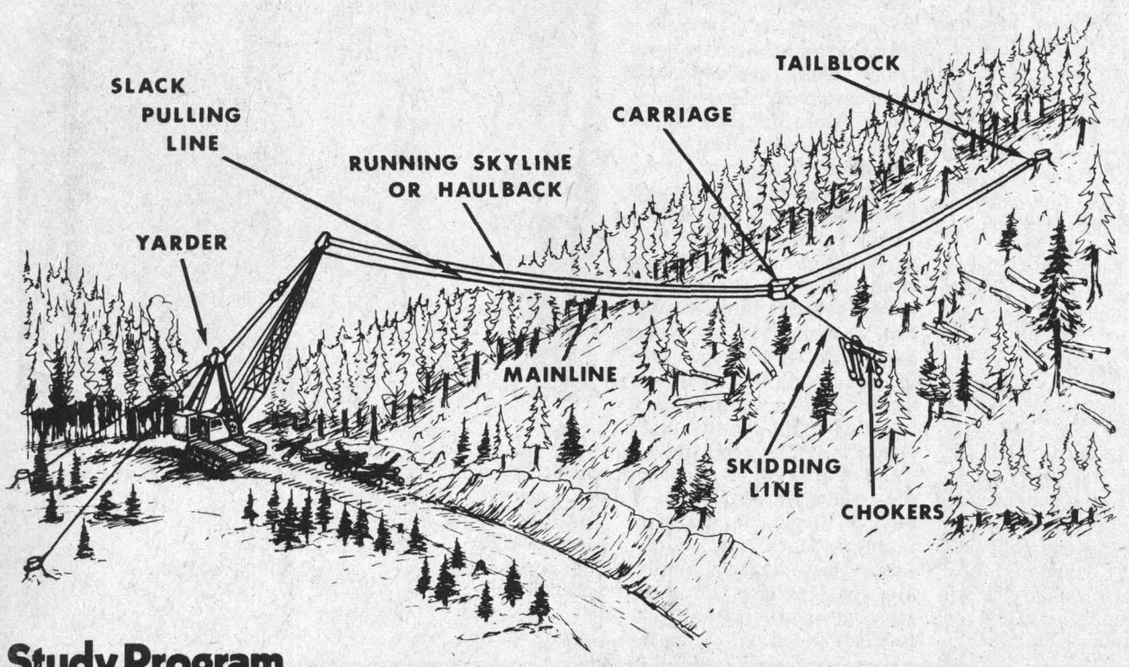
Skyline Logging On Desert Mountain



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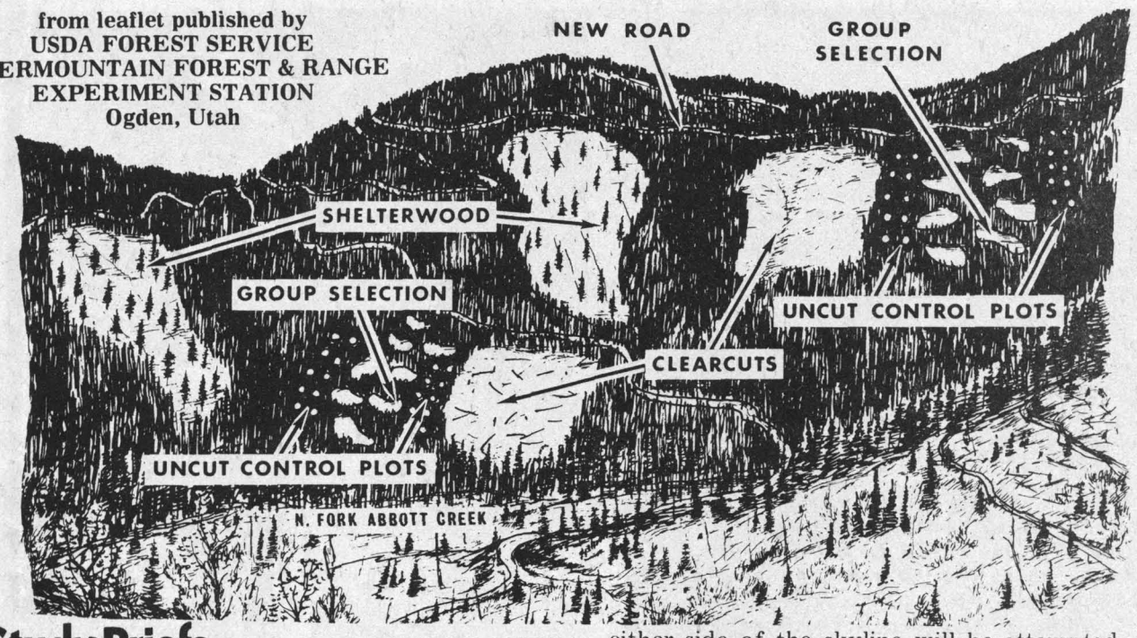


Study Program

In skyline logging, logs are moved from stump to landing with a system of elevated cables. Researchers want to know how well the system works with three basic forestry practices — clearcutting (harvesting all timber in a block), shelterwood cutting (leaving some timber to seed and shelter a new crop), and group-selection cutting (harvesting timber in small, scattered patches).

The potential of skyline logging to reduce the number of spur roads and skid trails needed, a main objection to conventional logging, is of special interest. The 2 miles of new road for the study has been designed and built to blend with the forest. Along the road, various landscaping practices will be tried — leaving a screen of standing timber between road and logging area, clearing a minimum of timber for the road right-of-way, grading and planting exposed earth.

Sampling plots for inventorying key parts of the forest environment — wood volume, nutrients, water, understory vegetation, and insect and fungi populations — before and after logging have been set up on the areas to be logged and on "control" areas between. Various types of instruments have been installed, including several weather stations.

During the harvesting phase of the study, researchers will measure the amount and kinds of wood available — not just commercial-quality sawlogs, but also trimmings and small or dead material ordinarily burned or left to decay. Wood technologists will explore uses for the residues, such as conversion to building materials, paper, and fuel.

Defining the biological impact of removing wood ordinarily left to decay, and so fertilize soils, is an important objective of the study. On logged areas, rate of wood removal will range from harvesting only commercial-grade sawlogs and leaving all other wood to removing virtually all wood along with sawlogs.

Following logging, several different practices for preparing seedbeds will be tried. Portions of logged areas will be burned to expose soil, eliminate logging debris, and remove competing vegetation; other portions will not be burned. The effects of removing or leaving understory trees will also be evaluated.

Cooperators

Scientists specializing in various phases of forest management will participate in the study. Principal research cooperators are the Intermountain Forest and Range Experiment Station, Ogden, Utah, and the Forest Products Laboratory, Madison, Wisconsin, both USDA Forest Service; Michigan Technological University, Houghton, Michigan; and the University of Montana School of Forestry, Missoula. Administrative and planning assistance will be provided by USDA Forest Service Northern Region headquarters, Missoula, and the Flathead National Forest. The study areas will be skyline-logged by Plum Creek Lumber Co., Columbia Falls, Montana.

Schedule

The study was planned in 1973 and study areas will be logged in 1974. Plans are to complete the study in the following 5 years; however, further work may be done. Findings will be published by the Intermountain Forest and Range Experiment Station as phases of the study are finished.

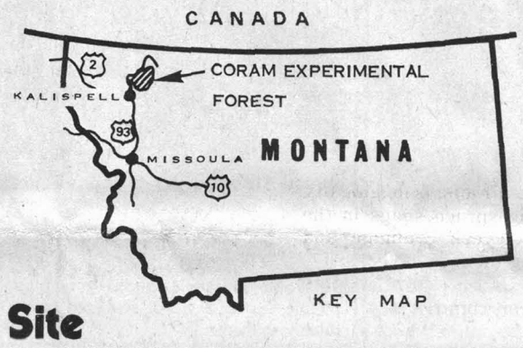
Goals

The environmental crisis of the Sixties followed by the housing boom of the Seventies have reemphasized important goals for forest managers and the wood products industry alike:

- Stretch timber supplies to meet record demand for wood products;
- Develop forestry practices that safeguard future timber crops as well as the other benefits of a thriving forest.

Teamwork

On the Flathead National Forest in northwest Montana, a team of forest managers, scientists, and a timber company are evaluating skyline logging as a means of reducing environmental impact while turning wood formerly wasted into useful products. The group is also monitoring the environmental consequences of removing virtually all wood from logged areas rather than allowing logging residues to remain and decay.



Site

Site of the study is the 7,460-acre Coram Experimental Forest, where timber (mostly Douglas-fir and western larch), terrain, soils, and wildlife are representative of much of western Montana and northern Idaho. Over the past three decades, researchers working here have learned a lot about this kind of forest; logging done in the past can be compared with methods new to the area, like skyline logging.

Study Briefs

ROAD CONSTRUCTION — Two miles forest road (14-foot width) to upper three cutting units; designed and landscaped to blend with the forest, minimize soil and water disturbance.

SILVICULTURAL AND HARVESTING TREATMENTS — *Clearcutting:* All merchantable trees harvested. Two units totaling 30 acres. *Shelterwood:* About 50 percent of merchantable timber (mostly Douglas-fir) removed on first cutting; remainder to include all western larch seed trees, cut after new stand becomes established. Two units totaling 57 acres. *Group Selection:* All merchantable trees harvested in 1- to 2-acre irregular plots. Two units (8 plots each) totaling about 14 acres.

HARVESTING SYSTEM — Running skyline with swinging boom and at least 1,100-foot yarding reach. On difficult slopes, spar tree or tail spar may be used to elevate cables. Skyline corridors, called "roads," will run downslope and cross-slope 150 to 200 feet apart. Yarding logs laterally up to 100 feet to either side of the skyline will be attempted. System will be moved as required to cover entire logging unit from main forest roads.

TIMBER UTILIZATION — Logging units will be divided into subunits in which different levels of wood utilization will be evaluated against costs, product potential, and biological impact. Utilization will range from removal of nearly all wood — small logs, understory trees, slash — to removal of only commercial-grade logs.

RESIDUE TREATMENT AND SEEDBED PREPARATION — Methods for treating waste wood and preparing a seedbed will be evaluated on the utilization subunits. Principal variations will be cutting (or not cutting) the understory trees, and burning (or not burning) residues.

DATA-GATHERING SYSTEM — Permanent sampling points, plots, transects, and instruments have been located within logging units and on control areas between.

Areas of Study

Major areas of investigation are:

- Wood Utilization — quantities, kinds, and product potential of wood fiber.
- Engineering — harvesting system analysis, road design and landscaping.
- Silviculture — damage to trees in partially cut stands, understory vegetation and tree development, site treatment and regeneration.
- Economics — cost and benefits, esthetic evaluation.
- Microbiology — pathogenic and beneficial fungi, nitrogen fixation.
- Entomology — insect activity, dispersion, control.
- Fuels — quantity and kinds, abatement, prescribed burning.
- Hydrology — abundance and movement of soil water, use by vegetation.
- Nutrients — losses and gains, movement, site quality.
- Meteorology — macro- and micro-climatic influences.
- Wildlife — changes in habitat.

Announce New Schedule For RSVP Limousine

KALISPELL — New schedule for the Council on Aging/RSVP limousine is effective next week according to Mrs. Patrice Young, director.

Reservation system has been established to eliminate the problem of overcrowding as well as limousine runs if there are no passengers. Persons wishing to ride the limousine from Whitefish on Monday, Columbia Falls on Wednesday and Bigfork, Somers and Lakeside on Friday must call the RSVP office between 8 a.m. and 9:30 a.m. the morning they will be riding the bus to reserve a seat.

Persons wishing to ride the bus to or from the Canyon area should call on the day before (Monday) to make reservations. All out of town residents may dial "O" and ask for Enterprise 763, toll-free number, and ask for Extension 266 when the college answers. Kalispell number, which is not toll-free, is 756-2690.

Columbia Falls riders are asked to note the bus arrives 10 minutes earlier Wednesdays in Columbia Falls — at 11 a.m. at the B & B. The RSVP limousine is at Montana Veterans' Home at 11:10 a.m., Wednesdays.

Schedule for second and fourth Tuesdays for Columbia Falls and Canyon areas follows:

9 a.m. — leave RSVP office, 102 First Avenue East, Kalispell.

9:50 a.m. — West Glacier Post Office (via U.S. Highway 2).

10 a.m. — Coram, Knotty Pine Cafe.

10:10 a.m. — Martin City Post Office.

10:15 a.m. — Hungry Horse Post Office.

10:35 a.m. — B & B, Columbia Falls.

11:05 a.m. — Kalispell, via LaSalle Road.

Return trip, second and fourth Tuesdays, has the limousine leaving the Senior Citizens' Center, Kalispell, at 2:40 p.m.; Columbia Falls B & B (via LaSalle Road) 3:30 p.m.; Hungry Horse Post Office, 3:50 p.m.; Martin City Post Office, 3:55 p.m.; Coram, Knotty Pine Cafe, 4:05 p.m.; West Glacier Post Office, 4:15 p.m.; and Kalispell, via U.S. Highway 2, 5:05 p.m.

Reservations must be made through the RSVP office between 8 a.m. and 8:45 a.m. Tuesdays, the day senior citizens wish to ride the limousine.

Wednesday Columbia Falls schedule follows:

10 a.m. — leave Big Sky Manor, Kalispell.

10:05 a.m. — Senior Citizens Center, Kalispell.

11 a.m. — B & B, Columbia Falls. (change of time)

11:10 a.m. — Montana Veterans' Home. (change of time)

11:40 a.m. — Kalispell (via LaSalle).

Return trip, Wednesdays, sees the limousine leave the Senior Citizens' Center in Kalispell at 3 p.m. with arrival at Columbia Falls B & B (via U.S. Highway 2) at 3:50 a.m.; Montana Veterans' Home at 4 p.m. and Kalispell (via LaSalle) at 4:35 p.m.

Reservations are to be made between 8 a.m. and 9:30 a.m. Wednesday.

Reservations will be accepted on other days only if senior citizens have appointments in Kalispell which must be kept, it was explained.

Schedule for Bigfork, Lakeside and Somers is arranged for Friday limousine trips to and from Kalispell. Reservations are to be made between 8 a.m. and 9 a.m. Fridays at the RSVP office.

Telephone System Is Expanding

KALISPELL — Northwestern Telephone Systems Inc. has announced the award of two contracts for 200-line installations in expansion of central exchanges in Columbia Falls and Polson.

Work will be carried out by Northwestern Telephone Installation and Service Corp., LeSueur, Minn. Wally Kolbrick is supervising operations at the Polson exchange with the move to be made to Columbia Falls as soon as the Polson work is completed.

C. E. "Chuck" Peterson, Montana division manager for Northwestern Telephone Systems Inc., said, "Both installations are part of an expanded program to provide more services and meet demands in the two communities. Northwestern Telephone is providing the equipment and the Minnesota firm is doing the installation work. Total cost of the two projects is in the area of $40,000."

Although the two firms have a similar name the contract to make the installation is the only common ground.