NWCC

Northwest Interagency Coordination Center

Northwest Geographic Area Decision Support Center Guide

Northwest Coordination Center Predictive Services Unit

July 2011

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APPENDICES

Introduction

The primary responsibility of the Predictive Services Unit is to provide sound guidance to local, regional and national resource managers concerning current and projected "Significant Fire Potential". The Geographic Area Decision Support Center (GDSC) is an extension of the Geographic Areas, Predictive Services Unit. This advanced level of support is intended to ensure the safety of firefighters and the effective use of firefighting resources.

The GDSC Operations Guide is for the activation and the support when additional personnel are needed to provide technical analysis and support to the Geographic Areas Resource Managers. The Northwest GDSC can be activated as necessary and should be coordinated with the National Fire Decision Support Center (NFDSC). For more information on the NFDSC, visit: http://www.wfmrda.org/nfdsc.php.

Mission

The purpose of the GDSC is to provide high-level fire behavior analysis for critical decision support in relatively short time frames. GDSC analyses help prioritize incidents, inform initial incident and IMT strategies, and support fire analysts assigned to specific incidents. In these events, the GDSC will:

- Work for the NWCC Center Manager;
- Initiate analyses in support of NWCC Operations and NW-MAC decision-making;
- Initiate analyses on the request of local units for emerging incidents without regard to agency;
- Support, on request, local units and established incidents seeking technical analysis products;
- Establish a training ground for future fire analysts;
- Relinquish analysis support when enough local skills exist.

Operational Overview

The GDSC is supervised by the NWCC Predictive Services Fire Analyst. GDSC staffing will adjust based on the Preparedness Level and the number and complexity of active incidents in the Geographic Area. When formally initiated, two or more analysts would work under the supervision of a Lead Analyst, a fully-qualified FBAN or LTAN. This person would report to the NWCC Fire Analyst, who acts a liaison between the GDSC and potential clients, and who is responsible for setting work priorities and timelines. The Lead Analyst remains aware of the overall situation within the area; he or she will assign work among the analyst group and is responsible for quality control and for seeing that GDSC products are appropriately delivered to clients. During heavy fire activity, the center might also utilize the services of a dedicated IMET and/or GIS specialist. See Figure 1.
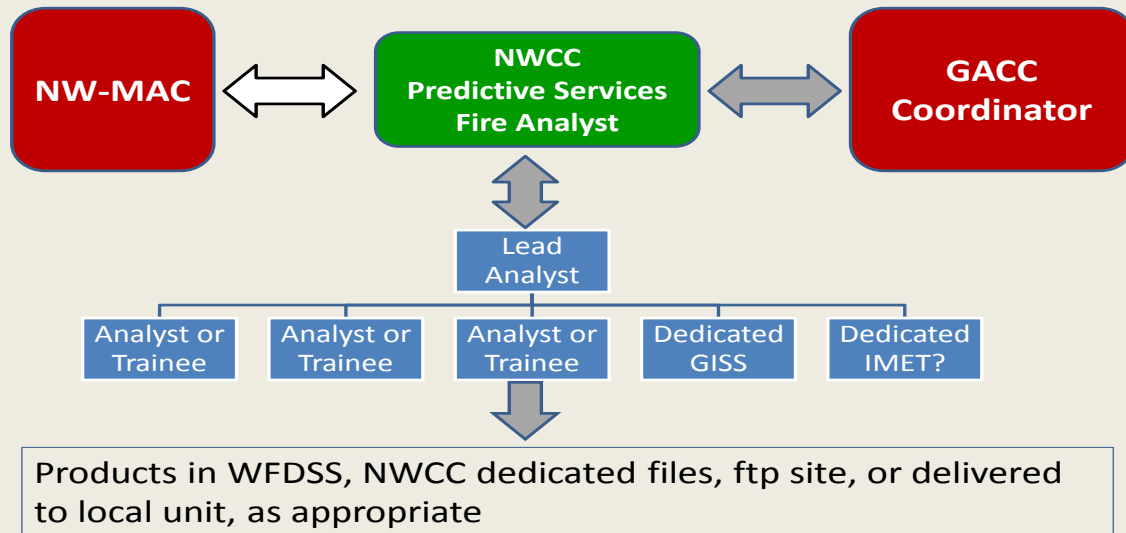
Figure 1

GDSC Roles & Responsibilities

NWCC Fire Analyst
- Reports to the NWCC Center Manager.
- During periods of little fire activity, acts on behalf of the support center, fielding requests for fire behavior support and initiating specific analyses.
- During periods of high fire activity, acts as a liaison between the NW MAC and the support center, coordinating work load and prioritizing tasks.
- Supervises the Lead Analyst.
- Responsible for coordinating requests from incidents and seeing that center products are properly disseminated.

Lead Analyst
- This position is activated at the same time the Support Center is formally implemented. Ideally, individuals filling this position will be listed on a rotating schedule awaiting activation.
- Fully qualified as FBAN/LTAN/WFDSS Fire Behavior Specialist.
- Must demonstrate competency across the full range of fire behavior models: BEHAVE, Short Term (FlamMap), Near Term (FARSITE) and FSPro.

- Reports to the NWCC Fire Analyst.
- Supervises two or more Support Center Analysts. Mentors trainees.
- Oversees and directs daily work tasks and ensures proper filing and documentation is accomplished. Implements and updates the daily activity worksheet, the record of work progress and accomplishment.

Support Analyst
- This position may be activated at any time workload demands.
- Qualified FBAN or LTAN, or FBAN/LTAN trainees; fire behavior technical specialists; fuels specialists who demonstrate competency/interest in technical fire behavior modeling and analysis.
- Reports to NWCC Fire Analyst if the GDSC has not been formally activated.
- On activation of the GDSC, this position reports to the Lead Analyst.
- Responsible for completing specific technical analyses utilizing a range of fire behavior models, including BEHAVE, Short Term (FlamMap), Near Term (FARSITE) and FSPro and others.
- Responsible for completing appropriate documentation for every fire behavior analysis and filing each analysis in its proper folder.

Support Center GISS
- This position activated during periods of heavy workload that exceeds the capacity of NWCC Fire GIS Specialist and staff.
- Reports to NWCC Fire Analyst.
- Coordinates closely with the Lead Analyst and the NWCC Fire GIS Specialist so that necessary work is completed without duplicating efforts or impeding GIS support to GACC operations or NW-MAC.
- Completes tasks according to work priorities; files products in appropriate folders and notes updates to the daily activity worksheet.

Support Center IMET
- This position is activated during periods of heavy workload and when detailed, expert meteorological input is required to effectively complete technical fire behavior analyses.
- Fully qualified NWS IMET or GACC Meteorologist.
- Reports to NWCC Fire Analyst.
- Coordinates with Lead Analyst; works closely with GACC meteorologists.
- Primary responsibility is to advise Support Center Analysts on specific analyses, coordinating when possible with incident IMETS in the field.
- Documents and appropriately files analysis input.

GDSC Activation Procedures

The NWCC Center Manager and the Predictive Services Unit Leader will concur on formal GDSC activation, which may occur anytime NW-MAC or MAC Support is activated. Otherwise, the Fire Behavior services are generally always available. GDSC staffing will generally be scaled up in the following manner:

PL 1 or 2: NWCC Fire Analyst supports analysis requests; additional workload may be performed remotely by other analysts or by detailed analyst at NWCC.

PL 3: NWCC will staff 1 to 2 additional analysts at the coordination center; additional workload may be performed remotely by other analysts.

PL 4 and 5: Formal activation of the Decision Support Center at NWCC. Staffing will follow, but is not limited by, the organization outlined in Figure 1.

Technical Support/Logistical Requirements

Workspace for 1 Lead Analyst and 4 Support Analysts

Network Capability for Lead Analyst

Net access for Lead and 4 Support Analysts

Link to 1 Printer/FAX Machine

2 Check out FS laptops as available

Access Card to NWCC Facility

Decision Support Center Daily Schedule

0900 Daily Priority Analyses Completed

0930 Schedule Next Day's Priorities

1030 Daily Morning Operations Briefing – Operations Floor

1115 WFO/IMET/FBAN call

1430 Weather Briefing/Google Flight

1530 Validate Next Day's Priorities

1700 Daily Close-Out

NW MAC Daily Schedule (attended by NWCC Fire Analyst and Lead Analyst)

0700 Aviation Coordination Call

0730 MAC/IC Conference Call

0830 NICC Conference Call

0845 Sub-Geographic Area MAC Prioritization

0900   Incident Prioritization

1000   PNW Center Managers Conference Call

1030   Weather Briefing/Google Flight

1100   NMAC Incident Prioritization Worksheet (IPW) Due – As Needed

1200   NMAC Conference Call – As Scheduled

1300   MAC Support Group Statey Meeting

1430   Weather Briefing/Google Flight

1600   NW MAC Conference Call – As Scheduled

1700   IPWs Due into NW MAC

Tracking Daily Work Priorities and Progress

The Lead Analyst will be responsible for documenting the progress of analysis on all priority incidents. The FBA Tracking Sheet, shown below in **Figure 2**, will be reviewed at the Daily Close-Out.

Fire Behavior Analysis Tracking Sheet										
7/1/2011										
8:15:20 AM										
Incident	Location	Size	MAC Priority AM PM	FB Priority	FSPRO	Run Duration and Date	Farsite	Run Duration and Date	Output Posted to O-Drive	Output Posted FTP

Figure 2

Analysis Requests

FSPro Analyses

Local units are responsible for entering emerging incidents into the Wildland Fire Decision Support System (WFDSS). Once incident information has been entered, an FSPro Request can be initiated by clicking the appropriate tab on the Left-Hand Bar. See Figure 3.

Figure 3

The local unit will complete the request form. See Figure 4 for details. Once the form has been submitted, the local unit will place a call to the NWCC Fire Analyst to alert the GDSC that the request has been submitted.

Figure 4

<u>Other Analysis Requests</u>

Short Term (FlamMap) and Near Term (FARSITE) analyses can also be requested by contacting the NWCC Fire Analyst. Requests should specify:

- Representative RAWS for the incident;
- Simulation purpose and duration;
- Applicable simulation outputs (Fire perimeter, major paths, arrival time contours).

All analysis products will be accompanied by an Analysis Summary that will provide basic methodology and interpretation of analysis results. The GDSC prefers that the requesting unit has a local contact qualified to interpret analysis outputs. If one is not available, the GDSC can consult by phone.

<u>Analysis Priorities</u>

The GDSC's top priority is to provide technical analyses for emerging incidents in a relatively short time frame. More detailed or in-depth analyses in support FBAN/LTANs on active incidents will be second priority. Technical support to fire assessment or review teams will be third priority.

Analysis Outputs: Naming and Filing Conventions

<u>Analysis Results</u>
Analyses will remain in the appropriate incident analysis file in the WFDSS application. Incident and analysis naming should follow the standard conventions illustrated in **Figure 5** below:

Follow Naming Conventions

Example Incident Naming Convention:

Unit 3 Letter Designator_Incident Name_YrMoDay Incident Start Date
- Example:
  - **WWF_MinamPeak_200808118**
  - **NCP_Arctic_20080724**

Incident Analysis Naming Convention:

YrMoDy Analysis Date_Analysis Duration_No. of Simulations_Ign Source_Other Analysis Factors
- Example:
  - 20080916_14Day_800Fires_0916AMPerim_NoBarriers
 - 20080821_21Days_1000Fires_0821IRPerim_LogCrkWind

Figure 5

After simulations are completed and modeling results are accepted, a Summary Analysis will be completed. When the analysis is accomplished, the GDSC Lead Analyst will call the local point of contact to alert them to the availability of the modeling results in the WFDSS incident file. The Summary analysis will be emailed to the local point of contact, and will be filed locally to the NWCC "O" drive and to the Incident FTP folder. See Appendix A for a copy of the Summary Analysis template.

Note: Any modeling results that are not accepted for use by the analyst will be REJECTED to prohibit viewing by other parties.

<u>Stand-Alone Fire Behavior Modeling Results</u>
Model results from desktop Fire Modeling programs will be created and saved as a PDF onto an 11x17 inch topographic map by a GISS or GDSC analyst utilizing map templates. The analysis results will be filed, along with Analysis Summary Report (see Appendix B), using the structure illustrated in **Figure 6** below. The GDSC Lead Analyst will email the PDF map and Analysis Summary to the local point of contact.
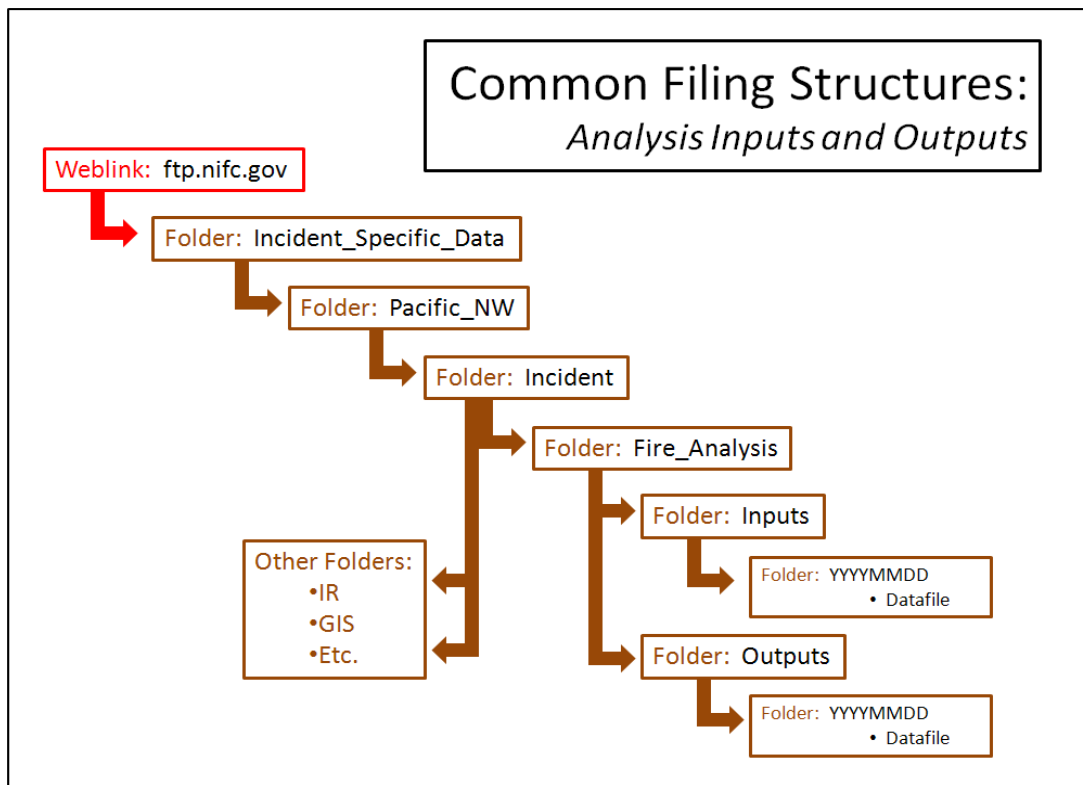
Figure 6

Long Term Fire Assessment Inputs: Fire Behavior/Fire History Reference Data
Reference data can be found on the NWCC Website, as shown in **Figure 7** below:
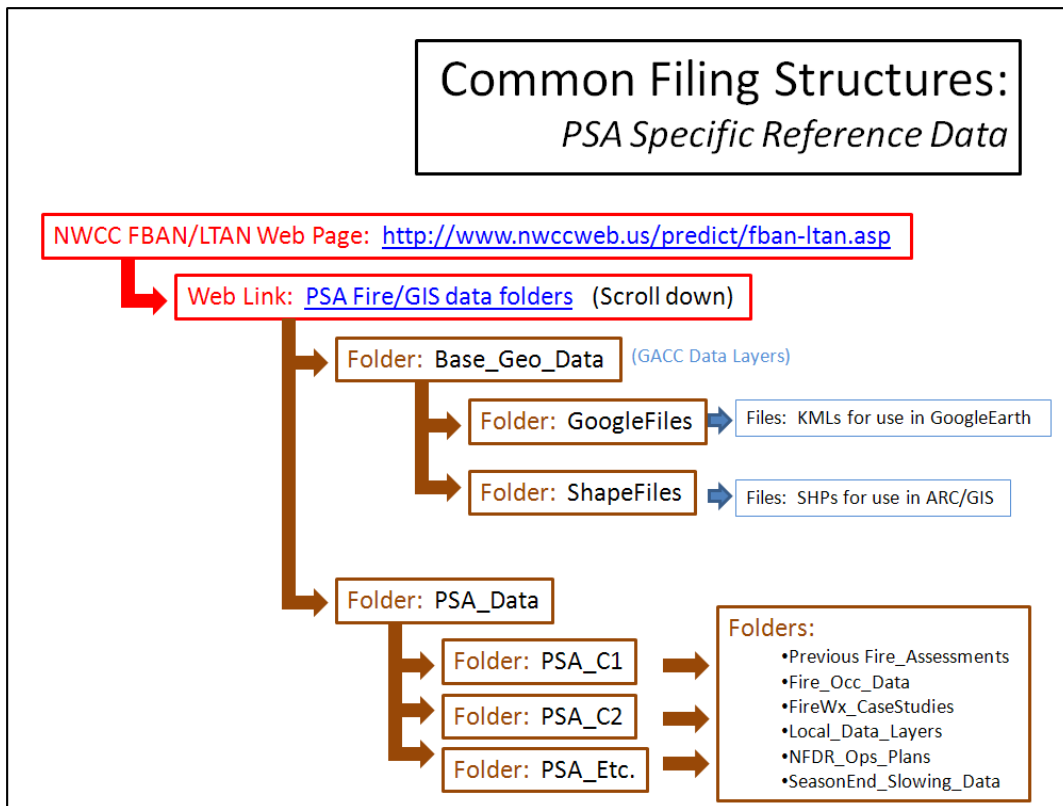
Figure 1

If provided, Long Term Fire Assessment or other appropriate analysis documents can be stored in folders accessed from the NWCC FBAN/LTAN page. Local units having this interest should contact NWCC Predictive Services.

Appendix A

Principal Contacts when the GDSC has been activated:

       NWCC Fire Analyst: (w) 503-808-2733
                            (c) 503-894-1303

       NWCC Intel: 503-808-2734
                     503-808-2780

When GDSC is not formally activated:

Contact your local WFDSS point of contacts to assist with analysis.

Appendix B

Fire Behavior Analysis Summary

Incident:	Run Date:
Run Name:	Run Duration:
Expected Weather & Fire Behavior Outlook: (Summarize info that has a direct bearing on the validity of outputs: Fire wx forecast, 7-Day product, 6-10 or 8-14 day outlooks, etc.)	
Output Critical Summary: (Summarize issues/concerns raised by output values, the potential effects on MAPs or high value areas. Include any appropriate critique of output extent/shape—whether the model over/under predicts as a whole or in any one direction or drainage, or other factors.)	
Remarks to Fire Behavior Specialist: (Document constructive feedback useful for maintaining/improving run quality)	
Interpreted by: Today's Date:	Attachments: KML filename: PDF filename: Other:

Appendix C

FSPro Analysis Summary

Incident:		Run Date:	
Run Name:		Number of Simulations:	

Probability Zone	Acres	Value at Risk
80-100%		
60-79%		
40-59%		
20-39%		
5-19%		
0.2-4.9%		
<0.2%		

Expected Weather & Fire Behavior Outlook:

(Summarize info that has a direct bearing on the validity of FSPro outputs:
Fire wx forecast, 7-Day product, 6-10 or 8-14 day outlooks, etc.)

Output Critical Summary:

(Summarize issues/concerns raised by output values, the potential effects
on MAPs or high value areas. Include any appropriate critique of output
extent/shape—whether the model over/under predicts as a whole or in any
one direction or drainage, or other factors.)

Remarks to Fire Behavior Specialist:

(Document constructive feedback useful for maintaining/improving run
quality)

Interpreted by:	Attachments:
	KML filename:
Today's Date:	PDF filename:
	Other: