

RESOLUTION OF THE
WHITE MOUNTAIN APACHE TRIBE OF THE
FORT APACHE INDIAN RESERVATION

- WHEREAS, it is necessary to have a set of timber marking instructions to guide the selection of trees for cutting by the Fort Apache Timber Company; and
- WHEREAS, the current set of timber marking instructions are resulting in harvest from 800 board feet per acre to 1,000 board feet per acre; and
- WHEREAS, these instructions result in logging each timber sale area in half the time interval (10 years), rather than the 20 year cutting cycle prescribed by the Forest Management Plan; and
- WHEREAS, the frequency of logging each area increases soil, wildlife, and vegetation disturbance and damage; and
- WHEREAS, the soil environmental consequence of this is increased soil erosion, water runoff, water turbidity, stream siltation and lower survival and growth rates of animals, fish, grass and young trees; and
- WHEREAS, the economic consequence of this is increased logging costs which are passed onto the Fort Apache Timber Company, thereby reducing profits for FATCO and returns to the White Mountain Apache Tribe; and
- WHEREAS, the economic needs of FATCO and the Tribe require an immediate revision of the timber marking instructions for this fiscal year, pending additional discussion and action on timber marking instructions for the Forest Management Plan for 1991 to 2000.

BE IT RESOLVED by the Tribal Council of the White Mountain Apache Tribe that it hereby approves the immediate application of the attached "Timber Marking Instructions for Fiscal Year 1990/1991" to all existing and future timber sales on the Fort Apache Indian Reservation.

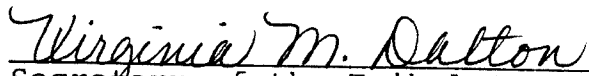
BE IT FURTHER RESOLVED by the Tribal Council that a more comprehensive set of timber marking instructions be devised this calendar year for application in 1991 to 2000.

Resolution No. 07-90-145

The foregoing resolution was on July 11, 1990, duly adopted by a vote of six for and zero against by the Tribal Council of the White Mountain Apache Tribe, pursuant to authority vested in it by Article V, Section 1 (i) of the Amended Constitution and Bylaws of the Tribe, ratified by the Tribe June 27, 1958, and approved by the Secretary of the Interior on May 29, 1958, pursuant to Section 16 of the Act of June 18, 1934 (48 Stat.984).



Chairman of the Tribal Council



Secretary of the Tribal Council

RECORDED

JUL 25 1990

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS



White Mountain Apache Tribe

P. O. BOX 700
WHITERIVER, ARIZONA 85941

SUMMARY OF PROPOSED CHANGES IN THE TIMBER MARKING INSTRUCTIONS FOR FISCAL YEAR 1990/1991

1. Reduce the number of risk points needed to designate ponderosa pine trees from eight risk points in buffer areas along roads and streams to six risk points, and from six risk points to four risk points in the remaining area. (See page 1, item 1a.)
2. Instead of limiting the marking of ponderosa pine trees with mistletoe infestations along all "main haul roads", apply the limitation only to "designated roads" where aesthetics (beauty) is important to the public. (See page 2, item 6b 1) a).)
3. Permit the marking of trees over 150 years of age and 30 inches in diameter with Class A and B crowns, instead of prohibiting it. (See page 3, item 11.)
4. Permit the marking of healthy, but slow growing trees over 100 years in age situated in the middle of small groups. (See page 3a, item ~~3a~~.)

.13)

TIMBER MARKING INSTRUCTIONS FOR FISCAL YEAR 1990/1991

PONDEROSA PINE
MARKING INSTRUCTIONS

INDIVIDUAL TREE SELECTION MARKING INSTRUCTIONS

Mark To Cut

1. Risk Trees
 - a. Bongberg-Hall, six points or more for trees in buffer strips and 4 points or more for trees in all other areas.
2. Overmature Trees - All Keen Class 4 Trees.
3. Low Vigor Trees - All "D" crowns.
4. Insect Infested Trees - All merchantable trees undergoing current bark beetle (Dendroctonus, Ips.) attack.
5. Mechanically Damaged or Deformed Trees
 - a. Fresh lightning struck trees.
 - b. Trees of excessive lean-generally more than 15 degrees from vertical.
 - c. All major spike topped or broken topped (dead into merchantable sawlog volume) trees, and freshly-broken topped trees, regardless of whether it is broken into the merchantable stem.
 - d. Schoolmarm trees with weak forks, or forks over 50% of total tree height.
 - e. Trees badly fire scarred. Usually with 50% or more of the basal area scarred, or 25% or more scarred if deterioration of wood is evident (ant holes, etc.)
 - f. Cambium damage if 2/3 or more of the cambium has been damaged from fire, logging, etc.
 - g. Trees slabbed by logging if:
 - a. slab is 1/4 the circumference and 3+ ft. long.
 - b. any circumference and 6+ ft. long.

- h. Trees with root systems seriously damaged as a result of logging, road building, or loosened by wind storm, or trees with any exposed, damaged roots. Mark all tree on road banks that have 1/3 or more of the crown extending over the road or cut bank, except on banks 2 feet or less. On these banks, trees will be automatically left unless the Officer-in-Charge determines that root damage is excessive.

Trees adjacent to intermittent streams in imminent danger of falling over, due to more than 50% of the roots exposed or less than 50% if the stream bank is greater than three feet above the level of the stream channel and the center of the tree is within three feet of the bank, if the rest of the buffer restrictions can be followed.

1. When trunks are joined and one tree is in need of cutting, both trees must be treated in the same manner (either marked or left) if a chainsaw cannot fall one without damage to the other. If bases of trees are far enough apart that they can be treated separately, consideration must be given to possible windthrow if one is removed.

6. Diseased and Infected Trees

- a. Rust fungus, (Peridermium filamentosum), within the crown of the tree.

- b. Dwarf Mistletoe

- 1). Trees with a Hawksworth Dwarf Mistletoe Rating of 3 or more, with the following exceptions:

- a). Except within 300' of a designated road.

- b). Except in closed canopy blackjack (Age Class I and young Age Class II) stands.

- c). Except when this guideline would substantially reduce the overstory on more than one half acre and there is not an established understory. In this case, a basal area of not less than 40 square feet of better formed, least infected trees (preferably with no mistletoe in the top half of the crown) shall be left uncut.

- 2.) In areas where heavily stocked understories exist under an occasional or widely scattered mature overstory, all visible mistletoe infection should be removed. Approval by the marking supervisor must be secured before doing this type of cut if more than 3 trees per acre will be removed over an extensive area, (more than 10 acres).

Note: Treat a witches broom as a single infected limb.

7. Suppressed Trees - Cut all suppressed trees deformed or otherwise dominated by a larger trees. These trees exhibit poor leader condition and form, and, in the judgement of the marker, these trees will not respond to release.
8. Squirrel Damaged Trees - Cut if upper 1/3 of the live crown has been completely clipped or if continuous clipping has deformed the crown or killed the leader.
9. Genetically Poor Trees - Usually short, fast tapering trees and trees with multiple tops that, in the judgement of the marker, indicate a genetic tendency towards such a growth form.
10. Poor Form Trees - Trees with severe crook or multiple sweep that deforms the bole of the tree when viewing it from two sides.
11. Diameter Limits - All Age Class III trees with a DBH of 30" or more unless needed for seed source.
12. Regeneration Cuts - This type of cut should be applied in well-defined mature and overmature groups of ponderosa pine, (Age Class III and IV), where regeneration is not adequately represented. This is accomplished by reducing the basal area to not less than 40 sq. ft. per acre, leaving dominant, healthy, seed producing trees. Regeneration cuts shall be:
 - a. Less than one acre in size.
 - b. Limited to no more than 1/6 of the mature groups present within the stand.
 - c. Done only in areas where regeneration is not adequate.
 - d. Restricted from within any buffer area unless specifically provided for in the Forest Officer's Report.
 - e. Restricted from within 300 feet of any Class III or IV road.

13. Tree Release - In small groups of older Age Class 2 and Age Class 3 trees where several trees are growing too close together and need more room to grow, mark the interior trees such that the leave trees may be up to 20 feet apart. Select those trees to leave that are the tallest, best formed, healthiest trees.

Penalty System for Rating High -Risk Ponderosa Pine

<u>A. Needle Condition</u>	<u>Penalty</u>
1. <u>Needle Complement</u>	
a. Needle complement normal -----	0
b. Less than normal complement throughout crown. No contrast between upper and lower crown. -----	2
c. Thin complement in upper crown, normal in lower crown; contrast evident between upper and lower crown -----	5
2. <u>Needle Length</u>	
a. Needle length normal -----	0
b. Needles shorter than normal throughout crown. No contrast between upper and lower crown. -----	2
c. Needles short in top, normal below. Marked contrast -----	5
3. <u>Needle Color</u>	
a. Normal -----	0
b. Off Color -----	2
c. Fading -----	8
<u>B. Twig and Branch Condition</u>	
1. No twigs or branches dead -----	0
2. A few scattered dead or dying twigs or branches in crown -----	1
3. Many scattered dead or dying twigs or branches in crown -----	2
4. Dead or dying twigs or branches in crown forming a definite weak spot or hole in crown, notably in top 1/3 of crown -----	3
5. Dead or dying twigs on branches in crown forming more than one weak spot or hole in crown, notable in top 1/3 of crown -----	5
<u>C. Top Crown Condition</u>	
1. No top killing -----	0
2. Old top kill with no progressive weakness or killing green crown below -----	2
3. Old top kill with progressive weakness or killing in green crown below -----	5
4. Current top killing -----	8
5. Broken top - recent, less than 1/3 -----	5
6. Broken top - recent, more than 1/3 -----	8
7. Broken top - old. No progressive weakness -----	2
<u>D. Other Factors</u>	
1. Lightning strikes - recently struck, no healing evid- ent -----	8
- healed strike -----	2
2. Dendroctonus valens attacks in base - current successful -----	6
- old pitched out -----	2
3. Mistletoe - lower 1/2 crown less than half of limbs affected -----	0
over 1/2 limbs affected -----	1
- upper 1/2 crown less than half of limbs affected -----	2
over 1/2 limbs affected -----	3

MARKING INSTRUCTIONS
FOR ALL NON-PONDEROSA PINE CONIFER SPECIES
HONDAH "B" TIMBER SALE

I. Mark to Cut

1. Poor vigor.
2. Douglas fir if more than 1/3 of crown is infected by mistletoe.
3. All white fir if conks are evident.
4. White fir and white pine over 24" DBH. (Based on TSO's discretion).
5. All species over 30" DBH, (unless threatening a sole seed source).
6. Trees uprooted or broken by wind.
7. Fire damaged trees - mark if:
 - a. More than 50% of the cambium is dead. Use procedures described under pine rules.
 - b. If more than 85% of the green foliage is burned.
 - c. If less than 50% of the live crown remains.
8. Merchantable dead trees.
9. Fresh lightning struck trees.
10. Trees of excessive lean - generally more than 15% from vertical, (77 degrees).
11. Genetically poor trees.
12. Suppressed trees.
13. Trees with weak forks and trees with forks over 50% of the total tree height.
14. Trees slabbed by logging, windfalls, or animal damage if the slab is 1/4 of the circumference of the bole.

TABLE I

Roe's Classification for Vigor

Characteristics	Vigor Class		
	A (Good Vigor)	B (Fair Vigor)	C (Poor Vigor)
Position of crown	Usually dominant or codominant, occasionally intermediate.	Ordinarily codominant and intermediate, rarely dominant.	Usually intermediate or suppressed, occasionally codominant and rarely dominant.
Length of crown	Crown length 40 percent of the total height or longer. Unusually wide crown may be shorter but not less than 30%.	Crown length usually from 20 to 40 percent of total height. In narrow crowns greater length may be allowed.	Crown length usually will not exceed 20 percent of total height. In extremely narrow crowns greater length may be allowed, but not to exceed 50%.
Width of crown	Crown width average or wider.	Crown usually average width. May be narrow and long or wide and short.	Crown usually narrow or occasionally of average width.
Shape of crown	Tip usually pointed or round, never flat or spiked.	Tip usually round, occasionally pointed, and rarely flat topped.	Tip usually flat or spike top, rarely rounded.
Branching and foliage	Dead branches in crown rare, branches and foliage moderately dense or better. Branches in upper half of crown usually strongly upturned and no drooping.	Occasional dead twigs present, usually no dead branches in crown. Branches and foliage of moderate density. Usually the upper branches either upturned or horizontal, with drooping branches in the lower half of crown.	Dead twigs and branches showing through the crown. Often branches drooping to the tip.

Bark

Douglas fir usually has broad, corky ridges at the base, with light brown new bark prominently exposed in the fissures, becoming uniformly and finely ridged and dark above. The upper quarter or more the bole usually has smooth or slight-checked light gray bark.

Douglas fir bark has corky ridges at the base of the tree, becoming uniformly and finely ridged above. New light brown bark not as prominent as in A vigor and usually extending only part way up the butt log. Dark, rough bark extends at least three quarters or more up the full length of the bole.

Douglas fir bark rarely has the light brown new bark exposed in fissures. Dark bark usually extends to the tip. Frequently the entire bole has dark finely ridged bark.

Disease

No mistletoe infection.

Rarely trees with light mistletoe infections.

Trees with visible indications of moderate to heavy mistletoe infection should be placed in this vigor class.

URCE: Arthur L. Roe, U.S. Forest Service,
Northern Rocky Mountain Forest & Range.

RISK CLASSIFICATION GUIDE
(Use for all commercial species trees except ponderosa pine)

NON-PINE

DESCRIPTION OF RISK RATING

Low Risk

Full foliage, healthy appearing crowns, with needles usually long and coarse, dark green color. Practically all twigs with normal foliage complement. No weakened portions of crown.

Moderate Risk

Fair to moderately healthy crowns, imperfect in spots. Foliage mostly healthy, needle length average or better, color fair to good. Some twigs or branches may lack foliage but such injury should not be localized to form definite "weak" spots in crown.

High Risk

Crowns of fair to poor health, somewhat ragged to thin in portions of crown. Foliage in parts of crown thin, bunchy, or unhealthy, needles average to shorter than average in length, color fair to poor. Some to many twigs or branches lacking foliage, some to many twigs or branches fading or dead. Small localized weakened portions of crown usually present.

Very High Risk

Crowns in poor condition, ragged or thin, often showing evidence of active insect infestation in upper portions. Foliage thin or bunchy, needles short or sparse, color poor. Twigs and branches are dead or dying, portions of crown definitely weakened. Active top killing or partial infestations often present.