

R. B. Johnson

SOUTHERN PACIFIC COMPANY

PACIFIC LINES

TIME TABLE FOR THE TUCSON DIVISION

115



To Take Effect Sunday, September 12, 1943, at 12:01 A. M.

MOUNTAIN STANDARD TIME

For the government and information of employes only.

C. F. DONNATIN,
General Manager

J. W. CORBETT,
Assistant General Manager

R. E. HALLAWELL,
General Superintendent of Transportation

G. C. BAKER,
Superintendent of Transportation

H. R. HUGHES,
Superintendent

WELLTON SUBDIVISION

EASTWARD

WESTWARD

Main schedule table with columns for Capacity of sidings, Class (Second, First), Station (846, 902, 844, 842, 2, 372, 6, 4, 370, 44, 5, 43, 371, 1, 373, 3, 841, 901), Time Table No. 115 (September 12, 1943), Stations (YUMA, EAST YARD, ARABY, FORTUNA, BLAISDELL, KINTER, DOME, LIGURTA, WELLTON, MING, ROLL, TYSON, GROWLER, KOFA, HORN, HYDER, MONTEZUMA, SADDLE, GILLESPIE, CRAG, ARLINGTON, DIXIE, CONGER, BUCKEYE, LIBERTY, LITCHFIELD, CASHION, TOLLESON, FOWLER, CAMPO, 23rd AVE. PHOENIX, CROSSING-AT&SF WYE, PHOENIX, PHOENIX YARD), Distance from San Francisco/Phoenix Yard, and Arrive/Leave Daily times.

See page 3 for additional schedules between Phoenix and Phoenix Yard.

Table with 5 columns: Train, At, Receive or Discharge, To (or beyond), From (or beyond). Includes train 44 and 4 with stops at Buckeye, Litchfield, Phoenix, and East of El Paso.

- ADDITIONAL STATIONS
Granite Spur MP 755.2
Harqua MP 849.4
Hassayampa MP 867.6
Palo Verde MP 870.2
Norton MP 884.9

Table with 5 columns: Train, At, Receive or Discharge, To (or beyond), From (or beyond). Includes train 3 with stops at Litchfield, Buckeye, Hyder, San Diego or Colton, and El Paso.

PICACHO SUBDIVISION

EASTWARD

WESTWARD

Main timetable grid for Eastward and Westward directions, including station names like Phoenix, Tempe, Tucson, and arrival/departure times for various train classes (Second Class, First Class).

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.

See page 2 for additional schedules between Phoenix Yard and Phoenix.

Table: ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS. Columns: Train, At, Receive or Discharge, To (or Beyond), From (or beyond).

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WELLTON SUBDIVISION

EASTWARD

WESTWARD

Capacity of sidings in car lengths	EASTWARD						Distance from San Francisco	Time Table No. 115 September 12, 1943	Distance from Gila	WESTWARD					
	SECOND CLASS			FIRST CLASS						FIRST CLASS			SECOND CLASS		
		846 Freight	844 Freight	842 Freight						6 Argonaut	5 Argonaut			841 Freight	
		Leave Daily	Leave Daily	Leave Daily			Leave Daily		Arrive Daily			Arrive Daily			
68 WIP		6.05 PM	9.35 AM	2.30 AM			5.35 AM	770.0	85.7 f	1.45 AM		12.30 AM			
69 P		6.13	9.43	2.38			5.42	773.1		1.38		12.22			
63 P		6.19	9.49	2.44			f 5.47	776.4		f 1.33		12.16			
69 P		6.25	9.56	2.50			5.52	780.1		1.28		12.09			
63 P		6.31	10.02	2.56			5.57	783.8		1.23		12.02 AM			
67 P		6.39	10.10	3.04			6.04	788.6		1.17		11.54 PM			
W79 E67 P		6.50	10.20	3.15			f 6.12	792.6		f 1.12		11.47			
63 P		6.56	10.26	3.21			6.17	795.9		1.04		11.37			
64 P		7.04	10.34	3.29			6.23	800.5		12.58		11.29			
94 P		7.14	10.44	3.39			f 6.30	806.2		f 12.51		11.20			
63 WP		7.24	10.54	3.49			f 6.39	811.9		f 12.42		11.09			
94 P		7.30	11.00	3.55			6.44	815.8		12.36		10.54			
63 P		7.37	11.07	4.02			6.49	819.7		12.31		10.47			
68 P		7.41	11.11	4.06			6.52	822.0		12.28		10.43			
W76 E72 WOP		8.05	11.35	4.30			f 7.05	826.1		s 12.22		10.35			
76 P		8.15	11.45	4.40			7.11	829.6		12.09		10.29			
61 P		8.22	11.52 AM	4.47			7.16	833.1		12.04 AM		10.23			
65 P		8.33	12.03 PM	4.58			7.26	839.9		11.54 PM		10.12			
64 P		8.42	12.12	5.07			f 7.34	845.5		f 11.46		10.03			
63 P		8.50	12.20	5.15			7.41	850.3		11.39		9.55			
Yard Limits BKWOTYP		9.00 PM	12.30 PM	5.25 AM			s 7.50 AM	855.7		11.30 PM		9.45 PM			
		Arrive Daily	Arrive Daily	Arrive Daily			Arrive Daily			Leave Daily		Leave Daily			
		(2.55) 29.38	(2.55) 29.38	(2.55) 29.38			(2.15) 38.09			(2.15) 38.09		(2.45) 31.16			

WELLTON SUBDIVISION

YUMA VALLEY RAILROAD

SPECIAL INSTRUCTIONS

Capacity of sidings in car lengths	EAST-WARD	Distance from San Francisco	Time Table No. 115 September 12, 1943		WEST-WARD
			Litchfield Branch		
			STATIONS		
74 YP		889.7	TO LITCHFIELD	5.0	
30) 16) 17) Spurs		894.7	LITCHFIELD PARK	0.0	
			(5 0)		

Capacity of sidings in car lengths	EAST-WARD	Distance from Yuma	Time Table No. 115 September 12, 1943		WEST-WARD
			STATIONS		
			STATIONS		
Yuma Yard P		0.0	TO-R YUMA	21.0	
20		1.0	U. S. R. S.	20.0	
25 Spur		3.0	LUDY	18.0	
23		8.5	WILLETTS	12.5	
8 Spur		10.2	SPILLWAY	10.8	
25		15.0	SOMERTON	6.0	
		21.0	GADSDEN	0.0	
			(21.0)		

Southern Pacific Company Rules and Regulations of the Transportation Department, Air Brake Rules, and Special Instructions in Tucson Division Time Table govern on Yuma Valley Railroad.

Trains will not exceed speed 15 MPH except must not exceed 8 MPH over trestle at U.S.R.S.

Impaired side clearance at Spillway Spur, MP 10.25.

At Yuma, normal position of junction switch will be for S.P. yard tracks.

RULE 93: Yard limits are established at Yuma.

U.S.R.S. yard, Yuma, and Ludy siding must not be used.

Track out service and must not be used east of MP 16 (Somerton).

RULE 5. At Gila schedule time and train orders for first class trains apply at passenger station.

PICACHO SUBDIVISION

PICACHO SUBDIVISION

EASTWARD					Distance from San Francisco	WESTWARD				
Capacity of sidings in car lengths	SECOND CLASS			FIRST CLASS		STATIONS	Distance from Picacho	FIRST CLASS	SECOND CLASS	Arrive Daily *
	856	854	852	6				5	843	
	Freight	Freight	Freight	Argonaut				Argonaut	Freight	
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily					
Yard Limits BKWOTYP	4.30 PM	8.20 AM	12.20 AM	8.00 AM	856.7	TO-R GILA	81.0	s 11.20 PM	7.15 PM	
62 P	4.39	8.29	12.29	8.07	859.1	E. 3.0 - W. 3.7	77.6	11.13	7.05	
74 P	4.55	8.45	12.45	8.18	865.1	COLEDON	71.8	11.05	6.54	
62 P	5.07	8.57	12.57	8.25	869.1	E. 6.2 - W. 6.3	67.6	10.59	6.46	
73 P	5.17	9.07	1.07	8.30	871.8	TO BOSQUE	64.9	10.55	6.41	
72 YP	5.30	9.20	1.20	f 8.36	874.6	E. 3.9 - W. 3.8	62.1	f 10.51	6.36	
64 P	5.39	9.29	1.29	8.42	879.4	OCAPOS	57.3	10.44	6.27	
63 P	5.47	9.37	1.37	f 8.49	883.7	E. 2.6 - W. 2.7	53.0	f 10.38	6.19	
62 P	5.55	9.45	1.45	8.56	888.4	SHAWMUT	48.3	10.30	6.11	
63 P	6.03	9.53	1.53	9.01	892.8	E. 4.8 - W. 4.8	43.9	10.24	6.03	
N 110 S 146 WP	6.25	10.15	2.15	f 9.08	897.8	ENID	38.9	s 10.17	5.50	
61 P	6.35	10.25	2.25	9.16	902.9	E. 4.3 - W. 4.3	33.8	10.05	5.27	
70 P	6.45	10.33	2.33	9.23	907.7	HEATON	29.0	10.00	5.19	
63 P	6.55	10.41	2.41	9.30	912.5	E. 4.8 - W. 4.8	24.2	9.54	5.11	
Yard Limits 88 WP	7.07	10.52	2.52	s 9.48	918.8	TO MARICOPA	17.9	s 9.45	5.01	
13 Spur					921.0	E. 5.5 - W. 4.8	15.7			
61 P	7.16	11.01	3.01	9.55	923.7	LIRIM	13.0	9.32	4.53	
63 P	7.24	11.09	3.09	10.02	928.4	E. 4.7 - W. 4.7	8.3	9.26	4.45	
74 P	7.32	11.17	3.17	f 10.12	933.1	BON	8.8	f 9.19	4.37	
N 100 S 98 WOYYP	7.40 PM	11.25 AM	3.25 AM	f 10.20 AM	936.7	E. 5.0 - W. 5.0	8.6	f 9.19	4.37	
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		NUNEZ	0.0	9.10 PM	4.30 PM	
	(3.10)	(3.05)	(3.05)	(2.20)		E. 5.9 - W. 6.1		Leave Daily	Leave Daily	
	25.58	26.27	26.27	34.71		TO CASA GRANDE				
						E. 2.9 - W. 2.0				
						SECO				
						E. 2.3 - W. 3.0				
						ARIZOLA				
						E. 4.8 - W. 4.8				
						TOLTEC				
						E. 4.8 - W. 4.8				
						TO ELOY				
						E. 3.8 - W. 4.1				
						TO PICACHO				
						(81.0)				
						Time over District	(2.10)		(2.45)	
						Average Speed per Hour	37.38		29.45	

EASTWARD					Distance from San Francisco	WESTWARD				
Capacity of sidings in car lengths	SECOND CLASS			FIRST CLASS		STATIONS	Distance from Christmas	FIRST CLASS	SECOND CLASS	Arrive Daily *
	856	854	852	6				5	843	
	Freight	Freight	Freight	Argonaut				Argonaut	Freight	
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily					
81 P					923.6	McQUEEN	86.9			
72 P					927.0	E. 3.6 - W. 3.6	83.5			
26					932.0	GILBERT	78.5			
9					935.6	E. 5.2 - W. 4.7	74.9			
18 P					938.1	HIGLEY	72.4			
54 P					941.6	E. 3.6 - W. 3.4	68.9			
45 P					949.8	GERMANN	60.7			
27 WP					959.0	E. 2.4 - W. 2.5	51.5			
26 P					961.8	RITTENHOUSE	48.7			
26 P					969.0	E. 3.6 - W. 4.0	41.5			
23 P					975.2	QUEEN CREEK	35.3			
5 Spur					983.1	E. 8.0 - W. 7.9	27.4			
Yd. Limits P					984.6	MAGMA	25.9			
29					987.8	E. 9.3 - W. 9.2	22.7			
Yard Limits	Y	28	BWOP	14 KP	8 Spur	994.9	15.8			
						999.2	11.3			
						999.7	10.8			
						1000.2	10.3			
						1002.1	8.4			
						1003.5	7.0			
						1004.7	5.8			
						1007.0	3.5			
						1009.4	1.1			
41						1010.5	0.0			

RULE 5. At Gila schedule time and train orders for first class trains apply at passenger station.

At Hayden Jct. when train-order office is open, signal governs movement of trains and engines between Christmas Branch junction switch (1584 feet east of Hayden Jct.) and Hayden Jct. train-order office. Movements between these points are authorized by signal being placed in proceed position after being called for by one long, one short and one long sound of whistle. When train-order office is closed, movements may be made between these points "With Caution" if intervening track is seen to be clear.

Normal position Christmas Branch junction switch is for Kennecott Copper Corporation Railroad. Westward trains and engines via Kennecott Copper Corporation Railroad, and via Christmas Branch, must stop to clear Christmas Branch junction switch before proceeding as authorized above.

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 MPH.
 Grade Hayden Mills to Hayden Jct. 2.2%.
 Impaired overhead and side clearance at Hayden Mills Smelter.

RULE 99 must be complied with between Christmas Branch junction switch and Ray Consolidated derail on Kennecott Copper Corporation Railroad.

987.8
985.25
2.57

EASTWARD

PICACHO SUBDIVISION

WESTWARD

Capacity of sidings in car lengths	SECOND CLASS		FIRST CLASS		Distance from San Francisco	Time Table No. 115 September 12, 1943		Distance from Nogales	FIRST CLASS		THIRD CLASS	
	870	Freight	378	Mexican Express		379	Mexican Express		871	Freight		
	Lv. Tuesday, Friday		Leave Daily Ex. Sunday			Arrive Daily Ex. Sunday			Arrive Tues., Friday			
	6.00 AM		10.30 AM	988.9	TO-R TUCSON	TO-R TUCSON	65.9	s 4.35 PM				5.40 PM
					STATIONS							
					TO-R TUCSON	TO-R TUCSON	65.1					
					VIA SHOP YARD T. & N. R. R. JCT.							
					E. 7.1 - W. 7.4 E. 6.7 - W. 7.0							
					CONSAIR E. 2.0 - W. 2.4		58.4					
					XAVIER E. 9.2 - W. 9.2		56.0	4.13				5.07
					SAHUARITA E. 7.8 - W. 8.1		47.4	f 3.58				4.45
					CONTINENTAL E. 1.7 - W. 1.7		39.4	f				
					MORALES E. 3.8 - W. 4.5		37.7					
					CANOA E. 4.8 - W. 4.8		33.5	3.34				4.10
					AMADO E. 4.5 - W. 4.5		28.7	s 3.25				3.57
					CHAVEZ E. 2.9 - W. 2.3		24.2	3.16				3.42
					SOTOS CROSSING E. 5.7 - W. 6.3		21.7	f				
					OTERO E. 6.3 - W. 5.7		15.6	f 3.01				3.20
					CALABASAS E. 9.7 - W. 9.7		9.7	2.51				3.05
					NOGALES		0.0	2.30 PM				2.40 PM
					(65.9)			Leave Daily Ex. Sunday				Leave Tues., Friday
					Time over District			(2.05)				(3.00)
					Average Speed per Hour			31.44				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.

EASTWARD

PICACHO SUBDIVISION

WESTWARD

Capacity of sidings in car lengths	SECOND CLASS		FIRST CLASS		Distance from San Francisco	Time Table No. 115 September 12, 1943		Distance from Normal Jct.	FIRST CLASS		THIRD CLASS	
	79	WYP	75	Spurs		13	Spurs		79	WYP	75	Spurs	13	Spurs
						TO	TEMPE	2.1				
							CREAMERY	1.1				
							NORMAL JCT.	0.0				
							(2.1)					

EASTWARD

PICACHO SUBDIVISION

WESTWARD

Capacity of sidings in car lengths	SECOND CLASS		FIRST CLASS		Distance from San Francisco	Time Table No. 115 September 12, 1943		Distance from West Chandler	FIRST CLASS		THIRD CLASS	
	P	20	48			P	20		48		P	20	48
						TO	TEMPE JCT.	7.7				
							PETERSON	5.3				
							HELENA	2.9				
							WEST CHANDLER	0.0				
							(7.7)					

EASTWARD

BOWIE SUBDIVISION

WESTWARD

Capacity of sidings in car lengths	SECOND CLASS		FIRST CLASS		Distance from San Francisco	Time Table No. 115 September 12, 1943		Distance from Live Oak	FIRST CLASS		SECOND CLASS	
	884	Freight	382	Motor		381	Motor		883	Freight		
	Lv. Daily Ex. Monday		Leave Daily			Arrive Daily			Arrive Daily Ex. Sunday			
	8.00 AM		4.55 PM	1098.4	TO-R	BOWIE	136.4	s 3.05 PM				4.55 PM
				1097.9	STATIONS							
					E. 9.2 - W. 9.8							
					ESCALA E. 10.5 - W. 10.1		126.9	2.41				4.22
					TANQUE E. 7.3 - W. 7.6		116.5	f 2.22				3.50
					HAECKEL E. 7.7 - W. 7.7		109.2	2.09				3.30
					SOLOMON E. 2.7 - W. 2.3		101.7	s 1.57				3.10
					LONE STAR E. 1.9 - W. 2.5		99.0					
					SAFFORD E. 3.1 - W. 2.9		96.8	s 1.45				2.40
					THATCHER E. 5.1 - W. 5.1		93.7	s 1.33				1.33
					PIMA E. 1.1 - W. 1.5		88.7	s 1.23				1.05
					DUBLIN E. 2.3 - W. 1.6		87.6	1.19				12.50
					GLENBAR E. 3.9 - W. 4.6		85.4					
					CORK E. 2.0 - W. 1.3		81.3	f 1.09				12.25
					ASHURST E. 4.4 - W. 5.0		79.5					
					FT. THOMAS E. 5.1 - W. 4.7		75.0	s 12.58				12.03 PM
					GERONIMO E. 5.6 - W. 6.0		70.1	f 12.48				11.50 AM
					BYLAS E. 6.7 - W. 6.6		64.2	f 12.36				11.35
					CALVA E. 14.3 - W. 14.3		57.5	f 12.24 PM				11.20
					DILI E. 6.4 - W. 5.8		43.3	11.56 AM				10.40
					PERIDOT E. 3.6 - W. 4.2		37.0	f				
					SAN CARLOS E. 7.0 - W. 6.4		33.2	s 11.35				10.10
					REPPY E. 5.2 - W. 5.7		26.4					
					CUTTER E. 6.1 - W. 5.9		20.7	f 11.11				9.40
					PINAL E. 2.4 - W. 2.1		14.9	10.59				9.23
					GLOBE E. 4.6 - W. 4.8		12.7	10.50 AM				9.10 AM
					RADIUM E. 1.2 - W. 1.0		8.0					
					BURCH E. 2.9 - W. 2.9		6.9					
					CLAYPOOL E. 1.7 - W. 1.7		4.0					
					MIAMI E. 1.1 - W. 1.1		2.3					
					INSPIRATION JCT. E. 1.2 - W. 1.2		1.2					
					LIVE OAK		0.0					
					(136.4)			Leave Daily				Leave Daily Ex. Sunday
					Time over District			(4.15)				(7.45)
					Average Speed per Hour			29.11				15.96

All train and engine movements must be preceded by section crew from Inspiration Jct. to Live Oak.

EASTWARD

BOWIE SUBDIVISION

WESTWARD

Capacity of sidings in car lengths	SECOND CLASS						FIRST CLASS						Distance from San Francisco	Time Table No. 115 September 12, 1943	Distance from Lordsburg	FIRST CLASS		SECOND CLASS	
	866	964	864	962	862	960	376	4	6	370	44	2				43	1	845	
	Freight	Freight	Freight	Freight	Freight	Freight	Leave Daily	Golden State Limited	Argonaut	Leave Daily	Callifornian	Sunset Limited				California	Sunset Limited	Freight	
	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	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily	Arrive Daily	
Tucson Yard	5.45 PM	4.05 PM	8.40 AM	7.45 AM	1.45 AM	12.01 AM	11.00 PM	12.15 PM	12.05 PM	11.00 AM	8.35 AM	1.35 AM	983.9						
BKW FTYP													984.7						
4 Spur	5.58	4.20	8.53	8.00	1.58	12.15	11.09	12.24	12.14	11.09	8.44	1.44	987.7						
13 Spur P													990.7						
63 P	6.13	4.40	9.08	8.20	2.13	12.35	11.20	12.35	12.25	11.20	8.55	1.55	993.8						
P													998.6						
63 P	6.35	5.05	9.30	8.45	2.35	1.00	11.37	12.52	f 12.42	11.37	9.12	2.12	1003.3						
70 WP	6.57	5.40	9.52	9.29	2.57	1.35	11.54 PM	1.09	f 12.59	11.54 AM	9.29	2.29	1012.6						
N94 S85 CIYP	7.30	6.20 PM	10.25	10.01 AM	3.30	2.15 AM	12.15 AM	1.30 PM	f 1.20	12.15 PM	9.50 AM	2.48	1023.6						
77 P	7.40		10.35		3.40				1.27			2.58	1028.2						
E118 Yd.Lmts. W70 BKWOP	8.00		10.55		4.00				s 1.41			s 3.13	1032.6						
82 P	8.12		11.07		4.12				1.48			3.20	1035.8						
83 P	8.23		11.18		4.23				1.55			3.26	1038.5						
75 WP	8.34		11.29		4.34				2.03			3.33	1041.0						
63 P	8.43		11.38		4.43				2.09			3.39	1043.9						
63 P	8.52		11.47		4.52				2.16			3.46	1047.3						
65 P	9.01		11.56 AM		5.01				2.23			3.53	1050.8						
E85 W85 YP	9.14		12.09 PM		5.14				s 2.31			4.00	1053.9						
81 P	9.24		12.19		5.24				2.37			4.06	1058.3						
90 P	9.33		12.28		5.33				s 2.46			4.13	1063.9						
64 P	9.42		12.37		5.42				2.53			4.19	1069.6						
68 WP	9.51		12.46		5.51				s 3.04			f 4.26	1074.7						
61 P	10.01		12.56		6.01				3.11			4.32	1079.4						
99 P	10.13		1.08		6.13				3.17			4.38	1082.6						
64 P	10.22		1.17		6.22				3.25			4.45	1087.7						
64 P	10.28		1.23		6.28				3.30			4.49	1091.0						
63 P	10.34		1.29		6.34				3.35			4.53	1094.5						
E110 Yd.Lmts. W113 BKWFYP	10.55		1.50		6.55				s 3.58			s 5.05	1098.4						
64 P	11.04		1.59		7.04				4.05			5.12	1102.6						
63 P	11.11		2.06		7.11				4.10			5.17	1106.6						
63 P	11.18		2.13		7.18				4.15			5.22	1110.2						
63 BKWFYP	11.25		2.20		7.25				s 4.22			5.28	1114.2						
64 P	11.40		2.34		7.39				4.27			5.33	1117.6						
74 P	11.52 PM		2.46		7.51				4.33			5.39	1121.8						
70 P	12.07 AM		2.55		8.00				4.39			5.45	1125.0						
E66 W69 YP	12.25		3.15		8.20				f 4.51			5.57	1128.9						
62 P	12.32		3.22		8.27				4.56			6.03	1132.7						
63 P	12.39		3.33		8.34				5.01			6.08	1136.5						
62 P	12.47		3.41		8.42				f 5.07			6.14	1140.8						
63 P	12.54		3.47		8.49				5.12			6.19	1143.9						
Yard Limits BKWFYP	1.05 AM		3.55 PM		9.00 AM				s 5.20 PM			s 6.27 AM	1148.3						
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				Leave Daily	Leave Daily	Leave Daily	
	(7.20) 22.42	(2.15) 17.65	(7.15) 22.68	(2.16) 17.51	(7.15) 22.68	(2.14) 17.77	(1.15) 31.76	(1.15) 31.76	(5.15) 31.31	(1.15) 31.76	(1.15) 31.76	(4.52) 33.78				(4.11) 29.81	(3.45) 33.25	(5.15) 23.76	

Time Table No. 115
September 12, 1943

STATIONS

TO-R TUCSON
E. 0.8 - W. 0.8
T. & N. R. R. JCT.
E. 3.0 - W. 3.0
POLVO
E. 3.0 - W. 3.0
WILMOT
E. 2.7 - W. 3.4
RANKIN
E. 5.2 - W. 4.5
ESMOND
E. 4.2 - W. 4.9
VAIL
E. 9.2 - W. 9.3
PANTANO
E. 11.0 - W. 11.1

TO-R MESCAL
E. 4.8 - W. 4.7
CHAMISO
E. 4.4 - W. 4.9
BENSON
E. 3.4 - W. 2.7
FENNER
E. 2.5 - W. 2.6
CURVO
E. 2.7 - W. 2.6

TO SIBYL
E. 2.9 - W. 2.8
TULLY
E. 3.3 - W. 3.3
OCHOA
E. 3.8 - W. 3.8
LANCHA
E. 2.9 - W. 2.9
DRAGOON
E. 4.5 - W. 4.7
MANZORO
E. 5.2 - W. 5.3
COCHISE
E. 5.9 - W. 5.7
HADO
E. 5.1 - W. 5.2
WILLCOX
E. 4.7 - W. 4.6
DRURY
E. 2.9 - W. 3.2

TO RASO
E. 5.3 - W. 4.9
ALRICH
E. 3.6 - W. 3.6
LUZENA
E. 3.4 - W. 3.5
CHOLLA
E. 3.2 - W. 4.8

TO-R BOWIE
E. 4.9 - W. 3.3
HOLT
E. 4.1 - W. 4.1
OLGA
E. 3.5 - W. 3.5
KARRO
E. 3.7 - W. 3.7
SAN SIMON
E. 3.6 - W. 3.6
BAWTRY
E. 4.4 - W. 4.4
VANAR
E. 3.1 - W. 3.2
CAVOT
E. 3.7 - W. 3.7

TO STEINS
E. 3.8 - W. 3.8
MONDEL
E. 4.1 - W. 4.1
CONRAD
E. 4.3 - W. 4.3
GARY
E. 3.1 - W. 3.1
PYRA
E. 4.6 - W. 4.0

TO-R LORDSBURG

Be Governed by Current Time Table and Bulletins of Rio Grande Division.

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, under double track rules.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
1	Willox, Cochise	Discharge		East of El Paso

SPECIAL INSTRUCTIONS



RULE 2. Watch Inspectors:

S. A. Pope, Manager of Time Service.....	65 Market St., San Francisco	J. H. Huber
Yuma.....		Phoenix.....
Phoenix.....	H. H. Howard	
Tucson.....	Greenwald & Adams	
Tucson.....	Capo-Upp	
Nogales.....	E. M. Mather	
Lordsburg.....	H. H. Conder	
Globe.....	J. G. Cubitto	
Miami.....	J. G. Cubitto, Jr.	

RULE 2 (A). Watches subject to inspection must be presented to a designated inspector for comparison, and certification on standard watch certificate between the first and fifteenth of each month.

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 10 (H). Where yellow signals are displayed within limits of a length of track over which a maximum speed is designated in train order or time-table bulletin and no maximum speed is otherwise specified for the particular section of track protected by these yellow signals, trains must not exceed fifteen miles per hour thereover.

RULE 10 (J). Mile Post location of slow boards which restrict the speed of trains, as indicated on slow board, while engine of such train is passing distant signal three-fourths mile beyond the slow board:

Eastward			YUMA-PHOENIX			Westward		
738.5	742.1	744.9	768.3	.....	772.1	741.5	745.2	747.9
774	820.6	864	891.2	.....	896.3	814.4	852.8	877.4
779.3	829.4	869.9	896.3	.....	900.4	824.1	862.9	883.4
791.4	839.4	873.9	900.4	.....	904.2	832.9	867.4	899.8
800.7	847.6	879.9	.....	.....	804.2	842.8	873.4	903.6
810.9	859.5	888.2	.....	.....	.....	.....	.....	.....
			PHOENIX-TUCSON					
909.2	937.2	956.5	969.6	.....	909.2	931.2	960.3	946
932.6	941.6	960.3	.....	.....	912.5	936.2	963.8	949.7
						940.6	967.9	968.9
						944.9	973	971.9
						954.9	942.6	976.7
			WELLTON-GILA					
774.9	794.5	814.1	838.7	.....	774.8	785.6	817.7	834.8
778.5	799.1	820.4	844.1	.....	777.9	797.6	821.3	841.7
782.5	804.7	827.9	848.7	.....	781.8	802.1	823.7	847.1
791.1	810.4	831.8	853.7	.....	.....	808.2	831.3	851.8
			GILA-PICACHO					
870.2	881.8	901.2	916.8	.....	866.9	873.4	899.8	920.4
873.1	886.6	905.9	922	.....	870.6	876.5	904.6	925.3
877.8	890.9	910.9	926.7	.....	.....	881.2	909.3	930.1
						885.3	914.3	935
			TUCSON-LORDSBURG					
1001.7	1056.8	1089.6	1115.9	.....	1004.7	1048.7	1080.8	1111.7
1019.9	1062.1	1093.1	1120.4	.....	1013.9	1052.4	1084	1115.6
1026.9	1068	1096	1131.1	.....	1029.7	1055.3	1088.9	1118.9
1030.9	1073.1	1101.2	1135.2	.....	1034.7	1060	1096	1123.8
1034.4	1077.9	1105.1	1139.5	.....	1037.4	1065.3	1100.9	1138.1
1049.6	1080.8	1108.7	1142.6	.....	1039.9	1071	1104.1	1142.5
1052.4	1086	1112.3	1146.2	.....	1042.6	1076.2	1108.2	1145.5

Mile Post location of slow board which restricts the speed of trains, as indicated on slow board, while engine of such train is passing the home signal three-fourths mile beyond the slow board:

Eastward		TUCSON-LORDSBURG		Westward	
998.1	1070.5	.....	.....	1000	1120.6

RULE 14. Other engine whistle signals:
For diverging route, 0 — 0.
For siding, — 0 —.

RULE 14 (d). As specified below, — 0 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.
Picacho, Trains on Phoenix Line.

RULE 14 (e). As specified below, — 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.
- T. & N. R. R. Jct., Trains on Nogales Branch.
- Mescal, Trains on Rio Grande Division.
- Bowie, Trains on Globe Branch.

RULE 17. Mars Signal Light on engines shall be used when engine is moving at night, and in foggy or stormy weather. It must be dimmed or extinguished approaching passenger stations, and at other points as prescribed by rules.

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

RULE 23. 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.

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

RULE 82 (A). Unless otherwise instructed, crews arriving Phoenix on eastward first-class trains will assume same schedule at Phoenix and proceed to Phoenix Yard without clearance.

RULE 83. Identification of trains may be made on double track between Yuma and East Yard; Dome and Wellton; Stockham and Tucson; Phoenix and Phoenix Yard; to be applied at end of double track; and on second main track between Phoenix Yard and Kendall, to be applied at Kendall. Trains approaching each other between these stations must reduce speed sufficiently to permit identification and Rule 14 (k) will apply.

RULE 83 (A). At the following stations, only the trains indicated will register:
Phoenix—First-class trains.
Mescal—All trains.
Bowie—All 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..... All trains except on Globe Branch
Tucson—Engineers of light engines from east will leave register ticket with engine dispatcher for delivery to operator for registration.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following points:

West MP		East MP
731.51	Yuma.....	737.83
	" (Yuma Valley R. R.).....	0.22
900.96	Phoenix.....	908.79
920.45	Mesa.....	923.23
981.96	Tucson (Track No. 2).....	989.00
	" (Track No. 1—Rio Grande Div.).....	988.09
	" (Nogales Br.).....	987.42
854.20	Gila.....	857.70
917.00	Casa Grande.....	920.33
986.84	Ray Jct.....	988.72
998.80	Hayden Jct.....	1004.90
1046.37	Nogales.....	1049.89
1031.60	Benson.....	1034.01
1097.10	Bowie.....	1100.00
	" (Globe Br.).....	1099.50
1136.65	Safford.....	1138.34
1218.70	Globe.....	1223.22
1229.82	Miami.....	1234.20
1147.19	Lordsburg.....	1151.38

Comply with third paragraph Rule 93 within portions of main track not protected by automatic block signals which are located and described as follows:

Phoenix—Union Station and main track, between "Block System Limit" sign opposite dwarf signal 9059 and "Block System Limit" sign at MP 906.2 on westward main track and dwarf signal 9064 on eastward main track.

Tucson—Passenger tracks Nos. 1, 2 and 3, between end of double track at MP 983.66 and dwarf light Signal 9838.

RULE 95. Sections of Eastward schedules may be authorized by telegram from Chief Train Dispatcher, for movement from Phoenix to Phoenix Yard, where train order authority will be received.

RULE 97. Extra trains must not run via Creamery Branch unless train order so specifies.

RULE D-97 (A). Will apply between Phoenix and Phoenix Yard.

RULE 99. In territory where head-free rail is laid, unless torpedoes with spring clamps are used, duplicate torpedoes must be placed on the opposite rail so as to afford maximum protection.

Head-free rail is rail on which the square corners on under side of head are beveled up to about 60 degrees slope to within approximately one-half inch of top of rail.

At Tucson Passenger Station, first-class trains will move with caution on passenger tracks Nos. 1, 2 and 3, between end of double track at MP 983.66 and end of double track at MP 984.12. Trains standing on passenger tracks within these limits need not protect against first-class trains, but will comply with Rule 99(A).

RULE 99 (C). Globe Branch between Bowie and Globe is designated as territory over which train orders form "I," example (1) and (2) will apply.

RULE 103 (A). A flagman must precede all movements over:

- Yuma, 1st, 2nd, 3rd and 4th Sts.
- Tovrea, Washington St.
- Tempe (Creamery Branch), Mill Ave. and 8th St.
- Dateland, U. S. Highway 80.
- Naviska, U. S. Highway 84.
- Tucson, West Congress St.
- Nogales, Court and Park Sts.
- Globe, Hackney St. and eastward over Murphy St.
- Miami, Latham Blvd., Adonis Ave. and Miami Copper Co. highway crossing.

RULE 103 (B). Back-up hose must be used when making back-up movements with cars, between Hayden Jct. and Hayden Mills, and between North and South yards and/or P. F. E. yard, Tucson.

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

- Litchfield..... Switch to Litchfield Branch, for Phoenix Line main track.
- Phoenix..... West end of double track, for westward main track.
- Tempe..... Switch for Creamery Branch, for Phoenix Line main track.
- Tempe Jct..... Switch to Tempe Branch, for Phoenix Line main track.
- Normal Jct..... Switch to Creamery Branch, for Phoenix Line main track.
- McQueen..... Cross-over switch to Christmas Branch, for Phoenix Line main track.
- Picacho..... Normal position of junction switch for Gila Line. Operators will handle switches near train-order office for movements to and from Phoenix Line and both sidings.
- Tucson..... Switch to Nogales Branch, via shop yard, for passenger track No. 1.
- Tucson..... Switch to Nogales Branch, via T. & N. R. R. Junction, for main track No. 1.

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 trailed through by eastward trains.
- Naviska, derail on track to Marana Air Base located 10 feet east of east switch of interchange track.

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

- Fowler..... Track north of main track.
- Mesa..... Track south of main track.
- Ray Junction.... Track north of main track.
- Mohawk..... First track north of main track, for eastward trains. Second track north of main track, for westward trains.

- Sentinel.....Track north of main track, for eastward trains.
Track south of main track, for westward trains.
- Red Rock.....Track north of main track, for eastward trains.
Track south of main track, for westward trains.
- Jaynes.....Track north of main track, for westward trains.
Track south of main track, for eastward trains.
- Benson.....Track north of main track, for eastward trains.
Track south of main track, for westward trains.
- Dragoon.....Track north of main track, for westward trains.
Track south of main track, for eastward trains.
- Bowie.....Track north of main track, from west switch to
main track switch just east of station building, for
eastward trains.
Track north of main track, from east switch to
main track switch just east of station building, for
westward trains.
- Steins.....First track north of main track, for westward trains.
Second track north of main track, for eastward
trains.
- San Carlos.....Track north of main track.

Abbreviations used for sidings: "E" for Eastward, "W" for Westward, "M" for Middle, "N" for North, "S" for South.

RULE 204. Trains of Wellton and Picacho subdivisions with the same conductor operating through Phoenix may be issued train orders on one subdivision that affect their movement on either or both subdivisions, and these orders must be delivered by engineer to relieving engineer.

RULE 221. Trains must obtain clearance before leaving Tempe or from Creamery Branch, and at Bowie and Miami and at Phoenix Yard, except westward trains terminating at Phoenix.

Trains leaving Safford between 8:01 AM and 5:01 PM must obtain clearance.

Trains leaving Safford between 5:01 PM and 8:01 AM need not obtain clearance.

RULE D-251. Applies to the following tracks:
Both tracks between Phoenix and Phoenix Yard.
No. 1 Track from PFE yard to Park Ave., Tucson. Second class and extra trains and engines must receive proceed signal from yardman located near derail on west lead PFE yard, (white flag by day, green light by night). Yardman must receive authority from Yardmaster.
Westward track from Tucson to Stockham.
Second and third class and extra trains and engines must receive proceed signal from yardman located near Park and Sixth Avenues, (white flag by day, green light by night).

METHOD OF DISPATCHING TRAINS BETWEEN TUCSON AND MESCAL

Track No. 1 Mescal subdivision and Track No. 2 Bowie subdivision will be operated under double track rules, track No. 1 westward track and track No. 2 eastward track.

Limits of double track operation between Tucson and Mescal will be as follows:

Eastward—via track No. 2 to switch of west end crossover between Tracks No. 2 and No. 1 at Mescal.

Westward—via west end crossover between tracks No. 2 and No. 1 at Mescal and Track No. 1 from west switch of crossover to Tucson.

RULE D-97 (A) will apply on Tracks No. 1 and No. 2 between Tucson and Mescal, except that extra trains must obtain clearance, or proper train-order signal, or permission from train dispatcher before using either track.

Trains from Bowie Subdivision moving to Mescal Subdivision, and trains on Mescal Subdivision moving through Mescal, with the same conductor and engineer operating through Mescal, may be issued train orders on one subdivision that affect their movements on either, or both subdivisions. Any such train orders issued by one division to a train on the other division must be transmitted to the other division addressed to Dispatcher before complete is given to the order addressed to the train; and such orders must be shown on clearance issued by the division on which train originates.

RULE 82 (A). Regular trains and sections of schedules authorized on Bowie or Mescal Subdivisions are authorized to assume corresponding schedules or sections of schedules on Bowie or Mescal Subdivisions at Mescal without clearance.

Westward trains may leave Mescal without clearance provided train is properly cleared by train-order signal.

RULE 83 (B). When a regular train is checked on Bowie or Mescal Subdivision, it will not be necessary to check the register at Mescal against the same train.

RULE 505. AUTOMATIC BLOCK SYSTEM

Yuma: Westward trains moving against the current of traffic from crossover at east end of Yuma yard, Signal 7341 will display stop indication, and train will be required to stop before passing signal. If switches are properly lined and route clear, yardman will then signal engineman with white flag by day and green light by night, as authority to proceed against the current of traffic with caution, not exceeding 15 MPH.

If necessary to move a westward passenger train through the freight yard from the east end of yard to passenger station, yardman will verbally inform engineer of this fact and notify him as to track which is to be used. Trains under such conditions must move with caution not exceeding 10 MPH.

East Yard: Push buttons and indication light for releasing and clearing of Signals P-7374 and P-7372 under conditions described below are located in box on west side of signal case P-7374 and must be operated as follows:

When eastward train is on eastward main track west of Signal P-7374, or any switch open on eastward main track between Signal P-7374 and battery box 2000 feet west of Signal 7356, and it is desired to make eastward movement from yard track No. 1, member of crew will press push button 7372 and hold same until indication light opposite push button is illuminated. After an interval of two minutes, Dwarf Signal P-7372 will indicate "proceed" if block is clear.

Eastward train on yard track No. 1 to let eastward train pass must not pass approach circuit sign located 500 feet west of Dwarf Signal P-7372 unless necessary. If necessary to occupy approach circuit, member of crew will immediately press push button 7374 and hold same until indication light opposite push button is illuminated, to prevent delay to eastward train on main track. After an interval of two minutes Signal P-7374 will indicate "proceed" for passing train if block is clear.

Phoenix: Crossing—AT&SF Wye.
If either of these signals indicate "stop," train or engine, after stopping, and observing wye track to be clear of opposing movements, may proceed in accordance with Rules 509(F) or 509(J), and in addition must provide flag protection on the intersecting track unless derail thereon is in derailing position.

Kendall: Eastward trains on main track, stop west of Signal 9112 if waiting for or meeting a train.

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

Picacho: Signal 9374 will require a two-minute interval to clear after switch on north siding is lined for movement to main track if it is desired to make an eastward movement from north siding ahead of eastward train on main track or eastward train occupying approach circuit on south siding.

Push buttons and indication lights for releasing and clearing of Signals P-9376 and P-9378 under conditions described below are located in box on west side of signal case P-9376 and must be operated as follows:

When eastward train is on main track west of Signal P-9376 and it is desired to make eastward movement from south siding ahead of eastward train on main track, member of crew will press push button 9378 and hold same until indication light opposite push button is illuminated. After an interval of two minutes, Signal P-9378 will indicate "proceed" if block is clear.

Eastward train on south siding to let eastward train pass must not pass approach circuit sign located 500 feet west of Signal P-9378 unless necessary. If necessary to occupy approach circuit, member of crew will immediately press push button 9376 and hold same until indication light opposite push button is illuminated, to prevent delay to train on main track. After an interval of two minutes, Signal P-9376 will indicate "proceed" for passing train if block is clear.

Signal P-9377. Upper unit will govern movement on main track. Middle unit will govern movement to and on north siding. Lower unit will govern movement to and on south siding. When middle or lower unit indicates "caution" a preceding movement on siding is indicated.

Jaynes: Push buttons and indication lights for releasing and clearing of Signals P-9776 and P-9778 under conditions described below are located in box on west side of signal case P-9776 and must be operated as follows:

When eastward train is on main track west of Signal P-9776 and it is desired to make eastward movement from siding ahead of eastward train on main track, member of crew will press push button 9778 and hold same until indication light opposite push button is illuminated. After an interval of two minutes, dwarf signal P-9778 will indicate "proceed" if block is clear.

Eastward train on siding to let eastward train pass must not pass approach circuit sign located 500 feet west of dwarf signal P-9778 unless necessary. If necessary to occupy approach circuit, member of crew will immediately press push button 9776 and hold same until indication light opposite push button is illuminated, to prevent delay to train on main track. After an interval of two minutes, Signal 9774 will indicate "proceed" for passing train if block is clear.

Tucson: Account no overlap on Light Signal 9838 located just east of Tucson yard office, and no overlap on Light Signal 9841 located just west car shop on Nogales Branch, trains and engines moving between these signals, and on passenger track No. 1 between west end of car shed and Light Signal 9838, must do so with caution.

Track No. 2 between Tucson and Mescal:
Eastward trains will be governed by Rule 509 (F) applicable to double track.

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

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

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

RULE 510. The following block signals equipped with triangular number plate displaying the letter "P", have included in their control limits some special protective device:

Eastward Signals	Protection	Westward Signals
P- 7372	Spring switch end of double track, East Yard...	P- 7375
P- 7374	Spring switch east end of yard track No. 1, East Yard.....	
P- 7532	Spring switch end of double track, Dome.....	P- 7535
P- 9052	Spring switch, west end of freight lead, Phoenix. Spring switch, east end double track, Phoenix Yard.....	P- 9075
P- 9376	Spring switch, east switch of south siding, Picacho.....	P- 9377
P- 9402	Spring switch, east switch of siding, Ocatilla...	P- 9411
P- 9436	Spring switch, east switch of siding, Wymola...	P- 9445
P- 9508	Spring switch, east switch of eastward siding, Red Rock.....	P- 9521
P- 9576	Spring switch, east switch of siding, Naviska...	P- 9587
P- 9668	Spring switch, east switch of siding, Rillito....	P- 9673
P- 9716	Spring switch, east switch of siding, Cortaro...	P- 9725
P- 9776	Spring switch, east switch of eastward siding, Jaynes.....	P- 9777
P- 9778	Spring switch, end of double track, Stockham...	P- 9813
P- 9810	Spring switch, east switch of siding, Chamiso...	P-10287
P-10408	Spring switch, west switch of siding, Sibyl.....	
P-11322	Spring switch, east switch of siding, Sibyl..... Spring switch, west switch of siding, Mondel...	P-10415 P-11329

RULE 516: Overlap posts:
23rd Ave. Phoenix..... Middle of Siding Eastward trains.
Middle of Siding Westward trains.
McQueen..... Middle of Siding Eastward trains.
Roskruge..... Middle of Siding Eastward trains.
Middle of Siding Westward trains.
Cortaro..... Middle of Siding Eastward trains.
Pembroke..... Middle of Siding Westward trains.
Mondel..... Middle of Siding Eastward trains.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows, and speed indicated must not be exceeded while passing over them:

	NORMAL POSITION	MPH
	Psg. Frt.	
East Yard.. End double track... Westward track.. Trailing eastward..	25	25
Dome..... End double track... Eastward track.. Trailing westward..	30	30
	Facing eastward...	25 25
Picacho.... East end south siding..... Main track.... Trailing eastward..	25	20
Ocatilla.... East end siding.... Main track.... Trailing eastward..	25	20
Wymola.... East end siding.... Main track.... Trailing eastward..	25	20
Red Rock... East end eastward siding..... Main track.... Trailing eastward..	25	20
Naviska.... East end siding.... Main track.... Trailing eastward..	25	20
Rillito.... East end siding.... Main track.... Trailing eastward..	25	20
Cortaro.... East end siding.... Main track.... Trailing eastward..	25	20
Jaynes.... East end eastward siding..... Main track.... Trailing eastward..	25	20
Stockham... End double track... Eastward track.. Trailing westward..	35	35
Chamiso.... East end siding.... Main track.... Trailing eastward..	25	20
Sibyl..... West end siding.... Main track.... Trailing westward..	25	20
Sibyl..... East end siding.... Main track.... Trailing eastward..	25	20
Mondel.... West end siding.... Main track.... Trailing westward..	25	20

Spring switches not equipped with facing point locks are located as follows, and speed indicated must not be exceeded while passing over them:

	NORMAL POSITION	MPH
	Psg. Frt.	
Yuma, Colorado River Bridge:		
West end.. End double track... Westward track.. Trailing eastward..	8	8
East end.. End double track... Eastward track.. Trailing westward..	8	8
East Yard.. East end yard track 1..... Main track.... Trailing eastward..	25	20
	Facing westward..	15 15
Phoenix... West end freight lead..... Main track.... Trailing westward..	15	15
	Facing eastward..	15 15
Phoenix Yd.. East end double track..... Westward track.. Trailing eastward..	15	15
	Facing westward..	15 15

SPECIAL INSTRUCTIONS

RULE 605. INTERLOCKING WELLTON

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

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 building are hand-thrown, but must not be used until permission is secured from signal operator.

PICACHO

Limits extend between eastward signals 9366-SA and 9796-SA and westward signals 9801-SA, 9369-SA and 9367-SA.

When middle or lower units of signal 9366-SA or 9796-SA indicates caution there is a preceding movement on siding beyond interlocking limit.

West end of north siding will be at signal 9801-SA and west end of south siding will be at signal 9367-SA and siding is in automatic block signal system.

TUCSON, SIXTH AVENUE

Limits on eastward track from interlocking signal opposite automatic block signal 9835 to end of double track and on westward track from end of double track to signal 9835.

Limits on Independent Icing Lead between main track switch and dwarf signal located approximately 240 feet west of Sixth Avenue Interlocking Tower.

Limits on freight train yard lead between main track switch on westward main track and dwarf signal located 240 feet west of Sixth Avenue Interlocking Tower.

One long sound of the engine whistle will be signal to Towerman for movement via Independent Icing Lead and westward main track with current of traffic. Whistle signal to be used only when necessary.

Signals prescribed by Rule 628 may be given from tower.

MESCAL

Interlocking signals of the Rio Grande Division will display indication in the upper quadrant. Signal arm extended upward parallel to signal mast indicates "proceed."

Limits are between home signals governing east switch of east crossover and west switch of west crossover on Rio Grande Division, and home signals governing east and west switches of sidings on Tucson Division. Switches are controlled by signal operator, except switches leading from north siding to water and outfit spurs; from south siding to both legs of wye and to west end of coal track. 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 prescribed 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.

TAKE-SIDING INDICATOR

RULE 705. Picacho: When letter "S" is displayed, the letter "N" or "S" will also be displayed. When the letter "N" is displayed in conjunction with the letter "S," westward trains will use north siding. When the letter "S" is displayed in conjunction with the letter "S," westward trains will use south siding. This indicator located on Signal 9385.

RULE 740. ABSOLUTE-PERMISSIVE BLOCK SYSTEM YUMA-COLORADO

Operation over single track and spring switches by absolute-permissive block system rules between absolute signals west of bridge and absolute signals east of bridge, speed of 8 miles per hour must not be exceeded until engine has cleared single track and spring switches.

Signal governing eastward movement against current of traffic on westward main track east of bridge will indicate "proceed" only when train or engine is on approach circuit and push button opposite signal is pressed.

Signal governing westward movement against current of traffic on eastward main track east of bridge will indicate "proceed" only when train or engine is within 275 feet of signal.

When train or engine has received "proceed" indication from either signal east of bridge and is holding the indication by reason of standing within less than 275 feet of signal, the signal may be released and "proceed" indication secured on adjoining track by pressing proper push button located on signal case adjoining high signal after train it is desired to move has entered approach signal circuit. Pressing push button 7321 P. B. will place dwarf signal at "stop" and clear high signal. Pressing push button 7323 P. B. will place high signal at "stop" and clear dwarf signal.

High signal west of bridge will not indicate "proceed" until after engine has passed overlap post 1100 feet west of this signal.

Eastward train waiting at Colorado for westward train will remain west of overlap post.

Eastward freight trains held out of Yuma yard by Yardmaster's instructions will remain west of signal 7314.

Directions for use and operation of push buttons located inside push button box.

In case of failure of absolute signals, in addition to complying with absolute-permissive block system rules inspection of spring switches must be made.

RULE 824. INSTRUCTIONS FOR SETTING HAND BRAKES:

YUMA

Freight Trains Four brakes on east end. East Yard Ten brakes on west end. Five brakes on east end.

PHOENIX

Freight Trains Two brakes on west end. Two brakes on east end.

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 to 11 incl. Fifteen brakes on west end.

This also applies to P.F.E. tracks if crossings are not cut.

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 securely set after train or cut has stopped, unless yardmen immediately take charge and yard engine is coupled to cars. Any employe releasing any of these brakes must set as many others to replace them.

RULE 836. Cars moved from one station to another ahead of engine on descending grade must be chained to the engine. Switching movement on descending grades must be protected by a derail. When practicable engine must be kept on descending grade end of cars.

TRAIN INSPECTION

Engines running light on descending grades must stop for inspection at freight train inspection points.

Freight trains must be inspected at each water stop. When conditions are favorable, and in the judgment of conductor and engineer it is safe to do so, and when additional stops can thereby be avoided, freight trains may run between water stops without stopping for inspection, provided the distance is not over 60 miles, except freight trains and light engines may run between Tucson and Maricopa, and between Aztec and Yuma, for inspection. This does not relieve trainmen, however, from making inspection when stops permit, or whenever it is necessary in the judgment of conductor or engineer. On branch lines distance of 40 miles must not be exceeded, and on descending grade must stop at Cutter.

Trains, including military trains, made up in part of freight cars or cabooses equipped with cast iron wheels are required to comply with rules and time-table instructions applying to freight trains as they relate to stopping for train inspection, and speed restrictions.

Cars bearing placards denoting contents are explosive, inflammable, poisonous or otherwise dangerous, must be given careful inspection at all points where train inspection is made.

AIR BRAKE RULES

RULE 24. Freight trains may pass

Mescal, Eastward Estrella, Dragoon and Steins, Westward Pinal, Eastward and Westward

without stopping for purpose of rear end air test if proceed signal is given from rear by trainmen, after complying with Air Brake Rule 4, and air gage indicates required air brake pressure. Speed approaching summit must not exceed 15 MPH.

If proceed signal is not given or received, train must stop and rear end air test be made.

RULE 33. Retainers will be used on grades of 1.4% to 1.5% on freight trains of less than 110 M's per operative brake when necessary in the judgment of conductor and engineer.

On freight trains averaging 110 M's and over on grades of 1.4% to 1.5% and on all freight trains on grades of 1.5% and over, retainers will be used as follows:

Table with 2 columns: Location and Retainer/M's. Includes Mescal to Benson (1.4% grade, One Retainer for each 150 M's), Steins to Mondel (1.4% grade, 150 M's), Steins to Bawtry (1.4% grade, 150 M's), Sibyl to Benson (1.4% grade, 150 M's), Pinal to Globe (2% grade, 120 M's), Globe to Burch (2% grade, 120 M's), Live Oak to Miami (3% grade, 100 M's), Miami to Burch (1.4% grade, 150 M's), Pinal to Cutter (2.2% grade, 120 M's).

When retainers are used, stops will be made for inspection and to permit heat of wheels to equalize, as follows:

Eastward: Chamiso Westward: Fenner Vanar

RULE 38. Gila—When engine crew and/or train crew is changed on passenger trains, but engine is not changed and no angle cock has been closed except for detaching cars on the rear, rear-end air brake test will be made as follows:

On a passenger train after the brake pipe has been charged to standard pressure, the engineer will apply the brakes with a 10-pound reduction, then signal the trainmen by one sound of the whistle. The angle cock on the rear of the train will then be opened gently, allowing only enough air to escape to cause brake pipe gage hand in cab to fall without making an emergency application, and then closed. When the engineer notes the hand falling he will answer with two sounds of the whistle. The trainman will immediately signal by four sounds of the communicating signal to release the brakes. Engineer will then release the brakes by placing the automatic brake valve handle in release until brake pipe is charged to not less than 5 pounds below standard pressure, slowly return it to running position, then wait until brake pipe pressure has settled and make one short release by moving the handle momentarily to release and back to running position.

This test to be followed by running test in accordance with Rule 39 as soon as speed permits after starting train.

Rule 39.—Running air-brake test not required of eastward passenger trains approaching Crossing—AT&SF Wye.

Incoming passenger enginemen will leave automatic air brakes set on 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.

RULES 40, 41 and 42. When making a station or other ordinary stop with a passenger train of any length up to 25 cars, close locomotive throttle to drifting position and make an initial brake pipe reduction of 6 pounds. This may be increased by additional reductions as required. When speed has been reduced to approximately 10 miles per hour, close locomotive throttle and place automatic brake valve handle in release position (for example 6 seconds for 15 cars and 10 seconds with 20 cars or more) and recharge the system. Return brake valve handle to running position, retaining not to exceed 10 lbs. of driver brake cylinder pressure. Complete the stop with moderate brake pipe reductions totaling not more than 8 lbs., allowing engine brakes to apply with the train brakes, and hold all brakes applied until the train stops.

For spot stops, as for fuel or water, proceed as outlined in first part of this rule. When the speed has been reduced to approximately 10 miles per hour, close the locomotive throttle, place the automatic brake valve handle in release position and recharge the system. Return the automatic brake valve handle to running position, retaining not to exceed 10 lbs. of driver brake cylinder pressure. The stop may be completed with the Independent Brake Valve, using the required locomotive brake cylinder pressure and avoiding slack action due to rapid increase or decrease of engine brake cylinder pressures.

On heavy ascending grades the train may be pulled to a stop without the use of brakes.

Passenger trains of more than 25 cars must be handled under freight trains rules.

MISCELLANEOUS

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

Aztec, water rack, or by closing valve between treater and water column.

Sentinel, water rack and east water column.

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.

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

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

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

Saddle, emergency water station, take only enough water to reach next water station.

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

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

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

Nogales Branch, water station MP 1029.6.

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, engine must be cut off before spotting at column.

4. One helper as restricted Par. 4(b) and 4(g) may be placed behind caboose if of steel underframe construction and cars ahead of caboose are not rear end cars; helper placed ahead of caboose must be ahead of rear end cars.

Road engines double-heading or helper engine may be placed on head end of freight train when tonnage does not exceed 75 per cent of the total rating of both engines.

In helper service:

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

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

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

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

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

4(a). For the purpose of pushing trains out of yards:

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

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

Air will not be coupled through pusher engine.

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.

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

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

5. Litchfield, gate at entrance Airplane Spur is locked with Government lock, and to gain entrance it will be necessary for engineer to sound a long and short blast of steam whistle and the watchman on duty will take care of the opening and closing of the gate.

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

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 around plant.

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

Coolidge, cars must not be detached in motion to Indian Service spur. Gate at entrance must be kept closed and locked when not in use.

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

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

7. Capacity of sidings between clearance points is based on an average car length of 49 feet not including engines and cabooses.

Figures between station names on schedule pages indicate distance from initial switch of siding at one station to initial switch of siding at next station. If no siding it is distance to points where time applies.

10. ENGINES HEAVIER THAN THOSE SHOWN MUST NOT OPERATE ON FOLLOWING LINES OR TRACKS:

Mk 2, 4, 5 & 6 CLASS

Creamery Branch.

Tempe Branch sidings and spurs.

Tempe..... Tempe Milling Co., Phoenix Mill and gravel pit spurs.

Tracks 2 and 3.

Mesa..... McKellips, Standard Oil, and Texas Oil spurs.

Shell Oil and Independent Cotton & Oil Co. spurs.

Mutual Cotton Oil spur.

Union Oil Co. spur.

Mesa Milling Co. spur.

Christmas Branch.

Nogales Branch.

Globe Branch.

C 8, 9, 10 & P CLASS

Kendall..... River track east of spur.

Creamery Branch.... Siding.

Creamery..... Track east of Creamery plant.

Magma..... Spur.

Christmas Branch.... Between Winkelman and Christmas.

Engines must not use:

Spurs: Buckeye, Seaside Oil Co.; Burns.

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

Between MP 1184 and MP 1196, Globe Branch, look out for rock and land slides.

11. Phoenix, freight trains will use freight lead between Signal P-9052 and west end of double track.

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.

Bowie, No. 5 track in west yard must be kept clear for through movement.

15. Yuma, eastward freight trains must not pass Signal 7328 and westward trains, except first-class must not pass Signal 7341 without receiving proceed signal from yardman, using white flag by day and green light by night.

Tucson, westward freight trains must not pass Signal 9875 or first crossover switch west of Signal 9851 without proceed signal from yardman, using white flag by day and green light by night.

Eastward freight trains, before entering train yard, after passing Sixth Avenue interlocking, must receive proceed signal from yardman, using white flag by day and green light by night.

Westward trains must not pass east crossover switch opposite light Signal 9838 located just east of Tucson yard office, without proceed signal from yardman, unless this switch is lined for movement on Passenger track No. 1.

20. Handling of freight cars in trains behind passenger cars is prohibited except passenger equipment may be placed in head end of mixed trains when carrying personnel and equipment in connection with military and naval movements. This does not refer to a baggage, express, or mail car, or a caboose.

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

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

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

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

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE

Employes 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
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 out (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
1201.0	San Carlos, water tank and spout..... Overhead and Side

SURGEONS

LOCATION	NAME	TITLE
San Francisco.....	Dr. C. A. Walker.....	Chief Surgeon and Manager
Yuma.....	Dr. W. A. Phillips.....	District Examiner and Surgeon
Yuma.....	Dr. C. W. Cain.....	Asst. District Surgeon
Yuma.....	Dr. J. H. Sturges.....	Oculist
Buckeye.....	Dr. G. C. Rubel.....	District Surgeon
Litchfield.....	Dr. R. L. Penn.....	District Surgeon
Phoenix.....	Dr. A. M. Tuthill.....	District Examiner and Surgeon
Phoenix.....	Dr. J. E. Drane.....	Asst. District Surgeon
Phoenix.....	Dr. N. A. Ross.....	Asst. District Surgeon
Phoenix.....	Dr. R. H. Stevens.....	Asst. District Surgeon
Phoenix.....	Dr. S. R. Caniglia.....	Asst. District Surgeon
Phoenix.....	Dr. D. F. Harbridge.....	Oculist
Phoenix.....	Dr. W. A. Schwartz.....	Aurist
Phoenix.....	Dr. B. L. Melton.....	Associate Aurist
Phoenix.....	Dr. R. F. Palmer.....	Consulting Physician and Surgeon
Tempe.....	Dr. R. J. Stroud.....	District Surgeon
Mesa.....	Dr. W. S. Sharp.....	District Surgeon
Chandler.....	Dr. J. M. Meason.....	District Surgeon
Chandler.....	Dr. A. G. Rice.....	Asst. District Surgeon
Coolidge.....	Dr. G. S. Walker.....	Emergency Surgeon
Gilbert.....	Dr. L. M. Tompkins.....	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. M. H. Axline.....	District Examiner and Surgeon
Casa Grande.....	Dr. J. E. Redden.....	District Surgeon
Tucson.....	Dr. C. A. Thomas.....	Assistant to Chief Surgeon and Exam.
Tucson.....	Dr. R. C. Dryer.....	District Surgeon
Tucson.....	Dr. N. K. Thomas.....	Division Surgeon
Tucson.....	Dr. C. C. Whittle.....	Aurist and Oculist
Nogales.....	Dr. J. S. Gonzales.....	District Examiner and Surgeon
Nogales.....	Dr. C. S. Smith.....	Oculist and Aurist
Benson.....	Dr. A. N. Shoun.....	District Examiner and Surgeon
Willcox.....	Dr. J. C. Wilson.....	District Surgeon
Willcox.....	Dr. B. E. Briscoe.....	District Surgeon
Bowie.....	Dr. F. W. Parrish.....	District Examiner and Surgeon
Lordsburg.....	Dr. C. B. Austin.....	District Surgeon
Safford.....	Dr. J. N. Stratton.....	District Surgeon
Safford.....	Dr. F. W. Butler.....	Asst. District Surgeon
San Carlos.....	Dr. J. I. Sackler.....	District Surgeon
Globe.....	Dr. C. Gunter.....	District Examiner and Surgeon
Miami.....	Dr. C. M. Cron.....	District Surgeon
Miami.....	Dr. I. E. Harris.....	Asst. District Surgeon
Miami.....	Dr. W. B. Watts.....	Asst. District Surgeon

HOSPITALS

General Hospital.....	San Francisco, Calif.
Division—St. Joseph's Hospital.....	Phoenix, Ariz.
Division—St. Mary's Hospital.....	Tucson, Ariz.
Emergency Hospital.....	Tucson, Ariz.
Emergency Hospital.....	Gila, Ariz.

SPECIAL INSTRUCTIONS

MAXIMUM SPEED PERMITTED CERTAIN ENGINES, SUBJECT TO FURTHER RESTRICTIONS AS SHOWN IN SPEED RESTRICTIONS TABLE

Maximum speed for SP-1-2-3 not cross counter-balanced, C-15-17-32, Mk-10-11 and MM-3 class engines 35 MPH when handling Freight and Mixed Trains.

Maximum speed for S and SE class engines, 20 MPH, but must not exceed speed permitted Freight and Mixed Trains and Light Engines.

Maximum speed for DES class engines handling train, 30 MPH, but must not exceed speed permitted Freight and Mixed Trains and Light Engines.

Maximum speed for Gas-electric cars running light forward, 50 MPH, but must not exceed speed permitted when handling Passenger Trains.

Engines backing must not exceed 15 MPH on all curves, and when approaching road crossings at grade.

Engines coupled tender to tender must not exceed speed permitted same engines running light backward.

Engines with tenders having water capacity 7,000 gallons or less, except Classes 70-R-1 and 70-SC-1, must not exceed 50 MPH.

Maximum speed (in MPH) of disabled engines (except S or SE class), running under own steam or hauled in train must not exceed:

- When all the weight has been removed from any one pair of drivers..... 20
When all the weight has been removed from only one wheel of any pair of drivers..... 30
When engine truck is removed..... 20
When main rod only is removed..... 30
When side rod only is removed..... 30
When both main and side rods are removed..... 20
When hauled in train, all rods on..... 30
Class S and SE engines, under all conditions..... 20

When an engine has broken main axle and is in condition to be moved, engine should be detached from train and run light to next siding, not exceeding eight miles per hour.

If unable to place engine on siding, then it should be left between switches of siding on main track and proper protection provided.

MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT

Table with columns: PAGE, TYPE OF ENGINE-TERRITORY-STRUCTURE-LADING, ETC., M.P.H. Rows include: 2-3-4, 5-7, 4-5-6, All; 2-3-4-5-7, All; 2-3-4-5-7, All; 2-3-4-5-7, 4-5-6, All.

Trains with passenger equipment handling steel-wheel box cars, commonly known as PMT cars or foreign line steel-wheel box cars equipped for movement in passenger trains or trains consisting wholly of steel-wheel box cars, except those equipped with high speed trucks, must not exceed 60 MPH.

Wooden passenger-carrying cars, wooden baggage, express and other head end cars, unless equipped with steel center sills and steel platforms must not be used in passenger trains. Speed of trains handling such cars restricted to 40 MPH.

If consist of train includes both wooden and steel passenger-carrying cars, the wooden cars must be kept together and handled on rear.

Table with columns: SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS, WITH CAUTION NOT EXCEEDING MPH. Rows include: Through sidings, yard and other side-tracks, crossovers, turnouts and slip-switches, except..... 15; On P.F.E. yard tracks 1 to 6 inc., Tucson..... 10; Through any crossover, turnout or slip-switch with engine backing..... 10

SPEED RESTRICTIONS: Maximum speed of Passenger trains must not exceed 50 MPH and Freight and Mixed trains 35 MPH except as otherwise provided for herein, or by bulletin, train order or "fixed signal." Maximum speed of any train with an engine not shown in Speed Restriction table, 35 MPH, and is further restricted to Maximum speed shown for Freight and Mixed trains if less than 35 MPH.

Main speed restriction table with columns: Page No., TERRITORY, WITH TRAIN - ENGINE RUNNING FORWARD (PASSENGER, FREIGHT AND MIXED), LIGHT ENGINE RUNNING FORWARD, ENGINE BACKING WITH TRAIN OR LIGHT. Rows include: Yuma yard, west and east switches; East Yard, end of double track; Litchfield Branch; Creamery Branch; Tempe, east City Limit; Tempe Branch; Tucson yard.

*List of CCB (cross counter-balanced) engines:

- All P-8 class, except eng. 2470;
F-1 class: 3611, 3612, 3615, 3619, 3625, 3634, 3636, 3643, 3652;
F-3 class: 3654, 3656, 3658, 3661, 3665, 3666;
F-4 class: 3668, 3676, 3677, 3681, 3682, 3683, 3684, 3685, 3687, 3692, 3701, 3705, 3706, 3709, 3711, 3716, 3717;
F-5 class: 3727, 3728, 3732, 3737, 3742, 3752, 3760, 3764, 3765, 3767;
AC-6 class: 4130, 4135, 4142, 4143, 4150;
SP-1 class: 5003, 5006, 5009, 5011, 5013;
SP-2 class: 5021, 5028, 5033;
SP-3 class: 5039, 5041.

SPEED OF TRAINS REGULATED BY ORDINANCES THROUGH CITY LIMITS

Table with columns: PAGE, STATION, MPH. Rows include: 2 Yuma over street crossings..... 5; 3 Tempe..... 20; 3 Chandler..... 20; 5 Casa Grande..... 40; 6 Nogales..... 20; 6 Safford..... 15; 6 Pima..... 25; 7 Willcox..... 40

SPECIAL INSTRUCTIONS

AVERAGE TARE WEIGHTS OF PASSENGER TRAIN CARS

Table with columns for CLASS, NOT AIR-CONDITIONED (All-Steel, Steel Under-frame), and AIR-CONDITIONED (All-Steel Cooling Season, All-Steel Heating Season). Rows include Baggage, Express Refr., Coach, Diner, Lounge, Observation, Pullman-Observation, and Arizona Limited.

#Steel underframes.

CODE:

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

RATING OF ENGINES—TUCSON DIVISION
IN M'S OF 1,000 LBS. BACK OF TENDER

Large table with columns: Nominal Class, OFFICIAL CLASS, ENGINE NUMBERS, Boiler Pressure, and various route ratings (East Yard, Gila, Estrella, Maricopa, Kim, McQueen, Christmas, Tucson, Calabasa, Nogales, Yuma).

Allowance for empty and underloaded cars: Less than 45 Ms allow 6 Ms... 45 Ms to 55 Ms allow 3 Ms... More than 55 Ms allow 0 Ms...

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.

DIVISION MILEAGE

Table with columns: Main Lines (Yuma to Lordsburg, Tucson to South Yard Junction, etc.), Branches (Benson-Fairbank, Christmas, Creamery, etc.), Total Main Lines, Total Branches, Total.

RATING OF ENGINES—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-Willcox-San Simon Steins-Conrad-Pyra-Lordsburg	Willcox-Raso-Conrad-Pyra	Lordsburg-Pyra	Pyra-Mondel Steins-Raso-M. E. Cochise-Dragoon-Benson-Mescal-Tucson	San Simon-Bowie	Bowie-Raso-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
M-6	M-63 21/28 150-S.....	1725 to 1769.....	200	1950	1500	6000	2900	3250	6000	3650	2250	1500	3700	2250	950	6000	1500	1050	950	6000	3150	2400
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	4900	3000	1310	8000	2000	1400	1310	8000	4170	3220
C-9, 10	C-57 22/30 200-SF.....	2513 to 2599.....																				
C-9, 10	C-57 22/30 194-S.....	2698 to 2860.....																				
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.....																				
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.....																				
Mk-5, 6	Mk-63 26/28 231-SF.....		210	3150	2450	8000	4700	5250	8000	5850	3650	2450										
Mk-7, 8, 9	Mk-63 27/30 247-S, 257-SF.....	3300 to 3324.....																				
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-62-SF.....	3764 to 3768.....																				
AC-7,8,10,11	AC-63 24 1/2/32 515-SF, 532-SF.....	4151 to 4244.....	250	7400	5500	14000	10400	11500	14000	12900	8000	5500										
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 28/30 262-SF.....	4385 to 4390.....																				
GS-4	GS-80 25 1/2/32 276/B-118-SF.....	4430 to 4459.....	300	3900	3000	10000	6000	6700	10000	7500	4550	3000										
GS-5	GS-80 25 1/2/32 279/B-122-SF.....																					
SP-1	SP-63 25 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 25 1/2/32 317/B-61-SF.....																					
	Allowance for empty and underloaded cars	Less than 45 M's allow 6 M's 45 M's to 55 M's allow 3 M's More than 55 M's allow 0 M's																				

TERMINAL TRAINMASTERS

R. M. VEST.....Yuma
W. G. CURRIER.....Tucson

TRAINMASTERS

M. R. HARRINGTON.....Yuma
A. G. McMANUS.....Phoenix
J. C. SLADE.....Tucson
J. P. HERLYCK, Jr.....Bowie

ASSISTANT TRAINMASTERS

Z. T. ADAMS, Jr.....Yuma
B. C. BRADFORD.....Gila
L. E. McCADDON.....Phoenix

ASSISTANT TRAINMASTER-DIVISION EXAMINER

J. J. COWIN.....Tucson

TRAINMASTER-AT-LARGE

J. A. McKINNON

ROAD FOREMEN OF ENGINES

C. A. BALL, Sr.....Tucson
R. A. MILLER.....Tucson

CHIEF TRAIN DISPATCHER

H. W. CASSADY.....Tucson

LOCOMOTIVE ENGINEMEN INSTRUCTORS

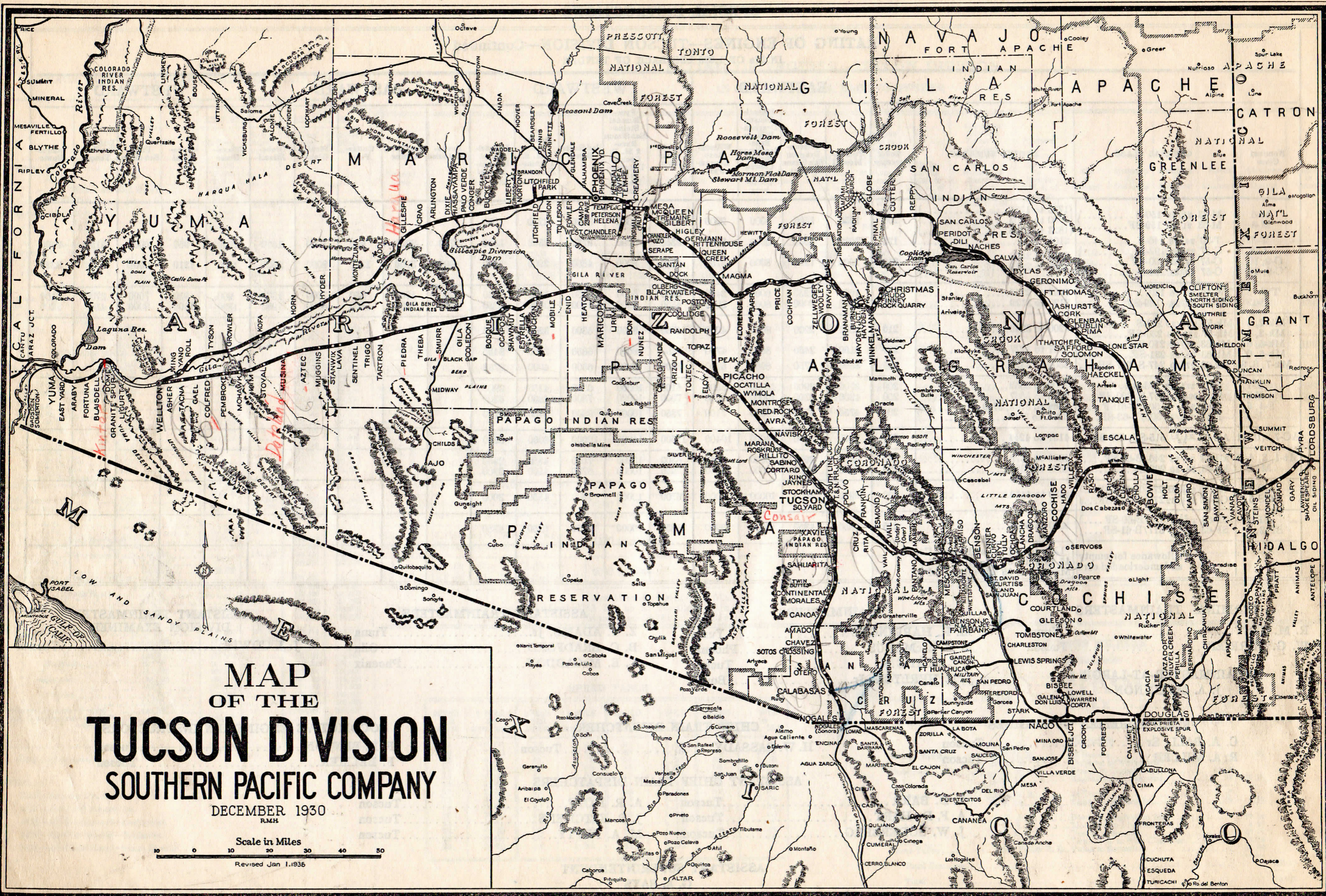
F. R. BENTON.....Tucson
F. BELMER.....Tucson

ASSISTANT CHIEF TRAIN DISPATCHERS

L. D. BARR.....Tucson
A. F. De HART.....Tucson
J. W. SODERBERG.....Tucson
A. R. HOFF.....Tucson
J. B. KITCHENS.....Tucson
M. A. PETTY.....Tucson

ASSISTANT SUPERINTENDENT

G. A. BAYS



MAP OF THE TUCSON DIVISION SOUTHERN PACIFIC COMPANY

DECEMBER 1930
R.M.H.

