

NORTHERN PACIFIC RAILWAY COMPANY.

TACOMA DIVISION

TIME **31B** TABLE

In Effect at 12:01 A. M. Pacific or 120th Meridian Time.

(One hour slower than Mountain or 105th Meridian Time.)

SUNDAY, May 1st, 1910.

For the Government of Employes only. The Company reserves the right to vary therefrom at pleasure. Be positive that you have the Current Time Table and destroy all previous numbers. Read carefully the Special Rules and always have for reference a copy of TRANSPORTATION RULES.

H. C. NUTT,
General Manager.

B. E. PALMER,
General Superintendent.

I. B. RICHARDS,
Superintendent of Transportation.

W. C. ALBEE,
Superintendent.

T. E. COYLE,
Assistant Superintendent.

J. C. ROTH,
Assistant Superintendent of Transportation.

WEST BOUND.

MAIN LINE.

THIRD CLASS TRAINS

SECOND CLASS

Time Table No. 31B

Succeeding No. 31A. May 1, 1910

FIRST CLASS TRAINS.

Table with columns for train numbers (973, 963, 969, 965, 679, 691, 363, 301, 389, 361, 321, 307, 365, 391, 311, 333, 313, 323, 393), station names (TACOMA WHARF, TACOMA, SOUTH TACOMA, LAKEVIEW, HILLHURST, ROY, VELM, RAINIER, MCINTOSH, TENINO, BUCODA, WABASH, CENTRALIA, CHEHALIS, CHEHALIS JCT, NEWAUKUM, NAPAVINE, WINLOCK, SOPENAH, OLEQUA, CASTLE ROCK, TILlicUM, OSTRANDER, KALOKEN, KELSO, CARROLLS, KALAMA, MARTIN'S BLUFF, WOODLAND, RIDGEFIELD, KNAPPS, FELIDA, VANCOUVER JCT, VANCOUVER, STOCKDALE, St. JOHN, NORTH PORTLAND, BEATTY, CITY LIMITS, PORTLAND), and departure/arrival times. Includes sub-sections for 'EX. SUN. Nor. Pac. Way Freight' and 'DAILY Nor. Pac. Freight'.

SEE SPECIAL RULES, PAGES 5, 8 and 9.

MAIN LINE.

EAST BOUND.

FIRST CLASS TRAINS.

Time Table No. 31B

May 1, 1910, Succeeding No. 31A.

STATIONS.

Telegraph Offices and Calls

SECOND CLASS TRAINS

THIRD CLASS TRAINS.

Main table containing train schedules with columns for train numbers (322, 390, 334, 312, 324, 394, 314, 362, 392, 366, 308, 302, 364), distances from Portland, station names, times, and freight rates.

SEE SPECIAL RULES, PAGES 5, 8 and 9.

WEST BOUND.

GRAY'S HARBOR LINE.

EAST BOUND.

THIRD CLASS TRAINS.				SECOND CLASS.	FIRST CLASS TRAINS.			Water, Coal, Scales, Tables and Wyes	Station Numbers	Distance from Lakeview	Time Table No. 31B. May 1, 1910. Succeeding No. 31A			Distance from Moclips	Capacity of Side Tracks	FIRST CLASS TRAINS.			SECOND CLASS.	THIRD CLASS TRAINS.		
965		967		585	323	365	321				STATIONS. Telegraph Offices and Calls					366	324	322	586	966	968	
Freight	Freight	Freight	Freight	Mixed	Passenger	Passenger	Passenger				DAILY	DAILY	DAILY			DAILY	DAILY	DAILY	DAILY	Mixed	Freight	Freight
Except Sunday	Except Sunday	Except Sunday	Except Sunday	Except Sunday	DAILY	DAILY	DAILY				DAILY	DAILY	DAILY			DAILY	DAILY	DAILY	Except Sunday	Except Sunday	Except Mon.	
					6.01PM	10.23AM	* 9.20AM	1985	0.0	VA.....LAKEVIEW.....D	115.9	100	12.55PM	6.10PM	* 9.20PM		2.30PM					
					f 6.05	f 10.27	* 9.24	CK 2	2.5	.....COUNTRY CLUB.....	113.4	No Sdg.	f 12.49	6.08	* 9.14						
					* 6.06	* 10.28	* 9.25	CK 3	2.8	.....AMERICAN LAKE.....	113.1	40	* 12.47	6.06	* 9.18		2.15				
					f 6.09	f 10.31	* 9.28	CK 5	4.3	.....COSGROVE.....	111.6	35	f 12.44	6.00	* 9.10		2.10				
					f 6.16	10.36	* 9.34	S CK 7	7.4	D.....DU PONT.....D	108.5	Spur	12.37	5.50	* 9.02		2.00					
					6.20	10.48	* 9.45	W CK 13	12.5	.....SHERLOCK.....	103.4	25	12.25	5.33	* 8.50		1.20				
					* 6.45	f 11.03	* 9.57	CK 18	18.0	.....UNION MILL.....	97.9	Spur	f 12.09	f 5.20	* 8.39		12.55				
					6.50	11.07	* 10.00	CK 20	19.5	.....LACEY.....	96.4	40	12.05PM	5.15	* 8.37		12.40				
					7.00	966 11.30	10.15	W T CK 25	24.6	OY.....OLYMPIA.....D	91.3	110	11.50AM	5.00	8.25		12.10PM					
					7.10	366 11.40							11.40	4.55			365-966					
									25.2	PORT TOWNSEND SOUTHERN CR'G	90.7											
					f 7.22	f 11.50AM	* 10.28	CK 30	29.9	.....BELMORE.....	86.0	40	f 11.26	f 4.38	* 8.10						
					7.38	12.06PM	* 10.39	CK 37	36.4	RK.....LITTLE ROCK.....D	79.5	43	11.14	4.28	* 7.55							
					* 7.40	* 12.09	* 10.40		37.4	.....BORDEAUX.....	78.5		* 11.10	* 4.20	* 7.53						
					f 7.47	f 12.15	* 10.45	CK 40	39.6	.....MIMA.....	76.3	13	f 11.05	f 4.12	* 7.47			See page 4			
					8.00	12.30	366 10.55	W Y CK 44	43.9	HK.....GATE.....D	72.0	50	321 10.55	4.05	* 7.39		1.30PM					
					8.10	12.40	11.05	CM 5	48.8	OX.....OAKVILLE.....D	67.1	90	10.25	3.45	7.29		12.55					
					8.21	12.55	11.15	CM 12	55.7	.....LYTLE.....	60.2	80	* 10.02	* 3.27	* 7.19		12.20				
					* 8.36	* 1.15	* 11.30	CM 13	56.7	OR.....PORTER.....D	59.2	20	10.00	3.25	* 7.17		12.15PM					
					8.39	1.20	* 11.32	W CM 19	63.3	EF.....ELMA.....D	52.6	120	9.40	3.12	7.05		11.45AM					
					8.55	1.40	11.45	CM 23	65.7	.....MACKS.....	50.2		f 9.30	f 3.05	* 6.59		11.15				
					f 9.00	f 1.45	* 11.48		65.7	.....SP.....	48.9	37	9.25	3.01	* 6.57		10.50				
					9.05	1.50	* 11.53AM	CM 29	72.6	MO.....MONTESANO.....D	43.3	70	9.10	2.50	6.47		10.30					
					9.20	2.10	12.06PM	W CM 37	81.2	AJ.....ABERDEEN JCT.....D	34.7	42	* 8.45	* 2.30	* 6.27	3.15PM	9.40					
					7.45AM	* 9.42	* 12.30	CY CM 40	84.4	SA.....ABERDEEN.....D	31.5	50	8.30	2.15	6.15	3.00	2.40	9.00				
					8.45	10.00	2.50	CM 44	87.9	HO.....HOQUIAM.....D	28.0	150	968 8.10	2.00PM	6.00PM	324 2.15	2.40	8.20AM				
					9.00	10.20PM	3.15	CM 47	91.0	.....GRAYS HARBOR CITY.....	24.9	No Sdg.	f 7.47			1.25					
					9.10	f 3.25		CM 52	95.9	.....GRAY GABLES.....	20.0	No Sdg.	f 7.34			1.05					
					9.20	f 3.40		CM 54	97.9	.....CHENOIS CREEK.....	18.0	No Sdg.	f 7.26			12.58					
					9.25	f 3.46		CM 56	100.3	.....TULIPS.....	15.6	40	f 7.20			12.48					
					9.40	f 3.54		CM 61	104.9	.....COPALIS CROSSING.....	11.0	No Sdg.	f 7.08			12.30					
					9.55	f 4.05		CM 62	105.9	.....KUH.....	10.0	No Sdg.	f 7.01			12.26					
					10.10	f 4.12		CM 63	106.7	.....McCLAUFLIN.....	9.2	No Sdg.	f 6.59			12.24					
					10.15	f 4.15		CM 64	108.0	.....ONSLOW.....	7.9	30	f 6.55			12.20					
					10.20	f 4.19		CM 66	109.5	.....STEARNSVILLE.....	6.4	No Sdg.	f 6.50			12.12					
					10.30	f 4.24		CM 68	111.7	.....ALOHA.....	4.2	Spur 12	f 6.42			12.04PM					
					10.41	f 4.30		W CM 69	113.4	.....PACIFIC.....	2.5	Spur 7	6.36			11.58AM					
					10.48	4.35		CM 71	114.9	.....SUNSET BEACH.....	1.0	No Sdg.	f 6.33			11.50					
					10.55	f 4.40		Y CM 72	115.9	MC.....MOCLIPS.....D	0.0	40	6.30AM			11.45AM						
					11.00AM	4.45PM																
					2.05	5.50							6.25	4.10	3.20	3.30	2.10	5.10				
					11.8	7.5							18.1	21.1	26.3	9.9	10.5	8.5				

See Special Rules, page 4.

WEST BOUND.				GATE LINE.										EAST BOUND.																
THIRD CLASS				FIRST CLASS.				Time Table No. 31B. May 1, 1910. Succeeding No. 31A										FIRST CLASS.				THIRD CLASS								
967				387	385	383	381	Water, Coal, Scales, Tables and Wyes	Station Numbers	Distance from Centralia	STATIONS.										Distance from Gate	Capacity of Side Tracks	382	384	386	388	968			
Freight				Passenger	Passenger	Passenger	Passenger				Telegraph Offices and Calls												Passenger	Passenger	Passenger	Passenger	Freight			
EXCEPT SUNDAY				DAILY	DAILY	DAILY	DAILY	W C Y S	2027	0.0	CN.....CENTRALIA.....N 5.8										13.0	170	11.35AM 383	1.10PM	4.35PM 387	8.40PM	EXCEPT MONDAY			
9.15AM				7.25PM 386	3.20PM 965	11.55AM 382	10.35AM	Y S	2027	0.0	.....GRAND MOUND..... 4.2										7.2	90	11.25	1.00	4.25	8.30	3.00PM			
10.00				7.35	3.30	12.05PM	10.43	Y S	CK 51	5.8	RH.....ROCHESTER.....D 3.0										3.0	75	11.15 967	12.50	4.15	8.20	2.35			
10.40 11.15 381-382				7.45	3.40	12.15	10.50 967	Y S	CK 47	10.0	HK.....GATE.....D										0.0	50	11.05AM 381	12.40PM 383	4.05PM 385	8.10PM 387	2.15			
11.35AM				7.55PM 383	3.50PM 386	12.25PM 384	11.00AM 382	W Y	CK 44	13.0											0.0	50	11.05AM 381	12.40PM 383	4.05PM 385	8.10PM 387	2.00PM			
EXCEPT SUNDAY				DAILY	DAILY	DAILY	DAILY																DAILY	DAILY	DAILY	DAILY	EXCEPT MONDAY			
2.20				.30	.30	.30	.25				Time Over District												.30	.30	.30	.30	1.00			
5.0				26.0	26.0	26.0	31.2				Average Speed Per Hour												26.0	26.0	26.0	26.0	13.0			

Special Rules Grays Harbor Line

The movement of Port Townsend Southern trains from transfer track near Port Townsend Southern crossing to Northern Pacific depot, and from Northern Pacific depot to transfer track, will be protected by flag. All Northern Pacific trains will approach these points with train under control, expecting to be flagged by flagman of Port Townsend Southern train.

Normal position of crossing gates at Olympia where Northern Pacific tracks cross those of the Port Townsend Southern Ry. will be closed and locked across the Port Townsend Southern Tracks, and when train of that company desires to use crossing, gates will be swung across Northern Pacific track. Danger signal will be maintained day and night on gates, which will consist of switch light at night. All Northern Pacific trains must approach this crossing prepared to stop, but full stop will not be required if it is found that crossing is clear and gates are in normal position.

Trains will register by ticket at Lakeview; will not be required to procure clearance unless red signal is displayed. No. 322 will register by ticket at Gate, and will not procure clearance unless Red Signal is displayed.

Standard Clocks—Tacoma.
Trains from Grays Harbor Line must ascertain Main Line rights before occupying Main Line at Lakeview. Maximum grades, 3 1/2 miles west of Sherlock; 3 miles east to 2 miles west of Olympia.

Engines will not run on Mason County Logging Spur west of passing track two miles from junction and will look out for Mason County Logging Co.'s engine at that point. Derailing switch 200 feet from N. P. main line switch.

No. 323 will stop on flag at Union Mill on Saturdays and Sundays.
No. 321 will stop on flag at Du Pont to let off passengers.
No. 323 will stop on flag at Nisqually Gun Club, two miles east of Sherlock.

Registering Stations—Lakeview, Olympia, Gate, Elma, Aberdeen Junction, Hoquiam and Moclips.
Clearance will not be issued at Elma unless red signal is displayed.
Engineers will not be required to consult register, except at initial or starting point.

Bulletin Stations—Olympia, Hoquiam and Moclips.
All trains will stop 400 feet from and will not proceed until following draw bridges are known to be closed: Wishkah River, 1/2 mile east of Aberdeen; Hoquiam River, 1/2 mile east of Hoquiam.
No. 385 will turn on wye on arrival at Gate and back in on passing track.

Derail switches at east end of house track at Elma, at Vances spur, at Macks spur, and at Java spur west of Elma, at east end of Satsop siding, and at Ninemire & Morgan's spur, two miles west of Aberdeen, must be kept set in derailing position when not in use.

Speed of trains when backing up must not exceed twenty miles per hour.

No. 381 has right over No. 382. No. 383 has right over No. 384. No. 385 has right over No. 386. No. 387 has right over No. 388, Centralia to Gate.

No. 965 has right over No. 966 Lakeview to Olympia.

The tunnel district at Olympia is protected by automatic electric signals as follows: No. 1 large disc just west of passenger station. No. 2 small starting signal just east of passenger station. No. 3 switch indicator at east switch of team track. No. 4 large disc just east of tunnel. Trains and engines will be governed as follows: East bound—must not pass signal No. 1 or No. 2 at "Danger" and finding signals in this position must protect against west bound trains coming out of tunnel. East bound trains standing at station must be particular to get clear indication on signal No. 2 before proceeding east of same. Crews switching at east end of team track must have clear indication on No. 3 signal before throwing switch and thereafter white switching will find this signal at "Danger" when cars or engines are on main line and can continue to switch with switch indicator at "Danger," but when main line has been cleared and switch has been closed signal must show clear before switch is thrown or main line obstructed. Cars on team track must be left west of clearance post as cars overhanging get clear No. 4 signal before throwing switch or proceeding out of Jefferson Street line at east end of tunnel. West bound—west bound trains or engines must not pass No. 4 signal at "Danger." Signals at "Danger" show red banner by day and red light by night and when at safety a clear disc by day and white light by night. Train and engine-men must observe position of signal before engine reaches the signal and not pass signal at "Danger." Finding signals in this position will be governed by Rule No. 299. In case of failure of signal apparatus, all signals will indicate danger and after five minutes has elapsed, train will proceed through the block under protection of flagman in advance.

Junction switches will be set for line Olympia to Moclips.
Trains will approach Gate looking out for trains to and from Gate line turning on wye.

AUTHORIZED SURGEONS, OREGON & WASHINGTON RAILROAD CO.

SEATTLE—
Dr. Montgomery Russell, Division Surgeon, Bailey Bldg.
Dr. F. R. Underwood, Assistant Surgeon, Oriental Bldg.
District between Seattle and Tacoma.
Dr. E. B. Burwell, Oculist and Aurist, Empire Bldg.

AUBURN—
Dr. F. D. Merritt, District Surgeon
District between Seattle and Tacoma.

TACOMA—
Dr. Chas. James, District Surgeon, 514 California Bldg.
District between Auburn and Tenino.

TENINO—
Dr. Chas. E. Robson, District Surgeon.
District between Tacoma and Centralia.

WINLOCK—
Dr. Irvin W. Weichbrod, District Surgeon.

District between Castle Rock and Centralia.

CENTRALIA—
Dr. David Livingstone, District Surgeon.
District between Winlock and Tenino, and Elma, and Hannaford Creek Branch.

CASTLE ROCK—
Dr. T. C. Campbell, District Surgeon.
District between Kelso and Winlock.

KELSO—
Dr. C. W. Bales, District Surgeon.
District between Kalama and Castle Rock.

KALAMA—
Dr. Luther M. Simms, District Surgeon.
District between Vancouver and Kelso.

VANCOUVER—
Dr. J. T. Guerin, District Surgeon.
District between Kalama and Albina.

ALBINA—
Dr. Curtis C. Holcomb, District Surgeon.
District between Vancouver and Portland.

PORTLAND—
Dr. Kenneth A. J. Mackenzie, Chief Surgeon.
Dr. Geo. Ainslie, Consulting Oculist and Aurist.
Dr. Frank M. Taylor, Assistant Surgeon.
Dr. D. H. Jessup, Assistant Surgeon.

WEST BOUND.

BUCKLEY LINE.

EAST BOUND.

WEST BOUND.

OCOSTA BRANCH.

EAST BOUND

Time Table No. 31B May 1, 1910. Succeeding No. 31A. Table with columns for Third Class, First Class, Second Class, and Third Class. Includes station names like Tacoma, Puyallup, Meeker, and Ocosta.

583 and 584 will stop on flag at Redmon Creek, located one mile east of Ocosta, for transfer of passengers, baggage and express destined to and from Westport. All trains will stop 400 feet from and will not proceed until following draw bridges are known to be closed...

Speed of trains over crossing switches at Tidewater and Puyallup and over 15th Street Bridge, entering Tacoma passenger yard, must not exceed fifteen (15) miles per hour, and eight (8) miles per hour over switches Tacoma passenger yard. Tacoma yard extends to Tidewater. Trains originating or terminating at Tacoma will run via Head of Bay yard. Trains from Seattle line for Tacoma Division main line or vice versa, will run via Draw Bridge line as heretofore.

Trains will keep to the right on double track between Cascade Junction and South Prairie water tank and between Tidewater and Tacoma Wharf. Derail switches at Valley Mill Co.'s Spur one mile west Buckley, west end of passing track at South Prairie and west end of Crocker Yard. East end of Mill Siding, Meeker, must be kept in derailing position when not in use.

WEST BOUND.		ELMA BRANCH.		EAST BOUND.	
Time Table No. 31B. May 1, 1910. Succeeding No. 31A.					
STATIONS.					
Telegraph Offices and Calls					
	Water, Coal, Scales, Tables and Wyes	Station Numbers	Distance from End of Track	Distance from Elma	Capacity of Side Tracks
		CH 10	0.0	9.9	7
		CH 9	1.1	8.8	4
		CH 7 1/2	2.3	7.6	4
		CH 7	2.4	7.5	8
		CH 5	5.0	4.9	4
		CH 4	5.9	4.0	5
		CM 19	9.9	0.0	60
S.IMPSON 1.1 SMITHS SPUR 1.2 HILLGROVE 0.1 McCLEARY 2.6 RAYVILLE 0.9 WHITE'S 4.0 ELMA D					

Train service irregular—dependent on amount of business to be handled.
 Registering Station—Elma.
 Engineers will not be required to consult register, except at initial or starting point.
 NOTE—All trains will run slow between Simpson and Hillgrove account light rails.
 Switch in main track just above switch leading to siding at Simpson must be left to act as derail
 See Special Rules, page 8.

WEST BOUND.		BURNETT BRANCH.		EAST BOUND.	
Time Table No. 31B. May 1, 1910. Succeeding No. 31A.					
STATIONS.					
Telegraph Offices and Calls					
FIRST CLASS.		Water, Coal, Scales, Tables and Wyes	Station Numbers	Distance from Cascade Junction	FIRST CLASS.
373	375		CC 4	3.3	374 376
Passenger	Passenger		CC 2	1.3	Passenger Passenger
DAILY	DAILY		1949	3.3	DAILY DAILY
6.35PM	7.16AM			0.0	7.15AM 6.34PM
6.43	7.24			1.3	7.05 6.24
* 6.48PM	* 7.29AM			0.0	* 7.00AM * 6.18PM
PITTSBURG 2.0 BURNETT 1.3 CASCADE JCT.					
Time Over District					
Average Speed per Hour					
.14 .14				.15 .15	
14.1 14.1				13.2 13.2	

Registering Stations—Burnett and Cascade Junction. Engineers will not be required to consult register, except at initial or starting point. Switches above Burnett will be set to protect cars at quarries by derail.
 Speed of trains when backing up must not exceed 20 miles per hour.
 Speed must not exceed six miles per hour within the corporate limits of Burnett.

WEST BOUND.		ORTING BRANCH.		EAST BOUND.	
Time Table No. 31B. May 1, 1910. Succeeding No. 31A.					
STATIONS.					
Telegraph Offices and Calls					
	Water, Coal, Scales, Tables and Wyes	Station Numbers	Distance from Puyallup River	Distance from Orting	Capacity of Side Tracks
		CE 8	0.0	7.6	10
		WT 1958	7.6	0.0	200
PUYALLUP RIVER 7.6 ORTING D					

Registering Station—Orting.
 Engineers will not be required to consult register, except at initial or starting point.
 Junction switch, one mile east of Orting station, will be set for cross-over, and track from cross-over to station will be used as a main line passing track.
 Maximum grades on St. Paul & Tacoma Lumber Company's line east of Puyallup River.
 See special rules, page 8.
 Derailing switch 200 feet east of Junction switch must be left set for derail
 Derail at Fisks must be left set for derail.

WEST BOUND.		WILKESON BRANCH.		EAST BOUND.	
Time Table No. 31B. May 1, 1910. Succeeding No. 31A.					
STATIONS.					
Telegraph Offices and Calls					
FIRST CLASS.		Water, Coal, Scales, Tables and Wyes	Station Numbers	Distance from Fairfax	FIRST CLASS.
377			CB 15	0.0	378
Passenger			CB 13	2.2	Passenger
DAILY				6.2	DAILY
6.00AM				6.5	8.10PM
6.10				10.3	7.55
6.30				15.2	7.80
6.45				0.0	7.08
* 7.00AM					* 6.48PM
FAIRFAX 2.2 MELMONT 4.0 CARBON COAL CO. CROSSING 0.3 CARBONADO 3.8 WILKESON 4.9 CASCADE JCT.					
Time Over District					
Average Speed per Hour					
15.2				11.4	

Maximum Grades.
 Registering Stations—Fairfax and Cascade Junction.
 Engineers will not be required to consult register, except at initial or starting point.
 Derailing switch at Cascade Junction will be set for derail. Derailing switch located 200 feet east of east switch at Montezuma will be kept set and locked for derail.
 Carbonado Junction switch at Wilkeson and Fairfax Junction switch at Carbonado will be set for Fairfax Line.
 Speed of trains when backing up must not exceed 20 miles per hour.
 Trains will stop at railroad crossing near Fairfax Junction, between Carbonado and Fairfax.
 Derail switches at west end of coal track at Melmont and 200 feet east of Cascade Junction must be kept set in derailing position when not in use.
 Switch east of depot at Fairfax will be set to protect cars at Bunkers by derail.
 Trains between Fairfax and Montezuma will look out for logging train of Washington Manufacturing Company, switching at Montezuma.

WEST BOUND.		CROCKER BRANCH.		EAST BOUND.	
Time Table No. 31B. May 1, 1910. Succeeding No. 31A.					
STATIONS.					
Telegraph Offices and Calls					
	Water, Coal, Scales, Tables and Wyes	Station Numbers	Distance from Pouty	Distance from Crocker	Capacity of Side Tracks
		WS 5	0.0	5.1	140
		1955	5.1	0.0	100
WINGATE 5.1 CROCKER					

Registering Station—Crocker. Switches below station at Wingate will be set to act as derail.
 Engineers will not be required to consult register, except at initial or starting point.
 Derailing switches at Crocker, and in main track 550 feet west of depot at Wingate, must be left set for derail.
 Truss bridge over Carbon river has inside width of twelve feet. Maximum grades.

WEST BOUND.		YACOLT BRANCH.		EAST BOUND.	
Time Table No. 31B. May 1, 1910. Succeeding No. 31A.					
STATIONS.					
Telegraph Offices and Calls					
FIRST CLASS.		Water, Coal, Scales, Tables and Wyes	Station Numbers	Distance from Yacolt	FIRST CLASS.
389			CY 27	0.0	390
Passenger			CY 20	6.6	Passenger
DAILY			CY 19	8.0	DAILY
6.45AM			CY 17	9.8	8.20PM
6.57			CY 14	12.7	6.02
7.04			CY 10	16.9	5.57
7.15			CY 8	18.6	5.50
7.28			CY 7	20.0	5.40
7.40			CY 6	21.2	5.30
			CY 3	23.5	
			CX 25	26.8	
YACOLT 6.6 WALL 1.4 HEISON 1.8 CRAWFORD 2.9 BATTLE GROUND 4.2 BRUSH PRAIRIE 1.7 LAURIN 1.4 HOMAN 1.2 BARBERTON 2.3 HIDDEN 3.3 VANCOUVER JCT.					
Time Over District					
Average Speed per Hour					
1.22				1.28	
19.6				18.3	

Registering Stations—Yacolt and Vancouver Junction.
 Engineers will not be required to consult register except at initial or starting point.
 Bulletin Stations—Vancouver and Yacolt.
 Standard Clock—Vancouver.
 Derail switches located on Daly Spur and on Smith Spur must be kept in derailing position when not in use.
 Trains from Yacolt Branch must ascertain main line rights before occupying main line at Vancouver Junction.
 No. 389 and No. 390 will stop on flag at Lucia and Dale for passengers.

WEST BOUND.		GREEN RIVER BRCH.		EAST BOUND.	
Time Table No. 31B. May 1, 1910. Succeeding No. 31A.					
STATIONS.					
Telegraph Offices and Calls					
FIRST CLASS.		Water, Coal, Scales, Tables and Wyes	Station Numbers	Distance from Kanaskat	FIRST CLASS.
395			CJ 15	0.0	398
Passenger			CJ 7	7.9	Passenger
DAILY			CJ 6	8.6	DAILY
5.35AM			CJ 2	12.8	8.00PM
6.10			A 1	14.8	7.32
6.13					7.27
6.30					7.15
6.40AM					7.10PM
KERRISTON 7.9 HEMLOCK 0.7 BARNESTON 4.2 KANGLEY JCT. 2.0 KANASKAT					
Time Over District					
Average Speed per Hour					
1.05				.50	
13.7				17.8	

Registering Station—Kanaskat.
 Engineers will not be required to consult register except at initial or starting point.
 Derailing switches west of main line log landings will be set for derail.
 Trains will look out for engines of Logging Co. using track east of derail switch located 1100 feet west of Spur No. 1 at Kerriston.
 Trains will look out for engines of Cascade Timber Co. handling logs between their siding and Kangley.
 Maximum grades.
 Derailing switch is located 250 feet east of Kangley Jct., on Kangley Line.
 See special rules, page 8.

RULES GOVERNING AUTOMATIC SIGNALS BETWEEN SOUTH TACOMA AND HALF MOON YARD, TACOMA.

Automatic signals of the three position semaphore type govern East and West bound main line between South Tacoma and Half Moon Yard, Tacoma.

First semaphore on East bound main line is located about 1500 feet east of passenger station, South Tacoma; the last semaphore before reaching Half Moon Yard, Tacoma, located just east of 15th street viaduct, and governs the use of track between that point and the overhead bridge at 9th street; the first semaphore on West bound main line located about 2000 feet west of the overhead bridge at 11th street; the last one is located one half mile east of South Tacoma Station, and governs the use of the track to the South Tacoma Station. The semaphore shows three indications as follows:

- When semaphore arm is 90 degrees upward or light shows green, it indicates "Clear."
- When semaphore arm is 45 degrees upward or light shows yellow, it indicates "Caution."
- When semaphore arm is at horizontal position or light shows red, it is a signal to stop, block not clear.

All semaphore arms that govern are displayed to the right of signal mast as seen from approaching train. When semaphore arm is in horizontal position or light shows "red," it is a signal to stop, block immediately ahead is occupied. When semaphore is 45 degrees upward or light shows "yellow," it is caution signal, and indicates block immediately ahead is not occupied but next semaphore ahead is at Danger. When semaphore is 90 degrees upward or light shows "green," it indicates that block ahead is clear and the next signal is also clear. Train approaching semaphore and finding it at Danger, will come to full stop, and will proceed under full control, expecting to find block occupied. Train approaching semaphore and finding it at Caution, will proceed, expecting to find next signal in advance at Danger. Train approaching semaphore and finding it at Clear indication, will proceed, expecting to find next signal immediately ahead Clear.

Trains occupying East bound main line between 15th street viaduct and 9th street bridge, Half Moon Yard, will hold signal at 15th street viaduct at Danger. Trains occupying West bound main line between passenger station South Tacoma and the semaphore located one-half mile east, will hold this semaphore at Danger.

All main line switches and both ends of crossover switches within automatic block limits are provided with switch instruments so connected to switch point that the opening of any switch will hold signal of that block at Danger until switch is again closed. The opening of switch at either end of main track crossover will hold signals on both tracks at Danger. If either end of crossover leading to siding is opened, it will hold the signal at Danger that controls block on track to which it is connected. Neither switch or crossover must, therefore be opened until movement of train is to be made.

Switch indicators of semaphore pattern are located at both ends of crossover switches leading from West bound to East bound main line just east of Pacific avenue crossing. When indicator arm is in horizontal position it is an indication that block is occupied; when indicator arm is downward it indicates Clear, block not occupied. The opening of either end of crossover switches will set indicator at horizontal or Danger position; in case indicator does not go to Danger when switch points are opened, it is an indication that the signals governing the block have not gone to Danger and that signals are out of order. In such cases movement must be made under protection of flag. Trainmen or yard crews desiring to occupy main line, or to move from West bound track to East bound track, must not open switch leading to that track when indicators show Danger, but must wait until the approaching train shall have passed the switch and out of the block.

If switch indicator shows Danger, provided that after waiting five (5) minutes train does not appear or indicator does not go Clear position, switches may be used provided movement is fully protected by flag.

Passenger trains must not proceed through crossover from Pacific avenue passenger yard to outgoing main line when block on East bound main line is occupied, until it is positively known that descending train has stopped and will be held above crossovers until passenger train has passed and is clear of the crossover switches.

Cars and engines on side track must stand back of insulated joints in order that semaphore will not be held at Danger. Freight trains must clear block before passenger trains are due to enter same. Whenever a train is mentioned in these rules,—the term "Train" applies to either a road or switch engine with or without cars. The practice of dumping cinders from engines within automatic block limits is prohibited as it interferes with operation of signals.

The semaphore located at 15th street on East bound track and the one located one-half mile east of South Tacoma on West bound main track are of the cantilever pattern. These signals are equipped with a bracket upon which is erected a post four feet in length, four inches in diameter. The post is equipped with a yellow light at night, indicating that the semaphore upon which they are attached govern main line and NOT the side track.

Before using the cross over switches above Bailey St. and below Tacoma Ave., in order to cross over from one Main Line to the other, after throwing the first switch wait three (3) minutes before throwing the next switch and crossing over. This in order to be sure that no train has entered the block before cross over switch had been thrown setting signals at danger.

SPECIAL RULES REGARDING USE OF STAFF ON BRANCH LINES.

Du Pont Spur, Mason County Logging Co.'s Spur, Elma Branch, Cosmopolis Branch, Hoquiam River Spur, Centralia Eastern, Smelter line at Tacoma, Orting Branch, Crocker Branch and Green River Branch are operated under staff system. Before using these tracks, trains will obtain staff which is located in staff box at each junction. All other trains using these tracks must be operated

under protection of flag. For completion of Dispatcher's record of service, operator at main line junction point will telegraph copy of register showing departure and arrival and mileage made on branch. If there is no operator at junction point, conductor will telegraph this information from next open telegraph office.

RULINGS IN REGARD TO TELEGRAPH BLOCK SIGNAL RULES.

(Always have for reference copy of Block Signal Rules.)

Rule 20—The attention of operators is particularly directed to the fact that this rule provides that when there are no orders, and the block ahead is clear for an approaching train, signal should be changed to clear, so train can enter without reducing speed. This means that if an operator has no orders for this particular train, and the block ahead is clear, the signal will be changed to clear, so that this train may enter the block, regardless of the fact that operator may have orders for other trains. He must, however, display Stop signal when he has seen the markers of the train and train has passed three hundred (300) feet beyond block signal. Under this rule only one train is affected by the clear signal and this the train which is immediately approaching on main track to enter block. A CLEAR Signal MUST NOT Be Displayed Under Any Other Circumstances.

An engine may pass a block signal at Danger in order to take coal or water or do switching in yards under the restrictions provided by general rules, but must in such case receive Block Clearance before departing from station.

Train and engine men must realize that Block Signal Rules in no way modify train rules or time table regulations and do not relieve trainmen from necessity of flagging. Conductors must impress this upon their brakemen, and train and engine men understand that train must at all times be as fully protected as prior to Block System Operation.

Rule 43—Any train which has taken siding must have block clearance before proceeding. Therefore, a clear block signal will not clear a passenger train which runs through siding in meeting a freight train, and operator should, if block is clear, be out and hand clearance to passenger train, so train will not be delayed.

Operators MUST display stop signal immediately after train has entered block and rear of train passed three hundred (300) feet beyond signal and markers been seen by operator, and not until this has been done should he notify preceding operator that block is clear except as per Rule 9.

The matter of displaying block signal at Stop at the proper time must be given preference over other duties. If it is desired to cancel a block or change arrangement of a block, if block clearance has been delivered, operator must not cancel the block or make any change until conductor's and engineer's copies of clearance have been returned to him.

If block signal at a station is at Danger when train is approaching on main track and is changed to Clear before engine is within three hundred (300) feet of the signal, train may proceed without block clearance. Engineer will signal for block by four (4) short blasts of engine whistle.

A train intending to go to an intermediate siding to meet or be passed by a train must obtain caution card before entering the block, stating that "Train No. — and Train No. — will meet or pass at (naming the intermediate siding) as per time table or as per Train Order No. —." This will permit the opposing train to proceed with caution card to the intermediate siding without delay, beyond which point it cannot go unless the train named has arrived or receives further orders as per Block Rules Nos. 53 and 54, notwithstanding it may have train rights which would otherwise permit it to do so.

After a train has entered a block with ample time and intention to go through to end of same for a certain train and for any reason cannot make the end of block for the certain train it will go upon intermediate siding and the opposing train cannot enter the block until the train on intermediate siding has notified the signalman by telephone of its arrival and clearance at intermediate siding. If from failure of telephone the conductor at intermediate siding be unable to communicate with block office the opposing train must not enter block except under protection of flag. If, however, the trains are moving in the same direction caution cards will be issued to permit the following train to enter the block. It must be borne in mind that a train must not only have train rights permitting it to go, but block rights also.

COMMERCIAL SPURS.

MAIN LINE. DISTANCE FROM TACOMA.	MAIN LINE—Cont.	ORTING BRANCH. DISTANCE FROM ORTING.	BUCKLEY LINE. DISTANCE FROM PALMER JCT.	GATE LINE —Cont.	SOUTH BEND BRANCH. Cont.	YACOLT BRANCH—Cont.
Stone..... 37.4	Byckford..... 53.7	Veneer..... 3.1	Big 6..... 1.6	Foran..... 3.0	Soule..... 36.4	Smith..... 10.0
Mentzer..... 38.3	Evaline..... 65.0	Fisks..... 5.2	Occidental..... 1.8	Duby..... 12.0	Lewis..... 40.2	Tenny..... 13.2
Tenino Stone Co..... 39.5	Capitol Mills..... 69.7		Noite..... 1.8		Trap Creek..... 41.2	
Blumauer..... 40.5	Metcalf..... 94.4		Blackburn..... 11.1		Wheaton..... 45.0	
Great Western Coal Co..... 41.3	Hermione..... 109.1		Valley Mill..... 13.9		Shore..... 52.0	
Martin Lbr. Co..... 49.2			Broomfield..... 19.1		Turney..... 54.0	
Salzer..... 51.4			Firville..... 22.8		Mayfair..... 55.5	
Carlisle..... 51.5						
	CROCKER BRANCH. DISTANCE FROM CROCKER.	WILKESON BRANCH. DISTANCE FROM CASCADE JCT.	GATE LINE DISTANCE FROM CENTRALIA.	SOUTH BEND BRANCH. DISTANCE FROM CHEHALIS JCT.	YACOLT BRANCH. DISTANCE FROM YACOLT.	GRAY'S HARBOR LINE. DISTANCE FROM LAKEVIEW.
	Morse..... 2.1	Brierhill Coal & Coke Co..... 4.5	Ingall..... 1.5	Harmons..... 6.4	McCutcheon..... 0.9	Molberg..... 16.0
		Wilson's Mill..... 3.2	Blakeslee..... 1.5	Donahue..... 12.0	Dole..... 2.4	Standard Oil Co..... 23.4
				Meskill..... 12.5	Bouton Perkins..... 4.7	Overton..... 33.4
				Mays..... 13.0	Lucia..... 4.9	Ames..... 45.6
				Onn..... 16.9	Daley..... 7.9	Bagshaw..... 50.5
				Cases..... 27.8		Malone..... 58.1
				Siler..... 29.6		Java..... 60.5
				Custer..... 34.6		Vance..... 64.9
						Weatherwax..... 73.9
						Ninemire & Morgan..... 86.4

J. T. FOSTER,
Train Master, Tacoma.

H. C. BUCKLEY,
Train Master, Portland.

J. S. DEAN,
Chief Dispatcher, Tacoma.

TONNAGE RATINGS—FREIGHT ENGINES—N. P. R. R.

BUCKLEY LINE—EAST BOUND.

	Class Z		Class W		Class Y-5		Class Y-2		Class F-1		Class S		Class E-4		Class E-3 or D-3		Class C-6	
	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars
Tacoma to South Prairie.....	1150	38	1100	37	950	32	900	30	800	27	500	17	475	16	350	12
South Prairie to Buckley	600	20	625	21	500	17	450	15	400	14	250	9	235	8	175	6
Buckley to Palmer Jct.	1100	37	1100	37	900	30	900	30	800	27	500	17	475	16	350	12

BUCKLEY LINE—WEST BOUND.

Palmer to Tacoma, via Auburn or Buckley Line	Maximum 60 Cars	Maximum 60 Cars	Maximum 60 Cars	Maximum 60 Cars	Maximum 60 Cars	Maximum 60 Cars	Maximum 60 Cars	Maximum 60 Cars
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MAIN LINE—WEST BOUND.

GRADES.	Class W		Class Y-2		Class F-1		Class S		Class P		Class E-4		Class E-3		Class D-3		Class C-6	
	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons	Cars
South Tacoma to Rainier.....	1600	53	1350	45	1200	40	1150	38	1050	35	850	28	825	27	825	27	700	23
Rainier to Chehalis.....	.....	60	.....	60	.....	60	.....	60	.....	60	.....	60	.....	50	.....	50	.....	40
Chehalis to Napavine.....	1150	38	1000	34	900	30	850	28	750	25	550	18	525	17	525	17	400	13
Napavine to Portland.....	.....	60	.....	60	1500	50	2000	60	1400	47	1200	40	1175	39	1175	39	1050	35

Rating time freight, Class S, 1000 tons, Tacoma to Napavine.

MAIN LINE—EAST BOUND.

Portland to Winlock.....	1750	58	1550	52	1400	47	1350	45	1250	41	1050	35	1025	34	1025	34	900	30
Winlock to Napavine.....	1260	42	1110	37	1010	33	960	32	860	29	660	22	635	21	635	21	510	17
Napavine to Rainier.....	1500	50	1250	41	1100	36	1050	35	950	31	750	25	725	24	725	24	600	20
Rainier to Tacoma.....	.....	60	1900	63	1750	58	1700	57	1500	50	1300	43	1275	42	1275	42	1150	38

Rating time freight, Class S engine, 850 tons, Winlock to Napavine.

Hereafter the above table of ratings will govern on ruling grades. These ratings are based on a normal number of cars of thirty tons each.

To find the rating of an engine when train contains more or less than normal number of cars, add five tons to the rating for each car less than the normal, and subtract five tons from the rating for each car in excess of the normal, thus:

Following instructions covering restrictions on the use of power on Tacoma Division will govern:

CLASS OF POWER MAY BE USED.

Buckley Line.—All classes except Class Z Mallet Engines.

Wilkeson Branch, Cascade Jct. to Wilkeson and Wilkeson to Carbonado.—No engine heavier than S.

Carbonado to Fairfax.—No engine heavier than mogul.

Burnett Branch.—All classes except Q, T, X, Y and Z.

Crocker Branch.—No engine heavier than F-1.

Orting Branch.—No engine heavier than F-1.

Green River Branch.—No engine heavier than F-1.

Main Line.—All classes except no engine heavier than S-4 to be run over Cowlitz River bridge No. 95, west of Olequa.

Grays Harbor Line, Lakeview to Gate.—No engine heavier than P compound passenger engine and S at slow speed.

Grays Harbor Line, Gate to Moclips and Cosmopolis.—No engine heavier than F-1.

Cosmopolis Jct. to Ocosta.—No engine heavier than mogul.

Elma Branch.—No engine heavier than mogul.

South Bend Branch.—No engine heavier than Mogul.

Yacolt Branch.—No engine heavier than F-1.

Engines class S to S-3, XY to Y-5, L-6, P-3, R and Q should not be run coupled together as double headers over the following bridges:

No. 254 Tacoma Draw Span.

No. 95 Cowlitz River.

If double headers of lighter classes of engines are run over the above enumerated bridges, the speed should not exceed ten miles per hour when the weight of the engines approximates the weight of two engines of the classes stated. Speed of class W and class T engines must not exceed twenty-five miles per hour at any point on the Division. Class W or Z engines must not be run over Tacoma draw span.

Double headers will not be run over the following bridges when road engine is heavier than mogul.

No. 2 and No. 13 between Centralia and Gate.

TONNAGE RATING—ENGINES OF O. & W. R. R. BETWEEN TACOMA AND PORTLAND.

WEST BOUND

STATIONS	O. S. L. 720 to 727	S. P. 1740 to 1798	U. P. 1704 to 1705	S. P. 2290 to 2300
South Tacoma to Rainier.....	1120	1025	1120	1025
Chehalis to Napavine.....	680	765	820	765

EAST BOUND

STATIONS	O. S. L. 720 to 727	S. P. 1740 to 1798	U. P. 1704 to 1705	S. P. 2290 to 2300
Portland to Winlock	1350	1245	1350	1245
Winlock to Napavine.....	950	850	960	880
Napavine to Rainier.....	1050	955	1050	955
Rainier to South Tacoma	1700	1575	1700	1575

