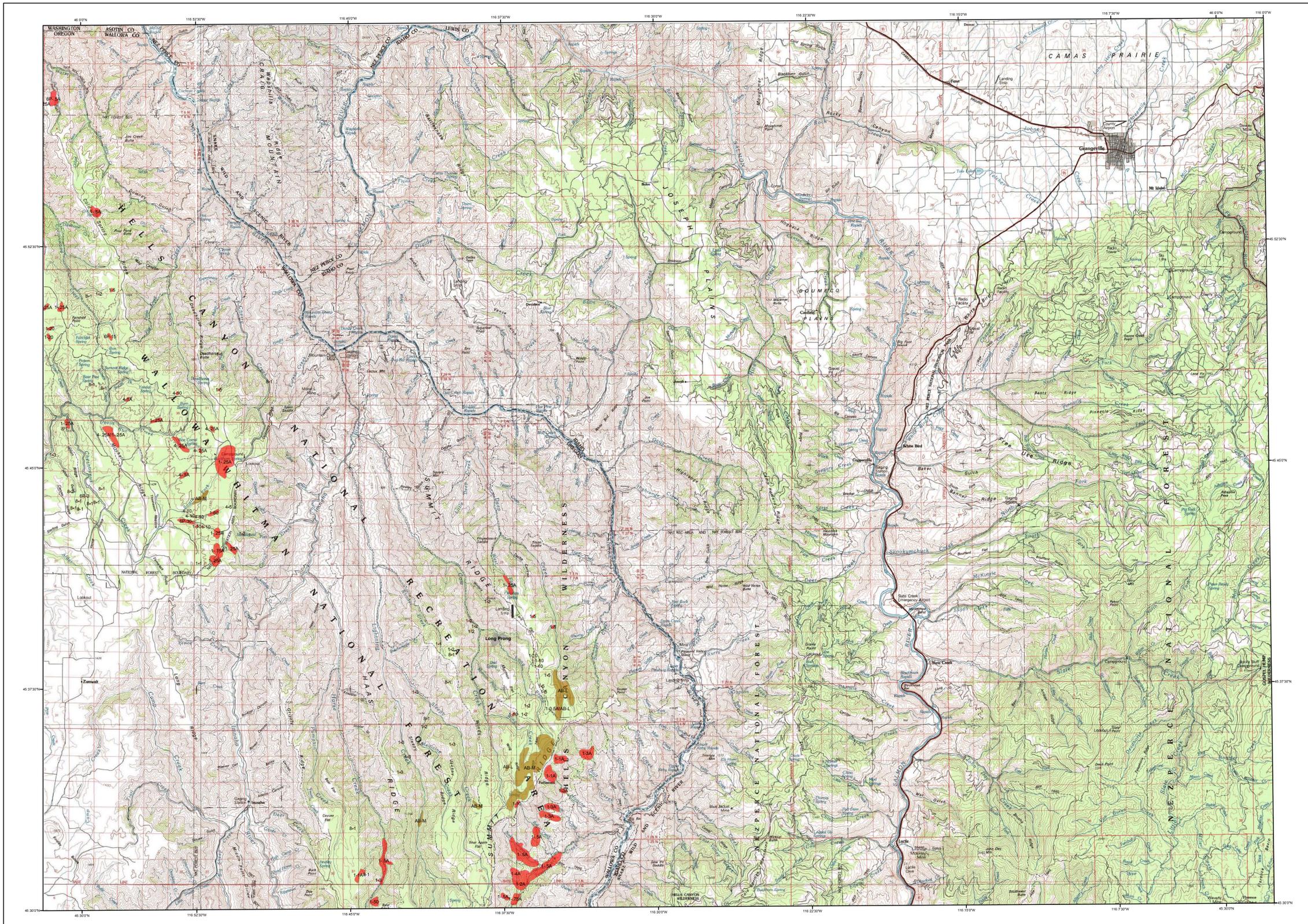


2009 Aerial Insect and Disease Survey

USGS 100K Quad: Grangeville - E145116; 9G



Defoliators		Mortality Agents	
Code	Damaging Agent	Code	Damaging Agent
AS	Spruce aphid	1	Douglas-fir beetle
BB	Western blackheaded budworm	2	Douglas-fir engraver
BM	Medio borestem	3	Spruce beetle
BP	Sugar pine tortrix	4	Fir engraver
BS	Western spruce budworm	5	Western balsam bark beetle
BY	Bryum's blight/Lothodemetia	6	Mountain pine beetle
CH	Larch	6J	Jeffrey pine
HL	Western hemlock looper	6L	Mountain pine beetle
LG	Green striped forest looper	6P	Mountain pine beetle
LL	Larch looper	6S	Mountain pine beetle
LS	Black pine needle scale	6W	Mountain pine beetle
ML	Larch budmoth	7	Western pine beetle
ND	Douglas-fir needle midge	8	Western pine beetle
MS	Spruce budmoth	8B	White-pine ponderosa pine
NJ	Needle miner	9	Silver fir beetle
NK	Needle miner	9B	Conifer
NL	Needle miner	9C	Flatheaded wood borer
NP	Needle miner	9D	Black stain root disease
NS	Needle miner	9E	Port Orford cedar root disease
NW	Needle miner	9F	Water damage
NT	Needle miner		
OL	Western oak looper		
PB	Pine butterfly		
PC	Pine needle cast		
PH	Phantom hemlock looper		
PM	Pandora moth		
PN	Pine needle/health miner		
PP	Pine needle scale		
RC	Needle cast		
SA	Sawfly		
SD	Sawfly		
SF	Sawfly		
SH	Sawfly		
SL	Sawfly		
SM	Satin moth		
SN	Swain needle cast		
SP	Sawfly		
TA	Text caterpillar/ alder		
TC	Text caterpillar/ other		
TM	Douglas-fir tussock moth		
TS	Text caterpillar/ aspen		

USGS 100K Quad: Grangeville - E145116; 9G
 2009 Aerial Insect and Disease Detection Survey
 Mapscale: 1:100,000
 Date: January 25, 2010

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage

2009 Large Fires

Source: Northwest Coordination Center

The map base was created with TOPOI (Copyright 2001, National Geographic); available online at: www.ngmapstore.com

A data dictionary, digital copies of this map and ArcGIS insect and disease data are available at: www.fs.fed.us/r6/nr/fid/data.shtml

How the Aerial Surveys are Conducted

Data represented on this map are based on trees visibly affected by forest insects and diseases detected and recorded during aerial survey flights conducted by the USDA Forest Service and the Oregon Department of Forestry. Observers have just a few seconds to recognize the color difference between healthy and damaged trees of different species; diagnose causal agents correctly; estimate intensity; delineate the extent of damage; and precisely record this information on a georeferenced, digital map. Air turbulence, cloud shadows, distance from aircraft, haze, smoke and observer experience can all affect the quality of the survey. These data summaries provide an estimate of conditions on the ground and may differ from estimates derived by other methods.

The aerial survey provides information on the current status for many causal agents, and is important when examining insect activity trends by comparing historical and current survey data over large areas.

Overview surveys are a 'snap shot' in time and therefore may not be timed to accurately capture the true extent or severity of a particular disturbance activity. Specially designed surveys with modified flight patterns and timing may be conducted to more accurately delineate the extent and severity of a particular disturbance agent. Special surveys, such as Swiss needle cast surveys, are conducted when resources are available to address situations of sufficient economic, political or environmental importance.

DIRECT ALL INQUIRIES TO:

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 Forest Health Management
 2600 State Street
 Salem, Oregon 97310

-- OR --

USDA Forest Service, Region 6
 Natural Resources
 Forest Health Protection
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DISCLAIMER
 Forest Health Protection (FHP) and Oregon Department of Forestry (ODF) strive to maintain an accurate Aerial Detection Survey (ADS) Dataset, but due to the conditions under which the data are collected, FHP and ODF shall not be held responsible for missing or inaccurate data. ADS are not intended to replace more specific information. An accuracy assessment has not been done for this dataset; however, ground checks are completed in accordance with local and national guidelines. <http://www.fs.fed.us/foresthealth/operations/ads/adsdataset.shtml>
 Maps and data may be updated without notice. Please cite: USDA Forest Service, Forest Health Protection and Oregon Department of Forestry, Forest Health Management
 as the source of this data in maps and publications.