maps**

Map template can be found at: <a href="http://www.nifc.gov/news/intell">http://www.nifc.gov/news/intell</a> predserv forms/national map.html

## National Monthly Significant Wildland Fire Potential Outlook Map (example)



## Seasonal Significant Wildland Fire Potential Outlook Map (example)

