

**SURGEONS OF SANTA FE COAST LINES  
HOSPITAL ASSOCIATION**

....., Chief Surgeon, Los Angeles, Cal.

**DR. LAWRENCE CHAFFIN**, Assistant Chief Surgeon, Los Angeles, Cal.

**DR. R. J. FLAMSON**, Assistant Chief Surgeon, Los Angeles, Cal.

**DR. E. J. GUNGLER**, Local Surgeon.....Seligman  
**DR. WALTER BRAZIE**, Local Surgeon.....Kingman  
**DR. FRANCIS FINDLAY**, Assistant Local Surgeon.....Kingman  
**DR. ROSS L. BALLARD**, Division Surgeon.....Needles  
**DR. H. C. MATTHEWS**, Emergency Surgeon.....Needles  
**DR. D. M. PARKER**, Local Surgeon.....Barstow  
**DR. C. A. GRAYBILL**, Assistant Local Surgeon.....Barstow  
**DR. THOMAS A. HORSLEY**, Local Surgeon.....Mojave  
**DR. JOE SMITH**, Local Surgeon.....Bakersfield  
**DR. G. S. LAMBETH**, Assistant Local Surgeon.....Bakersfield  
**DR. K. S. McKEE**, Oculist and Aurist.....Bakersfield  
**DR. IVER RITCHIE**, Local Surgeon.....Blythe  
**DR. ROBERT L. CURRIE**, Local Surgeon.....Parker

First Aid Kits are located at Peach Springs, Yucca, Cadiz, Rice and Boron, on all locomotives, and with all regularly assigned extra gangs.

**O. R. HAMMIT**,  
Trainmasters,  
Needles, Cal.

**W. A. ROEBUCK**,

**H. G. CRAWFORD**,  
Trainmaster,  
Barstow, Cal.

**E. E. SANDERS**,  
Trainmaster,  
Bakersfield, Cal.

**LEROY DUNCAN**,  
Chief Dispatcher,  
Needles, Cal.

**L. W. PARSONS**,

**G. C. ATWILL**,

**H. W. WITSKEN**,

**I. L. CRAWFORD**,

**G. M. YOUNG**,

**A. B. DAVIDSON**,

**J. W. SNYDER**,

**W. F. WHITE**

**W. F. MOHR**,  
**J. T. DAWE**,  
Asst. Chief Dispatchers,  
Needles, Cal.

Dispatchers,  
Needles, Cal.

**The  
Atchison, Topeka and Santa Fe  
Railway Co.**



**ARIZONA DIVISION**

**TIME TABLE No.**

**110**

IN EFFECT

**Sunday, February 20, 1949**

At 12:01 A. M.  
Pacific Standard Time

This Time Table is for the exclusive use  
and guidance of Employees.

**E. E. McCARTY**,  
General Manager,  
Los Angeles, Cal.

**L. M. OLSON**,  
Asst. General Manager,  
Los Angeles, Cal.

**J. W. MURPHY**,  
Superintendent,  
Needles, Cal.

*Timetable 110 was presumably the last Arizona Div - superseded by LA and Albuq Div timetables dated 2 April 50*

WESTWARD						TIME TABLE	Mile Posts	Ruling Grade Ascending	Ruling Grade Descending	Fuel, Water, Turn Tables and Wyes	Capacity of Sidings in 50 ft. Cars
FIRST CLASS											
17	23	21	19	3	7						
Super Chief	The Grand Canyon	El Capitan	The Chief	California Limited	Fast Mail Express	NO. 110					
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	February 20, 1949					
PM 11-37	PM 11-18	PM 10-27	PM 10-10	PM 7-50	AM 8-43	STATIONS					
11-47	11-31	10-37	10-22	8-04	8-55	SELIGMAN YL	428.8			FW TY	Yard
11-52	11-39	10-43	10-29	8-12	9-02	11.0 AUDLEY	439.8	72.9	75.0		107
11-59 AM	11-48 AM	10-50	10-37	8-20	9-09	6.6 PICA	446.4	75.0	75.0	W	107
12-09	12-01	11-00	10-47	8-32	9-19	5.5 YAMPAL YL	451.9	75.0	69.7	Y	107
12-15	12-08	11-06	10-54	8-40	9-25	8.1 NELSON	460.2	0.0	105.6		92
12-25	12-19	11-16	11-07	8-53	9-36	5.6 PEACH SPRINGS	465.8	0.0	75.0	W	107
12-33	12-28	11-24	11-15	9-01	9-44	11.4 TRUXTON	477.3	0.0	75.0		107
12-37 <sup>23</sup>	12-37 <sup>17</sup>	11-28 <sup>19</sup>	11-28 <sup>21</sup>	9-09	9-48	7.0 VALENTINE	484.0	0.0	75.0		
12-41	12-46	11-32	11-36	9-16	9-53	5.0 HACKBERRY	489.0	43.8	22.7	FW	95
12-45	12-51	11-36	11-42	9-21	9-58	6.1 ANTARES	495.1	0.0	71.8		72
12-51	12-58	11-42	11-48	9-28	10-04	6.2 WALAPAI	501.3	46.0	31.7		107
12-55	1-04	11-45	11-52	9-33	10-09	8.2 BERRY	509.4	50.2	0.0		
12-59	1-09	11-49	11-56 <sup>s</sup>	9-40	10-13	4.4 LOUISE	513.9	0.0	95.0		
1-05	1-16	11-55 <sup>AM</sup>	12-03	9-46	10-19	2.5 KINGMAN YL	516.4	0.0	95.0	WY	118
1-11	1-24	12-01 <sup>AM</sup>	12-09	9-53	10-25	4.4 McCONNICO	520.7	0.0	75.0		51
1-18	1-33	12-07	12-16	10-01	10-33	6.0 GRIFFITH	526.8	0.0	75.0		107
1-22	1-38	12-11	12-20	10-06	10-38	8.4 ATHOS	535.2	0.0	75.0		
1-26	1-44	12-15	12-24	10-11	10-43	5.0 YUCCA	540.2	0.0	75.0	W	107
1-31	1-50	12-20	12-29	10-18	10-49	5.9 HAVILAND	546.2	0.0	75.0		
1-35	1-57	12-24	12-35	10-24	10-55	6.5 FRANCONIA	552.7	0.0	63.4		95
1-42	2-05	12-31	12-43	10-32	11-02	6.1 POWELL	558.8	52.8	73.9		71
<sup>s</sup> 1-55 AM	<sup>s</sup> 2-20 AM	<sup>s</sup> 12-46 AM	<sup>s</sup> 1-00 AM	<sup>s</sup> 10-50 PM	<sup>s</sup> 11-20 AM	7.1 TOPOCK	565.9	53.9	62.3		107
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	NEEDLES YL	578.0			FW TY	Yard
(64.6)	(49.0)	(64.1)	(53.7)	(49.5)	(56.8)	(148.6)					

AUTOMATIC BLOCK SYSTEM

TWO TRACKS

First District—Signal System 1 in effect.

Between train signs located at east and west ends of passenger yard, Needles, there is no superiority of trains. Train and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined, but not exceeding 15 miles per hour and main track may be used not protecting against regular or extra trains and engines.

Between Seligman and Needles trains will run as prescribed by Rule 251.

Two tracks extend through Seligman passenger yard. Beginning at station, No. 1 is westward main track, No. 2 is eastward main track.

Two tracks extend through Needles passenger yard. Tracks are numbered one to three. Beginning at station, No. 1 is eastward main track, No. 3 is westward main track.

Westward freight trains, except those handled by diesel locomotive with dynamic brakes in operation, will stop at Yucca ten minutes to cool wheels.

TIME TABLE NO. 110 February 20, 1949					EASTWARD					
					FIRST CLASS					
					18	4	8	20	22	24
Capacity of Sidings In 50 ft. Cars	Fuel, Water, Turn Tables and Wyes	Communications	Ruling Grade Descending	Ruling Grade Ascending	STATIONS					
					Super Chief	California Limited	Fast Mail Express	The Chief	El Capitan	The Grand Canyon
Yard	FW TY	O			Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
					AM 5.07	AM 7.15	AM 10.55	PM 10.45	PM 10.37	AM 12.30
107		B	72.9	73.9	4.54	6.59	10.40	10.30	10.24	12.17
107	W	B	75.0	75.0	4.49	6.50	10.31	10.23	10.19	12.11
107	Y	C	75.0	69.7	4.42	6.39	10.23	10.12 <sup>22</sup>	10.12 <sup>20</sup>	12.05
118		C	0.0	75.0	4.31	6.24	10.07	9.55	10.01	11.51
107	W	C	0.0	75.0	4.23	6.14	9.56	9.46	9.53	11.41
110		B	0.0	75.0	4.08	5.57	9.39	9.30	9.38	11.23
61		B	0.0	75.0	3.58	5.44	9.26	9.20	9.28	11.13
105	FW	C	43.8	22.7	3.53	5.33	9.18	9.14	9.23	11.07
107		B	0.0	71.8	3.47	5.18	9.10	9.08	9.17	11.01
72		B	0.0	71.8	3.41	5.10	9.03	9.02	9.11	10.55
107		B	46.0	31.7	3.34	5.01	8.55	8.55	9.04	10.48
88		B	50.2	0.0	3.30	4.56	8.50	8.51	9.00	10.44
107	WY	C	0.0	75.0	3.26	4.51	8.44	8.47	8.56	10.40
68	W	B	0.0	75.0	3.18	4.36	8.29	8.39	8.48	10.28
107		B	0.0	75.0	3.09	4.26	8.20	8.30	8.39	10.19
71		B	0.0	75.0	3.01	4.12	8.08	8.19	8.30	10.07
105	W	C	0.0	75.0	2.55	4.03	8.00	8.12	8.22	10.00
72		B	0.0	75.0	2.48	3.54	7.52	8.04	8.14	9.52
105		B	0.0	75.0	2.41	3.44	7.43	7.56	8.07	9.44
71		B	0.0	68.4	2.35	3.35	7.35	7.50	8.01	9.37
107		C	52.8	73.9	2.28	3.25	7.26	7.42	7.54	9.29
Yard	FW TY	C	53.9	62.3	2.15 AM	3.08 AM	7.10 AM	7.28 PM	7.40 PM	9.15 PM
					Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
(149.8)					Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
Average speed per hour.....					(52.1)	(36.3)	(39.8)	(45.5)	(50.6)	(45.9)

First District—Signal System 1 in effect.

Between train signs located at east and west ends of passenger yard, Needles, there is no superiority of trains. Train and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined, but not exceeding 15 miles per hour and main track may be used not protecting against regular or extra trains and engines.

Between Seligman and Needles trains will run as prescribed by Rule 251.

Two tracks extend through Seligman passenger yard. Beginning at station, No. 1 is westward main track, No. 2 is eastward main track.

Two tracks extend through Needles passenger yard. Tracks are numbered one to three. Beginning at station, No. 1 is eastward main track, No. 3 is westward main track.

TIME TABLE		WESTWARD				
		FIRST CLASS				
		3	7	203	201	23
NO. 110		California Limited	Fast Mail Express	Passenger	Passenger	The Grand Canyon
February 20, 1949		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
STATIONS		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
NEEDLES YL		PM 11:00	AM 11:30			AM 2:30
7.4 JVA		11:15	11:43			2:47
6.8 IBIS		11:30	11:55			3:01
4.5 BANNOCK		11:38	12:02			3:10
4.6 HOMER		11:47	12:09			3:19
7.6 GOFFS		12:01	12:20			3:32
9.6 FENNER		12:10	12:28			3:41
7.5 ESSEX		12:16	12:34			3:47
8.5 DANBY		12:24	12:41			3:54
7.1 SIAM		12:30	12:46			4:00
6.3 CADIZ YL		<sup>s</sup> 12:51	12:51			4:06
6.0 BOLO		1:00	12:57			4:12
3.4 SALTUS						
3.1 AMBOY		1:06	1:03			4:18
7.8 BAGDAD		1:13	1:10			4:25
7.3 SIBERIA		1:26	1:19			4:34
5.2 KLONDIKE		1:35	1:27			4:43
4.3 ASH HILL YL		1:42	1:34			4:50
6.7 LUDLOW YL		1:50	1:41			4:59
5.1 ARGOS		1:57	1:47			5:06
8.1 PISGAH		2:06	1:55			5:15
6.2 HECTOR		2:13	2:00			5:21
6.7 TROY		2:21	2:05			5:27
6.1 NEWBERRY		2:27	2:10			5:33
6.0 MINNEOLA		2:35	2:15			5:38
6.0 DAGGETT		2:45	2:20	AM 11:10	AM 6:10	5:43
4.0 NEBO		2:52	2:24	11:14	6:14	5:46
4.8 BARSTOW YL		<sup>s</sup> 3:05 AM	<sup>s</sup> 2:40 PM	<sup>s</sup> 11:22 AM	<sup>s</sup> 6:22 AM	<sup>s</sup> 6:00 AM
(167.6)		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
Average speed per hour.....		(41.0)	(52.9)	(44.0)	(44.0)	(47.9)

Second District—Signal System 1 in effect.

Between train signs located at east and west ends of passenger yard, Needles, there is no superiority of trains. Train and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined, but not exceeding 15 miles per hour and main track may be used not protecting against regular or extra trains and engines.

Between East and West Towers, Barstow, there is no superiority of trains. Trains and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined (but not exceeding 10 miles per hour between Signal 7453 and West Tower) and main track may be used not protecting against regular or extra trains and engines.

Between Needles and Barstow trains will run as prescribed by Rule 251.

Two tracks extend through Needles passenger yard. Tracks are numbered one to three. Beginning at station, No. 1 is eastward main track, No. 3 is westward main track.

Two tracks extend through Barstow passenger yard. Tracks are numbered one to seven. Beginning at station, No. 1 is westward main track, No. 4 is eastward main track.

Rule 509 (c): At M.P. 680.3-x, eastward trains finding Signal 6802 in "stop" position must wait five minutes before proceeding unless the signal changes to indicate proceed.

Westward freight trains will stop for inspection at some point between Cadiz and Bagdad, inclusive.

At Ash Hill, crossover switches are equipped with electric locks. To operate switch, remove lock from lever and wait three minutes.

**SECOND DISTRICT**

**ARIZONA DIVISION**

**5**

WESTWARD					TIME TABLE	Mile Posts	Ruling Grade Ascending	Ruling Grade Descending	Communications	Fuel, Water, Turn Tables and Wyes	Capacity of Sidings in 50 ft. Cars
FIRST CLASS											
103	17	19	21	237							
Passenger	Super Chief	The Chief	El Capitan	Passenger	NO. 110						
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	February 20, 1949						
					STATIONS						
	AM 2:05	AM 1:10	AM 12:56		NEEDLES YL	578.0			O	FW TY	Yard
	2:17	1:23	1:07		7.4 JAVA	585.6	74.5	0.0	B		107
	2:28	1:35	1:17		6.8 IBIS ✓	592.4	73.9	0.0	B	W	107
	2:35	1:42	1:24		4.5 BANNOCK	597.0	73.9	0.0	B		107
	2:43	1:50	1:31		4.6 HOMER	601.5	73.9	0.0	B		97
	2:53	2:00	1:40		7.6 GOFFS	609.1	73.9	30.0	C	WY	107
	3:01	2:08	1:48		9.6 FENNER	618.7	0.0	52.8	B	W	111
	3:06	2:13	1:53		7.5 ESSEX	626.2	0.0	52.8	B		64
	3:12	2:19	1:59		8.5 DANBY	634.7	0.0	52.8	B	W	107
	3:17	2:25	2:04		7.1 SIAM	641.8	0.0	52.8	B		
	3:22	2:32	2:09		6.3 CADIZ YL	648.1	0.0	48.0	C	FWY	107
	3:27	2:41	2:14		6.9 BOLO	655.0	26.4	52.8	B		
					3.4 SALTUS	658.4	0.0	49.6	B		
	3:32	2:46	2:19		3.1 AMBOY	661.5	26.4	11.6	C		107
	3:37	2:52	2:24		7.8 BAGDAD	669.3	35.9	11.6	B		107
	3:45	3:00	2:32		7.3 SIBERIA	676.7	75.0	0.0	B		107
	3:52	3:07	2:39		5.2 KLONDIKE	682.0	75.0	0.0	B		72
	3:58	3:14	2:45		4.3 ASH HILL YL	686.7	75.0	0.0	B	Y	107
	4:04	3:21	2:51		6.7 LUDLOW YL	693.4	26.4	52.8	C	W	117
	4:11	3:28	2:58		5.1 ARGOS	698.5	52.8	0.0	B		71
	4:19	3:36	3:06		8.1 PISGAH	706.6	52.8	44.0	B		107
	4:24	3:41	3:11		6.2 HECTOR	712.8	0.0	52.8	B		73
	4:29	3:46	3:16		6.7 TROY	719.5	0.0	39.6	B		72
	4:33	3:50	3:20		6.1 NEWBERRY	725.6	26.4	0.0	B	WY	107
	4:37	3:55	3:24		6.0 MINNEOLA	731.7	26.4	0.0	B		107
AM 5:18	4:41	4:00	3:28	AM 1:35	6.0 DAGGETT	737.6	38.2	13.0	C		107
5:21	4:44	4:04	3:31	1:40	4.0 NEBO	741.6	31.7	31.7	B		68
5:28 AM	4:55 AM	4:15 AM	3:40 AM	1:50 AM	4.8 BARSTOW YL	746.4	31.7	31.7	C	FW TY	Yard
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	(167.6)						
(52.8)	(50.1)	(54.4)	(61.3)	(35.2)	..... Average speed per hour						

Second District—Signal System 1 in effect.

Between train signs located at east and west ends of passenger yard, Needles, there is no superiority of trains. Train and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined, but not exceeding 15 miles per hour and main track may be used not protecting against regular or extra trains and engines.

Between East and West Towers, Barstow, there is no superiority of trains. Trains and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined (but not exceeding 10 miles per hour between Signal 7453 and West Tower) and main track may be used not protecting against regular or extra trains and engines.

Between Needles and Barstow trains will run as prescribed by Rule 251.

Two tracks extend through Needles passenger yard. Tracks are numbered one to three. Beginning at station, No. 1 is eastward main track, No. 3 is westward main track.

Two tracks extend through Barstow passenger yard. Tracks are numbered one to seven. Beginning at station, No. 1 is westward main track, No. 4 is eastward main track.

Rule 509 (c): At M.P. 680.3-x, eastward trains finding Signal 6802 in "stop" position must wait five minutes before proceeding unless the signal changes to indicate proceed.

Westward freight trains will stop for inspection at some point between Cadiz and Bagdad, inclusive.

At Ash Hill, crossover switches are equipped with electric locks. To operate switch, remove lock from lever and wait three minutes.

Capacity of Sidings in 50 ft. Cars	Fuel, Water, Turn Tables and Wyes	Communications	Ruling Grade Descending	Ruling Grade Ascending	Mile Posts	TIME TABLE NO. 110 February 20, 1949	EASTWARD			
							FIRST CLASS			
							238	8	204	202
							Passenger	Fast Mail Express	Passenger	Passenger
							Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
Yard	FW TY	O			578.0	<b>NEEDLES</b> YL		<b>AM</b> 7:00		
107		B	74.5	0.0	585.6	7.4 JAVA		6:48		
	W	B	73.9	0.0	592.4	8.8 IBIS		6:39		
107		B	73.9	0.0	597.0	4.5 BANNOCK		6:33		
		B	73.9	0.0	601.5	4.0 HOMER		6:28		
107	WY	O	73.9	30.0	609.1	6.0 GOFFS		6:20		
107	W	B	0.0	52.8	618.7	9.6 FENNER		6:08		
107		B	0.0	52.8	626.2	7.5 ESSEX		5:59		
114	W	B	0.0	52.8	634.7	8.5 DANBY		5:48		
72		B	0.0	52.8	641.8	7.1 SIAM		5:40		
107	FWY	O	0.0	48.0	648.1	6.3 CADIZ YL		f 5:31		
71		B	26.4	52.8	655.0	6.9 BOLO		5:23		
51		B	0.0	49.6	658.4	3.4 SALTUS				
107		C	11.6	26.4	661.5	3.1 AMBOY		5:16		
100		B	35.9	11.6	669.3	7.8 BAGDAD		5:10		
107		B	75.0	0.0	676.7	7.3 SIBERIA		5:02		
107	Y	B	121.4	0.0	686.7	7.7 ASH HILL YL		4:54		
101	W	C	26.4	52.8	693.4	6.7 LUDLOW YL		4:47		
72		B	52.8	0.0	698.5	5.1 ARGOS		4:41		
107		B	52.8	44.0	706.6	8.1 PISGAH		4:33		
73		B	0.0	52.8	712.8	6.2 HECTOR		4:27		
72		B	0.0	39.6	719.5	6.7 TROY		4:21		
107	WY	B	26.4	0.0	725.6	6.1 NEWBERRY		4:16		
72		B	26.4	0.0	731.7	6.0 MINNEOLA		4:11		
104		C	38.2	13.0	737.6	6.0 DAGGETT		<b>AM</b> 12:13	<b>PM</b> 3:05	<b>PM</b> 4:04
71		B	31.7	31.7	741.6	4.0 NEBO		12:09	4:02	3:01
Yard	FW TY	O	31.7	31.7	746.4	4.8 <b>BARSTOW</b> YL		12:01 AM	3:55 AM	2:53 PM
						(165.8)		Leave Daily	Leave Daily	Leave Daily
								Leave Daily	Leave Daily	Leave Daily
Averages speed per hour. . . . .							(40.6)	(53.8)	(44.0)	(44.0)

Second District—Signal System 1 in effect.

Between train signs located at east and west ends of passenger yard, Needles, there is no superiority of trains. Train and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined, but not exceeding 15 miles per hour and main track may be used not protecting against regular or extra trains and engines.

Between East and West Towers, Barstow, there is no superiority of trains. Trains and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined (but not exceeding 10 miles per hour between Signal 7453 and West Tower) and main track may be used not protecting against regular or extra trains and engines.

Between Needles and Barstow trains will run as prescribed by Rule 251.

Two tracks extend through Needles passenger yard. Tracks are numbered one to three. Beginning at station, No. 1 is eastward main track, No. 3 is westward main track.

Two tracks extend through Barstow passenger yard. Tracks are numbered one to seven. Beginning at station, No. 1 is westward main track, No. 4 is eastward main track.

Rule 509 (c): At M.P. 680.3-x, eastward trains finding Signal 6802 in "stop" position must wait five minutes before proceeding unless the signal changes to indicate proceed.

Eastward freight trains will stop for inspection at some point between Ash Hill and Cadiz, inclusive.

At Ash Hill, crossover switches are equipped with electric locks. To operate switch, remove lock from lever and wait three minutes.

**SECOND DISTRICT**

EASTWARD						TIME TABLE
FIRST CLASS						
20	22	24	104	18	4	
The Chief	El Capitan	The Grand Canyon	Passenger	Super Chief	California Limited	NO. 110
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	February 20, 1949
PM 7.18	PM 7.30	PM 9.05		AM 2.05	AM 2.58	STATIONS
7.06	7.21	8.54		1.55	2.46	
6.58	7.13	8.47		1.48	2.37	NEEDLES YL
6.52	7.08	8.41		1.43	2.32	7.4
6.47	7.03	8.35		1.38	2.27	JAVA 6.8
6.39	6.55	8.27		1.30	2.19	IBIS 4.5
6.28	6.46	8.17		1.20	2.07	BANNOCK 4.6
6.20	6.39	8.09		1.13	1.56	HOMER 7.6
6.11	6.32	8.02		1.05	1.44	GOFFS 9.6
6.04	6.26	7.56		12.59	1.34	FENNER 7.5
5.58	6.21	7.51		12.54	1.24	ESSEX 8.5
5.52	6.16	7.46		12.49	1.05	DANBY 7.1
						SIAM 6.3
5.46	6.12	7.41		12.44	12.59	OADIZ YL 6.9
5.40	6.07	7.35		12.39	12.53	BOLO 3.4
5.33	6.00	7.28		12.32	12.45	SALTUS 3.1
5.26	5.53	7.20		12.25	12.37	AMBOY 7.8
5.20	5.48	7.14		12.19	12.31	BAGDAD 7.3
5.15	5.43	7.08		12.14	12.25	SIBERIA 7.7
5.08	5.37	7.00		12.07	12.18	ASH HILL YL 6.7
5.03	5.32	6.55		12.02	12.11	LUDLOW YL 5.1
4.58	5.27	6.50		AM 11.57	AM 12.05	ARGOS 8.1
4.54	5.23	6.45		11.53	11.59	PISGAH 6.2
4.50	5.19	6.41		11.49	11.55	HECTOR 6.7
4.46	5.15	6.37	PM 8.37	11.45	11.50	TROY 6.1
4.42	5.12	6.34	8.34	11.41	11.46	NEWBERRY 6.0
4.35	5.05	6.25	8.27	11.35	11.37	MINNEOLA 6.0
PM	PM	PM	PM	PM	PM	DAGGETT 4.0
						NEBO 4.8
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	BARSTOW YL
(61.0)	(68.6)	(62.2)	(52.8)	(66.3)	(49.5)	(165.8)
						..... Average speed per hour

AUTOMATIC BLOCK SYSTEM

TWO TRACKS

Second District—Signal System 1 in effect.

Between train signs located at east and west ends of passenger yard, Needles, there is no superiority of trains. Train and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined, but not exceeding 15 miles per hour and main track may be used not protecting against regular or extra trains and engines.

Between East and West Towers, Barstow, there is no superiority of trains. Trains and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined (but not exceeding 10 miles per hour between Signal 7453 and West Tower) and main track may be used not protecting against regular or extra trains and engines.

Between Needles and Barstow trains will run as prescribed by Rule 251.

Two tracks extend through Needles passenger yard. Tracks are numbered one to three. Beginning at station, No. 1 is eastward main track, No. 3 is westward main track.

Two tracks extend through Barstow passenger yard. Tracks are numbered one to seven. Beginning at station, No. 1 is westward main track, No. 4 is eastward main track.

Rule 509 (c): At M.P. 680.3-x, eastward trains finding Signal 6802 in "stop" position must wait five minutes before proceeding unless the signal changes to indicate proceed.

Eastward freight trains will stop for inspection at some point between Ash Hill and Cadiz, inclusive.

At Ash Hill, crossover switches are equipped with electric locks. To operate switch, remove lock from lever and wait three minutes.

Capacity of Sidings in 50 ft. Cars	Fuel, Water, Turn Tables and Wyes	Ruling Grade Ascending	WESTWARD		TIME TABLE NO. 110 February 20, 1949	EASTWARD		Mile Posts	Ruling Grade Ascending	Communications	
			FIRST CLASS			FIRST CLASS					
			7	23		24	4				
			Passenger	The Grand Canyon		The Grand Canyon	California Limited				
Yard	FW TY		Leave Daily	Leave Daily	STATIONS	Arrive Daily	Arrive Daily				
			PM	AM	AUTOMATIC BLOCK SYSTEM	PM	PM	746.4		O	
223		34.3	5.00	6.20		BARSTOW YL	<sup>s</sup> 6.10	<sup>s</sup> 10.50		0.0	B
92		12.1	5.05	6.26		HUTT	6.02	10.42	749.6	0.0	B
112	W	5.3	5.08	6.30		MAOE	5.58	10.38	752.0	7.7	B
71		31.7	5.14	6.36		HINKLEY	5.53	<sup>f</sup> 10.32	757.0	24.5	O
98		34.3	5.20	6.42		EADS	5.48	10.26	762.0	0.0	B
98		34.3	5.25	6.48		HAWES	5.42	10.21	766.7	0.0	B
98		28.1	<b>5.35</b> <sup>24</sup>	6.55		JIMGREY	<b>5.35</b> <sup>7</sup>	10.15	772.3	12.2	B
118		24.3	5.44	7.05		KRAMER	5.29	10.05	780.1	12.2	B
72	Y	0.0	<sup>f</sup> 5.49	7.11		BORON	5.23	<sup>f</sup> 9.58	784.4	29.0	O
98		0.0	5.54	7.17		RICH	5.16	9.52	788.7	35.4	B
72		23.2	5.59	7.23		SILT	5.09	9.47	793.4	34.8	B
119	WY	21.1	<sup>s</sup> 6.10	7.30		MUROC	5.03	<sup>s</sup> 9.40	797.8	6.6	O
72		21.1	6.18	7.38		FLUHR	4.57	9.28	802.7	0.0	B
98		29.6	6.25	7.44		BISELL	4.52	9.23	807.6	0.0	B
98		52.8	6.32	7.52		SANBORN	4.47	9.17	813.0	0.0	B
Yard	FW TY		<sup>s</sup> 6.45 PM	<sup>s</sup> 8.05 AM		MOJAVE YL	4.40 PM	9.10 PM	818.4	0.0	O
			Arrive Daily	Arrive Daily		(71.6)	Leave Daily	Leave Daily			
			(40.9)	(40.9)		..... Average speed per hour.....	(47.7)	(43.0)			

Third District—Signal System 1 in effect between Barstow and Mojave.

Between East and West Towers, Barstow, there is no superiority of trains. Trains and engines within these limits must proceed prepared to stop short of train, obstruction, or switch not properly lined (but not exceeding 10 miles per hour between Signal 7453 and West Tower) and main track may be used not protecting against regular or extra trains and engines.

Two tracks extend through Barstow passenger yard. Tracks

are numbered one to seven. Beginning at station, No. 1 is westward main track, No. 4 is eastward main track.

Rule 261 in effect (ABS indication) between West Tower, Barstow, and Signal 7492.

Southern Pacific time table and rules govern movement of trains between Mojave and Kern Junction.

Valley Division time table and rules govern movement of trains between Kern Junction and Bakersfield.



CADIZ DISTRICT

Capacity of Sidings in 50 ft. Cars	Ruling Grade Ascending	WESTWARD	TIME TABLE		EASTWARD	Mile Posts	Ruling Grade Ascending
		FIRST CLASS	NO. 110		FIRST CLASS		
		117	February 20, 1949		118		
		Passenger			Passenger		
		Leave Daily	STATIONS		Arrive Daily		
Yard		PM 9.55	PARKER YL	AM 3.55	105.8		
Spur	31.7	f 10.01	-1.5 EARP	f 3.48	107.3	0.0	
28	31.7	10.11	-0.8 CALZONA	f 3.36	114.1	31.7	
17	31.7	f 10.19	-5.0 VIDAL	f 3.27	120.0	0.0	
45	31.7	f 10.33	-11.6 GROMMET	f 3.11	131.6	0.0	
49	10.5	s 10.48	-8.8 RICE YL	s 2.55	140.4	21.1	
43	0.0	10.54	-3.6 FREDA	2.43	144.0	31.7	
57	0.0	11.05	-7.0 SABLON	2.32	151.0	30.6	
33	0.0	f 11.11	-4.8 SALTMARSH	f 2.26	155.8	31.7	
33	31.7	f 11.22	-8.2 MILLIGAN	f 2.15	164.0	5.3	
63	31.7	11.31	-5.2 FISHEL	2.06	169.2	0.0	
33	31.7	f 11.40	-4.4 CHUBBUCK	f 1.58	173.6	14.8	
34	15.8	f 11.52	-6.0 ARCHER	f 1.48	179.6	31.7	
33	23.2	AM 12.01	-5.5 McCOY	1.39	185.1	31.7	
76	31.7	12.15 AM	-5.4 CADIZ YL	1.30 AM	190.5	31.7	
		Arrive Daily	(84.7)	Leave Daily			

(36.3) ..... Average speed per hour ..... (35.0)

At Cadiz, Nos. 117 and 118 have no time table superiority between east wye switch, Cadiz District, and station.

First class trains will register at Rice.

No. 117 is superior to No. 118.

Fuel, water and wye at Parker and Cadiz; water at Vidal and Saltmarsh; water and wye at Rice.

Offices of Communication at Parker, Rice, and Cadiz; booth phones at all sidings.

Not more than two engines of any class may be coupled together over Colorado River bridge at Parker.

RIPLEY DISTRICT

Capacity of Sidings in 50 ft. Cars	Ruling Grade Ascending	WESTWARD	TIME TABLE		EASTWARD	Mile Posts	Ruling Grade Ascending
		SECOND CLASS	NO. 110		SECOND CLASS		
		25	February 20, 1949		26		
		Mixed			Mixed		
		Leave Daily Ex. Monday	STATIONS		Arrive Daily Ex. Monday		
49		AM 4.45	RICE YL	AM 2.00	0.0		
13	83.4		-16.5 STYX		16.5	65.0	
84	0.0	s 5.45 6.00	-1.3 MIDLAND YL	s 12.01 AM	17.8	68.6	
64	0.0	6.10	-2.6 COX	f 10.20	20.4	68.6	
	0.0		-2.2 INCA		22.6	47.5	
Spur 10	0.0		-10.4 MESAVILLE		33.0	38.8	
17	0.0	6.55	-2.8 TOSCO	f 9.50	35.8	83.4	
Yard	10.6	7.30 AM	-6.2 BLYTHE YL	9.30 PM	42.0	37.0	
Spur 12	7.4		-2.7 MILLER FARMS YL		44.7	21.7	
	42.8		-4.7 RIPLEY YL		49.4	15.8	
		Arrive Daily Ex. Monday	(49.4)	Leave Daily Ex. Sunday			

(16.8) ..... Average speed per hour ..... (9.3)

No switch lights on Ripley District.

Water and wye at Blythe and Rice.

Offices of Communication at Midland, Blythe and Rice.

ARVIN DISTRICT

Capacity of Sidings in 50 ft. Cars	Ruling Grade Ascending	WESTWARD	TIME TABLE		EASTWARD	Miles from Magunden	Ruling Grade Ascending
			NO. 110				
			February 20, 1949				
			STATIONS				
100	39.6		ARVIN YL		16.5	0.0	
	42.2		-2.4 GIFFEN JCT.		14.1	37.0	
40	0.0		-1.9 DI GIORGIO		12.2	42.2	
67	0.0		-2.0 RIBIER		10.2	43.3	
	0.0		-2.2 LAMONT		8.0	43.3	
	0.0		-7.7 ALGOSO		0.3	43.3	
			-0.3 MAGUNDEN YL		0.0		
			(16.5)				

No switch lights on Arvin District.

Wye at DiGiorgio.

1. Rule S-72: Except as otherwise provided, all eastward trains are superior to westward trains of the same class.

2. Rule 2: Standard clocks are located at Seligman, Needles, Barstow (telegraph office and roundhouse), Bakersfield (yard office and roundhouse), Parker and Blythe.

Rule 3: Crews of Union Pacific trains, having complied with that Company's time regulations, may proceed over joint track.

3. . . . .

4. Rule 82 (B): Bulletin board and books are located at Seligman, Needles, Barstow, Mojave, Bakersfield, Parker and Blythe.

5. Rule 83 (A): At Seligman, Trains 7, 8, 17, 18, 19, 20, 21, 22, 23, and 24, and at Barstow, Trains 17, 18, 21, 22, 103, 104, 201, and 202 may register by Form 903.

At Barstow, eastward Union Pacific trains are relieved from the provisions of Rule 83 (A).

6. Rule 93: Yard limits are located at Seligman, Yampai, Kingman, Needles, Cadiz, Ash Hill, Ludlow, Barstow, Mojave, Magunden-Arvin, Parker, Rice, Midland, Blythe-Ripley.

7. . . . .

8. Rule 104 (E): In addition to the provisions thereof, at certain sidings on heavy descending grades, hand throw derails will be normally locked off rail, except when engines or cars are left unattended on siding.

9. Rule 211: In addition to the provisions thereof, no train will leave its initial station on any district, except when office is closed or not maintained, without receiving numbered clearance card.

No train will leave Rice or Blythe, when operator on duty, without receiving clearance card.

10. On all districts where Rule 251 is in effect, trains having work to do, or being delayed at any point other than ordinary station and water stops, must clear main track unless permission is received to occupy main track. Operators will show on clearance card the number of instruction messages (Form 934 Spl) delivered therewith.

11. The use of retainers on trains descending grades will be left to the judgment of conductors and enginemen.

When retainers are used on a freight train, speed of such train must not exceed twenty miles per hour.

12. Rule 761: Following is list of structures:

Barstow, viaduct over passenger yard tracks and house tracks 1 to 4, inclusive;

Inca, overhead conveyor of Utah Construction Co.

13. Rule 831: Arizona: The 1928 Revised Code provides:

"Sec. 4790. Confidence game, bogus check. Every person who, with intent to cheat and defraud, shall obtain or attempt to obtain from any other person, any money, property, or valuable thing whatever, by means or by use of any trick or deception, or false or fraudulent representation, or statement or pretense, or by any other means or instruments, or device, commonly called the 'confidence game,' or by means or by use of any false or bogus check, or by any other printed, written or engraved instrument, or spurious coin or metal, shall be guilty of a felony, and shall be punished by imprisonment in the state prison for a term of not less than one nor more than five years."

"Sec. 4791. Bunko games. Whoever shall deal, play or practice, the confidence game or the game called top and bottom swindle, three card monte, bunko, or any similar play, game or practice, or practice any confidence trick or game not mentioned in this section, shall be deemed guilty of a felony."

"Sec. 4792. Venue of confidence game when committed on train; duty of trainmen. Whenever any of the offenses mentioned in the two preceding sections are committed on any railroad car, coach or train, the venue shall lie, and the person be tried in any county in this state through which said railroad may run. Railroad conductors and brakemen on railroad trains cognizant of the violation of the provisions of the two preceding sections, shall immediately arrest the person so offending without warrant or other process, and failure to make such arrest or attempt in good faith to do so shall be a misdemeanor."

California: Civil Code, Section 2188, provides:

"A passenger who refuses to pay his fare or conform to any lawful regulations of the carrier may be ejected from the vehicle by the carrier. But this must be done with as little violence as possible, and at any usual stopping place or near some dwelling house."

Section 487 provides:

"If any passenger refuses to pay his fare or to exhibit or surrender his ticket when respectfully requested so to do, the conductor and employes of the corporation may put him and his baggage out of the cars, using no unnecessary force, at any usual stopping place, or near any dwelling house, on stopping the train."

14. Rule 862: Revenue passengers, and employes holding passes stamped "Good on Freight Trains," may be carried on freight trains, but only to and from stations where these trains are required to stop.

15. . . . .

16. . . . .

**SPEED REGULATIONS**

17. Enginemen of trains in which are dining or cafe cars will, during meal hours, regulate speed and manipulate air, rounding curves and making station stops so that train will move smoothly, without jar, and train conductors must observe that this is done.

Maximum speed permitted through all yard and roundhouse turnouts and crossovers—10 MPH; all main track turnouts and crossovers—15 MPH; except at following locations:

**PASSENGER—25 MPH; FREIGHT—20 MPH**

Needles, heading in and heading out switches, and main track crossover, west of M.P. 574.

Needles, east and west end, passenger siding.

Needles, main track crossover, and crossover, westward track to freight lead, west of M.P. 578.

Barstow, heading in and heading out switches, eastward track, and main track crossover, west of M.P. 743.

Barstow, eastward and westward main tracks to yard tracks, inbound freight lead from westward track, and first and second crossovers between main tracks, west of M.P. 745.

Mojave, main track turnout, M.P. 816½.

Trains handling wrecking derricks, steam shovels, pile-drivers or hoists must not exceed twenty-four miles per hour, (one mile in two minutes, thirty seconds), on any portion of the First, Second, Third and Cadiz Districts, and fifteen miles per hour, (one mile in four minutes), on all other districts. This rule not applicable to machines mounted on flat cars with booms tied down.

Trains having dead engines in tow must observe the following speed:

If dead engine has rods down or disconnected with one pair of drivers "swung" or suspended off rail, ten miles per hour, (six minutes for each mile);

With rods down or disconnected, but with all drivers on rail, fifteen miles per hour, (four minutes for each mile);

With all rods up and connected, twenty miles per hour, (three minutes for each mile).

Locomotives operating under their own steam with all side rods in place and one main rod removed must not be operated to exceed following speeds:

20 MPH			25 MPH	35 MPH
All Freight and Switch Locomotives include types:			Passenger Locomotives	All Locomotives Except Mountain Type Include
0-4-0	2-6-2	2-10-0	Mountain Type Includes	
0-6-0	2-8-0	2-10-2	4-8-2	4-4-0
0-8-0	2-8-2	2-10-4	4-8-4	4-4-2
2-6-0	2-8-4			4-6-0
				4-6-2
				4-6-4

Rule 817: Equipment listed below must not be moved through water above top of rail greater than the depths and not in excess of the speeds shown:

**SPECIAL RULES**

Types of Equipment	Maximum depth above top of rail (inches)	Maximum speed in tow (MPH)	Maximum speed under own power (MPH)	LOCATION	Passenger		Freight	
					Miles per Hr.	Time per Mile Min. Sec.	Miles per Hr.	Time per Mile Min. Sec.
<b>Diesel Engines:</b>								
Passenger	3	5	5	Curves and Grade M.P. 522.5 to 525.7	90	.. 40	30	2 ..
Freight	5	5	5	Curves and Grade M.P. 547.8 to 550.5	95	.. 38	30	2 ..
44-Ton Yard	2	5	5	Curves and Grade M.P. 550.5 to 552.6	90	.. 40	30	2 ..
Other Yard	5	5	5	Curve M.P. 554.7 to 554.9	95	.. 38	40	1 30
<b>Diesel-Electric and Gas-Electric Motor Cars</b>	3	5	5	Curve M.P. 562.3 to 562.8	70	.. 51	50	1 12
<b>Steam Engines:</b>				Curves M.P. 562.8 to 565.9	50	1 12	50	1 12
Roller Bearing	9	5	5	Curve M.P. 565.9 to 566.6	80	.. 45	50	1 12
<b>Passenger Cars:</b>				Curves M.P. 572.5 to 575.6	90	.. 40	50	1 12
Roller Bearing	8	5	—	Curves M.P. 575.6 to 577.2	45	1 20	30	2 ..
Friction Bearing	12	5	—					

**MAXIMUM AUTHORIZED SPEED FOR TRAINS**

LOCATION	Passenger		Freight	
	Miles per Hr.	Time per Mile Min. Sec.	Miles per Hr.	Time per Mile Min. Sec.
First District, Westward:				
Seligman to Peach Springs	75	.. 48	55	1 06
Peach Springs to Needles	100	.. 36	55	1 06
First District, Eastward:				
Needles to Louise	75	.. 48	55	1 06
Louise to Valentine	100	.. 36	55	1 06
Valentine to Seligman	75	.. 48	55	1 06
Second District, Westward:				
Needles to Goffs	75	.. 48	55	1 06
Goffs to Bagdad	100	.. 36	55	1 06
Bagdad to Pisgah	75	.. 48	55	1 06
Pisgah to Barstow	100	.. 36	55	1 06
Second District, Eastward:				
Barstow to Pisgah	100	.. 36	55	1 06
Pisgah to Bagdad	75	.. 48	55	1 06
Bagdad to Siam	100	.. 36	55	1 06
Siam to Needles	75	.. 48	55	1 06
Third District	100	.. 36	55	1 06
Cadiz District	55	1 06	40	1 30
Ripley District	30	2 00	30	2 00
Arvin District	20	3 00	20	3 00

Maximum speed, passenger trains handling one or more heavyweight cars, 90 miles per hour. Maximum speed, freight trains with steam engines, 50 miles per hour. In freight and mixed service on descending grades of over one per cent, the maximum is 40 miles per hour (one minute 30 seconds per mile) except as follows:

*Track Chino to M.P. 436.7 West	..	..	50	1 12
Track Yampai to Nelson West	..	..	30	2 00
Track Truxton to M.P. 482.0 West	..	..	30	2 00
*Track Antares to Walapai West	..	..	50	1 12
Track Louise to McConnico West	..	..	24	2 30
Track McConnico to Franconia West	..	..	30	2 00
*Track McConnico to Needles West	..	..	45	1 20
Track Goffs to Needles East	60	1 00	24	2 30
*Track Goffs to Needles East	..	..	40	1 30
Track Ash Hill to Siberia East	..	..	20	3 00
Track Vidal to Earp	45	1 20	36	1 40
Track Cox to Blythe	30	2 00	30	2 00

\*Indicates freight diesel trains with dynamic brakes in operation.

Where street or highway crossings are shown, speed limit applies only while head end of train is passing.

**FIRST DISTRICT—WESTWARD**

Curve M.P. 429.7 to 432.8	75	.. 48	50	1 12
Curves M.P. 432.8 to 436.1	75	.. 48	40	1 30
Curve M.P. 436.1 to 447.4	75	.. 48	50	1 12
Curves M.P. 447.4 to 448.3	70	.. 51	50	1 12
Curves M.P. 448.3 to 450.1	60	1 ..	50	1 12
Curves M.P. 450.1 to 451.4	35	1 43	24	2 30
Curve M.P. 451.4 to 451.8	55	1 06	40	1 30
Curves and Grade M.P. 451.8 to 455.5	60	1 ..	30	2 ..
Curves and Grade M.P. 455.5 to 457.7	50	1 12	30	2 ..
Curves and Grade M.P. 457.7 to 460.8	60	1 ..	30	2 ..
Curves M.P. 460.8 to 463.8	60	1 ..	40	1 30
Curves M.P. 463.8 to 464.9	50	1 12	40	1 30
Curves M.P. 464.9 to 468.4	75	.. 48	40	1 30
Curve M.P. 468.4 to 469.0	65	.. 55	40	1 30
Curves M.P. 469.0 to 470.4	50	1 12	40	1 30
Curves M.P. 470.4 to 472.6	80	.. 45	40	1 30
Curves M.P. 472.6 to 477.0	85	.. 42	50	1 12
Curve and Grade M.P. 477.0 to 478.2	60	1 ..	30	2 ..
Curve and Grade M.P. 478.2 to 479.0	40	1 30	30	2 ..
Curves and Grade M.P. 479.0 to 479.5	30	2 ..	30	2 ..
Curves and Grade M.P. 479.5 to 481.0	30	2 ..	30	2 ..
Curves and Grade M.P. 481.0 to 481.6	55	1 06	30	2 ..
Curves and Grade M.P. 481.6 to 482.5	75	.. 48	30	2 ..
Curves M.P. 482.5 to 490.2	85	.. 42	40	1 30
Curves M.P. 490.2 to 499.1	95	.. 38	50	1 12
Curves and Grade M.P. 514.4 to 515.1	75	.. 48	24	2 30
Curves and Grade M.P. 515.1 to 516.8	50	1 12	24	2 30
Kingman St. Crossing M.P. 516.5	24	2 30	15	4 ..
Curves and Grade M.P. 516.8 to 518.9	45	1 20	24	2 30
Curves and Grade M.P. 518.9 to 520.4	90	.. 40	24	2 30

**FIRST DISTRICT—EASTWARD**

Curves M.P. 577.2 to 575.7	45	1 20	45	1 20
Curves M.P. 575.7 to 565.9	75	.. 48	50	1 12
Curves M.P. 565.9 to 562.3	50	1 12	40	1 30
Curve M.P. 562.3 to 554.8	75	.. 48	50	1 12
Curve M.P. 554.8 to 554.7	65	.. 55	50	1 12
Curves M.P. 554.7 to 526.7x	75	.. 48	50	1 12
Curve M.P. 526.7x to 525.9x	70	.. 51	50	1 12
Curves M.P. 525.9x to 520.2x	60	1 ..	50	1 12
Curve M.P. 520.2x to 516.3x	40	1 30	40	1 30
Kingman St. Crossing M.P. 516.7x	24	2 30	15	4 ..
Curves M.P. 516.3x to 515.3x	55	1 06	50	1 12
Curve M.P. 515.3x to 514.1	70	.. 51	50	1 12
Curves M.P. 499.1 to 492.7	90	.. 40	50	1 12
Curve M.P. 490.2 to 488.8	85	.. 42	50	1 12
Curves M.P. 488.8 to 482.5	70	.. 51	50	1 12
Curves M.P. 482.5 to 481.0	55	1 06	50	1 12
Curves M.P. 481.0 to 479.4	30	2 ..	30	2 ..
Curve M.P. 479.4 to 479.0	55	1 06	50	1 12
Curves M.P. 479.0 to 477.0	65	.. 55	50	1 12
Curves M.P. 477.0 to 470.4	75	.. 48	50	1 12
Curves M.P. 470.4 to 469.0	45	1 20	45	1 20
Curves M.P. 469.0 to 464.9	65	.. 55	50	1 12
Curves M.P. 464.9 to 463.8	50	1 12	50	1 12
Curves M.P. 463.8 to 460.1x	60	1 ..	50	1 12
Curves M.P. 460.1x to 457.0	45	1 20	45	1 20
Curves M.P. 457.0 to 455.5	50	1 12	50	1 12
Curves M.P. 455.5 to 453.2	65	.. 55	50	1 12
Curve M.P. 453.2 to 452.1	55	1 06	50	1 12
Curves M.P. 452.1 to 451.4	40	1 30	40	1 30
Curves M.P. 451.4 to 450.1	35	1 43	24	2 30
Curves M.P. 450.1 to 448.3	60	1 ..	40	1 30
Curves M.P. 448.3 to 447.4	75	.. 48	40	1 30
Curves M.P. 447.4 to 429.7	75	.. 48	50	1 12

**SECOND DISTRICT—WESTWARD**

Needles St. Crossing M.P. 578.1	15	4 ..	15	4 ..
Curves M.P. 578.6 to 587.0	55	1 06	50	1 12
Curve M.P. 587.0 to 587.9	40	1 30	40	1 30
Curves M.P. 587.9 to 589.3	55	1 06	50	1 12
Curves M.P. 589.3 to 593.3	65	.. 55	50	1 12
Curve M.P. 593.3 to 593.8	45	1 20	45	1 20
Curve M.P. 593.8 to 595.1	55	1 06	50	1 12
Curves M.P. 595.1 to 603.3	65	.. 55	50	1 12
Curves M.P. 603.3 to 609.1	75	.. 48	50	1 12
Curves M.P. 609.1 to 673.3	75	.. 48	50	1 12
Curves M.P. 673.3 to 678.1	60	1 ..	50	1 12
Curve M.P. 678.1 to 678.5	40	1 30	40	1 30
Curve M.P. 678.5 to 679.9	60	1 ..	50	1 12
Curve M.P. 679.9 to 680.3	40	1 30	40	1 30
Curves M.P. 680.3 to 683.4	50	1 12	50	1 12
Curves M.P. 683.4 to 686.2	65	.. 55	50	1 12
Curves M.P. 686.2 to 688.4	75	.. 48	50	1 12
Curves M.P. 688.4 to 689.0	65	.. 55	50	1 12
Curves M.P. 689.0 to 692.9	75	.. 48	50	1 12
Curve M.P. 692.9 to 693.6	65	.. 55	50	1 12
Curves M.P. 693.6 to 694.9	45	1 20	45	1 20
Curves M.P. 694.9 to 702.0	65	.. 55	50	1 12
Curves M.P. 702.0 to 709.6	75	.. 48	50	1 12
Curves M.P. 709.6 to 710.6	65	.. 55	50	1 12
Curves M.P. 710.6 to 714.8	95	.. 38	50	1 12
Curves M.P. 737.3 to 745.0	95	.. 38	50	1 12
Curve M.P. 745.0 to 745.4	50	1 12	30	2 ..
Curves M.P. 745.4 to 745.7	40	1 30	20	3 ..

**SECOND DISTRICT—EASTWARD**

Curves M.P. 745.7 to 745.0	40	1 30	30	2 ..
Curves M.P. 745.0 to 738.8	95	.. 38	50	1 12
Curves M.P. 714.8 to 710.6	95	.. 38	50	1 12
Curves M.P. 710.6 to 706.0	65	.. 55	50	1 12
Curves M.P. 706.0 to 702.0	75	.. 48	50	1 12
Curve M.P. 702.0 to 701.5	65	.. 55	50	1 12
Curves M.P. 701.5 to 696.1	75	.. 48	50	1 12
Curves M.P. 696.1 to 694.9	65	.. 55	50	1 12
Curves M.P. 694.9 to 693.6	50	1 12	50	1 12
Curves M.P. 693.6 to 688.9	75	.. 48	50	1 12
Curve M.P. 688.9 to 688.4	65	.. 55	50	1 12
Curves M.P. 688.4 to 686.2	75	.. 48	50	1 12
Curves and Grade M.P. 686.2 to 683.4	75	.. 48	20	3 ..
Curves and Grade M.P. 683.4 to 680.8x	55	1 06	20	3 ..
Curves and Grade M.P. 680.8x to 677.8	70	.. 51	20	3 ..
Curves M.P. 677.8 to 668.9	75	.. 48	40	1 30
Curves M.P. 646.1 to 641.7	85	.. 42	50	1 12
Curves M.P. 641.7 to 625.5	75	.. 48	50	1 12
Curves M.P. 625.5 to 608.3	70	.. 51	50	1 12
Curves and Grade M.P. 608.3 to 593.8	60	1 ..	24	2 30
Curves and Grade M.P. 593.8 to 593.3	45	1 20	24	2 30
Curves and Grade M.P. 593.3 to 587.9	60	1 ..	24	2 30
Curves and Grade M.P. 587.9 to 587.1	40	1 30	24	2 30
Curves and Grade M.P. 587.1 to 578.6	60	1 ..	24	2 30
Needles St. Crossing M.P. 578.1	15	4 ..	15	4 ..

LOCATION	Passenger			Freight		
	Miles per Hr.	Time per Mile Min.	Time per Mile Sec.	Miles per Hr.	Time per Mile Min.	Time per Mile Sec.
<b>THIRD DISTRICT</b>						
Curve M.P. 747.2 to 747.6	60	1	..	50	1	12
Curve M.P. 749.3 to 749.6	85	..	42	50	1	12
Curves M.P. 758.7 to 760.2	90	..	40	50	1	12
Curve M.P. 767.3 to 768.1	90	..	40	50	1	12
Curves M.P. 770.3 to 772.7	90	..	40	50	1	12
Curve M.P. 774.5 to 775.4	90	..	40	50	1	12
Curves M.P. 789.0 to 789.9	60	1	..	40	1	30
Curve M.P. 799.1 to 799.5	75	..	48	50	1	12
Curves M.P. 805.2 to 806.3	90	..	40	50	1	12
Curve M.P. 806.3 to 806.5	70	..	51	50	1	12
Curves M.P. 806.5 to 808.5	90	..	40	50	1	12
Curve M.P. 808.5 to 808.8	70	..	51	50	1	12
Curve M.P. 811.5 to 811.9	95	..	38	50	1	12
Curves M.P. 816.4 to 817.5	25	2	24	25	2	24
<b>CADIZ DISTRICT</b>						
Curve M.P. 107.2 to 107.4	20	3	..	20	3	..
Curve M.P. 165.2 to 165.5	45	1	20	30	2	..
Curve M.P. 183.0 to 183.2	45	1	20	30	2	..
<b>RIPLEY DISTRICT</b>						
Curves and track M.P. 11.6 to 12.7	20	3	..	20	3	..
Curves M.P. 15.6 to 16.4	20	3	..	20	3	..
<b>ARVIN DISTRICT</b>						
Curve M.P. 324.2 to 324.4	8	7	30	8	7	30
Curve M.P. 329.7 to 329.9	8	7	30	8	7	30

MAXIMUM SPEED FOR ENGINES IN MINUTES AND SECONDS PER MILE

ENGINES	Service					
	Passenger		Freight and Mixed		Light	
	Min.	Sec.	Min.	Sec.	Min.	Sec.
641-899, except 6-w and 8-w switch	1	43	1	43	1	43
6-w and 8-w switch	..	..	..	..	3	00
900-984, 1600-1705	1	43	1	43	1	43
1211-1399, 3501-3534	0	48	1	12	1	30
1413-1468	0	40	1	12	1	30
1798-1799, 3160-3287, 4000-4099	1	06	1	12	1	30
1800-1886	1	12	1	12	1	30
1950-1991, 3011-3016, 3100-3158	1	43	1	43	1	43
2917-2929	0	40	1	12	1	30
Other 2900 Class	0	45	1	12	1	30
3409, 3411, 3443-3445 and 3449	0	45	1	12	1	20
Other 3400 Class	0	40	1	12	1	20
3450-3459	0	40	1	12	1	20
3460-3465	0	36	1	12	1	30
3700-3750	0	51	1	12	1	30
3751-3775	0	45	1	12	1	30
3776-3785	0	40	1	12	1	30
3800-3940	1	06	1	12	1	30
5000-5035	1	00	1	12	1	30
Diesels 1-35, 51-62, 90, 159	0	36	1	06	1	20
Diesels 158, 162-164, 166-168	0	38	1	06	1	20
Diesels 100-157, 160, 161, 165, 169-185, 200, 201, 2600, 2611	0	55	1	06	1	20
UP 5000 and 5500 Classes	1	12	1	12	1	30
UP 3800 Class	1	00	1	12	1	30
UP 3900 Class	0	55	1	12	1	30
UP 800 Class	0	45	1	12	1	30
UP Diesels 900-978, 981-989, and 990 Class	0	36	..	..	1	20
UP Diesels 1000 Class	1	00	1	06	1	20
UP Diesels 1360, 1400 and 1500 Classes	0	55	1	06	1	20
All Classes, backing up	3	00	3	00	3	00
Goffs to Needles	..	..	..	..	2	00
Ash Hill to Siberia	..	..	..	..	2	30

18. Spring switches.

SPEED LIMIT 10 MILES PER HOUR:

Seligman ..... Switch leading from west end yard to eastward main track and through crossover from eastward to westward main tracks, (east switch normally lined for crossover).

Kingman ..... West end eastward siding, (normal position lined for quarry track).

SPEED LIMIT 15 MILES PER HOUR:

Audley ..... East end, eastward siding  
 Pica ..... East end, eastward siding  
 Pica ..... West end, westward siding  
 Yampai ..... West end, westward siding  
 Yampai ..... East end, eastward siding  
 Peach Springs ..... East end, eastward siding  
 Peach Springs ..... West end, westward siding  
 Truxton ..... West end, westward siding  
 Hackberry ..... West end, westward siding  
 Hackberry ..... East end, eastward siding  
 Berry ..... East end, eastward siding  
 Kingman ..... East end, eastward siding  
 Griffith ..... East end, eastward siding  
 Yucca ..... East end, eastward siding  
 Franconia ..... West end, westward siding  
 Topock ..... East end, eastward siding  
 Topock ..... West end, westward siding  
 Goffs ..... West end, westward siding  
 Fenner ..... East end, eastward siding  
 Danby ..... East end, eastward siding  
 Danby ..... West end, westward siding  
 Cadiz ..... West end, westward siding  
 Cadiz ..... East end, eastward siding  
 Bagdad ..... East end, eastward siding  
 Bagdad ..... West end, westward siding  
 Siberia ..... East end, eastward siding  
 Siberia ..... West end, westward siding  
 Ash Hill ..... East end, eastward siding  
 Ash Hill ..... West end, westward siding  
 Pisgah ..... West end, westward siding  
 Newberry ..... West end, westward siding  
 Daggett ..... West end, westward siding  
 Hutt ..... West end siding  
 Sanborn ..... Both ends siding

SPEED LIMIT—PASSENGER, 25 MPH; FREIGHT, 20 MPH:

Seligman ..... East switch of crossover from eastward to westward main tracks (eastward main line trains only).

Audley ..... West end, westward siding  
 Nelson ..... East end, eastward siding  
 Truxton ..... East end, eastward siding  
 Berry ..... West end, westward siding  
 Griffith ..... West end, westward siding  
 Yucca ..... West end, westward siding  
 Franconia ..... East end, eastward siding  
 Needles ..... West end, westward freight lead  
 Java ..... West end, westward siding  
 Java ..... East end, eastward siding  
 Ibis ..... West end, westward siding  
 Goffs ..... East end, eastward siding  
 Ludlow ..... West end, westward siding  
 Ludlow ..... East end, eastward siding  
 Pisgah ..... East end, eastward siding  
 Newberry ..... East end, eastward siding  
 Hinkley ..... Both ends siding  
 Eads ..... Both ends siding  
 Jimgrey ..... Both ends siding  
 Boron ..... Both ends siding  
 Rich ..... Both ends siding  
 Silt ..... Both ends siding  
 Muroc ..... Both ends siding  
 Fluhr ..... Both ends siding  
 Bissell ..... Both ends siding

19. Junction switches. Normal position of junction switches will leave unbroken rail as follows:

Rice ..... For Cadiz District  
 Cadiz ..... From track No. 1 to Cadiz District  
 Mojave ..... S.P. main track (see S.P. time table rules)

LENGTH OF STEMS OF WYES

Location	Feet	Location	Feet
Seligman	910	Newberry	640
Yampai	685	Barstow (M.P. 747.3)	2796
Kingman	446	Boron	Mine Spur
Needles	505	Muroc	Army Spur
Goffs	1470	Rice	Ripley District
Cadiz	Cadiz District	Blythe	504
Ash Hill	410	Di Giorgio	500

A. J. STROBEL, General Watch Inspector ..... Topeka, Kansas

LOCAL WATCH INSPECTORS

ALFRED WILLIAMS ..... 849 Front St., Needles  
 C. L. SHUE ..... Blythe  
 E. F. MANNERS ..... 107 E. Main St., Barstow  
 C. E. SPICER ..... Mojave  
 J. N. CHENEY ..... 408 Hopkins Bldg., Bakersfield  
 A. L. KNIGHT ..... 1677 Chester Ave., Bakersfield

**INTERLOCKINGS**

Location	Tracks Governed	Rules	Whistle Signals Additional to Rule 620
Needles M.P. 575+1000	Main line and connecting crossover.	Interlocking. Semi-automatic.	Westward main track — Track 20 —00—
Daggett	All switches east of station except transfer tracks No. 1 and No. 2.	Interlocking. Semi-automatic.	Eastward U. P. trains, U. P. main track — — 0 Against current of traffic —0
Barstow M.P. 743+3683	Main line and connecting crossover.	Interlocking. Semi-automatic.	Westward main track — Crossover to Track 30 —0—
M.P. 745+3713	Main line and connecting crossover.	Interlocking. Semi-automatic.	Crossover to westbound freight lead —0— With current of traffic — Against current of traffic —0 East freight yard 0— —
Barstow (West end)	Main line and connecting crossovers.	Interlocking. Semi-automatic. Ten miles per hour.	To Third District — — 0 Against current of traffic —0 Engine lead 00—0 Switching tail 0000 Tracks 1 to 17 incl. 0—00 Tracks 18 to 30 incl. —0—0
Kern Junction	Santa Fe double track connection to and from S. P. double track. Santa Fe main track to Sunset track.	Interlocking. Semi-automatic.	Crossover —0—0 Main track to Sunset —0— S. P.-West Main to A. T. & S. F. 0— —

Microphones identified by signboards are located on posts adjacent to tracks, as shown below, and all trains must sound route signal for route desired when approaching same:  
For westward trains:  
Needles—M.P. 571+1200.  
Daggett—At Signal 7341, east of Gale.

For eastward trains:  
Barstow—Ten poles east of M.P. 750.  
Daggett—Five poles east of Signal 7402.  
At Barstow: Trains when ready to depart from passenger yard will sound route signal with buzzer located as follows:  
West or south, on engine supply house near viaduct;  
East, on signal pole near east end track 7.

When SELECTOR lever on dual control switch machine is moved from MOTOR to HAND position, the hand throw lever must be operated sufficiently to determine that the lever is rigidly engaged with the switch points before hand signal is given for movement over the switch points.

**CONDITIONAL STOPS SHOWN WILL BE MADE ONLY FOR REVENUE PASSENGERS**

The term "beyond" refers to regular, flag or conditional stops authorized herein.

Train	Stops at Stations	To Receive Passengers For	To Discharge Passengers From
3	Albuquerque to Barstow		Albuquerque and beyond
	Seligman to Barstow	Bakersfield and beyond San Bernardino and beyond	
	San Bernardino to Los Angeles		Barstow and beyond
4	Los Angeles to San Bernardino	Barstow and beyond	
	Oakley Knightsen	Beyond Bakersfield	Richmond and beyond
	Madera	Beyond Bakersfield	Stockton and beyond
	Bakersfield to Seligman	Albuquerque and beyond	Bakersfield and beyond San Bernardino and beyond
	Williams to Albuquerque	Albuquerque and beyond	Seligman and beyond
19	Kingman		Newton and beyond
	San Bernardino to Los Angeles		Albuquerque and beyond
20	Monrovia Pomona Claremont Upland	Albuquerque and beyond	
	Kingman	Newton and beyond	
	Flagstaff	Kansas City and beyond	
21	Williams	Barstow and beyond	Albuquerque and beyond
	Ash Fork		Albuquerque and beyond, and for south of Ash Fork
22	Ash Fork	Albuquerque and beyond from Prescott and south	
	Williams	Albuquerque and beyond	Barstow and beyond
23	Holbrook	Prescott and beyond Barstow and beyond	Clovis and beyond
	Flagstaff	Barstow and beyond	Belen and beyond
	Kingman		Clovis and beyond
	Muroc	Beyond Bakersfield	Beyond Seligman
	Laton, Madera, Planada, Winton, Ballico, Denair, Holt, Knightsen, Oakley		Bakersfield and beyond
	Victorville	Los Angeles	Williams, also Belen and beyond

**CONDITIONAL STOPS—(Continued)**

Train	Stops at Stations	To Receive Passengers For	To Discharge Passengers From
24	Victorville	Williams and beyond	Los Angeles
	Muroc	Beyond Albuquerque and Belen	Beyond Bakersfield
	Kingman	Clovis and beyond	
	Flagstaff	Belen and beyond	Barstow and beyond
	Holbrook	Clovis and beyond	Prescott and beyond Barstow and beyond
60	Empire	Fresno and beyond	Stockton and beyond
61	Empire	Stockton and beyond	Fresno and beyond
62	Pittsburg	Fresno and beyond	
	Corcoran Shafter Wasco		Stockton and beyond
	Fullerton		East of Barstow West of Bakersfield
72	Fullerton		Fourth District points, destined Williams, also Belen and beyond
73	Fullerton		
	Del Mar	Santa Ana, also Los Angeles and beyond	
71-73 77-79	Del Mar		Los Angeles or Santa Ana
72-74 76-78	Del Mar		
103	San Bernardino		To discharge passengers

**Sidings, Spurs and Flag Stops Not Shown on Face of Time Table**

Location	Mile Posts	Car Capacity	Switch Connection	Flag Stops For Trains
<b>FIRST DISTRICT</b>				
Cherokee .....	471.5	9	West	Freight only
Chino .....	432.7	12	West	Freight only
<b>SECOND DISTRICT</b>				
Lavic .....	702.7	10	East	Freight only
Airport Spur .....	732.6	15	West	Freight only
Gale .....	735.3	67	East & West	Freight only
<b>THIRD DISTRICT</b>				
P. C. Borax Co. ....	784.7	3.4 miles	East	Freight only
<b>RIPLEY DISTRICT</b>				
Spur .....	10.5	9	West	Freight only
<b>ARVIN DISTRICT</b>				
	Miles from Magudon			
Harpertown .....	4.4	3	West	Freight only
Patch .....	9.2	4	East	Freight only
Giffen .....	15.6	1.4 miles	East	Freight only
Vaccaro .....	17.7	1.3 miles	East	Freight only



# SANTA FE SAFETY FIRST



Every employe should report promptly to his foreman, some member of the Safety Committee, or other proper person, all unsafe conditions or practices.

(See General Rules E, F, and M, Book of Rules.)

