

SOUTHERN PACIFIC COMPANY

PACIFIC LINES

TIME TABLE FOR THE TUCSON DIVISION

111



To Take Effect Sunday, June 1, 1939, at 12:01 A. M.

MOUNTAIN STANDARD TIME (105th MERIDIAN)

For the government and information of employees only.

L. B. McDONALD,
General Manager.

W. B. KIRKLAND,
Superintendent of Transportation.

L. U. MORRIS,
Assistant General Manager.

WM. WILSON,
Superintendent.

TUCSON

WELLTON SUBDIVISION

EASTWARD

WESTWARD

Capacity of Sidings in Car Lengths	EASTWARD										Distance from San Francisco	Time Table No. 111 June 11, 1939	Distance from Phoenix Yard	WESTWARD					
	SECOND CLASS				FIRST CLASS					STATIONS				FIRST CLASS				SECOND CLASS	THIRD CLASS
	846	902	844	842	2	6	4	44	370					1	3	43	5	841	901
Freight	Freight	Freight	Freight	Sunset Limited	Argonaut	Golden State Limited	Californian	A. O. N.	Sunset Limited	Golden State Limited	Californian	Argonaut	Freight	Freight					
Yard BKWOTYP	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily				
258 P	4.50 PM	1.30 PM	8.40 AM	1.05 AM	5.45 PM	4.15 AM	4.05 AM	3.50 AM	3.30 AM	732.7	TO-R YUMA	174.2	s 10.15 AM	s 1.20 PM	s 12.35 AM	s 1.05 AM	11.35 PM	11.45 PM	
67 P	5.05	1.45	8.55	1.20	5.55	4.25	4.15	4.00	3.40	737.4	EAST YARD	169.5	10.05	1.10	12.25	12.55	11.22	11.32	
72 P	5.10	1.50	9.00	1.25	5.58	4.29	4.18	4.03	3.43	740.1	ARABY	166.9	10.00	1.06	12.21	12.50	11.17	11.27	
67 P	5.16	1.56	9.06	1.31	6.02	4.33	4.22	4.07	3.47	743.7	FORTUNA	163.3	9.55	1.01	12.16	12.45	11.11	11.21	
93 Center P	5.21	2.01	9.11	1.36	6.05	4.36	4.25	4.10	3.50	746.6	BLAISDELL	160.4	9.50	12.56	12.11 AM	12.40	11.06	11.16	
84 Spur P	5.36	2.16	9.26	1.51	6.17	f 4.48	4.37	4.22	4.02	753.5	DOME	153.5	9.38	12.44	f 11.59 PM	12.28	10.53	11.03	
70 Center P	5.50	2.30	9.40	2.05	6.27	4.58	4.47	4.32	4.12	755.2	GRANITE SPUR	151.8							
72 WIP	6.15 PM	2.55	10.05 AM	2.30 AM	f 6.39	f 5.10 AM	4.59	4.43	4.24	760.2	LIGURTA	146.8	9.28	12.34	11.49	12.18	10.41	10.51	
78 P		3.07			6.48		5.08	4.51	4.31	775.7	TO WELLTON	187.0	9.15 AM	12.23	11.38	f 12.05 AM	10.25 PM	10.35	
79 P										777.7	MING	181.3		12.14	11.29	11.55 PM		10.15	
34 Spur P		3.17			6.55		5.15	4.57	4.37	780.9	YANO	129.8							
79 P										788.3	ROLL	126.1		12.08 PM	11.23	f 11.49		10.05	
81 P		3.37			7.08		5.28	5.10	4.50	793.2	TYSON	118.7							
79 P		3.55			7.18		5.38	5.20	5.00	802.5	GROWLER	113.8		11.55 AM	11.10	11.36		9.45	
80 WOP		4.15			7.29		5.49	5.31	5.11	812.7	KOFA	104.5		11.45	11.00	11.26		9.31	
78 P		4.40			f 7.42		6.02	5.44	5.21	822.3	HORN	94.3		11.34	10.49	f 11.15		9.13	
78 P		5.00			7.54		6.14	5.55	5.30	831.1	TO HYDER	84.7		f 11.24	10.39	f 11.05		8.55	
81 P		5.10			8.00		6.20	6.01	5.36	836.8	MONTIZUMA	75.9		11.11	10.28	10.53		8.32	
79 P		5.20			8.05		6.25	6.06	5.41	841.1	PAPAGO	70.2		11.05	10.22	10.47		8.20	
42 Spur P		6.10			8.19		6.39	6.18	5.50	849.4	SADDLE	65.9		11.00	10.17	10.42		8.05	
81 P		6.15			8.21		6.41	6.20	5.52	851.0	HARQUA	57.6		10.50	10.07	10.32		7.40	
78 P										856.0	GILLESPIE	56.0		10.48	10.05	10.30		7.30	
12 Spur P		6.35			8.32		6.52	6.31	6.03	861.3	CRAG	51.0							
6 Spur		6.50			8.37		6.57	6.36	6.08	865.7	ARLINGTON	45.7		10.37	9.54	10.19		7.15	
78 P										867.6	DIXIE	41.3		10.32	9.49	f 10.14		6.50	
81 WP		7.00			8.43		7.03	6.42	6.14	870.2	HASSAYAMPA	39.4							
78 P		7.10			f 8.50		7.10	6.48	6.19	871.5	PALO VERDE	36.8							
78 P		7.22			8.57		7.17	6.55	6.25	875.7	CONGER	35.5		10.26	9.43	10.08		6.38	
79 YP		7.34			f 9.07		7.27	7.04	6.34	881.7	TO BUCKEYE	31.3		f 10.18	f 9.35	s 10.00		6.30	
97 P		7.40			9.11		7.31	7.08	6.38	884.9	LIBERTY	25.3		10.09	9.26	9.48		6.18	
53 P		7.44			9.14		7.34	7.11	6.41	889.7	NORTON	22.1							
8 Spur										893.0	LITCHEFIELD	17.3		10.00	9.17	f 9.38		6.05	
65 P										894.9	CASHION	14.0		9.56	9.11	f 9.32		5.59	
77 P		7.52			9.21		7.40	7.15	6.45	895.7	COWDEN	12.1		9.53	9.03	9.29		5.55	
57 P		8.00			9.28		7.44	7.19	6.49	896.3	TOLLESON	11.3							
80		8.05			9.32		7.48	7.23	6.51	898.1	JEAN	10.7							
Yard BKWP					s 9.40 PM		s 7.55 AM	s 7.30 AM	Via Freight Main	902.0	FOWLER	8.9		9.48	8.58	9.21		5.48	
Yard BKWOTYP		8.20 PM							7.00 AM	904.0	CAMPO	5.0		9.44	8.54	9.14		5.40	
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	905.5	23rd AVE. PHOENIX	3.0		9.42	8.52	9.12		5.35	
										906.0	CROSSING-AT&SF WYE	1.5							
										907.0	R PHOENIX	1.0		9.35 AM	8.45 PM	9.05 PM			
											TO-R PHOENIX YARD	0.0						5.20 PM	

(1.25) 26.33 (6.50) 25.49 (1.25) 26.33 (1.25) 26.33 (3.55) 44.25 (0.55) 40.69 (3.50) 45.21 (3.40) 47.26 (3.30) 49.77

.....Time over district.....
.....Average speed per hour.....

(1.00) 37.30 (3.45) 46.21 (3.50) 45.21 (4.00) 43.33 (1.10) 31.97 (6.25) 27.16

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
44-4	Any Station	Discharge		Yuma
44-4	Wolton, Hyder, Buekeye, Litchfield	Receive	Phoenix	

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
43	Any Station	Discharge Revenue		East of El Paso
5	Any Station	Discharge		Phx. Line St's & El Paso

Capacity Sidings Car Lengths

Yard BKWOTYP
19 Sp
11 Sp
87

35
36 Sp
Yard KW

79
22
40
76

35 Sp
81
71

72
34
79
81
80
34

4 Sp
102 WO
73
94
73

69
72
67
71
100
165 V

100
67
100
67

Yard BKWOTYP

will clear
train

PICACHO SUBDIVISION

EASTWARD

WESTWARD

Capacity of Sidings in Car Lengths	EASTWARD										Distance from San Francisco	Time Table No. 111 June 11, 1939	Distance from Tucson	WESTWARD					SECOND CLASS Freight	THIRD CLASS Freight		
	SECOND CLASS				FIRST CLASS									1 Sunset Limited	3 Golden State Limited	377 Motor	43 Callifornian	5 Argonaut			843 Freight	903 Freight
	904 Freight	856 Freight	854 Freight	852 Freight	2 Sunset Limited	376 Motor	4 Golden State Limited	44 Callifornian	6 Argonaut	370 A. O. N.												
Yard BKWP					9.55 PM	8.40 AM	8.10 AM	7.50 AM			906.0	R PHOENIX	121.0	s 9.20 AM	s 4.05 PM	s 8.30 PM	s 8.50 PM					
Yard BKWOTYP	9.30 PM				9.59	8.45	8.14	7.54		7.10 AM	907.0	TO-R PHOENIX YARD	120.0	9.15	3.59	8.24	8.44		11.55 PM			
19 Spur P	9.42				10.07	8.53	8.22	8.02		7.18	911.1	KENDALL	115.9	9.07	3.51	8.16	8.36		11.40			
11 Spur P						f					911.8	TOVREA	115.2		f							
87 YP	9.52				f 10.13	s 9.01	f 8.29	8.09		7.23	914.4	TO TEMPE	112.6	f 9.01	s 3.45	s 8.10	s 8.30		11.25			
P	9.57				10.16	9.07	8.32	8.12		7.26	915.8	TEMPE JCT.	111.7	8.57	3.41	8.05	8.25		11.15			
35 P	10.02				10.19	9.10	8.35	8.15		7.29	917.1	NORMAL JCT.	109.9	8.54	3.38	8.02	8.22		11.10			
36 Spur											918.6	TEMPE PUMPING PLANT	108.4									
Yard KWYP	10.15				s 10.29	s 9.20	s 8.45	8.25		7.36	921.8	TO MESA	105.2	s 8.45	s 3.30	s 7.54	s 8.14		10.45			
79 P	10.33				10.33	9.25 AM	8.49	8.29		7.40	923.6	McQUEEN	103.4	8.29	3.25 PM	7.48	8.08		10.15			
22 P											925.4	TREMAINE	101.6						9.45			
40 P	10.38				10.37		8.53	8.33		7.43	926.1	FALFA	100.9	8.23		7.44	8.04		9.30			
76 P	10.46				f 10.44		f 9.00	8.40		7.48	929.8	TO CHANDLER	97.7	f 8.18		7.39	s 7.59		9.20			
35 Spur P	10.50				10.47		9.03	8.43		7.51	931.0	POZO	96.0	8.13		7.34	7.53		8.55			
81 P	10.55				10.51		9.07	8.47		7.55	934.3	SERAPE	92.7	8.09		7.30	7.49		8.45			
71 P	11.03				10.56		9.12	8.52		8.04	939.0	SANTAN	88.0	8.04		7.25	7.44		8.35			
72 P	11.10				11.01		9.17	8.59		8.11	943.2	DOCK	83.8	7.59		7.20	7.39		8.25			
34 P	11.19				11.07		9.23	9.05		8.17	948.1	OLBERG	78.9	7.53		7.14	7.33		8.15			
79 P	11.27				11.13		9.29	9.11		8.23	953.2	BLACKWATER	73.8	7.47		7.08	7.27		8.00			
81 YP	11.36				11.19		9.35	9.17		8.29	958.2	POSTON	68.8	7.41		7.02	7.21		7.45			
80 WP	11.52 PM				f 11.26		f 9.41	9.22		8.40	962.0	TO COOLIDGE	65.0	7.36		6.57	s 7.15		7.30			
34 P	12.02 AM				11.32		9.47	9.28		8.46	966.4	RANDOLPH	60.6	7.30		6.50	f 7.08		7.08			
72 P	12.10				11.37		9.52	9.33		8.52	971.4	TOPAZ	55.6	7.24		6.44	7.02		6.44			
4 Spur P											975.4	PEAK	51.6									
102 WOYP	12.28	6.55 PM	10.55 AM	3.35 AM	11.49		10.04	9.45	9.25 AM	9.04	980.6	TO PICACHO	46.4	4.40 AM	7.12	f 6.32	6.50		4.30 PM			
73 P	12.38	7.05	11.05	3.45	11.53		10.08	9.49	9.31	9.08	937.5	OCATILLA	43.2	4.35	7.08		6.28	6.45	4.23			
94 P	12.47	7.14	11.14	3.54	11.57 PM		10.12	9.53	9.36	9.12	944.2	WYMOLA	39.7	4.31	7.04		6.24	6.41	4.17			
73 P	12.55	7.22	11.22	4.02	12.01 AM		10.16	9.57	9.41	9.16	947.9	MONTROSE	36.0	4.27	7.01		6.20	6.37	4.11			
69 WP	1.04	7.31	11.31	4.11	12.05		10.20	10.01	f 9.47	9.20	951.4	TO RED ROCK	32.5	4.23	6.57	f 6.16	6.33		4.05			
72 P	1.09	7.36	11.36	4.19	12.08		10.23	10.04	9.50	9.23	954.8	AVRA	29.6	4.19	6.54		6.13	6.28	4.00			
67 P	1.16	7.43	11.43	4.26	12.12		10.27	10.08	9.55	9.27	958.4	NAVISKA	25.6	4.14	6.49		6.08	6.23	3.53			
71 P	1.22	7.49	11.49	4.32	12.16		10.31	10.12	f 10.00	9.31	962.2	MARANA	21.7	4.09	6.45	f 6.04	6.19		3.47			
100 P	1.27	7.54	11.54	4.37	12.19		10.34	10.15	10.03	9.34	964.6	ROSKRUGE	19.3	4.05	6.42		6.01	6.15	3.43			
165 WP	1.32	7.59	11.59 AM	4.42	12.22		10.37	10.18	f 10.07	9.37	968.9	RILLITO	17.0	4.02	6.39		5.58	f 6.12	3.39			
100 P	1.38	8.05	12.05 PM	4.48	12.25		10.40	10.21	10.12	9.40	969.9	SABINO	14.0	3.58	6.35		5.55	6.08	3.34			
67 P	1.43	8.10	12.10	4.53	12.28		10.43	10.24	f 10.16	9.43	972.1	CORTARO	11.8	3.55	6.32		5.52	f 6.05	3.30			
100 P	1.48	8.15	12.15	4.58	12.31		10.46	10.27	10.19	9.46	974.7	KINO	9.2	3.51	6.29		5.49	6.01	3.26			
67 P	1.53	8.20	12.20	5.03	12.34		10.49	10.30	f 10.23	9.49	977.4	JAYNES	6.5	3.48	6.26		5.46	f 5.58	3.21			
P	1.59	8.26	12.26	5.09	12.38		10.53	10.34	10.27	9.53	981.2	STOCKHAM	2.7	3.43	6.22		5.42	5.53	3.14			
Yard BKWFITYP	2.10 AM	8.40 PM	12.40 PM	5.20 AM	s 12.45 AM		s 11.00 AM	s 10.40 AM	s 10.35 AM	10.00 AM	982.8	SOUTH LINE JCT.	1.1									
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	983.9	TO-R TUCSON	0.0	3.35 AM	6.15 AM		5.35 PM	5.45 PM	3.05 PM	4.10 PM		
	(4.40) 25.71	(1.45) 26.51	(1.45) 26.51	(1.45) 26.51	(2.50) 42.71	(0.45) 23.47	(2.50) 42.71	(2.50) 42.71	(1.10) 39.77	(2.50) 42.71		(121.0)		(1.05) 42.83	(3.05) 39.24	(0.40) 26.40	(2.55) 41.49	(3.05) 39.24	(1.25) 32.75	(7.45) 15.45		

RULE 206 (A). Unless otherwise instructed, crews arriving Phoenix on eastward first-class trains, will assume same schedule at Phoenix and these trains and No. 376 proceed to Phoenix Yard without clearance.

Second main track between east end Phoenix Yard and east switch Kendall, may be used by freight trains when authorized by train order. Single track rules apply.

At Picacho schedule time and train orders apply at junction switch.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS				
Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
44	Any Station	Discharge	East of El Paso	Yuma
44	Tempe, Mesa, Chandler, Coolidge	Receive		Redlands
4	Any Station	Discharge		Ph'x L'ne Stn's

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS				
Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
1	Any Station Tucson to Picacho inc.	Receive	Gila Line Stations	East of El Paso
43	Any Station	Discharge	Phoenix Line Stations	El Paso
5	Any Station	Receive	Phoenix	Tucson
3	Coolidge	Discharge		

WELLTON SUBDIVISION

EASTWARD							WESTWARD								
Capacity of sidings in car lengths	SECOND CLASS			FIRST CLASS			Distance from San Francisco	Time Table No. 111 June 11, 1939	Distance from Gila	FIRST CLASS			SECOND CLASS		
	846	844	842							1			841		
	Freight	Freight	Freight							Sunset Limited			Freight		
	Leave Daily	Leave Daily	Leave Daily							Arrive Daily					
73 WIP	6.15 PM	10.05 AM	2.30 AM				770.0	85.7	f	9.15 AM			10.25 PM		
73 P	6.25	10.15	2.40				773.1	82.6		9.09			10.17		
67 P	6.32	10.22	2.47				776.4	79.3	f	9.03			10.11		
73 P	6.39	10.29	2.54				780.1	75.6		8.57			10.04		
67 P	6.46	10.36	3.01				783.8	71.9		8.51			9.57		
69 P	6.55	10.45	3.10				788.6	67.1		8.44			9.49		
W88 E70 P	7.10	11.00	3.25				792.6	63.1	f	8.38			9.42		
67 P	7.20	11.10	3.35				795.9	59.8		8.29			9.32		
67 P	7.28	11.18	3.43				800.5	55.2		8.22			9.24		
92 P	7.38	11.28	3.53				806.2	49.5	f	8.14			9.15		
67 WP	7.48	11.38	4.03				811.9	43.8	f	8.06			9.04		
100 P	7.55	11.45	4.10				815.8	39.9		7.59			8.49		
67 P	8.02	11.52	4.17				819.7	36.0		7.55			8.42		
72 P	8.06	11.56 AM	4.21				822.0	33.7		7.52			8.38		
W70 E82 WOP	8.30	12.20 PM	4.45				826.1	29.6	s	7.45			8.30		
76 P	8.40	12.30	4.55				829.6	26.1		7.35			8.23		
67 P	8.48	12.38	5.03				833.1	22.6		7.30			8.16		
67 P	9.00	12.50	5.15				839.9	15.8	f	7.21			8.04		
68 P	9.11	1.01	5.26				845.5	10.2	f	7.13			7.54		
67 P	9.20	1.10	5.35				850.3	5.4		7.06			7.45		
Yard BKWOTYP	9.30 PM	1.20 PM	5.45 AM				855.7	0.0	TO-R	6.52 AM			7.35 PM		
	Arrive Daily	Arrive Daily	Arrive Daily				Arrive Daily			Leave Daily			Leave Daily		

(3.15) 26.37 (3.15) 26.37 (3.15) 26.37 (2.05) 41.14 Time over district (2.23) 35.96 (2.50) 30.25
 Average speed per hour 35.96 30.25

EASTWARD		WELLTON SUBDIVISION		WESTWARD	
Capacity of sidings in car lengths		Distance from San Francisco	Time Table No. 111 June 11, 1939		Distance from Litchfield Park
			Litchfield Branch		
			STATIONS		
79 YP		889.7	LITCHFIELD	5.0	
34 } Spurs 22 }		894.7	LITCHFIELD PARK	0.0	
			(5.0)		

EASTWARD		PICACHO SUBDIVISION		WESTWARD	
Capacity of sidings in car length		Distance from San Francisco	Time Table No. 111 June 11, 1939		Distance from West Chandler
			Tempe Branch		
			STATIONS		
P		915.8	TEMPE JOT.	7.7	
21		917.7	PETERSON	5.3	
53		920.1	HELENA	2.9	
21 Spur		923.0	WEST CHANDLER	0.0	
			(7.7)		

At Sentinel schedule time and train orders, except for westward first class trains, apply at east switch of west siding.
 At Gila schedule time and train orders for first class trains apply at passenger station.

Capacity of sidings in car lengths	
Yard BKWOTYP	
67 P	
77 P	
67 P	
76 P	
73 YP	
68 P	
67 P	
67 P	
67 P	
150 WP	
67 P	
72 P	
67 P	
94 WP	
17 Spur	
67 P	
68 P	
77 P	
102 WOYP	
EAST	
Capacity of sidings in car lengths	
87 YP	
130 Spur	
EAST	
Capacity of sidings in car lengths	
81 YP	
3 Spur	
P	

PICACHO SUBDIVISION

PICACHO SUBDIVISION

EASTWARD				Time Table No. 111 June 11, 1939		WESTWARD				
Capacity of sidings in car lengths	SECOND CLASS			FIRST CLASS	Distance from San Francisco	STATIONS		Distance from Picacho	FIRST CLASS	SECOND CLASS
	856	854	852	6		1	843			
	Freight	Freight	Freight	Argonaut		Sunset Limited	Freight			
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily				
Yard BKWOTYP	3.40 PM	7.40 AM	12.20 AM	7.20 AM	855.7	TO-R GILA	81.8	s 6.45 AM		7.20 PM
67 P	3.49	7.49	12.29	7.27	859.1	COLEDON	78.4	6.38		7.08
77 P	4.05	8.05	12.45	f 7.37	865.1	BOSQUE	72.4	f 6.30		6.58
67 P	4.17	8.17	12.57	7.44	869.1	OCAPOS	68.4	6.24		6.45
76 P	4.27	8.27	1.07	7.49	871.8	SHAWMUT	65.7	6.20		6.40
73 YP	4.40	8.40	1.20	f 7.55	874.6	TO ESTRELLA	62.9	f 6.16		6.35
68 P	4.49	8.49	1.29	8.00	879.4	BUCHAN	58.1	6.09		6.26
67 P	4.57	8.57	1.37	f 8.06	883.7	MOBILE	53.8	f 6.03		6.18
67 P	5.10	9.10	1.50	8.11	888.4	ENID	49.1	5.56		6.09
67 P	5.17	9.17	1.57	8.16	892.8	HEATON	44.7	5.50		6.01
150 WP	5.40	9.40	2.20	f 8.27	897.8	TO MARIKOOPA	39.7	s 5.43		5.50 5.36
67 P	5.50	9.50	2.30	8.34	902.9	LIRIM	34.6	5.30		5.27
72 P	6.00	10.00	2.40	f 8.40	907.7	BON	29.8	f 5.24		5.19
67 P	6.10	10.10	2.50	8.46	912.5	NUNEZ	25.0	5.18		5.11
94 WP	6.22	10.22	3.02	s 8.59	918.8	TO CASA GRANDE	18.7	s 5.10		5.01
17 Spur					921.0	SECO	16.5			
67 P	6.31	10.31	3.11	9.05	923.7	ARIZOLA	13.8	5.00		4.53
68 P	6.40	10.40	3.20	f 9.11	928.4	TOLTEC	9.1	f 4.54		4.45
77 P	6.48	10.48	3.28	f 9.18	933.1	ELOY	4.4	f 4.47		4.37
102 WOYP	6.55 PM	10.55 AM	3.35 AM	f 9.25 AM	937.5	TO PICACHO	0.0	4.40 AM		4.30 PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		81.8		Leave Daily		Leave Daily
	(3.15) 25.17	(3.15) 25.17	(3.15) 25.17	(2.05) 39.26				(2.05) 39.26		(2.50) 28.87

EASTWARD				Time Table No. 111 June 11, 1939		WESTWARD			
Capacity of sidings in car lengths	FIRST CLASS			FIRST CLASS	Distance from San Francisco	STATIONS		Distance from Christmas	FIRST CLASS
	376			377					
	Motor			Motor					
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily		Arrive Daily	Ex. Sunday
79 P	9.25 AM			923.6			TO McQUEEN	86.9	s 3.25 PM
46 P	s 9.34			927.0			GILBERT	83.5	f 3.17
37	f 9.43			932.0			HIGLEY	78.5	f 3.08
10	f			935.6			GERMANN	74.9	f
15 P	f			938.1			RITTENHOUSE	72.4	f
55 P	f 10.00			941.6			QUEEN CREEK	68.9	f 2.53
45 P	f 10.16			949.8			MACMA	60.7	f 2.40
	10.27			956.5			FLORENCE JOT.	54.0	2.28
28 WP	s 10.34			959.0			TO FLORENCE	51.5	s 2.24
				961.8			BARR	48.7	
				968.8			DIVERSION	42.2	
27 P	f 10.54			969.0			PRIOE	41.5	f 2.05
27 P	f 11.08			975.2			COOHRAN	35.3	f 1.52
	f			979.7			BUTTES	30.8	f
28 P	11.27			983.1			ZELLWEGER	27.4	1.35
2 Spur				984.6			WOOLEY	25.9	
Yard P	s 11.42			987.8			TO-R RAY JUNCTION	22.7	s 1.23
				989.0			ERMAN	21.5	
32	f 11.58 AM			994.9			BRANAMAN	15.6	f 1.07
				999.2			BURNS WYE	11.3	
36	12.09 PM			999.7			BURNS	10.8	12.57
Yard WOP	s 12.13			1000.2			TO-R HAYDEN JOT.	10.3	s 12.55
17 KP	s 12.25			1002.1			TO HAYDEN	8.4	s 12.50
15	s 12.30 PM			1003.5			WINKELMAN	7.0	12.45 PM
				1004.7			ROCK QUARRY	5.8	
				1007.0			FINNEY	3.5	
				1009.4			RUDO	1.1	
43				1010.5			CHRISTMAS	0.0	
	Arrive Daily	Ex. Sunday					(86.9)		Leave Daily
	(3.05) 25.91								(2.40) 29.96

EASTWARD				Time Table No. 111 June 11, 1939		WESTWARD		
Capacity of sidings in car lengths	PICACHO SUBDIVISION			FIRST CLASS	Distance from San Francisco	STATIONS		Distance from Normal Jct.
	Creamery Branch			2.1				
	STATIONS			1.1				
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily		Arrive Daily
87 YP				914.4	TO TEMPE	2.1		
130 Spur				915.4	CREAMERY	1.1		
				916.5	NORMAL JCT.	0.0		
					(2.1)			

EASTWARD				Time Table No. 111 June 11, 1939		WESTWARD		
Capacity of sidings in car lengths	PICACHO SUBDIVISION			FIRST CLASS	Distance from San Francisco	STATIONS		Distance from Florence Jct.
	Florence Branch			6.5				
	STATIONS			2.7				
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily		Arrive Daily
81 YP				958.2	POSTON	6.5		
3 Spur				962.0	PARSONS	2.7		
P				964.7	FLORENCE JCT.	0.0		
					(6.5)			

Rule S-72 Exception, No. 376 is superior to No. 377.

At Gila schedule time and train orders for first-class trains apply at passenger station. At Picacho schedule time and train orders apply at junction switch.

Signal at Hayden Junction, governing movement of trains between Christmas Branch switch (1584 feet east of Hayden Junction) and Hayden Junction train-order office. Engineer will call for this signal by one long, one short and one long sounds and will not proceed until signal has been placed in proceed position. Normal position Christmas Branch switch for Kennecott Copper Corporation Railroad.

Westward trains Hayden to Hayden Junction on Christmas Branch and Kennecott Copper Corporation Railroad, must stop, before fouling adjacent track.

RULE 206 (A). Schedule of No. 377 may be assumed by crew arriving Winkelman on No. 376 without clearance.

EASTWARD

PICACHO SUBDIVISION

WESTWARD

EASTWARD

BOWIE SUBDIVISION

WESTWARD

Capacity of Sidings in Car Lengths	SECOND CLASS		FIRST CLASS		Distance from San Francisco	Time Table No. 111		Distance from Nogales	FIRST CLASS		THIRD CLASS									
	870		378			June 11, 1939			379		871									
	Freight		Mexican Express			Nogales Branch			Mexican Express		Freight									
Yard BKWFTYP	Leave Daily Ex. Sunday	Leave Daily Ex. Sunday	988.9	988.5	988.9	988.9	988.6	1002.4	1010.4	1012.1	1016.3	1021.1	1026.6	1028.1	1029.6	1034.2	1037.4	1040.1	1049.8	
	6.00 AM	11.25 AM	TO-R TUCSON	TO-R TUCSON	65.9	s 4.20 PM		3.15 PM												
			VIA SHOP YARD	T. & N. R. R. JCT.	65.1															
P	6.15	11.37	SOUTH LINE CROSSING	SOUTH LINE CROSSING	62.9	f 4.07		3.00												
60 P	6.25	f 11.43	AGUIRRE		59.9	f 4.01		2.50												
60 P	6.35	11.49	XAVIER		56.0	f 3.55		2.40												
60 P	6.45	11.57 AM	FELIX		51.2	f 3.47		2.30												
120 WP	7.00	f 12.04 PM	SAHUARITA		47.4	f 3.40		2.20												
13 P	7.20	f 12.18	CONTINENTAL		39.4	f 3.26		2.00												
63 P	7.27	12.21	MORALES		37.7	f 3.23		1.55												
62 P	7.40	f 12.28	OANOA		33.5	f 3.16		1.45												
62 P	7.55	s 12.38	TO AMADO		28.7	s 3.07		1.35												
61 P	8.05	f 12.46	OHAVEZ		24.2	f 2.59		1.20												
		f	SOTOS CROSSING		21.7	f														
61 WP	8.20	f 12.53	TUBAO		20.2	f 2.52		1.12												
62 P	8.30	f 1.01	OTERO		15.6	f 2.44		1.01												
62 P	8.40	f 1.06	SILVA		12.4	f 2.39		12.46												
95 Spur P	8.50	f 1.11	CALABASAS		9.7	f 2.34		12.40												
Yard BKWFTYP	9.30 AM	s 1.35 PM	TO-R NOGALES		0.0	2.10 PM		12.15 PM												
	Arrive Daily Ex. Sunday	Arrive Daily Ex. Sunday				Leave Daily Ex. Sunday		Leave Daily Ex. Sunday												

(3.30) 18.83 Time over district (2.10) 30.42 Average speed per hour (2.10) 30.42 (3.00) 21.97

Rule S-72 Exception, No. 378 is superior to No. 379.

Passenger trains use shop yard route, Tucson yard.
Freight trains use T. & N. R. R. Jct. route, Tucson yard.

Capacity of Sidings in Car Lengths	SECOND CLASS		FIRST CLASS		Distance from San Francisco	Time Table No. 111		Distance from Live Oak	FIRST CLASS		SECOND CLASS	
	884		382			June 11, 1939			381		883	
	Local Freight		Motor			Globe Branch			Motor		Local Freight	
Yard BKWFTYP	Leave Daily Ex. Tuesday	Leave Daily	1098.4	1097.9	1098.4	1097.9	1097.9	1097.9	1097.9	1097.9	1097.9	1097.9
	8.00 AM	2.55 PM	TO-R BOWIE		136.4	s 1.00 PM		4.55 PM				
56 P	8.25	3.12	ESCALA		126.9	12.36		4.33				
44 P	8.50	f 3.28	TANQUE		116.5	f 12.17		4.00				
50 P	9.05	3.39	HAEKEL		109.2	12.04 PM		3.39				
55 P	9.25	s 3.52	TO SOLOMON		101.7	s 11.52 AM		3.10				
20			LONE STAR		99.0							
Yard WP	10.20	s 4.05	TO SAFFORD		96.8	s 11.40		2.40				
34 P	10.35	s 4.15	THATCHER		93.7	s 11.28		1.15				
5		f	CENTRAL		91.2	f						
27 P	10.55	s 4.26	TO PIMA		88.7	s 11.18		1.00				
66 P	11.14	4.30	DUBLIN		87.6	11.14		12.50				
4		f	GLENBAR		85.4	f						
60 P	11.45 AM	f 4.41	CORK		81.3	f 11.04		12.30				
2 Spur		f	ASHURST		79.5	f						
61 P	12.10 PM	s 4.54	TO FT. THOMAS		75.0	s 10.53		12.10 PM				
56 CWP	12.25	f 5.03	GERONIMO		70.1	f 10.43		11.50 AM				
58 P	12.40	f 5.14	BYLAS		64.2	f 10.31		11.35				
54 P	12.57	f 5.26	CALVA		57.5	f 10.19		11.20				
58 P	1.15	5.38	NACHES		50.6	10.07		11.05				
55 P	1.40	5.54	DILI		48.3	9.51		10.40				
P		f	PERIDOT		37.0	f						
57 WP	2.05	s 6.14	TO SAN CARLOS		33.2	s 9.34		10.15				
21 P	2.25	6.29	REPPY		26.4	9.21		9.55				
43 P	2.45	f 6.41	CUTTER		20.7	f 9.11		9.40				
21 P	3.05	6.58	PINAL		14.9	8.59		9.23				
Yard BKWFTYP	3.20 PM	s 7.05 PM	TO-R GLOBE		12.7	8.50 AM		9.10 AM				
5			HAMM		10.2							
			KINGDON		8.9							
13 P			RADIUM		8.0							
3 Spur			BURCH		6.9							
P			KISER		4.9							
16			CLAYPOOL		4.0							
Yard WYP			TO-R MIAMI		2.3							
			INSPIRATION JOT.		1.2							
			LIVE OAK		0.0							
	Arrive Daily Ex. Tuesday	Arrive Daily				Leave Daily		Leave Daily Ex. Monday				

(7.20) 16.87 Time over district (4.10) 29.69 Average speed per hour (4.10) 29.69 (7.45) 15.96

Capacity of sidings in car lengths

Yard BKWFTYP

2 Spur

66 P

66 P

66 P

84 WP

E 94 W81 CIYP

81 P

Yard KWOYP

66 P

87 P

78 WP

66 P

66 P

66 P

E 69 W68 YP

86 P

94 P

66 P

70 WP

64 P

105 P

68 P

66 P

66 P

Yard KWFYP

66 P

66 P

66 P

66 BKWFTYP

66 P

77 P

74 P

E 68 W74 YP

65 P

65 P

66 P

Yard BKWFTYP

STWARD

CLASS	SECOND CLASS
	883
	Local Freight
	Arrive Daily Ex. Monday
	4.55 PM
	4.33
	4.00
	3.39
	3.10
	2.40
	1.15
	1.00
	12.50
	12.30
	12.10 PM
	11.50 AM
	11.35
	11.20
	11.05
	10.40
	10.15
	9.55
	9.40
	9.23
	9.10 AM
	Leave Daily Ex. Monday
	(7.45) 15.96

EASTWARD

Capacity of sidings in car lengths	SECOND CLASS					FIRST CLASS				Distance from San Francisco
	866 Freight	964 Freight	864 Freight	962 Freight	862 Freight	4 Golden State Limited	6 Argonaut	44 Californian	2 Sunset Limited	
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	
Yard BKWFTYP	5.45 PM	4.25 PM	8.40 AM	7.00 AM	1.45 AM	11.15 AM	11.02 AM	10.55 AM	1.05 AM	983.9
2 Spur	5.58	4.38	8.53	7.13	1.58	11.24	11.12	11.04	1.15	984.7
66 P	6.13	4.55	9.08	7.30	2.13	11.35	11.23	11.14	1.26	987.7
66 P							f			987.7
66 P	6.35	5.20	9.30	7.55	2.35	11.51 AM	f 11.39	11.30	1.42	993.8
84 WP	6.57	5.56	9.52	8.31	2.57	12.08 PM	f 11.57 AM	11.47 AM	1.59	998.6
E 64 W81 CIYP	7.30	6.30 PM	10.25	9.05 AM	3.30	12.27 PM	f 12.18 PM	12.07 PM	2.20	1003.8
81 P	7.40		10.35		3.39					1012.6
Yard KWOYP	8.00		10.57		3.55					1023.6
66 P	8.12		11.09		4.02		s 12.38		s 2.40	1028.2
87 P	8.23		11.20		4.12					1032.6
78 WP	8.34		11.32		4.23					1035.8
66 P	8.43		11.41		4.32					1038.5
66 P	8.52		11.50		4.40					1041.0
66 P	9.01		11.59 AM		4.48					1043.9
E 69 W68 YP	9.14		12.12 PM		5.00		s 1.28		3.23	1047.3
86 P	9.24		12.22		5.08				3.29	1050.8
94 P	9.33		12.32		5.17		s 1.43		3.35	1053.9
66 P	9.42		12.42		5.26				3.41	1058.3
70 WP	10.00		1.00		5.40		s 2.00		3.47	1069.6
64 P	10.12		1.12		5.50				3.52	1074.7
105 P	10.23		1.23		5.59			f 2.13	3.57	1079.4
68 P	10.32		1.32		6.08				2.23	1082.6
66 P	10.38		1.38		6.14				2.29	1087.7
66 P	10.44		1.44		6.20				2.34	1091.0
66 P	11.10		2.00		6.35		s 2.50		s 4.25	1094.5
Yard KWFYP	11.19		2.09		6.43				4.31	1098.4
66 P	11.26		2.16		6.49			f 3.02	4.35	1102.6
66 P	11.33		2.23		6.55				3.07	1106.6
66 BKWFYP	11.45		2.30		7.01			s 3.14	4.43	1110.2
66 P	11.55 PM		2.44		7.13				3.19	1114.2
77 P	12.06 AM		2.56		7.23				3.27	1117.6
74 P	12.15		3.05		7.30				3.34	1121.8
E 68 W74 YP	12.35		3.25		7.45			f 3.46	5.10	1125.0
65 P	12.42		3.32		7.52				3.51	1128.9
65 P	12.49		3.39		7.59				3.56	1132.7
66 P	12.57		3.47		8.07			f 4.02	5.26	1137.5
66 P	1.04		3.54		8.13				4.07	1140.8
Yard BKWFTYP	1.15 AM		4.05 PM		8.25 AM			s 4.15 PM	s 5.38 AM	1143.9
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			Arrive Daily	Arrive Daily	1148.3

BOWIE SUBDIVISION

Time Table No. 111
June 11, 1939

STATIONS

(TO-R TUCSON
0.8
T. & N. R. R. JOT.
3.0
POLVO
6.1
RANKIN
4.8
ESMOND
4.7
VAIL
9.3
PANTANO
11.0
TO-R MESCAL
4.6
OHAMISO
4.4
TO BENSON
3.2
FENNER
2
CURVO
2.5
SIBYL
2.9
TULLY
3.4
OCHOA
3.5
LANOHA
3.1
TO DRAGON
4.4
MANZORO
5.6
TO OOHISE
5.7
HADO
5.1
TO WILCOX
4.7
DRURY
3.2
RASO
3.3
ALRICH
3.3
LUZENA
3.5
OHOLLA
3.9
TO-R BOWIE
4.2
HOLT
4.0
OLGA
3.6
KARRO
4.0
TO SAN SIMON
3.4
BAWTRY
4.2
VANAR
3.2
CAVOT
3.9
STEINS
3.8
MONDEL
3.8
CONRAD
4.3
GARY
3.1
PYRA
4.4
TO-R LORDSBURG
0.0

Distance from Lordsburg

(184.4)

WESTWARD

FIRST CLASS		SECOND CLASS	
43 Californian	1 Sunset Limited	845 Freight	
Arrive Daily	Arrive Daily	Arrive Daily	
See Rio Grande Division Time Table.			
		f 4.20 PM	2.20 AM
		4.10	2.10
		s 3.59	f 1.59
		3.48	1.49
		3.42	1.43
		f 3.36	1.37
		3.32	1.33
		3.27	1.28
		3.22	1.23
		s 3.18	1.19
		3.09	1.10
		f 3.00	1.02
		2.52	12.54
		s 2.45	12.48
		2.35	12.41
		f 2.31	12.37
		2.23	12.29
		2.16	12.22
		2.09	12.17
		s 2.00	s 12.10 AM
		1.42	11.57 PM
		f 1.37	11.53
		1.32	11.49
		s 1.27	11.45
		1.22	11.41
		1.18	11.36
		1.13	11.31
		f 1.05	11.23
		12.59	11.17
		12.54	11.12
		f 12.48	11.06
		12.44	11.02
		12.37 PM	10.55 PM
		Leave Daily	Leave Daily

(7.30)	(2.05)	(7.25)	(2.05)	(6.40)	(1.12)	(5.13)	(1.12)	(4.33)	Time over district.....	(3.43)	(3.25)	(5.15)
21.92	19.06	22.16	19.06	24.66	33.08	31.51	33.03	36.13Average speed per hour.....	33.55	36.50	23.76

Westward trains will use track No. 1, Rio Grande Division, Mescal to Tucson, and eastward trains will use track No. 2, Tucson Division, Tucson to Mescal, unless otherwise directed by train order.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
1	Any Station Wilcox	Discharge Discharge		East of El Paso Phoenix Line Stations
2				

SPECIAL INSTRUCTIONS



RULE 2. Watch Inspectors:
 S. A. Pope, Manager of Time Service.....65 Market St., San Francisco
 Yuma.....Wm. Baird
 Yuma.....J. H. Huber
 Phoenix.....H. H. Howard
 Tucson.....Greenwald & Adams
 Tucson.....H. L. Tucker
 Nogales.....E. M. Mather
 Lordsburg.....H. H. Conder
 Globe.....J. G. Cubitto
 Miami.....J. G. Cubitto, Jr.

RULES 10 (G) and 10 (H). On tracks No. 1 and No. 2 between Tucson and Polvo, signals will be placed on left of track in direction of movement.

RULE 14. Other engine whistle signals:
 For diverging route, one short, one long, one short.
 For siding, one long, one short, one long.

RULE 14 (d). As specified below, four long, one short sounds of whistle will be indication that flagman may return from West as prescribed by Rule 99:

- Phoenix Yard—Kendall, Trains on Second Main Track.
- Normal Jct., Trains on Creamery Branch.
- Florence Jct., Trains on Florence Branch.
- Picacho, Trains on Phoenix Line.
- Trains leaving these junctions in opposite direction use 14 (e).

RULE 14 (e). As specified below, six long sounds of whistle will be indication that flagman may return from East as prescribed by Rule 99:

- Wellton, Trains on Phoenix Line.
- Litchfield, Trains on Litchfield Branch.
- Kendall—Phoenix Yard, Trains on Second Main Track.
- Tempe, Trains on Creamery Branch.
- Tempe Jct., Trains on Tempe Branch.
- McQueen, Trains on Christmas Branch.
- Poston, Trains on Florence Branch.
- T. & N. R. R. Jct., Trains on Nogales Branch.
- Mescal, Trains on Rio Grande Division.
- Bowie, Trains on Globe Branch.
- Trains leaving these junctions in opposite direction use 14 (d).

RULE 21 (C). At Tucson, incoming engines may display indicators until arrival at roundhouse.

RULE 28. In double track territory signals will be placed to right of track according to direction of movement of train to be flagged. Trains in opposite direction will not be required to observe signals so placed.

RULES 72 and 73. Second class and extra trains may run ahead of first class trains Phoenix to Phoenix Yard.

Third class and extra trains may run ahead of No. 377 from McQueen to Mesa, and from Tempe Jct. to Tempe.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction, except as shown on pages 5 and 6.

RULE 83. As it applies passing from double to single track, is modified. If identification of trains on double track is made between Yuma and East Yard, Dome and Wellton, Stockham and Tucson, Phoenix and Phoenix Yard, or on second main track and main track Phoenix Yard and Kendall, it will not be necessary to obtain train order check of the same trains before passing from double track to single track. Trains moving in the opposite direction must reduce speed sufficient to permit identification and Rule 14 (k) must be applied when approaching trains on the opposite track.

RULE 83 (A). At the following stations, only the trains indicated will register.
 Phoenix—First class trains.

RULE 83 (B). At open train-order offices trains may register by ticket as follows:

Phoenix Yard.....First class trains
 Mescal.....All trains
 Bowie.....Westward trains
 Tucson—Engineers of light engines from east will leave register ticket with engine dispatcher for operator for registration.

RULE 83 (E). A train when authorized by train order, may check the register against an extra train, and proceed if such extra train appears on the register with the number and date of its restricting order registered in column captioned "Signals."

When a train is so authorized to check the register, it must register and place the restricting order number and date in column captioned "Signals."

RULE 93. Yard limits are established at the following stations and limits as follows:

Yuma.....West MP 731.50	Nogales....West MP 1046.37
East MP 737.80	East MP 1049.89
Phoenix.....West MP 900.96	Benson....West MP 1031.60
East MP 908.79	East MP 1034.01
Mesa.....West MP 920.45	Bowie.....West MP 1097.10
East MP 923.23	East MP 1100.00
Ray Jct.....West MP 986.84	Globe Branch
East MP 988.72	East MP 1099.50
Hayden Jct...West MP 998.80	Lordsburg..West MP 1147.19
East MP 1004.90	East MP 1151.38
Gila.....West MP 854.20	Safford....West MP 1136.65
East MP 857.70	East MP 1138.34
Tucson.....West MP 981.96	Globe.....West MP 1218.70
East MP 989.00 (Track 2)	East MP 1223.22
East MP 988.09 (Track 1)	Miami.....West MP 1229.82
East MP 987.42 (Nog.Br.)	East MP 1234.20
East MP 990.37 (So.Line)	

Portions of main track not protected by automatic block signals are located and described as follows:

Comply with third paragraph Rule 93 within these specified limits.

Phoenix—Freight main track. Eastward between "Block signal limit" sign on mile post 905.8 and dwarf light signal 9064. Westward between "End of block" sign at mile post 906.2 and home signal 9055.

Union Station tracks. Eastward between "End of block" sign opposite dwarf light signal 9059 and dwarf light signal 9064. Westward between "End of block" sign at mile post 906.2 and dwarf light signal 9059.

Tucson—Passenger track No. 2 (first track north of station), and passenger track No. 1 (second track north of station). Eastward between "End of block" sign at mile post 983.6 and dwarf light signal 9838. Westward between "End of block" sign opposite dwarf light signal 9838 and home signal 9835. Main track (third track north of station) between "End of block" sign at mile post 984.1 and home signal 9835.

RULE 97. Extra trains must not run via Creamery or Florence branches unless train order so specifies.

RULE D-97 (A). Eastward extra trains may leave Phoenix as directed by chief train dispatcher, without clearance.

RULE 98. At South Line Crossing.—Gate with red signal normal position across South Line track. Before changing position of gate and making movement on South Line track, protect in each direction on Nogales Branch as per Rule 99.

RULE 103 (A). A flagman must precede all movements over:
 Yuma, 1st, 2nd, 3rd and 4th Sts.

Tempe (Creamery Branch), Mill Ave. and 8th St.

Tucson, West Congress St.

Nogales, Court and Park Sts.

Globe, Hackney St. and eastward over Murphy St.

Miami, Latham Blvd. and Adonis Ave.

In general, highway crossing signals are so designed that they will not operate for trains or engines making a reverse movement after having passed over the crossing. Trains or engines making such reverse movements must protect the crossing unless it is known that signals are operating.

RULE 103 (B). Back-up hose must be used by yard engines making back-up movements with cars:

Tucson, between North and South yards.

RULE 104. NORMAL POSITION OF SWITCHES AT THE END OF DOUBLE TRACK AND AT JUNCTIONS:

East Yard.....Oil buffer spring switch end double track, for trains entering the double track.

Dome.....Oil buffer spring switch at end of double track, for trains entering double track.

Phoenix.....Oil buffer spring switch at west end freight main and Union Station tracks, for Union Station.

Phoenix Yard...Oil buffer spring switch at east end double track, for trains entering the double track.

McQueen.....Christmas Branch, for Christmas Branch from siding.

Picacho.....Operators, when on duty, will handle switches near train-order office for movements to and from Phoenix Line and siding.

Stockham.....Oil buffer spring switch end double track, for trains entering the double track.

DERAILS IN MAIN TRACK:

Litchfield Park, 320 feet west of east end of track.

Christmas, 250 feet east of west switch.

Nogales, 221 feet west of west switch, may be run through by eastward trains.

South Line Crossing, 165 feet east on South Line.

RULE 105. FOLLOWING TRACKS ARE DESIGNATED FOR USE AS SIDINGS:

Fowler.....Track north of main track.

Ray Junction...Track south of main track.

Mohawk.....First track north of main track, eastward trains.
 Second track north of main track, westward trains.

Red Rock.....Track north of main track.

Benson.....Track north of main track, eastward trains.
 Track south of main track, westward trains.

Dragoon.....Track north of main track, eastward trains.
 Track south of main track, westward trains.

Bowie.....Track north of main track, from west switch to switch just east of station, eastward trains.
 Track north of main track, from east switch to switch just east of station, westward trains.

Steins.....First track north of main track, westward trains.
 Second track north of main track, eastward trains.

San Carlos.....First track north of main track.

SPECIAL INSTRUCTIONS

RULE 221. Trains must obtain clearance before leaving Tempe to or from Creamery Branch, Bowie, Globe, Miami.

Trains originating at Phoenix must obtain a clearance before leaving Phoenix Yard.

RULE 325. Outfit cars must not be left in front of warehouses, storehouses, lumber yard, or other buildings.

**INSTRUCTIONS FOR SETTING HAND BRAKES AT:
TUCSON**

Passenger Trains..... {Two brakes on west end.
Two brakes on east end.
Freight Trains..... {Fifteen brakes on west end.
Ten brakes on east end.

TUCSON—P.F.E. YARD

Each cut of cars..... Seven brakes on west end.
S. P. tracks Nos. 1, 2, and 3..... Fifteen brakes on west end.

Hand brakes on passenger trains are to be set after engine is spotted for taking oil. If necessary to detach engine after these hand brakes have been released, employe before detaching engine must see that sufficient hand brakes have again been set.

Hand brakes on freight trains must be set with the assistance of a brake club after train or cut has stopped. Any employe releasing any of these brakes, must set as many others to replace them.

AUTOMATIC BLOCK SYSTEM

RULE 509. A train or engine, when backing out of a siding or other track in block system limits, will, unless backed to clear block signal, proceed as if signal be in stop position.

That portion of Rule 509 (e) reading: "... and the intervening track is seen to be clear ..." is interpreted as referring to the track being clear of engines and/or cars.

At Phoenix: Crossing - A.T. & S.F. Wye.

Signal 9052 governs eastward movements.
Signal 9053, on passenger main track, and
Signal 9055, on freight main track, govern westward movements.

If either of these signals indicates "STOP", train or engine, after stopping, and observing wye track to be clear of opposing movements, may proceed in accordance with Rule 509, and in addition must provide flag protection on the intersecting track unless derail thereon is in derailing position.

At Kendall, eastward trains on main track, stop west of signal 9112 to wait for or meet opposing trains.

Eastward trains on second main track will be governed by position of signals 9112 and 9113 before entering main track.

Account no overlap on light signal 9838 located at end of block just east of Tucson yard office, and no overlap on light signal 9841 located just west of car shop on Nogales Branch, trains and engines moving between these signals, and on track used as main track between west end of car shed and light signal 9838, must do so with caution.

When a block signal indicates stop on track No. 2, trains may proceed as follows:

Eastward trains Tucson to Mescal will be governed by Rule 509 applicable to double track.

Westward trains Mescal to Esmond will be governed by Rule 509 applicable to single track.

Westward trains Esmond to Tucson will have no block signal protection after passing signal 9978.

Between Tucson and Polvo, automatic signals are on the left of the track in the direction of movement.

OIL BUFFER SPRING SWITCHES

A block signal with a triangular number plate is actuated by some special protective device and special action required as follows:

When a block signal in advance of a facing point oil buffer spring switch indicates "STOP", careful examination of switch must be made before passing over it. When making trailing point movement and train is stopped on switches, a reverse movement must not be made, nor the slack taken until the switch has been thrown by hand. When movement has been completed through switch, reverse movement must not be made until point closes.

Running switches are prohibited and sand, blow-off cocks and injectors must not be used nor boosters started, while passing over these switches. Sand must not be used at location rail lubricators.

Switches are located as follows and speed indicated must not be exceeded when passing over such switches:

	A.B.Signal	M.P.H.
East Yard..... (Eastward).....	7372	25
(Westward).....	7375	60
Dome..... (Eastward).....	7532	25
(Westward).....		30
Phoenix..... West end freight main and Union Station tracks:		
(Eastward).....	9052	10
(Westward).....		15
Phoenix Yard.. East end double track:		
(Eastward).....		15
(Westward).....	9075	10
Stockham..... (Eastward).....	9810	60
(Westward).....	9813	35

When signal 7372 east end of double track, East Yard, indicates stop for eastward trains, and signal 9813, west end of double track at Stockham, indicates stop for westward trains, oil buffer spring switch must be thrown by hand to reverse position and again restored to normal position after train has passed over switch.

RULE 511. Within block signal limits after switches of a crossover are thrown wait three minutes before crossing over unless block signals protecting the movement can be seen to be in stop position not less than one-half mile distant.

RULE 516. Overlaps located as follows:

Gillespie.....	Signal 8496.	Eastward trains.
23rd Ave. Phoenix..	" 9022.	Eastward trains.
	" 9053 and 9055.	Westward trains.
McQueen.....	" 9218.	Eastward trains.
Roskruge.....	" 9626.	Eastward trains.
	" 9657.	Westward trains.
Cortaro.....	" 9704.	Eastward trains.

**INTERLOCKING
WELLTON**

Limits extend from two-arm signal on Gila Line and on Phoenix Line 4,000 feet east of station to light signal on westward track 400 feet west of station and to two-arm signal on eastward track 1,000 feet west of station.

The derail at east end of siding is electrically locked, and can be operated by trainmen only when released by signal operator.

Switches and derails to spurs leading from westward main track, just west and east of station, are hand-thrown, but must not be used until permission is secured from signal operator.

TUCSON, SIXTH AVENUE

Limits on westward track extend from dwarf signal at tower to signal 9835, and on eastward track from dwarf signal opposite signal 9835 to dwarf signal at tower.

Signals permitted by Rule 628 may be given from tower.

MESCAL

Interlocking signals of the Rio Grande Division will display indication in the upper quadrant.

Limits are between home signals governing east switch of east crossover and west switch of west crossover of the Rio Grande Division, and home signals governing east and west switches of sidings of the Tucson Division. Switches leading from west siding to water and outfit spurs, and from east siding to both legs of wye and to west end of coal track, also switch and derail east end coal track are hand-thrown but must not be used until permission is secured from signal operator.

Where hand signals, as perscribed by Rule 628, cannot be seen, trains stopped will call the signal operator and secure permission to proceed; also to throw switches by hand in event the remote control appliance is inoperative.

TRAIN INSPECTION

Freight trains may run not to exceed a distance of 50 miles without stopping for inspection. This does not relieve trainmen, however, from making inspection when stops permit and other points specified in time table or whenever it is necessary in the judgment of conductor or engineer.

Freight trains on descending grade must stop for inspection at:

Saddle or Papago	Cochise, Hado, or Willcox
Ocapos or Bosque	Bowie
Mobile or Enid	Bawtry or San Simon
Mescal (Eastward)	Mondel or Steins (Westward)
Tully or Sibyl	Cutter
Manzoro or Dragoon (Westward)	

Engines running light on descending grades must stop for inspection at freight train inspection points a sufficient length of time for engineer to satisfy himself that tires and machinery are in satisfactory condition.

AIR BRAKE RULES

RULE 24. Rear end test must be made by freight and mixed trains immediately before departure at:

Mescal (Eastward)	Mondel or Steins (Westward)
Manzoro or Dragoon (Westward)	Pinal

RULE 33. Retainers will be used on grades on freight trains of less than 100 Ms per operative brake, when necessary in the judgment of conductor and engineer and on trains of 100 Ms or more per operative brake as follows:

- 1.4% to 1.5% incl. one retaining valve for every 150 Ms.
- Over 1.5% to 1.8% incl. one retaining valve for every 140 Ms.
- Over 1.8% to 2.2% incl. one retaining valve for every 120 Ms.
- Over 2.2% one retaining valve for every 100 Ms.

SPECIAL INSTRUCTIONS

AIR BRAKE RULES—continued

Grades of over 1% located as follows:

BOWIE SUBDIVISION
Eastward

Mescal to Benson.....	1.4%
Steins to Mondel.....	1.4%

Westward

Steins to Bawtry.....	1.4%
Sibyl to Benson.....	1.4%

GLOBE BRANCH
Eastward

Pinal to Globe.....	2%
Globe to Kiser	
M. P. 1221.6 to 1221.7.....	1.5%
M. P. 1222.1 to 1222.8.....	2%
M. P. 1226.3 to 1226.7.....	1.5%
M. P. 1228.8 to 1229.2.....	1.4%

Westward

Live Oak to Miami.....	3%
Miami to Burch	
M. P. 1231.0 to 1230.8.....	1.4%
M. P. 1229.2 to 1228.8.....	1.4%
Pinal to Cutter.....	2.2%

RULE 39. Running test must be made at:
Mescal (Eastward)
Pinal

Incoming passenger enginemen will leave automatic air brakes set on their trains at Tucson, Phoenix and Yuma after final stop has been made.

Outgoing enginemen will release brakes on signal from carmen, this signal to be given only after all switching has been done.

MISCELLANEOUS

1. At Wellton, Aztec, Sentinel, Gila, Casa Grande, Florence, Hayden Jct., Benson, Bowie, and San Simon, water for locomotive purposes is treated and must not be taken for domestic use except as follows:

Aztec, water rack.

Sentinel, water rack and two columns at east end.

Hayden Jct., by closing valve between treater and water column.

Benson, either of the two columns at station, by first opening switch in box on outside of freight house. Sign giving instructions at box.

Bowie, notify pumper.

When filling water cars for domestic purposes at Hayden Jct., Benson, or Bowie, after closing valve between treater and water column, fill engine tank to drain line of treated water before filling water cars.

At Aztec, westward freight trains take water, taking water at Sentinel only when it will avoid delay west of there.

At Sentinel, eastward freight trains take water and fill water car, taking water at Aztec only when necessary or when it will avoid delay at Sentinel.

At Maricopa, eastward and westward freight trains take water, and if necessary, fill water car.

At Benson, when business is heavy, westward freight trains, including light engines, take water at columns at station, to avoid shortage in east tank.

At Sibyl, westward identified and other important freight trains may take water if it will avoid stopping at Benson. Other freight trains will not take water except in case of emergency, and then only sufficient to make next water station.

At San Simon, westward identified and other important freight trains may take water if it will avoid stopping at Bowie. Other westward freight trains will not take water except in case of emergency, and then only sufficient to make Bowie.

In all cases where it is necessary to make a short move with heavy freight train to reach water or oil column, including that required to spot second engine of double-headed train, locomotive must be cut off before spotting at column.

One helper may be placed behind caboose if of steel underframe construction and cars ahead of caboose are not rear end cars; otherwise cut in ahead of twenty-five per cent of tonnage, or more if necessary to cut in ahead of all rear end cars. Road engines double-heading or helper engine may be placed on head end of freight train when tonnage handled does not exceed 75 per cent of the total rating of both engines.

4. For the purpose of pushing trains out of yards:

(a) No engine will be placed behind wooden underframe caboose or other wooden frame equipment.

(b) Engines weighing more than 235,000 pounds on the drivers will not be placed behind steel underframe cabooses.

(c) Air will not be coupled through pusher engine.

(d) Yard engines regularly so used will be equipped with Russell-Jordan device to hold the coupler pin from dropping, thus making it unnecessary for employes to uncouple the pusher engine when cutting off.

(e) In no case shall the knuckle be removed, or closed, or cutting lever temporarily fastened in release position on a pusher engine, as means of preventing coupling being made.

(f) Unless local conditions require, it will not be necessary to stop trains to detach pusher engines.

In helper service:

(a) No helper engine will be placed behind wooden underframe cars or cabooses.

(b) Engines weighing more than 235,000 pounds on the drivers will not be placed behind steel underframe cabooses.

(c) In no case will more than one helper engine be placed behind steel underframe cabooses.

(d) When helper engines are used in rear of freight trains, consolidation and lighter class must be placed behind heavier class.

(e) Engines must not be cut off or coupled to a train while same is in motion.

10. FOLLOWING TRACKS NOT TO BE USED BY FOLLOWING OR HEAVIER CLASS ENGINES

3700 CLASS

Pozo.....Spur

3300 CLASS

Creamery Branch.
Tempe Branch sidings and spurs.
Christmas Branch.

3200 CLASS

Granite Spur.....3600 class engines, or heavier, must not use No. 2 track beyond high line switch. No. 1 track may be used on each lead but not beyond the boiler house.
Maricopa.....South leg wye, pump house spur.
Tempe.....Tempe Milling Co., Phoenix Mill and gravel pit spurs.
East leg wye, house track, tracks 2 and 3.
Mesa.....McKellips, Standard Oil, and Texas Oil spurs.
Shell Oil and Independent Cotton & Oil Co. spurs.
Mutual Cotton Oil spur.
Spurs between Mesa and North Mesa.
Christmas Branch. (Between Winkelman and Christmas.)
Florence Branch.
Nogales Branch.
Benson.....Oil spur, team, south coal and hotel tracks.
Willcox.....Stock track spur.
Bowie.....Oil spur east of west end of pump house.
Globe Branch.

2500, 2700, 2800, OR 3100 CLASS

Wellton.....Oil spur.
Tacna.....Spur.
Colfred.....Spur.
Pembroke.....Spur.
Mohawk.....West spur.
Stoval.....Spur.
Musina.....Outfit spur.
Stanwix.....Spur.
Sentinel.....Oil spur.
Tartron.....Spur.
Smurr.....Spur.
Coledon.....Spur.
Ocapos.....Spur.
Estrella.....Spur.
Enid.....Spur.
Heaton.....Spur.
Eloy.....Short siding.
Kendall.....River track east of spur.
Creamery Branch....Siding and Rock Quarry spur.
Creamery.....Track east of Creamery plant.
Tempe Pump'g Plant. Spur.
Mesa.....Drew's spur (Must back in).
Magma.....Spur.
Rankin.....Spur.
Mescal.....Outfit spur.
Lancha.....Spur.
Bowie.....Caboose track.

Engines must not use:

Spurs: Buckeye, Seaside Oil Co.; Florence; Burns; Wymola; Benson Wye.

SPECIAL INSTRUCTIONS

11. At Yuma, westward first-class trains, when moving against current of traffic, must not pass signal 7341 without proceed signal from yardman.

Westward trains, except first class, must not pass signal 7341 without proceed signal from yardman.

At Phoenix, Santa Fe and Southern Pacific trains may jointly use tracks at east and west end of Union Station. Yard and light engines must take every precaution possible to avoid delaying first-class trains on all tracks within Union Station zone. Trains will approach switch at entrance to Union Station tracks prepared to stop and will proceed only when track is known to be clear.

At Bowie, No. 4 track in west yard must be kept clear for through movement.

15. At Tucson, westward trains, except first-class and light engines, must not pass crossover switch near signal 9851 without proceed signal from yardman.

20. Handling of freight cars in trains behind passenger cars carrying passengers prohibited. The term "freight car" does not include a baggage, express or mail car, or a caboose.

When necessary to handle passenger equipment except official cars in freight trains, it must be placed next to caboose, providing rear end freight cars in train will permit.

Baggage, express, mail, refrigerator or other head end cars must not be handled on rear of passenger trains unless trainmen can pass through them.

At Granite Spur, engines placing loaded cars on high-line spur track will not handle more than two loads at one time, using sufficient other cars between the loads and engine to avoid engines passing high-line spur switch.

At Litchfield Park, Boswell Spur is protected by gate, which must be kept closed and locked when not in use.

At Cowden, corral track must be kept clear for use of first-class trains.

At Tovrea, entrance to Tovrea Packing Co. plant is protected by gates, which must be kept closed and locked when not in use. Look out for rubbish and material alongside tracks in this yard.

Between Price and Christmas look out for rock and land slides.

At Hayden, entrance to Kennecott Copper Corp'n plant is protected by gate, which must be closed and locked at night.

At Coolidge, cars must not be detached in motion to Indian Service spur.

At Picacho, look out for cars on west leg of wye.

At P. F. E. yard, Tucson, look out for ice and rubbish alongside tracks. Gate located at west end of P. F. E. lead with a red metal sign reading "MEN AT WORK", and is to be used by P. F. E. Co. employes while on duty instead of blue flags on each of their tracks. Trains must not enter these tracks until this gate has been opened by a P. F. E. Co. employe.

At Willcox, look out for bedding sand between tracks 2 and 3.

Between Naches and Peridot look out for rock and land slides.

Engines, except in work train service, must not make continued backward movement between any points when it can be avoided, and must be turned for next service before tying up.

Two GS type engines should not be doubleheaded together on a downhill movement where there are curves of 10 degrees or more involved.

25. Electric lanterns may be used for displaying white light only, except may be used by herders for displaying green lights.

SPEED RESTRICTIONS

Maximum speed of passenger trains must not exceed 50 M. P. H. and freight and mixed trains 35 M. P. H. except as otherwise provided for. Speed restrictions in miles per hour, will apply as follows; with engines—motors as designated.

Pages	TERRITORY	PASSENGER					FREIGHT Freight Maximum	Engines Backing	Switch Engines S-SE	LIGHT ENGINES RUNNING FORWARD		
		Maximum	T 37 Mt 1, 2, 3, 4, 5 P 1, 3, 5, 12	Mk 5, 6, 7, 8, 9 M 4, 6, 9, 11	Mk 2, 4	Sp. 1, 2, 3 F 1, 3, 4, 5 C 8, 9, 10				T 37 Mt 1, 2, 3, 4, 5 P 1, 3, 5, 12	Mk 5, 6, 7, 8, 9 M 4, 6, 9, 11 SP 1, 2, 3 F 1, 3, 4, 5 C 8, 9, 10	Mk 2, 4
	Through interlocking limits with caution.											
	Through crossovers, turnouts except where otherwise specified	15	15	15	15	15	15			15	15	15
2	Yuma Yard, west and east switches	15	15	15	15	15	15		15	15	15	15
2	Yuma, east switch - End of double track, East Yard	60	60	50	40	45	40	30	20	45	35	30
2	East Yard, end of double track - M.P. 745	65	65	50	40	45	40	30		45	35	30
2	M.P. 745 - 748.58	60	60	50	40	45	40	30		45	35	30
2	M.P. 748.58 - 755.12	30	30	30	30	30	30	30		30	30	30
2	M.P. 755.12 - 755.78	60	60	50	40	45	40	30		45	35	30
2	M.P. 755.78 - 762.88	50	50	50	40	45	35	30		45	35	30
2	M.P. 762.88 - Wellton, west interlocking limit	60	60	50	40	45	40	30		45	35	30
2	Wellton, west interlocking limit - M.P. 766 (Westward track)	50	50	50	40	45	35	30		45	35	30
2	Wellton, east crossovers	25	25	25	25	25	25	25		25	25	25
2	Wellton, east frogs	35	35	35	35	35	35	30		35	35	30
2	Wellton, east interlocking limit - M.P. 776.36	60	60	50	40	45	40	30		45	35	30
2	M.P. 776.36 - 777.78	50	50	50	40	45	35	30		45	35	30
2	M.P. 777.78 - 845.94	60	60	50	40	45	40	30		45	35	30
2	M.P. 845.94 - 847.28	50	50	50	40	45	35	30		45	35	30
2	M.P. 847.28 - 887.42	60	60	50	40	45	40	30		45	35	30
2	M.P. 887.42 - 887.61	50	50	50	40	45	35	30		45	35	30
2	M.P. 887.61 - 890.53	60	60	50	40	45	40	30		45	35	30
4	Litchfield Branch	20	20	20	20	20	20	15		20	20	20
2	M.P. 890.53 - 890.78	50	50	50	40	45	35	30		45	35	30
2	M.P. 890.78 - 893.54	60	60	50	40	45	40	30		45	35	30
2	M.P. 893.54 - 894.48	50	50	50	40	45	35	30		45	35	30
2	M.P. 894.48 - Phoenix, 19th Ave.	60	60	50	40	45	40	30		45	35	30
2, 3	Phoenix, 19th Ave. - 18th St.	15	15	15	15	15	15	15	15	15	15	15
3	Phoenix Yard Limit - Kendall (second main track)	25	25	25	25	25	25	25	15	25	25	25
3	Phoenix, 18th St. - M.P. 912.74	60	60	50	40	45	40	30		45	35	30
3	M.P. 912.74 - 913.12	40	40	40	40	40	30	30		40	35	30
3	M.P. 913.12 - Tempe, west City Limit	50	50	50	40	45	35	30		45	35	30
5	Creamery Branch	20	20	20	20	20	20	20		20	20	20
3	Tempe, east City Limit - M.P. 915.79	40	40	40	40	40	25	25		40	25	25
4	Tempe Branch	20	20	20	20	20	20	20		20	20	20
3	M.P. 915.79 - 920.86	60	60	50	40	45	40	30		45	35	30
3	M.P. 920.86 - Mesa, west switch	40	40	40	40	40	25	25		40	25	25
3	Mesa Yard, west switch - east City Limit (except curve M.P. 922)	20	20	20	20	20	20	20		20	20	20
3	Mesa Curve M.P. 922	10	10	10	10	10	10	10		10	10	10
3	Mesa, east City Limit - M.P. 924.12	60	60	50	40	45	40	30		45	35	30
3	M.P. 924.12 - 927.69	50	50	50	40	45	35	30		45	35	30
3	M.P. 927.69 - Chandler, west City Limit	60	60	50	40	45	40	30		45	35	30
3	Chandler, east City Limit - M.P. 945.49	60	60	50	40	45	40	30		45	35	30
3	M.P. 945.49 - 946.78	50	50	50	40	45	35	30		45	35	30
3	M.P. 946.78 - 958.03	60	60	50	40	45	40	30		45	35	30
5	Florence Branch	20	20	20	20	20	20	20		20	20	20
3	M.P. 958.03 - 959.02	50	50	50	40	45	35	30		45	35	30
3	M.P. 959.02 - Picacho, west wye switch	60	60	50	40	45	40	30		45	35	30
3	Picacho, west wye switch - Crossover	30	30	30	30	30	30	30		30	30	30
3	Picacho crossover	15	15	15	15	15	15	15		15	15	15
3	Picacho crossover - M.P. 938	60	60	50	40	45	40	30		45	35	30
3	M.P. 938 - 979.7	65	65	50	40	45	40	30		45	35	30
3	M.P. 979.7 - South Line Jct.	50	50	50	40	45	35	30		45	35	30
3, 7	Tucson Yard, South Line Jct. - Signal 9851	15	15	15	15	15	15	15	15	15	15	15

OWING OR

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SPECIAL INSTRUCTIONS

SPEED RESTRICTIONS—(Continued)

Main table with columns: Pages, TERRITORY, PASSENGER (Maximum, T 37, Mk 5, 6, 7, Mk 2, 4), FREIGHT (Freight and Mixed Maximum, Engines Backing, Switch Engines S-SE), LT. ENGINES RUNNING F'WD. (T 37, Mk 5, 6, 7, Mk 2, 4).

Table with columns: Page, TERRITORY, PASSENGER (Maximum, Gas-Electric T-37, Mk 2, 4, 5, 6, 7, 8, 9, 10, M 4, 6, 9, 11), FREIGHT (Freight and Mixed Maximum, Engines Backing), LIGHT ENGINES RUNNING FORWARD (T-37, Mk 5, 6, 7, 8, 9, 10, M 4, 6, 9, 11, Mk 2, 4).

SPEED TABLE

Table with columns: SPEED PER HOUR, 1 MILE IN MIN. SEC., SPEED PER HOUR, 1 MILE IN MIN. SEC., SPEED PER HOUR, 1 MILE IN MIN. SEC., SPEED PER HOUR, 1 MILE IN MIN. SEC.

*Passenger trains handled by MT 1-2-3-4-5 class engines maximum speed 30 M.P.H.

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SPECIAL INSTRUCTIONS

SPEED OF TRAINS REGULATED BY ORDINANCES THROUGH CITY LIMITS

PAGE	STATION	M. P. H.
2	Yuma street crossings	5
3	Tempe	20
3	Chandler	20
3	Oasa Grande	25
6	Nogales	20
6	Safford	15
6	Pima	15
7	Willcox	30

Speed restrictions for engines are shown in speed restriction table; however, attention is called to the following maximum speeds at which tenders may be operated.

Tenders having water capacity 7,000 gallons or less, except Classes 70-R-1 and 70-SC-1, maximum speed 50 M.P.H.

Tenders having water capacity in excess of 7,000 gallons, and including Classes 70-R-1 and 70-SC-1, maximum speed of engines.

Maximum speed of disabled engines hauled in train, or running under own steam, must not exceed:

When pilot removed	20 M.P.H.
When main rod only removed	30 M.P.H.
When side rods only removed	30 M.P.H.
When both main and side rods removed	20 M.P.H.
When hauled in train and all rods are on	30 M.P.H.
SPI, 2 and 3 when inside main rod removed or inoperative	30 M.P.H.
S and SE engines, and all other classes of engines when not equipped with engine trucks	20 M.P.H.

When all weight has been removed from any one pair of drivers on an engine, speed must not exceed 20 M.P.H.

When all weight has been removed from one wheel of any pair drivers on an engine, speed must not exceed 30 M.P.H.

Engines operated coupled tender to tender must not exceed speed permitted same engines running backwards.

Trains handling relief outfit must not exceed 25 M.P.H. on main line or 20 M.P.H. on branch lines.

Trains handling locomotive crane with boom in place, must not exceed 25 M.P.H. on straight track, and 15 M.P.H. around curves and on branch lines. Locomotive cranes must be handled in trains with heavy end forward.

All cars handled in passenger trains must be equipped with steel-tired or all steel wheels.

Wooden baggage, express and other head end cars, unless equipped with steel center sills must not be used in passenger trains.

Maximum speed provided for passenger trains, will apply to the "AON" (Arizona Overnight) when consists entirely of passenger equipment, or box cars with steel wheels, observing other restrictions applying to class of engine.

Kennecott Copper Corp'n R. R. between Hayden Jct. and Hayden Mills is operated by the Tucson Division.

- Speed of trains must not exceed 15 M.P.H.
- Grade Hayden Mills to Hayden Jct. 2.2%.
- Impaired overhead and side clearance at Hayden Mills Smelter.

Yuma Valley R. R. between Yuma and Somerton is operated by Tucson Division.

- Speed of trains must not exceed 15 M.P.H., except must not exceed 8 M.P.H. over trestle at Reclamation Headquarters.
- Impaired side clearance at Spillway Spur.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE

Employees are warned that it is dangerous to ride on top or sides of cars while passing these points and that they must protect themselves from injury.

Bulletins may be issued from time to time referring to impaired clearances not listed below.

MILE POST	DESCRIPTION
733.0	Yuma, ice platform Side
755.2	Granite Spur, chute on crusher track not clear car higher than ballast car. Side
778.0	Gila River bridge Side
891.0	Agua Fria River bridge Side
907.0	Phoenix, ice platform Side
913.4	Tempe, Water User's spur Overhead and Side
914.0	Salt River bridge Side
914.4	Tempe, Tempe Milling Co. spur Side
921.8	Mesa, Texas Oil Co., Drew's spur and ice platform Side
959.3	Gila River bridge Side
972.4	Tunnel No. 1 (Christmas Branch) Overhead and Side
972.5	Gila River bridge (Christmas Branch) Side
975.4	Rock cut (Christmas Branch) Side
985.3	Gila River bridge (Christmas Branch) Side
987.8	Ray Junction, water tank spout Overhead and Side
988.5	Tunnel No. 2 (Christmas Branch) Overhead and Side
990.0	Tunnel No. 3 (Christmas Branch) Overhead and Side
1003.5	Winkelman, ore bins Side
1007.0	Finney, ore chute Side
1009.2	Tunnel No. 4 (Christmas Branch) Overhead and Side
984.2	Tucson, ice platform Side
1029.6	Tubac, water tank spout Overhead and Side
1049.8	Nogales, ice platform Side
1008.1	Cienega Creek bridge Side
1033.6	San Pedro River bridge Side
1114.2	San Simon, water tank spout Overhead and Side
1137.5	Safford, water tank and spout Overhead and Side
1201.0	San Carlos, water tank and spout Overhead and Side
1234.1	Inspiration spur, chute Side

SURGEONS

LOCATION	NAME	TITLE
San Francisco, Cal.	Dr. O. A. Walker	Chief Surgeon and Manager
Yuma, Ariz.	Dr. J. W. Stacey	District Surgeon
Yuma	Dr. C. S. Powell	District Surgeon
Litchfield	Dr. R. L. Penn	District Surgeon
Buckeye	Dr. G. C. Rubel	District Surgeon
Buckeye	Dr. V. Jeffery	Asst. District Surgeon
Phoenix	Dr. H. D. Ketcherside	District Surgeon
Phoenix	Dr. J. E. Drane	Asst. District Surgeon
Phoenix	Dr. A. M. Tuthill	Asst. District Surgeon
Phoenix	Dr. N. A. Ross	Asst. District Surgeon
Phoenix	Dr. George M. Brockway	Consulting Surgeon
Phoenix	Dr. D. F. Harbridge	Oculist
Phoenix	Dr. W. A. Schwarts	Aurist
Phoenix	Dr. R. F. Palmer	Consulting Phys. and Surgeon
Tempe	Dr. R. J. Stroud	District Surgeon
Mesa	Dr. W. S. Sharp	District Surgeon
Chandler	Dr. J. M. Messon	District Surgeon
Chandler	Dr. C. L. Poble	Associate District Surgeon
Coolidge	Dr. H. E. Pinkerton	Emergency Surgeon
Coolidge	Dr. G. S. Walker	Emergency Surgeon
Gilbert	Dr. L. M. Thompkins	Emergency Surgeon
Florence	Dr. G. E. Huffman	District Surgeon
Ray	Dr. O. E. Utzinger	District Surgeon
Hayden	Dr. C. B. Huestis	District Surgeon
Gila	Dr. G. C. Shirey	District Surgeon
Casa Grande	Dr. J. E. Redden	District Surgeon
Tucson	Dr. C. A. Thomas	Assistant to Chief Surgeon
Tucson	Dr. S. C. Davis	Division Surgeon
Tucson	Dr. V. G. Presson	Assistant Surgeon
Tucson	Dr. R. A. Wilson	Assistant Surgeon
Tucson	Dr. E. H. Brown	Aurist and Oculist
Tucson	Dr. T. H. Cates	Consulting Aurist and Oculist
Nogales	Dr. W. F. Chenoweth	District Surgeon
Benson	Dr. J. N. Morrison	District Surgeon
Benson	Dr. L. W. Moffitt	District Surgeon
Willcox	Dr. J. C. Wilson	District Surgeon
Willcox	Dr. B. E. Briscoe	District Surgeon
Bowie	Dr. F. W. Parrish	District Surgeon
Lordsburg	Dr. C. B. Austin	District Surgeon
Lordsburg	Dr. J. F. Stultz	Asst. Dist. Phys. and Surgeon
Safford	Dr. J. N. Stratton	District Surgeon
San Carlos	Dr. D. C. Lynwalter	District Surgeon
Globe	Dr. C. Gunter	District Surgeon
Globe	Dr. R. D. Kennedy	District Surgeon
Globe	Dr. W. A. Holt	Consulting Surgeon
Miami	Dr. C. M. Cron	District Surgeon
Miami	Dr. J. E. Bacon	District Surgeon

HOSPITALS

General Hospital	San Francisco, Calif.
St. Joseph's Hospital	Phoenix, Ariz.
St. Mary's Hospital	Tucson, Ariz.

AVERAGE TARE WEIGHTS OF PASSENGER TRAIN CARS

CLASS	NOT AIR-CONDITIONED		AIR-CONDITIONED	
	All-Steel	Steel Under-frame	All-Steel Cooling Season	All-Steel Heating Season
Baggage—60 ft.	93,070			
—66 ft.	127,610			
—70 ft.	122,830			
—70 ft. (With Auto. End Door)	125,800			
—(Dynamo)	98,730			
Baggage & Mail—60 ft.	103,820			
—66 ft.	124,760			
—70 ft.	129,140			
—Passenger	103,590			
—Express	112,640			
Express Reifr.—N. P. Ry.	74,000			
—A. R. E. No. 40-154	78,000			
— " " " 155-224	89,000			
— " " " 500-506	110,000			
— " " " 1101-1175	85,000			
—P. F. E. 500-799	83,000			
Express, Horse	133,050			
Postal	112,120			
Postal Storage—40 ft.	74,530			
—60 ft.	105,120			
Assembly	168,950	168,950		
Club	148,210	122,300	172,200	164,700
Official	170,700	155,370		
—(ACW) Cars 107-128			182,800	182,800
—(ACW) " 140-141			189,040	195,040
Chair—60 ft.	100,620		138,000	132,000
—72 ft.			165,000	167,800
—72 ft.			158,700	158,700
—Streamline—Single (ACS)			120,900	104,500
— " —Art. (ACS)			205,400	172,600
—74 ft.			180,915	173,125
—74 ft.			197,944	181,600
Coaches—60 ft.	98,130		136,100	130,100
—70 ft.	137,640		157,800	151,000
—70 ft.	137,640		151,000	151,000
—72 ft.			164,500	157,400
—72 ft.			153,500	153,500
—73 ft. 6 in.			163,000	163,000
—73 ft. 6 in.			169,500	161,200
—72 ft. (Interurban)	120,000			
All-Day Lunch—Chair	105,870			
—Coach	103,875			
Cafe-Coach	138,600	158,700	148,000	
Cafe-Lounge	148,950	161,200	173,500	168,000
Diner—70 ft.	135,930		170,100	162,700
—72 ft.	155,330	146,930	162,950	162,950
—77 ft. (Arch Roof) (ACI)	156,000		169,450	169,450
—77 ft. (" ") (ACW)			189,581	173,836
—77 ft. (Clare Story Roof) (ACW)				
—77 ft. (" ") (ACM)			201,323	184,700
—78 ft. (" ") (NAC)	169,100		189,800	181,630
—80 ft. (Clare Story Roof) (ACM)			167,500	160,300
Lounge			164,980	157,780
—(Arch Roof) (ACI)			169,185	161,900
—(" ") (ACW)	154,400		194,543	186,166
—77 ft. (ACI)			141,870	
Fullman-Observation	160,800	153,000	177,314	169,200
—(ACM)	160,800	153,000	192,300	176,300
—Lounge	171,200		194,900	178,800
—Bedroom	171,200		187,622	179,800
—Sleeper	167,600		183,220	176,000
—Tourist	163,100		195,800	179,800
—(ACM)	163,100		191,100	175,100
—(ACI)	183,100		180,075	171,500
—(ACM)	153,000		185,200	169,200
—(ACI)	153,000		188,663	161,400
Rail, Gas-Electric—400 H.P.	158,400			
—600 H.P.	167,200			

#Steel underframe.

CODE:

- NAC—Non-Air Conditioned.
- ACI—Air-Conditioned—Ice.
- ACM—Air-Conditioned—Mechanical.
- ACW—Air-Conditioned—Waukesha.
- ACS—Air-Conditioned—Steam Ejector.

LIGHT ENGINES RUNNING FORWARD	
T-37 Mk 5, 6, 7, 8, 9	Mk 2, 4
M 4, 6, 9, 11 C 8, 9, 10	
35	30
35	30
35	30
35	30
30	30
35	30
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15	15
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25	25

MILE IN N. SEC.
1.08
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1.05
1.04
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1.02
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1.00
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.98
.97
.96
.95

SPECIAL INSTRUCTIONS

RATING OF LOCOMOTIVES—TUCSON DIVISION

IN M_s OF 1,000 LBS. BACK OF TENDER

Nominal Class	OFFICIAL CLASS	ENGINE NUMBERS	Boiler Pressure	Yuma to Tucson Via Gila	Tucson to Yuma Via Gila	Yuma to Tucson Via Phoenix	Tucson to Yuma Via Phoenix	Tucson to Nogales	Nogales to Tucson	McQueen to Christmas	Christmas to McQueen
				*Helper	Single	Single	Single	Single	Single	Single	Single
M- 4 M- 4 M- 4	M-63 20/28 126..... M-63 20/28 128-S..... M-63 20/28 135-S.....	1617 to 1713.....	190	3050	2900	3050	2900			3150	3750
M- 6 M- 6	M-63 21/28 159-SF..... M-63 21/28 150-S.....	1725 to 1769..... 1780 to 1803..... 1823 to 1825.....	200	3750	3600	3750	3600				
M- 9 M-11 M-11	M-63 21/28 150-S..... M-63 22/28 153-S..... M-63 22/28 162-SF.....	1806 to 1822..... 1828 to 1830..... 1832 to 1835.....	210 200	3950 4150	3800 3950	3950 4150	3800 3950			4100 4250	4900 5100
T-37	T-70 24/28 146-S.....	2105, 2106.....	175	3800	3700	3800	3700				
P-1, 3, 5	P-77 22/28 141-S.....	2400 to 2452, 2459, 2460.....	210	3400	3300	3400	3300				
C- 8 C-9, 10 C-9, 10	C-57 22/30 192-S..... C-57 22/30 200-SF..... C-57 22/30 194-S.....	2513 to 2599, 2698 to 2860	210	4800	4600	4800	4600	3000	4100	4700	5600
TW- 3	TW-50 20/26 120.....	2932 to 2945.....	170	3050	2900	3050	2900	2050	2600		
P-12	P-73 26/28 189-S-F.....	3120 to 3129.....	205	5000	4750	5000	4750				
Mk-2, 4 Mk-2, 4 Mk-5, 6 Mk-5, 6 Mk-7, 8, 9 Mk-7, 8, 9	Mk-57 23 1/2/30 206-S..... Mk-57 23 1/2/30 230-SF..... Mk-63 26/28 210-S..... Mk-63 26/28 231-SF..... Mk-63 29/30 247-S..... Mk-63 29/30 257-SF.....	3200 to 3240..... 3241 to 3277..... 3300 to 3324.....	210 210 176	5600 6000 5700	5400 5750 6350	5600 6000 5700	5400 5750 6350			5650 6100	6750 7300
F- 1 F- 3 F-4, 5 F- 5	F-63 27 1/2/32 273-S..... F-63 29 1/2/32 297-S, 300-SF..... F-63 29 1/2/32 306/B-61-SF..... F-63 29 1/2/32 306/B-62-SF.....	3600 to 3652..... 3653 to 3667..... 3668 to 3763, 3769..... 3764 to 3768.....	200 200 200	5900 6300 6600	6700 7100 8000	5900 6300 6600	6700 7100 8000				
Mt-1, 3, 4, 5 Mt-2 SP-1 SP-2, 3	Mt-73 28/30 246/B-60-SF..... Mt-73 29/30 262-SF..... SP-63 28 1/2/32 316/B-60-SF..... SP-63 28 1/2/32 317/B-61-SF.....	4300 to 4376..... 4385 to 4390..... 5000 to 5048.....	210 210 225	5700 5850 8000	6400 6600 8000	5700 5850 8000	6400 6600 8000				
Allowance for empty and underloaded cars		Less than 40 M _s 40 M _s . to 50 M _s More than 50 M _s		6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0
*Helper 0.5 Yuma to East Yard; Helper 1.0 Except Helper C-8, 9, 10 with Classes Mk-7, 8, 9; F-1, 3, 4, 5; Mt-1, 2, 3, 4, 5; SP-1, 2, 3 Pembroke to Mokawk, Lava to Sentinel, Gila to Estrella.				Double Kim to Mohawk	Double Saddle to Harqua						

DIVISION MILEAGE

Main Lines

Yuma to Lordsburg.....	S. P. R. R.....	412.60
Tucson to South Yard Junction.....	E. P. & S. W. R. R.....	7.69
Wellton to Picacho via Phoenix.....	A. E. R. R.....	195.91
	P. & E. R. R.....	13.10
Total Main Lines.....		629.30

Branches

Benson-Fairbank.....	S. P. R. R.....	Benson Jct., Benson-Fairbank Branch to Benson, Initial Point E. P. & S. W. R. R.....	.64
		[P. & E. R. R..... McQueen to Christmas.....	74.41
Christmas.....	A. E. R. R.....	McQueen to Christmas.....	12.26
		[R. & G. V. R. R..... Hayden Jct. to Hayden.....	.32
			86.99
Florence.....	A. E. R. R.....	Florence Jct. to Poston.....	6.04
Globe.....	A. E. R. R.....	Bowie to Inspiration Jct.....	136.14
Litchfield.....	A. E. R. R.....	Litchfield to Litchfield Park.....	4.92
Tempe.....	A. E. R. R.....	West Chandler to Tempe Jct.....	8.73
		[A. E. R. R..... At Tempe.....	.47
Creamery.....	P. & E. R. R.....	Tempe to Normal Jct.....	1.74
			2.21
Mesa.....		[P. & E. R. R..... At Mesa.....	.25
		[A. E. R. R..... Mesa to North Mesa.....	1.65
			1.90
Nogales.....		[S. P. R. R..... At Tucson.....	.63
		[T. & N. R. R..... T. & N. R. R. Jct. to Calabasas.....	55.38
		[N. M. & A. R. R..... Calabasas to Nogales.....	9.78
			65.79
Total Branches.....			313.36
Total.....			942.66

Nominal Class

M-4
M-4
T-37
C-9, 10
C-9, 10

TW-3
P-12

Mk-2, 4
Mk-2, 4
Mk-5, 6
Mk-5, 6
Mk-7, 8, 9
Mk-7, 8, 9
F-1, 3, 4, 5
F-1, 3, 4, 5

Mt-1, 3, 4, 5
Mt-2
SP-1
SP-2, 3

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SPECIAL INSTRUCTIONS

RATING OF LOCOMOTIVES—TUCSON DIVISION—Continued
IN Ms OF 1,000 LBS. BACK OF TENDER

Nominal Class	OFFICIAL CLASS	ENGINE NUMBERS	Boiler Pressure	EASTWARD				WESTWARD				EASTWARD				WESTWARD															
				Tucson-Mescal	Benson-Dragoon-San Simon Steins	Mescal-Benson-Dragoon-Wilcox-Raso-San Simon Steins-Conrad-Pyra-Lordsburg	Willcox-Raso-Conrad-Pyra	Lordsburg-Pyra	Pyra-Mondel-Steins-San Simon-Raso-2 M. E. Cochise-Dragoon-Benson-Mescal-Tucson	San Simon-Bowie	Bowie-Raso-2 M. E. Cochise-Dragoon	Mondel-Steins-Benson-Mescal	Bowie-San Carlos	San Carlos-Cutter	Cutter-Pinal	Pinal-Globe	Globe-Miami	Miami-Globe	Globe-Pinal	Pinal-San Carlos	San Carlos-Tanque	Tanque-Bowie									
				Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single									
M-6	M-63 21/28 150-S.....	1725 to 1769.....	200	1950	1500	6000	2900	3250	6000	3650	2250	1500																			
M-6	M-63 21/28 159-SF.....	1780 to 1803.....																													
T-37	T-70 24/28 146-S.....	1823 to 1825.....																													
C-8	C-57 22/30 192-S.....	2105, 2106.....	175	2000	1550	6000	3000	3350	6000	3750	2300	1550	3700	2250	950	6000	1500	1050	950	6000	3150	2400									
C-9, 10	C-57 22/30 200-SF.....	2513 to 2599.....																													
C-9, 10	C-57 22/30 194-S.....	2698 to 2860.....	210	2500	1950	8000	3750	4150	8000	4650	2900	1950	4900	3000	1310	8000	2000	1400	1310	8000	4170	3220									
TW-3	TW-50 20/26 120.....	2932 to 2945.....	170	1600	1250	6000	2400	2650	6000	2950	1850	1250	3200	1950	850	7000	1300	900	850	7000	2700	2100									
P-12	P-73 26/28 189-SF.....	3120 to 3129.....	205	2600	2000	8000	3900	4350	8000	4900	3000	2000	4850	2980	1300	8000	1980	1390	1300	8000	4100	3200									
Mk-2, 4	Mk-57 23 1/2/30 206-S.....	3200 to 3240.....	210	2800	2200	8000	4250	4750	8000	5300	3250	2200																			
Mk-2, 4	Mk-57 23 1/2/30 230-SF.....																														
Mk-5, 6	Mk-63 26/28 210-S.....	3241 to 3277.....	210	3150	2450	8000	4700	5250	8000	5850	3650	2450																			
Mk-5, 6	Mk-63 26/28 231-SF.....																														
Mk-7, 8, 9	Mk-63 29/30 247-S.....	3300 to 3324.....	176	3500	2750	8000	5200	5800	8000	6500	4000	2750																			
Mk-7, 8, 9	Mk-63 29/30 257-SF.....																														
F-1	F-63 27 1/2/32 273-S.....	3600 to 3652.....	200	3700	2900	10000	5500	6100	10000	6850	4250	2900																			
F-3	F-63 29 1/2/32 297-S, 300-SF.....	3653 to 3667.....																													
F-4, 5	F-63 29 1/2/32 306/B-61SF.....	3668 to 3763, 3769.....																													
F-5	F-63 29 1/2/32 306/B-62SF.....	3764 to 3768.....																													
Mt-1, 3, 4, 5	Mt-73 28/30 246/B-60-SF.....	4300 to 4376.....	210	3800	2950	10000	5650	6300	10000	7050	4350	2950																			
Mt-2	Mt-73 29/30 262-SF.....	4385 to 4390.....	210	3550	2800	10000	5350	5950	10000	6700	4100	2800																			
SP-1	SP-63 28 1/2/32 316/B-60-SF.....	5000 to 5048.....	225	5350	4350	10000	8000	8850	10000	10000	6150	4350																			
SP-2, 3	SP-63 28 1/2/32 317/B-61-SF.....																														
	Allowance for empty and underloaded cars	Less than 40 M's.....		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6									
		40 M's to 50 M's.....		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3									
		More than 50 M's.....		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									

These ratings include the total weight of train, exclusive of engine and tender, which the different class of locomotives will haul in each direction between the stations shown.

ASSISTANT SUPERINTENDENT

G. A. BAYS

TRAINMASTERS { W. C. PRYOR..... Yuma
F. W. CANTRELL..... Phoenix
J. J. COWIN..... Tucson

CHIEF TRAIN DISPATCHER

G. C. BAKER..... Tucson

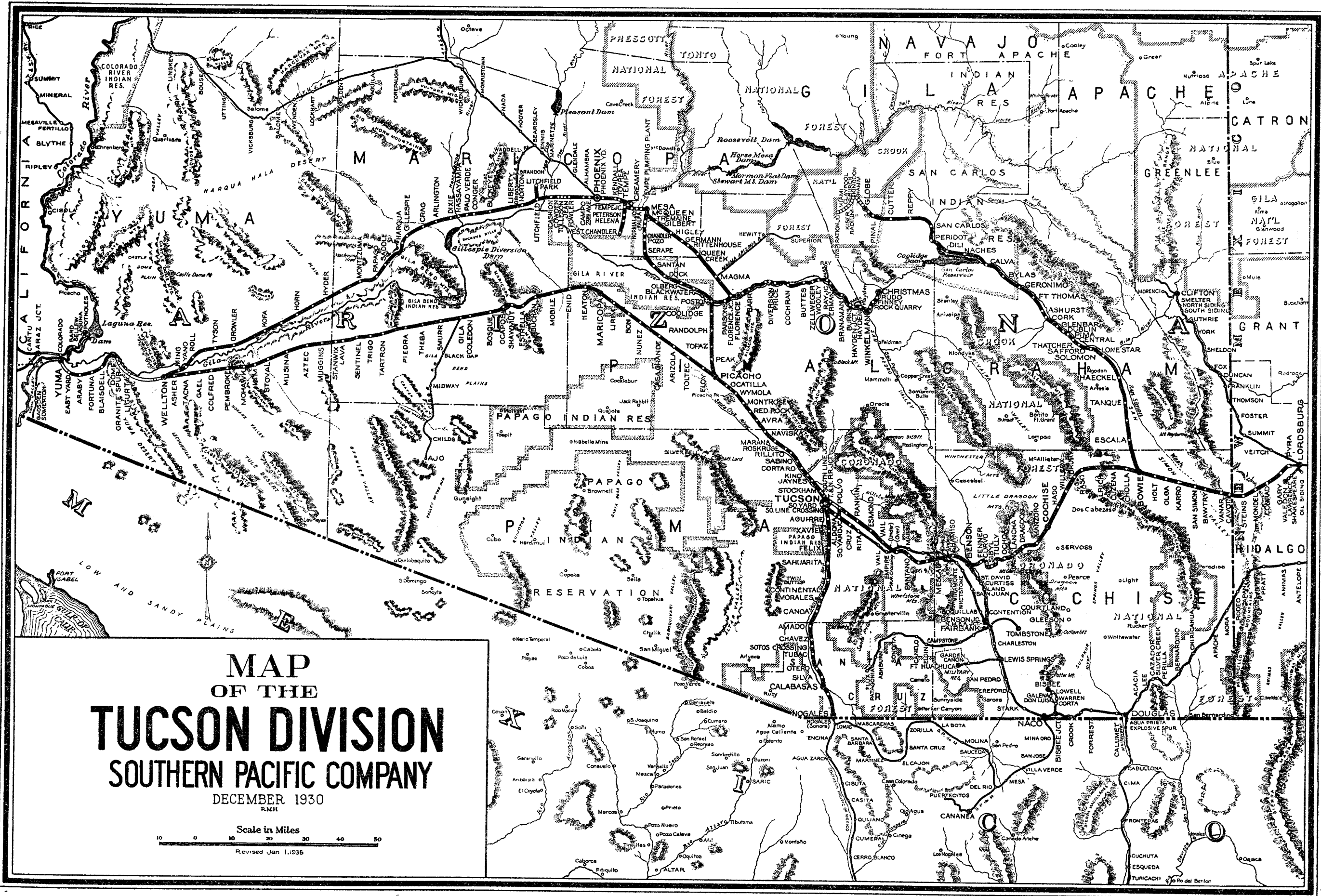
ASSISTANT CHIEF TRAIN DISPATCHERS

L. D. BARR..... Tucson

H. W. CASSADY..... "

ROAD FOREMAN OF ENGINES

R. N. BOOKER..... Tucson



MAP
OF THE
TUCSON DIVISION
SOUTHERN PACIFIC COMPANY

DECEMBER 1930
R.M.H.

