

# Timber Measurements Society 2005 Meeting Minutes

**10/13/2005, Post Falls, Idaho**

The meeting began at 0910 after thirty-three members registered and paid \$20.00 dues each. Dave Johns, Secretary/Treasurer passed a sign-up sheet around the room in an attempt to gather any address, phone number, or e-mail changes and to get as many new e-mail addresses as possible.

**Thelma Alsup;** Warm Springs, Oregon – Update on scaling and related activities from within the Tribes From The Northwest, BIA.

- Consistency in scaling is the goal of the Tribes.
- All tribes meet quarterly in a central location.
- Rollouts are planned to promote consistency and are open to all scalers.
- Problem solving for scaling and handhelds is done at these meetings.
- Last year's cut was 360MMBF, therefore uniform scaling is important.
- BIA and Tribes have scalers and checkscalers.
- Warm Springs had a large fire and Yakama has lots of bug salvage.
- Northwest Inter-tribal Log Scaling Committee formed to promote consistency.
  - 19 individuals from Washington, Oregon, Idaho, Montana, and Alaska
  - Regional Coordinator/BIA is a new position to be filled soon.
  - West side tribes need to get more involved.
- Both the BIA and Tribes have several new area managers.
  - Sometimes insufficient budgeting for scaling occurs, therefore quality may have slipped.
  - New managers often don't realize the time demands of scaling or how to anticipate workloads.
- The next rollout will be at Potlatch/Lewiston either the last week of November or the first week of December.
- BIA uses Region 6 taper rules unless Tribe has "compacted" and can use their own rules.

**David Dean;** Electronic Data Solutions – Windows CE Scaling

- David spoke to us about the new Windows CE version of his log scaling program and demonstrated various communication and program options to us.
- Either 9 pin serial port or USB port via MS ActiveSync may be used for communications with PC.
- Includes Datalink CE EDS program.
  - Keeps log files of all transactions.
  - Uses 9 pin, USB (Activesync), or modems.
  - Does data conversions and logs error, too.
  - Can tell program what tasks to do, such as transfers, paths to use for data storage, backup, and naming conventions to use.
  - Does automated processing and scheduling of conversions.
  - Printer options available with automatic ticket printing.

- Can monitor up to 6 ports at once with error checking and file transaction verification.
- Password protection is available.
- David also reviewed various options of handheld Windows CE program.
  - It looks like the old DOS program, but is actually CE.
  - It automatically links handheld serial number with ticket numbers.

**Michael Daugherty**; USFS, Region 6 Regional Office – Stewardship Contracts

- Stewardship Contracting is based on 5 basic principles.
  1. It must benefit local and rural communities.
  2. The focus of project must be on resource restoration.
  3. It must be done in collaboration with diverse publics with common goals or ground.
  4. Contracts are awarded on best value basis (not just low bid).
  5. Projects must be monitored on the ground with collaborative partners.
- Key Authorities include:
  - Best value award.
  - Contracts may last up to 10 years.
  - Designation by prescription may be used with end product/results determining the prescription.
  - USFS may use in kind services approach (goods for services traded).
  - Receipts are retained within the agency and may be applied to another local project(s).
- Policy
  - Must be approved by Regional Forester
  - Must be on National Forest land or benefit National forest land.
  - Must include collaboration.
  - May include special forest products plus timber products.
  - Only one Contracting Officer is required, not two CO's, as in service contracts.
  - Must be consistent with NEPA.
- Line Officer Responsibilities
  - Forest Supervisor must insure that projects are in accordance with law and policy.
  - District Rangers (and staff) determines details and priorities.
- Planning
  - Must be developed collaboratively with communities either pre or post NEPA.
  - Should be grouped in order to maximize efficiency.
- What is stewardship?
  - It is end results oriented project(s) that is either resource or service oriented. This determines what type of Contracting Officer is used.
  - It is another tool for getting projects completed.
  - Best value award is based on bid price, past performance of contractor, and potential benefits.

- Designation by prescription describes desired end result of treatment(s); may be used for either commercial or non-commercial products; requires scaling for commercial products; and allows harvest tree selection by non-Forest Service personnel.
- Designation by description applies to either commercial or non-commercial products based on stump characteristics and can be done as a tree measurement project (no scaling).
- Estimating volumes and values must be done prior to award and must include measurements (cruising) and must be appraised.
- Receipts are retained by Forest and can be used on other stewardship projects, but must be for on ground work, not overhead; KV/BD funds can be collected and held by Forest.
- Appropriate activities include:
  - road and trail maintenance to improve environmental quality;
  - removing trees to improve forest health;
  - improving soil productivity;
  - prescribed fire for fuel reduction;
  - reduction of noxious weeds;
  - stream restoration for fish habitat or watershed restoration.
- Inappropriate activities include overhead funding, research activities, etc.
- Involvement of contractors, individuals, groups, local governments is encouraged.
- Either Transactional Evidence Appraisals or Residual Values Appraisals are used and both tree measurement sale or scaled sale T-contract requirements used.

**Frank Cooper: BLM in Oregon – BLM Update**

- BLM manages 15.7 million acres in Oregon and 400 thousand acres in Washington and the subsurface mineral rights on another 34 million acres.
- History of BLM:
  - After Civil War in 1866 the federal government gave every other section within 20 miles of proposed rail right-of-way to the railroad which ended up as Southern Pacific RR.
  - this land was to be sold to settlers in parcels not to exceed 160 acres at \$2.50/acre in order to fund railroad construction.
  - Railroad company did not live up to agreement, so U.S. government took back lands which were then to be used for timber production.
  - U.S Government sold almost one billion board feet of timber.
  - Receipts were split; 50% to counties; 25% to BLM to manage lands (no appropriated funding); and 25% to the U.S. treasury.
  - Recently the U.S. Government “bought off” the counties. Counties now get the average of their receipts from 1989, 1990, and 1991 per year.
- Last year the BLM in western Oregon sold 260MMBF and is shooting for 300MMBF. No pulpwood was included. Northwest log rules are used for Scribner scaling.
- BLM does have some stewardship projects similar to USFS.
- BLM is starting to manage and sell timber off its eastside lands.

- Coos Bay Wagon Road (historic) was a deal similar to the railroad construction deal struck by the U.S. government. The deal fell through and the BLM now manages the land set aside for the wagon road construction funding.
- BLM may face some downsizing in the future.

**Dan Merritt; USFS, Region 5, Lassen NF – FSCruiser**

- FSCruiser has replaced the DOS based NATCRS (national cruise program) and NATCDE (national cruise program data entry) programs.
- FSCruiser uses either Windows CE or Pocket PC format.
- FSCruiser is actually a versatile suite of programs that includes the following:
  - Dashboard, which is a panel of shortcut buttons which access the other executable programs within the suite.
  - FSCruiser contains executable programs for PC or handhelds of various types.
    - used for cruise establishment, customization and data collection
    - normally uses a default setup file which may be edited or amended on a PC, then loaded to handheld
    - produces a cruise object (\*.crz file) which may be used throughout the suite of programs
  - Cruise Processor which processes data to the specifications of user
    - includes volume and/or value equations
    - large array of available reports, including custom report building
  - Cruise Design which uses pre-cruise in the form of a \*.crz file to design final cruise.
    - very versatile allowing user to choose area based or tree based cruising over many strata with many units (up to 200 units/stratum)
    - requires pre-cruise to be appropriate (point pre-cruise for variable radius plot design and fixed plot pre-cruise for fixed plot and tree based designs)
  - Local Volume Tables may be generated using the cruise output file.
  - Doc Print produces a file that works in MS Word 2000, etc. that may be printed or mailed using Word and not requiring special text editing programs.
- Dan's presentation included an excellent PowerPoint presentation which showed much of the versatility of the various executable programs within the suite. Dan also showed us two of the rugged handhelds and one no-so-rugged handheld data recorders. FSCruiser is freeware available from the Fort Collins Forest Management Service Center at the following web address:

<http://www.fs.fed.us/fmsc/measure/>

**Debbie Dumroese; USFS Rocky Mountain Research Station, Moscow; Idaho – Long Term Soil Productivity**

- Debbie has 20 years experience in the Rocky Mountains as a soil scientist specializing in compaction, organic matter, and carbon sequestration.
- Why look at long term soil productivity?

- all soils are not equal, as texture, structure, and available moisture is highly variable.
- different types of tree harvesting have different impacts on soil
- Compaction from mechanical harvesting is inevitable on skid trails and landings.
- The use of forwarders on debris mats lessens compaction, but rutting can still occur.
- Soil penetrometers are used to test soil compaction.
- Slash depth, soil strength, number of passes by equipment, water content all play a part in compaction.
- Plant root growth is a function of water, texture, number of passes; root length is a function of soil texture.
- Compaction is a function of texture, moisture content (dry, moist, or wet) and temperature (is it frozen?).
- Compaction (increased bulk density) limits the availability of water to plants.
- Compaction also limits nutrient availability, slows soil warming, and impedes gas movement within the soil.
- Organic matter is litter, duff, and humus and is essential for miccorrhizae growth.
  - Miccorrhizae grow on the root tips of trees and other plants.
  - Miccorrhizae enhance water uptake for plants and get sugars from the plants with which they are associated.
  - Gymnosperms (conifers) require the presence of miccorrhizae.
  - Compaction inhibits miccorrhizae growth.
  - Management activities often reduce miccorrhizae.
- Larger woody debris helps fix nitrogen in the soil and helps protect against compaction.
- U.S. and Canada have participated in long term soil productivity study (ongoing).
  - Given that soil fundamentally affects productivity.
  - Goals include learning about the ability of land to sustain plant growth.
  - What is the carrying capacity of any given soil?
  - How does organic matter and porosity affect the carrying capacity?
  - Standardized experimental methods were developed for this study.
    - bole only removal
    - whole tree harvest
    - whole tree harvest plus removal of organic matter
    - each method then used methods with no compaction (full suspension of logs), moderated compaction, and severe compaction.
    - 10 years of data now available and has been analyzed two ways (young tree growth and total biomass growth after treatment)
    - amount of compaction (weight/per square area) didn't really affect, but texture is overriding factor
      - clay and loams with same amount of compaction reduced growth and sandy soils had increased growth (reduced pore space means better water retention)
  - Compaction effects depend on soil texture and initial bulk density.
  - Recovery is slow.

- Seedling growth is related to compaction.
- Best management retains organic matter, minimizes compaction, and utilizes light (spring) prescribed burns to treat residual slash.
- The “wood stake study” tests microbial activity in soil after different treatments.
- Wood stakes of the same type wood (ponderosa pine is good) inserted in to soils that had different types of treatments are examined after a given length of time in order to determine amount of decay that has occurred.

**Matt Fonseca; Plum Creek Timber, Quality Control/Inventory – Measurement of Roundwood**

- Matt has recently returned to the U.S. after working for the U.N. in Switzerland for a couple of years.
- Matt’s book, Measurement of Roundwood is now available on Amazon.com.
- The book examines log weights and conversions, conversion between many types of scaling from around the world.
- It is also an excellent reference book on lumber recovery.
- Welcome back Matt, and congratulations on your election to V.P.!

**2005 Business Meeting**

- Elections of Timber Measurements Society were held.
  - Results: President: Jerry Youmans
  - Vice President: Matt Fonseca
  - Secretary/Treasurer: Thelma Alsup
- Congratulations to all!
- Treasury balance as of October 12, 2005 = \$2051.71 (before depositing current dues and paying meeting room bill). After depositing dues and paying meeting room bill, balance will be \$2318.32.
- Next year’s meeting will be held in Medford, Oregon, and will include a rollout.
- Dates of 2006 meeting will be October 18 and 19.
- Ernie Booth won the door prize donated by Jon Aschenbach of Atterbury Associates, which was a Scribner Log Scaling book published in 1886. Thanks to Jon for his generous donation.

**10/14/2005**

**Holly Kearns; USFS Forest Health Protection, Coeur d’ Alene, Idaho – Stem Rots,**

- Decays and Fungi
  - Structural deterioration is the opposite of photosynthesis.
  - Thirteen genera affect softwoods and fourteen genera affect hardwoods.
  - Fungi generally considered by science and the world as beneficial as they aid natural tree pruning, enhance wildlife habitat, and improve soil fertility (plus breakdown and remove huge amounts of debris).
  - However, fungi can create hazards and loss of useable wood and are not treatable.
  - Fungi destroy more wood than anything else and enter through open wounds.

-Brown rots and white rots

-White rots digest all cell parts, leaving soft white pockets.

-Brown rots cannot digest lignin and leave a residue like brown cubical rot.

-Sap rots affects sapwood (and some heartwood) of dead trees while heart rots affect the heart wood of living trees.

-Pouch fungus (Cryptoporus volvatus) is spread by bark beetles, live for only one year, and cause the sap wood to become crumbly.

-Brown cubical sap rot (Gleophyllum sepiarium) grows only on dead material.

-Pitted sap rot (sorry didn't get scientific name) grows on most conifers that are dead and softens the wood in early stage, then forms pits that honeycomb the sapwood.

-Blue stain fungi (also no scientific name) introduced to pines by bark beetles; invades rays and resin canals and interferes with water movement.

-Red belt fungus (Fomitopsis pinicloa) occurs on all dead hardwoods and softwoods and can enter large wounds on living trees; decays both sap and heartwood and causes brown crumbly rot.

-Indian paint fungus (Echinodontium tinctorium) attacks living trees (true firs and hemlocks) through branch stubs; interior of conk is brick red color while upper surface is blackish with dark gray spiny underside. It causes red-orange stain in early stage and stringy heart rot later leading to a hollow heart. Defect is  $\pm$  16 foot deduction from conk.

-Red ring rot (Phellinus pini) or white pocket rot or white speck has woody conks, brownish above, tan below, and causes staining in early stage and white pockets later; punk knots are indicator. Defect is 2 feet above, 4 feet below in pines and varies from  $\pm$  4 feet to +16 feet in Douglas-fir, depending on size of conk and age of tree involved.

-Brown trunk rot or quinine conk (Fomitopsis officianalis) is perennial hoof shape conk that is chalky white and bitter to taste; it causes brown trunk rot that shows staining early on and large mycelial felts later; one conk will cull the entire tree.

-Cubical brown pocket rot (no scientific name here either) occurs only on western redcedar; conks are small, annual, and rare on live trees; early stage shows yellow or light brown staining (vague) and brown cubical rot later. Rot forms rings or a column in the center of tree.

-Aspen trunk rot (Phellinus tremulae) grows on live or dead quaking aspen, has black rough upper surface with brown lower surface (with pores). A single conk means much decay which is yellow early and yellow-green with brown margin surrounded by black zone later.

Root and Butt Rots

-Velvet top (Phaeolus schweinitzii) grows annual conks, often on the ground near affected tree, but can grow on bole; velvety texture when fresh, drying to dark, hard, brown/black and is often called cow pie fungus; causes yellow stain early and large red-brown decay with white felts later.

-Tomentosus root and butt rot (no scientific name again) grows on spruce and lodgepole pine, creating annual conks that are cinnamon above, cream below; early stage shows red-brown staining with honeycombed white pockets later.

-Annosum root rot (Heterobasidium annosum) has two types or forms, one of which kills Douglas-fir and the other works on pines. This is a perennial fungus that causes red-brown to brown-yellow staining early; advanced stages cause white stringy or spongy mass with black flecks; causes delaminating of wood and tree mortality.

-Cedar laminated butt rot (?) occurs in two forms, one in cedar and one in Douglas-fir; conks are red-brown, rare and inconspicuous; early stage causes yellow-brown staining that follows rings; late stage causes delaminating of rings.

**Bob Denfeld** won the beautiful lap robe quilt door prize made by Dugger's wife, Gwen. Thank you very much, Gwen, and congratulations to Bob.

Prepared by:

/s/ David D. Johns  
TMS Secretary/Treasurer  
October 21, 2005