

GREAT NORTHERN RAILWAY

MARCUS DIVISION.

TIME TABLE No. 7

TO TAKE EFFECT AT TWELVE-ONE (12:01) O'CLOCK A. M.
PACIFIC TIME.

WEDNESDAY, JULY 1, 1914.

Superseding Time Table No. 6 and all Supplements thereto.

THIS TIME TABLE IS FOR THE USE OF EMPLOYEES ONLY.

W. CARSWELL, Superintendent.

W. C. WATROUS, General Supt. of Transportation.

J. H. O'NEILL, General Superintendent.

O. E. LEVERICH, Asst. General Superintendent.

GEO. H. EMERSON, General Manager.

2 NORTH BOUND.

FIRST DISTRICT SPOKANE TO MARCUS.

SOUTH BOUND.

THIRD CLASS. 702	FIRST CLASS.			CAR CAPACITY OF SIDINGS Passing Tracks Other Tracks	Distance from Spokane	Time Table No. 7. In Effect July 1, 1914.		Telegraph Calls	Distance from Marcus	SIGNS.	FIRST CLASS.			THIRD CLASS. 701
	258	262	256			257	255				261	701		
Freight Leave Daily	Passenger Leave Daily Ex. Sunday	Passenger Leave Sunday Only	Passenger Leave Daily Ex. Sunday			STATIONS.					Passenger Arrive Daily Ex. Sunday	Passenger Arrive Daily Ex. Sunday	Passenger Arrive Sunday Only	Freight Arrive Daily
	4.45pm	8.55am	8.55am			SPOKANE	F	101.2	R + W		10.25am	6.55pm	8.05pm	
8.00am	4.48	9.10	9.10		4.7	HILLYARD	SQ	96.5	R + DN W CIO		10.10	6.05	7.45	8.20pm
TRAINS BETWEEN SPOKANE AND DEAN WILL BE GOVERNED BY SPOKANE DIVISION TIME TABLE AND RULES.														
2.40	5.15	9.00	9.30	53	19	DEAN	SP	87.4	R DN W		9.50	7.35		1.25
8.00	5.25	9.40	9.40	52	18	WAYSIDE		81.0			9.40	7.15		12.25
8.20	5.38	9.47	9.47		12	DARTS		80.5			9.33	7.07		12.15pm
8.35	5.41	9.53	9.53		17	DENISON		78.5			9.28	7.03		11.55
4.00	5.52	10.02	10.02	61	43	DEER PARK	DE	74.7	DN W		9.20	6.55		11.30
4.26	6.02	10.10	10.10		27	CHRISTIANSON		70.5			9.09	6.48		11.08
4.30	6.07	10.15	10.15		20	CLAYTON	CN	68.6	D		9.04	6.43		11.00
5.15	6.22	10.35	10.35	52	25	LUON LAKE	AK	62.8	D W		8.50	6.20		10.35
6.00	6.42	10.55	10.55	52	21	SPRINGDALE	SV	54.7	D W		8.23	6.50		9.20
6.05	6.45	10.58	10.58		23	CLINE		53.0			8.18	6.46		9.10
6.35	6.54	11.05	11.05		35	GRAYS		48.2			8.07	6.36		8.40
						KULZERS LAKE		46.5	W					
7.05	7.05	11.14	11.14	52	57	VALLEY	VV	44.7	D CV		7.55	6.21		8.05
8.35	7.24	11.29	11.29	36	23	CHEWELAH	CH	37.2	D		7.35	6.05		6.25
9.25	7.45	11.49	11.51		19	ADDY	AD	28.0	D W		7.13	5.48		5.30
10.05	8.00	12.04pm	12.07pm	52	10	ARDEN		20.7			6.55	4.25		4.50
10.20	8.09	12.10	12.13		24	KIEL		17.0			6.48	4.18		4.35
10.45	8.20	12.17	12.20		46	COLVILLE	VD	14.1	D W		6.40	4.10		4.15
11.50	8.45	12.40	12.40	40	28	MEYERS FALLS	MF	5.5	D		6.20	3.50		3.40
12.20pm	9.00pm	12.55pm	12.55pm	52	244	MARCUS	MS	0.0	R + DN WCV		6.00pm	3.30pm		3.00am
Arrive Daily	Arrive Daily Ex. Sunday	Arrive Sunday Only	Arrive Daily Ex. Sunday								Leave Daily Ex. Sunday	Leave Daily Ex. Sunday	Leave Sunday Only	Leave Daily
702	258	262	256								257	255	261	701
10.20 9.3	4.35 22.1	4.00 25.3	4.00 25.3								1.25 22.0	1.20 21.1	1.35 22.0	11.30 8.39
Time Over District Average Speed Per Hour.														

Switching Tracks Not Shown at Stations on Time Table.

NAME	Miles from Spokane	Switch at	Car Capacity
Standard	97.0	Private Spur	8
Olson	29.0	South End	12
Pine	33.8	South End	82
New Ice	36.5	Siding	23
Ice Spur	37.0	South End	19
Ice Spur	37.0	South End	3
Denton	42.3	South End	8
Holland	43.1	South End	10
Robbin	45.7	South End	4
Wash.	49.5	South End	9
Kulzers	54.7	North End	3
Gene Spur	59.3	North End	9
Chewelah	61.5	North End	8
Chewelah	70.1	South End	13
Blue Creek	70.1	South End	5
Elkhorn	81.0	Siding	8
Winstow	90.7	North End	15
Palmer			

Special Rules.

South bound trains are superior to north bound trains of the same class.

Freight trains 701 and 702 will carry passengers when provided with proper transportation. The normal position of wye switches at Marcus is for Second District. All north bound trains will be required to make service test of air brakes at Meyers Falls before descending Marcus hill. Trains 255 and 256 will stop on flag at Mission. Train 256 will stop on flag at Blue Creek and Arden to take on passengers only. Trains 257 and 258, 261 and 262 will stop on flag at Buckeye, Holland Hor Spur, Kulzers, Blue Creek and Mission. Derailing Switches.—Dean, Darts, Clayton, Pine, Springdale, Clines, Grays, Kulzers, Valley and Chute Track. First class trains must not exceed speed of one mile in one minute and forty-three seconds between Dean and Valley, one minute

and thirty seconds between Valley and Meyers Falls, and two minutes and twenty-four seconds between Meyers Falls and Marcus; and inferior class trains must not exceed a speed of one mile in three minutes between Dean and Marcus. Yard limit boards—1/2 mile north of Dean, each way from Valley and 1/2 mile south of Marcus.

INITIAL STATIONS.
Dean, for trains 256, 262, 258, and 702.
Marcus for trains 257, 255, 261 and 701.

TERMINAL STATIONS.
Marcus for trains 256, 262, 258 and 702.
Dean for trains 257, 255, 261 and 701.

NORTH BOUND.

SECOND DISTRICT - MARCUS TO NELSON.

SOUTH BOUND.

THIRD CLASS 704	SECOND CLASS 386	FIRST CLASS 260	CAR CAPACITY OF SIDING		STATIONS.	Telegraph Calls	Distance from Nelson	SIGNS.	FIRST CLASS	SECOND CLASS	THIRD CLASS
			Passenger	Mixed					Freight		
ave Mon., Wed., Fri.	Mixed Leave Sunday Only	Passenger Leave Daily, Ex. Sunday	Passenger	Other Trains				Arrive Daily Ex. Sunday	Arrive Sunday Only	Arrive Tues., Thurs., Sat.	
6.00am	1.10pm	1.10pm	52	211	MARCUS	Ms	66.9	R DN WC Y	12.30pm	13.10pm	12.10pm
6.50	1.30	1.30	41	19	BOSSBURD		90.3		12.18	12.18	11.36
7.20	1.41	1.41	12	10	WILLIAMS		85.2		12.05pm	13.05pm	11.10
7.50	1.54	1.54	5	15	MARBLE		79.8		11.53	11.53	10.45
8.27	2.17	2.17	2	20	RED MOUNTAIN JUNCTION		71.2		11.33	11.33	10.20
8.58	2.30pm	2.35	74	70	NORTHPORT	NP	70.6	R D W C QV	11.30	11.30am	10.15
10.10		3.00	29	1	BOUNDARY		61.8		10.50		8.45
10.45		3.05	16	39	WANETA	BR	59.7	D	10.45		8.40
11.15		3.30	9	13	COLUMBIA GARDENS		55.8		10.33		8.15
11.45		3.45	18	10	FRUITVALE		50.3	W	10.20		7.50
12.00pm		4.00	17	10	ERIE		39.9		9.47		7.10
12.45		4.30	17	10	SALMO	SO	33.2	D	9.40		6.55
1.00		4.55	11	11	YHIR	MS	27.6	D W	9.20		6.35
1.15		5.10	15	10	HALL		29.1		9.00		6.00
1.30		5.30	14	10	APEX		17.1		8.50		5.45
1.45		5.40	29	10	MOUNTAIN		10.1	W	8.25		5.05
1.50		5.50	10	10	TROUP JUNCTION		5.5	K YK	8.05		4.30
1.55		6.00	10	10	NELSON			R DN WC Q K	Via C. P. R. 7.45am		Via C. P. R. 1.00am
7.04	3.36	2.60						Leave Daily Ex. Sunday	Leave Sunday Only	Leave Tues., Thurs., Sat.	
10.00		10.1						259	385	703	
9.55		10.1						4.55	1.10	8.10	
								20.1	21.2	12.1	

Business Tracks Not Shown as Stations on Time Table.

NAME	Miles from Marcus	Switch at	Car Capacity
Evans	5.0	South End	20
Hendrix Cut	12.3	North End	8
Ryans	17.1	South End	3
Onion Creek	23.4	Siding	7
Kanes	23.7	South End	7
Hanleys	30.1	Siding	12
Wood	33.5	South End	3
Rush	35.1	South End	5
Old Boundary	38.3	South End	8
Benson & Ross	53.8	South End	3
Meadows	57.9	South End	4
Benton Pole Co.	58.0	South End	6
Kootenay Shingle Co.	63.6	North End	38
Salmo Cedar Co.	68.7	South End	6
Clarkson Bros.	71.7	North End	4
Tamarack Spur	73.3	North End	3
Porto Rico	74.8	North End	5

Special Rules.

South bound trains are superior to north bound trains of the same class.

Freight trains 704 and 701 will carry passengers when provided with proper transportation.
 The normal position of switch at Red Mountain Junction for Second District, Main Line.
 Train and equipment must provide themselves with Canadian Pacific Ry. book of Transportation Rules and Current Time Table, and be governed by same and Canadian Pacific bulletin and special instructions while using that Company's track between Troup Junction and Nelson.
 Switch connecting C. P. R. and C. P. R. Main Lines at Troup Junction is protected by semaphore. All trains must come to stop before reaching Junction switch and must know that track is clear before using Canadian Pacific Main Line.
 Trains 259 and 260 stop on flag at Evans, Kane, Wood Spur, Boundary, Benson & Ross and Porto Rico.
 Trains 385 and 386 stop on flag at Evans and Kane.
 Derailing switches at Williams, Meadows and Benton Pole Co.
 Water foot pole located at Marble.
 Yard limit boards 1/2 mile north of Marcus and each way from Northport.

No trains will leave Northport or Waneta until conductor has reported to and received clearance from Customs Officer.
 First class trains must not exceed a speed of one mile in one minute and forty-three seconds between Marcus and Waneta and two minutes and 0 seconds between Waneta and Troup Junction. Inferior class trains must not exceed a speed of one mile in two minutes and twenty-four seconds between Marcus and Waneta, and one mile in three minutes between Waneta and Troup Junction. All trains must not exceed a speed of one mile in four minutes and 0 seconds through Seven Devils, Hendrix Cut, at bluffs along Columbia river three miles south of Northport, through Deadman's Eddy, and Boundary bluffs one mile south of Waneta, by mud slides just north of Waneta, through Beaver Canyon, and must not exceed speed of one mile in 6 minutes over Pend d'Oreille bridge at Waneta.

INITIAL STATIONS.

Marcus for trains 260, 386 and 704.
 Northport for train 385.
 Troup Junction for trains 259 and 703.

TERMINAL STATIONS.

Marcus for trains 259, 385 and 703.
 Northport for train 386.
 Troup Junction for trains 260 and 704.

NORTH BOUND.

FOURTH DISTRICT—CURLW TO REPUBLIC.

SOUTH BOUND.

SECOND CLASS.		CAP. CAPACITY OF SECTIONS	Passing Train
394	392		
Leave Daily	Arrive Daily		
1 10pm	10 25am	61	
1 31	10 44	44	
1 51	11 10	41	
1 52	11 25	40	
5 10pm	11 40am	28	
Arrive Daily Ex. Sunday	Leave Daily Ex. Sunday		
394	392		
1 10	1 15		
21 2	10 9		

Time Table No. 7.
In Effect July 1, 1924.

STATIONS

STATIONS	Telephone Call	Distance from Curlw	SIGNS.
CURLW	W	21.2	R D W Y
MAHO		13.8	
POLLARD		8.5	W
TOMPO		5.0	
REPUBLIC	Z		R D W C Y

SECOND CLASS.

391 393

Mixed Mixed
Arrive Daily Ex. Sunday Arrive Daily Ex. Sunday

10 10am	3 50pm
9 53	3 20
9 35	2 55
9 25	2 45
9 10am	2 30pm
Leave Daily Ex. Sunday	Leave Daily Ex. Sunday
391	393
1 00	1 20
21 2	15 9

Special Rules.

South bound trains are superior to north bound trains of the same class.
Normal position of north Wye switch is for Republic-Curlw Line.
Passenger trains must not at any place exceed a speed of one mile in one minute and thirty seconds, and freight trains in two minutes and twenty-four seconds.
All trains will come to full stop at crossing of Spokane & B. C. Ry. at Malo.
Trains 391, 392, 393 and 394 will stop on flag at Karamin.
Derailing switches—Belcher and Karamin.
All Trains will reduce Speed to ten miles per hour while Crossing Bridge 289 between Karamin and Pollard.
INITIAL STATIONS: Curlw for trains 392 and 394. Republic for trains 391 and 393.
TERMINAL STATIONS: Curlw for trains 391 and 392. Republic for trains 392 and 394.

Business Tracks Not Shown as Stations on Time Table.

NAME	Miles from Curlw	Switch at	Car Capacity
Belcher	8.5	Sliding	15
Karamin	8.6	South End	16
Karamin No. 2	8.6	North End	8
California	10.1	North End	8

NORTH BOUND.

FIFTH DISTRICT—NORTHPORT TO ROSSLAND.

SOUTH BOUND.

SECOND CLASS.		CAP. CAPACITY OF SECTIONS	Passing Train
386			
Leave Daily			
8 30pm		72	79
9 08			
9 28		10	
9 48		21	
1 10pm			
Leave Daily			
386			
1 00			
17 3			

Time Table No. 7.
In Effect July 1, 1924.

STATIONS

STATIONS	Telephone Call	Distance from Northport	SIGNS.
NORTHPORT	NP	17.3	R D W C Y O
RED MOUNTAIN JUNCTION		16.7	
VELVET		10.3	
PATENSON	KN	8.9	D
ROSSLAND	RO		R D W Y K

SECOND CLASS.

385

Mixed
Arrive Daily

11 00am
10 57
10 38
10 30
10 00am
Leave Daily
385
1 00
17 3

Business Tracks Not Shown as Stations on Time Table.

NAME	Miles from Northport	Switch at	Car Capacity
Stone	1.7	South End	7
Condon	4.8	South End	8
Poolo	2.6	South End	8

Special Rules.

South bound trains are superior to north bound trains of the same class.
No train will leave Paterson until conductor has reported to and received clearance from Customs Office.
All south bound trains must make service test of all brakes before leaving Rossland.
All fifth district trains will protect against second district trains at all times between Northport depot and Red Mountain Jet.
All south bound freight trains will come to full stop two hundred (200) feet north of Columbia River bridge and not exceed four (4) miles per hour over bridge.

South bound trains between Rossland and Northport must keep at least twenty-five (25) minutes apart. Operators will block trains as provided by this rule.
Derailing switches at Stone's Spur, Condons, Mansons, White Bear Mine and Rossland.
Water one mile south of Velvet.
INITIAL STATIONS: Northport for train 386. Rossland for train 385.
TERMINAL STATIONS: Northport for train 385. Rossland for train 386.

Normal position of position switch at Red Mountain Jet is second district.
Passenger trains must not at any place exceed a speed of one mile in two minutes and twenty-four seconds, and freight trains in four minutes and twenty-four seconds. All trains must not exceed a speed of one mile in four minutes and twenty-four seconds over Loop bridge and around twenty-two degree curve just south of Loop bridge. Velvet tank south to end of Sheep Creek Canyon, and a speed of one mile in two minutes over Bridge No. 1 over Columbia River.
Yard limit 1 cards each way from Northport and 1/2 mile south of Rossland

NORTH BOUND.

SIXTH DISTRICT - GRAND FORKS TO PHOENIX.

SOUTH BOUND.

SECOND CLASS		CAR CAPACITY OF SIDINGS		Distance from Grand Forks	STATIONS.	Telegraph Calls	Distance from Phoenix	SIGNS.	SECOND CLASS.	
390	Mixed	Passing Tracks	Other Tracks						389	Mixed
	Leave Daily Ex. Sunday								Arrive Daily Ex. Sunday	
	8.30pm	48	74		GRAND FORKS	GF	23.8	R D Y	10.20am	
	8.35	100	143	1.0	WESTON	WS	22.8	R WC Y	10.15	
	8.42			1.0	COPPER JCT.		22.2		10.12	
	4.09	40		6.6	SPENCER		17.2	W	9.58	
	4.27	46		13.9	HALE		9.9	D W	9.38	
	4.32	10	18	16.5	DENORO.		8.3		9.27	
	4.40	20		17.3	GLENSIDE		6.5	W	9.22	
	5.10pm		Yard	23.8	PHOENIX	FX		R D WC Y	9.00am	
	Arrive Daily Ex. Sunday								Leave Daily Ex. Sunday	
	390								389	
	1.40				Time Over District				1.20	
	14.3				Average Speed Per Hour				17.8	

Special Rules.

South bound trains are superior to north bound trains of the same class.

Passenger trains must not at any place exceed a speed of one mile in two minutes and twenty-four seconds, and freight trains four minutes and 0 seconds. All trains must not exceed a speed of one mile in four minutes and 0 seconds over Bridge No. 86 and around rock bluffs above Weston.

The normal position of switch at Junction of Phoenix Line is for Smelter Line.

The normal position of all Wye switches except South Wye Switch at Phoenix is for Yard tracks.

The normal position of south Wye switch at Phoenix is for Main Line to Passenger Depot.

The normal position of switch on Switch-Back at Tunnel No. 3 is for High Line.

Safety Sidings are provided just south of Spencer and three quarters mile North of Deadman's Bridge. Switches must be kept set and locked for safety tracks. All trains must come to a full stop before reaching these tracks, sending a brakeman ahead to set switches for main track, and set switches for safety track before leaving.

No train must leave Phoenix or Grand Forks north bound, until service test of air brakes has been made and brakes found in proper working order.

Conductors in charge of freight trains ascending Phoenix hill must see that their brakemen are on top of train at all times, to assist engineer in controlling trains; at least two stops of fifteen minutes each must be made to cool wheels, when conductor and brakeman must examine train carefully to discover cracked or broken wheels.

When freight trains ascending Phoenix hill are provided with two engines, the helper engine must be kept in the rear of the cars except the engine.

Trains descending Phoenix hill must keep at least twenty-five (25) minutes apart.

All trains crossing bridge on smelter spur over North Fork Kettle River, must reduce speed to fifteen (15) miles per hour.

Derailing switches on passing tracks at Spencer, Hale, Denoro, Glenside, and on home track, ore loading track and Victoria Spur at Phoenix.

INITIAL STATIONS.

Grand Forks, for train 390.
Phoenix, for train 389.

TERMINAL STATIONS.

Grand Forks, for train 389.
Phoenix, for train 390.

SECOND CLASS

SECOND CLASS.

396		Capacity of Side tracks		Distance from Oroville	Time Table No. 7. In Effect July 1, 1914.	Telegraph Calls	Distance from Coalmont	SIGNS.	397	
Mixed	Leave Daily Ex. Sunday	Passing Tracks	Other Tracks						Mixed	Arrive Daily Ex. Sunday
	7.00am	70	56		OROVILLE.....	H	91.1	R D W C Y		8.20pm
	7.45	52	22	11.3	NIGHTHAWK.....	G	79.8	D W		5.50
	8.15	51	40	21.2	CHOPAKA.....	CA	60.9	D W		5.15
	8.30									5.00
	9.00	52	13	30.8	SIMILKAMEEN.....		60.3			4.80
	9.30	49	87	38.1	KEREMEOS.....	K	53.0	D W		4.00
	9.55	16		45.1	ASHNOLA.....		46.0			3.30
	10.15	11		51.4	BRADSHAW.....		39.7	W		3.10
	10.30	29	13	55.5	HEDLEY.....	HD	35.3	D		2.55
	10.45		11	61.0	CORV.....		30.1			2.30
	11.05	28		67.7	BROMLEY.....		23.8	W		2.15
	11.20	16		72.5	NORMAN.....		18.6			2.00
	11.30	17		77.2	ALLISON.....		13.9			1.40
	11.45am	52	31	79.7	PRINCETON.....	OD	11.4	R D W Y		1.30pm
				91.1	COALMONT.....	I		D W Y		
Arrive Daily Ex. Sunday	396									397
	4.45									4.50
	10.7									10.0

Time Over District
Average Speed Per Hour

Special Rules.

South bound trains are superior to north bound trains of the same class.
 Trains 396 and 397 will not stop at Rich Bar and Ruby Mine Spur.
 No. train will leave Coalmont when Conductor has reported to and received clearance from Customs Officer.
 Trains will not exceed speed of one mile in two minutes and twenty-four seconds between Oroville and Coalmont and will keep sharp look-out for falling rocks at all points Hedley to Coalmont.
 North bound trains will stop fifty feet from public highway at Granite Creek on Princeton-Coalmont Line. Two
 Locals on Cement Spur to Princeton.

INITIAL STATIONS
 Oroville for train 396
 Princeton for train 397

TERMINAL STATIONS.
 Oroville for train 397.
 Princeton for train 396

Location and Length of Tunnels.

No.	LOCATION	LENGTH
7	4.95 miles north Oroville	1761 feet
8	.82 miles north Princeton.	1062 feet

Business Tracks not Shown as Stations on the Time Table.

NAME	Miles from Oroville	Switch at	Car Capacity
Rich Bar Spur.....	5.7	South End	6
Ruby Mine Spur.....	17.1	North End	7
B. C. Portland Cement Spur.....	79.2	South End	Priv. Spur

AUTOMATIC BLOCK SIGNALS.

501. In all cases except as noted by special rules, the BLOCK Signals are located upon the Right of and adjoining the track upon which trains are governed by them. The Semaphore arms that govern are displayed to the right of the Signal mast as seen from an approaching train. The movement of trains will be regulated by the block Signal indications as follows:

- A. An arm in the horizontal position (See figure No. 1) indicates that the block is not clear and is a Signal to "STOP."
- B. An arm in an inclined position (45 degrees above the horizontal) (See figure No. 2) indicates "PROCEED" with caution prepared to stop at the next signal.
- C. An arm in the vertical position (90 degrees above the horizontal) (See figure No. 3) indicates that the block is "CLEAR" and is a Signal to "PROCEED."
- D. At night the position of the Signals will, in addition, be shown by the standard colored lights.
RED indicates STOP.
YELLOW indicates "CAUTION;" proceed with caution prepared to STOP at next Signal.
GREEN indicates "PROCEED."

502. Block Signals control the use of the blocks, but unless otherwise provided, do not supersede the superiority of trains; nor dispense with the use or the observance of other Signals whenever and wherever they may be required.

503. Block Signals for a track apply only to trains running with the current of traffic on that track.

- A. Automatic Signals are designated by the number plate located on the mast below the arm. Intermediate automatic block signals located between passing tracks are equipped with one arm and one light. Home automatic block signals located at each passing track are in addition equipped with a Disc enclosing a red light six feet below the Semaphore arm. The Disc and red light are provided as a distinguishing marker for the home signals only. Trains passing Home Signals, automatically set to the "Stop Position" all Signals governing train movements in the opposite direction from the next passing track. See figures 4, 5 and 6.

B. Trains holding main track at meeting points must stand clear of passing track lead. Trains proceeding from side tracks, spurs, or other tracks to a main track, must remain clear of the bonded rails and insulated joints on such tracks, until the main line switch has been opened.

504. When a train is stopped by a block signal it may proceed when the signal is cleared. If not immediately cleared it may proceed—(See A, B and C):

- A. On single track, if the block signal is a Home Automatic Signal, at a speed not to exceed 6 miles per hour after obtaining authority from the Train Dispatcher, or preceded by a flagman to the next signal displaying a "Caution" or "Clear" indication expecting to find track impassable.
- B. On single track, if the block signal is an intermediate automatic signal, at once, at a speed not to exceed 6 miles per hour, except when proceeding under Rule 504-A, expecting to find track impassable.
Or—
- C. On double track, at once, under control, expecting to find track impassable.
- D. A train stopped by a Block Signal must stand facing the signal so that its indication may be observed from the Engine. The forward wheels must not pass the signal.

505. Omitted.

506. When a train is stopped by a block signal from any cause. Engineman will report to Superintendent, preferably on Form 2600 and operator will transmit in accordance with instructions thereon.

507. Lights must be used upon all block signals from sunset to sunrise, and whenever the signal indications cannot be clearly seen without them. At such times if lights are not burning, or if a white light is shown where a colored light should be, trains must ascertain and be governed by the day signal indication before passing signal.

508. In making train movements through cross-over or other switches to or from a main track, one of the switches must be kept open until train movement is completed to insure signal protection.

The opening of any switch will set and hold signal of that block at stop until the switch is closed. The opening of any switch at either end of a double track cross-over will hold signals on both main tracks at stop.

If either end of a siding cross-over on single track is opened, it will set and hold the signals that control the block on main track to which it leads in both directions at stop. Neither switch nor cross-over must therefore be opened, until the movement of the train is to be made, and must be closed immediately after the movement has been made and the switches locked.

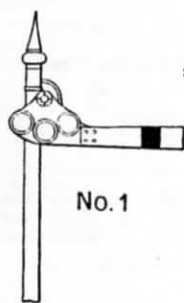
509. Switch Indicators (miniature semaphores) where used stand normally in "STOP" position. Trainmen or others using switches equipped with switch indicators must first push button on bottom of switch indicator case and if no train is approaching switch indicator will clear when switch may be used. The switch should be thrown at once after switch indicator clears.

510. When necessary to clean ash pan or cinders from the smoke arch inside of block signal limits care must be taken to avoid dumping live coals or hot cinders on the wooden trunking used to protect the signal track wiring.

511. Lights will not be provided on any main line switch located within 300 feet of an automatic signal governing the block in which the switch is located. Lights will not be provided on trailing point switches on double track.

512. Cars on side track or other tracks connecting with main tracks must be kept clear of bonded rails and insulated joints as otherwise signals will be held in "STOP" position. All tracks connecting with main track are bonded to clearance point only.

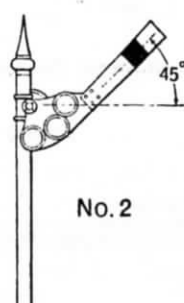
513. Interlocking Signals located in districts equipped with Automatic Signals, become, unless otherwise stated under "Special Rules", a part of the automatic block signal system. All such Home Interlocking Signals are equipped with not less than two arms and two lights, see general instructions governing operation and maintenance of interlocking plants and figures Nos. 7, 8, 9, 10, 11 and 12.



No. 1

INTERMEDIATE AUTOMATIC BLOCK SIGNAL.

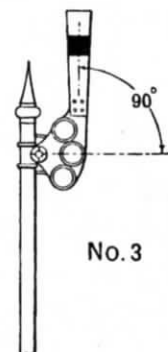
Color. RED light at night.
Indication. STOP.
Name. STOP Signal.



No. 2

INTERMEDIATE AUTOMATIC BLOCK SIGNAL.

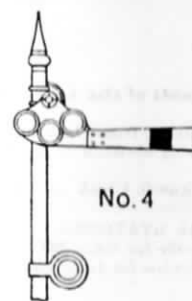
Color. YELLOW light at night.
Indication. PROCEED with CAUTION,
prepared to stop at next signal.
Name. CAUTION Signal.



No. 3

INTERMEDIATE AUTOMATIC BLOCK SIGNAL.

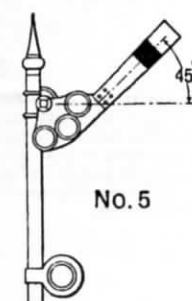
Color. GREEN light at night.
Indication. PROCEED.
Name. CLEAR Signal.



No. 4

HOME AUTOMATIC BLOCK SIGNAL.

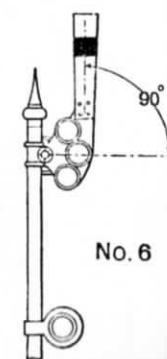
Color. Arm, RED light at night.
Disc, RED light at night.
Indication. STOP.
Name. STOP Signal.



No. 5

HOME AUTOMATIC BLOCK SIGNAL.

Color. Arm, YELLOW light at night.
Disc, RED light at night.
Indication. PROCEED with CAUTION,
prepared to stop at next signal.
Name. CAUTION Signal.



No. 6

HOME AUTOMATIC BLOCK SIGNAL.

Color. Arm, GREEN light at night.
Disc, RED light at night.
Indication. PROCEED.
Name. CLEAR Signal.

INTERLOCKING SIGNALS.

ENGINEMEN AND TRAINMEN.

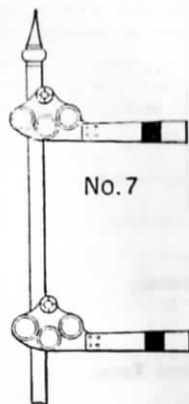
- 661. Trains or engine may be run to but not beyond a signal indicating "Stop," except as provided in Rule 663.
- 662. If a Clear or Caution signal, after being accepted, is changed to a "Stop" signal before it is reached, the stop must be made at once. Such occurrence must be reported to the Superintendent.
- 663. Enginemen and Trainmen must not proceed on hand signals as against interlocking signals until they are fully informed of the situation and know that they are protected, and then only when the prescribed hand signal is given as per Rules 620 and 620-A.
- 664. The Engineman of a train which has parted must sound the whistle signal for "train-parted" on approaching an interlocking plant.
- 665. An Engineman receiving a "train-parted" signal from a Signalman must answer by the whistle signal for "train-parted."

- 666. When a parted train has been re-coupled the Signalman must be notified.
- 667. Sand must not be used over movable parts, or ashes dumped within the limits of an interlocking plant.
- 668. Conductors must report to Superintendent any unusual detention at interlocking plants.
- 669. Trains or engines stopped by the Signalman in making a movement through an interlocking plant, must not move in either direction until they have received the proper signal from him.
- 620. If a signal fails to work properly its operation must be discontinued and until repaired the signal secured so as to display the normal indication. Under such circumstances Signalmen must be governed as per Rule 623 and in addition will require all trains to make a full stop before giving hand signal to proceed. Signalmen giving proceed hand signals must use a yellow flag by day and a yellow light by night.

620A. Signalmen giving hand signals must do so from the center of the track upon which the train movement is to be made. When more than one train is in sight hand signal must be given from a point not to exceed one hundred feet in advance of the locomotive.

623. If there is a derailment, or if a switch is run through, or if any damage occurs to the track or interlocking plant, or if any part of the interlocking apparatus fails to operate properly, the signals must be restored to the normal position, and no train or switch movement permitted until the track and interlocking parts liable to consequent injury or failure have been thoroughly examined and are known to be in safe condition.

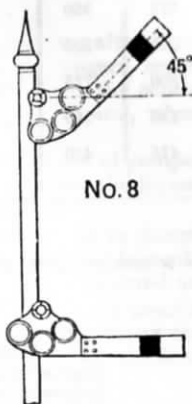
Note. A flag signal given by Signalman at an interlocking home signal in automatic signal districts is only authority to pass such signal and does not modify its indication as an automatic signal. See Rules 504 and 513.



No. 7

INTERLOCKING HOME SIGNAL.

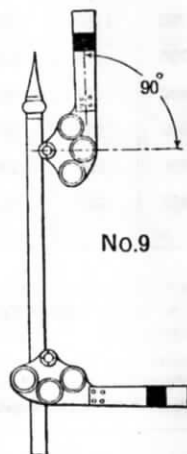
Color. Upper Arm, RED light at night.
Lower Arm, RED light at night.
Indication. STOP. Proceed only when signal clears or upon prescribed hand signal from Signalman.
Name. STOP Signal.



No. 8

INTERLOCKING HOME SIGNAL.

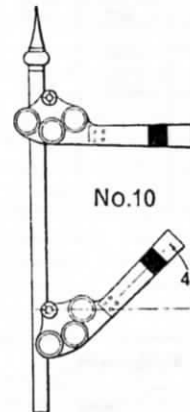
Color. Upper Arm, YELLOW light at night.
Lower Arm, RED light at night.
Indication. Main line route clear, proceed with CAUTION, prepared to stop at next signal.
Name. CAUTION Signal.



No. 9

INTERLOCKING HOME SIGNAL.

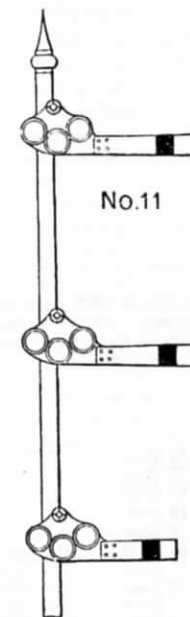
Color. Upper Arm, GREEN light at night.
Lower Arm, RED light at night.
Indication. Main line route clear, PROCEED.
Name. CLEAR Signal.



No. 10

INTERLOCKING HOME SIGNAL.

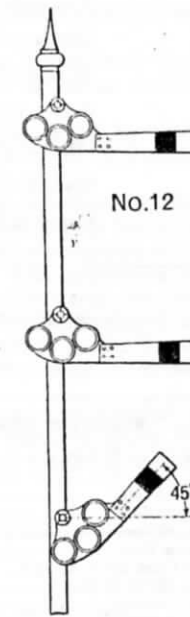
Color. Upper Arm, RED light at night.
Lower Arm, YELLOW light at night.
Indication. Diverging route clear, proceed with CAUTION.
Name. CAUTION Signal.



No. 11

INTERLOCKING HOME SIGNAL.

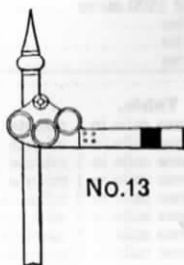
Color. Upper Arm, RED light at night.
Middle Arm, RED light at night.
Lower Arm, RED light at night.
Indication. STOP. Proceed only when signal clears or upon prescribed hand signal from Signalman.
Name. STOP Signal.



No. 12

INTERLOCKING HOME SIGNAL.

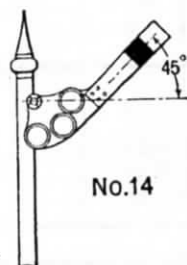
Color. Upper Arm, RED light at night.
Middle Arm, RED light at night.
Lower Arm, YELLOW light at night.
Indication. Slow speed, Route clear, Proceed.
Name. CAUTION Signal.



No. 13

INTERLOCKING DISTANT SIGNAL.

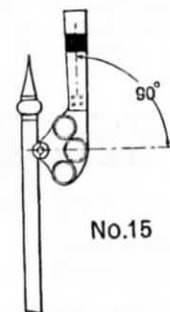
Color. RED light at night.
Indication. STOP, then proceed with CAUTION, prepared to stop at Home Signal.
Name. STOP Signal.



No. 14

INTERLOCKING DISTANT SIGNAL.

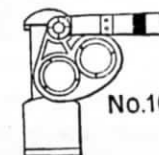
Color. YELLOW light at night.
Indication. PROCEED with CAUTION, prepared to stop at Home Signal.
Name. CAUTION Signal.



No. 15

INTERLOCKING DISTANT SIGNAL.

Color. GREEN light at night.
Indication. PROCEED.
Name. CLEAR Signal.



No. 16

DWARF SIGNAL.
Color. RED light at night.
Indication. STOP.
Name. STOP Signal.



No. 17

DWARF SIGNAL.
Color. YELLOW light at night.
Indication. PROCEED with CAUTION.
Name. CAUTION Signal.

CAPACITY OF ENGINES IN ADDITION TO WEIGHT OF ENGINES, TENDERS AND CABOSES.

STATIONS.	Ruling Grade	Class F-8 1140-1253				Class G-2 700-719 Class G-3 720-769				Class D-5 454-471 Class F-1 500-565				Class F-4 1094			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Dean to Loon Lake.....	1.	1200	1100	1050	1000	950	900	850	800	700	650	600	550	....	....	....	....
Valley to Loon Lake.....	1.	1200	1100	1050	1000	950	900	850	800	700	650	600	550	....	....	....	....
Valley to Meyers Falls.....	1.	1700	1600	1500	1400	1200	1150	1100	1050	1000	950	900	850	....	....	....	....
Meyers Falls to Valley.....	1.	1800	1600	1500	1400	1200	1150	1100	1050	1000	950	900	850	....	....	....	....
Marcus to Meyers Falls.....	2.	625	500	450	400	500	450	425	400	360	325	300	275	....	....	....	....
Marcus to Northport.....	1.	....	....	....	....	1000	950	900	875	750	700	675	650	....	....	....	....
Northport to Marcus.....	1.	....	....	....	....	1000	950	900	875	750	700	675	650	....	....	....	....
Northport to Waneta.....	1.	....	....	....	....	1000	950	900	875	750	700	675	650	....	....	....	....
Waneta to Apex.....	1.6	....	....	....	....	....	....	....	....	475	450	425	400	....	....	....	....
Troup Jct. to Apex.....	2.5	....	....	....	....	....	....	....	....	275	250	225	200	....	....	....	....
Northport to Rossland.....	3.5	....	....	....	....	....	....	....	....	160	150	140	130	185	175	165	155
Marcus to Midway.....	.6	1700	1600	1500	1400	1300	1200	1150	1100	1000	950	925	900	....	....	....	....
Midway to Molson.....	1.25	950	900	850	800	750	700	675	650	650	600	575	550	....	....	....	....
Oroville to Molson.....	2.5	500	450	400	350	425	400	375	350	275	250	225	200	....	....	....	....
Oroville to Coalmont.....	.8	1750	1650	1550	1450	1050	1000	950	900	900	850	800	775	....	....	....	....
Grand Forks to Phoenix.....	3.	....	....	....	....	300	270	250	240	220	200	180	160	....	....	....	....
Curlew to Republic.....	1.5	....	....	....	....	675	650	625	600	525	500	475	450	....	....	....	....

WEATHER RATING:
 1—When temperature is 25 degrees above zero or over.
 2—Very frosty or wet. 5 to 25 above zero.
 3—Five degrees above to 10 below zero.
 4—10 below zero and colder.

Chief Train Dispatcher may increase or decrease above rating as it may be found necessary.

Weights of Empty Freight Cars.

Box Cars, 28 to 30 foot.....	11 Tons
Box Cars, 33 foot.....	12 Tons
Box Cars, 34 foot.....	13 Tons
Box Cars, 36 foot.....	15 Tons
Box Cars, 40 foot.....	17 Tons
Refrigerator Cars.....	20 Tons
Furniture Cars, 30 to 40 foot.....	17 Tons
Furniture, 40 to 50 foot.....	19 Tons
Caboose, 8-wheel.....	17 Tons
Caboose, 4-wheel.....	10 Tons
Flat Cars, 28 to 30 foot.....	9 Tons
Flat Cars, 33 and 34 foot.....	11 Tons
Flat Cars, 40 foot.....	12 Tons
Flat Cars, 40 foot.....	12 Tons
Coal Cars.....	12 Tons
Gondola Cars.....	13 Tons
Ore Cars, Wood.....	12 Tons
Ore Cars, Steel.....	15 Tons
Oil Tanks.....	15 Tons
Ballast Cars.....	12 Tons
Steam Wreckers.....	75 Tons

Weights of Passenger Equipment.

	Wooden	Steel Under-frame	Steel
Postal Cars,			
Nos. 1 to 21.....	....	....	67 Tons
Nos. 90 and 91.....	....	....	48 Tons
Nos. 50 to 69.....	54 Tons	....	....
Nos. 107 to 114.....	43 Tons	....	....
Baggage and Mail,			
Series 300 and 400.....	26 Tons	....	....
Series 500 and 600.....	45 Tons	....	....
Series 700.....	60 Tons	....	....
Series 800.....	....	60 Tons	....
Baggage and Express,			
Nos. 1000 to 1027.....	25 Tons	....	....
Nos. 1050 to 1089.....	50 Tons	....	....
Nos. 1100 to 1119.....	....	60 Tons	....
Nos. 1588 to 1702.....	55 Tons	....	....
Express Refrigerators,			
Nos. 1900 to 2097.....	Have weights stenciled	on cars.	....
Passenger and Baggage,			
Nos. 2100 to 2201.....	25 Tons	....	....
Coaches,			
Nos. 3000 to 3241.....	27 Tons	....	....
Nos. 3250 to 3606.....	48 Tons	....	....
Nos. 3700 to 3724.....	....	52 Tons	....

Weights of Passenger Equipment—Cont.

	Wooden	Steel Under-frame	Steel
Coaches—Cont.			
Nos. 4000 to 4012.....	36 Tons	....	....
Nos. 4013 to 4060.....	41 Tons	....	....
Nos. 4100 to 4159.....	51 Tons	....	....
Nos. 4200 to 4317.....	59 Tons	....	....
Nos. 4500 to 4529.....	....	....	70 Tons
Tourist,			
Nos. 6520 to 6567.....	43 Tons	....	....
Nos. 6568 to 6611.....	52 Tons	....	....
Diners,			
Nos. 7010 to 7015.....	50 Tons	....	....
Nos. 7030 to 7041.....	58 Tons	....	....
Nos. 7100 to 7131.....	61 Tons	....	....
Parlor Cars,			
Nos. 7500 to 7571.....	45 Tons	....	....
Nos. 7572 to 7604.....	60 Tons	....	....
Sleepers,			
Nos. 8000 to 8456.....	60 Tons	....	....
Compartment-Observation,			
Nos. 9001 to 9035.....	63 Tons	....	....
Business Cars,			
Average Weight.....	40 Tons	....	....

Weights of Dead Engines and Tanks.

Engines numbered below 200 series.....	80 Tons
Engines numbered in 200 series.....	90 Tons
Engines numbered in 300 series.....	86 Tons
Engines numbered in 400 series.....	110 Tons
Engines numbered in 500 series.....	115 Tons
Engines numbered in 600 series.....	120 Tons
Engines numbered in 700 series.....	140 Tons
Engines numbered in 800 series.....	155 Tons
Engines numbered in 900 series (except 992 to 997).....	115 Tons
Engines numbered 992 to 997.....	95 Tons
Engines numbered 1000 to 1007.....	131 Tons
Engines numbered 1050 to 1069.....	144 Tons
Engines numbered 1079 to 1095.....	158 Tons
Engines numbered in 1100 and 1200 series.....	160 Tons
Engines numbered in 1300 series.....	160 Tons
Engines numbered 1400 to 1405.....	173 Tons
Engines numbered 1406 to 1425.....	188 Tons
Engines numbered in 1500 and 1600 series.....	179 Tons
Engines numbered in 1700 series.....	180 Tons
Engines numbered in 1800 series.....	219 Tons
Engines numbered in 1900 series.....	252 Tons
Engine Tank (Empty).....	30 Tons

Speed Table.
 50 miles per hour is equivalent to one mile in 1 minute and 12 seconds.
 45 miles per hour is equivalent to one mile in 1 minute and 20 seconds.
 40 miles per hour is equivalent to one mile in 1 minute and 30 seconds.
 35 miles per hour is equivalent to one mile in 1 minute and 43 seconds.
 30 miles per hour is equivalent to one mile in 2 minutes and 0 seconds.
 25 miles per hour is equivalent to one mile in 2 minutes and 24 seconds.
 20 miles per hour is equivalent to one mile in 3 minutes and 0 seconds.
 15 miles per hour is equivalent to one mile in 4 minutes and 0 seconds.

The following will govern when handling empty cars: With 10 or less empty cars in a train, no allowance will be made for wheel friction; with 10 to 20 empty cars in train, add to actual weight 5 tons for each empty car for wheel friction; with more than 20 empty cars in a train add 6 tons per car for wheel friction.

SPECIAL RULES.

South Bound Trains are superior to North Bound Trains of the same class.

- 1. All light engines or engines with caboose only will take siding at meeting points except when running as sections of a passenger train.
- 2. Car capacity of loadings is based on forty two (42) feet per car.
- 3. Trains displaying signals for following sections will stop at ALL registering stations, and the Conductors will register in person.

- 4. In addition to signs provided for in rule 7 the following signs in column headed "Signs" indicate:
 - D Day telegraph or telephone station.
 - N Night telegraph or telephone station.
 - DN Day and night telegraph or telephone station.
 - P Dispatcher's telephone accessible at all times.
 - I Interlocked.
 - K Connection with foreign road.
 - Standard clock.

PERSONAL INJURIES.

- 1. Whenever passengers or employes are injured everything must be done to care for them properly. If they are able to be moved, take them for treatment to the nearest place at which the Company has a surgeon. If they cannot be moved, call the nearest Company surgeon. If the case is urgent and the Company surgeon cannot be immediately procured, the conductor, agent or officer in charge is authorized to call the nearest surgeon available to admit for first aid and care for the patient until the Company surgeon can take charge of the case. No surgical operation must be performed until the arrival of the Company surgeon unless it may be required for the immediate safety of the patient.
- 2. In cases of serious accidents to trains, conductors, after making everything safe, must give their undivided attention to the care and comfort of their passengers, especially to those who are injured. Bedding and linen may be taken from sleepers for this purpose, the conductor keeping careful account of all material so taken, and its return or safe keeping attended to; and, when necessary, injured persons may be put in the sleepers. When a number of persons are injured, the service of competent surgeons in the vicinity should at once be secured, and every possible effort made to care for the injured, the Division Surgeon being notified by wire to come immediately to the place of the accident.
- 3. When trespassers, boys and other persons climb on or jump from moving trains, or persons walking or lying on the track, are injured or killed, they should be sent to their homes or placed in charge of the local county, city or village authorities, and no expense incurred on the part of the Company in the matter.
- 4. When people are killed or any parts of their body should be picked up and taken to the nearest station and the authorities notified. Never take the body out of the county where the accident happened if it can be avoided, but if there is no station in that county, take it to the nearest station in the next county, notifying the county authorities in all cases.
- 5. A report of all accidents must be made, and immediately sent by wire to Superintendent, giving all information.

In reporting accidents to trains carrying passengers, conductors should give the correct names of the injured and uninjured, the addresses and destinations of all persons on the train, and of the injured, and the extent of their injuries. This report must be sent from first telegraph office to the General Claim Agent and to the Assistant Claim Agent, in whose jurisdiction the accident occurs. As soon as possible thereafter Form 245 should be made out by each employe and forwarded to the Superintendent of the division; a separate report being made for each person injured.

- 6. Every effort must be made to procure the names and addresses of all persons, outsiders as well as employes who witnessed the accident, especially when persons are injured within the corporate limits of any city, town or village, or when crossing the tracks at a public highway.
- 7. In every case of personal injury in any department, a full and complete report must be made at once by every employe immediately present, no matter whether he considers his statement of importance or not, answering every question as fully as possible.
- 8. When persons are injured by an accident which may have been caused by defective appliances, tools or machinery, the car or appliance, tool or machinery must be immediately examined by the person in charge to ascertain its condition, and report made of the inspection, giving the numbers and initials of cars examined, with names, occupation and address of the persons making the inspection. This inspection must be made before the car or engine leaves the place where the accident occurred, and afterwards, at the first district terminal by the inspector, foreman or master mechanic at such point, the Superintendent to notify such person of the necessity of making such examination. When an accident is caused by the breaking of machinery, tools, appliances or rails, the broken parts must be so marked as to be readily identified, and immediately turned over to the Superintendent.
- 9. This Company will not recognize any responsibility for board, medicine, nursing or surgical attention furnished by other than Company surgeons, except for the emergency service required under Rules 1 and 2, unless authorized by the Superintendent, General Claim Agent, or a general officer of the Company, and when so authorized the General Claim Agent should at once be notified.

COMPANY SURGEONS.

Dr. J. A. Quinn, Chief Surgeon, Suite 301 23 First Cong Bldg., Cor. 5th and Wabasha Sts., St. Paul.
 Roeckman and Buchanan, Ophthalmic Surgeon, 222 Lowry Bldg., St. Paul.
 (Employer consulting should be provided with an order from the Superintendent.)

Spokane	Dr. J. G. Cunningham.
Spokane	Dr. S. B. Hopkins, Oculist.
Hillyard	Dr. J. Farrow.
Springdale	Dr. D. H. Lewis.
Colville	Dr. A. B. Cook.

Marcus	Dr. W. C. Goss.
Northport	Dr. R. S. Wells.
Rossland	Dr. J. W. Coffin.
Nelson	Dr. W. O. Rose.
Republic	Dr. F. J. Whittaker.
Grand Forks	Dr. C. M. Kingston.
Oroville	Dr. E. E. Effner.

TIME INSPECTORS.

Spokane	Geo. H. Downer.
Hillyard	L. R. Squibb.
Grand Forks	M. D. White.
Marcus	L. S. Mumper.

Rossland	T. G. Challoner.
Nelson	Patenaude Bros.
Oroville	E. A. McMahon.
Republic	C. M. Ayres.

F. F. DOWNEY, Dispatcher
 L. F. STONES, Dispatcher
 W. B. ROACH, Dispatcher

D. W. DUNN, Chief Dispatcher.
 G. A. MANTHE, Train Master.