

Dedicated to the historic preservation and/or modeling of the former CMStP&P/Milw. "Lines West"

Volume 4, Issue No. 3

The Idaho and Washington Northern

A Summary by Mike Denuty

Coeur d'Alene lumberman F.A. Blackwell and his son R.F. Blackwell built the Idaho & Washington Northern Railroad not only as a means to transport timber from the company's holdings in the Idaho Panhandle and Northeast Washington, but also as a showcase of elegance.

Starting in 1907 from a connection with the Spokane International at Clagstone, I&WN built west to a junction south of Blanchard known as Coleman - now only the bottom of the Spirit Lake hill on Idaho Highway 41. From this point, the railroad was built south to its headquarters at Spirit Lake and on to Rathdrum and beyond and north to Newport. The old "Wye" tracks at Coleman are now two county roads.

According to John M. Finney, in an article for "Big Smoke", an annual publication of the Pend Oreille County Historical Society, by August 1st, 1907, more than 1,500 laborers were employed.

By August 23, 1907, 28 miles of 75-pound rail was laid and on August 29, the first special train ran from a point just west of Newport to Clagstone, and thence over the Spokane International to Spokane. On October 20, the trestle west of Newport over the Great Northern was completed; four days later, I&WN rails entered Newport, John Finney reports.

The Blackwells ordered a sturdy locomotive and car shop, which was state-of-the-art for its day, built at Spirit Lake. They also ordered attractive freight and passenger steam locomotives and passenger cars which were as fancy as anything used in regular service in the country.

After making connections for Spokane on the Rathdrum Prairie and reaching Newport, the company made plans to extend to Ione and Metaline Falls in Washington State, with hopes of continuing on to Canada.

However, construction on the Metaline Falls end was much more expensive than anticipated and failure of the Inland Portland Cement Company to begin production on time left the railroad financially strapped. It would only be a few years until the new Milwuakee Road would take over, closing the Spirit Lake shops and operating the once high class operation as a lowly branch line.

Beginning in the 1940's, the Milwaukee toyed with the idea of abandoning the line from Newport south, through Blanchard, Spirit Lake, and Rathdrum, but it remained in place until the early 1970's. At that time, Milwaukee trains started running over the BN from Spokane and got back on their own tracks at Newport. This arrangement lasted only a few years, with the Port of Pend Oreille purchasing the branch from the Milwaukee in October, 1979, creating the Pend Oreille Valley Railroad (POVA).

- Mike Denuty

Editors Note: The John Finney article referred to above can be found in "The Big Smoke" of 1986, published by the Pend Oreille County Historical Society. Annual Meet attendees may contact the society for copies if they wish to read the complete article.

Notes from the General Manager

July 1991

The 1991 MILWEST MEET will be held the Friday night and Saturday (August 30 - 31) of Labor Day weekend. As mentioned in the April Dispatch, this event will take place about 55 miles northeasterly of Spokane on US Hwy #2. The City Hall faces US #2 (Washington Ave.) on its east side at the corner of Second Street, while the Annex/Fire Hall is directly to the rear (east). The meeting room is on the northwest corner of the building. Parking is available between there and the City Hall as well as on Second Street. All attendees are requested to not park on the east side of the annex (on Union Ave.) as that is the fire hall's driveway.

A flyer with a map (and detail map for Newport) is included with this issue of the Dispatch with an outline of the program for this year's meet. Again this year there will be an admission charged, rates are as follows: \$5.00 US per adult; \$7.00 US per couple; \$2.00 US for children 12 - 18 years, and children under 12 are free. The admission charge will be collected at the door this year.

Due to the response at last year's meet, the Model Contest will again be held. Ed Lynch, Assistant General Manager is handling the contest this year, and has established the following categories:

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<u>Locomotives</u> - Electric, Steam, Diesel <u>Rolling Stock</u> - any freight, passenger, or non-revenue cars.

Structures - buildings, bridges, dioramas.

"What If" - includes a model in any of the above categories, but in spirit of

MilWest Management

MilWest is a Washington State non-profit corporation founded in October, 1987. It serves to preserve and promote the history of the (former) CM&PS, CM&StP, CMStP&P, MILW Lines West.

Annual membership is based on the calendar year, cost \$10.00 (US), and is due no later than January 1. Please make all remittances payable to "MilWest" and send to the <u>Secretary</u>. Persons joining during a year will receive all issues of the Dispatch for that year. Other back issues are available from the <u>Secretary</u>.

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If you move, please notify the <u>Secretary</u> of your new address promptly.

Whom do I contact?

Matters pertaining to MilWest policy, annual meetings, etc., contact the General Manager.

Payment of dues, membership applications and inquiries, non-receipt of the Dispatch, address changes, back issues, contact the <u>Secretary</u>.

General Manager, Art Jacobsen 1870 Easy Street Helena, MT 59601-1172 Ass't General Manager, Ed Lynch 4001 5th Ave. North Great Falls, MT 59401 Secretary, Ron Hamilton 2506 Fissure Loop North Redmond, OR 97756 Treasurer, Rick Yaremko 116 DeerCross Road SE Calgary, AB, Canada T2J 6G7 Staff Assistant, Kirk Petty P.O. Box 423 Ranchester, WY 82839 Staff Assistant, Phil Kresik 20903 80th Place West Edmonds, WA 98020 Managing Editor, Rocky Gibbs 444 W. 15th Ave. Spokane, WA 99203-2110

"what might have been" had the MILW continued in existence. Let your imagination run wild for this.

Ed and Tony Dell will be taking entries for this year's Model Contest at the Annex on Friday evening, and on Saturday until noon. Judging will be on Saturday afternoon with awards announced following the Fifth Annual Business Meeting that evening. The awards this year include a free year's membership in MilWest (for 1992), and a certificate. This year's contest is open to any MilWest member in Good Standing except for the contest judges (who have already been selected).

Friday night will include registration and display set-up. There will be projectors available for showing slides of the former MILW and current POVA operations in the area. All members attending are encouraged to bring slides of the MILW, both on the former I&WN, and other lines in the Spokane area. Slides of other railroads in the Inland Empire area are welcome, but the MILW/POVA scenes will take precedence. Tables will be available for display, both Model Contest entries, and other items (non-entry models, photos, and related I&WN/CM&PS/CM&StP/CMStP&P/-MILW/POVA memorbilia). Member's sales of these railroads of interest items will also be permitted if the table space is available.

All MEET attendees are requested to convene at the former I&WN/MILW depot on US Hwy #2 at the south end of Washington Street, on Saturday morning, August 31, by 9:30 AM for the group photo. This will be in front of the southeast corner of the building which was the location of the former I&WN's main line. The depot has been the Pend O'Reille County Historical Museum for about the past ten years. There are some station signs stored under an open shed to the west of the depot (along the ex-I&WN's grade) from the Metaline Falls line. The museum will be open by 10 AM and includes photos and other items from both the I&WN and the CMStP&P/MILW era in the vicinity.

The rest of the morning and afternoon are "open" for those who wish to explore the former I&WN/-MILW line south into Idaho, or the current POVA line north. A map should be available showing the former I&WN's features in the immediate Newport area courtesy of member Mike Denuty.

The North Pend O'Reille Valley Lion's Club will be operating excursions on the POVA between Ione and Metaline Falls over the very scenic Box Canyon bridge both this day and Sunday. As has been noted in previous issues, the POVA (Pend O'Reille Valley Ry.) has effectively ceased all operations north of Usk. Therefore this may well be the last year for any such excursions on the north end of the line. Unfortunately, the POVA's regular operations are Monday - Friday, only, and they will probably not be running on Labor Day. However, both of their ex-NP/BN GP-9's (#101 and #102, rebuilt by CEECO in 1984) will be available for photography. One will be on the Ione excursion run, and the other should be outside the new shop at Usk.

For those desiring to see "mainline action", Sandpoint offers the best location to catch all of BN's transcontinental traffic including the trains operated over the MRL (ex-NP) main to the east. This latter includes some of the last operating semaphores on the line between Sandpoint and Thompson Falls, Montana. The UP's former Spokane International (SI) also crosses the BN main on the northeast side of Sandpoint, and they usually have a pair of units (sometimes ex-MILW GP-40's!) at the MRL interchange at Kootenai immediately adjacent to the east off Idaho highway #200. Unfortunately, the UP's connection to the CP at Eastport/Kingsgate is almost always a night operation through Sandpoint. Newport itself is also on the former GN main, which has been abandoned by the BN from just west of the former I&WN/-MILW overpass (1 mile SouthWesterly of the town) to Colbert since 1982. The - MILWEST - Fifth

Annual Business Meeting will be held at the Annex/Fire Hall starting at 7PM-PDT on Saturday evening. This year's Meeting should only last an hour as the agenda will be limited to a report on last year's Meeting, presetations by (including Treasurer's Report, Secretary's Report, General

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GM NOTES

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Manager's and Managing Editor's comments) and election of the **Board** of **Directors**, selection of next year's MEET location, and any new business items from those attending. This year's Model Contest winners will be announced following the close of the Fifth Annual Business Meeting as described earlier.

An important aspect of this year's Business Meeting will be the nomination and election of a new Treasurer. Rick Yaremko will be stepping-down from the Board having served in that capacity prior to the first organizational MEET in Spokane in late October, 1987. Any candidates nominated for this position must meet the qualifications as described under Article III, Sections 1 - 4 (inclusive) and Section 8 of the By-Laws as adopted at the Fourth Annual Business Meeting (last year). These By-Laws are listed on pages 3 & 4 of issue #2 of Volume 3 of the "DISPATCH" (April, 1990 - copies are available from the Secretary).

The main feature programs for this year's MEET include a slide show of the MILW in the Spokane area by Ted Holloway from Spokane. Bob Shanklin, Operations Manager of the POVA will also address the MEET on POVA's operations. There will also be a "multi-media" presentation on the POVA comparing its operations of 1982 (with the RS-32 under the OP&E contract), 1987 and 1990.

Accommodations in and transportation to the Newport area were described in the last issue of the "DISPATCH" - "Notes from the General Manager" section (Page 7 - Vol.4, #2 for April, 1991). Once again I invite all - <u>MILWEST</u> - members to attend this year's MEET. I also add that one item for discussion under the Fifth Annual Business Meeting will be a recommendation from the Board of Directors to continue to hold future MEETs at this time of year (Friday night/Saturday of Labor Day weekend). This seems to be preferred by a number of our members, and may be formally adopted into the By-Laws (amending Article II, Section 2). - Art Jacobsen

"DFW"

This column serves for miscellaneous news items about the former MILWAUKEE ROAD's operations. Like the symbol for "Dead Freight - West" it utilizes, the subjects found here are a "catch-all" from a variety of sources.

Decals: Tom Burg mentions that Clover House will be issuing this fall, dry transfer lettering for the WI&M 42 foot boxcars in HO scale. Contact Clover House, P.O. Box 62, Sebastopol, CA 95472, or your local railroad hobby dealer.

Fire: News reports indicate that on March 9, 1991 two young boys broke into the MILW depot in Bozeman, MT, using a cigarette lighter to explore. The depot was set on fire and extensively damaged with the south end of the roof collapsing. The building is owned by the Chicago-Milwaukee Corp., and was to be included in a railroad historic district in the area. Past attempts to buy the building hadby local people have been fruitless as a price could not be agreed upon. - Thanks to Larry Zeutschel for the

news clip.

Track Removal: Crews are removing the former ex-Milwaukee and Pacific Coast Railroad trackage through Maple Valley between Cedar Falls and Renton. Several rail trains have already removed most of what was once Milwaukee's east-west mainline. As of June 28, the end of the line was at Landsburg. BN had been using the line to access the Weyerhauser lumber mill at Snoqualamie but the final run was made in the summer of 1990. This portion of the main line from Cedar Falls to Maple Valley dates from 1908/09 (mp 2136.5 to 2154.1). The former Pacific Coast Ry. trackage from Maple Valley to Renton (MILW mp 2154.1 to 2163.5) dates from c.1897. The CM&StP Ry. of Washington secured a trackage rights agreement over this line in 1907. Removal of the Cedar Falls - Snoqualamie Falls remainder of the former Everett branch (built in 1911) was included in this abandonment (11.0 miles). Landsburg was at mp 2149 on the former main line. - Thanks to "N.W. RAIL-FAN" July 1991, Warren Wing, and Art Jacobsen.

More Track Removal: Pacific Hide & Fur Co. has removed the former main

line in Missoula between the ex-NP/BN (now MRL) Bitterroot branch and Catlin St. in early July. This included the former underpass at Russell St. (bridge #DD-78 3/4, mp 1642.1, built in 1965). The trackage included industrial spurs between the Bitterroot branch trestle (bridge #DD-78, mp 1641.6) and just east of the former Catlin St. crossing, mp 1642.3. The former underpass area for Russell St. has been filled in, and the street widened from two lanes to three. Also taken out was an old stockyards siding and tracks into the former Intermountain Lumber mill. -Thanks to MilWest member Al Burns.

Olympiangram

The title of this section derives from the former newsletter for passengers on the "Olympian (trains No. 15/16) west from Harlowton, Montana. Published in Lewistown, Montana between 1910 and 1918, it provided the latest wire-service news of the day.

Another MILW meet: The Lines West Division (not MilWest) of the Milwaukee Railroad Historical Society will hold their annual meeting in Alberton, MT on Saturday, September 21, 1991. Details should be in the next issue of their newsletter, "Lines West Lines", or contact Darrel Dewald at P.O. Box 97, Alberton, MT 59820. -Courtesy MilWest member Darrel Dewald.

Correction: The MRL business car "Silver Cloud" is #101, not #100 as reported in April. It is the former Rock Island "Philippa". The coach under repair now is ex-Pennsylvania #4011, not SCL as reported in April. - Courtesy MilWest member Al Burns.

NEW MEMBERS

We welcome the following new members who have joined MilWest for 1991.

Ernest Lehmann, Elgin IL R. S. Lohmuller, Bozeman MT B. R. Lichtenheld, Chicago IL John Rust, Seymour IN G. W. Van Gerpen, Helena MT

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Members

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Tom Savage, Bethpage, NY Gary Hildebrand, St. Joseph MO G. Allan Huff, Chamberlain SD Robert Storozuk, Elmwood Park IL Jeffrey Moreau, Orangvale CA James Wadinski Jr., Wausau WI Michael Prinzhorn, N. Riverside IL Linda Sukup, Milwaukee WI Tom Helms, Arlington Heights IL Ray Vaughn, Federal Way WA Douglas Hogsett, Spokane WA Dale Johnson, Big Lake MN Connie Hughes, Spokane WA

WAYBILLS

Wanted: Information from MilWest members regarding remaining structures, personal reminiscences of former employees of the MILW, or any other historically pertinant information to aid in the preparation of a guidebook on the MILW in Montana. This book is being prepared for the Montana Historical Society. Copies of material only please, as the budget does not allow for return of originals. Contact Steve McCarter, P.O. Box 184, East Helena, MT 59635.

Wanted: Good quality color slides of each side of the MILW bicentenial unit, #156. I will pay for slides or swap from my collection. Bill Pasewaldt, 650 Lilac Place, Othello, WA 99344.

Wanted: Any recordings or info on the electronic bells as used on MILW diesels in the mid to late 1970's. Paul Bingman, 5575 N.W. Willbridge Ave., Portland, OR 97210-3625

Wanted: Info on disposition of Alco HH-660 of Glacier Sand & Gravel Co., Steilacoom, WA. Ex-WI&M #66, previously M&STL #66, #D-939, last reported at Steilacoom in 1975 bearing no name or number. Thomas E. Burg, N. 2771 Thiel Dr., Merrill, WI 54452



The Day the Milwaukee Railroad Saved the Pacific Northwest from Disaster

By Alfred Butler

January 1, 1949 had headlines that included "More Snow Heralds 1949. Colfax starts digging and over 500 cars were ditched in the last 12-hour period in Seattle." But snow was not to be the real culprit. January 3rd had headlines reading "Date is coldest in 50 years as mercury hits 11 below zero. Newport had 21 below zero." The real headline on January 4th was "Northwest Power Shortage Critical. Complete collapse is possible here. The Pacific Northwest Power Pool approached the breaking point last night and a complete collapse could take place late today." The warning came from power company officials who pleaded for an immediate reduction in the demand for electricity. The most critical time of day was between 4:45 PM and 6:15 PM when demand was highest. The record cold was cutting down on waterflow in the rivers and was resulting in a drawdown of the water stored in the Columbia River and other areas. It was reported that the Power Pool had been operating at 3,900,000 KW, but that amount was no longer available. The maximum power available in Pacific Northwest the previous night, including 60,000 KW from Utah and Montana, was less than 3,880,000 KW. The power companies had "survived" by reducing the frequency from 60 hz to 59.5 hz.

By January 10th, the headlines were saying that the power short age had a new threat. Very cold temperatures were again reducing the river flows and increasing electricity demand. There had been breakdowns at the Nine Mile Falls power plant, and in a Utah plant due to the system overloading. Marshall Blair, supervisor of the Washington Water Power operations, explained the type of cascading effect which might happen if the systems were taxed beyond their capacity. When a generator is overloaded, it could cause a switch to throw which would isolate that unit, and cause its load to shift to other generators. These units would then in turn be overloaded and isolated with resulting power cutoff of power to sections of the Northwest. The overlaoding could easily shut down the entire Pacific Northwest power system. (This happened in the Northeast during the New York blackout of some years ago).

By January 11th, the weather had dumped 6 inches of snow on parts of Los Angeles, and 2 inches on Las Vegas. Here in the Northwest it was continued cold but people were beginning to react to the problem by cutting electrical use as much as possible. Some businesses closed early, the Spokane area aluminum production plants shifted work hours to off-peak times and curtailed some production at the reduction plant. Downtown Spokane lights were blacked out during peak hours.

By January 12th, there were increasing reports of power plants in some trouble. Small plants on line were having difficulty keeping in operation. Power companies were using every available bit of generating capacity. The average generation at Bonneville dam had dropped from 431,000 KW on the 3rd, to 365,000 KW. The frequency had been dropped from 60 hz to 59.75 hz saving an estimated 80,000 KW.

All auxillary power plants were asked to run during the peak load. Washington State University's heating plant, sawmills at Lewiston, Potlatch and St. Maries were all generating what they could. At this critical point, someone thought of asking the Milwaukee Railroad if they could help. Their power contract did have a clause which offered preferred rates if they

Saved

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could keep their peak demand down. They were asked to the extent possible, would they please not run any trains uphill during peak hours. Also, could they hold a train at St. Paul Pass to run downhill during peak hours and use regeneration. The Milwaukee was happy to co-operate and had a freight waiting for the call from the dispatcher as to when to roll the train.

One phenomonan about electric locomotives is that the colder the weather, the more efficient they become. Cool wires have less electrical resistance so the motors are more efficient. This had been illustrated very early in the Milwaukee electrification when a train with two steam locomotives was stalled east of Three Forks by the extreme cold. The railroad was not fully electrified yet but trolley wire was up beyond the steam locos so they were within reach of electrical help. It was so cold that virtually all the steam the engines could produce was being used to heat the train with not enough left to pull the train. Also, friction bearings on the equipment would become so stiff they could hardly move thereby greatly increasing the drag of the train. The railroad powered the trolley wire, sent out a single electric locomotive, coupled onto the train and pulled it into Three Forks with no difficulty.

The section of line that this freight had to travel in Idaho that cold evening, was one of the most scenic sections of railroad in the U.S. From the Pass the line dropped 1,678 feet down to Avery where the electrics were detached and steam power took the train to Othello. It is 22 miles down the grade and there are a number of curves and tunnels. In railroad terms there are 4,854 degrees of curvature in this section, the equivalent of 13.5 complete circles. Nearly this whole part of the line is in the Loop Creek drainage, so named because the railroad makes this big loop, running down one side of the valley making a 180-degree turn at the upper end of this drainage, then coming down the far side until it is almost in Avery. From some vantage points you could watch a train for just about 30 minutes. I was able to ride in the cab of

an electric in August, 1957. It was amazing to watch the cars on our train going in one direction while we were in the engine going the other direction. I mentioned to the engineer that it was almost unbelievable that we could get all the energy we needed to haul our 105 car train up the mountain from the small wires above us. I later figured out that had we tied the trolley wire to the front coupler and let the brakes off, the mechanical strength of the wire would not have held the train, yet, here it was carrying enough energy to pull the train up the mountain.

The power company had a bit more complicated job than you might imagine for the exact timimg of the peak load couldn't be determined exactly. The power systems covered both the Pacific and Mountain time zones so the peak of one zone was different from the other. It would take the train about an hour and 20 minutes to make the run at regeneration speed so an exact fit in timing was not absolutely necessary. They wanted to be sure they had the time from around 5:16 to 5:45 PM covered and this could be done easily enough on the schedule of the train on the mountain.

With the Milwaukee freight at Roland, Idaho, when the dispatcher ordered them to start down the mountain, the big freight began to generate greatly needed power. The freight added perhaps 3,500 or more KW to the power systems of the Pacific Northwest. This energy was so important to the system that one Washington Water Power executive said he thought this was the "straw" that saved the power pool from complete collapse. On that crucial day everything worked. There were no breakdowns and folks were trying to conserve electricity. With a sigh of relief the Washington Water Power Co. officials found they had passed the peak with loads being handled and no coast-wide power blackout. By mid-February, restrictions had been lifted to a point where conservation was deemed necessary only during an hour peak from 5 to 6 PM. On February 23, 1949, the ban on normal use of electricity in the Northwest was lifted. The public was priased by power officials for its fine co-operation stating that "all agencies

were appreciative of the co-operation of all the public during the period.

To the best of my knowledge, the Milwaukee Railroad has never been given public credit for their part in saving us from some problems which could have cost a number of lives. It is time that this account of managment's decisions and the operating men's careful work be made a part of the historical record. Let them take pride in their work. We, who lived through that time owe them our gratitude. - Alfred Butler

SHAKING GRAVEL By Bill Wilkerson

For years, every spring as soon as the frost was out of the ground, the Milwaukee would start their track work.

In June 1949, they put on a work train to gravel between Miles City and Melstone, 112 miles, tieing up where necessary. As I remember, they didn't bulletin the work train because the operating crews still had a 6 day bulletin, but the section men all worked 5 days a week. They would either have to pay dead days to operating crews, or overtime to section crews. The engineers went along with simply calling it off the extra board, as work trains weren't very popular. At that time, we still had to pay our own away-from-home expenses. They had to tie us up where sleeping and eating accomodations were available. In the 112 miles, Forsyth was the only place where sleeping accomodations were available. You could eat at Ingomar. There was an old hotel there that had about 6 or 8 rooms but wasn't modern so we wouldn't stay there.

I caught the job on an early Monday morning call when a couple of men ahead of me laid off on the call. I was either on the engineer's extra board or the oldest demoted engineer available. Anyhow, I caught it. I always kind of enjoyed a work train, especially one that worked up into Paragon gravel pit.

Getting into and out of Paragon Pit was a very interesting operation, especially for the engineer. An

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Gravel

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L2 would shove about 30 battleships up into the pit. An L3 could handle about 10 more, but most of the time they had two tracks that held about 35 to 40 cars, so 30 was usually a standard shove. Depending on how they were loading, one track was empty and the switch lined for it, because if you had to stop for the switch, or stalled, you couldn't start again and had to back down almost to Paragon and take another run at it.

We had the 650, an L2, for power. The first thing we did was to take 30 empty battleships to Paragon. We then ran around them in the 4 track yard so we had the battleships ahead of the engine, backed out the east switch and pushed up around the 10 degree curve on the east leg of the wye.

From here it was a little over 2 miles up into the pit, but what a 2 miles. The grade was about .5% for nearly a mile until you crossed the county road. When you saw the end battleship cross the road, swing into the 8 degree curve north, and start up a 2.5% grade (131 feet rise per mile), then you went to work on the engine keeping it wide open until you saw the battleships swing into the 10 degree horseshoe curve to the right. When you got about 10 cars onto the curve you had to ease down because the curve was flat and went around 219 degrees in 2193 feet. The end of the curve went into another 10 degree curve to the left on a 2.5% grade so about the time you got about 5 battleships into this curve, you had to go wide open again. The curve went into a 10 degree curve to the right, out over a high wooden trestle about 300 feet long, still on the curve and grade that creaked, groaned, and swayed, even under the empties, into another 8 degree curve to the left and into the pit. This last curve was on a 4% grade. My 1915 plan shows it as 490 feet with about another 100 feet of straight track up to the pit switch on the same grade. The grade in the pit varied as they dug gravel, but you had to keep the brakes set on the stored cars. At this time it was probably close to 1%. The pit was 2800 feet long and 650 feet wide on a rolling bench out toward the Yellowstone

River. It was leased from Fort Keogh, and they had been digging gravel since 1912 and were only down about 30 feet. There was enough gravel in that hill to last the Milwaukee a thousand years, and it was good pit run gravel. They finally quit the pit in the early 1960's rather than rebuild the wooden trestle.

The lease had included 10 cars of gravel a year for the fort's roads and even after the Milwaukee quit the rail line up there, they had a local contractor haul gravel out by truck to the fort for a couple of years.

Getting out of the pit was equally interesting. You would turn your feed valve up to 90 pounds on the train line. The No. 6 ET brake valve had a full release that put main reservoir air into the train line. When you started out of the pit, you would shove the brake handle over into full release for about a minute and then come back to running position. This would cause some of the brakes to drag and help the engine hold them back. Just as soon as you had the engine and about 5 cars over the switch and felt them hit you, you made a full 20 pound reduction. Timing was critical here. If you set the air too soon you stalled in the pit. If you waited a couple of cars to long your speed built up and you had to hold them into the horseshoe curve and would stall before you could get them released. About time your engine and 5 cars tipped over onto the 2.5% grade off the horseshoe curve and they hit you again you went back for another 15 or 20 pounds. By over-charging, you still had a full 70 pounds of air to get stopped with at Paragon because you didn't have time to recharge your train line coming around the curve. A 4% grade is a drop of 211 feet per mile. You dropped them down about 300 feet in a little over 2 miles and all the brake shoes would be smoking by the time you got down. You never let them get up over 10 MPH. It was a tricky operation and you had to make sure you could stop at Paragon because there was a derail against you to protect the main line. Split rail derails always work, and this one had been used a lot of times. We were using the longer 340 and 370 series battleships for gravel. It was actually easier to bring 30 cars out of the pit than 10, because the longer the train would

both help push you around the big curve and hold you back when you started down the 2.5% grade.

The first two days we worked between Paragon and Melstone tying up at Melstone. On Thursday we were supposed to throw a curve over east of Ahles about MP 1189. It was in a cut and was a restricted speed curve, especially for the Olympian Hiawathas. They had a cat and scraper taking out the east side of the cut so they could move the curve over 20 to 30 feet. This brought it down to a 1 degree curve.

The problem was that there was about a half-mile of track to be broken and pulled over by the cat, and then ballasted. This had to be done from about 9 AM after #15 passed, until around 3:30 PM in time to clear #16. We tied up at Vanadana the night before because there was coal and water there and they drove us to Miles City. We went to work at Vanadana about 7 AM Thursday. I had backed the 650 up from Paragon the night before with 30 battleships of gravel so the engine would be facing east the next day to shake gravel downgrade. It was a .5% grade at the curve, which is a drop of 26 foot per mile. We picked up our gravel off the house track, took them over to Ahles and got in the clear. After #15 passed we took 10 battleships out the west end, then east to the start of the curve. It had rained all night and was still raining off and on, but not too hard. Earl Niesel was the Road-Master in charge. He liked to shake downgrade and work from the engine out so the loads on the end would help shake the cars.

The section men were using the D8 cat to pull the track over and get it placed on the new roadbed, so we sat there for a couple of hours. It was gusting wind and rain from my side, and I was glad to keep the window closed. Finally, we were ready to start shaking. They would chain a long switch tie ahead of the rear truck on the car being dumped to level the gravel to rail height as we moved forward. Niesel decided that because all this was skeleton track, he had better unload from the end back to the engine so that most of the cars would have gravel under them.

Gravel

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Wet gravel doesn't shake very well and he was giving me some pretty violent shake signs. The section men were having to beat on the sides of the battleships with sledge hammers. The track still wasn't passable, time was slipping away pretty fast, and things weren't going well at all. By about 1 PM we had only emptied about 5 cars. It was raining harder. Earl was getting nervous, and he was wet and cold. When the cars wouldn't empty, he finally decided that I was to blame for not shaking them hard enough. I had been using the throttle and engine brake, and from the rattle and bang I knew that the slack was running back and forth all right. Earl got up in the cab and in no uncertain terms informed me that when he gave me a shake sihn, to shake the sons of *&%\$#, that I couldn't hurt my engine or the cars, and that we didn't have all night to get that gravel spread.

When he got to the ground, feeling much better for having chewed me out, he gave me one of the wildest shake signs I have ever seen. He meant business, and so did I. I opened the throttle about halfway, shoved the reverser forward, and the engine lunged into the cars. I pulled the reverser back, the engine lunged back and I had battleships dancing the jig for him. Gravel was really coming out to his satisfaction. We unloaded the rest of the cars in good shape and went back to Ahles to get another 10. When we were ready to start unloading the second 10 he gave me a wild shake sign, only this time he had a big grin on his face. He had educated that hoghead! I started my same shaking method. The engine lunged forward, I hauled back on the reverser, she jumped back, and the air went into emergency.

I figured we had broken a knuckle on the engine or car, and got down to see what was wrong. The bolts holding the pilot to the frame had all broken and the pilot was on the ground. I told Earl that he had told me I couldn't hurt the engine. He wanted to blow up, but he just looked at me and told me that at least he had taught me how to shake gravel.

Our immediate problem was how to clear the main line for #16 due in about an hour. They rolled the pilot off the track, and we got the big chain off the tender. We chained around the pony truck frame and up to the frame on the car. The dozer operator went to the east end and put his blade against the drawbar to hold them. The train crew bled the air off 10 battleships and I started to ease back and pull them. The dozer operator was pushing on the east end. Naturally, most of the gravel wanted to run out of this car. There was no way to close the doors, so they put the tie ahead of the other truck to spread the gravel as we inched back until the car was finally empty.

The flagman had #16 stopped at the east switch at Ahles when we finally got there. We got into the passing track all right and let #16 go, about an hour late. There was about 1000 feet of skeleton track left, but they could get over it at 5 MPH.

I backed up to get the 20 battleships on the west end, and pushed out onto the main. We then came down and backed in to get the 10 that were on the east end. Ahles was a long, well-used passing track and we couldn't leave it blocked. We set the loads out on the house track at Vanadana, took the 10 empties to Paragon, and set them out. We then took the 650 to Miles City for repairs. The section men used the dozer to load the pilot on their truck and brought it to Miles City. When I tied up at Miles City, I was automatically off the job. The next day being Friday, another engineer was called with another L2, and they finished graveling the curve.

After that, Niesel claimed that I was the roughest engineer on the railroad. He liked to tell stories about dumb engine and train men. I'm sure that each time he told it, it got better in his favor. He never stopped kidding me about it as long as he worked, and I used to remember it and laugh when I went around the curve over the years. - Bill Wilkerson

The MILWAUKEE ROAD

By Art Jacobsen

History & Operations South of Tacoma, Washington -Part II

Part I appeared in the April 1991 Dispatch

CM&StP/CMStP&P/MILW Operations South of Tacoma, c.1912-1980:

The following lists the steam power that became part of the CM& StP's roster when it absorbed both the TE and the PS&WH:

Tacoma Eastern RR. (1890 - 1918)

Tacoma Eastern - Builder's Information

Type	No.	Acquired	Bldr	Number	Date	Frmr Owner
2-6-0	1	c.1900	Baldwin	5034	03-1880	UP(#1373)
4-6-0	3	04-1901	Cooke	2252	04-1901	PRR(?)
4-4-0	4	08-1901	Baldwin *	?	c.1882	?
2-8-0	5	10-1901	Pittsburgh	?	c.1885	PRR(?)
2-8-0	6	08-1903	Altoona	?	c.1880	PRR
4-6-0	7	08-1902	Logansport	?	c.1888	PRR
2-8-0	8	01-1903	Altoona	?	c.1880	PRR
2-8-0	9	08-1903	Altoona	?	c.1880	PRR
4-6-0	10	03-1904	Baldwin	23682		(bought new)
4-6-0	11	03-1904	Baldwin	23673		("")
4-6-0	12 *	12-1905	Baldwin	26638		("")
2-8-0	14	07-1906	Baldwin	29330		(bought new)
4-6-0	15	07-1906	Baldwin	28486		("")

*(no information currently available on TE loco's #2 and #13)

The following lists the disposition of these locos:

TE CM&StP (after Dec. 31, 1918)

No.	Number	Class	Disposition
1	(not inclu	ded - sold	to Valley & Siletz c.1913 as their #10)
3	2333	G-6h	retired May, 1930 (scrapped)
4	(not inclu	ded - retin	red and scrapped prior to c.1918)
5	7561	C-9a	retired January, 1921 (sold)
6	(not inclu	ded - retin	red and sold prior to c.1918)
7	2006	G-2b	retired October, 1926 (scrapped)
8	(not inclu	ded - retin	red and sold prior to c.1918)
9	(not inclu	ded - retin	red and sold prior to c.1918)
	11.2510		(Continued on page 8

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10	2334	G-6k	retired November, 1926 (sold)
11	2007	G-2c	retired March, 1931 (scrapped)
12	2335	G-6k	retired November, 1932 (scrapped)
14	7565	C-9e	retired February, 1935 (scrapped)
15	2336	G-6k	retired December, 1932 (scrapped)

All "second-hand" locos purchased by the TE were coal-fired, the Baldwins may have been oil-fired when bought new. All were oil-fired after the TE was absorbed into the CM&StP.

Pacific & Eastern Ry. (1906 - 1913)

P&E CM&StP <u>Type No. Builder - No. - Date Number Class Disposition</u> 2-6-2 102 Baldwin 34918 07-1910 5100 K-1a (sold 12-1927: Cascade Timber Co./Pacific States Lumber @ Selleck, Washington purchased new for P&E)

Puget Sound & Willapa Harbor Ry. (1913 - 1918)

PS&WH

Type	No.	Transferre	d fr	om CM8	StP Builder	- No	Date
4-6-0	3	06-1914	to	11-1920	Rhode Island	2039	09-1888
4-6-0	4	07-1914	to	11-1920	Grant	?	c.1888
4-6-0	2123	03-1917	to	12-1920	Rhode Island	1763	03-1887
PS&V	VH			СМ	&StP Number d	lata:	
Numb	er C	riginal#	re#	1899 re	# 1912 Class	Dispos	sition

Number	Original#	re# 1899	re# 19	12 Class	Disposition
3	782	157	2165	G-4e	ret.11-1927 (scrap)
4	747	122	2130	G-4e	ret.11-1927 (scrap)
2123	720	115	2123	G-4e	ret.08-1933 (scrap)

All P&E and PS&WH locomotives were originally coal-fired; all were converted to oil by the CM&PS/CM&StP between 1914 and 1920.

The TE initially offered a daily round-trip mixed service between Tacoma and Bismarck (1890 - 1900). When John Bagley acquired the TE this was converted to a regular passenger operation after the line reached Kapowsin in 1901. This train operated as $\underline{\#1}$ south-bound, and $\underline{\#2}$ northbound and remained unchanged when the CM&PS began leasing the TE in 1909. The P&E may also have operated a mixed connection between Willapa Landing and P & E Jct. before the PS&WH arrived on the scene in 1915.

The CM&PS passenger timetable for January 31, 1916 lists the following daily trains for lines south of Tacoma:

Grays Harbor line #115 (w/b) Seattle - Tacoma -Maytown - Monte-sano - Aberdeen - Hoquiam (dep. Seattle 7:20A, ar. Hoquiam 1:00P) #118 (e/b - dep. Hoquiam 1:45P, ar. Seattle 7:25P) Total one-way distance (including 1.3 mi. spur to Montesano) = 144.2 miles.

Puget Sound & Willapa Harbor $\underline{\#1}$ (w/b) Maytown -Raymond, connec-ted w/CM&PS $\underline{\#115}$ - dep. Maytown 10:15A, ar. Raymond 1:00P) PS&WH $\underline{\#2}$ (e/b - dep. Raymond 1:30P, ar. Maytown 4:15P to connect w/CM& PS $\underline{\#118}$) Total one-way distance = 66 miles. A Grays Harbor - Chehalis service was also provided on PS&WH <u>#3</u> (connected w/CM&PS <u>#118</u> - dep. Maytown 4:30P, ar. Chehalis 5:20P) and <u>#4</u> (dep. Chehalis 9:15A, ar. Maytown to connect w/CM&PS <u>#115</u> 9:55A) Total one-way distance = 17.9 miles.

> Tacoma Eastern $\underline{\#1}$ (s/b) Tacoma - Ashford - Morton (conn. w/CM&PS $\underline{\#115}$ - dep. Tacoma 8:50A, ar. Ashford 11:27A, ar. Morton 12:50P) TE $\underline{\#2}$ (n/b - dep. Morton 1:50P, dep. Ashford 3:10P, ar. Tacoma 5:45P to connect w/CM&PS $\underline{\#118}$ to Seattle) Total one-way distance (including 4.5 mi. Ashford branch) = 71.8 miles.

The TE was the closest railroad to Mt. Rainier National Park, and the CM&PS/CM&StP advertised that fact throughout their passenger timetables and assorted promotional materials. After the CM&StP took full control of the former TE at the end of 1918, their former trains $\underline{\#1}$ and $\underline{\#2}$ were identified as the "National Park Limiteds". The trains retained their original TE numbers, and the equipment remained the same 1890'svintage cars. They had the rare privilege of being powered by the CM&StP's first "Pacific", class F-1 #6000 (r/n in 1912 from the ex-#1500 of 1905, ex-#850 of the previous year, ex-#191 of 1899, originally the #796 built by Schenectady as their #2855 in April, 1889!). This one-of-a-kind loco featured "Dslide" valves, high steam/sand domes, wooden cab, and a "stovepipe" stack and must have provided a real experience charging up Tacoma Hill! It was rebuilt to a 4-6-0, G-4g class #2185 in January, 1926 (retaining its original 68" drivers) and retired nearly five years later in December, 1930.

Passenger service was discontinued on all these lines south of Tacoma shortly after the USRA control of the CM&StP ended in 1920. However, service to Ashford was continued on a seasonal basis from Seattle until at least the CM&StP's bankruptcy of 1925. The former TE's regular passenger service on this line usually consisted of a "ten-wheeler" with two or three all-wood truss-rod cars which were at least as ancient as (if not somewhat older than) the loco! There were two chartered passenger trains run with similar consists in mid-1941, the first was a "CCC-extra" to the Alder dam construction camp. The second was a "NorthWest Railroad & Historical Society Special" fantrip.

Between 1915 and 1926 the former P&E line between Sutico and Willapa was relaid with 85# rail as the original trackage was built as a logging railroad. Some of the original rail (which was also used on the PS&WH extension to Raymond) was only 45#! This line had short segments of 2.5% grade and two 12-degree curves on the west slope of the Coast Range between MacPhail and Sutico. Combined with the 2% grade between Coal Canyon and Divide, and the 2.5% Alder - La Grande, and Fredrickson - Thrift segments on the former TE these were the steepest grades south of the (in)famous "Tacoma Hill". The two-mile "Hill" has fourteen curves; half at 10 degrees or tighter with the sharpest being 14 degrees from the switch immediately east of the former TE depot site! The average grade on the "Hill" is about 2.98%, the steepest section = 3.75%, and no portion is less than 1.93%!



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With those tight curves and steep grades, its easy to understand why the CM&StP/CMStP&P needed to "double" or sometimes "triple" freights with the light 4-6-0 and 2-8-0 locos from the TE and PS& WH lines. The regular use of <u>N-1/2/3</u> class 2-6-6-2 "Mallets" on these lines preceded the formal completion of the Othello - Tacoma electrified operations in March, 1920. The "Mallets" produced more tractive effort than the smaller <u>L</u>-class 2-8-2's which had an additional six and a half ft. of rigid wheelbase. Although the 2-6-6-2's weighed about 55 tons more than the <u>L-2</u> "Mikes", their articulation and smaller drivers handled tight curves without wearing the rail as severely. The <u>N-class</u> "Mallets" remained on freights south of Tacoma along with the oil-fired 2-8-0's (and larger/rebuilt 4-6-0's) until replaced by EMD cab units in 1953.

Despite its non-main-line status (at least until service to Portland began in early 1971) the "Hill" was the home to some of The MILWAUKEE ROAD's (MILW) largest steam and diesel power. The NP's original main line between Tacoma Union Station and Ft. Lewis had similar grades, but rarely saw engines larger than their <u>W-class</u> Mikados. However, it was known to carry GN's <u>P-class</u> 4-8-2's, or even the occaisional NP <u>A-class</u> 4-8-4. At one time or another, the former TE main up the "Hill" had trains helped by nearly every type of non-electric motive power that was assigned to Tacoma. This included the <u>I-class</u> 0-6-0 switchers, diesel switch engines, sets of diesels with "slugs", and modern "road" power like SD40-2's and U-36c's.

After trackage rights between Chehalis Jct. and Longview were acquired in November, 1931 the movements of helpers and trains on the "Hill" required extending the ABS 3.3 miles from the TE depot (where it had been installed in 1913) to Hillsdale. The two-color lights (using heads identical to the 3-color types found on the electrified main line since 1916) remained in service until the 1980 abandonment. Pairs of dragging-equipment "flashing-light" detectors were added to the "Hill" in 1975/76.

- Agencies & Trackage -

Originally the TE maintained agencies at every station between Tacoma and La Grande, and later to Mineral. Some of these had been closed (or would be in a short time) when the line was leased to the CM&PS (1909). The Salsich Jct. - McKenna line included a train-order office at the former, with agencies at Loveland and Greendale. The latter two were closed with the discontinuance of passenger service by c.1920. The track at Salsich Jct. was realigned and the station renamed Fredrickson at about the same time. The P&E had agencies at Willapa (probably jointly w/NP), Firdale, and P&E Jct. These were initially included with the PS&WH's acquisition in 1913.

Prior to the outright absorption of these lines by the CM&StP at the end of 1918 the following were agency-operated stations:

PS&WH	CM&PS	
Maytown (w/CM&PS)	Tacoma Jct.**	
Centralia	Tacoma (w/TE)	
Chehalis	McKenna (")	
Dryad	Rainier	
Doty	Offut	
P&E Jct.	Maytown (w/PS&WH)	
Firdale	Rochester	
Willapa	Helsing Jct.+	
Raymond	Independence+	
	Cedarville+	
	Rony+	
	South Montesano+	
	Montesano+	
Melbourne+		
	Aberdeen+	
	Hoquiam	
**(1	train-order office, only)	
+(j	oint O-WRR&N agency)	
	PS&WH Maytown (w/CM&PS) Centralia Chehalis Dryad Doty P&E Jct. Firdale Willapa Raymond Mel **((+(j	

Two decades after the CM&StP Ry.'s takeover, these agencies were still in operation:

Tacoma, Fredrickson, Maytown, Rochester, South Montesano+, Hoquiam, Centralia, Chehalis, Raymond, Eatonville, Ashford, Mineral, and Morton +(joint O-WRRN agency). Also a joint agency had been established at Longview w/the O-WRRN/GN/NP in 1931. A new train-order office was opened at Chehalis Jct. by 1935. Following the end of WWII the agency at Maytown was relocated to the connection with Weyerhauser's logging railroad at Western Jct. A train-order office was established at Eatonville Jct., and the agency at Elbe was reopened.

By the end of the 1960's, only Tacoma Jct., Western Jct., Chehalis, Chehalis Jct., Raymond, Longview+, Aberdeen+, Hoquiam+(joint agencies+), and Morton remained in service. Tacoma Jct. closed and was replaced by a joint MILW-UP CTC installation early in 1977. This was located in the former's Freight House on East D Street in Tacoma. The Chehalis Jct. office was closed by 1971, but a new agency had been established in Portland in March that year. No other changes to MILWAUKEE ROAD agencies occurred prior to the March, 1980 "embargo" of all lines west of Miles City.

Parts of the former TE and PS&WH lines were abandoned or sold prior to the arrival of diesels. The first line to be removed was the Tanwax Jct. spur to a reload site called "Western Jct." (not to be confused with the present site of Western Jct. 6.5 miles southwest of Rainier on the Fredrickson - Maytown line) which was abandoned in March, 1928. The 3-mile Mineral - Ladd coal spur was sold to a scrapper in July, 1934. Running rights over the NP were established in 1935 between Chehalis Jct. and Dryad Jct. on 16.9 miles of their South Bend branch. The former PS&WH line west from Chehalis to Ruth was sold to Weyerhauser, which operated it as the Chehalis Western Ry. (CWR), the remainder was abandoned. The former TE's 2-mile Kapowsin - Electron branch was abandoned on June 30, 1937. These abandon

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-ments and the running rights agreement were related to Depression-era economizing and the CMStP&P's bankruptcy of 1935. Another result was the termination of the Raymond -South Bend barge operation.

Although no other outright abandonments of trackage occurred before c.1967, there was one major relocation on the former TE main between Eatonville and Elbe. This occurred in 1941 - 1943 when the Tacoma Water Board built Alder Dam on the Nisqually River about 3 miles upstream from La Grande. The new alignment begins at Eatonville Jct. (about a mile north of Eatonville) and swings across the Big Mashel River on a 13-span pile trestle with an 85' deck girder (bridge #GG-44 3/4, MP. 33.1). It then climbs a 1.5% average grade up the Little Mashel River and Midway Creek valleys to a summit at MP. 40 (just south of New Reliance), and descends a 1% grade to the original TE main on the northwest side of Elbe.

This change shortened the Elbe - Kapowsin segment of the old TE by 2.7 miles, and also eliminated the 2.5% Alder Hill grade. The Eatonville - Alder Dam portion was left in-place for hauling construction materials until the dam was completed, the Alder - Elbe track was removed in 1941. The "fantrip" to Ashford and Morton on June 8, 1941 had the distinction of being nearly the last train over the entire original TE La Grande - Elbe alignment (s/b). Its n/b return trip was the first "passenger movement" of any kind over the New Reliance line (regular/"seasonal" passenger service had ceased on the former TE over fifteen years before).

Besides minor spur abandonments, and the change to operating over the NP between Chehalis and Dryad Jct., there was one other addition to the CMStP&P south of Tacoma in the 1930's. This did not involve any new construction, but rather the addition of 42.4 miles of trackage rights over a jointly owned O-WRR&N/GN/NP line. This came about in November, 1931 when the CMStP&P acquired a 25% interest in the Longview, Portland & Northern Ry. (LP&N). This involved running about nineteen miles over the joint O-WRR&N/GN/ NP double-track main from Chehalis Jct. to Vader Jct. The next 22.9 miles was over the original (1871!) NP alignment to Longview (which had been sold to the LP&N).

Just over two years later, in December, 1933, heavy rains caused major flooding along the Cowlitz River valley. Most of the LP&N trackage was wiped-out, including the former original NP line. On January 1, 1935 the CMStP&P was granted trackage rights over 22.9 miles of the (rebuilt) O-WRR&N/GN/NP double-track main from Vader Jct. to Longview Jct. This also included operating 3.2 miles of LP&N trackage into Longview itself. This came about partly because the CMStP&P allowed the NP trackage rights between St. Regis and Haugan, Montana for the latter's Wallace branch (which had been on a separate grade, and was also washed-out in 1933). Initially the NP denied the CMStP&P rights to the Vader Jct. - Longview Jct. main and insisted that the latter (as well as the O-WRR&N and GN) rebuild the LP&N's entire (ex-NP) line!

Despite the use of the city in its name, however, the LP&N did not in fact have any direct connection to Portland. Another four decades would pass before The MILWAUKEE ROAD would be able to acquire direct access to the City of Roses. Following the initial LP&N trackage-rights agreement, the CMStP&P had another (if somewhat limited) opportunity for entry into Portland. This involved the acquisition of about 3 miles of a the McCormick Lumber Co.'s railroad terminal trackage at St. Helens, Oregon. This was on the former NP main between Portland and Goble which had been conveyed to the SP&S in 1909. The MILWAUKEE engaged in negotiations with the SP to jointly acquire this operation and use its left-bank Columbia River wharfage as a transfer point for carfloats/barges. These would be operated by the MILW upstream from Longview and downstream from Portland by the SP. However, the SP&S interdicted this scheme by buying the railroad outright in late 1931! Access to Portland finally came after the BN merger when 41.5 miles of operating rights on the BN-UP main from Longview Jct. to Hoyt St. yard was granted on March 22, 1971. The terminal was moved 4 miles south to SP's Brooklyn Yard after the UP allowed the MILW over the Steel Bridge the following year.

The 2.0 miles of the TE's Mt. Rainier National Park branch between National and Ashford was "embargoed" c.1967. The 1 mile remainder of the original TE main between Eatonville Jct. and Eatonville was closed about five years later. These spurs had been in-place for some time after service on them had ceased. The remainder of the PS&WH/P&E line from Dryad Jct. to Raymond was abandoned in late 1972, and MILW operated over the former NP's South Bend branch. This left only the 17.8 miles of the original Willapa Harbor line intact between Maytown and Chehalis. The last abandonment prior to March, 1980 was the 11.3 mile Maytown - Helsing Jct. portion of the former CM&PS Grays Harbor line in the Spring of 1979. MILW trains operated over the UP from Blakeslee Jct. (1.3 miles northerly of Centralia) to Aberdeen until the "embargo" of all lines west of Miles City.

The Grays Harbor line included (for a time) the CM&StP's only drawbridges in former "Lines West" territory. These were the O-WRR&N's crossing over the Chehalis River between South Aberdeen and Aberdeen (MP. 89.8), and the NP's bridge over the Hoquiam River (MP. 93.2) into the port of the same name. A third draw span (crossing the Cowlitz River) was added when the LP&N trackage rights were granted between Longview Jct. and Longview. Two more drawbridges were added later when GN's main was used into Everett, and running rights to Bellingham were established. The Portland operations on the BN-UP originally had two such bridges over the Columbia, and one over the Willamette Rivers. A fourth draw crossing the latter came after the UP granted running rights over the Steel Bridge and MILW's Portland terminal was relocated to Brooklyn Yard. All of these were on trackage-rights lines, and none were built or maintained by the CM&StP/CMStP&P/MILW.

The only part of these lines to see any electrified operations was the 2.0-mile section from Tacoma Jct. to the former TE depot. This trackage was electrified about ten years after its

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construction in 1909. Built to connect the TE with the CM&PS this track included three rather substantial bridges. One of these (#FF-276-B) is a 2-span steel through-truss with four deck girders and 60-sp. pile trestle approach on a 1.0% grade (westbound). These cross the Puyallup River, and the joint O-WRR&N/NP (now UP/BN) double-track main. The second is a 21-span timber trestle and 5-span deck-girder (#FF-276-C) over Portland Avenue, and the third (#FF-282) is a 92-span timber trestle on a 4-degree reverse-curve near its center! This latter includes a 56' deck-girder span over the former NP connection to the original TE alignment of 1890, and compound grades of 0.8% and 1.06% westbound!

The TE's two-story wood frame and gable-roof depot/headquarters at "A" and 25th Streets in Tacoma (CMStP-&P mp. 2194.0) had been remodeled by the MILW over the years. In late April of 1954 a new brick station was opened south of the E. 11th St. viaduct (in the N.W. end of Tideflats Yard). The old TE depot was demolished (and catenary over the tracks removed) by the following year. A small coach yard on the north side of the main (between bridges #FF-276-C and #FF-282) was also removed except for the passing siding. The MILW's Tacoma offices were relocated to the Freight House on East "D" street. This building is now known as "Freight House Square" and is currently occupied by a variety of small shops and a restaurant. Other than this and the tracks/bridges previously listed, very little of the MILW remains in the Tacoma area. The Tacoma Jct. substation (#28) had the dubious distinction of being the first such to be demolished (in late 1974). Almost nothing remains of the Tacoma Jct. train-order office and the railroad's once major terminal at Tideflats Yard. About all that's left of the latter is an empty field of weeds, a few poles that once supported the span wires for the trolley, the rubble of a few building foundations, and the platforms of the "new" depot.

- Operations -

The CMStP&P/MILW operations south of Tacoma during the four decades prior to the 1980 abandonment changed little outside of the conversion of motive power from steam to diesel by 1953. Trains #561/562 (renumbered to #862/865 after WWII) operated the Grays Harbor line Mon-Sat. This area holds Washington's largest port outside of Puget Sound, in 1928 the city of Aberdeen alone had 71 sawmills, shingle plants, pulp mills, and related forest-products industries! The leading wood-product industry in southwestern Washington is the Weyerhauser Corporation, originally the Weyerhauser Timber Co. incorporated in 1899. Weyerhauser had a long association with NP, and in fact a large part of their Washington timber lands were purchased on the NP's land grants of 1864/1869.

It was hardly a coincidence when the NP first built branches to Grays Harbor and Willapa Bay that Weyerhauser had located huge mill sites at each port! When the CM&PS and PS&WH reached these two coastal inlets, they immediately offered Weyerhauser lower "long-haul" rates to Chicago than what the timber giant had over the NP. By acquiring the former P&E line, the PS&WH was also in a position to deliver logs from the Coast Range - as was the CM& PS's leasing of the TE. Although the NP had provided Weyerhauser a base of operations in southwestern Washington, the latter did not feel compelled to exclude the obviously attractive services offered by this new (if later) railroad!

This began the seventy year affiliation of Weyerhauser and The MILWAUKEE ROAD, and in 1975 led to the joint Weyerhauser & MILW train operations - known locally as the "WAM" trains. These operations included unit log trains originating at Mineral, Morton, National, Skookumchuck/Western Jct., and Chehalis. Loaded WAM trains would be bound for Tacoma, Western Jct./Skookumchuck, or Cosmopolis on the Hoquiam branch. Bringing 50+ loaded "skeleton" log flats over the TE's rolling profile and then down Tacoma Hill was always a real experience in train air handling! Shorter runs on the former PS&WH to Raymond were part of the regular CMSt P&P M-F #963 train (originating in Chehalis, returning as #964).

Besides hauling logs in (and empties out) on "WAM" trains, there were regular freight runs south of Tacoma as well. The Longview job (#863/864) originally worked M-F, and was expanded to Portland in 1971; this became the #903/904 after the Fall of 1974. A second train (#900/901) was also added and often ran on weekends as well as Mon.-Fri. The Willapa Harbor line had no regular train assigned after c.1955, but often ran "extra" twice to three times/week from Chehalis. The Grays Harbor #862/865 trains were abolished c.1960, and cars to/from this port district were moved either on an extra from Tacoma, Chehalis, or on the Chehalis WAM train after c.1976.

The "Morton job" on the old TE was originally the #791/792, and became the #965/966 after the September, 1974 general train renumberings. This originally worked Mon.- Fri. as well, but later was reduced to two or three-times/week. Traffic steadily declined due partly to improvements to I-5, and a reduction in wood products markets. Yet the lines south of Tacoma, even with 15MPH speed restrictions for most diesels, managed to provide carloadings on a daily basis. The majority of these were on the Tacoma - Chehalis - Portland movements, followed by the Morton trains.

However, the heaviest trains on the former TE had to be the "rock trains" of 1975-76. These ran loaded ore cars (from "Lines East" and modified with side extensions for taconite service) from a gravel pit at Beaver Creek (about 2 miles east of Maytown) to a new yard facility being constructed at Fife. The trains ran in 30-car sets, and were almost lost in the brake shoe smoke when they descended Tacoma Hill! Other rather unique car movements were destined to heavy construction and powder suppliers at Fredrickson and Beaver Creek. Until the end of operations in Feb., 1980, **The MILWAUKEE ROAD** still worked cars at Raymond, Aberdeen, and elsewhere on their former TE/PS&WH/CM&PS lines.

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- Motive Power -(non-steam)

Electric power on the Tacoma Jct. - TE depot segment

consisted of the class <u>EP-2</u> "Bi-Polars" from their delivery in 1918/1919 until the new Tacoma depot was opened in June, 1954. Switching of passenger cars and express was handled by the Tacoma yard (steam) switch engines, which were oilburning class <u>I-5a</u> 0-6-0's built for the CM&PS in 1910 - 1912. Although the class <u>EP-3</u> Westinghouse "Quills" made very brief appearances between 1920 and c. 1950, no other electric "motors" were normally used on this segment. The stream-lined class <u>EP-1</u> boxcabs and rebuilt <u>EP-2</u>'s all operated from the "new" Tacoma depot.

Following dieselization in the early 1950's, the first road units on these lines were EMD cabs. These included the original FT and the four F-5 ABBA sets (one of which appeared on a n/b log train with Mt. Rainier in the background in a famous publicity photo on the Big Mashel River bridge), and F-7 ABA sets. Replaced by the GP-9's and SD-7/9's by 1956, these "first-generation" EMD hood units would remain the dominant power south of Tacoma for the next decade. "Exotic" power that came into this area were the Fairbanks-Morse "Erie-built" passenger diesels in 1947 - 1949. These appeared on trains #15/#16 - the "Olympian Hiawathas" at the former TE station in Tacoma. Tideflats Yard did (briefly) use ALCO S-2 switchers immediately after their delivery during WW II. These were also used as Tacoma Hill helpers along with EMD SW-1's and NW-2's (the NW-2's remained into the late 1970's).

After the first GE road diesels were "bumped" off the main line through-trains by GP-40's in early 1966 they began to appear on the lines south of Tacoma. These were followed by nearly all the samplings of GE power the **MILW** bought between then and 1972. The ubiquitous SD40-2's made regular trips on the Portland trains starting in 1973. Earlier "second-generation" EMD power was represented by the GP-35's. The largest diesels used on Tacoma Hill remained the three U-36c types and their earlier cousins, the three U-33c's. The smallest of the "U-boats", the four U-23b's that were acquired in mid-1973, however, were not usually found on the lines south of Tacoma.

The more unusual types of power found on the old TE, PS&WH and CM&PS lines were the MILW's own "homemade" varieties. These included both the rebuilt SD-7/9's of 1974 - 1975 known as the "SD-10's", and the four "slugs" for the F-units and GE's. A "slug" was built from a locomotive that had everything inside removed except for traction motors and blowers (and had extra ballast added). It was designed for traction at low speed with power supplied by a regular diesel locomotive at each end. Two sets (#SG-1 and #SG-2) were used with one U-30b at each end, and the others (#SE-1 and #SE-2) were paired with F-7A cab units.

The first of these was the #SG-1 delivered from the Milwau-

kee (Wisc.) shops in December, 1970. The #SG-1 began life as a "late -model" RS-3 #2479 (ALCO #80651, delivered Dec. 6, 1953), it was renumbered to #454 in 1959 and again to #463 (3rd) three years later. It was one of sixteen RS-3's which had its AAR type-B trucks mounted under the GP-30's in 1962 in exchange for "Blunt" switcher trucks from ALCO S-2 trade-ins. This was a "Lines East" maneuver that produced a "downrated" (1600hp to 1250hp) RS-3 capable of working very-light-rail/"deferred-maintenance" Midwestern branch and industry trackage. Yet when it appeared at Tideflats Yard, the #SG-1 was riding on AAR type-B's identical to those it had "lost" to a GP-30 eight years before!

The second "slug" at Tacoma appeared just two years later in the form of ex-F-7B #SE-1 (formerly #119-B, EMD #18214, delivered on April 4, 1953). This came from the Milwaukee (Wisc.) shops in February, 1972 and returned cab units back to the Coast Division in the form of #47-A (F-7A ex#48-C, EMD #10348, delivered on Dec. 29, 1950) and #47-C (F-7A, ex#116-C, EMD #15216, delivered on November 21, 1951). The first **MILW** #47-A/-C were FT A/B units, traded-in for GP-9's in 1959, and by April, 1974 the #47-A/C (2nd) had been renumbered to #81-A/-C (2nd - another "ghost" from the former Coast Division's diesel past as the <u>first</u> #81-A/C were part of the four F-5 ABBA sets of mid-1949!).

By mid-1974 the other two "slugs" were working Tacoma Hill and elsewhere on the west end of the Coast Division. The #SE-2 (ex- F-7B #110-B, EMD #11807, delivered on January 6, 1951) and F-7A's #82-A/-C (ex#77-C, EMD #8396, delivered January 8, 1950/ex#114-C, EMD #15212, delivered on November 18, 1951) arrived in June. The last "slug", #SG-2 (ex-F-7B #115-B, EMD #15223, delivered Nov. 6, 1951) was at Tideflats Yard by July. All four "slug sets" would be mixed and matched between their respective power units over the next six years. These units would operate north to Bellingham as well as the lines south of Tacoma. The F-unit sets were found in Raymond and Hoquiam, and even ran all the way to Portland on occasion. The GE sets usually stayed on the "WAM" trains over the former TE lines, the Cosmopolis run, and to/from Western Jct. The "slugs" wound-up among the last power to leave Tacoma in early March, 1980.

The MILWAUKEE ROAD's largest GE diesel had the dubious distinction of leading the last train from Tideflats yard on March 15, 1980. When the 5802/5052/5511/5507 (U-36c/U-25b/two U-28b's) rolled eastwards by the boarded-up Tacoma Jct. train-order office - nearly three-quarters of a century of CM&PS/CM&StP/CMStP&P/MILW operations in the area had come to an end.

Unlike most of the rest of the former MILW "Lines West", much of the post-"embargo" trackage on both sides of Tacoma (with the exception of Tideflats Yard) remains. The halfinterest in the former CM&PS Tacoma Jct. - Black River Jct. main was sold to the UP. The line was upgraded to their standards by replacing virtually everything from track and signals down to the switchstands and mileposts! The stillborn Fife Yard complex that MILW intended to replace the "stub" Tideflats facility with, but failed due to its final bankruptcy has been completed. Today the track north from there looks

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T & E Part II

(Continued from page 14)

much like any other UP main. Only the paralleling 100kV line that once was the "bus" between Renton and Tacoma Jct. substations (#27 and #28) gives any hint that this was once a part of **The MILWAUKEE ROAD**'s "Lines West"!

Bridge #FF-276-C over Portland Ave. in Tacoma still retains "The MILWAUKEE ROAD" heralds. These were applied to a number of former Coast Division road/street underpass structures in the early 1960's (maintaining a three-decades-long tradition). This particular bridge was located on what was the farthest-westward extension of the MILW's (pre-1971/Portland "gateway") main line at MP. 2192.9. While this part of The MILWAUKEE ROAD's story on its former lines south from Tacoma has ended, these heralds (applied when it was still very much in business in the area) remind all of what was once a unique and indeed fascinating railroad!

- Art Jacobsen

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A somewhat rare sight in daylight during the mid to late 1970's was trains running on "the gap" as most traffic here was at night. The train is w/b on the concrete arch bridge at Rosalia, WA.

- Jerry Quinn Photo



Milwaukee #115 with locomotive #1028 is hurrying to meet the Olympian at Harlowton. The train is near Glengarry, MT on its run from Great Falls on March 17, 1946. — W. R. McGee Photo



In 1910 the I&WN depot in Newport, WA had only recently been completed. The building today is the home of the Pend Oreille County Historical Society.

- Ted Schnepf Collection