

April Open House, Quarterly Meeting and Auction

Darrel Dunham was host to an open house on April 9, 2011 at his new property on the Lewis River Road outside of Woodland. Washington. Darrel has not had time to lay any track yet, but he has a nice area identified for his new railroad.

A number of varied and interesting items were available for bidding at the auction.



Two of our auctioneers, Larry Blair and Jan Zweerts take bids on a hotly contested Sesame Street train.

The Quarterly Meeting was also on the agenda for the day.

Minutes of the RCGRS Quarterly Meeting April 9, 2011

Jeff Lange, President, called the quarterly meeting of the Rose City Garden Railroad Society at 2:17 p.m.. He thanked Darrell Dunham for hosting the meeting at his home.

The agenda was adopted as presented.

The minutes of the January 8, 2011 were approved as read.

In the absence of the treasurer, there was no treasurer's report.

Greg Martin reported on the modular display. The bridges are at Constructavision and the module at Greg's. The kid layout is at Nick's.

Nick Kelsey announced new members: Andy English and Mike Sherman.

Committee Reports

Summer Tour report—Bill Derville: Gary Lee reported books in progress Distribution of booklets will be handled by Penny Walker. The Kooken's will take care of driving directions.

Nick made modifications to be added to flyer. Motion was passed to spend \$125 for printing color flyer to be distributed at National Train Day. Ron Bacon would like books for National Train Day.

Ron Bacon will be coordinating volunteers for open houses for summer tours. People on tour are also responsible for asking for helpers.

OPSIG report: Operating sessions haven't started yet as some of the layouts are on major renovation.

MODSIG: Greg Martin reported show big success and all felt good about it. A debriefing meeting was held to discuss things that worked/didn't work. Small work groups were created to work on issues that were brought up. Ron Bacon asked whether there was interest in taking layout to any of the fairs? The children's layout will be taken to National Train Day.

Unfinished business: Display policy and application: A copy of the policy was distributed to members with the agenda for the meeting. Discussion followed. Nick clarified if equipment wears out it's not the borrower's fault. Nick moved and it was seconded to adopt the display policy as presented. Motion carried. A copy of the policy is to be in-

cluded in newsletter. (The Public Display Policy is attached at the end of this newsletter.)

New Business

- Nick discussed a proposal to allow a credit of cost of Summer Tour Book toward membership in RCGRS. Discussion followed: Darrel Dunham moved and it was seconded that we give \$10 credit for all new members who join the day of summer tour. Motion passed.
- Nick announced National Train day on May 7th, 10 to 4 p.m. The kid's display will be there. Volunteers are needed for temporary display.
- Christina Brittain moved that minutes be Emailed to all members after each quarterly meeting. Motion seconded and approved.

The next quarterly business meeting is at Bill Der-ville's home on July 9th.

Motion to adjourn carried.

Meeting was adjourned at 3:15p.m..

Members present: Allan Warrior, Jan Zweerts, Richard Parker, Marilyn Parker, Jen & Joe Eckardt, Richard Walker, Daniel Campagna, Darrel Dunham, Christina Brittain, Gary Lee, Greg Martin, Nick Kelsey, Dave Stratton, Larry Blair, Janet Martin, Ron Bacon, Merlene Bacon, Dennis Rose, Dean Mead, Donna Mead, Penny Walker, Jeff Lange, Kathryn Warrior.

Respectively submitted

Kathryn Warrior, Secretary

The End of the Train (FRED) From Wikipedia and Other On-line Sources

Since the 1980s the FRED (Flashing Rear-End Device) has been the punctuation marking the end of a train. The flashing rear-end device, or "FRED," (also called an end-of-train device, ETD or EOT) is an electronic device mounted on the end of freight trains in lieu of a caboose. They are divided into two categories: 'dumb' units which only provide a visible indication of the rear of the train with

a flashing red taillight; and 'smart' units which also send back data to the crew in the locomotive via telemetry. They originated in North America, but are also used elsewhere in the world.

The 'smart' FRED devices monitor functions such as brake line pressure and accidental separation of the train using a motion sensor, functions that were previously monitored by a crew in the caboose. The FRED transmits the data via a telemetry link to the Head-of-Train Device (HTD) in the locomotive, known colloquially among railroaders as a 'Wilma'. This is a play on the first name of the fictional wife of the cartoon character Fred Flintstone. In Canada, this device is known as an SBU (Sense and Braking Unit).



FRED



A typical "Wilma," or Head-of-Train Device (top unit), displaying the current brake pipe pressure on the rear end.



A modern FRED with Wilma support

A typical HTD contains a number of indicator lights indicating telemetry status and rear-end movement as well as a digital readout of the brake pipe pressure transmitted by the FRED. It also contains a toggle switch used to initiate an emergency brake application from the rear end. In modern locomotives, the HTD is built into the locomotive's computer system, and the data is displayed on the engineer's computer screen.

Railroads have strict government-approved air brake testing procedures for various circumstances when making up trains in a yard or switching out cars en route. After a cut is made between cars in a train and the train is rejoined, in addition to other tests, the crew must verify that the brakes apply and release on the rear car (to ensure that all of the brake hoses are connected and the angle cocks, or valves, are opened). In most cases, the engineer is able to use data from the FRED to verify that the air pressure reduces and increases at the rear of the train accordingly, indicating that brake pipe continuity exists throughout the train. This device is said to constitute a fail-safe condition.

The FRED greatly cuts labor costs as well as the costs of the purchase and upkeep of cabooses. The Brotherhood of Conductors, and Brotherhood of Railroad Brakemen were also greatly affected by FRED seeing that this electronic unit replaced two career jobs per train. The widespread use of FREDs has made the caboose all but obsolete, but some

railroads still use cabooses where the train must be backed up, on short local runs, as rolling railroad police stations and transportation for right-of-way maintenance crews.

Evolution

The first FRED use is attributed to Florida East Coast Railway in 1969, soon other Class I railroads began using FREDs as well, until the mid 1980s when they were common equipment. Early models were little more than a brake line connection, battery and flashing tail light. As their use became more widespread through the 1980s, FREDs were equipped with radio transmitters to send brake pressure data to a receiver in the locomotive. To reduce the cost of battery replacements, ambient light sensors were added so the flashing light on the FRED would illuminate only after dark. Later models have a small turbine-powered electrical generator using air pressure from the brake line to power the FRED's radio and sensors.

The one-way communication of brake data from the FRED to the locomotive evolved into two-way communication that enables the engineer to apply the brakes from both ends of the train simultaneously in an emergency. This is useful in the event that a blockage in the train's brake pipe is preventing all of the cars in the train from going into an emergency application. Such a situation could be dangerous, as stopping distance increases with fewer functional brakes. Dumping the brake pipe pressure from both the front and rear of the train ensures that the entire train applies its brakes in emergency. Other electronics within the FRED were also enhanced, and many now include GPS receivers as well as the two-way radio communications.

Railfan Usage

Railfans and railway photographers sometimes monitor FREDs as early warning systems to detect approaching trains. FREDs in North America operate on the 452.9375/457.9375 MHz frequency pair with the exception of those operated by Norfolk Southern Railway, which uses AAR channel 67 (161.115 MHz). Railfans often program these frequencies into their radio scanners, which can pro-

vide a handy indicator of train activity (usually 2–5 miles, transmitting at 2 watts).

Editors Note: The following article is reprinted from “*The Railroad Man’s Magazine*”, Volume 1, No. 1 for October 1906. I hope you enjoy this railroad perspective and propaganda of travel 100 years ago.

A Few Facts in Flight

By Gerald Warren

Do You Know What the Stripes on a Conductor’s Sleeves Mean,

What Your Exact Rights Are as a Passenger,

Whether You Make Better Time Traveling West or East,

or How One Train Signals to Another?

—All This Is Explained in This Article.

“Go ahead!” your conductor signals with his right hand, raising and lowering it vertically. “All right!” your engineer responds by blowing two short blasts on his steam or air whistle.

Now you, the passenger, are in flight; and of that flight, these are some of the facts:

“Tickets, please!” cries the conductor; if you have left your commutation-ticket at home, give your name and address and, nine times in ten, you will have no further trouble. At any rate, you will not be put off, for the rule is: “Better carry a deadhead occasionally than put him off the train by force.”

Your conductor is presumed to be a man of tact. He must adjust quarrels without losing his own temper; if you are taken ill on the train he is supposed to telegraph ahead for a physician if you ask him to. He may wear four or five gold lace or cloth stripes on his sleeve, like a Spanish major-general. This means that he has been twenty or twenty-five years with the railroad company, each stripe representing five years of service. When he gets six, if he is over sixty-five years old, he may be retired with a pension from the company — he has served for thirty years or more. Meantime his average wage is three dollars and seventeen cents a day.

Your conductor wears on his coat-lapel or cap the insignia of the road — a kind of railroad heraldry. On the Pennsylvania Road, for example, the symbol is a red keystone, indicative of the nickname of the State. On the Louisville and Nashville the insignia is “L & N” in white letters on a red background crossed with black bars. The Western and Atlantic has the same sort of badge, and on the bars, up to a few years ago, were the first notes of the song, “Hold the Fort,” — the message sent by Sherman when he was marching from Atlanta to Chattanooga.

Steel Armor for the Cars.

Are you riding in a day-coach? It cost in the neighborhood of ten thousand dollars and weighs about sixty thousand pounds — though there are coaches in use that weigh no more than forty thousand. To your eye, the coach seems all wood. Hidden in that wooden shell, however, is a shell of steel three-quarters of an inch thick and reaching to the top of the car. Every car on a first-class road is thus reinforced with steel. Moreover, the angles of the corners and the doors are protected by steel strips, some of them an inch thick. Of steel, too, are the car’s girders.

You are riding, then, in a fortified, half-armored vehicle. To adjust that vehicle on its “trucks” and over its springs, marvels of the steel-workers’ art, called for the nicest calculation when your car was constructed.

The cord that runs through the car over your head is attached to the locomotive whistle — not to the bell, as in the old days when passengers spoke correctly of the “bell cord.” Under no circumstances may you pull that cord. It is exclusively for the use of the conductor or trainmen in signaling the engineer.

The passenger who pulls it renders himself liable to fine and imprisonment, just as if he had experimented with the “emergency” brake, that sacred contrivance which means safety for passengers when operated by a trainman, and five hundred dollars fine and a year in prison when handled by any one else.

Strange Byways of the Law.

Your exact rights as a railroad passenger are difficult to define, for the law moves in mysterious ways when applied to railroads. If you slip on ice on the station platform, you can recover damages for your injuries. But if you walk on the track and are killed by a train, your heirs who bring suit against the road may be asked the famous question of a British judge:

“Is there anything to show that the train ran over the man, rather than that the man ran against the train?”

If, in trying to board a train when it is in motion, you are injured, or if you get off that train before it stops and are hurt, you cannot recover a penny damages. If you leave your baggage in care of a porter and then go forth to play billiards and return to find your baggage lost, the company is not liable; but if you entrust your baggage to a porter while you go to purchase your ticket, and the baggage is then lost, the company must make good.

To put your bag or parcel on a seat in a train, hoping thereby to retain that seat while you do errands in the station, does not entitle you to that seat. Any passenger may remove your bag or parcel and take the seat, because the company does not contract to give you any one particular seat, but merely a seat.

Rails and a Running Drink.

But now, as you rush along, count, watch in hand, the clicks as the train rolls from one rail onto the next. If you count 176 clicks in a minute, you are going at the rate of sixty miles an hour. For there are 176 rails in a mile, each rail being thirty feet long.

These rails are six inches high. The standard weight is 100 pounds to a yard, and they are almost invariably of steel — for of the grand total of 297,073 miles of tracks of all kinds in the country, only 11,090 have iron rails. The remainder are equipped with Bessemer steel, the metal which supplanted the steel-headed rail (steel top and wrought iron base), which was too expensive for general use.

Between the rails, especially if you travel in the East, there is probably a water-trough, or track tank, about every thirty miles, for your engine must

drink while it runs. So, slowing down, it secures sufficient water by dropping into the tank a scoop, or funnel, into which the water rushes and is forced by the motion of the train into the tender tanks.

The long troughs are fed from neighboring sources by pumps. Is it winter? If so, the water is kept from freezing by jets of steam forced in under the surface from pipes along the tank's side, the steam being generated in the adjacent pump-house.

There are four or five of these tanks in each railroad division, and thus is secured the one thousand eight hundred gallons of water which are evaporated in the ordinary locomotive in each division. A division is from one hundred and fifty to two hundred miles long. For example, there are three between New York and Buffalo — from New York to Albany; from there to Syracuse; and from there to Buffalo.

Section Foreman Always on Duty.

Suddenly your engineer gives one long blast on his whistle — the signal that your train is approaching a station. You are at the end of a division. Here is a roundhouse into which your engine is run to be “rubbed down” and to await the down train of the same class.

The division you have just traversed is in charge of a division superintendent. Under him are several road-masters, who in turn preside over many section foremen in charge of maintenance-of-way gangs at work on the sections of the division. These sections are of various lengths, from four or five miles where traffic is heavy to twenty or thirty or more where it is light, as on the “long hauls” of the Southern Pacific in Texas. Each foreman of a section has his home bordering on the track somewhere within his section, and is, in theory, always on duty.

Now, a new engine is automatically coupled to your train — you are again in flight. You speed over bridges and notice that the steel supports of some of them are being replaced with stone arches. It is not because the steel supports are wearing out, but because stone is safer. Floods may twist steel, but they can rarely budge solid masonry.

The Disappearing “Hot Box.”

The car in which you are runs on twelve wheels. These wheels may possibly be made of paper — a few railway-coaches in this country are thus equipped. More probably, however, they have iron “cores” and steel tires, and were made by Krupp in Germany.

They may be smaller than they were a year ago. Usually, after each wheel has run some 75,000 miles, it is taken off the car, put in a lathe and its circumference reduced. This, of course, is to do away with any slight flat or rough faces caused by the wear. And how diminutive these car-wheels look in comparison with the driving-wheels of your locomotive, which are eighty inches in diameter, or a foot higher than the average man!

What the public knows as “hot boxes” used to be a frequent cause of delay in railroad travel. The brass boxes, or “journals” of the train of to-day, however, are covered on their bearing, or friction, surfaces with a coat of composition metal that is not soluble under great heat, and which, therefore, rarely expands — the cause of the friction which creates “hot boxes.”

Clean Rails for Quick Time.

If you are in a Pullman, your car cost from \$12,000 to \$18,000 or even \$20,000. And your train is vestibuled, not merely for comfort, but also to lessen resistance to head winds. A vestibule train is a solid wedge, as it were, and thus one obstacle to speed, resistance, is partly overcome.

Your train runs into a fog or mist. It slows up now necessarily, for the rails are coated with a slime that is a hindrance to very high speed. Blowing snow has the same effect. It packs in between the flange and the rail, increasing friction and retarding progress. On the other hand, run into a rain-storm and your train “makes up” time, the reason being that a hard rain washes the rails clean and is, therefore, an aid to speed.

If your train is going from west to east, it is making better time — infinitesimally better, be it said — than if it is going from east to west. For calculators in mathematics—extraordinary say that the west-

to-east train has the advantage of the motion of the earth.

Signals You Can Hear.

As you fly over the rail, two explosions in quick succession are heard. Your train has struck two torpedoes, “audible signals,” and the engineer slows up. If a third torpedo explodes, the engineer proceeds with extreme caution, for aside from what he reads in the “block” signals he knows that there is danger within a mile. Then the train stops, and five short blasts of the whistle send the flag-man back on the track. This is what has happened: The train in front of yours has stopped for some reason at an unusual place between stations. A train-man hurried back over the tracks for at least three-quarters of a mile and placed a torpedo on the track. Then he continued for another mile and placed two torpedoes on the track.

These were the two that your train struck first and then, a mile farther on, the single torpedo exploded. Now, if the trainman had been signalled to return to his train before yours came along, he would have left his two torpedoes on the track, but would have picked up the one nearest his train. If your train had then struck only the two torpedoes, and not the third, your engineer would have gone on his way, knowing that all was well.

Had all this happened at night, the trainman would, in addition to the torpedoes, have lighted red fuses which burn exactly ten minutes. Then your engineer, coming upon one of these fuses, would have known that a train was ahead of him and would not have proceeded until the first light had burned out.

But now your engineer blows four long blasts on his whistle — the signal calling in the flagman who was “sent back” by your train (all this in addition to the signals of the wondrous block system), and once more you rush on your way.

The Tireless Iron Horse.

During that delay, however, you got off the train and walked forward to look at your locomotive, perchance to gossip with your engineer. This is what you learned:

It is an ordinary engine of the Mastodon type. It weighs as much as two or three day coaches — 120,000 pounds. Engines on the great flyers weigh as much as 175,000 pounds, and some freight locomotives 300,000 pounds. This engine cost about \$20,000, more than a fine private car. On the passenger service it is supposed to run an average of 8,500 miles a month. It develops a capacity of over 1,000 horse-power; but there are freight engines of over 2,500 horse-power. Its length is 64 feet without the tender. It could pull this train the 400 miles from New York to Buffalo were it not for its limited coal capacity.

There is no time to re-coal, so a new engine is put on at the end of each division. That is why your train will be pulled by about twenty different locomotives in crossing the continent.

In Maine or Texas or Oregon, on a four-track trunk line or a one-track branch, most of these facts are quite the same.

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Schedules & Timetables for 2011

Make sure you check the calendar on our Website at <http://www.rcgrs.com/> for the most up-to-date schedules and timetables.

It is our Society's policy to attempt to have an event or open house on every second Saturday of the month. Other and additional dates during a month are also available and encouraged. Anyone interested in having an Open House or sponsoring an event, please contact **Tom Gaps 503-659-8893, tgaps@comcast.net**

May 7, Saturday (all day): National Train Day

May 14, Saturday, Noon to 5 p.m.: A track planning (suggestions) party will be held. at Robert & Carol Westhafer's home. in The Dalles for a track laying party and get together. Their address is 2810 W. 10th in The Dalles, Oregon. [Located at the parsonage for Faith Lutheran Church (same address)] Guests may use the church parking lot.

The Hosts will be sponsoring a BBQ. Coffee, ice tea and lemonade will be provided. Guests may bring their own adult beverages. F-M Side Dish; N-Z Salad; A-E Desert.

June 11, Saturday, Noon to 5 p.m.: Tom and Betty Gaps open house. 5922 SE Skyhigh Ct., Milwaukie, OR 97267, 503-659-8893

Host will be serving Lasagna and Spaghetti. Water, Lemonade and Ice Tea will be provided

Kathryn Warrior and Carolyn Rose will be providing a "special" desert.

A-J Side dishes
K-Z Salads

Guests are welcome to bring their own locomotives and rolling stock to run on the Lone Pine & Western RR. The railroad is code-250 track — NO track power. The minimum radius curve is nominally 6-ft but there might be a few short 5-1/2 ft radius sections. There are 7 tunnels. Tunnel clearance is 8-in wide and 10-in high. Six tunnels are about 5-ft in length. The 7th tunnel is about 40-ft in length but has "easy" access points every 3 ft. The maxi-

mum grade is 1.3%. Total altitude gain from end to end is 35 inches.

We live on a corner with the house facing north (Sky High Crt). The primary access to the back yard is via the NW corner, along the West side of the house. If you are bringing a train to run, park along the East side (Norma), near the double gates at the SE corner for easy, direct access to the railroad.

June 18, Saturday, 10 a.m. -5 p.m.: "Railroads In The Garden Summer Tour" Bill Derville, Chairman. Details to be announced.

June 21 - 25:

2011 NGR Convention in Overland Park, Kansas

July: Bill and Brenda Derville open house (quarterly meeting) 930 NW 170th Place; Beaverton, OR 97006; 503-645-1771. Details to be announced.

July 30-31, and August 6-7 week ends, All Day: The Great Oregon Steam Up. If you enjoy beautifully restored ancient machinery, tractors, operating steam tractors, tractor pulls, an ancient saw mill in operation, ancient trolley, beautiful operating examples of the machinist's art in miniature, truck museum and many other items too numerous to mention, this is the day you won't want to miss.

Antique Powerland Museum; Brooks, OR
Phone: 503-393-2424

August 6 - 9: Glacier National Park Trip

August 13, Saturday: Bill and Jean Dippert open house. 2650 NW Robina Lane; Portland, OR 97229
Phone: 503-646-9783. Details to be announced.

September 10, Saturday: (quarterly meeting) Jeff and Dianne Lange open house.

October 8, Saturday: Ron and Merlene Bacon open House.

November 12, Saturday: Annual RCGRS Luncheon

December Christmas ships?

ROSE CITY GARDEN RAILWAY SOCIETY

Public Display Policy

The purpose of this policy is to establish guidelines and procedures when the Society is invited to build, install or assist in the construction of a public display, other than the Modular SIG displays erected and operated by Society members.

1. All invitations to build, install or assist in the construction of a public display must be sponsored or submitted by a member in good standing and approved by the Board. Equipment availability must be coordinated with the Yardmaster. Equipment can be provided free of charge, or with a fee to cover wear and tear.
2. A member must volunteer to be the coordinator and contact person for the display.
3. A member or members must volunteer to check the display on a regular basis. Once a week minimum.
4. The requesting business, agency, entity or location must designate a contact person and the person or persons responsible for the maintenance and operation of the display.
5. The Society will provide training on the operation and maintenance of the display and any Society equipment provided.
6. The requesting entity should provide a location for the posting of a sign crediting the Society and possible distribution of Society literature.
7. If during the course of the display, either by public action, failure to monitor, or improper maintenance, any of the equipment, material, supplies or other items provided by the Society is damaged, the requesting entity will repair, replace or otherwise compensate the Society.
8. If Society property has been damaged or requires significant maintenance, the Society reserves the right to remove Society property from the display at any time for such maintenance or repair.
9. The requesting entity should understand that if a locomotive is provided, long term continual running causes significant wear to the drive train, which will result in maintenance costs, and eventual failure of the locomotive.
10. The Society will designate a member (usually the Yardmaster) to inventory, inspect and note the condition of all Society equipment before and after the display.

The requesting entity will be provided a copy of this policy and must indicate agreement by signature of a responsible party.

Signed: _____ Date: _____

Business/Entity Name: _____

ROSE CITY GARDEN RAILWAY SOCIETY PUBLIC DISPLAY REQUEST

Business/Entity Name: _____

Address: _____

Phone: _____ Email: _____

Display Location: () Same as Address _____

Start Date: _____ End Date: _____

Contact Person(s) _____ Phone: _____

_____ Phone: _____

Operator(s) _____ Phone: _____

_____ Phone: _____

Society Equipment Needed: _____

Sponsoring Club Member: _____

Phone: _____ Email: _____

Club Monitor(s): _____

Phone: _____ Email: _____

Phone: _____ Email: _____

Inventory Assigned to: _____

Presented to the Board: _____ Approved: ()Yes () No

President