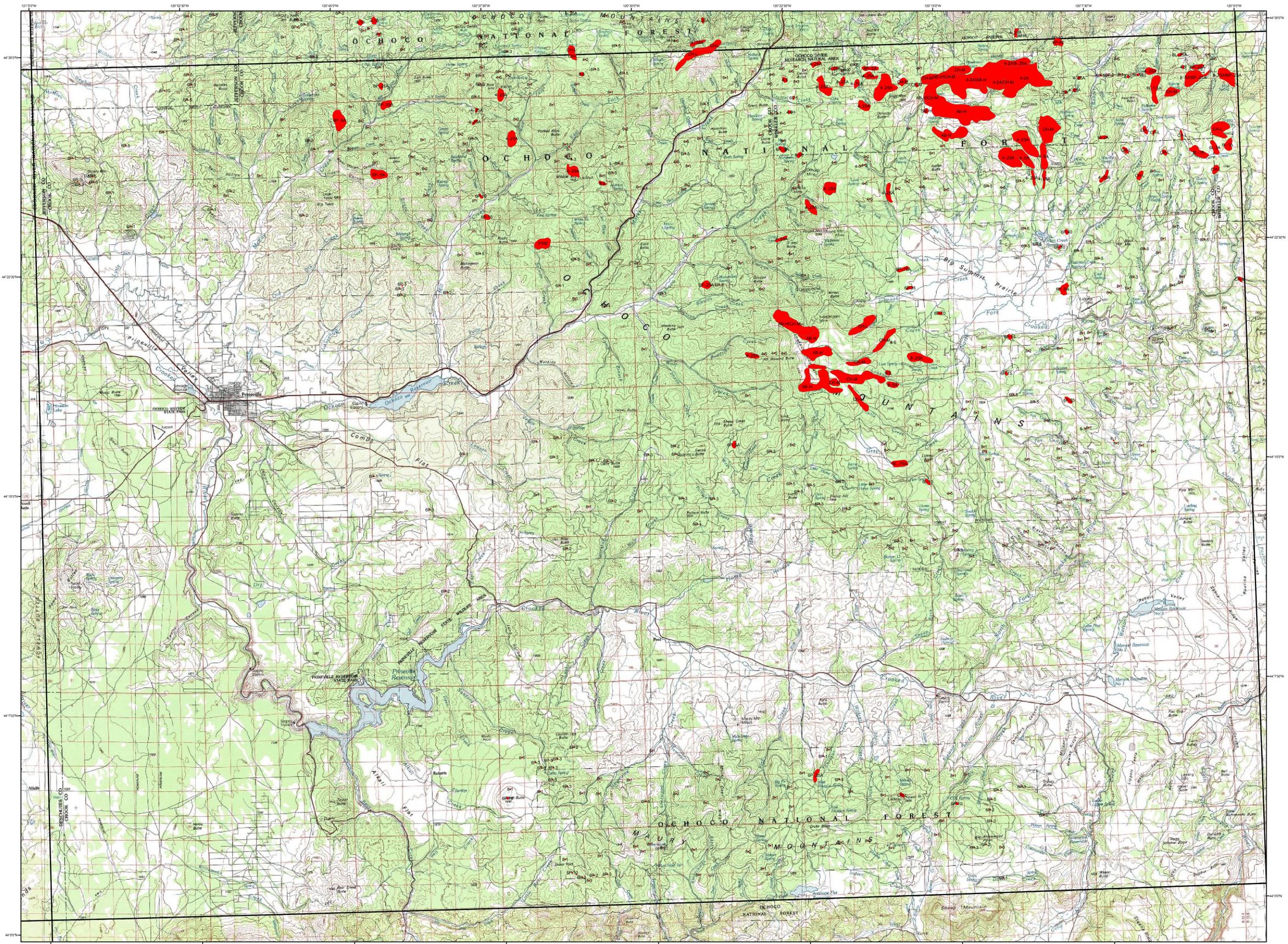


Draft 2008 Aerial Insect and Disease Survey ****Draft**** USGS 100K Quad: Prineville 44120-A1



Legend (For all Possible Agents)

Defoliating Agents			Mortality Agents			Other Damaging Agents		
Code	Damaging Agent	Primary Host	Code	Damaging Agent	Primary Host	Code	Damaging Agent	Primary Host
AS	Spruce aphid	Sitka spruce	1	Douglas fir beetle	Douglas fir	AB	Balsam woolly adelgid	Tree fir
BS	Western backheaded budworm	Hemlock, spruce, tree fir	2	Douglas fir engraver	Douglas fir	AC	Colony spruce gall adelgid	Sitka spruce, Douglas fir
BSB	Modoc budworm	White fir	3	Spruce beetle	Spruce	AD	Leaf discoloration	Maple
BSL	Sugar pine borer	Lodgepole, ponderosa pine	4	Fir engraver	Spruce	AE	Bitter root	Fire needle pine
BY	Byrrh's light/ophodermella	Ponderosa pine	5	Mountain pine beetle	Whitebark pine	AF	Drying hemlock	Hemlock
CH	Chorionid spruce sawfly	Whitebark pine	6A	Mountain pine beetle	Lodgepole pine	AG	Fire	Ponderosa pine
CHM	Mountain pine beetle	Whitebark pine	6B	Mountain pine beetle	Lodgepole pine	AH	Gouly pitch midge	All species
CHH	Mountain pine beetle	Whitebark pine	6C	Mountain pine beetle	Lodgepole pine	AI	Hardwood decline	Hardwoods
CHL	Mountain pine beetle	Whitebark pine	6D	Mountain pine beetle	Lodgepole pine	AF	Aspen root rot	Aspen
CHM	Mountain pine beetle	Whitebark pine	6E	Mountain pine beetle	Lodgepole pine	AM	No damage detected	All species
CHM	Mountain pine beetle	Whitebark pine	6F	Mountain pine beetle	Lodgepole pine	AN	Pacific madrone decline	Pacific madrone
CHM	Mountain pine beetle	Whitebark pine	6G	Mountain pine beetle	Lodgepole pine	AO	Leaf fall in poplars	Poplar
CHM	Mountain pine beetle	Whitebark pine	6H	Mountain pine beetle	Lodgepole pine	AP	Red bark	All species
CHM	Mountain pine beetle	Whitebark pine	6I	Mountain pine beetle	Lodgepole pine	AQ	Unknown defoliation	Unknown mortality
CHM	Mountain pine beetle	Whitebark pine	6J	Mountain pine beetle	Lodgepole pine	AR	Water damage	All Species
CHM	Mountain pine beetle	Whitebark pine	6K	Mountain pine beetle	Lodgepole pine	AS	Windthrow	All Species
CHM	Mountain pine beetle	Whitebark pine	6L	Mountain pine beetle	Lodgepole pine	AT	Winter Damage	All Species
CHM	Mountain pine beetle	Whitebark pine	6M	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6N	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6O	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6P	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6Q	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6R	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6S	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6T	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6U	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6V	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6W	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6X	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6Y	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine	6Z	Mountain pine beetle	Lodgepole pine			
CHM	Mountain pine beetle	Whitebark pine						

Coding Convention:
The cause of damage is described by a code (example: **BS-western spruce budworm**) and is followed by a modifier. A modifier can be either: intensity of damage (**L=light, M=moderate, H=heavy**); or number of trees killed (example: **1-20 = 20 trees killed by Douglas-fir beetle**); or number of trees/acre killed (example: **4-4A = 4 trees/acre killed by fir engraver**). There can be up to three damaging agent-modifier combinations recorded for each polygon. Each agent-modifier combination is separated by a "1" (example: **BS-M1-1-2014-4A**). The color of the polygon is dictated by the first agent recorded.
Map base data created with TOPOI, Copyright 2001, National Geographic, All rights Reserved.

Draft USGS 100K Quad: Prineville 44120-A1 Aerial Insect and Disease Survey Mapscale: 1:100,000 Friday, August 22, 2008 Vicinity Map



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 Washington Department of Natural Resources. 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.



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USDA Forest Service:
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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 the map for purposes other than those for which it was intended may yield inaccurate or misleading results.