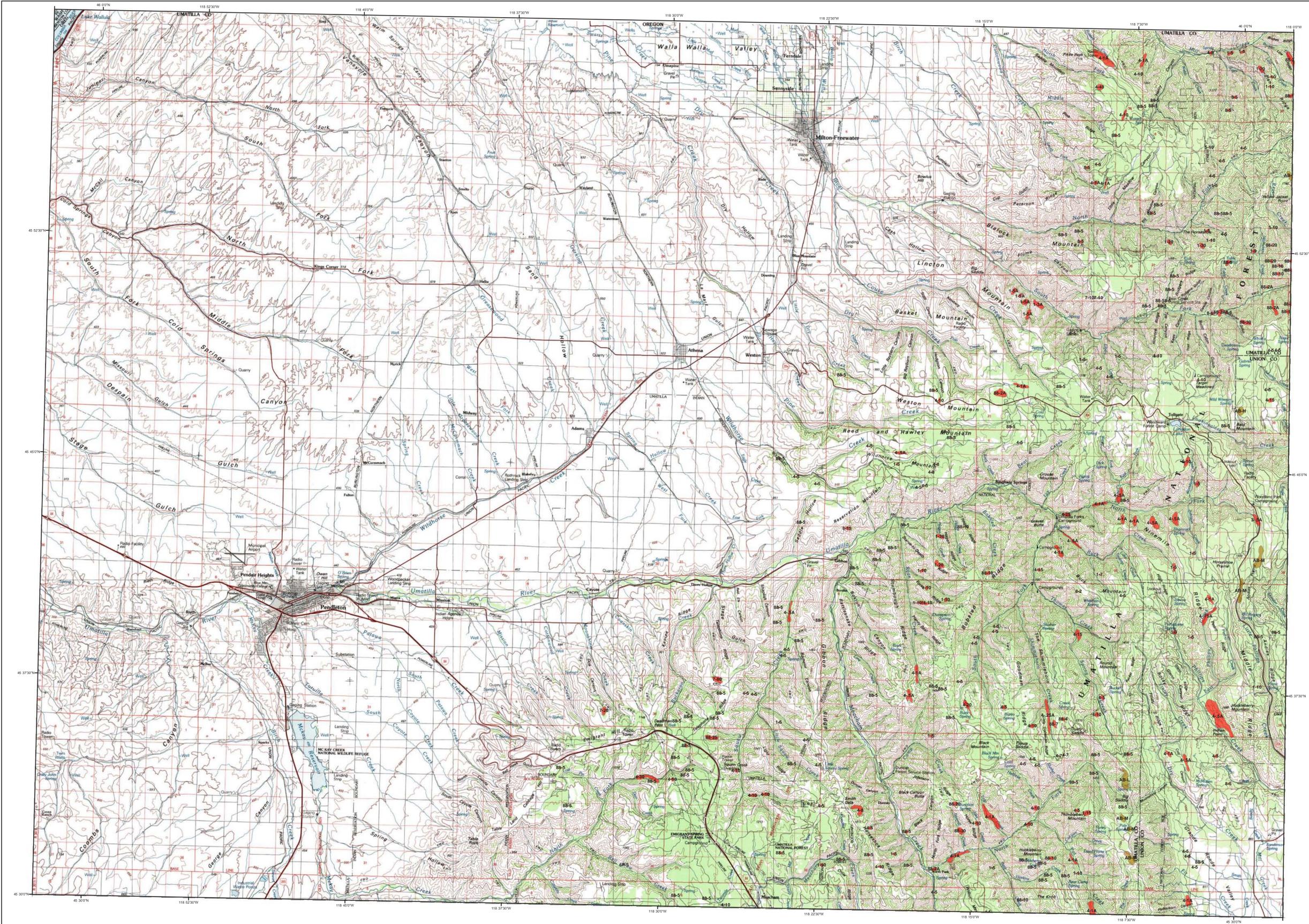


2006 Aerial Insect and Disease Survey

USGS 100K Quad: Pendleton - E145118; 7G



Defoliators		Mortality Agents	
Code	Damaging Agent	Code	Damaging Agent
AS	Spruce aphid	1	Silka spruce
BB	Western blackheaded budworm	2	Douglas-fir beetle
BM	Medic budworm	3	Douglas-fir engraver
BP	Sugar pine tortrix	4	Spruce beetle
BS	Western spruce budworm	5	True fir
BY	Bryum's light/leptodermella	6	Western balsam bark beetle
CH	Larch	6B	Mountain pine beetle
CL	Western hemlock looper	6C	Mountain pine beetle
LG	Green striped forest looper	6D	Mountain pine beetle
LL	Larch looper	6E	Mountain pine beetle
LS	Black pine needle scale	6F	Mountain pine beetle
MD	Douglas-fir budmoth	6G	Mountain pine beetle
ML	Larch budmoth	6H	Mountain pine beetle
MN	Douglas-fir needle midge	6I	Mountain pine beetle
MS	Spruce budmoth	6J	Mountain pine beetle
ND	Needle miner	6K	Mountain pine beetle
NJ	Needle miner	6L	Mountain pine beetle
NK	Needle miner	6M	Mountain pine beetle
NL	Needle miner	6N	Mountain pine beetle
NI	Needle miner	6O	Mountain pine beetle
NP	Needle miner	6P	Mountain pine beetle
NS	Needle miner	6Q	Mountain pine beetle
NT	Needle miner	6R	Mountain pine beetle
NW	Needle miner	6S	Mountain pine beetle
OB	Western oak looper	6T	Mountain pine beetle
PC	Pine butterfly	6U	Mountain pine beetle
PH	Pine needle cast	6V	Mountain pine beetle
PI	Phytophthora hemlock looper	6W	Mountain pine beetle
PM	Pandora moth	6X	Mountain pine beetle
PN	Pine needlehead miner	6Y	Mountain pine beetle
PS	Pine needle scale	6Z	Mountain pine beetle
RC	Needle cast	7	lvs. pop.
S	Swiss needle cast	7A	Western larch
SA	Swifly	7B	Douglas-fir
SD	Swifly	7C	Western larch
SE	Swifly	7D	Douglas-fir
SF	Swifly	7E	Western larch
SG	Swifly	7F	Douglas-fir
SH	Swifly	7G	Western larch
SI	Swifly	7H	Douglas-fir
SM	Swifly	7I	Western larch
SN	Swifly	7J	Douglas-fir
SO	Swifly	7K	Western larch
SP	Swifly	7L	Douglas-fir
SW	Swifly	7M	Western larch
TA	Tent caterpillar, alder	7N	Douglas-fir
TB	Tent caterpillar, other	7O	Western larch
TC	Tent caterpillar, aspen	7P	Douglas-fir
TD	Tent caterpillar, spruce	7Q	Western larch
TE	Tent caterpillar, other	7R	Douglas-fir
TF	Tent caterpillar, aspen	7S	Western larch
TF	Tent caterpillar, other	7T	Douglas-fir
TF	Tent caterpillar, aspen	7U	Western larch
TF	Tent caterpillar, other	7V	Douglas-fir
TF	Tent caterpillar, aspen	7W	Western larch
TF	Tent caterpillar, other	7X	Douglas-fir
TF	Tent caterpillar, aspen	7Y	Western larch
TF	Tent caterpillar, other	7Z	Douglas-fir
TF	Tent caterpillar, aspen	8	Water damage

USGS 100K Quad: Pendleton - E145118; 7G
2006 Aerial Insect and Disease Detection Survey
Mapscale: 1:100,000
Date: December 5, 2006

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage

Vicinity Map

The map base was created with TOPO! (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
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-- OR --

USDA Forest Service, Region 6
 Natural Resources
 Forest Health Protection
 PO Box 3623
 Portland, Oregon 97208

*****DISCLAIMER*****
 The insect and disease data presented should only be used as an indicator of insect and disease activity, and should be ground-checked for precise location, extent, severity and causal agent.
 Color coded polygons show locations where trees were recently killed or defoliated. Intensity of damage is variable and not all trees within coded polygons are dead or defoliated.
 The cooperators reserve the right to correct, update, modify or replace GIS products without notice. Using this map for purposes other than those for which it was intended may yield inaccurate or misleading results.