

SOUTHERN PACIFIC COMPANY

PACIFIC LINES

TIME TABLE FOR THE TUCSON DIVISION

101

To Take Effect Sunday, May 3, 1931, at 12:01 A. M.

MOUNTAIN STANDARD TIME (105th MERIDIAN)

For the government and information of employees only.

F. L. BURCKHALTER,
General Manager.

R. L. RUBY,
Superintendent of Transportation.

A. E. SWEET,
Assistant General Manager.

WM. WILSON,
Superintendent.



Time Table No. 101

May 3, 1931

WESTWARD

FIRST CLASS

THIRD CLASS

STATIONS	Distance from Phoenix	FIRST CLASS				THIRD CLASS			
		101 Sunset	3 Golden State	103 Argonaut	11 Apache	423 Local Freight	435 Local Freight	431 Freight	
		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Tues. Thur. Sat.	Arrive Tues. Thur. Sat.	Arrive Daily	
TO-R YUMA	174.3	s 10.40AM	s 12.50AM	s 2.15AM	s 2.40AM	11.55AM	3.00PM	12.25AM	
EAST YARD	169.5	10.30	12.40	2.05	2.30	11.40	2.45	12.10	
ARABY	166.9	10.25	12.35	f 1.58	2.25	11.35	2.40	12.05AM	
FORTUNA	163.3	10.19	12.29	1.54	2.18	11.25	2.30	11.55PM	
BLAISDELL	160.4	10.15	12.25	f 1.50	2.10	11.15	2.15	11.45	
TO DOME	158.5	10.03	12.13	f 1.38	1.58	11.00	2.00	11.30	
GRANITE SPUR	151.8			f					
LIGURTA	146.8	9.53	12.03AM	f 1.28	1.48	10.40	1.20	11.15	
ADONDE	139.8								
TO WELLTON	137.0	9.40	f 11.50PM	1.15AM	1.35	10.20AM	1.00	10.55	
MING	131.3	9.30	f 11.40		1.25		12.30	10.35	
YANO	129.3		f						
ROLL	126.1	9.23	f 11.33		1.19		12.20PM	10.25	
TYSON	118.7		f						
GROWLER	113.8	9.08	f 11.18		1.05		11.55AM	10.05	
BURGER	108.7								
KOFA	104.5	8.57	f 11.06		12.55		11.35	9.45	
CLANTON	99.3								
HORN	94.3	8.45	f 10.53		12.44		11.10	9.25	
ATHEL	89.3								
TO HYDER	84.7	8.34	s 10.40		12.34		10.45	9.05	
CAMEL	80.0								
MONTEZUMA	75.9	8.23	f 10.28		12.24		10.15	8.45	
PAPAGO	70.2	8.16	f 10.21		12.18		10.00	8.35	
TO SADDLE	65.9	8.10	f 10.15		12.13		9.50	8.22	
HARQUA	57.6	7.58	f 10.00		12.01AM		9.25	7.50	
GILLESPIE	56.0	7.55	f 9.56		11.59PM		9.15	7.33	
CRAG	51.0	7.49	f 9.49		11.54		9.05	7.22	
ARLINGTON	45.7	7.43	f 9.42		11.48		8.50	7.10	
DIXIE	41.3	7.37	f 9.35		11.43		8.30	6.58	
HASSAYAMPA	39.4		f						
PALO VERDE	36.8		f						
CONGER	35.5	7.30	f 9.27		11.37		8.10	6.48	
TO BUCKEYE	31.3	7.22	s 9.15		11.29		8.00	6.40	
LIBERTY	25.3	7.12	f 8.55		11.18		7.45	6.28	
NORTON	22.1		f						
LITCHFIELD	17.3	7.01	f 8.45		11.09		7.30	6.15	
CASHION	14.0	6.54	f 8.39		11.04		7.20	6.09	
COWDEN	12.1	6.48	f 8.36		11.01		7.15	6.05	
TOLLESON	11.3		f						
JEAN	10.7		f						
FOWLER	8.9	6.42	f 8.30		10.56		7.03	5.58	
CAMPO	5.0	6.37	f 8.25		10.52		6.50	5.50	
23rd AVE. PHOENIX	3.0	6.33	8.22		10.48		6.45	5.45	
CROSSING AT&SF WYE	1.5								
R PHOENIX	1.0	6.25AM	8.15PM		10.40PM				
TO-R PHOENIX YARD	0.0						6.30AM	5.30PM	
(174.3)		Leave Daily	Leave Daily	Leave Daily	Leave Daily		Leave Tues. Thur. Sat.	Leave Tues. Thur. Sat.	Leave Daily

A. B. S.

..... Time over district	(4.15)	(4.35)	(1.00)	(4.00)
..... Average speed per hour	40.78	37.81	37.30	43.33

ADDITIONAL FLAG STOPS TO RECEIVE PASSENGERS		
Train	At	To (or beyond)
101	Buckeye	California points

(1.35)	(8.30)	(6.55)
23.56	20.51	25.20

ADDITIONAL FLAG STOPS TO DISCHARGE PASSENGERS		
Train	At	From (or beyond)
101	Any Station	El Paso
11	Any Station	Tempe
3	Any Station	Ming

PICACHO SUBDIVISION

EASTWARD

Main train schedule table with columns for Second Class (416, 434, 414, 412, 422, 128, 438, 410) and First Class (12, 102, 108, 36, 4, 104). Includes departure and arrival times for various stations and freight services.

Distance from San Francisco

Time Table No. 101

May 3, 1931

STATIONS

Station list with mile markers and directions. Includes Phoenix, Tempe, Chandler, Tucson, and Stockham.

A. B. S.

Summary table with columns for arrival and departure times for various stations.

Time over district Average speed per hour

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS table with columns for Train, At, Receive or Discharge, To, and From.

WESTWARD

Time Table No. 101

May 3, 1931

FIRST CLASS

THIRD CLASS

STATIONS	Distance from Tucson	FIRST CLASS						THIRD CLASS			
		101	107	35	3	103	11	421	127	437	433
		Sunset	Phoenix Motor	Phoenix Motor	Golden State	Argonaut	Apache	Local Freight	Local Freight	Local Freight	Freight
Arrive Daily	Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Mon. Wed. Fri.	Arrive Tues. Thur. Sat.	Arrive Mon. Wed. Fri.	Arrive Daily		
R PHOENIX	121.0	s 6.15 AM	s 12.05 PM	s 4.25 PM	s 7.55 PM	s 10.20 PM					
TO-R PHOENIX YARD	120.0	6.05	11.55 AM	4.15	7.45	10.10		2.40 PM	3.50 PM	11.10 PM	
KENDALL	116.9	5.58	11.48	4.08	7.38	10.03		2.25	3.35	10.55	
CACTUS	115.2		f	f							
TO TEMPE	112.6	5.51	s 11.41	s 4.00	7.31	s 9.56		2.10	3.15	10.35	
TEMPE JCT.	111.7	5.48	11.36 AM	3.56	7.27	9.52		1.55	3.05	10.15	
NORMAL JCT.	109.9	5.45		3.53	7.24	9.49		1.50	3.00	10.10	
FRANKENBURG	108.6										
TEMPE PUMPING PLANT	108.4										
TO MESA	105.2	5.38		s 3.45	7.16	s 9.41		1.35	2.45	9.41	
MCQUEEN	103.4	5.35		3.40 PM	7.12	9.37		1.15 PM	2.30	9.20	
TREMAINE	101.6					f			2.25	9.15	
FALFA	100.9	5.32			7.07	f 9.32			2.20	9.10	
TO CHANDLER	97.7	5.27			7.02	s 9.27			2.10	9.00	
POZO JCT.	96.0	5.23			6.58	9.23			2.00	8.50	
SERAPE	92.7	5.19			6.54	f 9.19			1.50	8.40	
SANTAN	88.0	5.14			6.49	f 9.14			1.40	8.30	
DOCK	83.8	5.09			6.44	f 9.09			1.30	8.20	
OLBERG	78.9	5.03			6.38	f 9.02			1.20	8.10	
BLACKWATER	73.8	4.57			6.32	f 8.55			1.10	7.55	
POSTON	68.8	4.51			6.26	f 8.49			1.00	7.40	
TO COOLIDGE	65.0	4.46			6.21	s 8.43			12.50	7.30	
RANDOLPH	60.6	4.41			6.16	f 8.33			12.35	7.10	
TOPAZ	55.6	4.36			6.11	f 8.26			12.25	7.00	
PEAK	51.6					f					
TO PICACHO	46.4	4.25	f 9.38 AM		6.00	8.05 PM	f 8.15	9.25 AM	12.10 PM	6.40	
OCATILLA	43.2	4.20	9.30		5.55	7.59	8.09	9.10	11.59 AM	6.21	
WYMOLA	39.7	4.16	f 9.25		5.51	7.54	f 8.04	9.00	11.50	6.13	
MONTROSE	36.0	4.12	9.20		5.47	7.49	7.59	8.50	11.40	6.05	
TO RED ROCK	32.5	4.08	f 9.15		5.43	7.44	f 7.54	8.40	11.30	5.57	
AVRA	29.6	4.05	9.11		5.40	7.41	7.51	8.25	11.20	5.50	
NAVISKA	25.5	4.00	f 9.05		5.35	7.36	f 7.46	8.15	11.10	5.35	
MARANA	21.7	3.56	f 9.00		5.31	7.32	f 7.42	8.05	11.00	5.20	
ROSKRUGE	19.3	3.53	8.56		5.28	7.29	7.39	8.00	10.50	5.15	
TO RILLITO	17.0	3.50	f 8.49		5.25	7.26	f 7.36	7.55	10.45	5.10	
SABINO	14.0	3.47	8.44		5.22	7.22	7.32	7.47	10.35	5.03	
CORTARO	11.8	3.44	f 8.41		5.19	7.19	f 7.29	7.42	10.26	4.58	
KINO	9.2	3.41	8.37		5.16	7.16	7.26	7.36	10.15	4.53	
JAYNES	6.5	3.38	f 8.34		5.13	7.13	f 7.23	7.30	10.05	4.48	
STOCKHAM	2.7	3.33	f 8.28		5.08	7.08	f 7.18	7.20	9.50	4.40	
SOUTH LINE JCT.	1.1										
TO-R TUCSON	0.0	3.25 AM	8.20 AM		5.00 PM	7.00 PM	7.10 PM	7.10 AM	9.35 AM	4.30 PM	
(121.0)		Leave Daily	Leave Daily	Leave Daily Ex. Sunday	Leave Daily	Leave Daily	Leave Daily	Leave Mon. Wed. Fri.	Leave Tues. Thur. Sat.	Leave Mon. Wed. Fri.	Leave Daily

Via Maricopa

A. B. S.

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

(2.50)	(1.47)	(0.45)	(2.55)	(1.05)	(3.10)	(2.15)	(1.25)	(6.15)	(6.40)
42.71	31.23	23.47	41.49	42.83	38.21	20.62	11.72	19.20	18.00

Rules 72 and 73. Third class and extra trains may run ahead of No. 35 from McQueen to Mesa, and ahead of No. 107 from Tempe Jct. to Tempe.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS				
Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
101 & 3	Any Station	Discharge		El Paso
103	Any Station	Discharge		Polvo
101 & 3	Chandler, Mesa and Tempe	Receive	California points	
103	Any Station	Receive	Gila Line points	

Capacity of sidings in car lengths	SECOND CLASS								FIRST CLASS				Distance from San Francisco	Time Table No. 101 May 3, 1931		Distance from Lordsburg	FIRST CLASS		THIRD CLASS
	326	414	412	312	418	190	310	410	4	104	12	102		11	101		417		
	Freight	Freight	Freight	Freight	Local Freight	Local Freight	Freight	Freight	Golden State	Argonaut	Apache	Sunset		Apache	Sunset		Local Freight		
Yard BKWFTYP	4.25 PM	3.50 PM	8.00 AM	7.00 AM	6.40 AM	6.15 AM	12.55 AM	12.05 AM											
2 Spur	4.38	4.03	8.13	7.13	6.53	6.30	1.08	12.18	11.10	f 10.00	3.50	1.45							
66 P	4.46	4.11	8.21	7.21	7.02	6.40	1.16	12.26	11.14	f 10.04	3.54	1.49							
66 P	4.55	4.20	8.30	7.30	7.12	6.50	1.25	12.35	11.19	f 10.09	3.59	1.54							
67 WP	5.07	4.32	8.42	7.42	7.25	7.10	1.37	12.47	11.26	f 10.17	4.06	2.01							
66 P	5.20	4.45	8.55	7.55	7.40	7.30	1.50	1.00	11.33	f 10.25	4.13	2.08							
66 P	5.33	4.58	9.08	8.08	7.55	7.45	2.03	1.13	11.42	f 10.35	4.22	2.17							
84 WP	5.58	5.23	9.33	8.33	8.20	8.10	2.24	1.38	11.49	f 10.43	4.29	2.24							
66 P	6.08	5.33	9.43	8.43	8.30	8.20	2.38	1.48	11.55 AM	f 10.50	4.35	2.30							
66 P	6.18	5.43	9.53	8.53	8.40	8.30	2.48	1.58	12.02 PM	f 10.57	4.42	2.37							
E64 W81 CIYP	6.31 PM	5.57	10.07	9.07 AM	8.55	8.45 AM	3.01 AM	2.12	12.10 PM	f 11.06	4.50 AM	2.45							
81 P		6.06	10.16		9.05			2.21		f 11.12		2.51							
E125 W74 BKW OYP		6.28	10.38		9.30			2.43		s 11.25		s 3.03							
66 P		6.35	10.45		9.37			2.50		f 11.32		3.09							
87 P		6.51	11.01		9.53			3.06		f 11.39		3.15							
78 WP		7.06	11.16		10.08			3.21		f 11.46		3.21							
66 P		7.16	11.26		10.18			3.31		11.52		3.26							
66 P		7.27	11.37		10.29			3.42		f 11.59 AM		3.32							
66 P		7.38	11.48		10.40			3.53		f 12.06 PM		3.38							
N69 S68 YP		7.46	11.56 AM		10.50			4.01		f 12.13		3.43							
86 P		7.59	12.09 PM		11.05			4.14		f 12.19		3.49							
94 P		8.08	12.18		11.25			4.23		s 12.28		3.55							
66 P		8.17	12.27		11.40 AM			4.32		f 12.36		4.01							
70 WYP		8.35	12.47		12.05 PM			4.50		s 12.47		4.07							
64 P		8.47	1.00		12.15			5.02		f 12.54		4.13							
105 YP		9.01	1.14		12.30			5.16		f 12.59		4.17							
68 P		9.11	1.24		12.40			5.26		f 1.06		4.23							
66 P		9.17	1.30		12.50			5.32		f 1.11		4.27							
66 P		9.24	1.37		1.00			5.39		f 1.16		4.31							
E116 W121 BKW FYP		10.00	2.10		1.15 PM			6.15		s 1.35		s 4.50							
66 P		10.13	2.23					6.28		f 1.42		4.56							
66 P		10.21	2.31					6.36		f 1.47		5.01							
66 P		10.29	2.39					6.44		f 1.52		5.06							
66 BKW FYP		10.37	2.56					6.52		s 1.58		5.11							
66 P		10.56	3.15					7.11		f 2.05		5.16							
77 P		11.10	3.29					7.25		f 2.13		5.24							
74 P		11.24	3.41					7.39		f 2.21		5.31							
No. 1-74 No. 2-68 YP		11.45	4.00					8.00		f 2.32		5.41							
65 P		11.58 PM	4.13					8.13		f 2.42		5.46							
65 P		12.06 AM	4.21					8.21		f 2.49		5.51							
66 P		12.18	4.33					8.33		f 2.57		5.57							
66 P		12.26	4.41					8.41		f 3.04		6.02							
Yard BKWFTYP		12.40 AM	4.55 PM					8.55 AM		s 3.12 PM		s 6.10 AM							
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Mon. Wed. Fri.	Arrive Mon. Wed. Fri.	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Leave Daily	Leave Daily		Leave Tues. Thur. Sat.		

Time Table No. 101
May 3, 1931

STATIONS

TO-R TUCSON
0.8
T. N. R. R. JCT.
2.7
POLVO
3.3
WILMOT
3.1
RANKIN
4.8
ESMOND
4.7
VAIL
5.2
IRENE
4.1
PANTANO
3.5
BUELL
3.6
AMOLE
3.9
TO-R MESCAL
4.6
CHAMISO
4.4
TO BENSON
3.2
FENNER
2.7
CURVO
2.5
SIBYL
2.9
TULLY
3.4
OCHOA
3.5
LANCHA
3.1
TO DRAGON
4.4
MANZORO
5.6
TO COOHISE
5.7
HADO
5.1
TO WILLOOX
4.7
DRURY
3.2
RASO
5.1
ALRICH
3.3
LUZENA
3.3
CHOLLA
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
TO STEINS
3.8
MONDEL
3.8
CONRAD
4.3
GARY
3.1
PYRA
3.9
A. & N. M. JCT.
0.5
TO-R LORDSBURG
0.0

(164.4)

See Rio Grande Division Time Table.

(2.06) 18.90 (8.50) 18.61 (8.55) 18.44 (2.07) 18.76 (6.35) 17.39 (2.30) 15.88 (2.06) 18.90 (8.50) 18.61 (1.10) 34.03 (5.22) 30.63 (1.10) 34.03 (4.35) 35.87 Time over district..... (3.47) 32.96 (3.38) 34.32 (5.50) 12.82 Average speed per hour.....

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
4 & 102	Any Station	Receive	El Paso	
12	Any Station	Receive	Mescal	
101	Any Station	Discharge		El Paso
101	Willoox	Receive	Points scheduled to stop	
102	Willoox	Discharge		Tucson
102	Willoox	Receive	Lordsburg, where scheduled to stop	

EASTWARD

BOWIE SUBDIVISION

WESTWARD

Capacity of sidings in car lengths	FIRST CLASS				Distance from San Francisco	Time Table No. 101 May 3, 1931				Distance from Bowie	FIRST CLASS				SECOND CLASS	
	142 Local Freight	48 Miami Motor	46 Miami Motor	152 Tonto		Globe Branch					47 Bowie Motor	151 Tonto	49 Globe Motor	141 Local Freight		
	Leave Daily Ex. Sunday	Leave Daily	Leave Daily	Leave Daily		STATIONS				Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily Ex. Sunday			
Yard BKWYFP	8.00AM	3.40PM		3.10AM	1098.4	TO-R BOWIE		0.0	s 12.50PM	s 11.25PM		2.35PM				
Yard					1098.7	NORTH YARD		0.8								
56 P	8.25	f 3.58		3.30	1107.4	ESCALA		9.5	f 12.32	11.07		2.15				
18 Spur		f			1112.5	ARKILL		14.6	f							
44 WP	8.55	f 4.15		f 3.50	1117.8	TANQUE		19.9	f 12.14	f 10.49		1.45				
50 P	9.20	f 4.26		4.03	1125.1	HAEOKEL		27.2	f 12.02PM	10.37		1.25				
55 P	9.40	s 4.38		4.16	1132.6	TO SOLOMON		34.7	s 11.49AM	10.24		1.05				
20		f			1135.3	LONE STAR		37.4	f							
53 WP	10.10	s 4.50		s 4.27	1137.5	TO SAFFORD		39.6	s 11.38	s 10.13		12.45				
34 P	10.40	s 4.58		4.34	1140.6	TO THATCHER		42.7	s 11.28	10.03		12.20				
5		f			1143.1	CENTRAL		45.2	f							
27 YP	11.18	s 5.07		f 4.44	1145.6	TO PIMA		47.7	s 11.18	f 9.54		12.10PM				
66 P	11.25	f 5.10		4.47	1146.7	DUBLIN		48.8	f 11.15	9.51		11.59AM				
4		f			1148.9	GLENBAR		51.0	f							
60 P	11.45AM	f 5.21		4.58	1153.0	CORK		55.1	f 11.04	9.41		11.45				
2 Spur		f			1154.8	ASHURST		56.9	f							
61 P	12.20PM	s 5.33		5.10	1159.3	TO FT. THOMAS		61.4	s 10.53	9.31		11.10				
56 CWP	12.40	s 5.43		f 5.21	1164.2	GERONIMO		66.3	s 10.43	f 9.23		10.55				
58 P	1.00	f 5.52		5.33	1170.1	BYLAS		72.2	f 10.31	9.13		10.31				
54 P	1.20	f 6.03		5.47	1176.8	CALVA		78.9	f 10.20	9.02		10.10				
58 P	1.40	f 6.15		6.01	1183.7	NACHES		85.8	f 10.09	8.51		9.50				
55 P	2.00	f 6.28		6.18	1191.0	DILL		93.1	f 9.57	8.40		9.25				
17 Spur P		f			1197.2	PERIDOT		99.4	f							
57 WP	2.40	s 6.49		s 6.41	1201.0	TO SAN CARLOS		103.2	s 9.40	s 8.24		8.55				
42 P	3.00	f 7.02		6.56	1207.8	REPPY		110.0	f 9.28	8.13		8.35				
E43 W42 WP	3.20	f 7.14		7.10	1213.5	CUTTER		115.7	f 9.18	8.03		8.20				
21 P	3.50	f 7.30		7.26	1219.3	PINAL		121.5	f 9.06	7.51		7.58				
Yard BKWFTP	4.05PM	s 7.45	7.40AM	s 7.35AM	1221.5	TO-R GLOBE		123.7	s 9.00	7.45PM	s 9.00PM	7.45AM				
					1222.1	DOMINION		124.3								
					1222.5	LIBRARY		124.7								
11					1222.8	U. G. CO.		125.0								
5		f	f		1224.0	HAMM		126.2	f		f					
3 Spur					1225.3	KINGDON		127.5								
13		f 7.57	f 7.52		1226.2	RADIUM		128.4	f 8.43		f 8.48					
3 Spur		f	f		1227.3	BURCH		129.5	f		f					
2 Spur		f	f		1229.3	KISER		131.5	f		f					
16		f 8.07	f 8.02		1230.2	CLAYPOOL		132.4	f 8.33		f 8.38					
		f	f		1231.0	HILL ST.		133.2	f		f					
Yard WYP		s 8.15PM	s 8.10AM		1231.9	TO-R MIAMI		134.1	8.25AM		8.30PM					
					1233.0	INSPIRATION JOT.		135.2								
					1234.2	LIVE OAK		136.4								
	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily	Arrive Daily		(136.4)			Leave Daily	Leave Daily	Leave Daily	Leave Daily Ex. Sunday				
	(8.05) 15.30	(4.35) 29.26	(0.30) 20.80	(4.25) 28.01	 Time over district.....		(4.25) 30.31	(3.40) 33.74	(0.30) 20.80	(6.50) 18.10					
					 Average speed per hour.....										

EASTWARD

BOWIE SUBDIVISION

WESTWARD

Capacity of sidings in car lengths	Distance from San Francisco	Time Table No. 101 May 3, 1931		Distance from Globe
		Amster Branch		
STATIONS				
Yard BKWFTP	1221.5	TO-R	GLOBE	0.0
12	1220.7		AMSTER JOT.	0.8
11	1225.2		GARDNER	5.5
51 Spur	1225.3		McGAW	5.6
8	1225.4		AMSTER	5.7
(5.7)				

McGaw—Derailer on tracks leading to right and left. Amster Branch included in Globe yard limits.

Rule S-72 Exception: No. 46 is superior to No. 47; No. 48 is superior to No. 49.

RULE 2. The following are designated watch inspectors:

S. A. Pope, Manager of Time Service.....	65 Market St., San Francisco
Yuma.....	Wm. Baird
Phoenix.....	C. A. Sheldon & H. H. Howard
Winkelman.....	J. C. Williams, Sr.
Tucson.....	Greenwald & Adams
Tucson.....	Geo. D. Davidson Co.
Nogales.....	E. M. Mather
Lordsburg.....	H. H. Conder
Globe.....	J. G. Cubitto
Miami.....	Elmer H. Fruhling

RULE 5. Schedule time and train orders apply at junction switch at Picacho. First class trains meeting at Gila take siding at passenger station.

Schedule time and train orders for eastward first class trains applies Benson at the first crossover switch east of station and at Bowie at the east switch to the west yard.—No. 2 track, east yard Bowie, through No. 4 track to west lead of east yard, will be used as siding.—Normal position of east switch No. 2 track for this track.

RULE 14. At junction points when recalling flagman on diverging route use:

Four long and one short to recall flagman from the west.

Five long and one short to recall flagman from the east.

At Wellton and Picacho the Phoenix Line is diverging route.

These whistle signals apply on second main track between Phoenix and Kendall, and to westward Rio Grande Division trains at Mescal.

OTHER ENGINE WHISTLE SIGNALS:

For diverging route, one short, one long, one short.

For siding, one long, one short, one long.

RULE 14 (M). At Phoenix as follows: Eastward at 23rd Avenue; westward at 24th Street; instead of at station one mile board.

RULE S.-72. Westward trains are superior to trains of the same class in the opposite direction.

RULE 83. Trains may identify each other on double track Phoenix and on second main track and main track between Phoenix yard and Kendall while train in motion, but approaching trains must reduce speed to not exceed twenty miles per hour.

RULE 83 (A). Phoenix—Only first class trains register.

RULE 83 (B). Phoenix Yard—First class trains register by ticket.

Engineers of light engines arriving Tucson from East will leave register ticket form 2642 with engine dispatcher for operator to enter on the register. Regular and extra trains will register by ticket at Mescal.

RULE 83 (D). Trains must obtain clearance before leaving Tempe via Tempe Branch, Maricopa via Maricopa Branch, Bowie, Globe.

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

RULE 93. Yard limits—Are defined by yard limit signs at the following stations: Yuma, Phoenix, Mesa, Ray Jet., Hayden Jet., Gila, Tucson, Nogales, Benson, Bowie, Lordsburg, Safford, Globe, Miami.

RULE 98. Railroad crossings not interlocked:

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 516. Overlaps located at:

Tyson—(Overlap on signal 7852) Eastward trains.

Clanton—(Overlap on signal 8105) Westward trains.

Athel—(Overlap on signal 8203) Westward trains.

Camel—(Overlap on signal 8293) Westward trains.

Gillespie—(Overlap on signal 8496) Eastward trains.

Crag—(Overlap on signal 8589) Westward trains.

23rd Ave. Phoenix—(Overlap on signals 9022) Eastward trains.

(Overlap on signals 9053 and 9055) Westward trains.

McQueen—(Overlap on signal 9218) Eastward trains.

Roskrue—(Overlap on signal 9626) Eastward trains.

(Overlap on signal 9657) Westward trains.

Cortaro—(Overlap on signal 9704) Eastward trains.

RULE 880. Engineers who have had less than 610 days' actual experience as engineers in freight service and less than 60 days' experience on the division must not be used in passenger service.

When engineers with less than 610 days' experience and less than 60 days' service as engineers on the district and firemen of less than one year's experience stand to help or double head a passenger train, they must handle the engine next to the train, the experienced men handle the leading engine.

RULE 825. This rule is extended. Includes spurs at Tyson, Clanton, Athel Camel and Crag.

METHOD OF TRAIN DISPATCHING BETWEEN TUCSON AND MESCAL

(A) Tucson Division dispatchers will handle eastward track (No. 2) and Rio Grande Division dispatchers will handle westward track (No. 1) between Tucson and Mescal. Double track forms D-R and D-S must not be used. If, in event it becomes necessary to move a train against the current of traffic, it must be run extra, specifying the track to be used and single track rules will apply between such train and those moving normally. Dispatchers must create work extras only on their respective tracks.

(B) Tucson Division dispatchers may issue orders under form G example 1, and forms F and K applying westward Mescal to Tucson over westward track (No. 1).

(C) Rio Grande Division dispatchers may issue orders under form G example 1, and forms F and K applying eastward Tucson to Mescal over eastward track (No. 2).

(D) Before moving an eastward extra against the current of traffic on westward track (No. 1), a transfer of orders issued under form G example 1, and forms F and K applying between Mescal and Tucson must be obtained from dispatcher of eastward track (No. 2).

(E) Before moving a westward extra against the current of traffic on eastward track (No. 2), a transfer of orders issued under form G example 1, and forms F and K applying between Tucson and Mescal must be obtained from dispatcher of westward track (No. 1).

(F) Rio Grande Division eastward trains must obtain two clearances before leaving Tucson, one marked Tucson Division and one marked Rio Grande Division.

RULE 83 (D) will not apply at Mescal. Trains will be governed by the train order signal.

USE OF RETAINING VALVES ON FREIGHT TRAINS

Retainers will be used on grades on 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 in train	
Over 1.5% to 1.8% " " " " " " " " " " " "	140 " " "
Over 1.8% to 2.2% " " " " " " " " " " " "	120 " " "
Over 2.2% " " " " " " " " " " " "	100 " " "

Speed of freight trains must not exceed twenty-five miles per hour. For the first five miles time consumed in traveling any one mile must not be less than three minutes. These instructions will not affect the speed where maximum now specified is lower.

NORTH LINE—EASTWARD

Mile Post 1023.6 to 1033.2.....	1.4%
Mile Post 1128.8 to 1131.6.....	1.4%

WESTWARD

Mile Post 1128.8 to 1118.5.....	1.4%
Mile Post 1041.5 to 1033.9.....	1.4%

GLOBE BRANCH—EASTWARD

Mile Post 1219.0 to 1220.7.....	2%
Mile Post 1221.6 to 1221.7.....	1.5%
Mile Post 1222.1 to 1222.8.....	2%
Mile Post 1226.3 to 1226.7.....	1.5%
Mile Post 1228.8 to 1229.2.....	1.4%

WESTWARD

Mile Post 1234.1 to 1232.6.....	3%
Mile Post 1231.0 to 1230.8.....	1.4%
Mile Post 1229.2 to 1228.8.....	1.4%
Mile Post 1219.0 to 1213.9.....	2.2%

AMSTER TO GLOBE

Mile Post 1225.4 to 1224.1.....	3%
Mile Post 1223.3 to 1220.9.....	3%

PICACHO SUBDIVISION

Hayden Mills to Hayden Junction.....	2.2%
--------------------------------------	------

TRAIN AND AIR INSPECTION

Running air brake test must be made as follows:

Mohawk (Eastward and Westward)	Mescal (Eastward)
Estrella (Westward)	Dragoon (Westward)
Harqua (Westward)	Steins (Westward)
	Pinal (Eastward and Westward)

Standing air brake test must be made by freight and mixed trains immediately before departure at:

Buchan or Estrella (Westward)	Steins
Gillespie or Harqua (Westward)	Cutter (Westward)
Mescal (Eastward)	Pinal
Dragoon	Amster

RULE 827. Freight trains may run not to exceed a distance of 55 miles without stopping for inspection, which does not relieve trainmen from making inspection wherever stops permit and other points specified in time table, or whenever it is necessary in the judgment of the conductor.

Freight trains on descending grade must stop five minutes for inspection at: Saddle or Papago Tully or Sibyl Hado or Willcox Bosque or Ocapos Bawtry or San Simon

AUTOMATIC BLOCK SYSTEM

When eastward trains are to meet or wait for opposing trains while occupying main track at Kendall, such trains will stop west of signal 9112.

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

Signals No. 2 track Tucson to Esmond are double track signals. Signals Esmond to West switch Mescal are single track signals.

Between Tucson and Polvo, automatic signals are on the left and signals used by trackmen will be placed on the left of the track in the direction of movement.

RULE 509. When a block signal in advance of facing point oil buffer spring switch indicates "Stop," careful examination of switch must be made before passing over it.

INTERLOCKING

WELLTON

The two crossover switches 4,000 feet east and the two crossover switches 400 feet west of station are operated by signal operator.

Limits extend from two-arm signal on Gila Line and two-arm signal 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.

TUCSON, SIXTH AVENUE

Limits on westward track extend from dwarf signal at derail to signal 9835, and on eastward track from dwarf signal opposite signal 9835 to dwarf signal 500 feet east. 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 switches and west switches of sidings of the Tucson Division. Switches are controlled by signal operator, except switch leading from north siding to cinder track, to spur track, from south siding on both legs of wye and to west end of coal track.

Switch and derail east end coal track are hand-throw switches but must not be used until permission is secured from signal operator.

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

Whistle signals as follows:

Eastward trains enroute Tucson Division—two short, one long and two short.

Eastward trains enroute Rio Grande Division—one long and four short.

Eastward trains for south siding—one short, one long and one short.

Eastward trains south siding to Tucson Division—two short, one long and one short.

Eastward trains south siding to Rio Grande Division—one short, one long and two short.

Westward trains north siding to No. 1 track—two long and two short.

Westward trains Tucson Division enroute No. 1 track—one short and two long.

Westward trains Tucson Division enroute north siding—two short and two long.

Westward Rio Grande Division trains enroute No. 1 track—one long, one short and one long.

Westward trains from Rio Grande Division through east crossover and Tucson Division to No. 1 track—one short, two long and one short.

The beginning of the Tucson Division single track is at east switch of west crossover. The beginning of the Rio Grande Division single track is at east switch of east crossover.

MISCELLANEOUS

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.

Helpers 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; or if in opinion of conductor conditions are favorable helpers may be put on head end of train.

Road engines double heading between Tucson and Lordsburg may be put on head end provided the tonnage is not in excess of 5000 Ms.

Trains and engines must stop and be preceded by a flagman before crossing 1st, 2nd, 3rd, and 4th Streets, Yuma. Engines must be attached to all cars handled over crossings.

At East Yard, normal position oil buffer spring switch end double track, for trains entering the double track. Rule 83, as it applies to the passing from double to single track, is modified permitting the registration of trains on Yuma register to apply at East Yard. If identification of trains on double track is made between Yuma and East Yard it will not be necessary to obtain a train order check of the same trains before passing from double to single track at East Yard. Trains moving in opposite directions on the double track must reduce speed sufficiently to permit identification. Rule 14 (k) must be applied between Yuma and East Yard. Westward trains reduce speed to 30 M. P. H. and eastward trains to 20 M. P. H. passing over this switch.

At Dome, operators, when on duty, will handle switches at west end of double track.

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

Unless trains can get into clear at following stations it results in delays to trains flagging blocks between these stations and adjoining stations: Cowden, Jean, Tremaine, Falfa, Olberg.

Oil buffer switches located Phoenix yard west end freight main track, just east A. T. & S. F. wye, and east end double track.

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

Entrance to Tovera Packing Co. plant, Cactus, protected by gates, which must be kept closed and locked, when not in use.

Trains and engines must be preceded by a flagman before crossing Mill Avenue and 8th Street, Tempe, Tempe Branch.

Normal position of Christmas Branch switch near east end siding at McQueen is for Christmas Branch.

Light will not be displayed in train order signals at Gilbert, Magma, Florence, Ray Junction and Winkelman as required by Rule 221, except when train orders are to be delivered.

Between Buttes and Zellweger and between Rock Quarry and Christmas look out for rock and land slides.

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 R. & G. V. Railroad.

Westward trains moving between Hayden and Hayden Junction on Christmas Branch and R. & G. V. Railroad, must stop, before fouling adjacent track.

Entrance to R. C. C. Co. plant, Hayden, protected by gates which must be closed and locked at night.

Serape is emergency water station.

Cars must not be detached in motion to spur at Peak.

Look out for cars on west leg of wye Picacho.

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

At Mohawk, eastward trains will use No. 2 track, and westward trains No. 1 track.

At Sentinel, westward trains except first-class, will use east siding; westward first-class and eastward trains west siding.

At Maricopa, scale track switches are lined for through train movement Maricopa Branch, connecting with track No. 3 to initial switch Picacho Subdivision. These tracks must be kept clear of cars and switches left lined accordingly.

At Stockham, normal position oil buffer spring switch end double track, for trains entering the double track. Rule 83, as it applies to the passing from double to single track, is modified permitting the registration of trains on Tucson register to apply at Stockham. If identification of trains on double track is made between Tucson and Stockham it will not be necessary to obtain a train order check of the same trains before passing from double to single track at Stockham. Trains moving in opposite directions on the double track must reduce speed sufficiently to permit identi-

fication. Rule 14 (k) must be applied between Tucson and Stockham. Westward trains reduce speed to 20 M. P. H. and eastward trains to 30 M. P. H. passing over this switch.

Eastward trains, except first class, must not pass South Line Jct. without permission from yardmaster.

At least 15 hand brakes on west end and 10 hand brakes on east end must be set on all freight trains arriving North yard, Tucson. These brakes must be set with brake club after train has stopped. Brakes to be set commencing at the west and east ends of train or cut. An employe releasing any of these brakes will be held responsible to see that the same number are set before releasing.

At least seven hand brakes must be set on west end of each cut of cars in P. F. E. yard, Tucson, except on S. P. tracks Nos. 1, 2 and 3, at least fifteen hand brakes must be set.

At Tucson, on passenger trains after engine is spotted for taking oil, two hand brakes must be set on the head end and two on rear end.

Look out for ice and rubbish alongside tracks P. F. E. yard, Tucson.

Trains and engines must be preceded by a flagman before crossing Congress St., Tucson.

Back-up hose must be used by yard engines making back up movements with cars between North and South yards, Tucson.

Westward trains except first class and light engines must not pass crossover switch near signal 9851 Tucson yard without proceed signal from yardman.

Esmond is emergency water station.

Eastward trains take full tank water at Benson and avoid taking water at Sibyl, unless dispatcher instructs otherwise. Westward trains take water at Sibyl only when it will avoid stopping at Benson.

Helper engines must not make continued backward movement between Steins and San Simon and must turn at San Simon before tying up.

Take a full tank of water at Tanque and Geronimo and avoid taking water at Safford.

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

Back-up hose must be used when delivering cars to O. D. Co. transfer Globe.

A flagman must precede all movements over street at Solwico, Globe.

Eastward trains and engines must stop before crossing Murphy Street, Globe.

A flagman must precede all movements over Mills Street, Latham Blvd., and junction of Adonis and Keystone Avenues, Miami.

DERAILS IN MAIN TRACK AS FOLLOWS:

250 feet east of west switch Christmas.
579 feet west of west switch Nogales, may be run through by eastward trains.
165 feet east of South Line Crossing on South Line.
173 feet east of junction switch at Amster Jct.

FOLLOWING TRACKS NOT TO BE USED BY 3600 OR HEAVIER CLASS ENGINES

Tempe Branch,
Maricopa Branch sidings.
Christmas Branch between Winkelman and Christmas.
Christmas Branch sidings and spurs.

FOLLOWING TRACKS NOT TO BE USED BY 3200 OR HEAVIER CLASS ENGINES

Blaisdell.....Spur.
Granite Spur.....Spur (except 3600—Class F-1, engines may use tracks No. 1 and 2 between main line switch and high-line switch only).
Wellton.....Spur.
Tacna.....Spur.
Colfred.....Spur.

Pembroke.....Spur.
Mohawk.....West Spur.
Stoval.....Spur.
Musina.....Spur.
Aztec.....House between east end freight platform and east switch.
Stanwix.....Spur.
Delosa.....Wye.
Sentinel.....House and Pump Spur.
Tartron.....Spur.
Smurr.....Spur.
Maricopa.....North House.
No. 4.
No. 5.
South Leg Wye.
Pump House Spur.
Casa Grande.....Stock.
Eloy.....East Lettuce Spur (South side).
Hassayampa.....Wye.
Buckeye.....Standard Oil and Boswell Gin Spurs.
Kendall.....South Track between Kendall and Cactus Reduction Plant.
Tempe.....Tempe Milling Co., Phoenix Mill and Gravel Pit Spurs, East Leg Wye, House Track, Tracks 2 and 3.
Mesa.....Sawdey & Hunt Spur.
Standard Oil Spur.
Texas Oil Spur.
Shell Oil Spur.
Independent Cotton & Oil Co. Spur.
Mutual Cotton Oil Spur.
Melon Track.
North Mesa.....Lettuce Track.
Mesa Branch.....Spurs.
Nogales Branch.
Benson.....Oil Spur, Team, South Coal, Hotel.
Middle Yard wye track; except in emergency SP-1, SP-2, F-1, F-3, F-4, F-5, MK-5, MK-6, MK-7, MK-8 and MK-9 class engines may turn on wye, but must head onto east leg.
Fairbank Branch yard and wye.
Cochise.....Wye, South House, Cochise Branch.
Willcox.....Spur Track from Stock Track.
Bowie.....Oil Spur East of West End of Pump House.
Lordsburg.....Transfer and House Tracks, A. & N. M. Yard.
Globe Branch.

FOLLOWING TRACKS NOT TO BE USED BY ABOVE CLASS ENGINES NOR BY CONSOLIDATION OR ATLANTIC TYPE ENGINES:

Buckeye.....Mutual Cotton Oil and Gin Spurs.
Litchfield Branch.

South Track between Cactus Reduction Plant and Salt River Bridge (Nor by 1800 class.)

Tempe Branch.....Sidings and Rock Quarry Spur.
Frankenburg.....Spur (nor by 1800 class).
Tempe Pumping Plant.....Spur.

Mesa Branch east of Creamery and 2000 feet west of West Switch, North Mesa. (Nor by 1800 class.)

Mesa.....Drew's Spur (must back in).
Magma.....Spur.
Munn.....Spur.
Buttes.....Spur.
Finney.....Spur.
Casaba Branch.....(Nor by 1800 class.)
West Chandler.....Wye and Stock Corrals.
Sacate.....Wood spur.

Engines must not use:

Elevated trestle north of Mesa used by electric light plant for unloading.
Spurs: Florence, Burns, Sacate.
Red Rock.....Pump Spur, Arizona Southern Tracks, including Wye.

SPEED RESTRICTIONS

MAXIMUM SPEED OF PASSENGER TRAINS MUST NOT EXCEED 50 MILES PER HOUR EXCEPT THAT BETWEEN YUMA AND TUCSON, VIA EITHER PHOENIX LINE OR GILA LINE, BETWEEN MANZORO AND DRURY AND BETWEEN BOWIE AND EAST SWITCH BAWTRY THE MAXIMUM SPEED MUST NOT EXCEED 60 MILES PER HOUR.

MAXIMUM SPEED OF FREIGHT OR MIXED TRAINS MUST NOT EXCEED 35 MILES PER HOUR EXCEPT THAT BETWEEN YUMA AND TUCSON, VIA EITHER PHOENIX LINE OR GILA LINE, BETWEEN MANZORO AND DRURY AND BETWEEN BOWIE AND EAST SWITCH BAWTRY THE MAXIMUM SPEED MUST NOT EXCEED 40 MILES PER HOUR.

NO PASSENGER TRAIN SHALL EXCEED A SPEED OF 40 MILES PER HOUR AROUND CURVES OF 5 TO 6 DEG. AND 30 MILES PER HOUR AROUND CURVES OF OVER 6 DEG., AND BETWEEN POINTS WHERE MAXIMUM SPEED IS 60 MILES PER HOUR SHALL NOT EXCEED A SPEED OF 50 MILES PER HOUR AROUND CURVES OF LESS THAN 5 DEGREES.

NO FREIGHT OR MIXED TRAIN SHALL EXCEED A SPEED OF 30 MILES PER HOUR AROUND CURVES OF 5 TO 6 DEG., AND 25 MILES PER HOUR AROUND CURVES OF OVER 6 DEG.

MAXIMUM SPEED OF SP-1, SP-2, F-1, F-3, F-4, AND F-5 CLASS ENGINES IN PASSENGER SERVICE IS AS FOLLOWS:

- (a) Tangent track—45 miles per hour.
- (b) Type F1 (Nos. 3600 to 3652 incl.), Restricted to same speeds on curves as applicable to other passenger power.
- (c) Type F3-F4-F5 (Nos. 3653 upward) and SP1-SP2. Restricted to 25 miles per hour on curves of 7 to 10 degrees inclusive, and on curves of less than 7 degrees subject to same restrictions applicable to engines of lighter type.

MAXIMUM ALLOWABLE SPEED OF CONSOLIDATED AND MIKADO ENGINES (57 INCH DRIVERS) IN PASSENGER SERVICE WILL BE 45 MILES PER HOUR. MIKADO ENGINES (63 INCH DRIVERS) IN PASSENGER SERVICE 50 MILES PER HOUR.

Trains must not exceed the speed in miles per hour shown below:

Page	BETWEEN	Passenger	Freight or mixed	Engines or Motor cars Backing
.....	Through interlocking limits with caution.....			
.....	Through crossovers, turnouts, except Dome, and two east crossovers Wellton.....	10	10	10
2-3	Yuma yard, Colorado River bridge and switch 800 ft. east of subway.....	15	15	15
2-3	Dome, and two east crossovers Wellton.....	20	20	15
2-3-4-5	Phoenix yard, 19th Ave. and 18th St.....	15	15	15
4-5	Kendall and Phoenix yard limits (second track).....	25	25	15
4-5	Kendall and Salt River bridge (south track).....	15	15	15
4-5-7	Mesa yard, west switch and east city limits.....	20	20	20
4-5	Tucson, North yard, South Line Jet. and signal 9851.....	15	15	15
4-5	Tucson, North yard, westward main track, signal 9853 and signal 9851.....		20	20
6	Two east crossovers Wellton.....	20	20	15
6	Litchfield Branch.....	20	20	15
6	Maricopa Branch.....	45	35	20
6	Maricopa, east leg wye.....	20	20	20
6-7	Gila yard, west and east switches.....	15	15	15
7	Tempe Branch.....	20	20	15
7	Mesa Branch.....	15	15	15
7	Casaba Branch.....	20	20	15
7	Florence Branch.....	30	30	20
8	Mescal interlocking limits, turnouts and on east connections, and turnouts and on west connections, when using normal route.....	35	25	15
8	Mescal, other crossovers and turnouts.....	15	15	10
8	Benson yard.....	30	30	20
8	Bowie yard, west and east switches.....	15	15	15
9	McQueen and Price.....	40	30	20
9	Price and Christmas.....	30	30	20
9	Ray Junction yard.....	15	15	15
9	Hayden Junction yard.....	15	15	15
9	R. & G. V. R. R.....	15	15	15
9	Tucson, South yard, South Line Jet. and South Yard Jet.....	15	15	15
9	Tucson yard, South Line Crossing and North yard, via Nogales Branch.....	15	15	15
9	Tucson and Nogales.....	40	35	20
9	Calabasas, east wye switch.....	15	15	15
9	Nogales yard.....	20	20	20
10	Bowie-Miami.....	40	30	20
10	Bowie yard.....	15	15	15
10	Safford yard.....	15	15	15
10	Globe yard.....	15	15	15
10	Globe, Broad Street crossing.....	6	6	6
10	Globe, Old Dominion high line.....	10	10	10
10	Miami yard.....	15	15	15
10	Miami yard limits-Live Oak.....	15	15	10

SPEED OF TRAINS REGULATED BY ORDINANCES THROUGH CITY LIMITS

Page	STATION	M. P. H.
2, 3	Yuma street crossings.....	5
4, 5, 7	Tempe.....	20
4, 5	Chandler.....	20
8	Willcox.....	30
9	Nogales.....	20
11	Safford.....	15
11	Pima.....	15

SPEED RESTRICTIONS—Continued.

OTHER MAXIMUM SPEEDS IN MILES PER HOUR AS FOLLOWS: M. P. H.

4300 class and heavier—passenger and freight service, Maricopa Branch.....	30
2900 class, 4200 class—in passenger service.....	40
4000 class—in passenger service.....	35
Mk-4 class passenger service.....	35
Mk-4 class freight service.....	25
Mikado engines between Winkelman and Christmas.....	20
Yard engines.....	20
Engines backing coupled in trains or light, on main line.....	25
Engines backing coupled in "other lines".....	20
Engines with broken spring hangers.....	25
Engines with main rod only removed.....	30
Engines with side rods only removed.....	30
Engines with both main and side rods removed.....	20
Trains handling steam derrick on tangent track, and will observe other speed restrictions for freight trains.....	25

Engines running light forward must not exceed the maximum speed permitted freight trains unless otherwise directed, except TW class must not exceed 30 miles per hour and the following classes must not exceed 35 miles per hour:

- T-1, 2, 7 to 23, 28, 31, 34, 36;
- T-3, 5, 25, 26, 32, 33, 37, 40;
- C-2 to 10, inclusive;
- C-18 to 23, inclusive;
- MK-5, 6, 7, 8, 9;
- F-1, 3, 4, 5, 6;
- SP-1, 2, 3.

Wooden passenger cars, when used in main line service, must be equipped with steel center sills and steel platforms, except

(a) Wooden baggage, express and other head-end cars not so equipped may be used, when entire consist of train is composed of such equipment, or may be handled on head end of passenger trains, provided consist thereof does not exceed seven cars, and inspection indicates movement can be made with entire safety.

(b) Wooden passenger-carrying cars not so equipped may be used in local passenger trains and in local extras, operated account Holiday or excursion traffic, provided speed of such extras is restricted to forty miles per hour. When consist of local regular or extra trains contain both wooden and steel passenger-carrying cars, the wooden equipment must be kept together and on the rear.

SPEED TABLE

Miles per Hour	1 Mile in Min. Sec.	Miles per Hour	1 Mile in Min. Sec.	Miles per Hour	1 Mile in Min. Sec.	Miles per Hour	1 Mile in Min. Sec.	Miles per Hour	1 Mile in Min. Sec.
6	10.00	21	2.51	31	1.56	41	1.27	51	1.11
8	7.30	22	2.43	32	1.52	42	1.25	52	1.09
10	6.00	23	2.36	33	1.49	43	1.23	53	1.08
12	5.00	24	2.30	34	1.45	44	1.21	54	1.07
15	4.00	25	2.24	35	1.42	45	1.20	55	1.06
16	3.45	26	2.18	36	1.40	46	1.18	56	1.04
17	3.31	27	2.13	37	1.37	47	1.16	57	1.03
18	3.20	28	2.08	38	1.34	48	1.15	58	1.02
19	3.09	29	2.04	39	1.33	49	1.13	59	1.01
20	3.00	30	2.00	40	1.30	50	1.12	60	1.00

STRUCTURES LESS THAN STANDARD CLEARANCE

Mile Post	Description
733.0	Yuma, ice platforms..... Side
755.2	Granite Spur, chute on crusher track will not clear car higher than ballast car..... Side
778.0	Gila River bridge..... Side
891.0	Agua Fria River bridge..... Side
907	Phoenix, ice platform..... Side
914	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
1007.0	Finney, ore chute..... Side
1029.6	Tubac, water tank spout..... Overhead and Side
1121.1	Nogales, ice platform..... Side
1008.1	Cienega Creek bridge..... Side
1033.6	San Pedro River bridge..... Side

STRUCTURES LESS THAN STANDARD CLEARANCE—Continued.

Mile Post	Description
1114.2	San Simon, water tank spout..... Overhead and Side
1137.5	Safford, water tank and spout..... Overhead and Side
1164.2	Geronimo, water tank and spout..... Overhead and Side
1201.0	San Carlos, water tank and spout..... Overhead and Side
1221.5	Globe, bins and powerhouse—river track..... Side
	platforms and buildings house track..... Side
	scale house, tracks No. 4 and 6..... Side
	lumber shed, track No. 11..... Side
	engine shed, fire hose house and 4 oil stand pipes—oil track..... Side
	warehouse, Solwico spur..... Side
1231.9	Miami, fence, Texas & Standard Oil track..... Side
	oil tanks and coal bins Texas Oil track..... Side
1234.1	Inspiration spur, chute..... Side
1225.4	Amster, ore chute, S. & B. mine spur..... Overhead and Side
	All water stations, pile driver S. P. 2534 will not clear water spouts on Globe Branch..... Side

Employees are warned that it is dangerous to ride on top or sides of cars at above mentioned points.

SURGEONS

Location	Name	Title
San Francisco..... Cal.	Dr. W. B. Coffey.....	Chief Surgeon and Manager
Yuma..... Ariz.	Dr. John W. Stacey.....	District Surgeon
Yuma.....	Dr. Charles S. Powell.....	Asst. District Surgeon
Yuma.....	Dr. W. C. Cain.....	Acting District Surgeon
Litchfield.....	Dr. R. L. Penn.....	District Surgeon
Buckeye.....	Dr. G. C. Rubel.....	District Surgeon
Phoenix.....	Dr. Geo. M. Brockway.....	District Surgeon
Phoenix.....	Dr. A. M. Tuthill.....	Assistant District Surgeon
Phoenix.....	Dr. J. E. Drane.....	Assistant District Surgeon
Phoenix.....	Dr. D. F. Harbridge.....	Oculist
Phoenix.....	Dr. W. A. Schwartz.....	Aurist
Phoenix.....	Dr. Win Wylie.....	Consulting Surgeon
Phoenix.....	Dr. W. O. Sweek.....	Consulting Surgeon
Tempe.....	Dr. R. J. Stroud.....	District Surgeon
Mesa.....	Dr. R. F. Palmer.....	District Surgeon
Mesa.....	Dr. George C. Truman.....	District Surgeon
Chandler.....	Dr. Jas. M. Meason.....	District Surgeon
Coolidge.....	Dr. H. E. Pinkerton.....	Emergency Surgeon
Gilbert.....	Dr. L. M. Thompkins.....	Emergency Surgeon
Florence.....	Dr. G. E. Huffman.....	District Surgeon
Ray.....	Dr. C. E. Utzinger.....	District Surgeon
Hayden.....	Dr. F. R. Winslow.....	District Surgeon
Gila.....	Dr. G. T. Wells.....	District Surgeon
Casa Grande.....	Dr. J. E. Redden.....	District Surgeon
Tucson.....	Dr. C. A. Thomas.....	Division Surgeon
Tucson.....	Dr. S. C. Davis.....	Division Surgeon
Tucson.....	Dr. J. B. Littlefield.....	Assistant Surgeon
Tucson.....	Dr. V. G. Presson.....	Assistant Surgeon
Tucson.....	Dr. R. A. Wilson.....	Assistant Surgeon
Tucson.....	Dr. M. C. Comer.....	Oculist and Aurist
Tucson.....	Dr. T. H. Cates.....	Assistant Oculist and Aurist
Nogales.....	Dr. W. F. Chenoweth.....	District Surgeon
Benson.....	Dr. J. N. Morrison.....	District Surgeon
Benson.....	Dr. R. E. Yellot.....	District Surgeon
Cochise.....	Dr. J. B. Ellis.....	District Surgeon
Willcox.....	Dr. J. C. Wilson.....	District Surgeon
Willcox.....	Dr. B. E. Briscoe.....	Assistant District Surgeon
Bowie.....	Dr. F. W. Parrish.....	District Surgeon
Lordsburg..... N. M.	Dr. C. P. Austin.....	District Surgeon
Lordsburg.....	Dr. C. B. Austin.....	Assistant District Surgeon
Safford..... Ariz.	Dr. J. N. Stratton.....	District Surgeon
Rice.....	Dr. S. M. Laughlin.....	District Surgeon
Globe.....	Dr. Clarence Gunter.....	District Surgeon
Globe.....	Dr. R. D. Kennedy.....	Assistant District Surgeon
Globe.....	Dr. W. A. Holt.....	Consulting Surgeon
Miami.....	Dr. C. M. Cron.....	District Surgeon
Miami.....	Dr. J. E. Bacon.....	Assistant District Surgeon
Miami.....	Dr. E. L. Christenson.....	Oculist and Aurist

HOSPITALS

General Hospital, Southern Pacific Hospital..... San Francisco, Calif.
 Division Hospitals, St. Mary's Hospital..... Tucson, Ariz.
 St. Joseph's Hospital..... Phoenix, Ariz.

LOCATION HOSPITAL STRETCHERS

Yuma, Gila, Maricopa, Phoenix, Tempe, Ray Junction, Tucson, Benson, Bowie, Lordsburg, Globe.

AVERAGE TARE WEIGHTS OF PASSENGER TRAIN CARS

Class	All Steel	Steel Under-Frame	Wood
Baggage, 60 ft.	93,070		
" 66 ft.	127,610		
" 70 ft.	122,620		
" (Dynamo)	98,730	87,120	81,120
Baggage and Mail, 60 ft.	103,620		
" " 69 ft.	124,760		
" " 70 ft.	129,140		
Baggage and Passenger	108,675	103,590	99,200
Baggage (CM&StP)	125,000	112,640	76,320
Express, Refr. (NP RR)		74,000	60,000
" " (GN RR)			70,000
" " (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	
Tea and Silk			48,180
Express, Horse	133,050		81,033
Postal	112,120		
Postal Storage, 40 ft.	74,530		
" " 60 ft.	105,120		
Club	146,210	122,300	
Official	170,700	155,370	109,370
" " (CM&StP)	141,000		
Chair	100,620		84,740
Coaches, 60 ft.	98,130		
" " 70 ft.	137,640		
" " 72 ft.	139,660		
" " 73 ft.	148,040		
" " 72 ft. Interurban	120,000		
" " " " (CM&StP)	133,000		
All-Day Lunch, Chair	105,970		81,210
" " Coach	103,875		
Cafe-Coach			117,200
Diner, 70 ft.		135,930	131,040
" " 72 ft.	155,330	146,930	134,530
" " 77 ft.	157,240	165,530	
" " 79 ft.	169,100		
Cafe-Observation	148,950		128,550
Observation		141,870	121,300
Pullman Observation	163,600	153,000	
" " Parlor	155,600	147,500	
" " Standard Sleeper	164,600	144,000	
" " Tourist	140,600	133,000	
(CM&StP) Tourist Sleeper	141,000		
Rail Car, Gas & Electric	143,360		
" " McKeen, 55 ft.	64,140		
" " " " 70 ft.	71,530		
Observation (Open Top)			62,000

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 Picocho via Phoenix	A. E. R. R.	195.91
	P. & E. R. R.	13.10
Total Main Lines		629.30
Branches		
Amster	A. E. R. R.	Amster Jet. to Amster 4.88
Benson-Fairbank	S. P. R. R.	Benson Jet., Nogales Branch to Benson, Initial Point E. P. & S. W. R. R. .64
Casaba	A. E. R. R.	Pozo Jet. to Casaba 4.79
	P. & E. R. R.	Tempe to Christmas 75.25
Christmas	A. E. R. R.	McQueen to Christmas 12.76
	R. & G. V. R. R.	Hayden Jet. to Hayden .32
		88.33
Cochise-Douglas	S. P. R. R.	Cochise to Initial Point A.E.R.R. .04
	A. E. R. R.	At Cochise 1.26
		1.30
Florence	A. E. R. R.	Florence Jet. to Poston 6.04
Globe	A. E. R. R.	Bowie to Inspiration Jet. 136.15
Hansen	A. E. R. R.	West Chandler to Hansen 2.17
Litchfield	A. E. R. R.	Litchfield to Litchfield Park 4.92
Maricopa	A. E. R. R.	Maricopa to Tempe Jet. 25.78
Mesa	A. E. R. R.	Phoenix & Eastern Jet. to Mesa 7.25
		7.25
Nogales	S. P. R. R.	At Tucson .63
	T. & N. R. R.	T. & N. R. R. Jet. to Calabasas 55.33
	N. M. & A. R. R.	Calabasas to Nogales 9.80
		65.81
Total Branches		348.06
Total		977.36

RATING OF LOCOMOTIVES—TUCSON DIVISION

IN Mts 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	Maricopa and Tempe Jct.	McQueen to Christmas	Christmas to McQueen	Pozo Jct. and Casaba
				Helper	Single	Single	Single	Single	Single	Single	Single	Single	Single
M-4	M-63 20/28 126	1615 to 1719	190	3050	2900	3050	2900			4100	3150	3750	3000
M-4	M-63 20/28 128-S												
M-4	M-63 20/28 135-S												
M-9	M-63 21/28 150-S												
M-11	M-63 22/28 153-S	1828 to 1830	210	3950	3800	3950	3800			5050	4100	4900	3900
M-11	M-63 22/28 162-SF												
T-1	T-63 20/26 112	2235 to 2273	180	2700	2600	2700	2600						
T-2	T-63 19/24 105												
T-5	T-69 19/24 112-S												
T-33	T-69 20/24 112-S												
C-9, 10	C-57 22/30 200-SF	2513 to 2599, 2698 to 2860	210	4800	4600	4800	4600	3000	4100	6760	4700	5600	
C-9, 10	C-57 22/30 194-S												
C-8	C-57 22/30 192-S												
TW-3	TW-50 20/26 120	2932 to 2945	170	3050	2900	3050	2900	2050	2600				
A-3	A-81 20/28 112-S	3025 to 3071	210	2650	2600	2650	2600	1850	2350	3450	2750	3300	2650
A-5	A-81 20/28 108-S												
A-5	A-81 21/28 108-S												
P-12	P-73 27/28 189-S-F	3120 to 3129	190	5000	4750	5000	4750						
Mk-2, 4	Mk-57 23 1/2/30 206-S	3200 to 3240	210	5600	5400	5600	5400			7400	5650	6750	
Mk-4	Mk-57 23 1/2/30 206-SF												
Mk-5, 6	Mk-63 26/28 210-S	3241 to 3277	210	6000	5750	6000	5750			7700	6100	7300	
Mk-5, 6	Mk-63 26/28 210-SF												
Mk-7, 8, 9	Mk-63 29/30 257-SF	3300 to 3324	176	5700	6350	5700	6350						
Mk-7, 8, 9	Mk-63 29/30 247-S												
F-1	F-63 27 1/2/32 273-S	3600 to 3652	200	5900	6700	5900	6700						
F-4, 5	F-63 29 1/2/32 306/B-61-SF												
F-5	F-63 29 1/2/32 306/B-62-SF												
Mt-1,3,4,5	Mt-73 28/30 246/B-60-SF	4300 to 4376	210	5700	6400	5700	6400						
				Helper 0.5 Yuma to East Yard Helper 1.0 Except Helper C-8, 9, 10 with Classes Mk-7, 8, 9 F-1, 4, 5; Mt-1, 3, 4 Pembroke to Mohawk, Lava to Sentinel, Gila to Estrella	Double Kim to Mohawk	Double Saddle to Harqua							

RATING OF LOCOMOTIVES—TUCSON DIVISION—Continued

Nominal Class	OFFICIAL CLASS	ENGINE NUMBERS	Boiler Pressure	EASTWARD				WESTWARD				EASTWARD				WESTWARD						
				Tucson-Mescal	Benson-Dragoon-San Simon Steins	Mescal-Benson-Dragoon-Willcox-Raso-San Simon Steins-Conrad-Pyra-Lordsburg	Willcox-Raso-Conrad-Pyra	Lordsburg-Pyra	Pyra-Mondel Steins-San Simon	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
T-36	T-63 20/26 118	2103 and 2104	190	1500	1150	5000	2200	2200	5000	2800	1700	1150	2850	1750	750	5000	1150	800	750	5000	2400	1900
T-37	T-70 24/28 146-S	2105 and 2106	176	1900	1450	6500	2900	3250	6500	3700	2200	1450	3700	2250	950	6000	1500	1050	950	6000	3150	2400
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
C-8, 9, 10	C-57 22/30	192-S 194-S 200-SF	210	2500	1950	8000	3750	4150	8000	4650	2900	1950	4900	3000	1310	8000	2000	1400	1310	8000	4170	3220
C-19	C-57 22 1/2 178-S	3410 to 3426	200	2300	1800	8000	3600	4000	8000	4450	2750	1900	4500	2750	1200	8000	1850	1300	1200	8000	3850	3000
P-12	P-73 27/28 189-S	3120 to 3129	190	2600	2000	8000	3900	4350	8000	4900	3000	2000	4850	2980	1300	8000	1980	1390	1300	8000	4100	3200
Mk-5, 6	Mk-63 26/28 210-S	3241 to 3277	210	3050	2400	8000	4550	5050	8000	5650	3500	2400										
Mk-7, 8, 9	Mk-63 29/30	257-SF 247-S	176	3500	2750	8000	5200	5800	8000	6500	4000	2750										
F-1	F-63 27 1/2 273-S	3600 to 3652	200	3700	2900	10000	5500	6100	10000	6850	4250	2900										
F-3	F-63 29 1/2 307-S	3653 to 3667	200	4200	3300	10000	6300	7000	10000	7800	4850	3300										
F-4, 5	F-63 29 1/2 306-SF	3668 to 3768	200	4750	3750	10000	7100	7850	10000	8800	5450	3750										
Mt-1, 3, 4	Mt-73 28/30 246/B-60-SF	4300 to 4362	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 25/28-30 317/B-60-SF	5000 to 5015	225	5300	4350	10000	8000	8600	10000	8650	6000	4350										
SP-2, 3	SP-63 25/28-30 317/B-61-SF	5016 to 5048	225	5300	4350	10000	8000	8600	10000	8650	6000	4350										
	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	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 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.

CLASS "C"—Consolidation engine
 "T"—Ten-wheelers
 "A"—Atlantic type
 "M"—Moguls

"TW"—Twelve-wheelers
 "Mk"—Mikado
 "P"—Pacific type
 "F"—2-10-2

"MT"—Mountain

Example:—Consolidation engine having 57-inch drivers, cylinders 22-inch diameter and 30-inch stroke, and weighing 187,000 pounds on drivers:

C-57—187
30

ASSISTANT SUPERINTENDENT
 J. C. GOODFELLOW

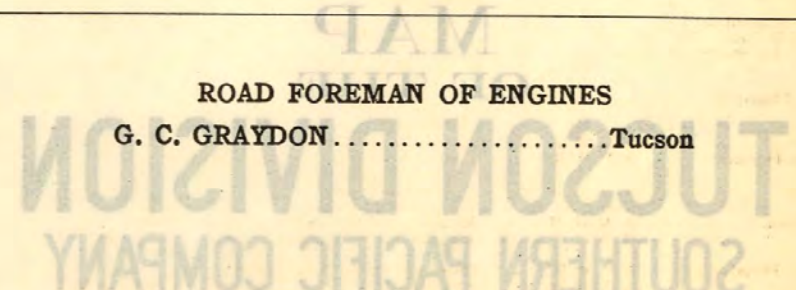
TRAINMASTERS:
 G. A. BAYS.....Yuma
 E. E. WHEELER.....Phoenix
 J. J. COWIN.....Tucson
 L. KOCHER.....Lordsburg
 MAX FIEDLER.....Globe

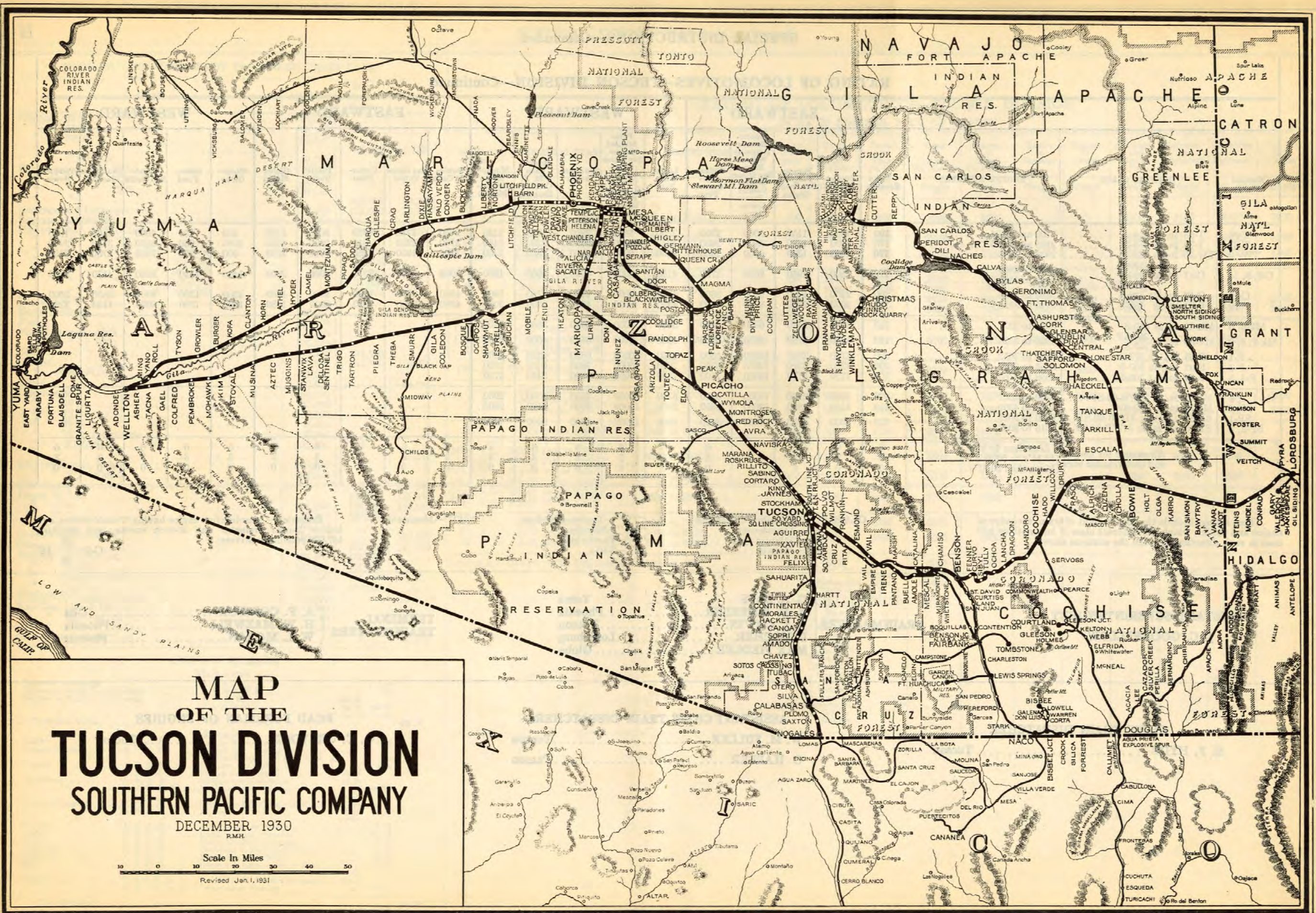
TERMINAL TRAINMASTERS:
 A. F. CORKRAN.....Gila
 H. W. MAXWELL.....Phoenix
 W. L. MORAN.....Phoenix

CHIEF TRAIN DISPATCHER
 S. F. HYDE.....Tucson

ASSISTANT CHIEF TRAIN DISPATCHERS
 W. M. FULLER.....Tucson
 O. HAEFER.....Tucson

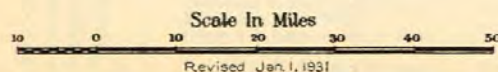
ROAD FOREMAN OF ENGINES
 G. C. GRAYDON.....Tucson





MAP
OF THE
TUCSON DIVISION
SOUTHERN PACIFIC COMPANY

DECEMBER 1930
R.M.H.



Scale In Miles
Revised Jan. 1, 1931