## MILEAGE

Seward to Fairbanks         470.3           Whittier to Portage         12.4           Total Main Line         482.3           Branches         Matanuska to Sutton         18.3           Moose Creek to Premier         3.3           Sutton to Jonesville         2.3           Eska Jct. to Eska         0.3
Total Main Line.         482."           Branches         Matanuska to Sutton.         18.5           Moose Creek to Premier.         3.5           Sutton to Jonesville.         2.5           Eska Jct. to Eska.         0.5
Branches  Matanuska to Sutton
Matanuska to Sutton. 18.5  Moose Creek to Premier 3.5  Sutton to Jonesville 2.5  Eska Jct. to Eska 0.5
Moose Creek to Premier 3.5 Sutton to Jonesville 2.5 Eska Jct. to Eska 0.5
Sutton to Jonesville 2.5 Eska Jct. to Eska 0.5
Eska Jct. to Eska 0.5
** 1 . 0
Healy to Suntrana 4.
Fairbanks to Eielson
Total Branches 58.
TOTAL541.5

#### ASST. SUPT. OF TRANSPORTATION

W. R. STRONG

J. L. LINDSEY

#### TRAINMASTER

L. C. Nelson

## ROAD FOREMAN OF EQUIPMENT—TRAINMASTER

W. E. Franklin

#### CHIEF TRAIN DISPATCHER

F. F. Price......Anchorage

#### TRAIN DISPATCHER

K. M. Frank

C. H. Fortier

L. E. LeQuire

0. 11. 10.010.

M. R. Frank

G. E. Bauer

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION



In Effect at 12:01 A.M. 150th Meridian Standard Time

MONDAY, SEPTEMBER 11, 1967

SAFETY FIRST

For the Government of Employees only

J. E. MANLEY General Manager R. H. BRUCE Assistant General Manager

W. C. DAVIDSON Superintendent of Transportation

Second Class	First Class	Capacity of sidings in car lengths loca-	Time Table No. 80		First Class	Second Clas
		tion of scales, fuel, water,	September 11, 1967	Distance from		
		turning and telephone stations (See Rule 6-A)	STATIONS	Seward		
		Yard BKOP WXYZ	TO R ANCHORAGE 2 1	114.3		
		44 P	CAMPBELL 3.1	109.3		
		67	TURNAGAIN	106.2		
		43 P	POTTER	100.6		
		21	RAINBOW 2	93.5		
		96	INDIAN	88.7		
		49	7.0 BIRD 7.2	81.7		
		37 P	GIRDWOOD 4.0	74.5		-
			KERN 6.5	70.5		
		Yard JPXY	PORTAGE ②	64.2		
		Spur 60(S) P	SPENCER 4.8	55.8		
		Spur 7(S) PY	TUNNEL.	51.0		
		40 P	GRANDVIEW	44.9		
		88 PY	HUNTER 6.2	40.0		
			JOHNSON 4.5	33.8		
		15 PX	TO MOOSE PASS ② ①	29.3		
		75 P	CROWN POINT	24.5		
			LAWING 4.9	23.3		
		P	PRIMROSE 6.4	18.4		
		45 P	DIVIDE ②	12.0		
		30	WOODROW 6.9	6.9		
		Yard BKOP WXY	TO R SEWARD ①	0.0		
			(114.3)			
			Time over Sub-division Average Speed per Hour			
M.P.	SpurSpur	(S)	RACKS LOCATION Car Capacity 7 17 20	OF WATER	HE OPPOSITE D TANKS BETWEE	
109.8 Industry	Spur Spur	(N) (S) (N)	50			

Second Class	First Class	Capacity of sidings in car lengths loca-	Time Table No. 80		First Class	Second Clas
21	5	tion of scales, fuel, water, turning and	September 11. 1967	Distance. from Seward	6	22
Daily Except Sat. & Sun.	Wed, Fri, Sun.	telephone stations (See Rule 6-A)	STATIONS			
	L 12: 19 PM	Yard BJKOP WXYZ	TO R HEALY 20	358.1	A 5: 24 PM	
	f 12: 29	14 P	2.4 GARNER	355.7	f 5:14	
	s 1:00	39 PXY	TO McKINLEY PARK 2 1	347.9	s 4:45	
	f 1:10	P	LAGOON	343.7	f 4: 33	
	f 1:29	25 P	9.3 CARLO	334.4	f 4:13	
	f 1:44	27 PY	WINDY	326.7	f 3:56	
	s 1:59	36 P	CANTWELL	319.5	s 3:41	
	s 2:12	20 P	SUMMIT	312.5	s 3:28	
	f 2:25	83 PXY	BROAD PASS ②	304.3	f 3:14	
	f 2:35	82 P	COLORADO	297.1	f 3:01	
	f 2:54	111 P	HONOLULU	288.7	f 2:46	
	f 3:14	48 P	HURRICANE 2	281.4	f 2:23	
	f 3:29	42 PY	CHULITNA	273.8	f 2:01	
	f 3:41	42 P	CANYON	268.4	f 1:46	
	f 3:51	35 P	5.2	263.2	f 1:35	
	f 4:01	29 P	GOLD CREEK 5.5 SHERMAN	257.7	f 1:25	
	f 4:25	Yard WXY	SHERMAN 9.2 CURRY 2	248.5	f 1:08	
	f 4:45	58 P	CURRY (2) 12.3 CHASE	236.2	f 12:43	
	s 5:02	88 KP	TO TALKEETNA ② ①	226.7	s 12:29	
	f 5:19	80 P	11.4 SUNSHINE	215.3	f 12:11	
	f 5: 29	89 P	6.0 MONTANA	209.3	f 12:02PM	
	f 5:41	27 P	7.0 CASWELL	202.3	f 11: 49 AM	
	f 5:55	32 P	KASHWITNA	193.9	f 11:36	
	s 6:10	80 PXY	willow ②	185.7	s 11:23	
	f 6:28	50 P	HOUSTON		f 11:05	
-+-+	f 6:41	Spur 33(N) P	8.4 PITTMAN		f 10:52	
-+-+	s 6:53	62 P	TO WASILLA 2 1	159.8	s 10:42	
L 1:35 PM	s 7:18	40 JPXY	R MATANUSKA	150.7	s 10:18	A 10: 05 AM
1.51	£ 7.04	33 P	9.5 EKLUTNA	141.2	f 10:00	9:46
1: 51	f 7:34 f 7:45	42 P	BIRCHWOOD		f 9:50	9: 36
2: 02	f 8:05	14 P	9.7		f 9:30	9: 16
2: 38	f 8: 21	82 PX	EAGLE RIVER 7.5		f 9:15	9:01
A 2: 55 PM	A 8: 40 Pt		TO R ANCHORAGE (2) (1)		L 9:00 AM	L 8: 45 AM
A 2.00 III		WXYZ	(243.8)		Tues, Thurs, Sat.	Daily Except Sat. & Sun.
1: 20	8: 21		Time over Sub-division		8: 15	1: 20
27: 30	29: 20		Average Speed per Hour		29: 55	27: 30

SOUTHWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION

Except No. 22 is Superior to No. 21

(ADDITIONAL STOPS ON SIGNAL—SEE FOLLOWING PAGE)

## ADDITIONAL STOPS ON SIGNAL

No. 5 & 6 Moody, M.P. 353.2 M.P. 276.4 Lane, M.P. 242.6 Gravel Pit, M.P. 232 Fishlake, M.P. 221.3 Little Willow, M.P. 190.5 M.P. 188 Nancy, M.P. 180.7 M.P. 147.5

M.P.			Car Capacity
*350.4	Spur	(N)	16
301.5	Spur	(N)	20
281.4	Spur, off siding	(N)	3
231.6	Gravel Pit		50
158.7	Spur	(S)	9
*147.5	Spur	(S)	12
142	Spur	(N)	38
135.8	Storage Spur		284
131.4	Spur	(N)	75
131.1	Spur	(S)	60

<sup>\*</sup>Unsafe for engines beyond clearance point.

SOUTHWARD		N	ENANA SUB-DIVISION	NORTHWARRD			
Second Class	First Class	Capacity of sidings in car lengths loca-	Time Table No. 80	Distance	First Class	Second Class	
	5	tion of scales, fuel, water, turning and	September 11, 1967	from Seward	6		
	Wed, Fri, Sun.	telephone stations See Rule 6-A)	STATIONS				
	L 9:00 AM	Yard BJKOP WXYZ	TO R FAIRBANKS	470.3	A 8: 55 PM		
	f 9:15	Spur 14 (n)	7.3 HAPPY	463.0	f 8:35		
	f 9:30	Spur 15 (n)P	6.8 DOME ②	456.2	f 8: 20		
	f 9:40	83 P	SAULICH	450.8	f 8:10		
	f 9:57	41 P	STANDARD 7.9	439.5	f 7:52		
	f 10:08	85 P	DUNBAR 11.2	431.6	f 7:41		
	f 10: 24	77 P	BERG	420.4	f 7:25		
	f 10:32	83 P	NORTH NENANA ②	415.4	f 7:17		
	s 10:44	Yard PXY	TO NENANA (1)	411.7	s 7:07		
	f 10:59	P	JULIUS 8.4	401.3	f 6:47		
	s 11:14	83 PY	CLEAR SITE	392.9	s 6:32		
-+-+	f 11:33	19 P	BROWNE	381.2	f 6:12		
	f 11: 48 AV	18 P	FERRY	371.2	f 5:57		
	f 12:01 PM	P	7.9 LIGNITE -5.2	363.3	f 5:44		
	A 12: 09 PM	Yard BJKOP WXYZ	TO R HEALY 1 2	358.1	L 5:34 PM		
			(112.2)		Tues, Thurs, Sat.		
	3:09		Time over Sub-division		3: 15		
	35: 62	5	Average Speed per Hour		34: 52		

## SOUTHWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION

## ADDITIONAL STOPS ON SIGNAL

No. 5 & 6 Industrial Spur, M.P. 453 M.P. 394.9	M.P. 362.4 Industria 388.0 Spur	l Siding (S)	Car Capacity 23 40
M.P. 388	392.2 Spur	(N)	
Wood Spur 388.9		l Siding l Spur (N)	37

SOUTHWARD			WHITT	WHITTIER SUB-DIVISION			
Capacity of sidings in car lengths loca-	Second Class	First Class		Time Table <b>N</b> o. 80		First Class	Second Class
tion of scales, fuel, water,			Distance from	September 11, 1967	Distance from		
telephone stations (See Rule 6-A)			Portage	STATIONS	Whittier		
Yard JPXY	, =		0.0	PORTAGE 2	12.4		
P			5.3	5.3 MORAINE	7.1		
Yard P WXY			12.4	TO R WHITTIER ①	0.0		
				(12.4)			
				Time over Sub-division Average Speed per Hour			1

SOUTHWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION

SC	WHTUC	ARD		SUTTO		NORTHWARD			
Capacity of sidings in car lengths loca		Second Class 21		Second Class Class			First Class	Second Class	
tion of scales, fuel, water, turning and	Distance from Sutton			September 11, 1967	Distance from Matanuska		22		
tele	phone ations tule 6-A)	Daily Except Sut. & Sun.		Julion	STATIONS	Matanuska			
29	JPXY	L 12: 30PM		0.0	SUTTON	18.9		A 11:10AM	
21	JX	12:50		5.7	MOOSE CREEK	13.2		10:50	
26	PX	s 1:10		12.4	TO PALMER (1)	6.5		s 10:30	
40	JPXY	A 1:30PM		18.9	R MATANUSKA	0.0		L 10:10AM	
					(18.9)			Daily Except Sat. & Sun.	
		1:00 18:90		*	Time over Sub-division Average Speed per Hour			1:00 18:90	

SOUTHWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION

Except No. 22 is Superior to No. 21

M.P.	Car	Capacity
5.7 Ketchikan Spruce Mills Spur	. (S)	18
9.3 Ditcher Spur	. (S)	2

SOUTHWARD				JONESVILLE BRANCH				NORTHWARD		
Capacity of sidings in car		Second Class	First Class		Time Table No. 80		First Class	Second Class		
lengths loca- tion of scales, fuel, water, turning and telephone stations (See Rule 6-A)	cales,	21	7	Distance from	September 11, 1967	Distance from	Citas	22		
	and ne is	Daily Except Sat. & Sun.		Jonesville	STATIONS	Sutton				
40	PX	L 11:45 AM		0.0	JONESVILLE 0.5	2.9		A 11: 40 AM		
	JX			0.5	ESKA	2.4				
29 J	PXY	A 12:05PM		2.9	SUTTON	0.0		L 11: 20 AM		
					(2.9)	T		Daily Except Sat. & Sun.		
		0: 20 8: 70			Time over Sub-division Average Speed per Hour			0: 20 8: 70		

SOUTHWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION

Except No. 22 is Superior to No. 21

SOUTHWARD			EIEI	LSON BRANCH	NORTHWARD		
Capacity of sidings in collengths location of scale fuel, water turning and telephone stations (See Rule 6-	s,	First Class	Distance from Eielson	Time Table No. 80 September 11, 1967 STATIONS	Distance from Fairbanks	First Class	Second Class
Yard P			0.0	EIELSON	28.0		
13	х .		11.7	NORTH POLE	16.3		
Yard P	Y		24.2	FT. WAINWRICHT	3.8		
Yard BJKC			28.0	TO R FAIRBANKS	0.0		

SOUTHWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION

M.P		Car Capacity
9.0	Industrial Siding	
24.1	Spur(N)	8

#### 1. EMPLOYEES ARE FORBIDDEN TO RIDE:

- a. On engine footboard, between engine and car, when cars are being pushed.
- Between engine and car, between stations, on front end of engines, or on engine pilots.
- c. On buffers, drawbars, brake beams, grab irons, brake wheels and ladders on facing end of cars that are being pushed.
- d. On ends of cars containing loads that might shift.
- e. On footboards of engines or on sides of cars or ends of cars going in or out of depressed tracks.
- f. On truss rods, using door handles for handholds.
- g. Not more than two employees are permitted on front footboard of a moving engine and then they must be separated by the drawbar. They must alight to clear before a coupling is made. While riding on the leading floorboard, crossing over from one coupling to the other by swinging around the face of the drawbar is prohibited.

#### 2. TRAIN AND AIR INSPECTION

Pressure maintaining feature will be voided during the following air brake tests:

420 Yard Plant terminal test.

421 Tail hose test.

422 Kear end test.

446 Terminal test by Car Inspectors

448 Terminal test by Trainmen

449 Road test by Trainmen.

This pressure maintaining feature must also be voided when handling passenger trains in graduated release.

Terminal air tests will be made on all trains before departing the following stations: Seward, Whittier, Anchorage and Fairbanks. At other points where train or engine crews are changed, cars set out, picked up, or engine detached, rear end test will be made as per rule 422 on freight trains and rule 449 on passenger trains. Before leaving the following stations, all trains must have the required air brake pressure: DIVIDE, GRANDVIEW, HURRICANE.

When speed of train can be controlled by use of engine throttle and independent engine brakes, no train brakes should be applied during roll-by inspections being conducted by carmen or trainmen.

Running brake tests in accordance with Rule 447 should be made only after roll-by inspections are completed.

Air Brake test as prescribed by Rule 420 must be made immediately before leaving Eska and Jonesville. Where a poor holding brake is found and cannot be remedied, it must be cut out and hand brake used on that car, care being taken to avoid overheating and flattening the wheels.

(Except) Standard train line pressure as prescribed in Rule 456 is changed to 110 lbs. on Jonesville-Branch. This excess train line pressure will be reduced to standard 90 lb. prior to entering upon Anchorage-Healy subdivision.

In testing train brakes prior to leaving Jonesville and Eska the trainmen must determine that all retainers are holding brakes applied. A retainer will be considered faulty if brakes release in less than three (3) minutes and such defect will be reported on Form 1527 upon arrival at terminal.

#### 3. RETAINERS

On all trains descending grades between the following stations, retainers must be turned up on all loaded cars and passenger equipment. When train consists of loads and empties, sufficient retainers must be turned up on empty cars to properly control train:

Eska and Sutton: Jonesville, and Sutton,

Grandview and Placer River bridge at Milepost 54.3, Grandview and Woodrow, when train consists of 50% or more loads.

Except: Between M.P. 54.3 and Woodrow, when using 1500, 2000 and 2500 Class engines with dynamic brakes in operation, retainers will be turned up solid on head end of train as follows:

#### TABLE

With 6 units with dynamic brakes in operation, retainers to be turned up on all tonnage in excess of 4860 tons.

With 5 units with dynamic brakes in operation, retainers to be turned up on all tonnage in excess of 4050 tons.

With 4 units with dynamic brakes in operation, retainers to be turned up on all tonnage in excess of 3240 tons.

With 3 units with dynamic brakes in operation, retainers to be turned up on all tonnage in excess of 2430 tons.

With 2 units with dynamic brakes in operation, retainers to be turned up on all tonnage in excess of 1620 tons.

With 1 unit with dynamic brakes in operation, retainers to be turned up on all tonnage in excess of 810 tons.

Locomotive units with dynamic brakes inoperative, or locomotive units not equipped with dynamic brakes will in no way be used to relieve the necessity of turning up retainers under this rule.

EXAMPLE: With 5 units, with only 1 unit equipped with dynamic brakes in operation, retainers to be turned up on all tonnage in excess of 810 tons.

On cars equipped with double pressure retaining valves, the handles must be turned to high pressure position on heavily loaded cars, and low pressure position on empty cars and light or merchandise loads.

Retainers will be used at other points and under other conditions, where in judgment of the engine or train crew, it is deemed necessary.

## RATING OF ENGINES IN TONS

NORTHWARD	1000	Class 1500-1800 2000-2500
Seward to Divide	480	810
Divide to Hunter	1000	1420
Hunter to Grandview	510	810
Grandview to Potter	2084	4000
Whittier to Portage	1550	2600
Potter to Anchorage	1150	2000
Anchorage to Canyon	1150	1750
Canyon to Honolulu	710	1000
Honolulu to Colorado	710	1000
Colorado to Summit	1030	1500
Summit to Healy	1860	2500
Healy to Nenana	2230	3000
Nenana to North Nenana	1600	2500
North Nenana to Eielson	1960	2500
Matanuska to Sutton	1150	1800
Sutton to Jonesville	200	400
SOUTHWARD		
Eielson to Happy	1200	1800
Happy to North Nenana	2010	3000
North Nenana to Honolulu	1150	1700
Honolulu to Hurricane	845	1300
Hurricane to Matanuska	1430	2000
Sutton to Anchorage	2000	3000
Anchorage to Turnagain	1525	2000
Turnagain to Spencer	2084	2500
Portage to Whittier	1710	2600
Spencer to Tunnel	414	750
Tunnel to Grandview	300	500
Grandview to Primrose	1000	3360
Primrose to Seward	480	690

## ALL SUBDIVISIONS

#### 4. TRAIN INSPECTION

When a train stops for any reason at the station on either side of the designated inspection point, train will be inspected and train may pass designated inspection point without stopping for inspection, except southward freight trains must make inspection at Honolulu and northward freight trains at Hurricane. Delay report must indicate place where inspection was made. Mixed trains will perform freight train inspection at freight train inspection points as designated in Timetable instructions.

## RULE 11 — ALASKA RAILROAD OPERATIONS DEPARTMENT RULES AND REGULATIONS

As per rule 11 in territory designated below, trains finding a fusee burning on or near its track may proceed at RE-STRICTED SPEED without stopping, when stopping would cause train to double:

SEWARD SUBDIVISION Southbound trains between:	Mile 54.3 Placer River Bridge to Grandview Mile 14.5 Snow River Bridge to
Northbound trains between:	Divide Woodrow to Divide Hunter to Grandview
ANCHORAGE HEALY S	

Northbound trains between:	Canyon to Hurricane Honolulu to Colorado
Southbound trains between:	{ Honolulu to Hurricane
NENANA SUBDIVISION Northbound trains	√ Nenana to North Nenana

Trains or employees displaying fusees in the above territories must take this fact into consideration and provide such other protection as may be necessary to insure full protection.

#### 5. SETTING OUT CARS

between:

When setting out freight cars and or passenger cars, the handbrakes must be left applied and reservoirs drained.

When freight cars are set out on a grade, a 15-pound application will be made prior to setting the hand brakes and all reservoirs drained, and a 10-pound application will be made before setting hand brakes on passenger cars set out and reservoirs must be drained.

After reservoirs are drained on freight and passenger equipment, set out with hand brake applied, attention must be given to the chain of the hand brake to determine if it has parted.

## 6. DRAGGING EQUIPMENT DETECTOR INDICATORS

- a. Dragging equipment detector indicators normally display a yellow light marking the location of the detector. Detectors govern train movements in either direction.
- b. Detector is installed in such a manner that when something is dragging from a train it will trip the detector, causing a red light to be displayed and the yellow light will extinguish.
- c. When rear of train passes a detector displaying yellow, it is an indication that nothing is dragging from the train that would trip the detector.
- d. As train passes detector displaying red, it is an indication something is dragging from train, tripping detector and train will be stopped and an inspection made of train. When detector is actuated, trainman must reset detector by switch on signal mast.
- e. When trains approach indicators and there is no light indication (both yellow and red light extinguished), train will proceed and, when practicable, engineman will notify rear trainman there was no indication when approaching the detector.
- f. When rear of train passes detector and there is no indication (both yellow and red lights extinguished), the yellow light was displayed when head end of train approached detector, it is an indication something is dragging from train (red light is not operating properly), train must be stopped and an inspection made for dragging equipment.

Under paragraphs E and F, the imperfect operation of detector must be reported to the Train Dispatcher.

Dragging equipment detector indicators are located at the following locations:

Mile 107.8 and Mile Post 123.0.

#### 7. MAXIMUM SPEEDS PERMITTED

Maximum speeds shown below must not be exceeded. Other speed restrictions must be fully complied with. Enginemen must use good judgment and handle train at a speed that will insure absolute safety.

Trains handling combination freight and passenger equipment will not exceed speed prescribed for freight trains.

Passenger Trains										49 MPH
Freight and Mixed										
Freight Trains has	ndling	wh	eel	ed	va	ns				35 MPH
Through all crosse	overs	and	l tı	ırn	out	s.				8 MPH

The above speeds are subject to the restrictions of maximum speeds in miles per hour as shown by zones under each

subdivision. If speed authorized by zones or speed restriction signs are greater than speed prescribed for certain trains or engines, such trains or engines must not exceed the slower prescribed speed.

Flanger signs are placed 100 feet from flanger obstruction on the enginemen's side and flangers must be raised at all flanger signs and must not be put down until flangers are opposite the flanger sign on the fireman's side. These signs are black with a white margin and mounted diagonally upwards.

The maximum speed of trains handling equipment indicated below will be as follows:

Wrecking Cranes Nos. 55	, 56, 57					30	MPH
Wrecking Cranes over br	idges .					20	MPH
Pile Driver 8							
Cranes on Wheels						25	MPH
Spreaders operated in sne	ow remo	val				35	MPH
Rotary Snow Plows						30	MPH
Rotary Snow Plow No. 3	over br	idge	S			15	MPH
Locomotive Cranes 104, 1	05, and	106				40	MPH
1200 class engines, dead	in tow .					40	MPH

All diesel engines dead in tow will be placed immediately behind the road engines.

In all cases where lower speed is specified, by train order or bulletin, the lower speed must not be exceeded.

The speed of trains must be so controlled before crossing bridges enumerated below that no air application will have to be made when a train is upon these bridges except in emergency cases:

Bridge 284	.2			•	.Hurricane Gulch Bridge
Bridge 347	.4				.Riley Creek Bridge
Bridge 413	.7				.Tanana River Bridge

Under no circumstances should diesel electric locomotives pass through water which is deep enough to touch the bottom of the traction motor frame. When passing through water, movement must always be at very slow speed, (2 to 3 mph), except Engine 1014 may be used under supervision of the proper official.

## SEWARD SUB-DIVISION

## 8. SPEED RESTRICTIONS

J. D. L.		Z	one		10.				1	Pa	ssenger	Freight
Between					15							1224
Sewar	rd	and	M.	Р.	8						45	45
M.P.	8	and	M.I	. 1	14.7						25	25
M.P.	14.	7 ar	id M	.P.	33.	1					35	35
M.P.	33.	1 ar	nd M	.P.	40.	.5					49	49
			(	Co	ntinu	iec	1	N	Ve	xt	Page)	

## 8. SPEED RESTRICTIONS (cont.)

M.P. 40.5 and M.P. 47.5		25
M.P. 47.5 and M.P. 54.0	20	20
M.P. 54.0 and Portage	49	49
Portage and Indian		30
Indian and Potter	45	45
Potter and Turnagain		49
Turnagain and M.P. 110.0		45
M.P. 110.0 and Anchorage	30	30

## 9. CLEARANCE PROVISIONS & EXCEPTIONS RULE 83 (B)

#### ANCHORAGE:

Train order office in Anchorage Passenger Depot will not issue wire failure clearances.

#### PORTAGE:

Trains for which this point is initial station may proceed on authority of clearance under which such trains arrive.

## 10. TUNNEL RESTRICTIONS:

Tunnel 52.7 - Watch for falling rock.

#### 11. SEWARD:

Main track begins and ends at switch located at M.P. 2.9. Movements over all tracks south of this switch will be controlled the same as other yard tracks.

Cars must not be kicked or dropped on dock tracks.

#### 12. WOODROW:

When loaded cars are set out for unloading, they are to be spotted on the south end of the siding where they can be driven to.

#### 13. HUNTER:

The wye has a tail track 710 feet long.

#### 14. TUNNEL:

The wye has a tail track 143 feet long.

When cars are set out they must be secured with handbrakes and also rail clamps placed on the north end of the car or cars, and when such rail clamps or blocks are used, they must be removed before engines are coupled to cars.

#### 15. PORTAGE:

Inspection point for freight trains in addition to Rule 110 except freight trains originating at Whittier. Normal position of the main track junction switch is for the Whittier Subdivision.

The tail track of the wye is connected with Whittier Subdivision main track.

#### 16. ANCHORAGE

Anchorage-Healy Subdivision special instructions will govern Anchorage Yard.

#### 17. DERAILS

Crown Point-South end siding.

Hunter- South end of siding.

Grandview— (2) each end of siding, not to be placed in derail position from November 1st to April 1st. Cars left at Granview must have sufficient handbrakes set on each end of cut to safely secure cars, and when derails are not in use rail clamps will be placed on down end of car set out. Crews picking up cars must remove rail clamp. Rail clamp, when not in use, must be placed on broom rack by switch stand. Enginemen will make application of air when preparing to set out cars so all ice and snow will be removed from brake shoes.

Turnagain- North and south end of siding.

## WHITTIER SUB-DIVISION

#### 18. SPEED RESTRICTIONS:

	Zone			as	se	n	zer	Freight		
Between										
Portage	and	Moraine						35	35	
Moraine	and	Whittier						25	25	

# 19. CLEARANCE PROVISIONS AND EXCEPTIONS RULE 83 (B) PORTAGE:

Trains for which this point is initial station may proceed on authority of clearance under which such trains arrive.

#### 20. WHITTIER:

The track extending between Track 5 switch, north end, Whittier Yard, to and past the Whittier Depot, known as the main track, will be discontinued as a main track, and movements over this track will be controlled same as other yard tracks.

#### 21. EXCEPTION TO RULE 91:

Trains on the Whittier Subdivision, in the same direction, must keep not less than twenty (20) minutes apart, except in closing up at stations.

#### 22. PORTAGE:

10 MPH on wye tracks.

## 23. PORTAGE AND WHITTIER TUNNELS:

Portage tunnel, Milepost 6.3 and Whittier Tunnel, Milepost 3.8 have less than standard vertical clearance.

#### 24 WHITTIER:

When switching moves are being made over the car barge ramo at Whittier, the following provisions shall apply:

a. Cars or engines will not be placed on car barge ramp un-

less ramp is at rest on barge or ship.

b. Train line air must be cut in and operating on all cars, however, movement is to be controlled with straight engine air only, (engine brakes) and automatic brakes are not to be used. except in case of emergency.

When switching movements are being made only one engine is to be used. All other engines will set out and will not be

a part of the engine consist.

d. All movements will be made, so movement can be stopped at any time. A safety stop will be made when one half car length from bumping block on car barge or sea train vessels.

e. When stop is made, one half car length from end of track. throttle will be closed and engine and cars must come to a

complete stop.

f. Movement to and from car barges and sea trains will be made, handling not more than 2 tracks of cars, plus what cars are necessary to use as a handle to keep the engine off of the bridge.

#### 25. TUNNEL DOORS

During the period of November 1 to April 15, inclusive. a signal in the form of a switch stand will govern train and engine movements through the tunnels on the Whittier Subdivision. This signal is located to the right of the track in the direction of approach in front of the entrance of each tunnel:

MP X2.5 WHITTIER TUNNEL and

MP X5.8 PORTAGE TUNNEL FOR NORTHBOUND TRAINS and

MP X6.7 PORTAGE TUNNEL and

MP X5.0 WHITTIER TUNNEL FOR SOUTHBOUND TRAINS

These signals will display 'STOP' indication except they will display 'PROCEED' indication when doors are opened on each end of the tunnel.

A signal is provided for each tunnel and such signal will display indication for movements through its respective

tunnel.

After a train has entered the tunnel, the door must not be closed until after the train has cleared the far end of the

Conductors of trains enroute to Whittier will arrange to contact the Train Dispatcher via microwave approximately one

(1) hour to expected arrival at Door 4.

Conductors of trains departing Whittier will arrange to contact the Tunnel Door Operators at Door 4 and Door 2, one (1) hour prior to estimated time of departure from Whittier, when practicable.

When communication fails, trains will proceed to signals

and will be governed by signal indication displayed.

The normal position of doors on each end of the Whittier and Portage tunnels will be as follows:

		1	Ooor		End	Normal	Position
No.1	MP	X2.5	Whittier	tunnel	.South.	.*Closed.	.XOpen
No.2	MP	X5.0	Whittier	tunnel	.North.	.*Closed.	.XOpen
No.3	MP	X5.8	Portage	tunnel		.*Closed.	
No.4	MP	X6.7	Portage	tunnel	.North.	.*Closed.	.XOpen

\*Closed November 1st to April 15th inclusive X Open April 16th to October 31st inclusive

## ANCHORAGE-HEALY SUBDIVISION

#### 26. SPEED RESTRICTIONS:

Zone	Maximum Speed	Permitted
Between	Passenger	Freight
Anchorage and Milepost	120 25	25
Milepost 120 and Milepos	st 13935	35
Milepost 139 and Milepost	152.745	45
Milepost 152.7 and Wasil	la 25	25
Wasilla and Curry	49	49
Curry and Milepost 255	40	40
Milepost 255 and Milepos	st 26135	35
Milepost 261 and Milepos	st 266 40	40
Milepost 266 and Milepost	283.8 35	35
Milepost 283.8 and Milepo		30
Milepost 288.7 and Milepo	st 292.2 .45	45
Milepost 292.2 and Milepo	st 294.4 .30	30
Milepost 294.4 and Broad	Pass 49	49
Broad Pass and Cantwell	45	45
Cantwell and McKinley Pa	rk35	35
McKinley Park and Healy	20	15

## 27. REGISTER STATION EXCEPTIONS:

Anchorage dispatcher's office for first class or passenger extra trains when originating or terminating at Anchorage passenger station.

Anchorage yard office for all other trains. Matanuska- Extra trains will not register.

## 28. EXCEPTIONS TO RULE 83 (B)

Train order office at Anchorage Passenger Depot will not issue wire failure clearances.

## 29. ANCHORAGE

Track extending between Milepost 113.9 and Milepost 116.5 past passenger depot and through freight house yard. Anchorage, will be used as main track. Switches will be lined and locked for movement over this track, except switches at Milepost 113.9 and 116.5 will be lined for movement into Anchorage freight yard. 30.

Crossing signals are installed on main track crossing at 'C' Street, Anchorage. This crossing signal is equipped with gates which prohibit movement of highway traffic when signals are activated.

Rail movements will not be made over this crossing until crossing gates are in position to halt highway traffic, except as provided by Rule 103, if signals become inoperative. At Port of Anchorage City Dock, due to curvature of track. engines will not be permitted beyond approach on dock face tracks.

When placing cars for use of the Port of Anchorage City Dock, they are to be left on the approach where they can be moved by dock tractor.

In operation of yard engines between Anchorage and Whitney, air brakes must be cut in and operative, and the trainman

must ride rear car.

Yard crews moving to and from Fort Richardson will secure authority from Yardmaster before commencing movement.

#### 31. DERAILS

Powder Spur
(Milepost 131.1) . . .363 feet and 1089 feet north of
main track switch.
(Milepost 131.4) . . . 75 feet from main track.
Birchwood:

Storage Yard

(Milepost 136.3) . . . 218 feet south of north lead switch.

\*Not in use from November 1st to March 1st due to snow conditions.

#### 32. CALL-UP STATIONS

Conductors of northbound First Class trains will call Dispatcher from Whitney and report arrival time. Microwave may be used when contact is to Dispatcher direct.

Willow— Conductors of all trains will call Dispatcher.

Matanuska— Conductors of First and Second Class trains will call Dispatcher.

# 33. CLEARANCE PROVISIONS AND EXCEPTIONS RULE 83 (B)

Matanuska: Trains for which this point is initial station may proceed on authority of clearance under which such trains arrive.

#### 34 FORT RICHARDSON:

Fixed signals, manually operated, displaying indications by means of colored lights are located on Elmendorf AFB yard track at each side of North and South airplane runway where track crosses runway. Trains and Yard Engines will be governed by these signals in using this track.

Normal position of signal is green.

Close clearance on all tracks at Elmendorf AFB and Fort Richardson Vard.

Fort Richardson interchange track is reached by loop track

branching off north end, Whitney Siding.

Derails are located approximately 200 feet north of Whitney siding switch and approximately 100 feet south of lead switch to yard. Crossing warning signals must be sounded at all crossings.

## 35. WHITNEY:

When cars are left on the Whitney Siding, they are to be placed south of the road crossing.

All southward second class trains and extra trains will call Yardmaster at Anchorage by radio for instructions on handling in Anchorage Yard. If unable to establish contact by radio must call from Whitney by telephone.

#### 36. MATANUSKA:

The leaving time at Matanuska of all southward trains on the Anchorage-Healy Subdivision will apply at the Sutton Subdivision Junction Switch.

Junction switch set and locked for Anchorage-Healy Sub-

Wye tail track is the main track for Sutton Subdivision.

#### 37. WILLOW:

Freight train inspection point in addition to Rule 110 and callup station for freight trains. Wye tail track is 287 feet long.

#### 38. CURRY:

Tail of wye is 239 feet long.

#### 39. CHULITNA:

Tail of wye is 282 feet long.

#### 40. HURRICANE:

Freight train inspection point in addition to Rule 110 and call in station for northward freight trains.

#### 41. HONOLULU:

Freight train inspection point in addition to Rule 110 and call-in station for southward freight trains.

#### 42. BROADPASS:

Tail of wye is 300 feet long.

#### 43. WINDY:

Tail of wye is 300 feet long.

#### 44. CANTWELL:

All vehicles must be spotted to ramp for unloading at time of set out.

#### 45. McKINLEY PARK:

Tail of wye 425 feet long and the power plant track is off this track. Because of grade a block and rail clamp must be placed against the lead wheel of any car set out on wye track; blocks and rail clamp must be removed before coupling onto car.

All vehicles for McKinley Park will be spotted at ramp for unloading at the time of set out.

#### 46. RETWEEN HEALY AND McKINLEY PARK:

Brakemen of all trains will station themselves on rear platform of caboose, or rear vestibule of coach, and make careful inspection of track rear of train for indications of derailment so that train may be stopped immediately.

#### 47. HEALY:

Nenana Subdivision special instructions govern.

## SUTTON SUB-DIVISION

(Including Ionesville and Eska Branches)

Tracks between vard limit sign south of Sutton, end of track Jonesville and end of track at Eska, are operated as one vard.

#### 48. SPEED RESTRICTION:

Zone

Maximum Speed Permitted

Between		Passenger	Freight
Matanuska and Sutton		20	20
Sutton, Jonesville and	Eska	10	10

49. Switch lamps will not be used.

#### 50. MATANUSKA:

Junction switch set and locked for Anchorage Subdivision,

#### 51. SUTTON:

Junction switch, south siding switch, is set and locked for movements to and from the Jonesville Branch. is connected to the siding and the tail of wve is the continuation of the Jonesville Branch.

#### 52. ESKA JUNCTION:

Junction switch is lined and locked for the Jonesville Branch.

#### 53. ESKA:

Engines are not permitted to pass coal tipple on No. 1 track due to close clearance.

Engines are not permitted 100 feet beyond coal tipple on No. 2 track.

#### 54. IONESVILLE:

Close clearance on mine tracks at Jonesville will not clear man on side of car.

Only empty coal cars may be shoved past the coal tipple.

#### 55. CALL-UP STATIONS:

Conductors of all trains will, unless otherwise instructed, call from Sutton and report their arriving and departing time to Agent at Palmer.

#### CLEARANCE PROVISIONS AND EXCEPTIONS RULE 83 (B)

Matanuska, Jonesville, Eska and Sutton: Trains for which this point is initial station may proceed on authority of clearance under which such trains arrive.

Sutton: -Train No. 21 is authorized to leave Sutton on authority of clearance with which Train No. 22 arrives.

## NENANA SUB-DIVISION

(Including Suntrana and Eielson Branches)

#### 57. SPEED RESTRICTIONS:

Zone	Maximum Speed Permittee				
Between Healy and Saulich Saulich and Fairbanks	Passenger Freight 49 49 40 40				
Fairbanks to M.P. 5 (Eiels	n Branch) 10 10				

#### 58. ENGINE RESTRICTIONS:

HEALY: Engines are not permitted on the power house coal

DOME: Engines are not permitted beyond a point ten carlengths from the frog.

#### 59. HEALY:

Tail of wve is 107 feet long.

Junction switch is set and locked for Nenana Subdivision. Normal position of switch to Suntrana Branch on new storage track is for movements over new storage track.

Crossover switch at the north end of No. 1 track on which Close clearance Cripple Creek coal derail is located. tipple.

#### 60. CLEAR SITE: CALL-UP STATION

Tail of wye is 1000 feet long.

Freight train inspection point in addition to Rule 110 and call-in station for northward freight trains.

#### 61. BERG: CALL-UP STATION

Freight train inspection point in addition to Rule 110 and call-in station for southward freight trains.

#### 62. NENANA:

Tail of wye is 440 feet long.

#### 63. FAIRBANKS:

Tail of wye is 1000 feet long.

#### 64. BETWEEN FAIRBANKS AND EIELSON AND AT EIELSON:

Close overhead clearance of wires.

Must expect close side clearance on all tracks except main track.

#### 65. EIELSON:

Tail of wye is 350 feet long.

#### 66. YARD LIMITS:

Tracks between yard limit sign south of Fairbanks and to end of track Nenana Subdivision and to end of track at Eielson, operated as one yard.

## GENERAL INSTRUCTIONS

#### 67. KICKING AND DROPPING OF CARS

Power cars, cars containing vans or shipping platforms, and cars containing vans on wheels are not to be kicked or dropped.

## 68. LOADING, HANDLING HEAVY EQUIPMENT

Cranes, draglines, shovels and similar equipment, set up with or without boom attached, must be handled under special arrangement. Steel underframe flat cars of not less than 100,000-pound capacity must be used. Loading, bracing and blocking must be in accordance with Association of American Railroad loading rules.

It will be the responsibility of the Mechanical Department to inspect and accept such loads as specified above, and place speed restrictions for movement. Agents will advise the Mechanical Department of loading of commercial shipments. Departments responsible for loading of railroad equipment will advise Mechanical Department of loading. A representative of the Mechanical Department will advise the Yardmaster or Agent of acceptance for movement, giving car number and maximum speed at which car may be moved. It will be the responsibility of the Yardmaster to see that no loads, such as specified above, will be placed in trains for movement until they have been accepted by the Mechanical Department and the Dispatcher has been notified of speed restrictions. Dispatcher will issue Train Order covering restrictions. Equipment with boom attached must be loaded with boom trailing unless approval from Dispatcher is obtained for movement in forward position. Conductors handling loads with boom in forward position, except on work trains, will be instructed to do so by message or train order.

When cranes, draglines, shovels, or similar equipment are picked up at other than inspection points or terminals, train crew will take proper precautions to ensure safe handling to destination or next inspection point.

When loading dozers to well deck cars, the blade of the dozer will set on the elevated portion of the car and be blocked and lashed accordingly.

69. No wye will be blocked with cars unless authorized by the Superintendent of Transportation.

Derails are indicated within yard limits by derail signs and purple light.

70. Conductors of all trains will honor passes of T & T linemen when used in discharge of their duties. All trains must stop when flagged with green and white flag by T & T linemen, regardless of whether at a station or between stations.

71. When trains or engines are plowing snow with the plow of the engine in such a manner that snow thrown by the engine plow would damage buildings, cars or outfit cars on adjacent tracks, speed of trains will be reduced in order to avoid any damage.

#### 72. GAME ANIMALS

When trains hit moose, the train will come to a complete stop and train inspection will be made in order to ascertain if any cars are derailed before train proceeds. When moose or other game animals are killed by trains, the carcasses of such animals will be forwarded as listed below:

Between Seward and Girdwood, ship to Alaska Wildlife,

Between Talkeetna and north of Girdwood, ship to Alaska Wildlife Agent, Anchorage.

Between Fairbanks and north of Talkeetna, ship to Alaska Wildlife Agent, Fairbanks.

Whenever wild game animals are killed by trains, a report must be made to the Dispatcher who will furnish information to the nearest game warden and also notify the Engineering Department in order that sectionmen may pick up the carcass and transport it to the nearest station, forwarding to proper destination. Such shipments are to be waybilled on Form AD-129, endorsed free, account B.I. 4-B.

#### 73. PASSENGER TRAINS

On passenger cars in regular service the gates and trap doors must be kept closed and latched when not in use.

#### 74. SNOW SERVICE

All employees will be under the direction of the conductor. A Roadmaster, when available, will accompany and direct movements.

Pilots of plows will be supplied with copies of all train orders affecting their movements.

Pilots will not use signal 14(g) to answer stop signal 12(a) or reduce speed signal 12(b) of any flagman or trackman but will promptly whistle stop signal 14(a) to pusher engineer. Rotary snow plow wheels must be reduced to iding speed in going on and passing over all bridges and trestles.

#### 75. CARS

Petroleum products and empty containers for petroleum products will only be handled in boxcars assigned this service, except LCL shipments may be handled in other cars providing containers do not leak.

When handling freight cars in excess of 68 feet in length, they are to be carried immediately ahead of the road caboose.

76. When necessary to store cars on such tracks where there are bridges, distance between cars and bridge must be not less than 150 feet.

When cars are set out in sidings intersected by highway crossings, cars are not to be left less than 100 feet each side of crossing in order to provide maximum visibility to vehicles.

#### 77. INSULATED BOX, REFRIGERATOR AND HEATER CARS:

Series 10800-10834, inclusive are equipped with a fifteenfoot wide door on each side of car. Cars have an electrically operated thermo-king heater in one end of car for heater Cars are equipped with Car Pac lading devices service. and deck boards.

Series 11000-11046 inclusive, are equipped with eight-footwide doors on left side and conventional small doors on right side. Cars have ice bunkers removed and roof hatches sealed shut and are for heater service only with methanol burning heaters placed in doorways.

Series 11500-11511 inclusive are equipped with a nine-footwide door on each side of car. Mechanical refrigerator system for temperature control service only. Cars are equipped with meat rails and Car Pac lading devices, aluminum floor racks, plywood, and deckboards.

Series 11600-11603 inclusive, are equipped with conventional small doors on each side and with ice bunkers and can be used for either heating or cooling service as above. In addition these cars have one partition across the car at the doorway to separate the car into two compartments, so that both heating and cooling service may be furnished in the same car. if desired. Heating service is obtained through use of Preco Heater. All refrigerator cars listed above are equipped with complete side and floor racks.

Series 11700-11749 inclusive, are equipped with an eightfoot-wide side door on left side and conventional side door on right side. These cars may be used for either heating or cooling service. When heating service is desired methanolburning heaters are supplied in bunkers of cars.

Series 11800-11820 inclusive, are equipped with conventional small doors on each side and ice bunkers. Cars may be used for either heating or cooling service, except 11800-11814 are equipped with coal stoves are to be used for way freight.

#### TELEPHONES

Telephones located at all stations and section houses and in addition the following locations: Rev. 8/20/65.

LOCATION	DESCRIPTION
Primrose	Box on Pole
Crown Point	Booth
Hunter	Booth
Grandview	Booth
Milepost 53	Booth
Spencer	Booth
Portage	Booth

#### LOCATION.

Saulich

DESCRIPTION Guard House Whittier Branch Guard House Door 4 Door 2 Booth Booth Eagle River Milepost 131.2 Booth Box on pole North Switch Milepost 136 Booth on Rock Pit Spur Eklutna Siding Eklutna Rock Pit Booth Booth North Switch Matanuska Booth North End Siding Pittman Booth North End Siding Houston Booth North End Siding Caswell Booth Kashwitna Booth South Switch Montana

Booth South Switch Sunshine Booth Chase

Sherman Booth

Booth South End Siding Canyon Booth South End Siding Chulitna

Booth Colorado Booth Summit Booth Windy Booth Carlo Box Car Cascade Booth Lignite

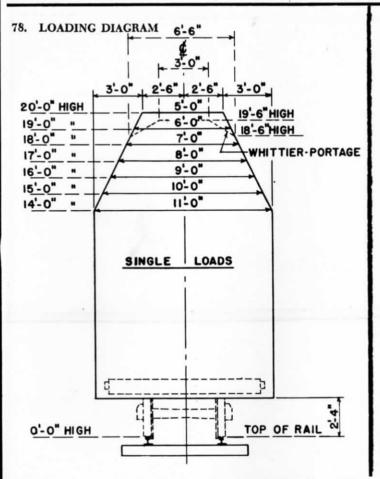
Browne Clear Site Booth Julius Milepost 401.3 Booth

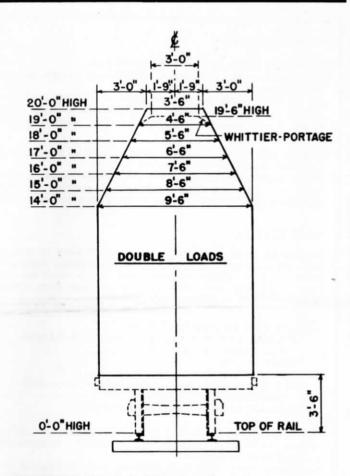
North Nenana Milepost 415.4 Booth at North Switch Booth at South Switch Berg Dunbar Booth at South Switch Standard Booth at South Switch

Booth at South Switch

#### TABLE OF TRAIN SPEEDS

Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour
Min.	Sec.		Min.	Sec.		Min.	Sec.	
10		6	2	40	22.5	1	25	42.3
7	30	8	2	24	25	1	20	45
6		10	2	8	28	1	15	48
5		12	2		30	1	12	50
4		15	1	49	33	1	8	52.9
3	20	18	1	42	35	1	5	55.3
3 20	20	1	30	40	1	3	57.1	
270						1		60





# Maximum Loading Diagram For Single And Double Loads

Above Loading Diagrams are for Full Length Loads over Entire Line except, Maximum permissable height, clearance from top of rail to top of load is 19 feet and 6 inches, for unrestricted clearance between McKinley Park and Healy; and between Whittier and Portage allowances made for length of load, curvature, Super-Elev., etc.

All Special Cases of Large Loading not within the above Diagram Limits will be determined by the Chief Engineer, through the Superintendents Office.

#### 79. EXPLOSIVE AND DANGEROUS ARTICLES

Cars containing explosives when handled must not be cut off while in motion and all unnecessary shocks must be avoided, nor may other cars be cut off and allowed to strike a car containing explosives and in switching must be coupled to engine protected by at least one non placarded car in between.

80. Switch lists must show in the first columns 'Dangerous' or 'Explosive' cars by letters 'Dgrs' for the cars containing dangerous articles and 'Exp' for the cars containing explosives in order that crews may be properly notified of the presence of such cars.

## COMMUNICATIONS:

(1) Indicates station to train radio installation.

2 Indicates radio installation establishing contact between

train dispatcher and trains.

All on track equipment may establish contact with train dispatcher's office when within range of radio stations designated 2 by depressing dispatcher's call switch on radio for five (5) seconds.

Contact and communication is then carried on between train

and train dispatcher in a radio-like manner.

Train orders may be transmitted via radio system between train and train dispatcher's office and qualified operating personnel as described by Rules of the Operating Department.

## TIME SERVICE:

Employees must show their watches to officers or authorized watch inspectors upon request. Employees designated must carry a reliable railroad grade watch which must not vary more than thirty (30) seconds per week from correct time.

Approved railroad grade watches are:

POCKET WATCHES, 16 size, lever set 21 jewel movement, pendant at figure 12.

WRIST WATCHES

B.W. Raymond, 23 jewel movement, size 13-0.

Ball, 13 ligne size, 21 jewel movement. Official Railroad Standard, 1604B Model.

Bulova Accutron 202, with railroad dial.

Fancy, decorated watches or those with liminous or radium dial or hands, or gold hands, are prohibited. Nonbreakable crystals must not be used.

Employees must have their railroad grade watches in use, registered with the Office of the Superintendent on Form 1911. Watches not registered with the Superintendent's Office on Form 1911 must not be used.

#### POWER CAR ATTENDANTS:

No member of a crew is to give permission to a power car attendant to work about vans or cars without first notifying the Conductor or Engineer, and no train movement is to take place until the Conductor of the train has assured himself of the safety of the power car attendant.



				TRAI				
Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour
Min.	Sec.		Min.	Sec.		Min.	Sec.	
10		- 6	2	40	22.5	1	25	42.3
7	30	8	2	24	25	1	20	45
6		10	2	8	28	1	15	48
5		12	2		30	1	12	50
4	-	15	1	49	33	1	8	52.9
3	20	18	1	42	35	1	5	55.3
3	-	20	1	30	40	1	3	57.1
						1		60