

## **Message from the President Darrel Dunham**

Well it seems like summer has passed me by already. With all the time I have been working out of town, nothing has gotten done on my own layout. Last weekend I did manage to get a crew over and got the weeding and trimming done. I even got out a couple engines, some cars and ran trains for a short time. I missed that this summer.

The open house at Bill and Brenda Derville's was great this past month. We had a lot of items that went up for auction and the club should have fared very well from the items sold. The potluck was great also. I thought that the best part was the operating session that Bill put together. I could not keep track but there were several teams running trains. I just know there were trains coming and going for a good couple of hours. I hope we can do this again; it was fun.

I was not able to make it to the coast for the open House at Glen and Judy Wadley's. I am sure that all had a good time as we always have. Our next open house and quarterly club meeting will be at Jeff and Diane Lange's home. This will be our 3rd quarter business meeting. I am sure most of the time will be running trains though. This meeting will be on Sunday afternoon. The next event will be on the following Sunday afternoon at Gary and Jonette Lee's home. Their's is a new layout and the first time open house. Anyone who did not see it on tour this year, needs to attend as it is a work of art.

Remember to wear your nametag at all the club functions. Everyone with a nametag on will receive an entry to the door prize at the November Banquet. Nametags are available from the Membership Chairman. They will in a box brought to all club functions. You may put your tag back in the box when you leave so it will be there for you the next

time you need it. There will be a list with the box for anyone needed a nametag or a spelling correction. I want to thank Christina Britain for the fine job at producing the tags.

I received an article from printed from the Baker City, OR paper that told about being able to drive the steam engines they have at Sumpter Valley. You could run the engine for the day for \$600 and for an additional \$150, your spouse could sit in the other seat. Something to put on my wish list I guess.

Something else on the 1:1 Scale: Shirley and I were going through the Klamath Falls area last week and we came upon a train wreck that had happened about 3 weeks ago. There were still 14 cars out of 38 that had derailed laying along side the track. It took them 3 days to get the tracks open again after the wreck. We spent several hours there just watching the cleanup effort. They had to cut each box cars up in small chunks to fit in dump trucks, equipped with wheels to run on the rails, and were hauled off to an out of the way place. The interesting thing that caused the wreck was the weather. Union Pacific Officials said that the string of 100 plus days had caused the rails to expand and buckle. If some of you are having track problems due to the heat expanding your rails, you are not alone.

Happy railroading and may all your trains stay on the track! —Darrel

## **RCGRS Group Tour to Two Northern Railroads**

Over 20 people are planning to go on a trip to Skagway, Alaska next June 2007. We leave by charter bus and travel to Bellingham where we catch an Alaskan Ferry for a three day trip up the inland passage. We will arrive in Skagway Saturday morning, just in time to catch the steam train trip through the rugged Alaskan mountains. The trip includes lunch, and photo run-bys. We will be staying in a well known historic bed and breakfast called the

White House Inn. After riding on the White Pass and Yukon Railroad for two days we will fly from Whitehorse to Calgary. The next morning we get on the Rocky Mountaineer and take two daylight only rides to Vancouver. The Mountaineer stops in Kamloops overnight so we don't miss any of the wonderful scenery. The route it takes through the mountains includes a spiral tunnel!

The tour is 9 days from June 19 to June 28.

The deposit for the tour is \$475.00 which pays for the charter bus, airfare from Whitehorse to Calgary and a \$58.00 deposit for the Mountaineer Tour.

The total cost will vary a bit depending on the type cabin you want on the ferry, the rooms you need at the bed and breakfast and hotel in Whitehorse, but will be approximately \$2,400 per person plus some meals and personal expenses. Members and non-members are welcome to join the tour.

Everyone will need a passport to travel between Canada and the USA.

If you are new to the club or have missed past mention of this trip and would like to know more about it, call Carolyn Rose at 503-649-4904. A **dinner**

**meeting is planned for September 2nd. Dinner is at 6:00 at the Rose's followed by a meeting for questions and receiving deposits.** If you miss the meeting and would like to go we will set up another time to give you the information.

## **Derville Open House, Auction, And Operating Session**

Nearly 50 people attended Bill and Brenda Derville's open house on August 13th. Bill completed the main line of his southern division of his Colorado Southern RR just prior to the Summer Tour. The loop beside the lake was disconnected, and a new mainline with passing siding and station was installed connecting the northern and southern divisions. The 10 stub track railroad yard between the two divisions will be the next project. (Bill reports construction has already started.)

The new southern division is actually a reverse loop for the loop to loop railroad that now features two passing sidings on the main line and a passing siding within each loop. The new division has nine new spurs for future industries where switching will be intense.



The auction was quite large this year because many of the items were from an estate. Many of the LGB items were rare specialty new-in-the-box.

The afternoon began at 12:30 p.m. with hamburgers and potluck dishes served at 1:30 p.m.. It was a hot day, and the shade of the patio on the patio helped everyone stay out of the sun. Following lunch, a large auction was held that grossed \$1,755.

An operating session was planned for 4 p.m., but actually got underway around 4:30 p.m. due to the length of the auction. This was the first club operating session that included a dispatcher (Jeff Lange) and a new dispatch board with magnetic trains. Jan Zweerts did a great job of writing about 30 train orders that were given to the two person crews of 4 trains, authorizing train movement over the main line. Since Jan is a real railroad engineer with the Willamette and Pacific, his instructions were very authentic. With four trains operating the loop to loop railroad with long tunnels meant crews had to follow the train orders to the letter to avoid head on collisions in the long tunnels (we almost had one).

To further complicate operations, two of the trains were way freights. Each car on sidings and in each train had its own car card and way bills specifying the load and destination of each car. Some were designed "empty". Jim Laycock had considerable experience with way bill operations, and his help was very valuable in setting up and coaching people during the operating session.

Freight train crews included Ken Shipman, Gary Lee, Dennis Peoples, Jim Laycock, Frank Filz, and Darrell Dunham. Barbara and Jerry Clark ran a passenger train which included switching a baggage car on a new siding at the station at Lake Peterman.

All pick ups and drop offs were in the new section just opened. Some of the buildings were crafted by Glenda Bockel and her crew, purchased in her auction last year. Others were made of scrap 2"x12" with signs, but it worked. Still others were simply signs stapled to a fence identifying spurs.



Operating Session: Jan Zweerts writes train orders for crews, Jeff Lange dispatches trains and keeps track of train movement on a magnetic board. Frank Filz, Jim Laycock, and Darrel Dunham wait for their train orders.

Everything concluded around 6 p.m.. Everyone seemed to enjoy running trains with a purpose beyond watching trains run on track. If the yard is completed next year, trains will be broken down and assembled into new trains creating a new bottle neck, but more new experiences. Additional industry spurs will be added within the yard for a freight house and an ice house at a minimum. Next year's operation session should bring new dimensions, more jobs for club members, and even more fun.



Barbara and Jerry Clark operate a passenger train. Barbara carries her waybills in her cap. Dennis Peoples (in background) prepares his live steam locomotive for a freight train.



Dennis Peoples gets track clearance to take his live steam freight onto the main line.



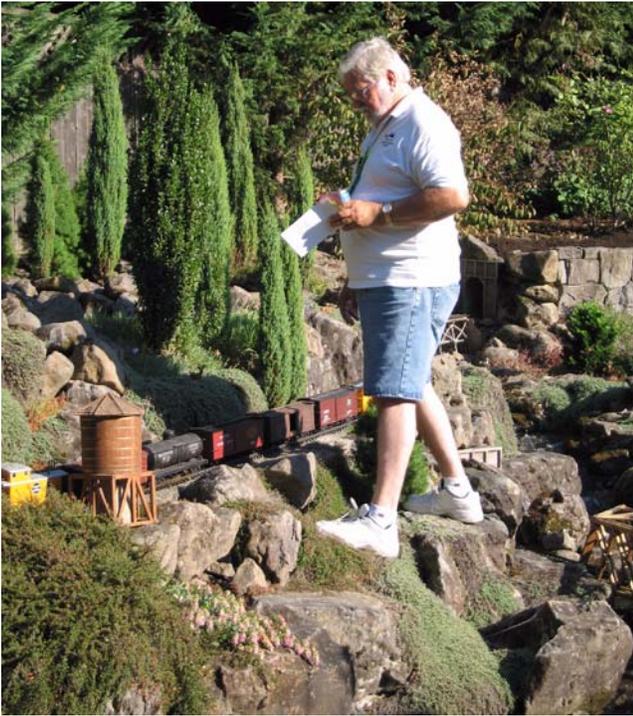
Jim Laycock looks for reception as Ken Shipman kibitzes. They are trying to use the LGB MTS operating system.



Gary Lee's freight meets the Clark's passenger train at Lake Peterman.



Frank Filz demonstrates his technique to fish a derailed train from a tunnel.



Darrel Dunham stands on the edge of a cliff as he gets dispatcher clearance to send his freight train into the Horseshoe Tunnel.

### **General Electric Diesels (Part 1)**

General Electric Corporation is one of the largest corporations in the world. Today its business activities span a wide range of areas—everything from aircraft engine manufacturing, appliances, health-care equipment, and even the NBC television network. We are interested in the General Electric Transportation Division; specifically locomotives. (This division also produces many railcars and light rail systems.)

In 1893, General Electric (GE) produced the first electric locomotive. Two years later, problems with locomotive exhaust in Baltimore & Ohio's Baltimore Tunnel led to first electrification on a major railroad.

GE realized early on that electricity was a clean, quiet and powerful alternative to the steam locomotive. The railroads also saw these benefits; however, the large investment in infrastructure precluded electrification from all but a few applications.

Straight electric locomotives have never become a dominant technology in the United States. However, they do possess many desirable qualities. Unlike

steam locomotives, they never need to refuel, take on water or empty their ash pan. A steam locomotive can be in the shop for as much as 50 percent of the time, while an electric might be in service for 90 percent of the time or more. At the end of the day, an electric locomotive can be shut down; whereas, steam engines must have a fire in the fire-box continually for a month. So, the fire had to be tended 24 hours a day for thirty days. Electric locomotives out-perform steam on the road too. Electric locomotives can accelerate faster than steam locomotives. On a heavy grade, a steam locomotive can lose as much as half of its pulling power, while an electric will retain almost 100 percent of its power. On down-grades, electric locomotives have another advantage, they can use regenerative braking. Regenerative braking helps prevent heavy wear on the brake shoes and can be used to supply power for an up-hill train on the same system. Finally, unlike steam locomotives, it is easy to connect two or more electric locomotives together and have them pull one train. In fact, the two (or more) engines would only require one crew because the electric transmissions of several locomotives could be connected to a single controller. This practice is commonly known as multiple unit (MU) operation. However, the MU control system was not solved until 1940 by GE.

GE was still trying to sell the benefits of electric propulsion in the early 1900's. At the same time, the British railways were beginning to use direct drive gasoline cars. Inspired by the success of the interurban electric lines in the United States and the direct drive gasoline cars in England, GE developed an electric railcar that carried its own power plant. It was the first internal combustion railcar in America. GE soon emerged as a leader in the fledgling motorcar field.

General Electric was not the only one inspired by the European motorcars. A number of American firms copied the direct drive design from the British. McKeen Motor Car Company also arose to become an early leader in the motorcar field. Unlike GE's gasoline electric cars, McKeen built direct drive motorcars.

McKeen and GE dominated the motorcar market from 1905 until the United States entered World War I. GE produced a total of 89 cars, all of which were electric drive. During this same period, McKeen produced 152 direct drive cars. Each design had its short comings. The GE cars had independent controls for the gasoline engine and the electric generator. Many motormen had difficulty mastering this control system. The McKeen cars had a tendency to shake themselves apart after a few years of service. Both companies produced their last motor car in 1917. In 1918, GE had made the business decision to stay out of the locomotive business and be a major supplier of electrical components, but it seems that each decade found GE making locomotives again.

As reported earlier, GE entered into a partnership in 1924 with Ingersoll-Rand and ALCO to build oil-electric box cab locomotives. The partnership was called **AGEIR**. ALCO left the partnership in 1928 to produce their own locomotives. GE still supplied the electrical components. GE became dissatisfied with the results of its partnership with ALCO and entered the road diesel locomotive market itself in 1956.

GE wanted to quit just selling components and introduced several switcher models of 44 tons (373 units), 70 to 95 tons (285 units). In 1954, GE produced one curious A-B-B-A carbody design. Two of the units had 1,200 hp each and two of the units had 1,800 hp each. There were no orders for this quartet and they were finally sold to the Union Pacific where they were scrapped in 1964.

When GE introduced the U25B in 1960 to compete with the SD-24 from EMD, they became recognized as a major locomotive manufacturer. The prime mover for the U25B was a 16-cylinder turbocharged diesel engine built by the Cooper-Bessemer Company. A primary design objective for the “Universal” series was to reduce the number of components in the locomotive and be able to undersell EMD for a comparable locomotive.



This GE U25B No. 3100 is believed to be the only remaining operable locomotive of its type in the U.S.

GE had sold 478 U25Bs when production ceased at the beginning of 1966. Many railroads had trouble servicing the GE locos because they were used to the EMD series and the GE locos had different requirements. For a period of time, GE had to station maintenance advisors where needed to help the railroads keep their GE locomotives in service. The GE U-Boats were excellent pullers, but had some serious flaws in the engine design. They tended to spew oil and they suffered engine failures on a regular basis.



U30B

GE continued the development of their “Universal” line of locomotives with the six-axle U25C in 1963 and the later U28B, U28C, U30B. If you are not used to the code yet, the “U” stands for “universal”, the number indicates the horsepower in hundreds, and the “B” indicates a four axle truck and the “C” indicates a six-axle truck.

In 1966, EMD shook up the RR world with the introduction of the very large and expensive SD45. GE countered the SD45 and particularly the GP40 by offering their U30B. Five U30Bs could be purchased for the cost of four SD45s. The U30B was also less expensive than the GP40. The last of the “U” series were two experimental U36Bs that were later rebuilt as U30Bs.

GE produced the U50 and the later U50C behemoths for the Union Pacific. The design was effectively two U25B locomotives on a single frame; each diesel engine and generator powered only the two trucks at the same end. Three were delivered to the UP in October 1963, and three to the Southern Pacific Railroad in May and June 1964. These locomotives were 5,000 hp (3,700 kW) units that were

over 83 feet long. The U50 rode on four two-axle trucks, grouped in pairs linked by span bolsters, giving a wheel arrangement of B+B-B+B. The trucks and bolsters were re-used from scrapped UP turbine locomotives built by GE during the 1950s. The U50 was built in response to the Union Pacific Railroad’s requirement, issued in the early 1960s, for a 15,000 hp (11,100 kW) 3-unit locomotive set to replace the turbines.

Other locomotives built to this requirement were the EMD DD35 and the ALCO Century 855. The Southern Pacific kept the three U50s, but did not order any more. They were kept on the roster until the late 1970s, but were often sidelined.

The Union Pacific was more satisfied with their three U50s, and ordered 20 more. A batch of 12 were delivered between July and September 1964, while a final eight were built May through August 1965. Most were withdrawn from service in 1973 and 1974 and traded-in to GE for more modern high-powered units, although three survived in service until 1977.



U50



The U50C was an evolution of the U50 design produced between November 1969 and November 1971 solely for the Union Pacific; 40 locomotives were constructed. The U50C used a pair of three-axle trucks instead of the four two-axle trucks used by the U50. Again, these were reused trucks, this time from the later, two-unit GE turbine locomotives. Development of the U50C was to the same UP specification that produced the EMD DDA40X “Centennial” units—a requirement for a high power locomotive for the railroad’s high-speed freight trains. The span-bolster B+B-B+B design was not suited to this service. The requirement for power at speed rather than low-speed hauling meant that six driven axles would be sufficient. The design needed extensive weight saving not to overload six axles instead of eight.

GE replaced the 16-cylinder engines of the U50 with more advanced 12-cylinder engines, which were lighter and shorter. The engines in the U50C were reversed in orientation compared to the U50, placing the radiator sections at the middle of the locomotive instead of the ends. The shorter overall length required a wider radiator section design, similar to that used on the U33B/C locomotives. The radiators on the U50C were placed at the center of the locomotive, unlike the U50, which had radiators at the ends.

The U50C was not a very successful design. The extreme weight saving measures taken to make the locomotive able to use six axles rather than eight caused numerous problems, especially in the electrical wiring; aluminum wires instead of the regular copper had been used, which proved prone to overheating. The U50Cs suffered from many serious electrical fires as well as lesser failures; the UP re-

wired one unit with copper experimentally and considered having a contractor replace the wiring on all of them, but decided that the units’ other problems were too serious. The trucks suffered from cracks in the cast frames; the engines were prone to low oil pressure; the cooling water leaked; the dynamic brake grids were prone to failure. If one diesel engine or components were inoperative, the whole locomotive had to be removed from service. A business downturn in 1976 proved the end of the U50C in service; all were withdrawn, although many were stored in serviceable condition. No return to service occurred, though five were loaned as stationary power generators during a coal miners’ strike in early 1978. All were sold for scrap during 1977–1978.

(Next month in Part 2 some of the later General Electric locomotives are discussed.)

## **Summer Tour Another Success**

### **By Bill Derville**

The 2006 Summer Tour was another success in spite of low turnout and scorching heat. No one was cold, and lemonade was consumed by the gallon. We sold 106 books which were used by over 250 people. The tour grossed \$1,064 and netted \$306.23 for the club after expenses.

Nearly everyone who attended had been on tour in a previous year and wanted more. Seeing our gardens and layouts operate was not to be missed even though it was hot by these die hard fans.

This year we had 12 layouts on tour. Shannon Pratt, Mike Greenwood, Christina Brittain, and Gary Lee opened their layouts for the first time to the public. Bill Dippert, Bill and Brenda Derville, Dennis and Caroline Rose, Allan and Kathryn Warrior, Joe

Chesney, Jeff Lange, David and Margaret Kooken, and Dennis and Sharon Ediger opened their layout again this year.

Next year our tour will be moved to Fathers day weekend during the Rose Festival on June 16th and June 17th. We plan to be open from 10 a.m. to 5 p.m. as we were this year. The fee will remain \$10 per family. We will try several new advertising avenues next year including Model Railroader, Sunset magazine and others. We will also try to have Al's Garden Centers in Sherwood, Gresham, and Woodburn sell out books. There will be a lot more details in the minutes of the Summer Tour Wrap-up session including discussion about offering to build a permanent layout for Al's Garden Center in Sherwood to promote the hobby and our tour. No conclusion has been reached about offering to build them the layout (all materials would be paid for by Al's Garden Center.)

If you have not given your host and staff ribbons to Darrel Dunham, please get them to him so we will be able to pass them out next year.

In conclusion, we had a great Summer Tour given the heat, and everyone is looking forward to next year's event.

## **Treasurer's Report on Recent Events**

**By Steve Cogswell**

The recent summer tour and club auctions were both a great success. We sold 116 books for the summer tour and the club net \$302 after printing and distribution costs. Publicity generated by the event also contributed to attracting five new members to our club in the past month. I have generated a new roster for the Website and I will try to get an email out as well, greeting our new friends. Great thanks to Bill Derville for chairing the tour and to all our members who opened their homes or helped out are in order.

At Bill and Brenda Derville's recent open house, after enjoying hamburgers and a potluck array of salads and desserts, we held our annual auction at which we sold \$1,755 worth of merchandise and

netted the club \$329 in commissions and proceeds on some unused club equipment. Checks have been sent out to all sellers, so if you haven't received yours yet, contact Steve Cogswell at 503-650-4682.

A full quarterly financial report will be reported at the business meeting on September 10th at Jeff Lange's house, and in the October newsletter.

## **RCGRS Officers and Staff**

**President, Darrel Dunham**

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**Vice President, Jeff Lange**

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**Secretary, Barbara Clark**

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**Treasurer, Steve Cogswell**

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**Yardmaster, Gary Lee**

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**Membership Chair, Don Watson**

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**Annual Garden RR Tour Chair, Bill Derville**

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**Club Store Chair, Margaret Kooken**

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**Education Chair, Christina Brittan**

360-837-3711, [quinmountain@aol.com](mailto:quinmountain@aol.com)

**Open House Chair, Position Open**

Contact Jeff Lange, VP for any information

**Module SIG Chair, David Kooken**

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## **Schedules & Timetables**

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

Anyone interested in having an Open House or sponsoring an event, please contact **Jeff Lange, Vice President.**

**September 10, 2006, Sunday, Noon to 6:00 p.m.:**

Open house at Jeff & Dianne Lange's. Third Quarter business meeting on Sunday.

Potluck lunch starts at 1:00 p.m. Members whose last names begin with A-M please bring a main dish, N-Z a salad or dessert. Placeware and beverages will be provided.

I invite you to bring your track powered, battery powered, or live steam trains to run. I have finished the 300 foot outer loop, and have a total of 4 independent loops with over 600 feet of track to run any sized train on, so please bring them along so we can all see them run. I've also added a 60-ft point to point logging line with 5% grades under my Maple trees, so bring your geared locomotives and test their pulling strength. I have 8 fully loaded log cars which will really challenge the strongest of logging engines.

Parking spots are out front by the RCGRS sign, or along the north side of the hedge adjacent to my double gated entrance to the railroad.

Please bring folding chairs for any in your party. I only have a few chairs and swinging benches for visitors, so for our business meeting, any extra chairs would be appreciated.

Thank you for planning to attend!

Jeff and Dianne Lange  
5220 N.W. Cherry Street  
Vancouver, WA 98663  
360-696-0799  
jeffdlange@comcast.net

**September 17, 2006, Sunday, 1:00 to 5:00 p.m.:**

Open house at Gary and Jonette Lee's. Please join them for the first club gathering at our home. Refreshments and main course provided. Please bring a salad or desert.

34140 SE Hurlburt Road  
Corbett, Or 97019  
503-695-2550

I'm planning to have an operating session (like the one at Bill Derville's open house). I will need 3 engineers, 3 brakemen, and a dispatcher/agent The Baker & Grande Ronde is a battery powered or live steam railroad. Track power not available.

**How to get there:** From I-84 going east, take exit #18 and turn left and go under the railroad bridge to the stop sign at the Troutdale Bridge. Turn left onto the the Columbia River Scenic Highway. Continue 5 miles and bear right onto Hurlburt Road. Continue on Hurlburt Road for one mile. Turn right onto one lane driveway at 34140.

**September 30, 2006, Saturday, 10:00 a.m.:** Tom Miller has again invited RCGRS to visit his 1-1/2 inch scale railroad in Scholls, OR. The railroad features 12,000 feet of track, a 30 foot tall by 400 foot long trestle with a Howe truss center span, and a long tunnel. The estate is beautiful. This railroad is not normally open to visitors, so this invitation is a real treat. Tom's address is 18055 SW Seiffert Rd, Sherwood, OR. Bring your own picnic.

**How to get there:** Take the OR-210/Scholls Ferry Rd. near Washington Square toward the southwest. (approx. 7 miles). At the flashing yellow light where OR-210/Scholls Ferry Rd. meets River Road, turn LEFT toward Scholls. Go past the store at the intersection of OR-219 and OR-210/Scholls Ferry Rd. for approx 0.09 miles. Turn LEFT onto SW Seiffert Rd. (0.70 miles). The Miller residence is toward the top of the hill.

**October 14, 2006, Saturday, 4 - 9 p.m.:** Open House at Shannon and Millie Pratt's.

**October 28, 2006, Saturday, 4 - 9 p.m.:** Open house at Allan & Kathryn Warrior's. Halloween trains and night themes.

**November 11, 2006, Saturday, 4:00 p.m. until 10:00 p.m.** RCGRS Annual Banquet. Carolyn Rose, Penny Walker and Barbara Clark are in charge of the details.

**December 8, 2006, Friday:** Open house at Jan and Rae Zweerts'. (Christmas Ships)

**Editor's Note: The deadline for the October newsletter is September 25, 2006.**