

# Modeling from Train Sheets

... because half of the time it was too dark to take pictures

By Stuart A. Forsyth

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[www.cajonpass.com](http://www.cajonpass.com)

# **Cajon at War: Seven Days in May 1945**

# Download presentation from [www.cajonpass.com](http://www.cajonpass.com)

## Welcome to Server

Create and publish your own wikis and blogs. Use these web services to communicate and collaborate with your friends and coworkers.



### My Documents

View and edit your personal documents.



### All Activity

Track real-time activity for people and wikis you care about.

Click on "Wikis"



### Wikis

Communicate and collaborate with team members.



### People

View other people's contact info and blogs.

It's easy to edit this page and create new wikis. To edit this page, click the Log In (lock) button, log in as a wiki administrator and click the Edit (pencil) button. To create a new wiki, log in, then click the Add (+) button and choose New Wiki.

[Calendar](#) | [Change Password](#) | [Profile Manager](#)

“Washing one of the Santa Fe R.R. 54 hundred horse power diesel freight locomotives in the roundhouse, Argentine, Kansas. Argentine yard is at Kansas City, Kansas.”



# Thank you!

- The staff of the Santa Fe Railway Historical & Modeling Society’s **Western Archives**, particularly:
    - Dave Snell
    - Charlie Schultz
    - Lee Gustafson
    - Larry Occhiello
    - Cliff Prather
    - Jeff Staggs
- and . . .



# Thank you!

- Bob Anderson
- Don Borden
- Don Heimburger
- Keith Jordan
- Stan Kistler
- Otto Kroutil
- Library of Congress
- Gene Rutledge
- Phil Serpico
- John Signor
- Andy Sperandeo
- Joe Strapac
- John Thompson
- Matt Zebrowski

# Purposes

- Share knowledge
- Demonstrate possibilities

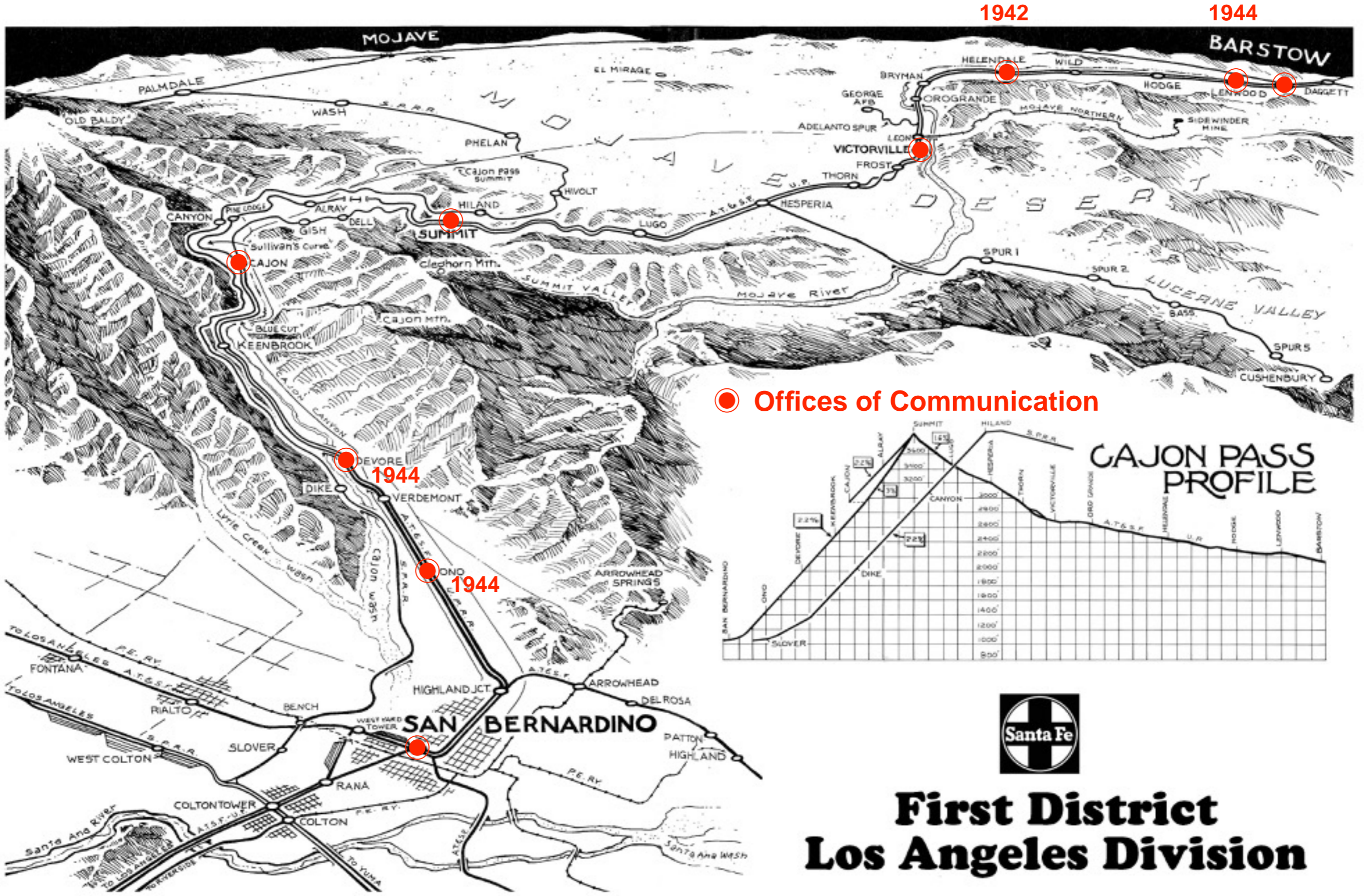
# Contents

1. The railroad
2. Train sheets
3. The database
4. What the train sheets tells us



# The Railroad





● Offices of Communication

1942

1944

1944

1944



# First District Los Angeles Division

# San Bernardino (Built 1918)



March 13, 1974 with *Mount Rubidoux* on the Superintendent's Track

—Lee Gustafson Photograph #2480

# Ono (1944-1949)



Undated Eastward Extra

—Bob McVay Photograph, Chard Walker Collection, courtesy John R. Signor

# Devore (1908-1928 & 1944-1948)



August 8, 1949

—John Lawson Photograph # A121, Lee Gustafson Collection

# Cajon (1887-1962)



1931

—Lee Gustafson Collection

# Summit (1940-1969 [Built 1928 at Kincaid])



December 10, 1967

—Lee Gustafson Photograph # 975

# Victorville (1887-1983)



August 24, 1969

—Lee Gustafson Photograph # 1420

# Helendale (1905-1936 & 1942-1947)



May 1949

—Frank J. Bradford Photograph, Phil Serpico Collection



# Lenwood (1944-1954)



May 1949

—Dick Burns Photograph, Lee Gustafson Collection

# Barstow (Built 1911)



August 24, 1969

—Lee Gustafson Photograph #1408

# Train Sheets

# Dispatchers' Office in the San Bernardino Depot



Bill Garner

Dispatcher  
W. D. Eakin

Chard Walker

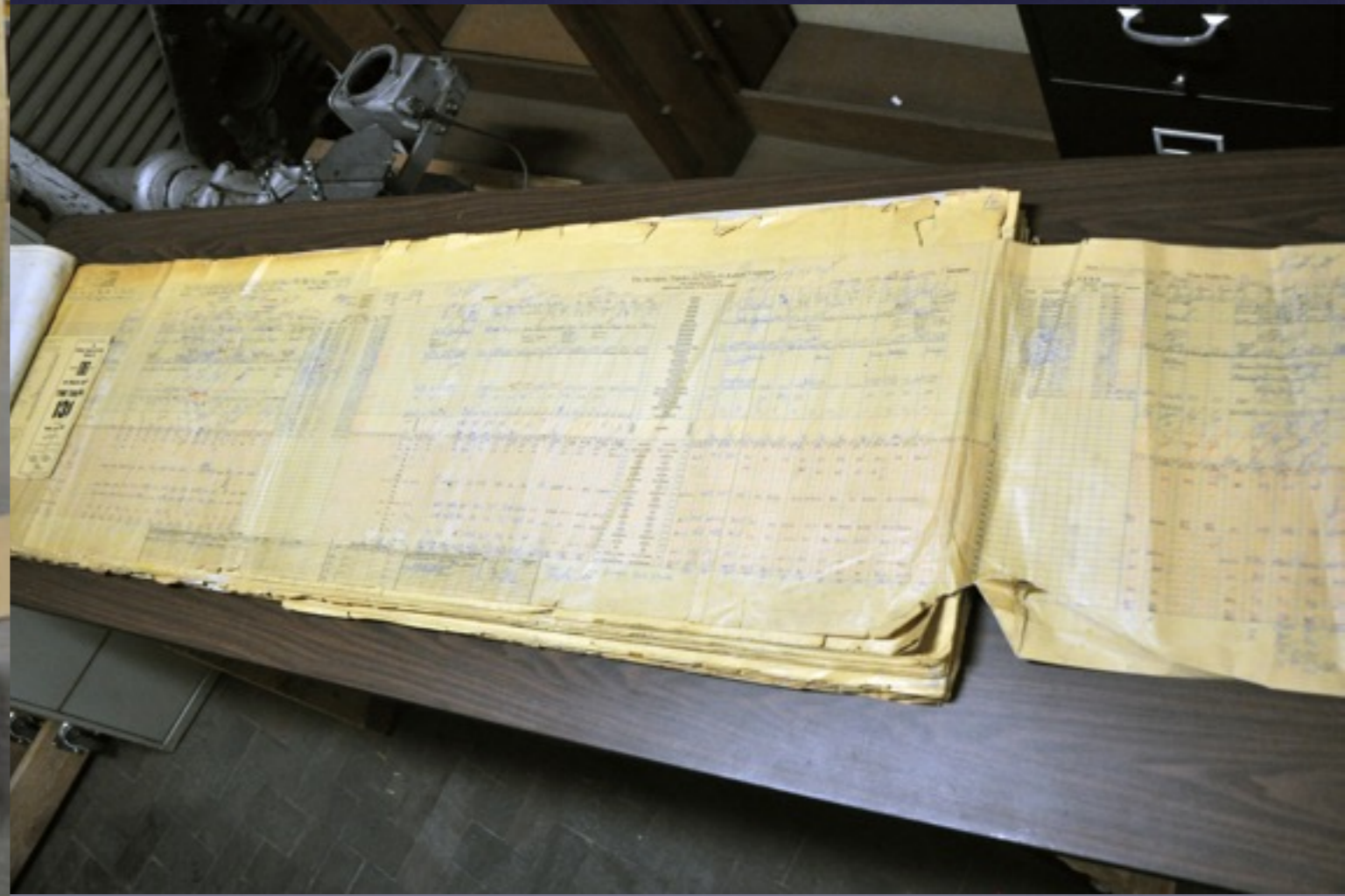
July 13, 1959

—Chard Walker Collection, Pacific Railroad Society, courtesy John R. Signor



Train sheets in the  
Santa Fe Railway Historical  
& Modeling Society's  
**Western Archives**  
at the San Bernardino Depot

—Larry Occhiello Photographs



# A Train Sheet



Dispatchers' Record of Movement of Trains

Form 1545-H Special

Hall 11 44 500 9623

8-3/4 ft. wide x 2 ft. high

# The Atchison, Topeka and Santa Fe Railway Company

LOS ANGELES DIVISION  
DISPATCHER'S RECORD OF MOVEMENT OF TRAINS

WESTWARD															EASTWARD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
SYMBOL	TRAIN	ENGINE	ENGINE	ENGINE	CONDUCTOR	BRAKEMAN	BRAKEMAN	BRAKEMAN	BRAKEMAN	Time Train Crew On Duty	ENGINEMAN	FIREMAN	FIREMAN	FIREMAN	ENGINEMAN	FIREMAN	Time Engine Crew On Duty	Time Crew Must Be Released	Tonnage Loaded	Tonnage Arriving	Highest Tonnage Hauled	CARS	Consist Arrived	STATIONS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
21	17	14	11	8	5	2	1	1	1	10:00	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30	22:45	23:00	23:15	23:30	23:45	24:00	24:15	24:30	24:45	25:00	25:15	25:30	25:45	26:00	26:15	26:30	26:45	27:00	27:15	27:30	27:45	28:00	28:15	28:30	28:45	29:00	29:15	29:30	29:45	30:00	30:15	30:30	30:45	31:00	31:15	31:30	31:45	32:00	32:15	32:30	32:45	33:00	33:15	33:30	33:45	34:00	34:15	34:30	34:45	35:00	35:15	35:30	35:45	36:00	36:15	36:30	36:45	37:00	37:15	37:30	37:45	38:00	38:15	38:30	38:45	39:00	39:15	39:30	39:45	40:00	40:15	40:30	40:45	41:00	41:15	41:30	41:45	42:00	42:15	42:30	42:45	43:00	43:15	43:30	43:45	44:00	44:15	44:30	44:45	45:00	45:15	45:30	45:45	46:00	46:15	46:30	46:45	47:00	47:15	47:30	47:45	48:00	48:15	48:30	48:45	49:00	49:15	49:30	49:45	50:00	50:15	50:30	50:45	51:00	51:15	51:30	51:45	52:00	52:15	52:30	52:45	53:00	53:15	53:30	53:45	54:00	54:15	54:30	54:45	55:00	55:15	55:30	55:45	56:00	56:15	56:30	56:45	57:00	57:15	57:30	57:45	58:00	58:15	58:30	58:45	59:00	59:15	59:30	59:45	60:00	60:15	60:30	60:45	61:00	61:15	61:30	61:45	62:00	62:15	62:30	62:45	63:00	63:15	63:30	63:45	64:00	64:15	64:30	64:45	65:00	65:15	65:30	65:45	66:00	66:15	66:30	66:45	67:00	67:15	67:30	67:45	68:00	68:15	68:30	68:45	69:00	69:15	69:30	69:45	70:00	70:15	70:30	70:45	71:00	71:15	71:30	71:45	72:00	72:15	72:30	72:45	73:00	73:15	73:30	73:45	74:00	74:15	74:30	74:45	75:00	75:15	75:30	75:45	76:00	76:15	76:30	76:45	77:00	77:15	77:30	77:45	78:00	78:15	78:30	78:45	79:00	79:15	79:30	79:45	80:00	80:15	80:30	80:45	81:00	81:15	81:30	81:45	82:00	82:15	82:30	82:45	83:00	83:15	83:30	83:45	84:00	84:15	84:30	84:45	85:00	85:15	85:30	85:45	86:00	86:15	86:30	86:45	87:00	87:15	87:30	87:45	88:00	88:15	88:30	88:45	89:00	89:15	89:30	89:45	90:00	90:15	90:30	90:45	91:00	91:15	91:30	91:45	92:00	92:15	92:30	92:45	93:00	93:15	93:30	93:45	94:00	94:15	94:30	94:45	95:00	95:15	95:30	95:45	96:00	96:15	96:30	96:45	97:00	97:15	97:30	97:45	98:00	98:15	98:30	98:45	99:00	99:15	99:30	99:45	100:00	100:15	100:30	100:45	101:00	101:15	101:30	101:45	102:00	102:15	102:30	102:45	103:00	103:15	103:30	103:45	104:00	104:15	104:30	104:45	105:00	105:15	105:30	105:45	106:00	106:15	106:30	106:45	107:00	107:15	107:30	107:45	108:00	108:15	108:30	108:45	109:00	109:15	109:30	109:45	110:00	110:15	110:30	110:45	111:00	111:15	111:30	111:45	112:00	112:15	112:30	112:45	113:00	113:15	113:30	113:45	114:00	114:15	114:30	114:45	115:00	115:15	115:30	115:45	116:00	116:15	116:30	116:45	117:00	117:15	117:30	117:45	118:00	118:15	118:30	118:45	119:00	119:15	119:30	119:45	120:00	120:15	120:30	120:45	121:00	121:15	121:30	121:45	122:00	122:15	122:30	122:45	123:00	123:15	123:30	123:45	124:00	124:15	124:30	124:45	125:00	125:15	125:30	125:45	126:00	126:15	126:30	126:45	127:00	127:15	127:30	127:45	128:00	128:15	128:30	128:45	129:00	129:15	129:30	129:45	130:00	130:15	130:30	130:45	131:00	131:15	131:30	131:45	132:00	132:15	132:30	132:45	133:00	133:15	133:30	133:45	134:00	134:15	134:30	134:45	135:00	135:15	135:30	135:45	136:00	136:15	136:30	136:45	137:00	137:15	137:30	137:45	138:00	138:15	138:30	138:45	139:00	139:15	139:30	139:45	140:00	140:15	140:30	140:45	141:00	141:15	141:30	141:45	142:00	142:15	142:30	142:45	143:00	143:15	143:30	143:45	144:00	144:15	144:30	144:45	145:00	145:15	145:30	145:45	146:00	146:15	146:30	146:45	147:00	147:15	147:30	147:45	148:00	148:15	148:30	148:45	149:00	149:15	149:30	149:45	150:00	150:15	150:30	150:45	151:00	151:15	151:30	151:45	152:00	152:15	152:30	152:45	153:00	153:15	153:30	153:45	154:00	154:15	154:30	154:45	155:00	155:15	155:30	155:45	156:00	156:15	156:30	156:45	157:00	157:15	157:30	157:45	158:00	158:15	158:30	158:45	159:00	159:15	159:30	159:45	160:00	160:15	160:30	160:45	161:00	161:15	161:30	161:45	162:00	162:15	162:30	162:45	163:00	163:15	163:30	163:45	164:00	164:15	164:30	164:45	165:00	165:15	165:30	165:45	166:00	166:15	166:30	166:45	167:00	167:15	167:30	167:45	168:00	168:15	168:30	168:45	169:00	169:15	169:30	169:45	170:00	170:15	170:30	170:45	171:00	171:15	171:30	171:45	172:00	172:15	172:30	172:45	173:00	173:15	173:30	173:45	174:00	174:15	174:30	174:45	175:00	175:15	175:30	175:45	176:00	176:15	176:30	176:45	177:00	177:15	177:30	177:45	178:00	178:15	178:30	178:45	179:00	179:15	179:30	179:45	180:00	180:15	180:30	180:45	181:00	181:15	181:30	181:45	182:00	182:15	182:30	182:45	183:00	183:15	183:30	183:45	184:00	184:15	184:30	184:45	185:00	185:15	185:30	185:45	186:00	186:15	186:30	186:45	187:00	187:15	187:30	187:45	188:00	188:15	188:30	188:45	189:00	189:15	189:30	189:45	190:00	190:15	190:30	190:45	191:00	191:15	191:30	191:45	192:00	192:15	192:30	192:45	193:00	193:15	193:30	193:45	194:00	194:15	194:30	194:45	195:00	195:15	195:30	195:45	196:00	196:15	196:30	196:45	197:00	197:15	197:30	197:45	198:00	198:15	198:30	198:45	199:00	199:15	199:30	199:45	200:00	200:15	200:30	200:45	201:00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# Date and Time Table No.

Date Thursday May 25 1945 Time Table No. 125



# The Atchison, Topeka and Santa Fe Railway Co.



LOS ANGELES DIVISION

EMPLOYEES'

TIME TABLE No.

# 125

IN EFFECT

Sunday, July 9, 1944

At 12:01 O'Clock A. M.  
Pacific Standard Time

Superseding Time Table No. 124, Dated August 8, 1943,  
and any Supplements thereto.

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

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

C. R. TUCKER,  
Asst. General Manager,  
Los Angeles, Cal.

W. L. MORE,  
Superintendent,  
San Bernardino, Cal.

## FIRST DISTRICT

## LOS ANGELES DIVISION

3

WESTWARD						TIME TABLE	Mile Posts	Ruling Grade Ascending	Ruling Grade Descending	Office of Communication and Booth Phones	Fuel, Water, Turn Tables and Wyes	Car Capacity of Sidings
FIRST CLASS												
203	21	17	1	237	223	NO. 125						
Passenger	El Capitan	Super Chief	The Scout	Passenger	Passenger	July 9, 1944						
★See Note	Leave Monday and Thursday	Leave Monday and Thursday	Leave Daily	Leave Daily	Leave Daily	STATIONS						
AM 6:02	AM 5:37	AM 5:22	AM 5:15	AM 4:25	AM 2:00	BARSTOW	0.0			O	FW TY	Yard
6:10	5:47	5:32	5:25	4:35	2:11	LENWOOD	6.2	37.0	20.4	B		92
6:16	5:54	5:39	5:33	4:43	2:20	HODGE	11.8	37.0	23.0	B		115
6:26	6:05	5:50	5:44	4:53	2:32	HELENDALE	21.1	28.8	30.0	C	W	94
6:30	6:10	5:55	5:50	4:59	2:39	BRYMAN	26.1	37.0	0.0	B		92
6:35	6:15	6:00 <sup>1</sup>	6:00 <sup>17</sup>	5:07	2:47	ORO GRANDE	31.5	37.0	0.0	B		88
6:40	6:20	6:05	6:07	5:14	2:53	LEON	35.3	39.6	17.2			
6:41	6:21	6:06 <sup>f</sup>	6:10	5:17 <sup>f</sup>	2:57	VICTORVILLE	36.7	30.4	0.0	C	WY	94-97
6:47	6:28	6:13	6:19	5:26	3:05	THORN	41.1	84.5	0.0	B		
6:54	6:36	6:21	6:27	5:34	3:13	HESPERIA	45.1	83.4	0.0	B		94
7:02	6:44	6:29	6:36	5:43	3:23	LUGO	50.3	81.8	0.0	B		92
7:15	6:57	6:42	6:51	5:58	3:39	SUMMIT	55.9	84.5	0.0	C	Y	118
7:21	7:04	6:49	6:58	6:05	3:46	DELL	58.6	0.0	158.4	B		22
7:23	7:06	6:51	7:00	6:07	3:48	GISH	59.6	0.0	158.4	B		71
7:29	7:12	6:57	7:06	6:13	3:54	OAJON	62.4	0.0	158.4	C	W	90
7:35	7:18	7:03	7:12	6:19	4:01	KEENBROOK	66.3	0.0	116.2	B		
7:42	7:25	7:10	7:19	6:26	4:09	DEVORE	71.0	0.0	116.2	B	Y	122
7:45	7:29	7:14	7:23	6:30	4:14	VERDEMONT	73.5	0.0	116.2	B		5
7:48	7:33	7:18	7:27	6:34	4:19	ONO	76.0	0.0	116.2	B		92
7:53	7:38	7:23	7:33	6:39	4:24	HIGHLAND JOT.	79.4	0.0	116.2			
7:58 AM	7:43 AM	7:28 AM	7:38 AM	6:45 AM	4:30 AM	SAN BERNARDINO	81.3	64.4	51.7	O	FW TY	Yard
★See Note	Arrive Monday and Thursday	Arrive Monday and Thursday	Arrive Daily	Arrive Daily	Arrive Daily	(80.8)						
(41.8)	(38.4)	(38.4)	(33.9)	(34.6)	(32.3)	..... Average speed per hour						

## 16

## LOS ANGELES DIVISION

## SPECIAL RULES

### ALL DISTRICTS

1. A copy of the book entitled, "The Atchison, Topeka and Santa Fe Railway System, Rules and Regulations of the Operating Department," revised 1927, and of the book, "Rules and Regulations for the Maintenance of Way and Structures," revised 1940, must be in the hands of all employees whose duties are in any way prescribed thereby.

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

3. Rule 1 (B): Standard clocks are located at Barstow, Victorville, San Bernardino-Telegraph office, Santa Fe and U.P. Roundhouses, Mill St., Yard office; Los Angeles: Union Station, First Street, Ninth Street and Hobart Yard offices, Redondo Junction Roundhouse, San Diego passenger station and 22nd St. yard office, and National City Roundhouse.

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

4. Rule 5: On single track, time applies at the siding switch where opposing trains enter siding. On double track, time applies at station sign. When a section of double track is used as single track, time and train orders apply at end of double track, or crossover. When more than one crossover, train order will specify which one to be used. Trains handling passengers or mail must not pass point where such traffic is received or discharged before scheduled time.

At following stations, designated switches are "heading-in"

At San Diego, between Cudahy Spur and end of track, National City.

At Corona, between M. P. 1 on Elsinore District, and between Signals 222 and 252, Third District.

Within the following limits there is no superiority of trains; all trains and engines must move at restricted speed; responsibility for accident will rest with the approaching train:

San Bernardino: Between Fifth Street Tower and the interlocked signal opposite yard office.

At San Diego: Between crossover west of passenger station yard office and National City.

Second class, extra trains, and yard engines moving under these provisions will be expected to avoid delay to first class trains.

Rule 711: At following locations, between limits described, all trains and engines will move governed by automatic and/or interlocking signals, whose indications are superior to class and direction:

San Bernardino-Colton: Between Signal 791 Highland Junction and Fifth Street Tower, San Bernardino, and between Rana and Colton Tower, moving with the current of traffic. On the three main tracks in either direction between interlocked signal opposite yard office, San Bernardino, and Rana, all switches interlocked. When interlocking signal remains in

# Dispatchers

<i>E. J. Peman</i>	Dispatcher from	<i>1206a</i>	M. to	<i>801a</i>	M.
<i>W. J. Fort</i>	Dispatcher from	<i>1000</i>	M. to	<i>400</i>	M.
<i>F. Jackson</i>	Dispatcher from	<i>4 pm</i>	M. to	<i>1201am</i>	M.
	Dispatcher from		M. to		M.

# Stations and Office Calls

Miles from Barstow	STATIONS		Miles from San Bernardino	OFFICE CALLS
0	BARSTOW	BARSTOW	82.8	BA
YD	WEST YD TOWER	WEST YD TOWER	YD	
	6.1	6.1		
6.1	LENWOOD	LENWOOD	76.7	OD
	5.7	5.7		
11.8	HODGE	HODGE	71.0	HX
	9.2	9.2		
21.0	HELENDALE	HELENDALE	61.8	HN
	4.9	4.9		
25.9	BRYMAN	BRYMAN	56.9	BY
	5.4	5.4		
31.3	ORO GRANDE	ORO GRANDE	51.5	GD
	3.7	3.7		
35.0	LEON	LEON	47.8	ON
	1.4	1.4		
36.4	VICTORVILLE	VICTORVILLE	46.4	VR
	4.3	4.3		
40.7	THORN	THORN	42.1	RN
	4.1	4.1		
44.8	HESPERIA	HESPERIA	38.0	HS
	5.2	5.2		
50.0	LUGO	LUGO	32.8	UG
	5.5	5.5		
55.5	SUMMIT	SUMMIT	27.3	SU
	3.8	3.8		
59.3	GISH	ALRAY	23.5	RY
	2.7	4.7		
62.0	CAJON	CAJON	18.8	JO
	3.7	3.7		
65.7	KEENBROOK	KEENBROOK	15.1	KN
	4.7	4.7		
70.4	DEVORE	DEVORE	10.4	DV
	5.0	5.0		
75.4	ONO	ONO	5.4	NO
	5.4	5.4		
YD	FIFTH ST TOWER	FIFTH ST TOWER	YD	
	5.4	5.4		
80.8	SAN BERNARDINO	SAN BERNARDINO	0	B

# Trains and Engines

	7240a	OT	OB	7600a	3330a	Urmann
SYMBOL	B	B	B	B	D49	12707
TRAIN	1/8	1/24	1/24	1/8	3/24	Era
ENGINE	3776 ✓	3759 ✓	3751 ✓	3736 ✓	3706 ✓	7856
ENGINE	B1976 ✓	B1966 ✓	S	B3156 ✓	B1983 ✓	5
ENGINE						
ENGINE						

# Train Times

Connection Arrived																							
Miles from Barstow	STATIONS		Miles from San Bernardino	Am			Am			12:50 P			11:40 a			Am			Am				
				Arr.	Dep.	Late	Arr.	Dep.	Late	Arr.	Dep.	Late	Arr.	Dep.	Late	Arr.	Dep.	Late	Arr.	Dep.	Late		
0	BARSTOW	BARSTOW	82.8	248		13"	500		0T	503		0T	620		20"	601				1000			
YD	WEST YD TOWER	WEST YD TOWER	YD																				
	6.1	6.1																					
6.1	LENWOOD	LENWOOD	76.7	240		15"	446		01"	450		0T	610		45"	552				952			
	5.7	5.7																					
11.8	HODGE	HODGE	71.0																				
	9.2	9.2																					
21.0	HELENDALE	HELENDALE	61.8	229		18"	424		01"	429		06"	523		42"	529		535	W				
	4.9	4.9																					
25.9	BRYMAN	BRYMAN	56.9																				
	5.4	5.4																					
31.3	ORO GRANDE	ORO GRANDE	51.5																				
	3.7	3.7																					
35.0	LEON	LEON	47.8																				
	1.4	1.4																					
36.4	VICTORVILLE	VICTORVILLE	46.4	202		213	19"	353		359	0T	405		406	07"	520		534	40"	512		916	919
	4.3	4.3																					
40.7	THORN	THORN	42.1																				
	4.1	4.1																					
44.8	HESPERIA	HESPERIA	38.0																				
	5.2	5.2																					
50.0	LUGO	LUGO	32.8																				
	5.5	5.5																					
55.5	SUMMIT	SUMMIT	27.3	130		132	02"	323		325	02"	333		10"	450		453	23"	441		447		850
	3.8	3.8																					
59.3	GISH	ALRAY	23.5																				
	2.7	4.7																					
62.0	CAJON	CAJON	18.8	113		07"	305		10"	315		10"	417		11"	412		107"				830	
	3.7	3.7																					
65.7	KEENBROOK	KEENBROOK	15.1																				
	4.7	4.7																					
70.4	DEVORE	DEVORE	10.4	125		09"	248		15"	259		26"	400		12"	338						815	
	5.0	5.0																					
75.4	ONO	ONO	5.4	124		10"	235		18"	248		31"	348		12"	316		59"				805	
	5.4	5.4																					
YD	FIFTH ST TOWER	FIFTH ST TOWER	YD																				
	5.4																						
80.8	SAN BERNARDINO	SAN BERNARDINO	0	123		12"	226		21"	238		23"	338		13"	305		40"				850	

# Tonnage and Number of Cars

Tonnage Leaving		842	859	380	705	640	
Tonnage Arriving							
Highest Tonnage Handled							
CARS		12	10	5	10	8	6

# Crews

	<b>CONDUCTOR</b>	Williamson	Thomas	Shanks	Richard	Brown	H. Brown
	<b>BRAKEMAN</b>		12:30 P Register	Purkins			
	<b>BRAKEMAN</b>		Wilder	Marlow			
	<b>BRAKEMAN</b>		McCoy	Holt			
	<b>BRAKEMAN</b>			Birch			
	<b>Time Train Crew On Duty</b>	1000 P	1110 P	1115 P	100 A	1030 P	200 A
	<b>ENGINEMAN</b>	E. Carter	D. Hiler	Martin	Kwitz	Whitler	Neary
	<b>FIREMAN</b>						
	<b>ENGINEMAN</b>	A. Vernon	Smithson		Mathieu	Eisenhart	
	<b>FIREMAN</b>						
	<b>ENGINEMAN</b>						
	<b>FIREMAN</b>						
	<b>ENGINEMAN</b>						
	<b>FIREMAN</b>	Hg 1125 P	Hg 105 A		Hg 235 A	Hg 230 A	
	<b>Time Engine Crews On Duty</b>	930 P	1040 P	1100 P	1230 A	1030 P	200 A
	<b>Time Crew Must Be Released</b>						

# HELPERS

ENGINE	ENGINEMEN	SUMMIT		CAJON		DEVORE		ONO		San Bernardino	
		Dept.		Arr.	Dept.	Arr.	Dept.	Arr.	Dept.	Arr.	
> 1976	Alverson	Am	146		215		238		257	303	Am
2710	Donahue	Am	202		225		246		309	330	Am
966	Smithson	Am	355		413		431		442	452	Am
> 3850	Bussey	Am	506	538	541		609		625	650	Am
> 1983	Eisenhart	Am	508	538	541		609		625	650	Am
> 3156	Matthiessen	Am	508	538	541		609		625	650	Am
5006	Murphy	Am	509	538	541		609		625	651	Am
2711	Loveland	Am	615		630		650		702	716	Am
> 3858	SwBlake	Am	705		717		734		744	754	Am
2708	Gohlke	Am	707		721		740		750	800	Am
5099	Herbert	Am	707		721		740		750	800	Am
5521	Frohman	Am	841		920		950		1000	1008	Am
2730	Fordy	Am	815		832		850		907	914	Am
> 2498	Muller	Am	905	926	950		1016		1022	1055	Am
2761	Winters	Am	925		1000		1021		1037	1056	Am
5500	Leopard	Am	1135		1158		1213		1223	1234	Am
> 2732	Johnson	Am	1133		1158		1213		1223	1234	Am
2740	McKnight	Am	1133		1158		1213		1223	1234	Am
> 3140	Garber	Am	1133		1158		1213		1222	1234	Am
> 2759	Garnett	Am	1218		1247		105		115	120	Am
> 3851	Perkins	Am	1215		1247		105		115	120	Am
2760	Bellars	Am	115		149		204		213	222	Am
> 1681	Waltz	Am	146		247		257		307	327	Am
> 1680	Waltz	Am	210		260		303		403	413	Am

Light  
Helper  
Moves



# Weather

## RECORD OF WEATHER AND WIRES

PLACE	TIME 12 M.	TIME 6 A. M.	TIME 12 P. M.	TIME 4 P. M.
D				90° Clear
20	56° CC	48° CC		86° Clear
21				
22				
23	63° CC	57° CC		
24	70° CC			84° Clear

# Problems

3/3 Delayed behind 6177 ~~also~~ also  
was delayed behind up to 5592 ~~also~~  
who also delayed behind Exp 162  
West train going into emergency

Exp 111 East derailed Can see derailed  
blocked westward Main track no 7  
Delayed to go thro siding

# The Database

# The Database

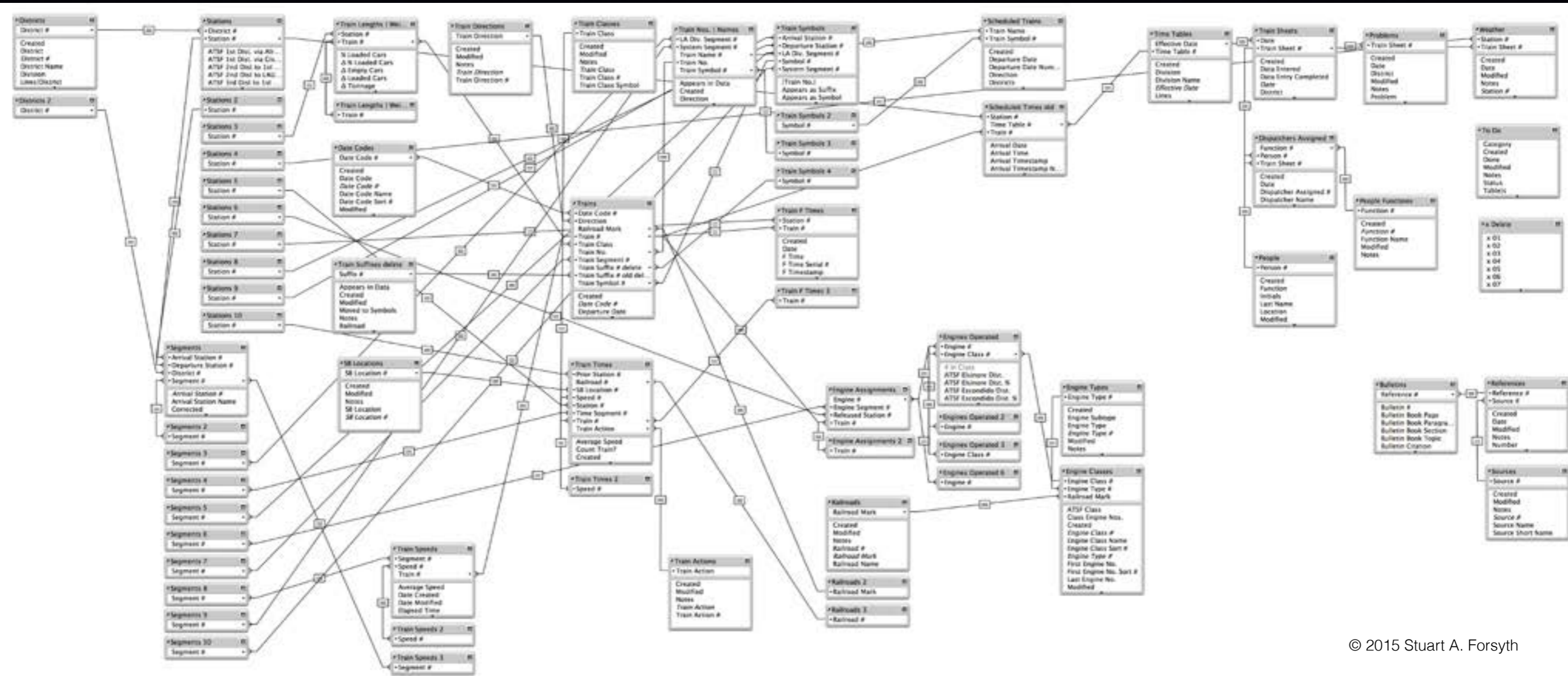
- FileMaker relational database
- 33 tables
- 663 fields
- 18,968 records
- Up to 880,786 data entries

. . . all this for just seven days

# Database Tables

- Bulletins
- Date Codes
- Dispatchers Assigned
- Districts
- Engine Assignments
- Engine Classes
- Engine Types
- Engines Operated
- People
- People Functions
- Problems
- Railroads
- References
- SB Locations
- Scheduled Times
- Scheduled Trains
- Segments
- Sources
- Stations
- Time Tables
- To Do
- Train Actions
- Train Classes
- Train Directions
- Train F Times
- Train Lengths/Weights
- Train Numbers/Names
- Train Sheets
- Train Speeds
- Train Symbols
- Train Times
- Trains
- Weather

# Database Relationships



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# Stations

**Segment mileages to/from station checked**    **Yes**    **No**

Railroad  ▼

District #  ▼

District[s]

District Name

Station #

Station Name

On Time Table    Yes    No

On Train Sheet    Yes    No

Office Call

Station Symbol

Milepost

First Dist. West Miles from Barstow via Alray

First Dist. West Miles from Barstow via Gish

First Dist. East Miles from SB via Alray

First Dist. East Miles from SB via Gish

Redlands Dist. West Miles from Highland Jct.

Redlands Dist. East Miles from SB

Second Dist. West Miles from SB

Second Dist. East Miles from First St.

Second Dist. East Miles from LAUPT

San Jacinto Dist. West Miles from Highgrove

San Jacinto Dist. East Miles from San Jacinto

Third Dist. West Miles from SB

Third Dist. East Miles from First St.

Third Dist. East Miles from LAUPT

Fourth Dist. West Miles from Nat'l City

Fourth Dist. East Miles from Fullerton

Siding Capacity

Westward Siding Capacity

Eastward Siding Capacity

Communications  ▼

Facilities  ▼

Crossings  ▼

Junctions  ▼

Notes

Elevation

## Trains

Departure Date	Monday, May 7, 1945	Departure Timestamp	5/7/1945 7:10 PM	Linked Train #	1162	Link Nature	CT	Train #	1163
<b>Number Checked?</b> <input checked="" type="radio"/> Yes <input type="radio"/> No	Railroad Mark	Train Class	Section	<b>Train No.</b>	Direction	Train Symbol Prefix	<b>Train Symbol #</b>	Date Code #	
	ATSF	Extra Freight		1991	Westward		175.1		
Train Number	ATSF X 1991 West PUX [501(LA-17)]			Train Name	Redlands District Loop Fruit Pick-up [Westward/Counterclockwise]				
Local?	<input type="radio"/> Yes <input checked="" type="radio"/> No	District #	Segment Name			Train Miles			
<b>Train Segment #</b>	8023.007	1R	San Bernardino to San Bernardino on First & Redlands Dist. (Counterclockwise)			27.5	F   TU Time		
Conductor #	44	J. A. McDowan	Conductor			# of Brakemen	Train Crew on Duty	Continuous Time?	
								<input checked="" type="radio"/> Yes <input type="radio"/> No	



# Engine Assignments

Engine Assignment # 158.11

Train #	158	Train Number	ATSF 20 East A [1]		Train Name	The Chief									
Date	5/1/1945	Railroad Mark	ATSF	Direction	Eastward	Class	First	Train No.	20	Symbol #		Segment	1112.22	Segment Name delete	Los Angeles (LAUPT) to Barstow on First (via Alray) &

Multiple Engines?  Yes  No

Engine Sequence # 1 Suggested Sequence # 1

Engine #	Engine Task	Engine Segment #	Engine Segment Name	District #	Engine No.	ATSF Class	UP Class	Engine Class Name	Units	Miles
3774.1	Road	1112.22	Los Angeles (LAUPT) to Barstow on First (via Alray) & Second Dist.	12A	3774	3765		ATSF 3765 Class 4-8-4 Northern		155.0

Engineman #   Engine Crew on Duty  Continuous Time?  Yes  No

Fireman #

Released Date  Released Time  Released Timestamp

Released Station #  Released Station Name

Notes

## Summary of Found Records:

Total Trains	1	Total Road Assignments	1
Engine Ratio	2.00	Total Helper Assignments	1
		Total Move Assignments	0
Total Miles	182.3	Total Assignments	2

# Train Lengths & Weights

Train Length #

**Train #** 
 Train Number 
 Train Name

Date	Railroad Mark	Direction	Class	Train No.	Symbol #	Segment	Segment Name delete
5/1/1945	ATSF ▼	Eastward ▼	Extra ▼	107	13	92.2	San Bernardino to Barstow on First (via

Cars Sequence No.	<input type="text" value="2"/>	Multiple Entries?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="text"/>	Multiple Entries Checked?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Station #	<input type="text" value="4"/>	Station Name	<input type="text" value="Ono"/>			
Loaded Cars	<input type="text" value="7"/>	Δ Loaded Cars	<input type="text" value="2"/>	Count Cars? <input checked="" type="radio"/> Yes <input type="radio"/> No		
Empty Cars	<input type="text" value="63"/>	Δ Empty Cars	<input type="text" value="0"/>			
Total Cars	<input type="text" value="70"/>	Δ Total Cars	<input type="text" value="2"/>			
% Loaded Cars	<input type="text" value="10.0%"/>	Δ % Loaded Cars	<input type="text" value="2.6%"/>			
Tonnage	<input type="text" value="1,924"/>	Δ Tonnage	<input type="text" value="100"/>	Avg. Tons Per Car	<input type="text"/>	Count Tonnage? <input checked="" type="radio"/> Yes <input type="radio"/> No

Must remain sorted by Train Length #

Notes

## Summary of Found Records:

Total Trains	<input type="text" value="10"/>				
Total Empty Cars	<input type="text" value="237"/>	Average Empty Cars	<input type="text" value="24"/>	Minimum Empty Cars	<input type="text" value="1"/>
				Maximum Empty Cars	<input type="text" value="63"/>
Total Loaded Cars	<input type="text" value="303"/>	Average Loaded Cars	<input type="text" value="30"/>	Minimum Loaded Cars	<input type="text" value="7"/>
				Maximum Loaded Cars	<input type="text" value="41"/>
Grand Total Cars	<input type="text" value="540"/>	Average Total Cars	<input type="text" value="54"/>	Minimum Total Cars	<input type="text" value="34"/>
				Maximum Total Cars	<input type="text" value="72"/>
Total % Loaded Cars	<input type="text" value="56.11%"/>	Average % Loaded Cars	<input type="text" value="56.11%"/>	Minimum % Loaded Cars	<input type="text" value="10.00%"/>
				Maximum % Loaded Cars	<input type="text" value="97.50%"/>
Total Tonnage	<input type="text" value="22,261"/>	Average Tonnage	<input type="text" value="2,226"/>	Minimum Tonnage	<input type="text" value="1,830"/>
				Maximum Tonnage	<input type="text" value="2,995"/>

**Must remain sorted by Time Serial #**

# Train Times

Time Serial #

Train Class #

Count Train?  Yes  No

Train Number

Train Name

Class

Direction

Symbol #

Train #

Date

Train Number Checked?  Yes  No

Train District #

Time Sequence #

Suggested Time Sequence #

Station #

ATSF # 107

Road

San Bernardino to Barstow on

Time

SB Location

Late|OS

Timestamp

Train Action

Stop Reason

Stop Time

Railroad #

Manual District #

Prior Station District #

Track to Summit via

Train Class #

Station District #

via District

Train Direction #

Segment District #

via Redlands Direction

Time Segment # Add

Time Segment #

Segment Miles

Running Time

Running Speed

Exclude Speed?

Yes  No

Notes

## Summary of Found Records:

Total Segments|Trains

Total Miles

Total Elapsed Time

Total Running Time

Average Speed

Running %

Total Stopped Time

Stopped %

Fastest Speed

Slowest Speed

Segment # Interim

Segment # Old

# Train Speeds

Speed # 170.0092

Train # 170 Train Number **ATSF X 107 East Drag** Train Name Drag

Date 5/1/1945 Railroad Mark ATSF Direction Eastward Class Extra Train No. 107 Symbol # 13 Segment 92.2 Segment Name delete San Bernardino to Barstow on First (via Alray) Dist. Miles 82.8

Segment # 92.2 Segment Name San Bernardino to Barstow on First (via Alray) Dist. Miles 82.8

Start Timestamp 5/1/1945 3:00 AM End Timestamp 5/1/1945 7:35 AM Segment Start Date 5/1/1945 Elapsed Time 4:35

Speed 18.1

Sequence	Station	Action	Reason	Date & Time	Run	Stop	Notes
1	San Bernardino	Departed		5/1/1945 2:50 AM			Picked up 2 loaded cars, weighing 100 tons, at Ono.
2	San Bernardino	Departed	Origin	5/1/1945 3:00 AM	0:10		
3	Ono	Arrived		5/1/1945 3:19 AM	0:19		
4	Ono	Departed	Pick up Cars	5/1/1945 3:58 AM		0:39	
5	Devore	Passed		5/1/1945 4:26 AM	0:28		
6	Cajon	Passed		5/1/1945 4:58 AM	0:32		
7	Summit	Arrived		5/1/1945 5:33 AM	0:35		
8	Summit	Departed	Brake Test	5/1/1945 5:36 AM		0:03	
9	Victorville	Passed		5/1/1945 6:34 AM	0:58		
10	Helendale	Passed		5/1/1945 6:55 AM	0:21		
11	Lenwood	Passed		5/1/1945 7:15 AM	0:20		
12	Barstow	Arrived	Terminus	5/1/1945 7:35 AM	0:20		

## Summary of Found Records:

Total Trains	10
Total Miles	267.3
Total Time	14:58
Average Speed	17.9
Fastest Speed	35.8
Slowest Speed	9.6

# Trains

Departure Date:  Departure Timestamp:  Linked Train #:  Link Nature:  Train #:

**Number Checked?**  Yes  No Railroad Mark:  Train Class:  Section:  Train No.:  Direction:  Train Symbol Prefix:  Train Symbol #:  Date Code #:

Train Number:  Train Name:

Local?  Yes  No District #:  Segment Name:  Train Miles:  F | TU Time:

**Train Segment #**   San Bernardino to Barstow on First (via Alray) Dist.

Conductor #   # of Brakemen  Train Crew on Duty  Continuous Time?  Yes  No

Engine Class & Type	Units	Engine No.	Task	Engine Segment	Engine Miles	Road	Helpers	Move
ATSF 100 Class EMD FTs		ATSF # 107	Road	San Bernardino to Barstow on First (via Alray) Dist.	82.8	1	0	0

Station	Loads	Empties	Tons	Total	Loaded
San Bernardino	5	63	1,824	68	7.4%
Ono	7	63	1,924	70	10.0%

Notes

- "S" appears below the engine number.
- Picked up 2 loaded cars, weighing 100 tons, at Ono.

Seq.	Station	Action	Date & Time	Late	Stop	Reason	District	Run	Miles	MPH
1	San Bernardino (Precooler)	Departed	5/1/1945 2:50 AM				1			
2	San Bernardino	Departed	5/1/1945 3:00 AM			Origin	1	0:10	0.9	5.4
3	Ono	Arrived	5/1/1945 3:19 AM				1	0:19	5.4	17.1
4	Ono	Departed	5/1/1945 3:58 AM	0:39		Pick up Cars	1			
5	Devore	Passed	5/1/1945 4:26 AM				1	0:28	5.0	10.7
6	Cajon	Passed	5/1/1945 4:58 AM				1	0:32	8.4	15.8
7	Summit	Arrived	5/1/1945 5:33 AM				1	0:35	8.5	14.6
8	Summit	Departed	5/1/1945 5:36 AM	0:03		Brake Test	1			
9	Victorville	Passed	5/1/1945 6:34 AM				1	0:58	19.1	19.8
10	Helendale	Passed	5/1/1945 6:55 AM				1	0:21	15.4	44.0
11	Lenwood	Passed	5/1/1945 7:15 AM				1	0:20	14.9	44.7
12	Barstow	Arrived	5/1/1945 7:35 AM			Terminus	1	0:20	6.1	18.3

# Engines Operated

Railroad Mark	<input type="text" value="ATSF"/>		Engine #	<input type="text" value="948.1"/>
<b>Engine No.</b>	<input type="text" value="948"/>	Engine Number	<input type="text" value="ATSF # 948"/>	
<b>Engine Class #</b>	<input type="text" value="2"/>	Engine Class Name	Propulsion	Type # Class Sort #
Engine No. in Class?	<input type="text" value="OK"/>	<input type="text" value="ATSF 900 Class 2-10-2 Santa Fe"/>	<input type="text" value="Steam"/>	<input type="text" value="16"/> <input type="text" value="1000"/>
Engine # Unique?	<input type="text" value="OK"/>	UP First Sub.		<input type="text" value="No"/>
Number of Assignments	<input type="text" value="12"/>	Total Dist. <input type="text" value="12"/>		

Districts Operated	ATSF First Dist.	<input type="text" value="12"/>	<input type="text" value="100.0%"/>	ATSF Elsinore Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>	ATSF Olive Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>
	ATSF Second Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>	ATSF Escondido Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>	ATSF Redlands Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>
	ATSF Third Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>	ATSF Fallbrook Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>	ATSF Redondo Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>
	ATSF Fourth Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>	ATSF Harbor Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>	ATSF San Jacinto Dist.	<input type="text" value="0"/>	<input type="text" value="0.0%"/>

Notes

Train #	Date	Direction	Train Number	Train Name
72	5/1/1945	Westward	ATSF X 136 West 2/88-G 27	Freight
81	5/1/1945	Westward	ATSF X 139 West CS 25	Freight
89	5/1/1945	Westward	ATSF X 113 West 2/89-G 29	Freight
93	5/1/1945	Westward	ATSF X 130 West 1/TDF BG [27]	Texas Daily Forwarder [Red Ball Freight]
98	5/1/1945	Westward	ATSF X 3860 West 14/43 C [3]	Chicago to Los Angeles [Red Ball Freight]
126	5/1/1945	Eastward	ATSF X [A]/948 East Z	Light Helper(s)
136	5/1/1945	Eastward	ATSF X [B]/948 East Z	Light Helper(s)
140	5/1/1945	Eastward	ATSF X [C]/948 East Z	Light Helper(s)
144	5/1/1945	Eastward	ATSF X 2/1681 East Z [3]	3 Light helpers
197	5/2/1945	Eastward	ATSF X 948 East Z [3]	3 Light helpers
259	5/2/1945	Westward	ATSF X 2/948 West Power	Transfer Power
657	5/5/1945	Eastward	ATSF X 948 East BA Local	Barstow Local

**Summary of Found Records:**

Assignments	<input type="text" value="12"/>
Engines	<input type="text" value="1"/>
Usage Ratio	<input type="text" value="12.0"/>

# What the Train Sheets Tells Us

# Overview of the Data

- The First District of the Santa Fe's Los Angeles Division (San Bernardino to Barstow over Cajon Pass)
- One week (May 1-7, 1945)
- 959 trains
- 297 engines operated
- 1,562 engine assignments
- 667 train lengths/weights
- 7,817 train time OS entries

. . . all this in just seven days



# Caution

- The numbers for **eastbound extras** are lower than reality because most of the data is missing for such trains on Tuesday, May 1, 1945.

# Notes

- Engines are counted by engine number:
  - Normally, one locomotive is counted as 1 engine, but:
    - A set of ATSF FTs is counted as one engine no matter how many units it contains, e.g., ATSF 100 is counted as 1 engine, whether it is comprised of 3, 4 or 5 units.
    - And E units are counted by unit number, e.g., ATSF 12 (cab) and 12A (booster) are counted as 2 engines.

# World War II



—Santa Fe billboards from *Working for Victory on the Santa Fe : A Series of Wartime Advertisements*. Chicago, IL: Atchison, Topeka & Santa Fe Railway Co. p. 21. Print. Courtesy Matt Zebrowski

# Women at Work for a Railroad at War

America needs millions of women to take over war jobs... to stay with those jobs... to help speed the day when our fighting men will return victorious!

Santa Fe women are answering this call all along the line.

Right now thousands of Santa Fe women are doing war-vital work to "keep 'em rolling." Many are pitching into "unglamorous" jobs... greasing engines, operating turntables, welding shovels, working in blacksmith shops,

and cleaning roller bearings. They take pride in their work, too!

Many of these women have husbands, sweethearts, brothers or sons in the armed forces. Many came to work to replace a Santa Fe relative who had been called into service. Others took jobs because they knew womanpower must step in when manpower goes to war.

☆ We of the Santa Fe salute these women who know that what they are doing is vital to Victory!

"Back the Attack With War Bonds"



**SANTA FE SYSTEM LINES**

*Serving the Southwest and California*

ONE OF AMERICA'S RAILROADS—ALL UNITED FOR VICTORY



# Loaded for War

Take a good look at this picture. It shows a Santa Fe train loaded for war.

That war train is ready to roll. It is going through!

In railroad language, it has the right-of-way over everything else on the line.

So it must be with all American transportation until this war job is done.

## Victory Rides on Wheels

This is essentially a war of rolling wheels.

Millions of men and tens of millions of tons of vital foods, raw materials, and finished products must be moved swiftly and surely, where and when they are needed.

Stop the wheels that move them, and we stop all that floats and flies as well.

That is why, on the Santa Fe, movements essential to the war effort are topping the greatest transportation job in all our history. They must come first, beyond argument or selfish interest.

★ During 1942, with 26% fewer locomotives, Santa Fe moved 122% more freight ton-miles and 79% more military and civilian passenger-miles than in 1918, during the First World War. The War Department, the ODT, and civilian shippers and travelers everywhere are cooperating 100% with the railroads of America in making records like this possible.



—Working for Victory on the Santa Fe : A Series of Wartime Advertisements. Chicago, IL: Atchison, Topeka & Santa Fe Railway Co. pp. 8 (left) and 2 (right) Print. Courtesy Matt Zebrowski

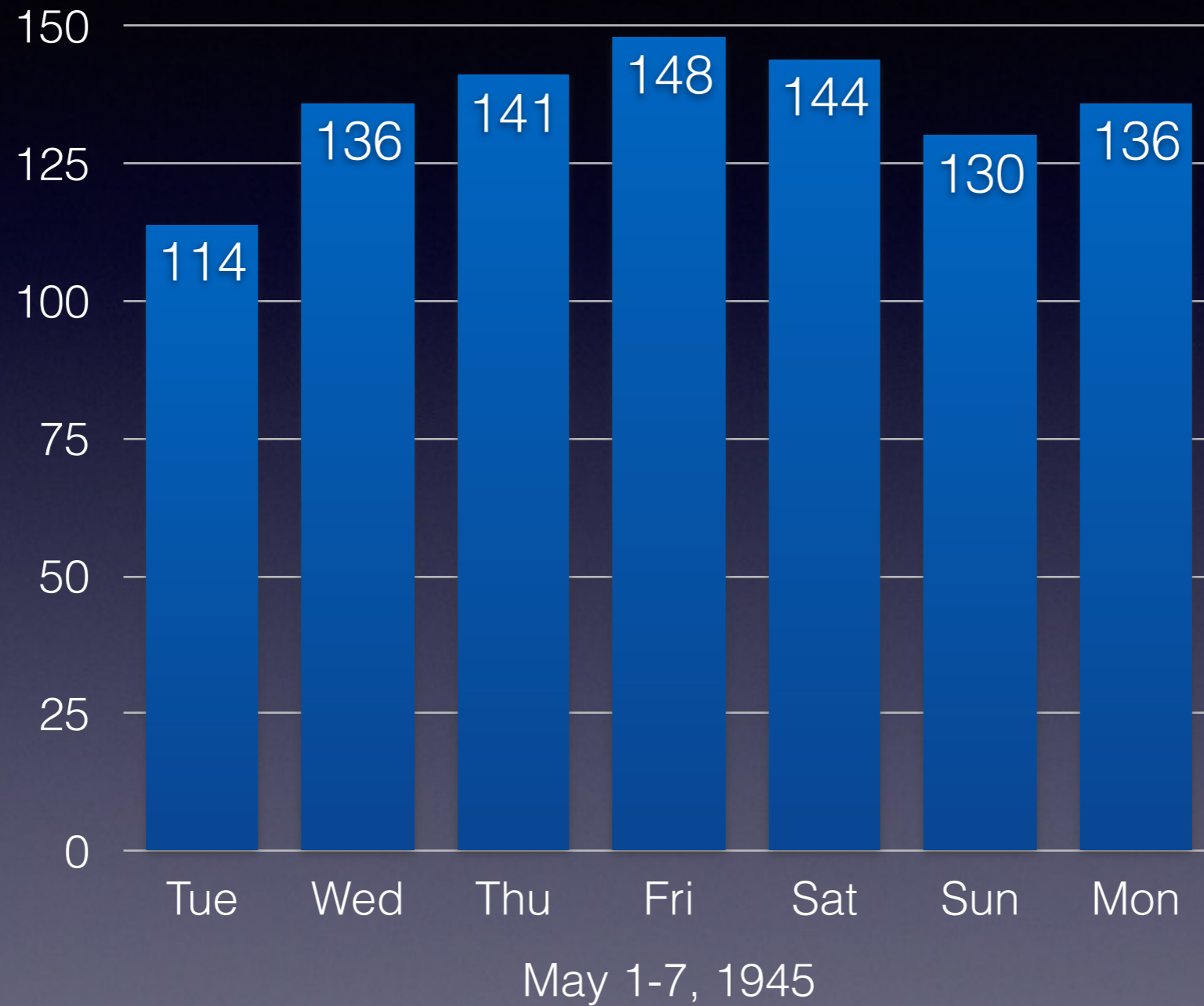


"A sign on a freight car of the Atchison, Topeka and Santa Fe Railroad"

—Jack Delano Photograph,  
Library of Congress  
# LC-DIG-fsa-8d27663

# Trains

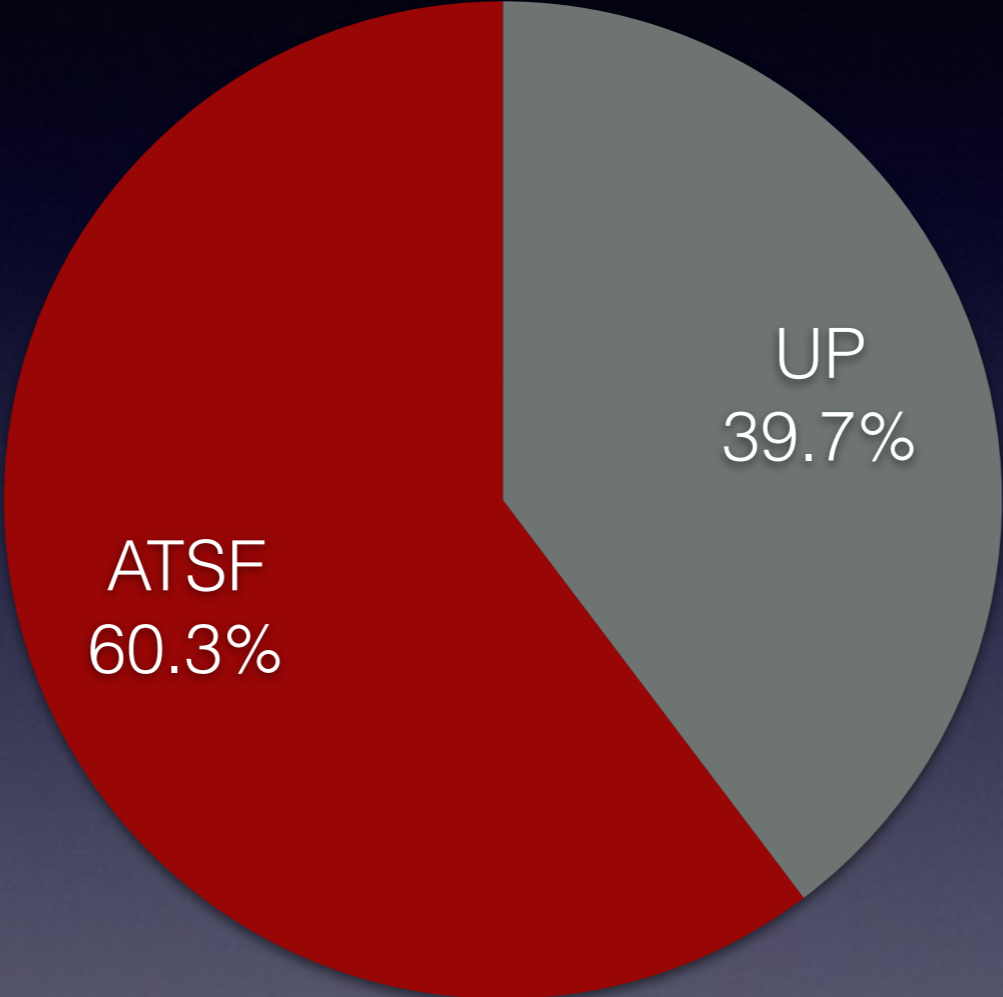
## Number of Trains



Average = 136

The average is lower than reality because some of the data for Tuesday is missing.

# Number of Trains





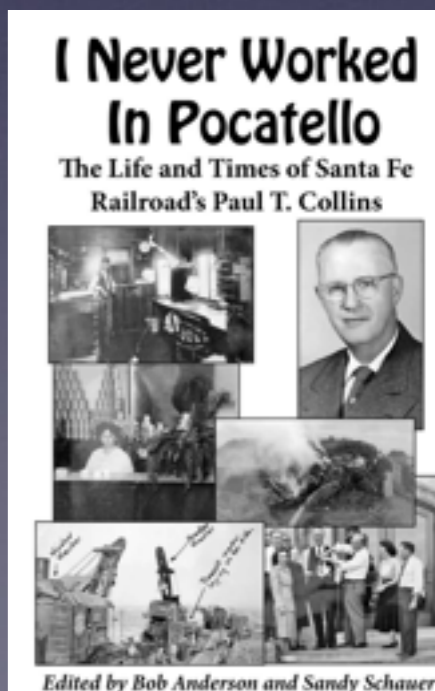
# A Day at San Bernardino

Paul T. Collins, Santa Fe Trainmaster, San Bernardino, 1942:

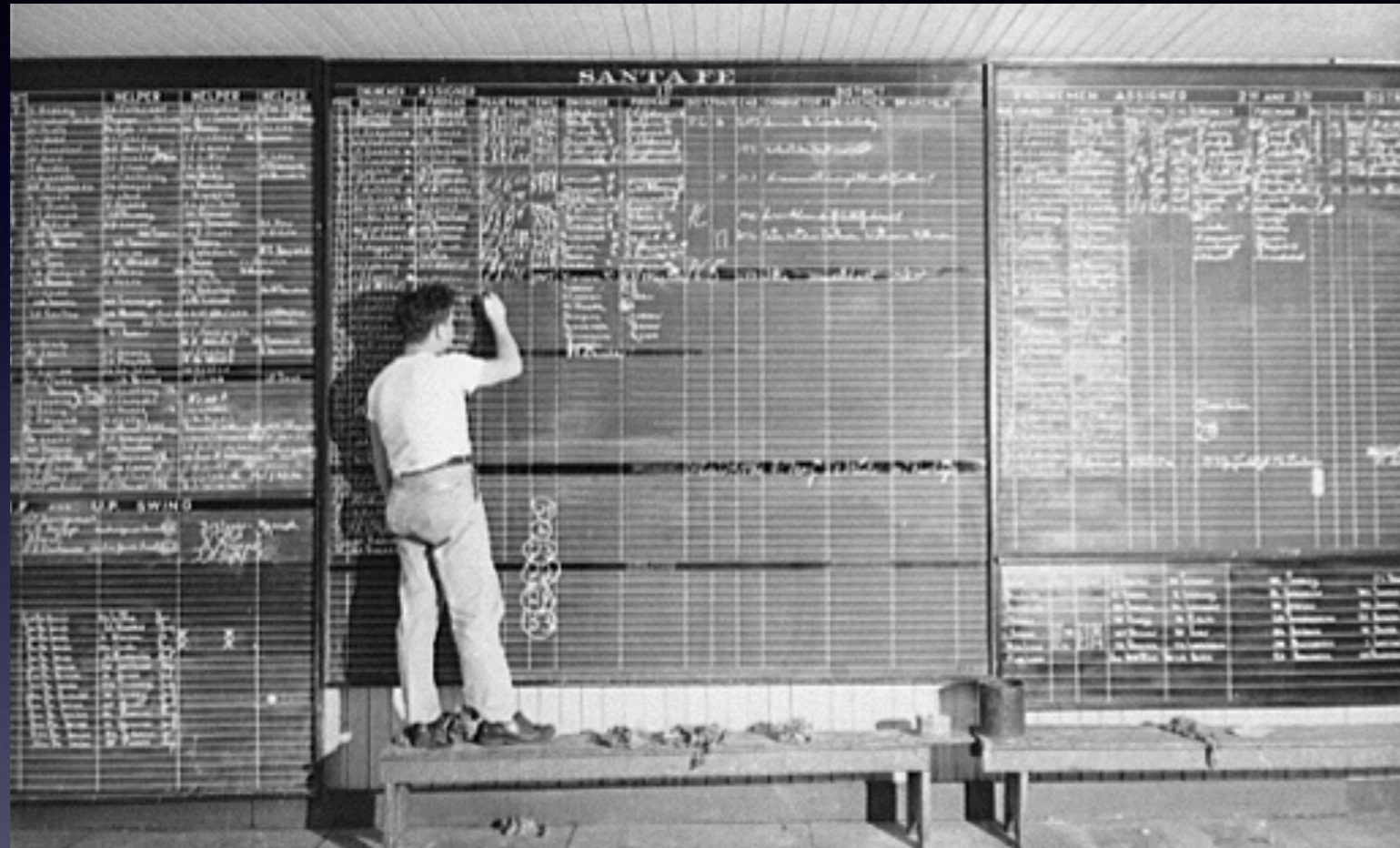
“I had over **500 trains and engine crews** on this eighty-one miles and was working about **fifty engines in the San Bernardino yard**. . . . [W]ith the combined business of two transcontinental railroads moving across it, the density of traffic was enormous. We averaged around **fifty passenger and seventy-five freight trains over it daily.**”

—Anderson, Bob and Sandy Schauer, ed. *I Never Worked in Pocatello : The Life and Times of Santa Fe Railroad's Paul T. Collins*. Lunas, NM: Montanita Publishing, 2013. 62. Print.

© 2015 Stuart A. Forsyth



“San Bernardino, California. The call board at the Atchison, Topeka, and Santa Fe Railroad crew dispatcher's office.”



March 1943

—Jack Delano Photograph, Library of Congress # LC-USW3-022256-D



# Trains at San Bernardino on May 1, 1945



Westward*			Eastward**			
Total Westward	Arrived	Departed	District	Arrived	Departed	Total Eastward
70	70		First		21**	21**
15		15	Second	19		19
38		38	Third	33		33
1		1	Redlands			
124	70	54	Totals	52	21**	73**
Grand Total = 197**						

\*16 Westward trains terminated in San Bernardino

\*\* The numbers for *Eastward Extras* on the First District are lower than reality because most of the data is missing.



# Trains at San Bernardino on May 1, 1945

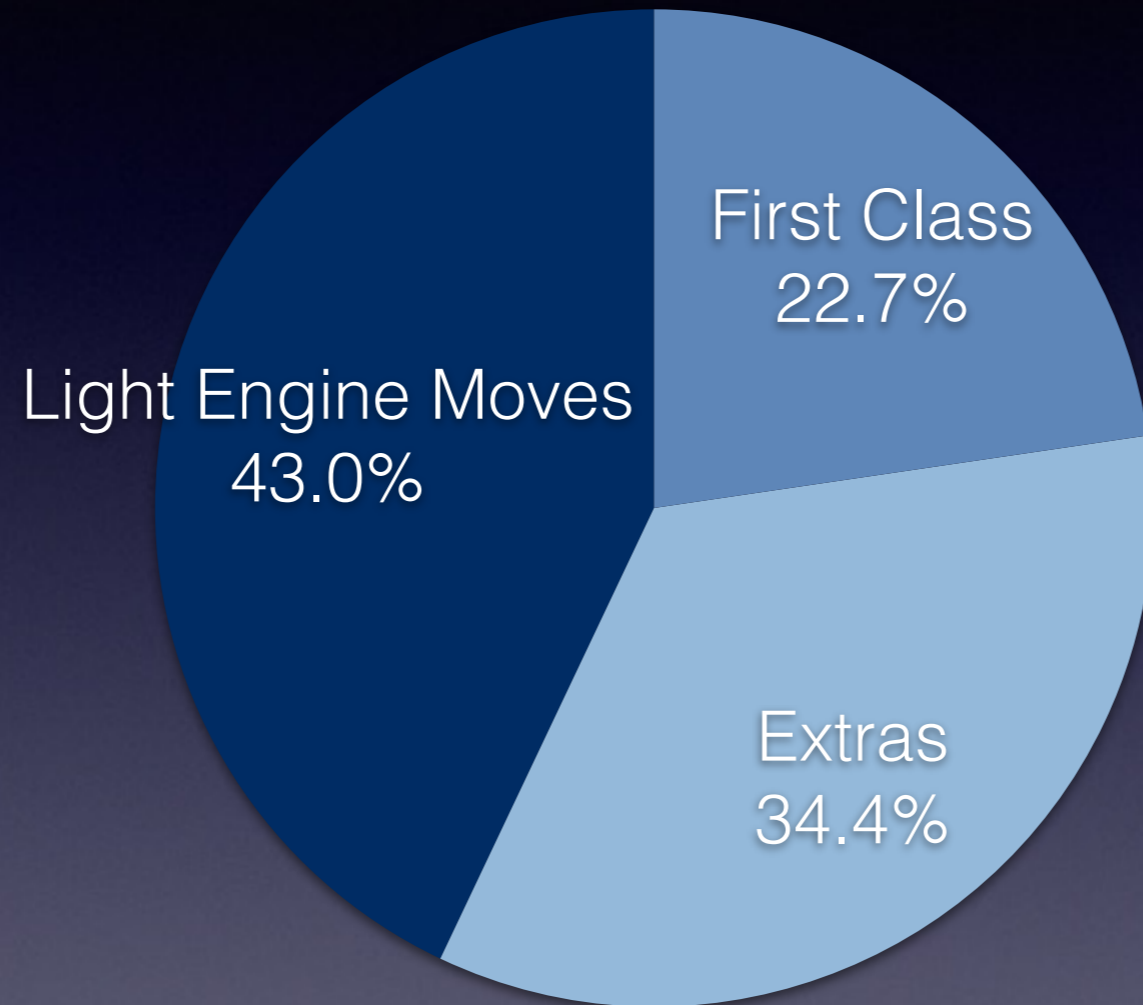


Westward			Eastward			
Total Westward	Arrived	Departed	Location	Arrived	Departed	Total Eastward
35	16	19	Depot	18	15	33
62	29	33	A Yard			
2		2	B Yard	33	6*	39*
12	12		Roundhouse	1		1
13	13		UP Enginehouse			
124	70	54	Totals	52	22	73
Grand Total = 197*						

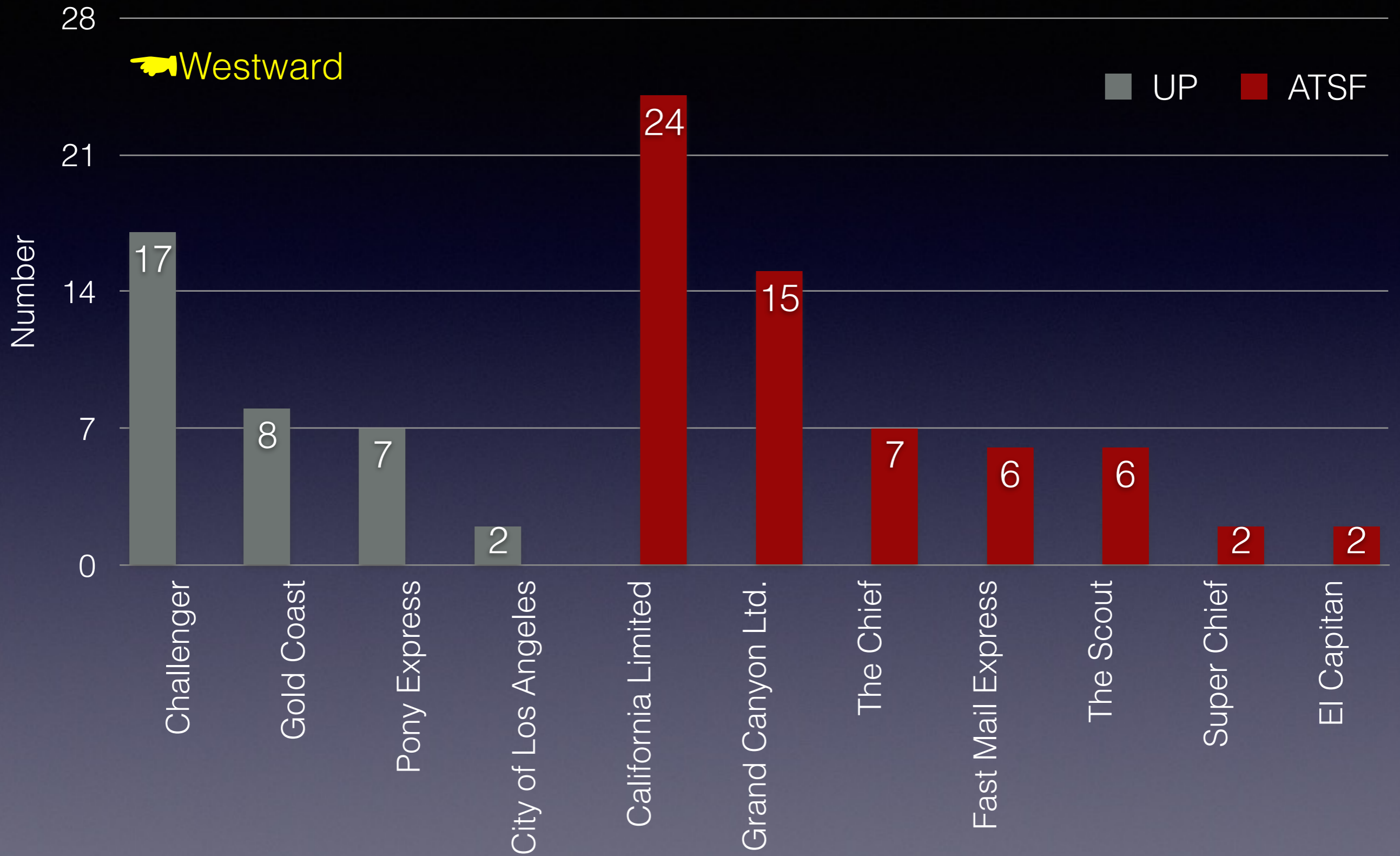
\* The numbers for *Eastward Extras* on the First District are lower than reality because most of the data is missing.

# Types of Trains

## Types of Trains

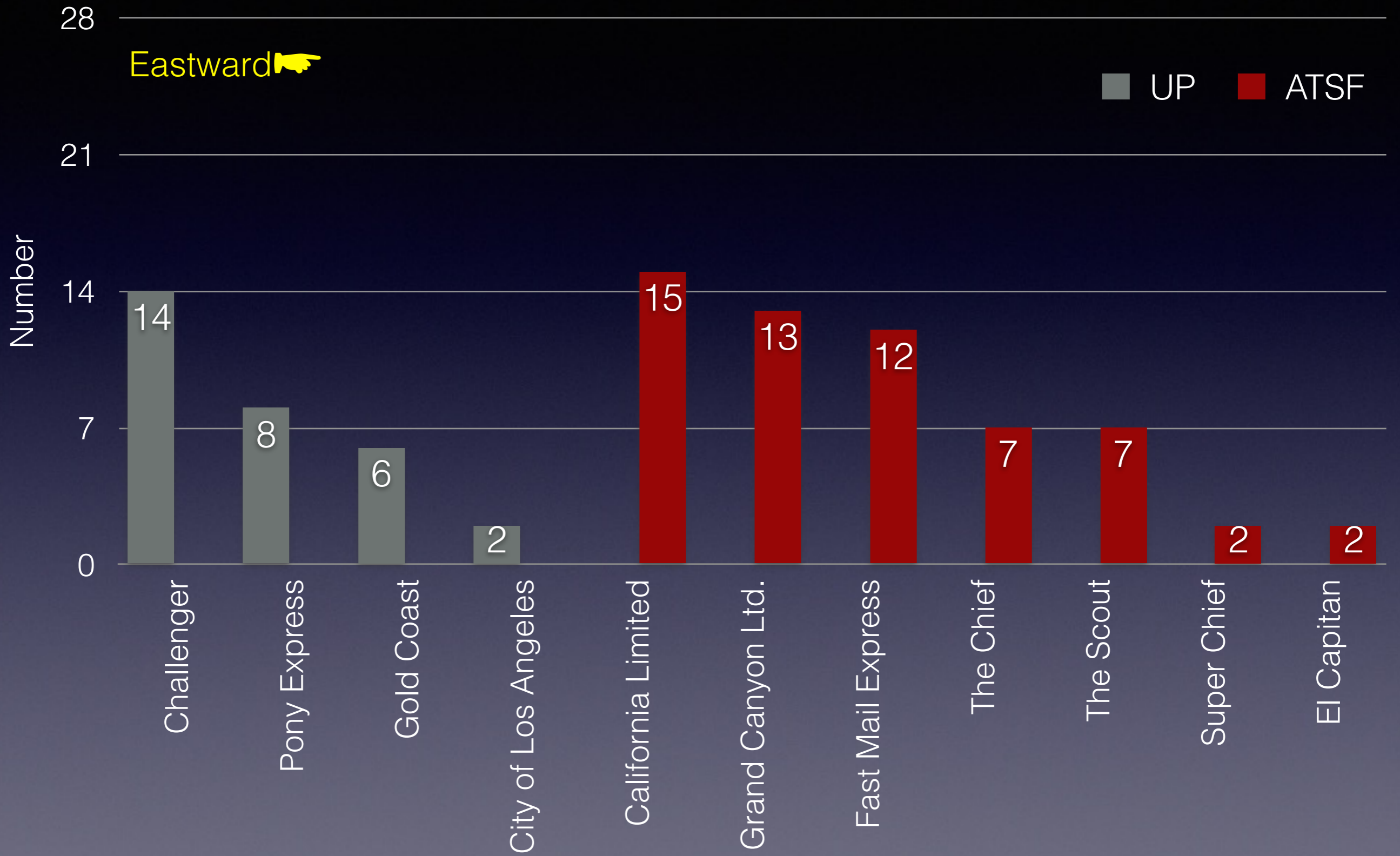


# Number of Westward Passenger Trains Barstow to San Bernardino





# Number of Eastward Passenger Trains San Bernardino to Barstow



## Extra Sections of Passenger Trains

Railroad	Train	Westbound	Eastbound
ATSF	California Limited	17	8
ATSF	Grand Canyon Limited	8	7
ATSF	Fast Mail Express		6
UP	Challenger	10	7
UP	Gold Coast	1	
UP	Pony Express		1

# MAIN Trains

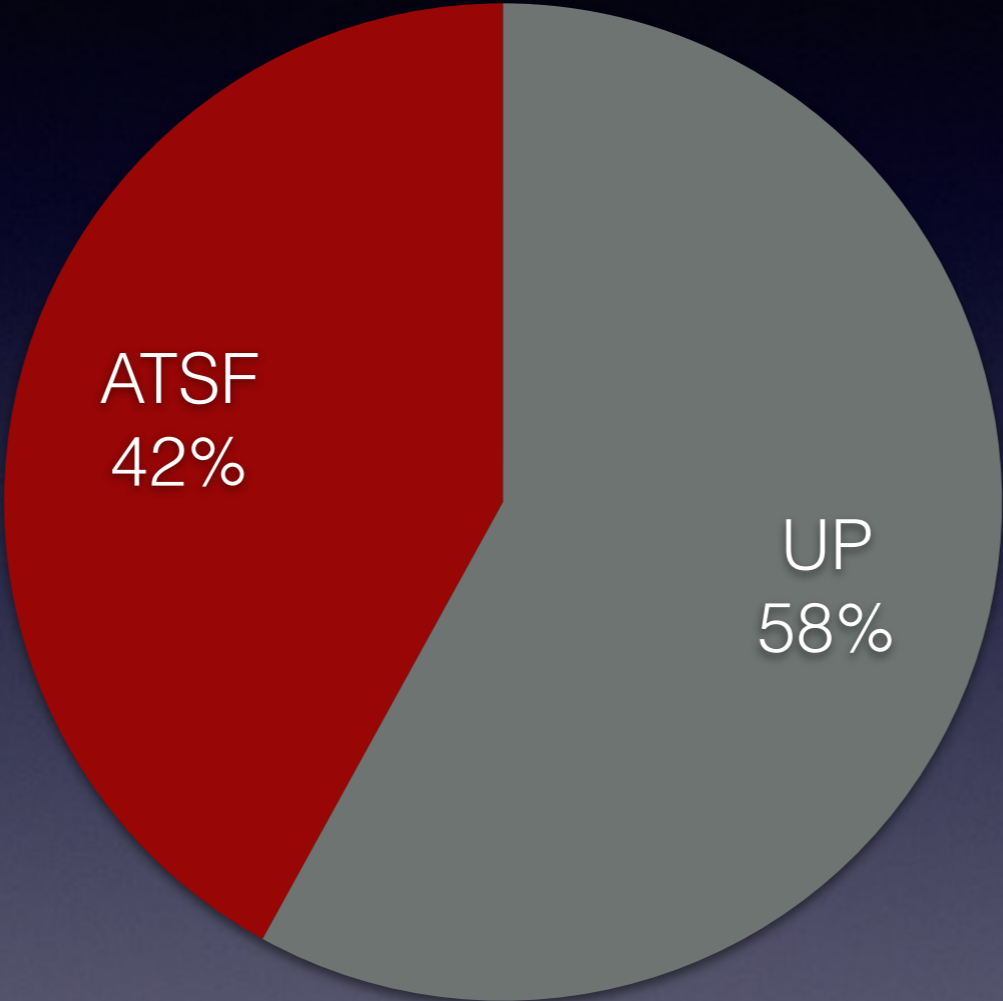
# ATSF FT #108 with a MAIN Train



Lamanda Park, California, May 26, 1946

—Stan Kistler Photograph #SK005052

# Number of MAIN\* Trains



\* Military Authorization Identification Number

## Number of MAIN Trains

	Westbound	Eastbound	Total	Number Percent
ATSF MAIN	2	8	10	42%
UP MAIN	7	7	14	58%
Total	9	15	24	
Direction Percent	38%	63%		

## Number of Cars in MAIN Trains

	Westbound	Eastbound	Total	Number Percent
ATSF MAIN	21	96	117	39%
UP MAIN	100	84	184	61%
Total	121	180	301	
Direction Percent	40%	60%		

## MAIN Trains Running on the Other Railroad's Schedule\*

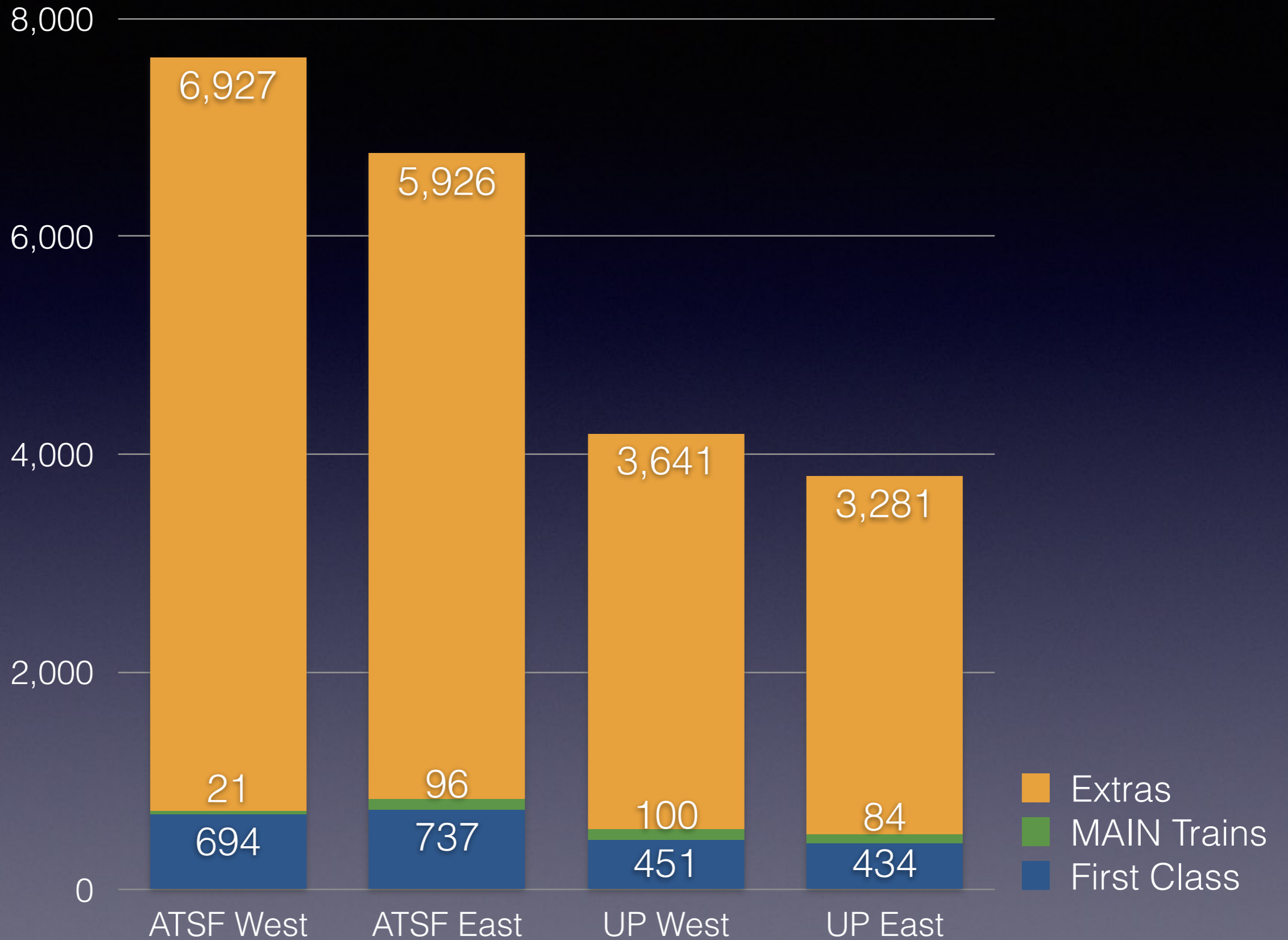
Time	Train	Schedule
5/1/1945 9:11 pm	ATSF 2/224 East MAIN-12681	UP Pacific Limited
5/2/1945 8:03 am	UP 3/8 East MAIN-12505	ATSF Fast Mail Express
5/2/1945 3:48 pm	ATSF 2/224 East MAIN-12398	UP Pacific Limited
5/4/1945 3:46 am	UP 2/23 West MAIN-WMB-29178	ATSF Grand Canyon Ltd
5/4/1945 3:03 pm	ATSF 2/224 East MAIN-13090	UP Pacific Limited
5/5/1945 5:30 pm	UP 1/7 West MAIN-129187	ATSF Fast Mail Express
5/5/1945 10:40 pm	ATSF 3/208 East MAIN-FAM 702	UP Challenger
5/5/1945 10:53 pm	ATSF 4/208 East MAIN-FAM 681	UP Challenger
5/6/1945 5:28 am	ATSF 2/237 West MAIN-12331	UP Los Angeles Limited
5/7/1945 3:20 pm	ATSF 2/224 East MAIN-WMB-30218	UP Pacific Limited

\*10 out of 24 MAIN Trains (41.6%)

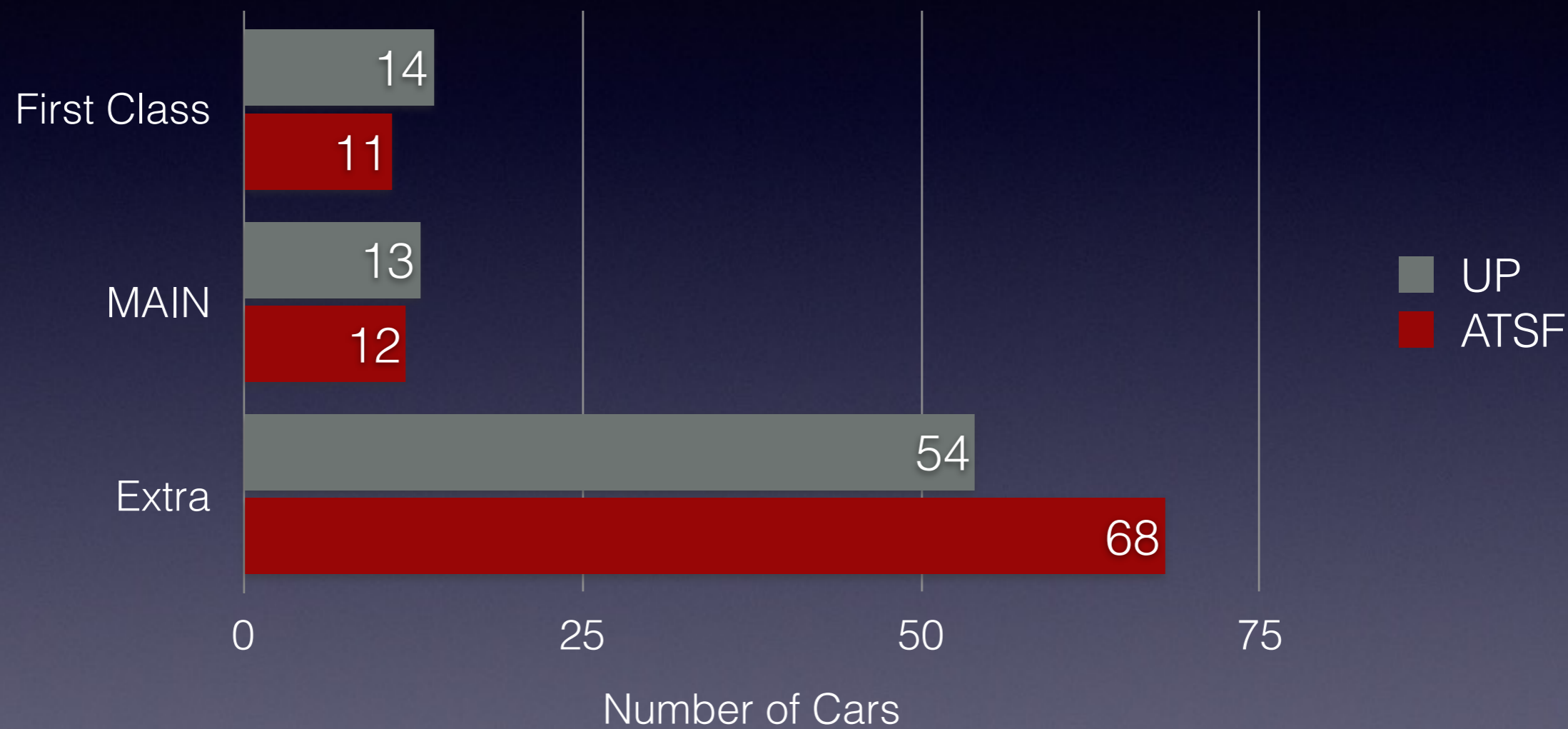


# Lengths

# Total Number of Cars in Each Type of Train



## Average Length of Trains



## Minimum and Maximum Lengths of Extra Trains

	Minimum	Maximum
ATSF First	4	18
ATSF MAIN	9	18
ATSF Extra	16	99
UP First	6	18
UP MAIN	6	19
UP Extra	2	79

# The Longest Train

- **ATSF X 3852 West DRAG:** On May 1, 1945, ATSF #3852, a 3800 Class 2-10-2, hauled **97 loads and 2 empties** weighing a total of 2,941 tons from Barstow to San Bernardino. The train was helped from Victorville to Summit by two ATSF 1600 Class 2-10-2s #1621 and #1660.

# The Shortest Train

- **UP X 5522 East LNT:** On May 2, 1945, UP #5522, a TTT-7 Class 2-10-2, hauled only **2 loads** weighing a total of 110 tons from San Bernardino to Leon as the UP's Leon Turn.

# Tonnages



# Loaded for War

★ To "Keep 'Em Rollin'"... Load Cars to Capacity... Unload Promptly

★ Feel free to call on us at any time for practical suggestions on expediting the handling of your freight.

L. W. O'Brien, D.F. & P.A.  
Santa Fe Station

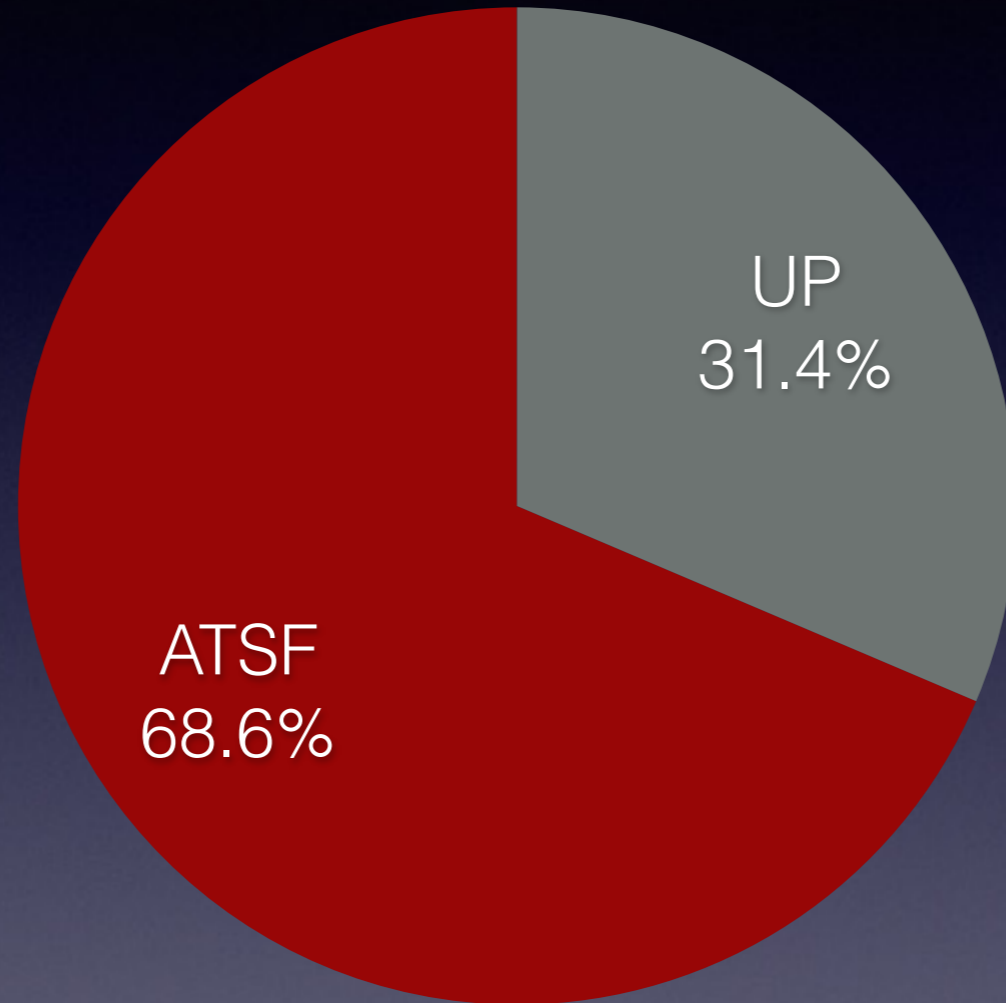
W. S. Cunningham, T.F.A.  
Telephone: 2111

C. R. Wise, T.F.A.      T. C. Osborn, T.R.  
San Bernardino, California

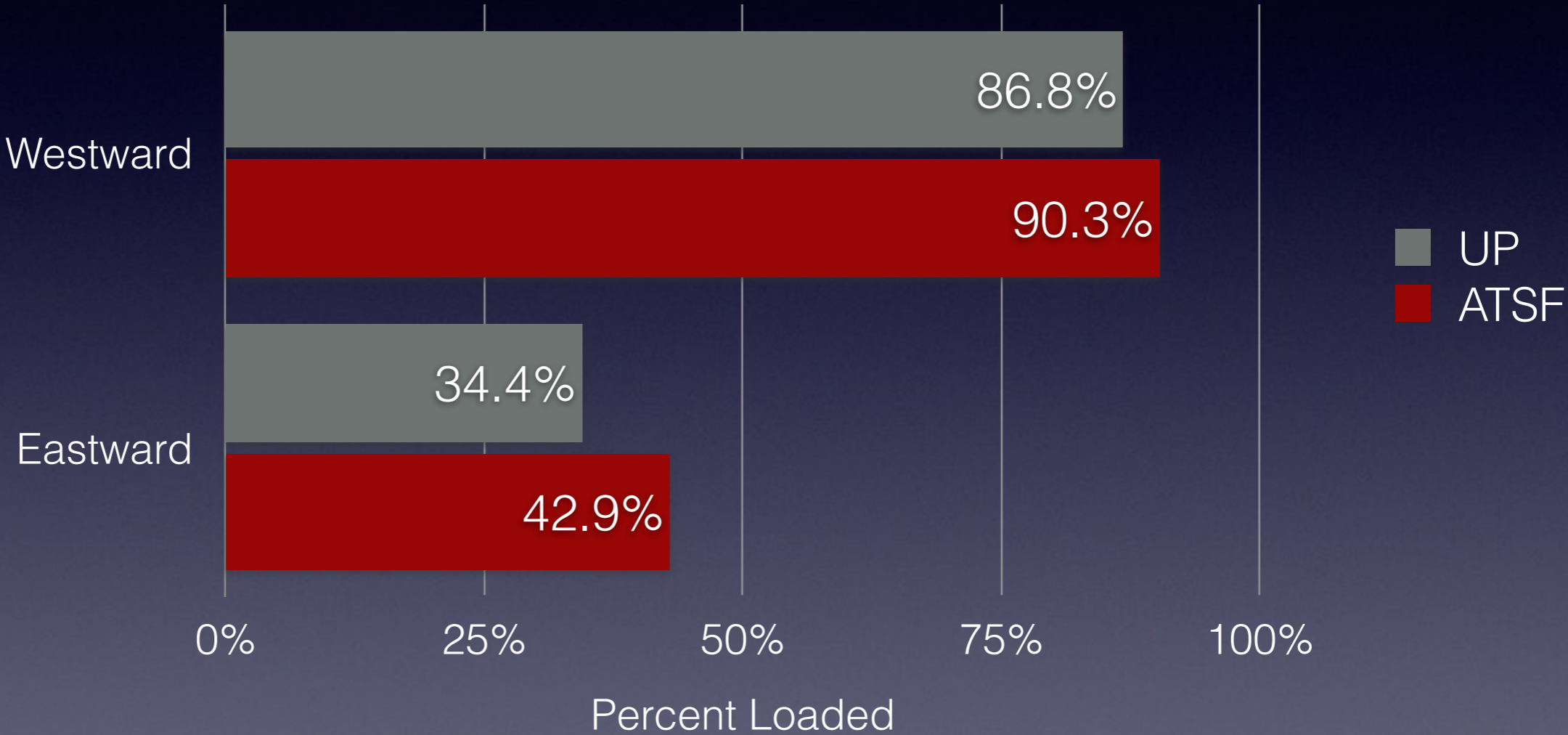
—Blotter, Ed Von Nordeck Collection, SFRH&MS Western Archives, courtesy Jeff Staggs



## Total Tonnage

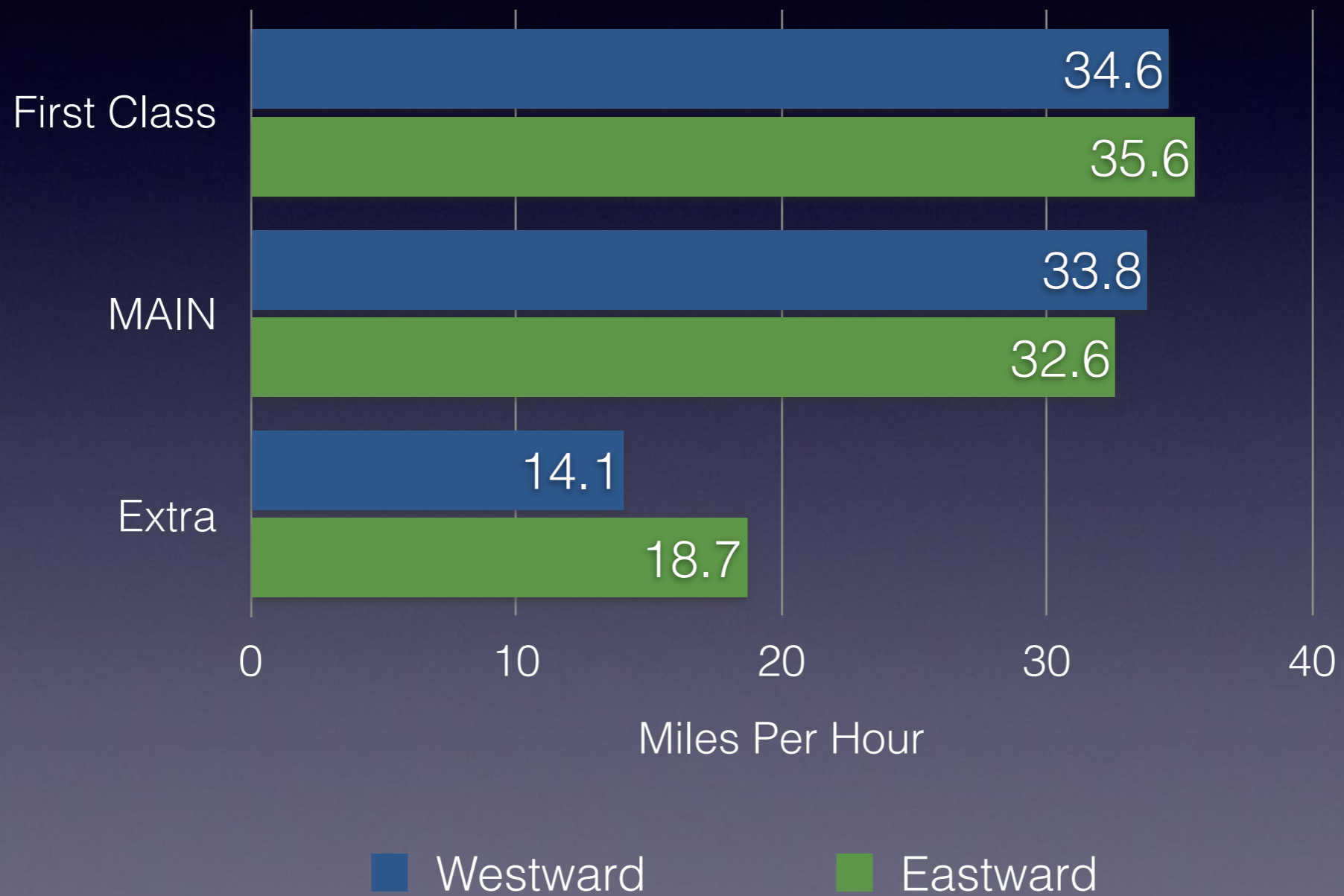


# Loaded Cars in Extra Trains



# Speeds

## Average Train Speeds Between San Bernardino and Barstow



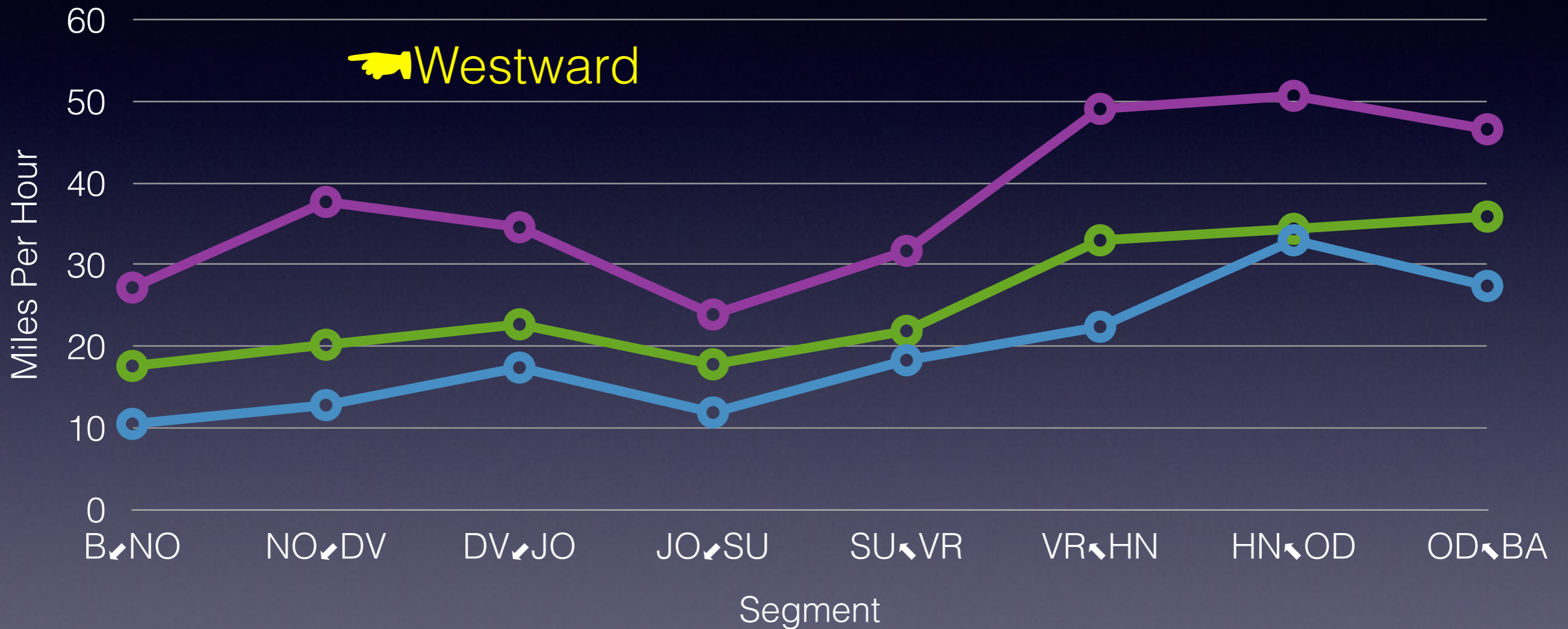
# Average Train Speeds (By Segment)

○ First

○ Extras

○ Helpers

➔ Westward



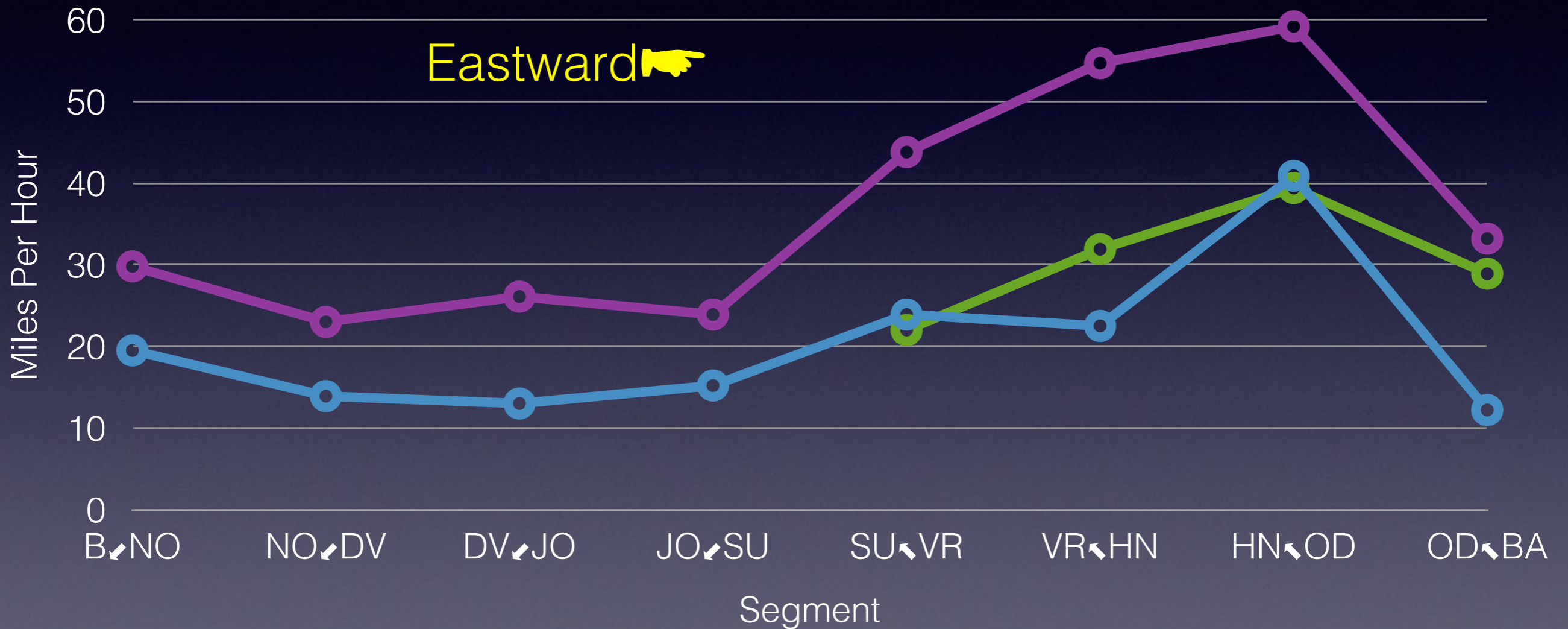
# Average Train Speeds (By Segment)

○ First

○ Extras

○ Helpers

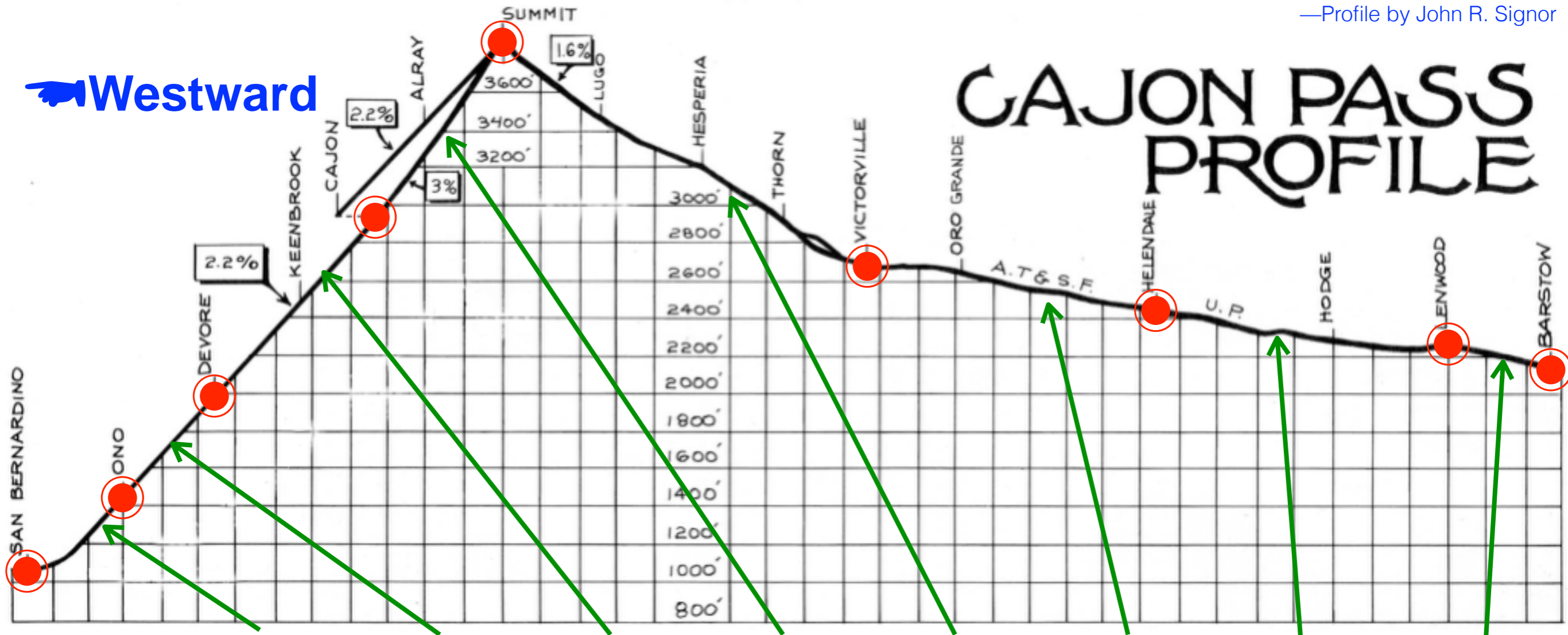
Eastward 



# Fastest Train Speeds (By Segment)

—Profile by John R. Signor

Westward

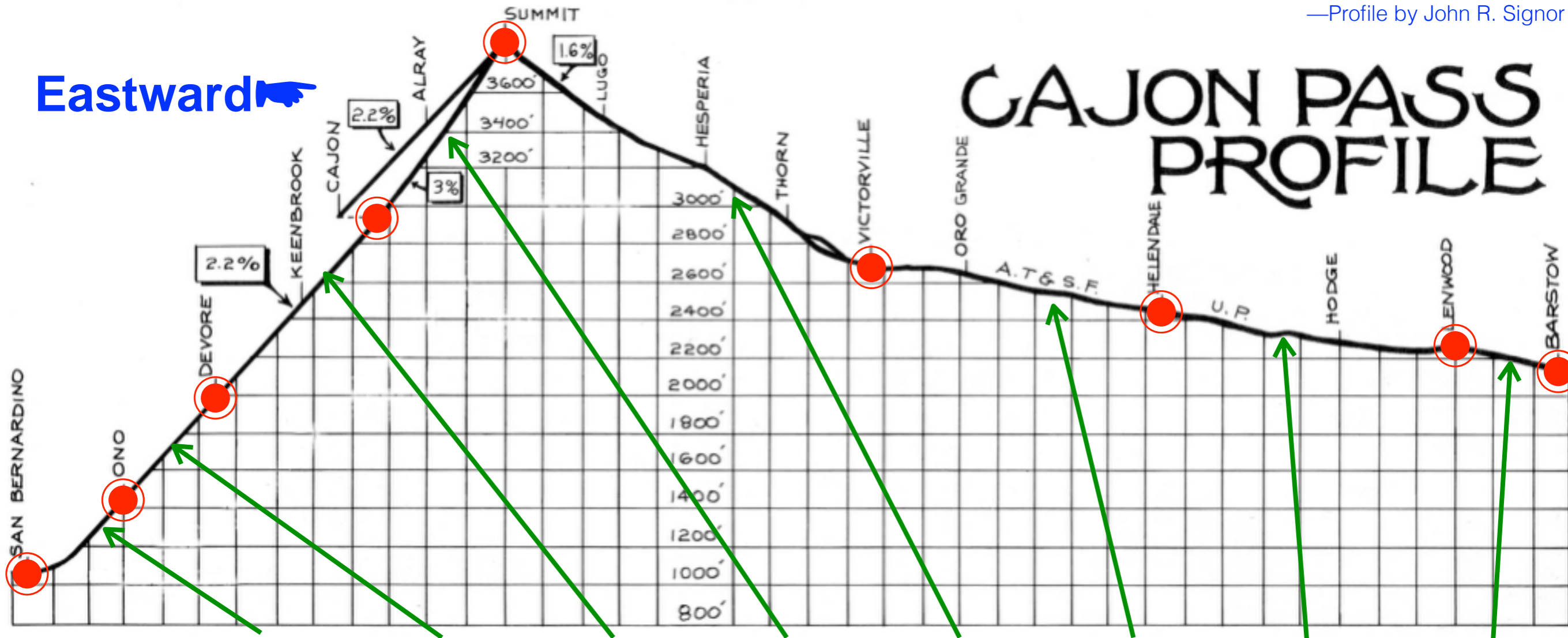


	B↙NO	NO↙DV	DV↙JO	JO↙SU	SU↙VR	VR↙HN	HN↙OD	OD↙BA
First	46.3	60.0	45.8	32.5	49.8	66.0	81.3	51.4
MAIN	36.0	50.0	45.8	30.0	47.8	54.4	59.6	45.0
Extras	23.1	60.0	84.0	30.0	30.2	61.6	55.9	45.0
Helpers	64.8	75.0	72.0	48.8	35.8	33.0	34.4	40.0

# Fastest Train Speeds (By Segment)

—Profile by John R. Signor

Eastward 



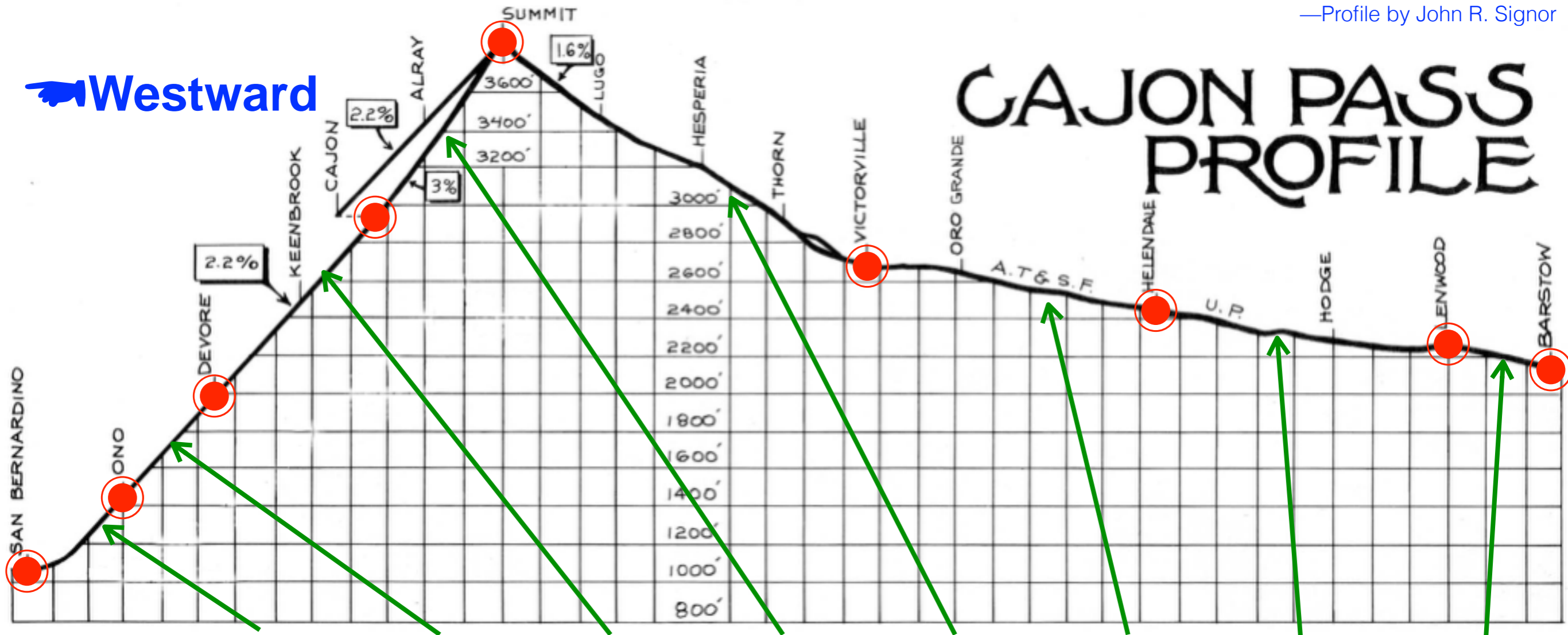
	B↗NO	NO↗DV	DV↗JO	JO↗SU	SU↘VR	VR↘HN	HN↘OD	OD↘BA
First	64.8	33.3	42.0	56.7	52.1	57.7	63.9	45.8
MAIN	64.8	30.0	33.6	34.0	42.4	71.1	59.6	52.3
Extras	46.3	33.3	38.8	42.5	44.1	46.2	47.1	61.0
Helpers					57.3	77.0	89.4	91.5



# Slowest Train Speeds (By Segment)

—Profile by John R. Signor

Westward

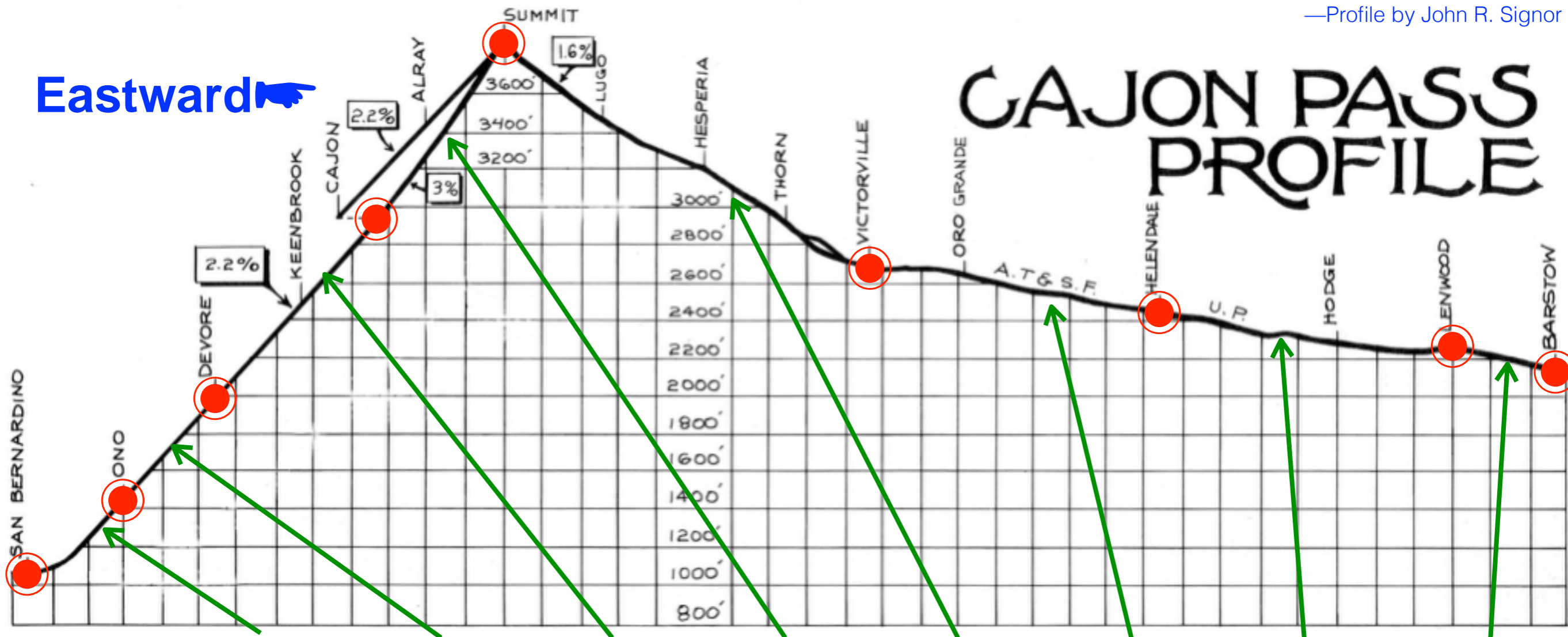


	B↙NO	NO↙DV	DV↙JO	JO↙SU	SU↙VR	VR↙HN	HN↙OD	OD↙BA
First	8.8	15.0	11.5	10.3	16.4	28.9	27.1	11.3
MAIN	11.6	33.3	33.6	14.4	20.1	48.6	49.7	30.0
Extras	4.6	0.4	10.1	3.5	6.0	5.4	14.7	10.8
Helpers	4.5	13.6	5.1	4.3	11.2	33.0	34.4	25.7

# Slowest Train Speeds (By Segment)

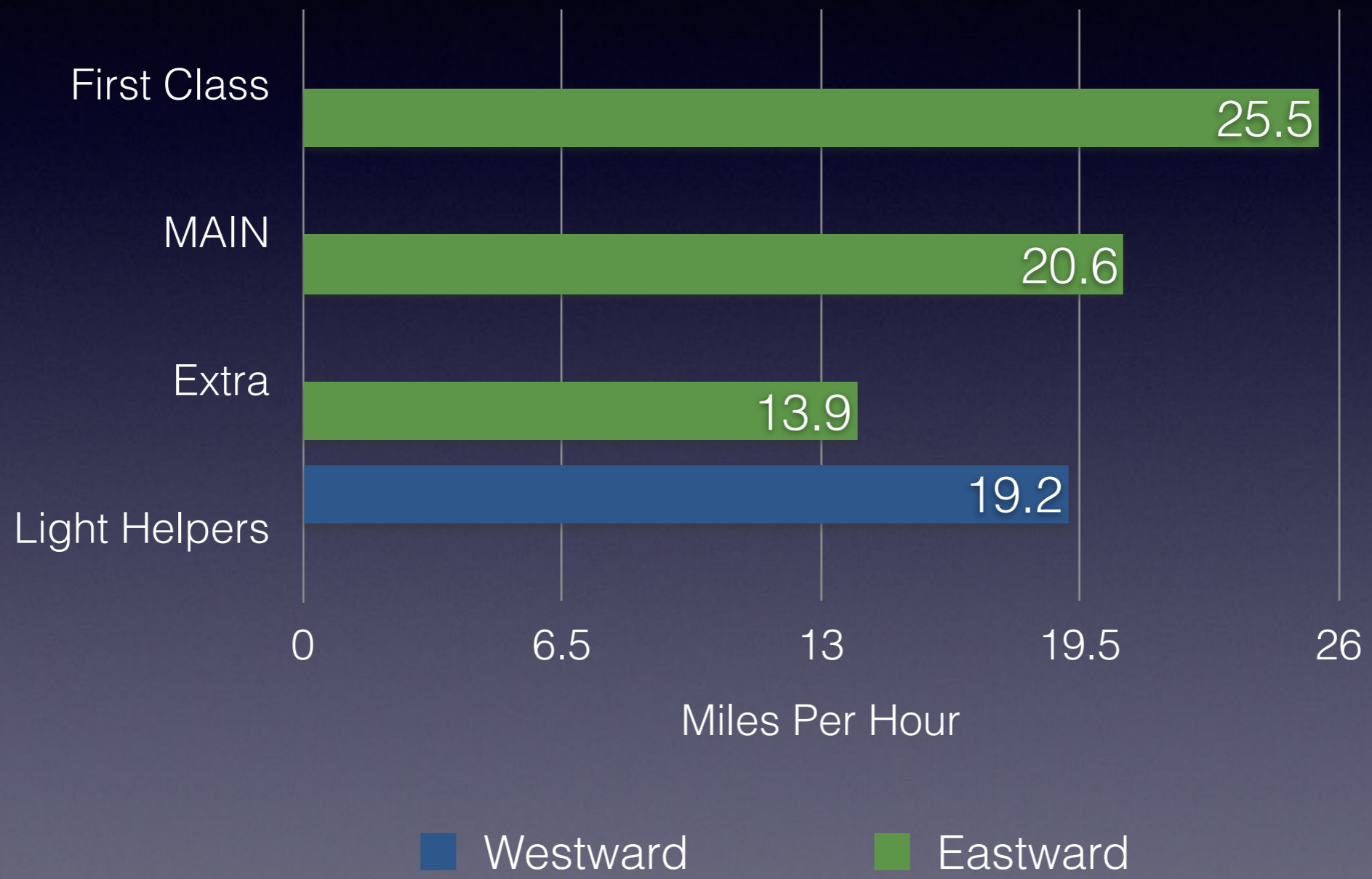
—Profile by John R. Signor

Eastward 



	B↗NO	NO↗DV	DV↗JO	JO↗SU	SU↘VR	VR↘HN	HN↘OD	OD↘BA
First	4.7	13.6	14.8	15.0	18.2	37.0	40.6	15.3
MAIN	18.0	11.1	20.2	17.0	34.7	37.0	47.1	24.4
Extras	4.5	1.7	5.3	7.1	6.2	0.6	10.4	0.5
Helpers					8.5	21.5	35.8	17.4

# Average Train Speeds Between San Bernardino and Summit



## Train Speeds Between San Bernardino and Barstow

	Average	Slowest	Fastest
Westward First	34.6	24.4	47.1
Westward MAIN	33.8	29.0	39.7
Westward Extra	14.1	4.6	34.1
Eastward First	35.6	24.8	47.8
Eastward MAIN	32.6	28.9	39.7
Eastward Extra	18.7	8.9	33.1

Miles Per Hour

# ATSF FT #167 with No. 20 (Eastward Chief)

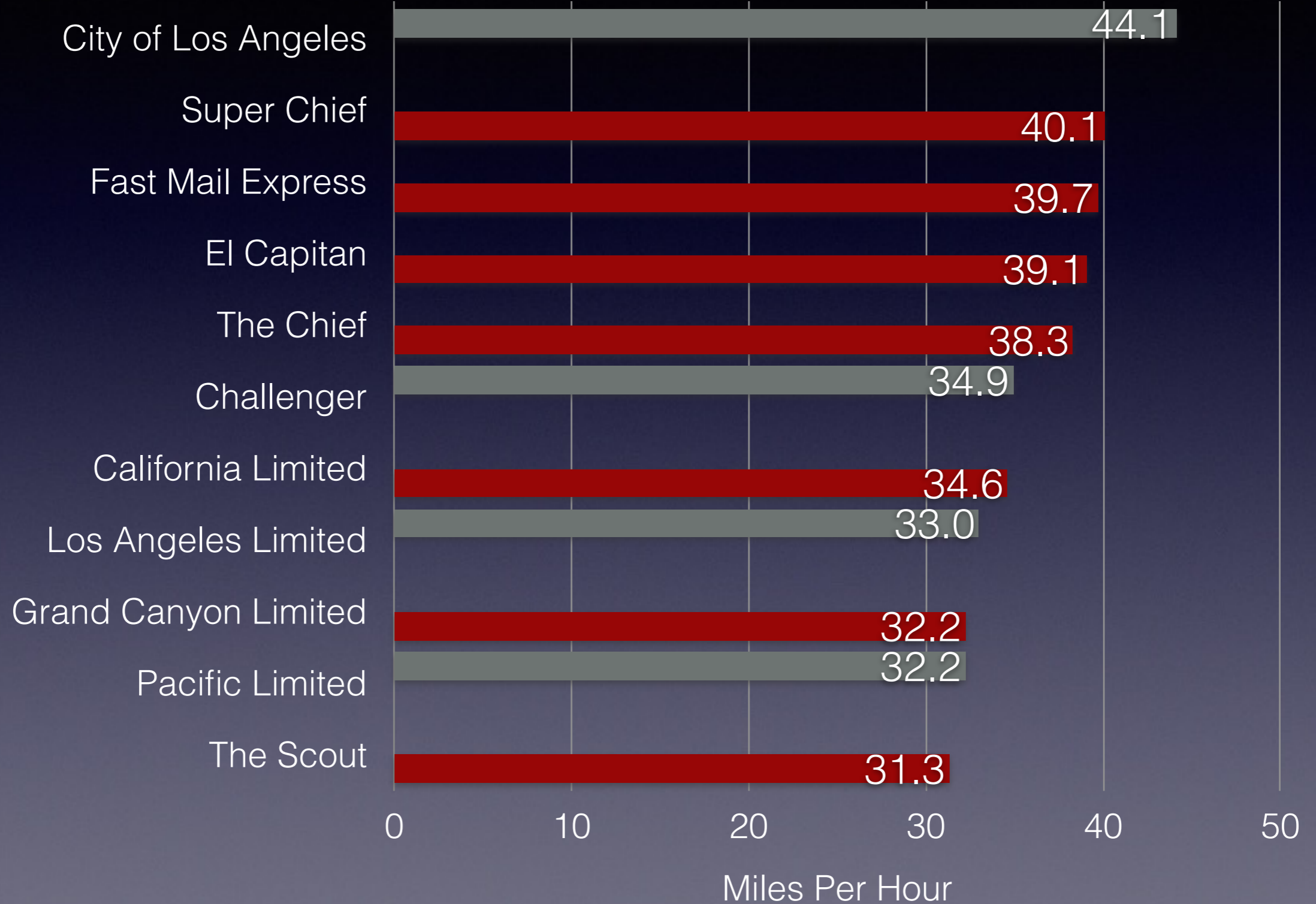


Pasadena, California, July 10, 1945

—Stan Kistler Photograph #SK005056

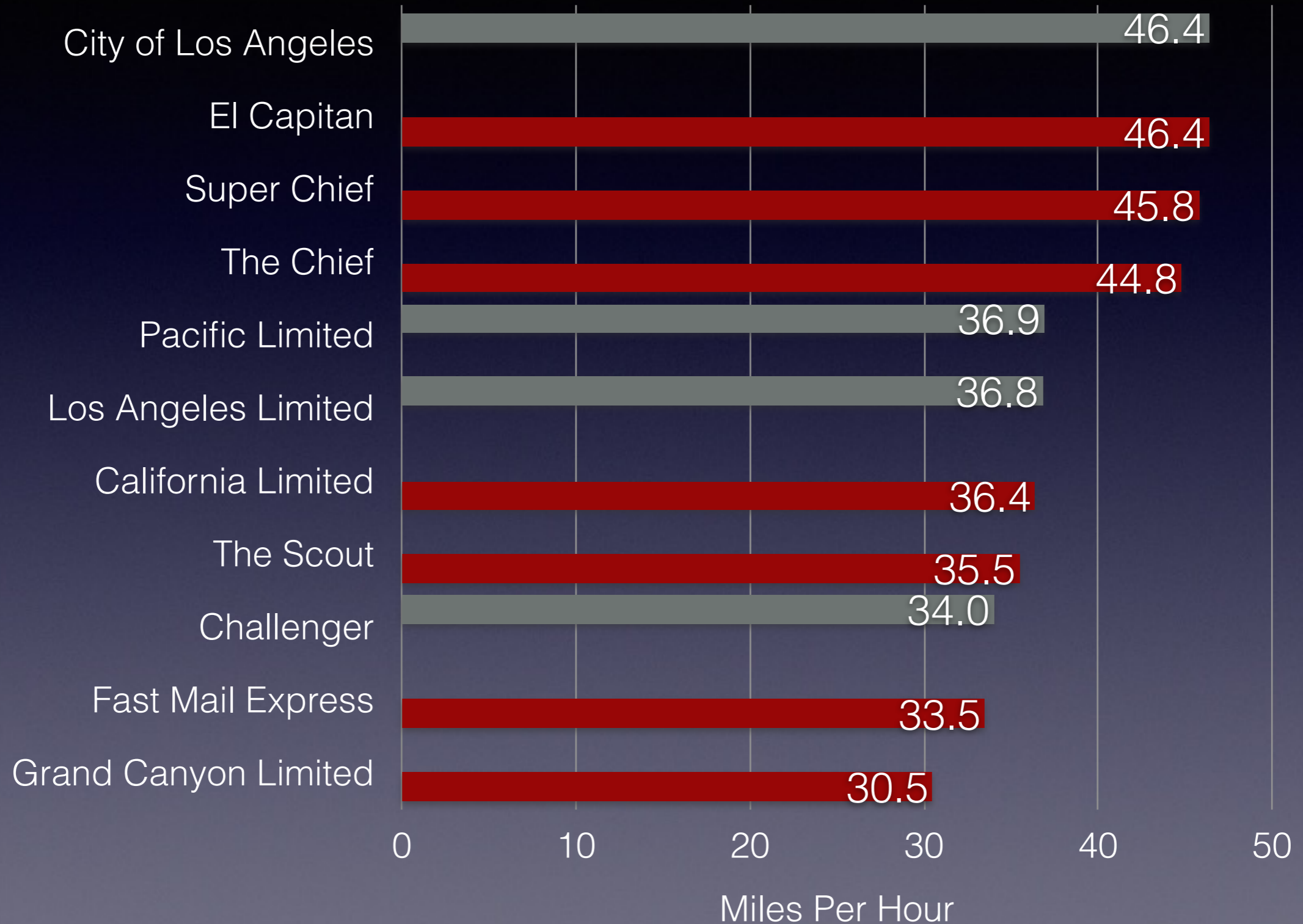
# Average Westward Passenger Train Speeds Barstow to San Bernardino

■ UP  
■ ATSF



■ UP  
■ ATSF

## Average Eastward Passenger Train Speeds San Bernardino to Barstow



# First Class Train Speeds

👉 Westward



San Bernardino

Barstow

	B↔NO	NO↔DV	DV↔JO	JO↔SU	SU↔VR	VR↔HN	HN↔OD	OD↔BA
Fastest	46.3	60.0	45.8	32.5	49.8	66.0	81.3	51.4
Slowest	8.8	15.0	11.5	10.3	16.4	28.9	27.1	11.3
● Average	27.2	37.7	34.6	23.9	31.7	49.1	50.7	46.6



# First Class Train Speeds

Eastward 

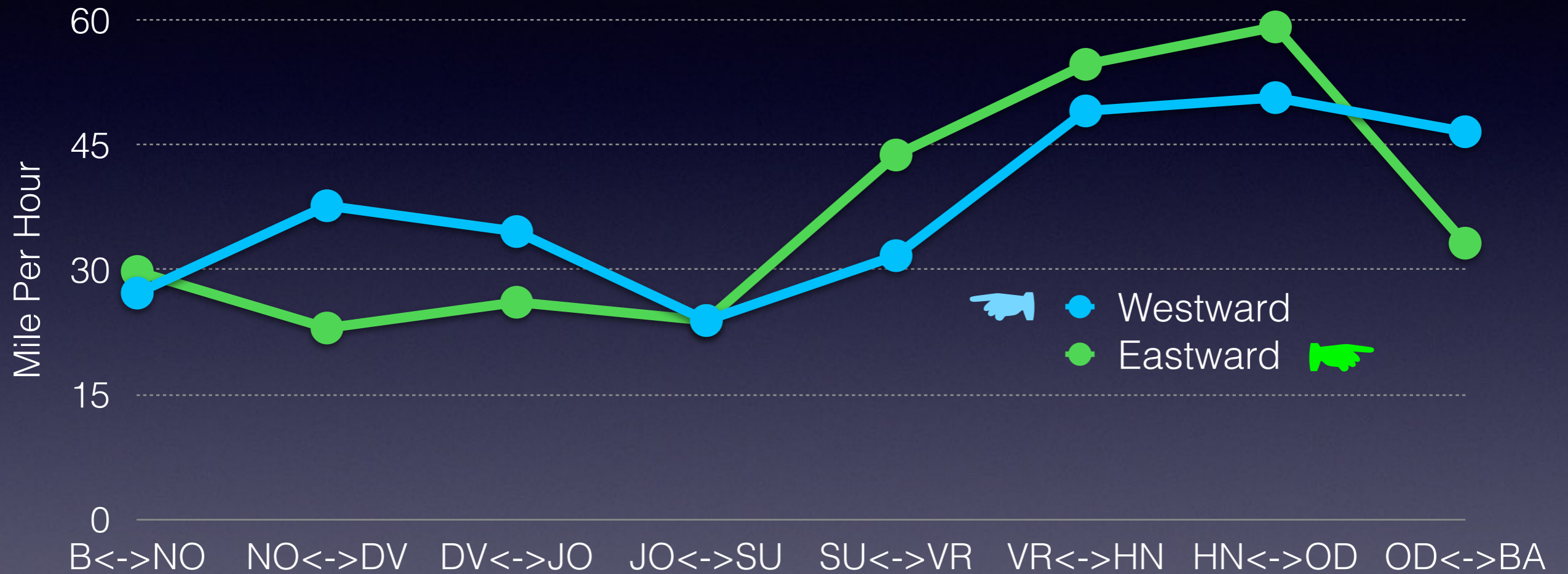


San Bernardino

Barstow

	B↔NO	NO↔DV	DV↔JO	JO↔SU	SU↔VR	VR↔HN	HN↔OD	OD↔BA
Fastest	64.8	33.3	42.0	56.7	52.1	57.7	63.9	45.8
Slowest	4.7	13.6	14.8	15.0	18.2	37.0	40.6	15.3
Average	29.8	23.0	26.1	23.9	43.8	54.7	59.2	33.2

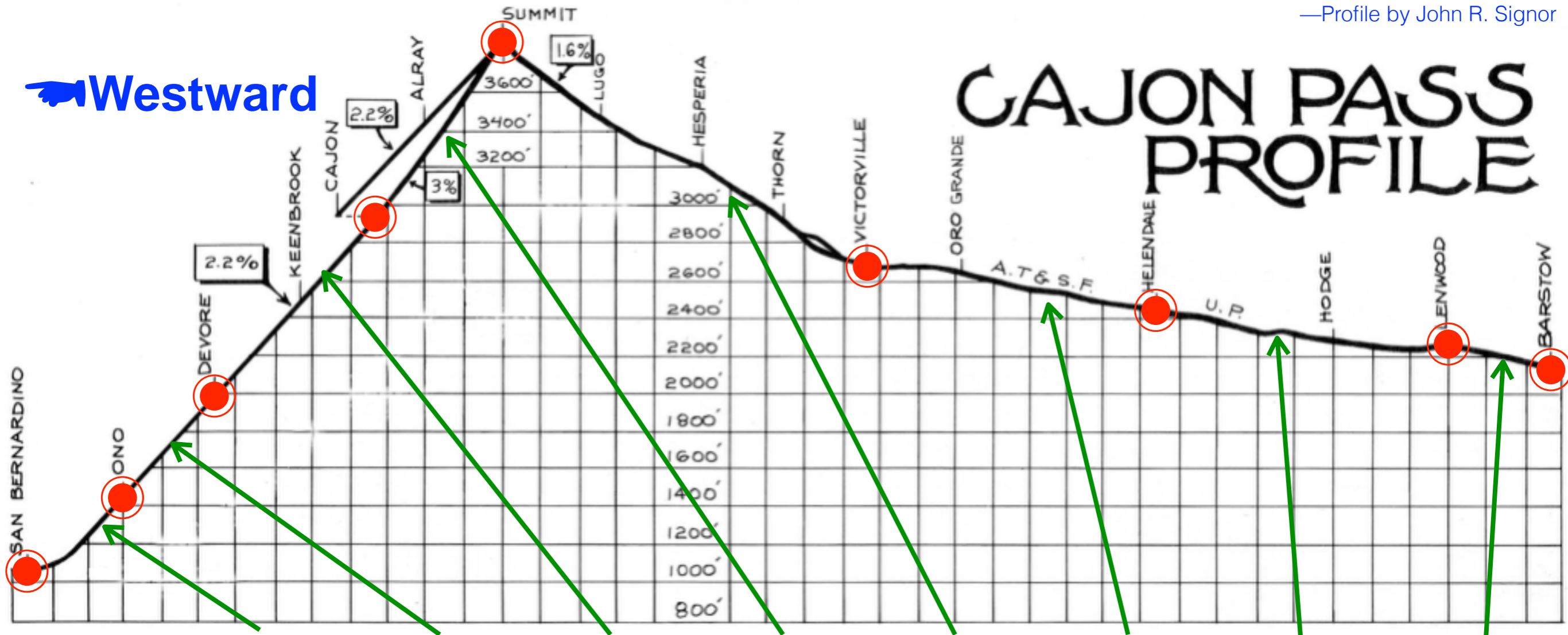
# Average **First Class** Train Speeds (By Segment)



# Average Train Speeds (By Segment)

—Profile by John R. Signor

Westward

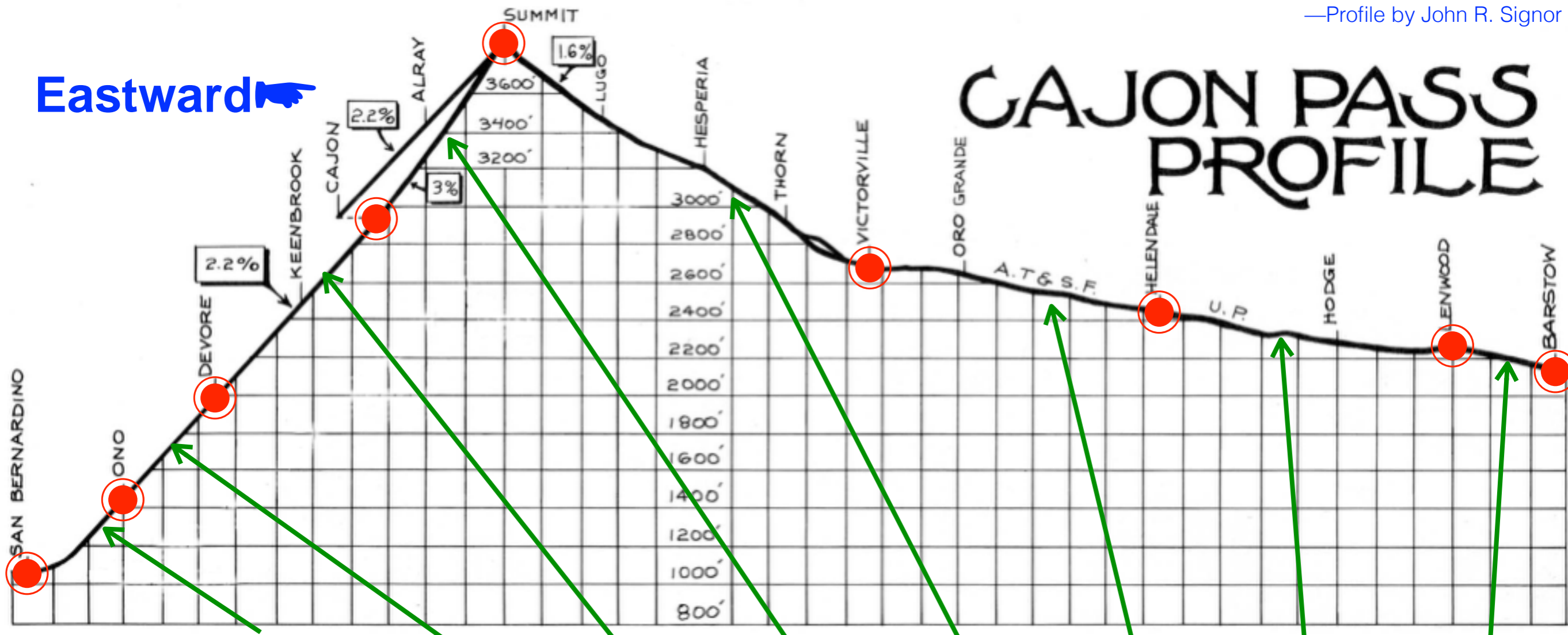


	B↙NO	NO↙DV	DV↙JO	JO↙SU	SU↙VR	VR↙HN	HN↙OD	OD↙BA
First	27.2	37.7	34.6	23.9	31.7	49.1	50.7	46.6
MAIN	24.5	39.1	37.8	21.4	31.3	51.3	55.9	50.5
Extras	10.5	12.8	17.4	11.9	18.3	22.4	33.0	27.4
Helpers	17.6	20.2	22.7	17.8	21.9	33.0	34.4	35.9

# Average Train Speeds (By Segment)

—Profile by John R. Signor

Eastward 



	B↗NO	NO↗DV	DV↗JO	JO↗SU	SU↘VR	VR↘HN	HN↘OD	OD↘BA
First	29.8	23.0	26.1	23.9	43.8	54.7	59.2	33.2
MAIN	28.3	18.6	34.4	22.6	43.0	50.5	54.5	32.8
Extras	19.5	13.9	13.0	15.2	23.9	22.5	40.9	12.2
Helpers					22.0	31.9	39.4	28.9

# ATSF X149 West with 2-10-2 Helper #3848 on the Point



Near Hesperia, California, circa 1947

—Stan Kistler Photograph

# Speed Restrictions

IN COMPLIANCE WITH TIMETABLE SPECIAL RULE 19, Speed Restrictions:

FIRST DISTRICT:

**Freight trains** will consume not less than:

Summit to Hesperia	27 minutes
Summit to Cajon	30 minutes
Cajon to Devore	26 minutes
Devore to San Bernardino	03 minutes for each mile run

—Atchison, Topeka and Santa Fe Ry Co., Coast Lines, Los Angeles Division,  
Superintendent's Reissue of Bulletin Instructions, Effective January 1, 1945,  
sec. 81, para. (c), p. 94.



“The brakeman opening the retainer valve on a car on the Atchison, Topeka and Santa Fe Railroad between Barstow and San Bernardino, California. From here to San Bernardino is one long downgrade of more than 2700 feet.”

—Jack Delano Photograph,  
Library of Congress  
# LC-DIG-fsa-8d27552

Summit, California, March 1943



“Passing an eastbound passenger train, the Chief, while coming down the mountain on the Atchison, Topeka, and Santa Fe Railroad between Barstow and San Bernardino, California.”

—Jack Delano Photograph,  
Library of Congress  
# LC-DIG-fsa-8d27573

Vicinity of Summit, California, March 1943



# Extra Train Speeds

👉 Westward



San Bernardino

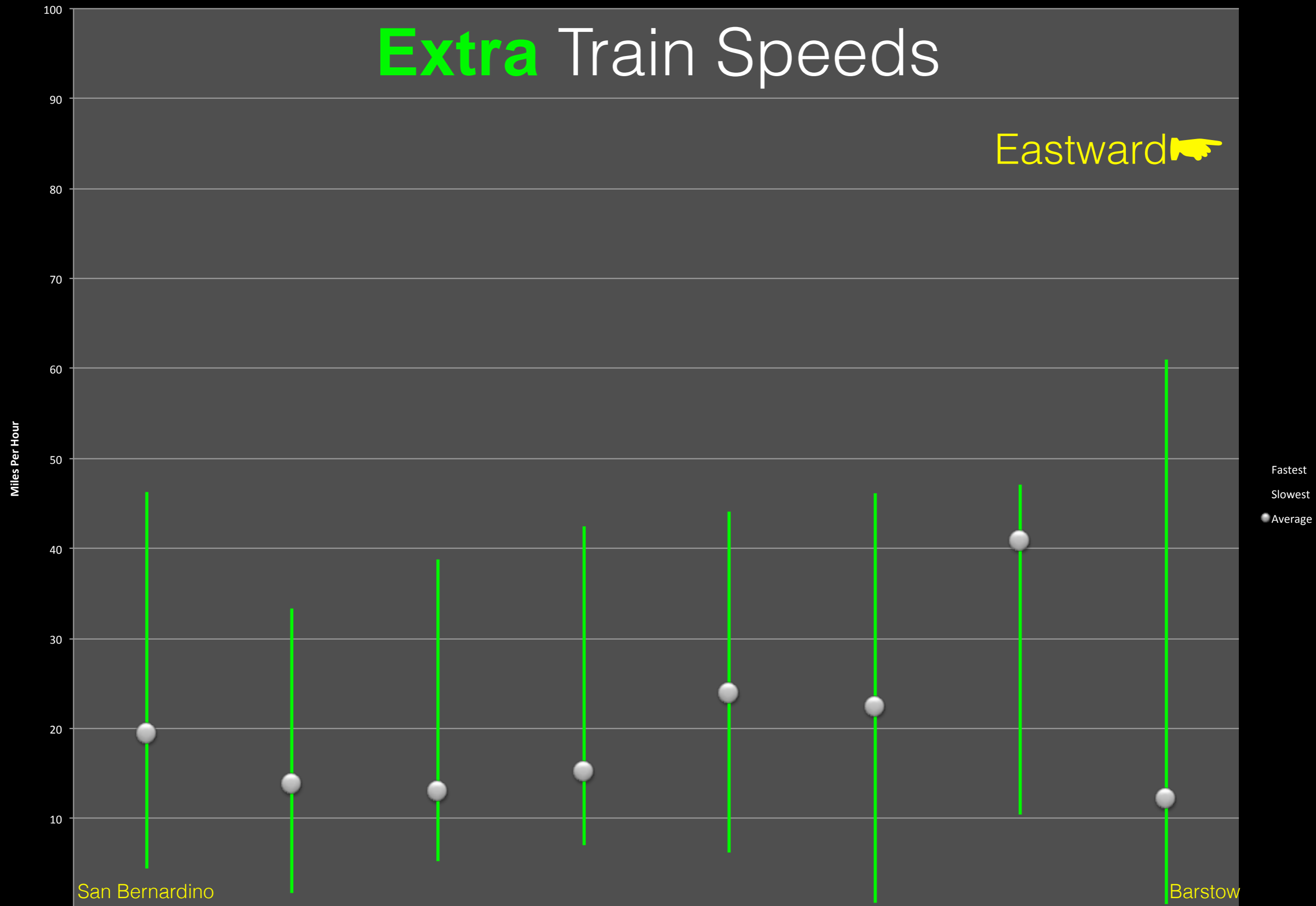
Barstow

Fastest  
Slowest  
● Average

	B↔NO	NO↔DV	DV↔JO	JO↔SU	SU↔VR	VR↔HN	HN↔OD	OD↔BA
Fastest	23.1	60.0	84.0	30.0	30.2	61.6	55.9	45.0
Slowest	4.6	0.4	10.1	3.5	6.0	5.4	14.7	10.8
● Average	10.5	12.8	17.4	11.9	18.3	22.4	33.0	27.4

# Extra Train Speeds

Eastward 

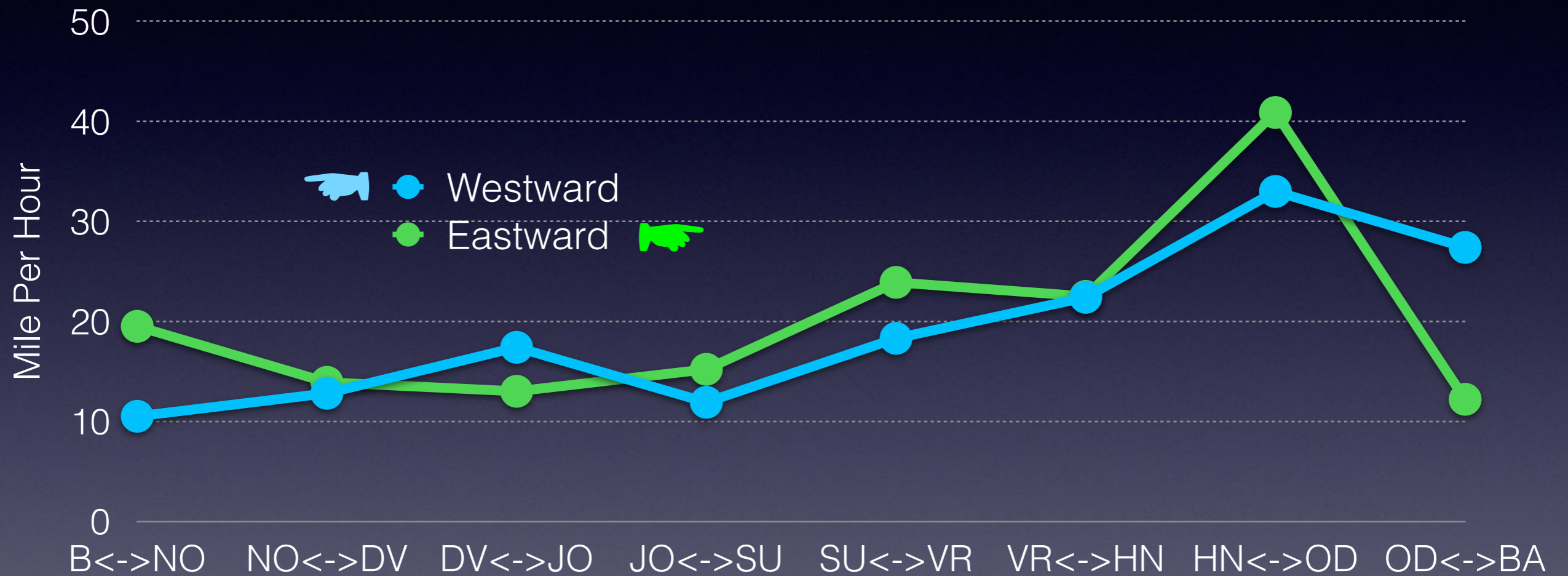


San Bernardino

Barstow

	B↔NO	NO↔DV	DV↔JO	JO↔SU	SU↔VR	VR↔HN	HN↔OD	OD↔BA
Fastest	46.3	33.3	38.8	42.5	44.1	46.2	47.1	61.0
Slowest	4.5	1.7	5.3	7.1	6.2	0.6	10.4	0.5
Average	19.5	13.9	13.0	15.2	23.9	22.5	40.9	12.2

# Average **Extra** Train Speeds (By Segment)



# ATSF 2-10-2 Helpers #3841 and #3833 Returning to Victorville



Eastward track near Thorn, California, June 1952

—Stan Kistler Photograph

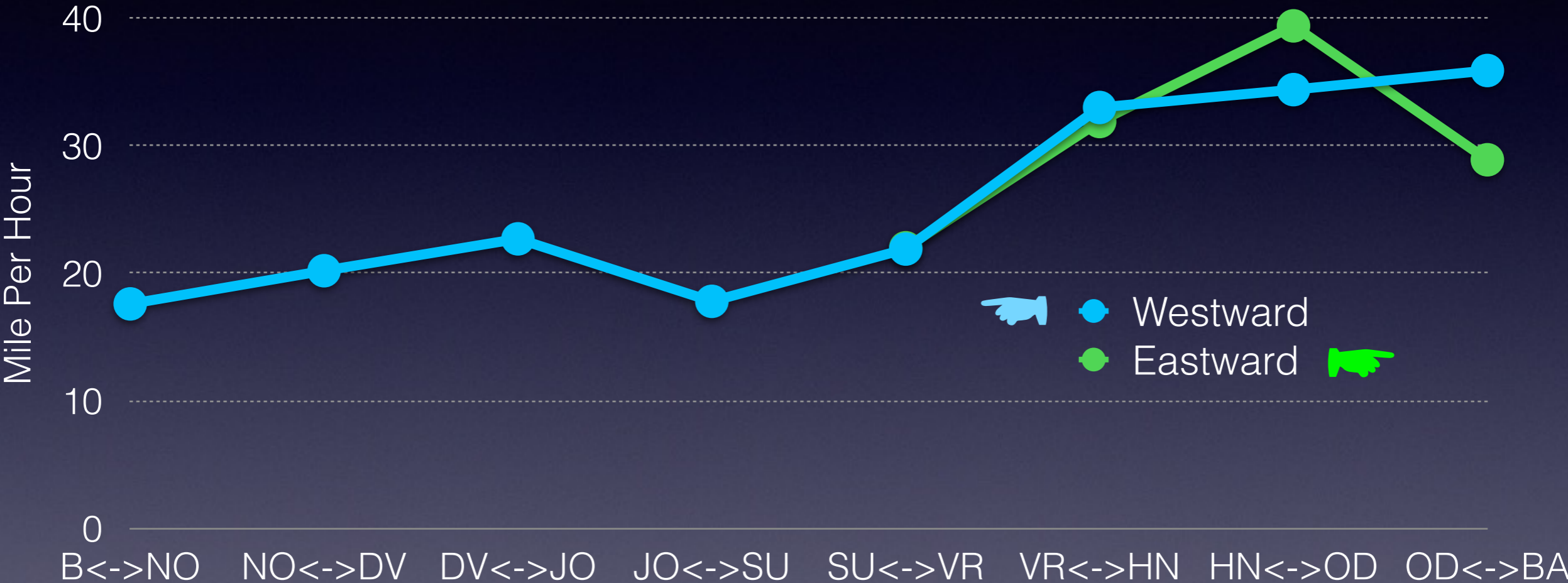
# Helper Speed Restrictions

TIME TABLE SPECIAL RULE 19: **Union Pacific 3900 class**  
engines moving light restricted as follows:

Summit to Cajon	15 MPH
Cajon to San Bernardino	20 MPH
Summit to Victorville	25 MPH

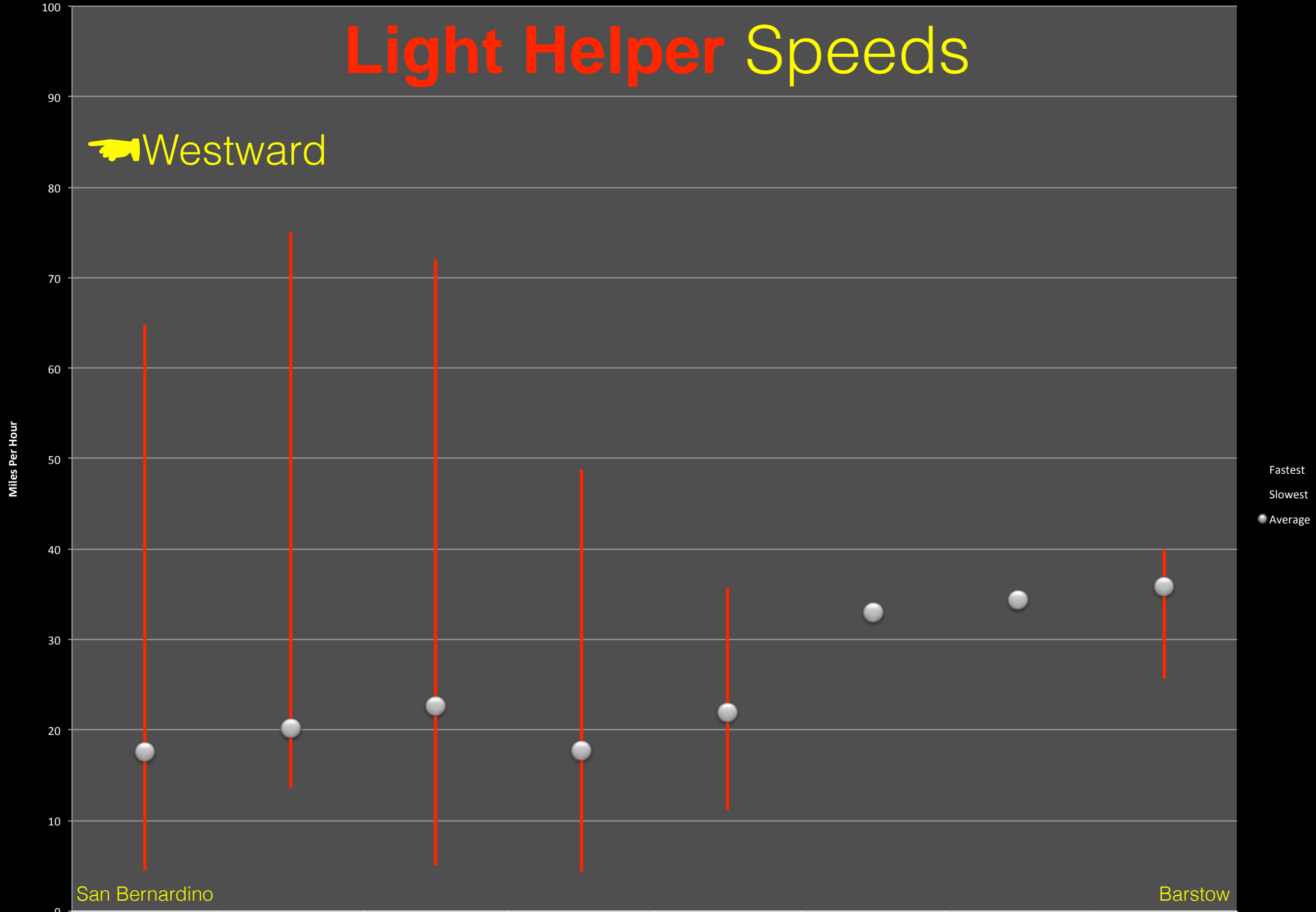
—Atchison, Topeka and Santa Fe Ry Co., Coast Lines, Los Angeles Division,  
Superintendent's Reissue of Bulletin Instructions, Effective January 1, 1945,  
sec. 81, para. (f), p. 94.

# Average **Helper** Train Speeds (By Segment)



# Light Helper Speeds

👉 Westward



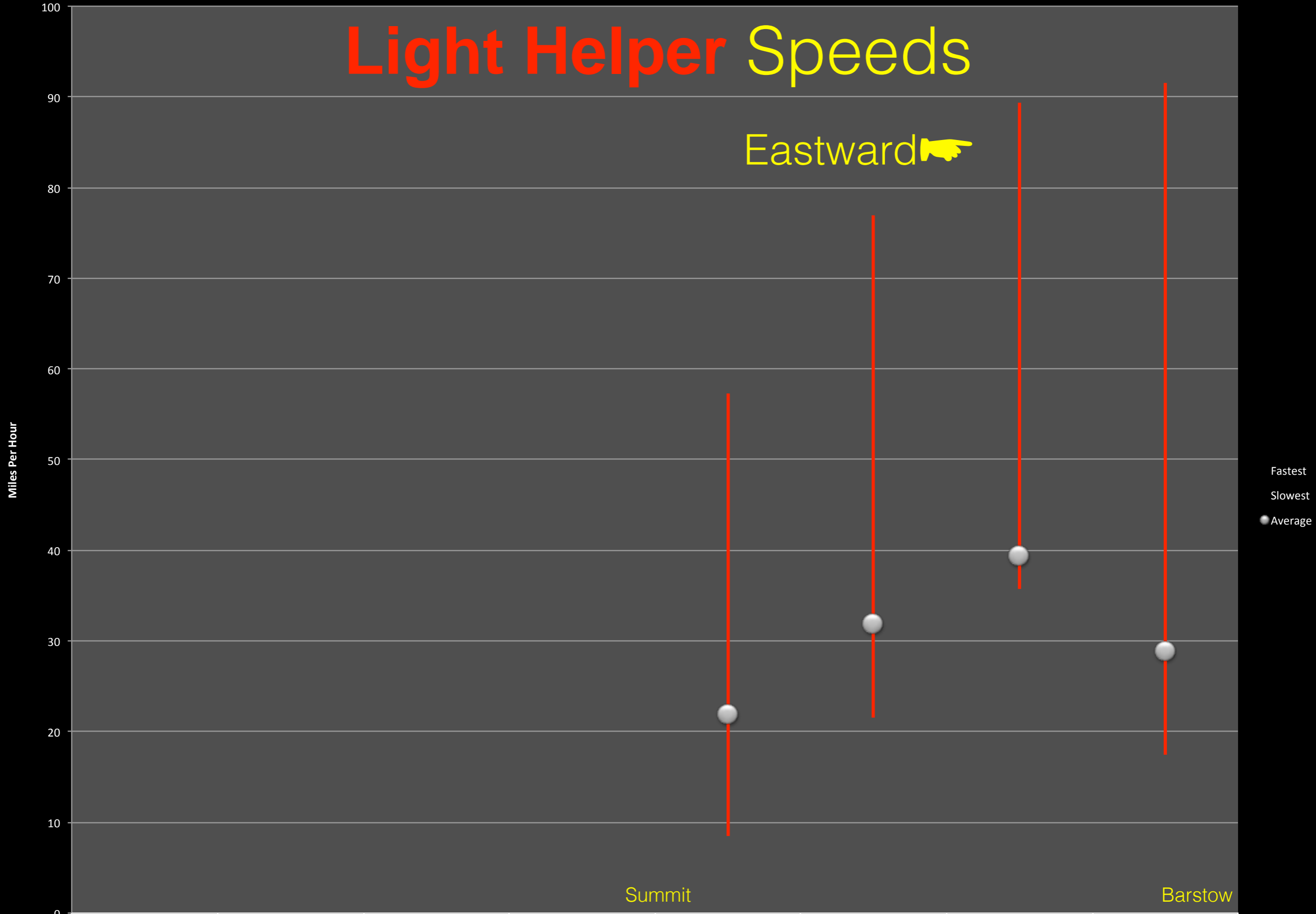
San Bernardino

Barstow

	B↔NO	NO↔DV	DV↔JO	JO↔SU	SU↔VR	VR↔HN	HN↔OD	OD↔BA
Fastest	64.8	75.0	72.0	48.8	35.8	33.0	34.4	40.0
Slowest	4.5	13.6	5.1	4.3	11.2	33.0	34.4	25.7
● Average	17.6	20.2	22.7	17.8	21.9	33.0	34.4	35.9

# Light Helper Speeds

Eastward 



Summit

Barstow

	B↗NO	NO↗DV	DV↗JO	JO↗SU	SU↘VR	VR↘HN	HN↘OD	OD↘BA
Fastest					57.3	77.0	89.4	91.5
Slowest					8.5	21.5	35.8	17.4
Average					22.0	31.9	39.4	28.9



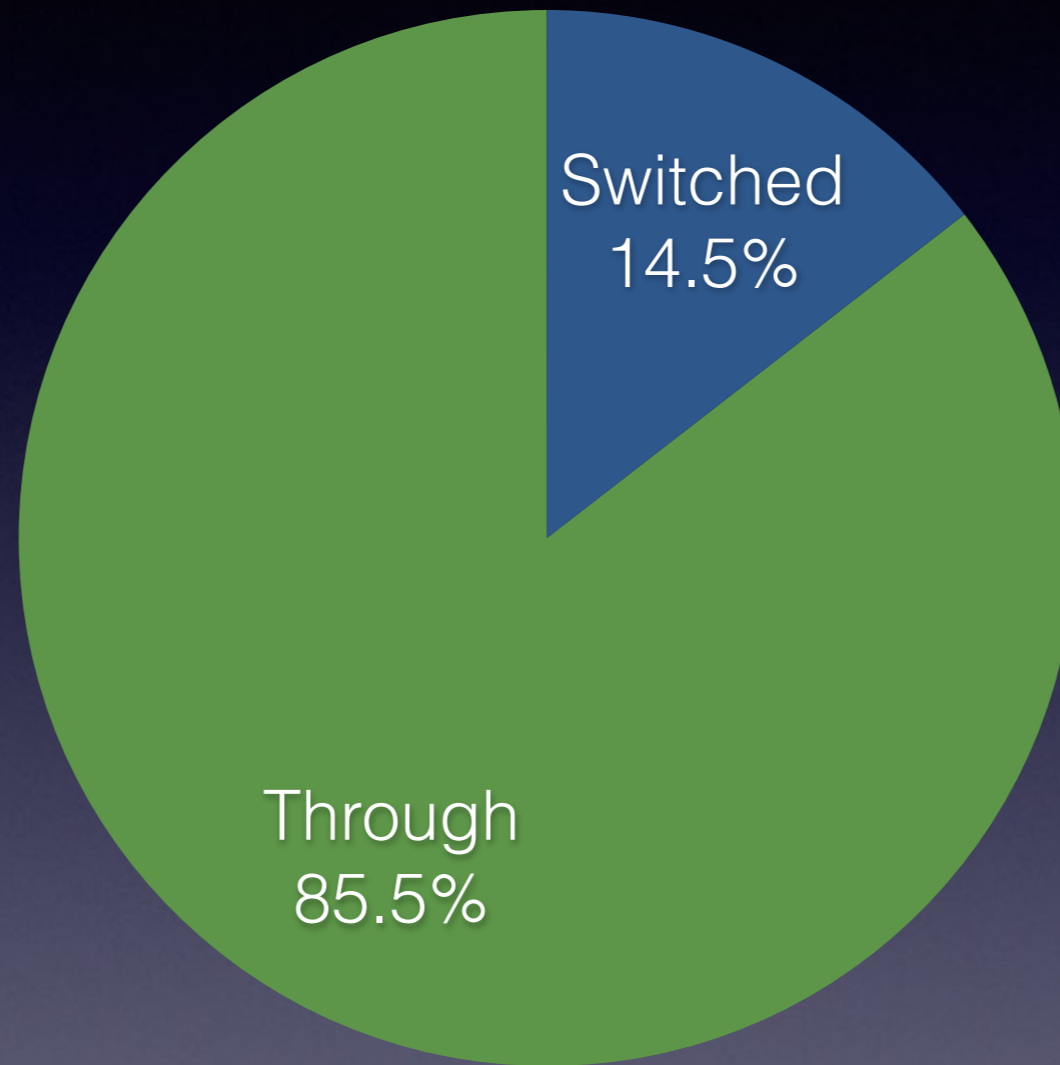
## Light Helpers from Both Roads Running Together\*

Date	Train	Engines
5/3/1945 11:33 am	UP X 5520 West HLP-4	UP #5520, ATSF #3932, ATSF #3940 & ATSF #3140
5/5/1945 4:41 am	ATSF X 1/3850 West HLP-2	ATSF #3850 and UP #5520
5/5/1945 7:57 pm	UP X 2712 West HLP-3	UP #2712, ATSF #3940 and ATSF #1686

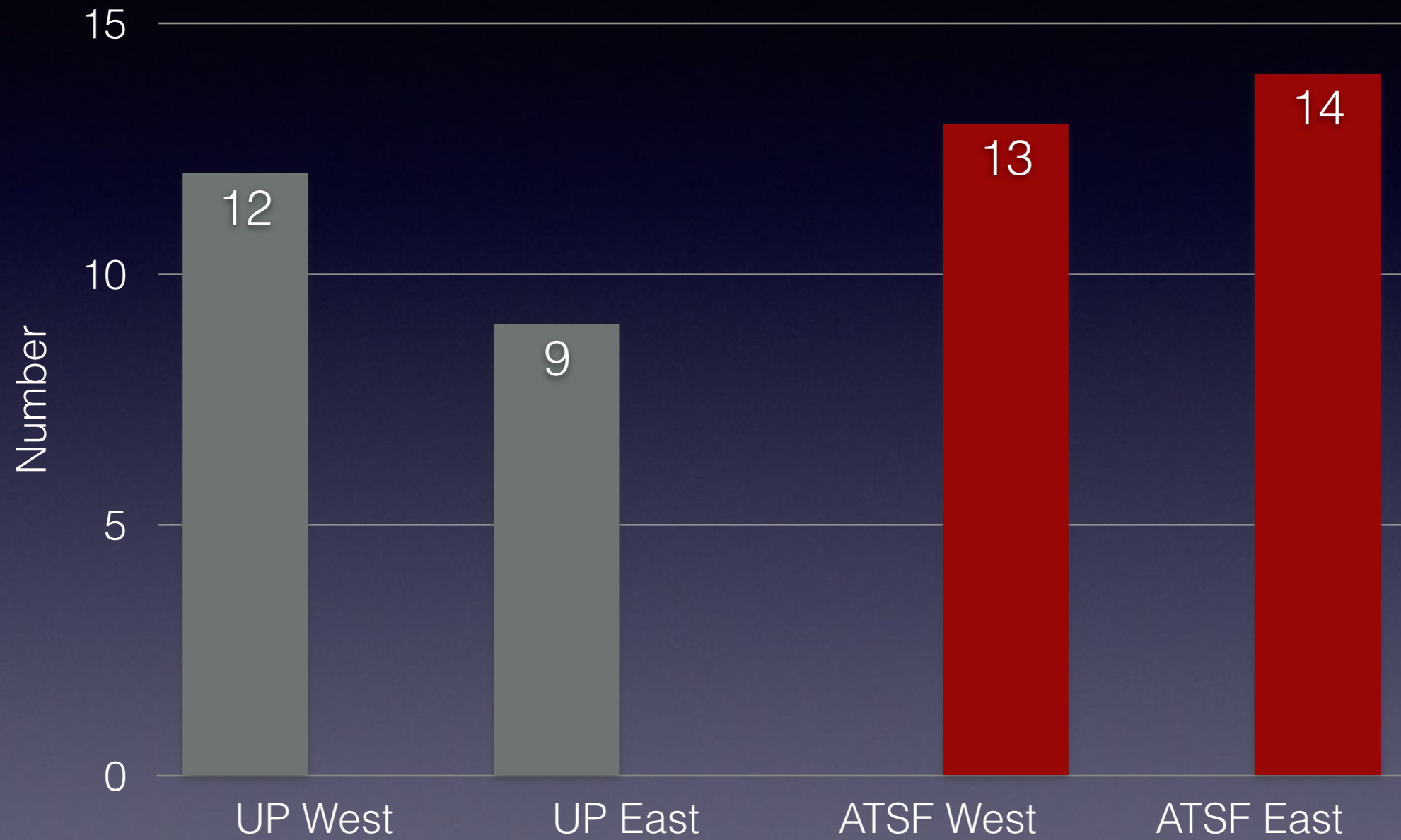
\*All returning from Summit to San Bernardino

# Switching

## Trains that Switched on the First District



## Number of Extras that Did Switching



## Stations Switched

Station	Number of Times
Ono	17
Devore	2
Cajon	2
Summit	7
Hesperia	1
Victorville	31
Leon	3
Oro Grande	7
Helendale	1
Hodge	2
Lenwood	1

## Extras that Switched Ono

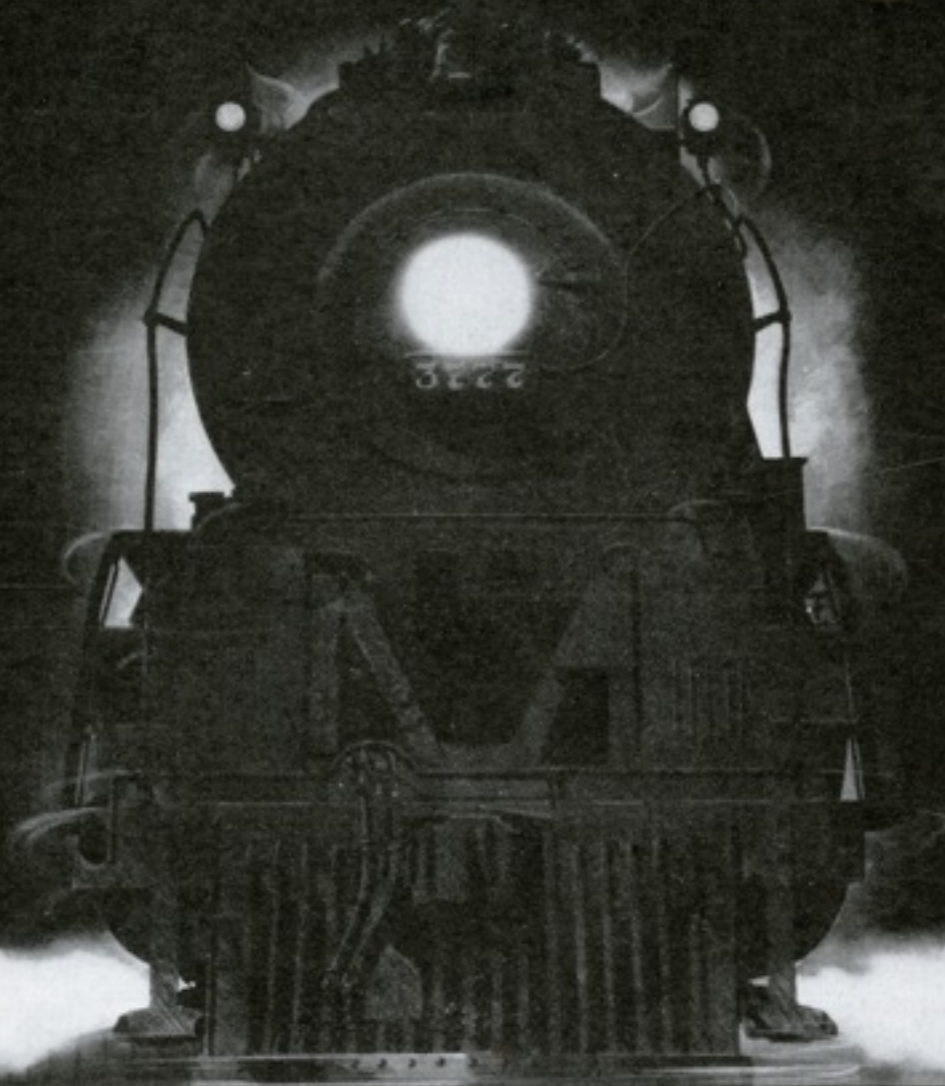
Arrived	Train	Work	Time
May 1, 3:19 am	ATSF X 107 East DRAG	Picked up 2 loads	0:39
May 1, 5:25 pm	UP X 5520 West LNT	Picked up 3 loads & 12 empties	0:42
May 2, 10:25 am	UP X 5092 West SBL	Picked up 3 loads & 2 empties	
May 2, 10:45 am	ATSF X 3141 East BAL	Picked up 3 loads & 10 empties	2:05
May 2, 10:25 pm	UP X 5099 West SB-NoCal-50	Picked up 10 empties	1:40
May 3, 2:25 am	ATSF X 3250 West SBL	Set out 8 loads & 7 empties	0:58
May 3, 1:45 pm	ATSF X 3250 East BAL	Set out 3 loads and 14 empties	2:58
May 3, 6:30 pm	UP X 5522 West LNT	Picked up 8 loads & 11 empties	0:29
May 4, 1:10 am	ATSF X 3141 West SBL	Picked up 7 loads	0:50
May 4, 2:18 pm	ATSF X 966 East BAL	Set out 19 loads	2:52
May 5, 1:20 am	ATSF X 3852 West SBL	Picked up 10 loads & 3 empties	0:47
May 5, 12:32 pm	ATSF X 948 East BAL	Set out 2 loads & 7 empties	1:41
May 5, 4:48 pm	UP X 5520 West LNT	Picked up 9 loads	0:18
May 5, 10:57 pm	ATSF X 3909 West SBL	Set out 7 loads & 6 empties	
May 6, 10:45 pm	UP X 5004 West SBL	Set out 11 loads	0:44
May 7, 11:35 am	ATSF X 3141 East BAL	Set out 8 loads & picked up 14 empties	2:45
May 8, 2:50 am	ATSF X 1680 West SBL	Picked up 15 loads & 1 empty	1:09

## Extras that Switched Summit

Arrived	Train	Work	Time
May 3, 4:12 pm	<b>UP X 5522 West LNT</b>	Picked up 2 empties	0:07
May 3, 11:10 pm	ATSF X 3141 West SBL	Picked up 6 empties	0:21
May 4, 4:10 pm	ATSF X 139 West 46/43-BG	Picked up 3 empties	0:27
May 4, 6:35 pm	ATSF X 162 East	Set out 15 empties	0:10
May 4, 6:48 pm	ATSF X 966 East BAL	Picked up 2 loads & set out 10 empties	0:16
May 5, 3:32 pm	ATSF X 948 East BAL	Picked up 12 loads and 7 empties	0:16
May 7, 6:10 pm	<b>UP X 3821 East</b>	Set out 6 empties	0:08



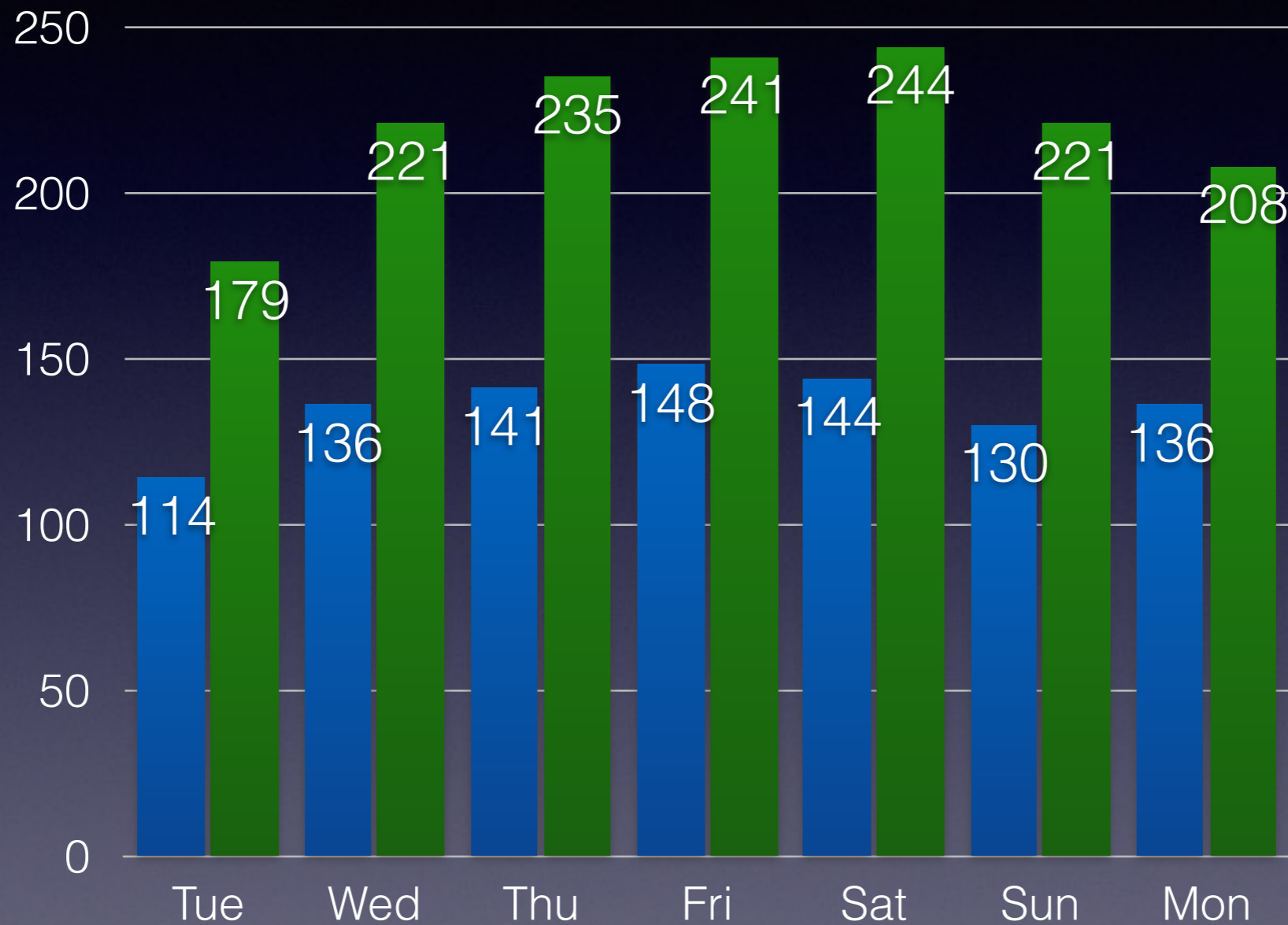
# Engine of War



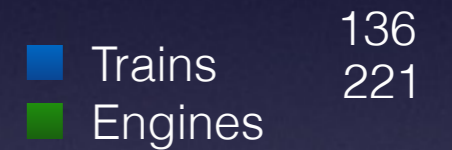
—Santa Fe billboard from *Working for Victory on the Santa Fe : A Series of Wartime Advertisements*.  
Chicago, IL: Atchison, Topeka & Santa Fe Railway Co. p. 21. Print. Courtesy Matt Zebrowski



## Number of Trains and Engines Assignments



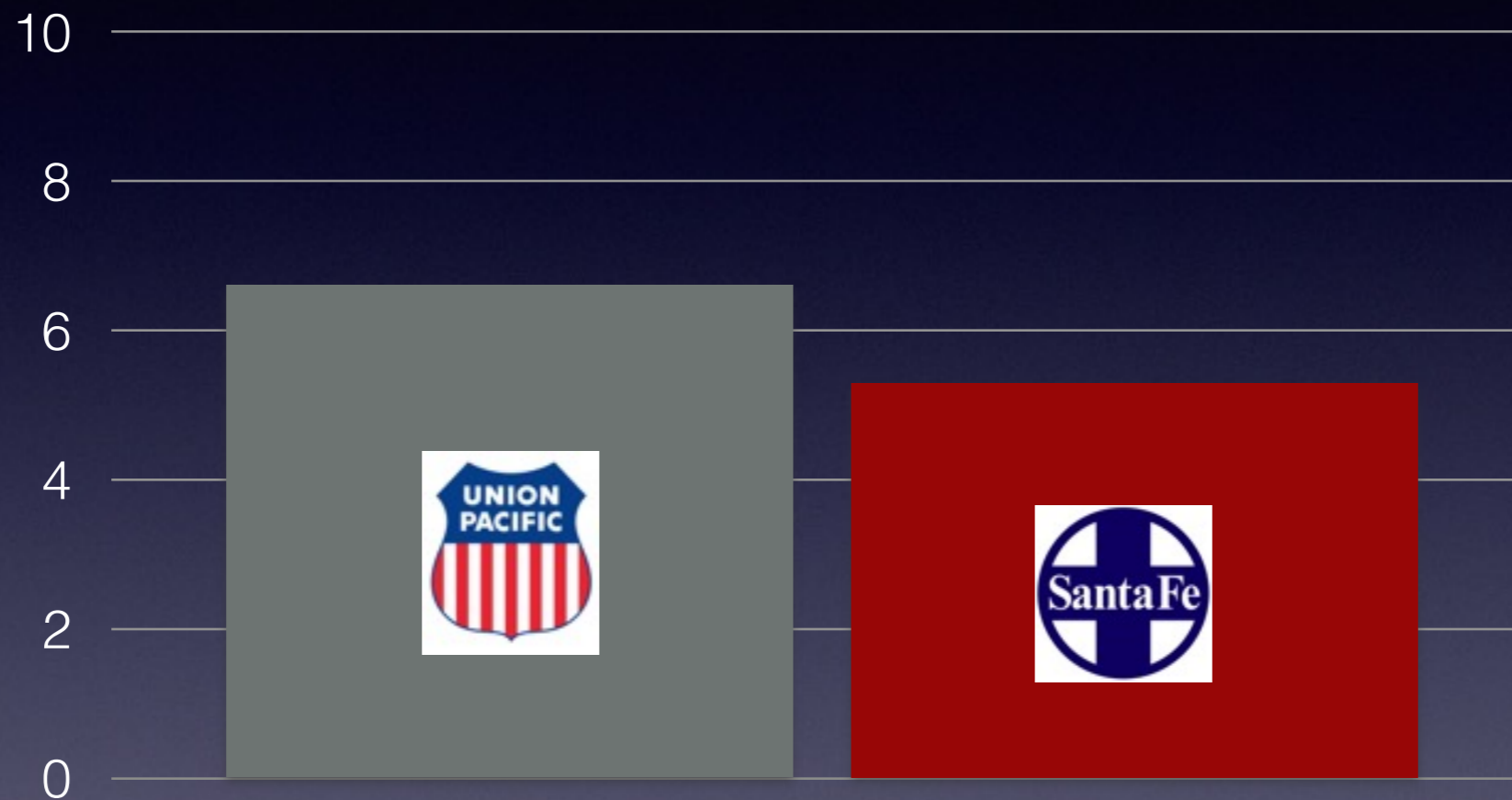
Average



The averages are lower than reality because some of the data for Tuesday is missing.

May 1-7, 1945

## Average Number of Times Engines Were Used on the First District (May 1-7, 1945)





## ATSF Engines Operated on the First District (May 1-7, 1945)

Type	Number Owned	Percent Run on First District	Number Run on First District	Number of Assignments	Appearance Ratio	Utilization Ratio
Steam	1,292	9.7%	121	783	67	6.5
Diesel	125	47.2%	59	175	33	3.0
TOTALS	1,367	13.2%	180	958	100	5.3



## ATSF Engine TYPES Operated on the First District (May 1-7, 1945)

Type	Number Owned	Percent Run on First District	Number Run on First District	Number of Assignments	Appearance Ratio	Utilization Ratio
<b>2-10-2</b>	343	14.3%	49	569	59	11.6
<b>EMD FT</b>	100	50.0%	50	144	15	2.9
<b>4-8-4</b>	65	43.1%	28	70	7	2.5
<b>4-8-2</b>	51	45.1%	23	61	6	2.7
2-8-0	77	10.4%	8	37	4	4.6
2-8-2	271	3.3%	9	33	3	3.7
EMD E6	7	100%	7	23	2	3.3
4-6-2	244	1.6%	4	13	1	3.3
EMD E3	2	100%	2	8	1	4.0
<b>TOTALS</b>	1,160	15.5%	180	958	100	5.3



### 31 ATSF 3800 Class 2-10-2s Operated on the First District (May 1-7, 1945)

#	Runs	#	Runs	#	Runs	#	Runs
3830	5	3849	8	3859	12	3888	5
3836	1	3850	30	3860	5	3898	15
3839	2	3851	7	3862	4	3899	19
3841	15	3852	9	3864	1	3909	1
3842	8	3854	1	3865	11	3932	20
3843	1	3855	1	3866	2	3935	4
3844	9	3856	12	3876	2	3940	20
3846	2	3858	13	3886	12		

ATSF No. 3866 was produced by BLI with a switching pilot

*"Keep 'Em Rollin'.. or Else!"*

says grandpappy engine 2414  
to a 1942 Santa Fe Freight Diesel



"Back in '98, in the Spanish-American War," reminisces Old-Timer 2414. "29 cars was an average-length freight train. By World War I, we'd upped our Santa Fe freight train average 35.9-cars. Not bad railroadin', huh?"

"Not bad in right," answers the big new freight Diesel, "but not good enough for World War II. Now we've stretched 'em out another 41%, to 50.9 cars, and those cars are bigger, loaded heavier, and rolling farther and faster."

"Good work, son," says Old-Timer. "Times is the BIG war job. Keep 'em rollin'—or else!"

**KEEP 'EM ROLLIN'—OR ELSE**

★ No nation that does not possess efficient mass transportation can hope to win a modern war. In America that mass transportation job is squarely up to her railroads. *If they fail, we lose.*

Neither battle gallantry nor industrial wizardry alone

will turn the tide. To meet this tremendous responsibility, we ask for every possible consideration in the allocation of materials for vitally essential repairs, maintenance and new equipment.

**DAILY THE LOAD INCREASES**

To date, the railroads have met 100% the staggering demands born of this global war. Many have helped make that record possible—the War Department, the Office of Defense Transportation, civilian shippers and travelers everywhere.

In the first six months of 1942, with 25% fewer locomotives, the Santa Fe moved 94% more freight ton-miles and 27% more military and civilian passenger miles than in the first six months of 1918, in World War I.

Daily the load increases. No man knows what the peak will be. We do know there is a limit to the performance that can be squeezed out of existing equipment.

**SANTA FE SYSTEM LINES**

—Working for Victory on the Santa Fe : A Series of Wartime Advertisements. Chicago, IL: Atchison, Topeka & Santa Fe Railway Co. p. 1. Print. Courtesy Matt Zebrowski

# ATSF FT #127 with an Eastward Freight



Between Cajon and Sullivan's Curve, California, November 28, 1947

—Stan Kistler Photograph #SK005089



# 50 ATSF 100 Class FTs Operated on the First District (May 1-7, 1945)

#	Runs	#	Runs	#	Runs	#	Runs	#	Runs
100	1	113	1	126	2	140	4	153	6
102	4	114	2	127	4	141	1	154	2
103	1	116	4	128	3	142	5	155	2
104	4	117	1	130	2	145	4	156	2
105	2	118	1	134	5	147	3	158	2
106	2	119	3	135	2	148	2	159	4
107	1	120	2	136	3	149	3	161	6
109	2	121	4	137	2	150	4	162	9
110	3	124	2	138	2	151	1	164	3
111	5	125	2	139	3	152	4	166	2



## 27 ATSF 4-8-4s Operated on the First District (May 1-7, 1945)

#	Runs	#	Runs	#	Runs	#	Runs
3751	3	3761	1	3769	2	3777	3
3753	2	3762	2	3770	3	3779	3
3755	2	3764	3	3771	1	3782	2
3756	2	3765	2	3772	3	3783	4
3758	4	3766	2	3773	4	3784	2
3759	2	3767	2	3774	3	3785	3
3760	3	3768	3	3776	4		



## 23 ATSF 4-8-2s Operated on the First District (May 1-7, 1945)

#	Runs	#	Runs	#	Runs	#	Runs
3704	2	3724	2	3731	2	3739	1
3706	2	3726	2	3734	3	3741	2
3719	7	3727	3	3735	5	3746	1
3721	4	3728	3	3736	4	3748	2
3722	2	3729	1	3737	5	3750	2
3723	1	3730	1	3738	4		



# ATSF Steam Engine Classes NOT Operated\* May 1-7, 1945

Class	Type	Owned
1800 Class	2-6-2 Prairie	88
789 Class	2-8-0 Consolidation	35
990 Class	2-8-2 Mikado	10
1798 Class	2-8-2 Mikado	2
987 Class	2-10-0 Decapod	1
988 Class	2-10-0 Decapod	2
985 Class	2-10-2 Santa Fe	1
5001 Class	2-10-4 Texas	10
1400 Class	4-4-2 Atlantic	52
1452 Class	4-4-2 Atlantic	28
1226 Class	4-6-2 Pacific	41
1297 Class	4-6-2 Pacific	12
1309 Class	4-6-2 Pacific	28
3500 Class	4-6-2 Pacific	35
3450 Class	4-6-4 Hudson	10
2900 Class	4-8-4 Northern	30



## UP Engines Operated on the First District (May 1-7, 1945)

Type	Number Owned	Percent Run on First District	Number Run on First District	Number of Assignments	Appearance Ratio	Utilization Ratio
Steam	1,547	5.6%	86	594	98	6.9
Diesel	105	5.7%	6	12	2	2.0
TOTALS	1,652	5.6%	92	606	100	6.6

—Numbers owned from Union Pacific Railroad Company, Accounting Department. *Form 70 : List of Agencies, Stations, Equipment, Etc., Including Leased Lines, as of January 1, 1946.* No. 64. Omaha, NE: Union Pacific Railroad Company. Print. Courtesy Joe Strapac



## UP Engine TYPES Operated on the First District (May 1-7, 1945)

Type	Number UP Owned	Number LA&SL Owned*	Percent UP Run on First District	Number UP Run on First District	Number of Assignments	Appearance Ratio	Utilization Ratio
<b>2-8-2</b>	338	25	4.1%	14	221	37	15.8
<b>2-10-2</b>	144	5	6.3%	9	128	21	14.2
<b>4-6-6-4</b>	105		31.4%	33	101	17	3.1
<b>4-8-2</b>	60	15	35.0%	21	73	12	3.5
<b>4-10-2</b>	10	10	100.0%	7	68	11	9.7
EMD E2				3	6	1	2.0
EMD E6				3	6	1	2.0
4-6-2	124	7	0.8%	1	2	0	2.0
<b>TOTALS</b>				91	605	100	15.0

\* Number owned by LA&SL out of the total number owned by UP



## 14 UP 2-8-2s Operated on the First District (May 1-7, 1945)

#	Runs	#	Runs
2261	32	2712	10
2264	2	2713	10
2700	1	2716	1
2707	22	2728	1
2708	39	2730	15
2710	26	2733	7
2711	26	2735	29

# UP 2-10-2 #5515 Helping an Extra Westward to Summit



Frost, 1951

—Stan Kistler Photograph



## 9 UP **2-10-2s** Operated on the First District (May 1-7, 1945)

#	Runs	#	Runs
5004	8	5520	31
5006	29	5521	13
5065	1	5522	31
5316	1	5529	1
5317	14		



# UP 4-6-6-4 Leading X3839 East



Departing Cajon, California, November 28, 1947

—Stan Kistler Photograph



### 33 UP 4-6-6-4s Operated on the First District (May 1-7, 1945)

#	Runs	#	Runs	#	Runs	#	Runs
3800	2	3809	1	3825	5	3839	4
3801	4	3811	4	3826	4	3975	4
3802	2	3812	3	3828	4	3976	4
3803	1	3813	5	3831	2	3977	4
3804	2	3820	3	3832	2	3978	4
3805	4	3821	7	3833	2	3980	3
3806	1	3822	2	3834	4		
3807	4	3823	2	3835	2		
3808	3	3824	2	3838	3		



## 21 UP 4-8-2s Operated on the First District (May 1-7, 1945)

#	Runs	#	Runs	#	Runs
7018	4	7852	2	7860	1
7019	2	7853	6	7862	6
7021	3	7854	4	7863	1
7023	2	7855	3	7864	4
7024	4	7856	4	7865	4
7850	4	7858	4	7867	4
7851	4	7859	3	7869	4



## 7 UP 4-10-2s Operated on the First District (May 1-7, 1945)

#	Runs	#	Runs
5090	30	5095	2
5092	2	5096	1
5093	1	5099	29
5094	2		



# Cajon Pass Modeler's Shopping List

Type	Propulsion	ATSF	UP	Total
2-8-0	Steam	8		8
2-8-2	Steam	9	14	23
2-10-2	Steam	49	9	58
4-6-2	Steam	4	1	5
4-8-2	Steam	23	21	44
4-8-4	Steam	28		28
4-10-2	Steam		7	7
4-6-6-4	Steam		33	33
EMD E2	Diesel		3	3
EMD E3	Diesel	2		2
EMD E6	Diesel	7	3	10
EMD FT	Diesel	50		50
Total		180	91	271*

**Selective Compression!**

\* Plus 50 ATSF switchers for the San Bernardino yards

# Problems

## Set Outs for Hotboxes and Drawbars

Arrived	Train	Station	Reason	Time
May 3, 9:10 am	ATSF X 142 West 41-A	Victorville	Hotbox	1:15
May 3, 6:58 pm	ATSF X 138 West 2/89-G-3	Summit	Drawbar	1:04
May 3, 11:30 pm	ATSF X 142 West GWS-28	Victorville	Hotbox	0:34
May 4, 6:37 am	ATSF X 153 West RBX	Victorville	Hotbox	0:23
May 4, 12:35 pm	ATSF X 3830 West 3/88-G-1	Lenwood	Drawbar	0:53
May 4, 2:22 pm	ATSF X 3858 West	Victorville	Hotbox	0:23
May 6, 12:48 am	ATSF X 152 West CSX-29/GWS-30	Victorville	Hotbox	0:12
May 6, 2:28 am	ATSF X 120 West 45-43-BH	Summit	Hotbox	0:15
May 7, 2:39 am	ATSF X 3842 East 3/88-R	Thorn	Drawbar	

## Tuesday, May 1st

Time	Location	Train	Problem
4:00 am	Devore	UP X 3813 West	Broke knuckle while heading at Devore, delaying No. 223 ten 10 minutes.
8:55 pm	Cajon	UP X 3/2261 West HLP	Ran out steam & water at JO [Cajon]; necessary to take route ahead of No. 7 [Fast Mail Express] and go to Devore ahead of 7 account Local 1627 W pulled way down.

## Wednesday, May 2nd

Time	Location	Train	Problem
9:21 pm	Barstow	ATSF 2/23 West OF-23	Delayed Barstow to Lenwood acc't misinformation from Yard Master Barstow as to departure 2/23 [Grand Canyon Limited] and Ex 3932 W 202 train. Yard Master insisted 202 move to avoid blockade in yard.



## Thursday, May 3rd

Time	Location	Train	Problem
4:37 pm	Barstow	ATSF 3/3 West OF-7	3/3 [California Limited] delayed Barstow to Helendale behind Un Pac 3838 West delayed acc't 3/3 left Barstow 30 minutes ahead of figures given yardmaster by carmen.
6:21 pm	Cajon	ATSF 3/3 West OF-7	3/3 [California Limited] delayed behind 6127 West who was delayed behind UP X 5522 East who was delayed behind X 162 East train going into emergency [probably between Cajon and Devore].
9:05 pm	Summit	ATSF 7 West Reg	Ex 2/111 East derailed car at Summit. Blocked westward main track. No. 7 [Fast Mail Express] delayed to go thru siding.

## Friday, May 4th

Time	Location	Train	Problem
2:05 am	Summit to Victorville	ATSF 2 East	Brakes sticking.
5:43 am	San Bernardino	UP 2/23 West MAIN- WMB-29178	Held out of San Bernardino yard for 28 minutes.
6:42 am	San Bernardino	UP 237 West Reg	Held out of San Bernardino yard for 37 minutes.
8:33 am	Summit to Cajon	UP 2/207 West Reg	Delayed due to steel gang.
9:25 am	Barstow	ATSF X 3852 East 1/88-I-4	Held out of Barstow yard for 30 minutes.

## Saturday, May 5th

Time	Location	Train	Problem
12:10 pm	Hodge	UP 1/224 East	1/224 delayed SU 132 to Hodge acct 162 East ahead. Held by flagman from Extra 11:36-11:47 am.
7:50 pm	Summit	UP 1/7 West MAIN-129187 + ATSF 1/23 West Reg-23	Extra 138 West pulled drawbar out of WUTX 4341 coming into Summit. Delayed 1/7 UP Main Train and 1/23. Had to run him to Cajon ahead of 2/7 Reg train.

## Sunday, May 6th

Time	Location	Train	Problem
1:12 am	Victorville	ATSF X 120 West 45-43- BH	Helper ATSF #1647 put on at Victorville without being instructed. Lined up to help X 166 W.
3:00 am	Summit	ATSF X 166 West 1/89- G-44	Broken into while stopped for 1 hour and 28 minutes.
10:30 pm	Victorville	ATSF X 1660 West HLP	Helper ran light from Victorville to Summit to help ATSF X 164 West FWDR-43A account oil on rail.

## Monday, May 7th

Time	Location	Train	Problem
8:50 pm	Hesperia	ATSF X 1680 West SBL	Helper changed from ATSF #1687 (failing) to ATSF #1647

# Oddities

# May 1, 1945

- **ATSF 1/24 East CJ [30]**: ATSF *Grand Canyon Limited* left San Bernardino with road engine ATSF #3760—assisted by helper ATSF #1987, a **1950 Class 2-8-0 Consolidation**, on the point.

# May 2-3, 1945

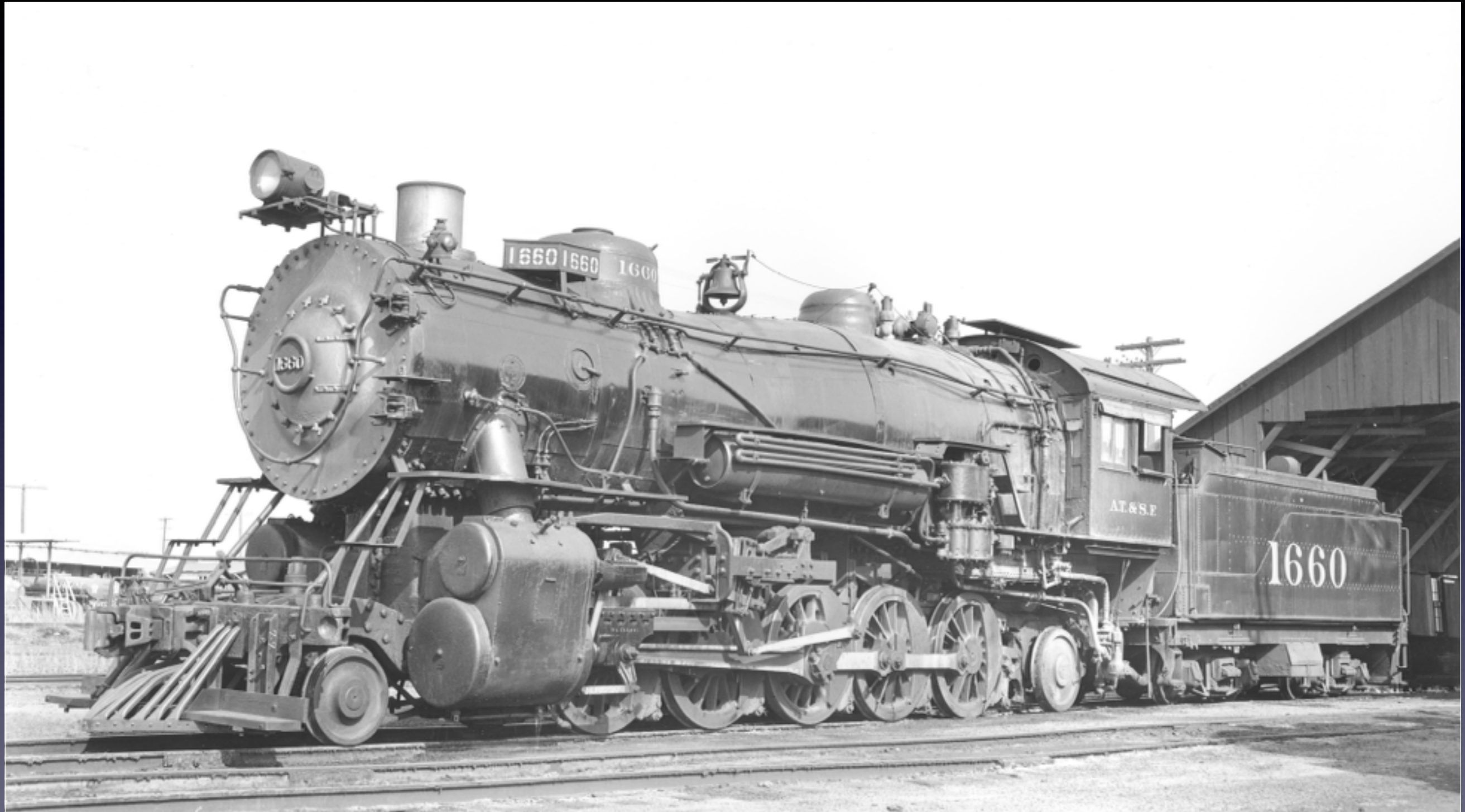
- ATSF 2/23 West OF [No. 23] and ATSF X 3449 West HLP: ATSF #3449, a **3400 Class 4-6-2 Pacific**, helped the ATSF *Grand Canyon Limited* from Barstow to Summit and then ran light from Summit to San Bernardino.

May 5, 1945 at 1:42 pm

- **UP X 2708 East HLP [2]:**  
**Consecutively numbered** UP helpers # 2707 and # 2708, with # 2708 in the lead, left Summit to return to light Victorville



# A Day in the Life of a Helper



National City, California, July 16, 1949

ATSF 1600 Class 2-10-2 #1660

—Stan Kistler Photograph



# A Day in the Life of a Helper—ATSF #1660 on Sunday, May 6, 1945

- Helped 4 revenue trains
- Made 5 light engine moves
- Traveled 171.9 miles in 9 hours and 32 minutes
- Spent 14 hours and 28 minutes waiting

Departure	Train Number	Train Name	Segment	Time
3:41 AM	ATSF X 161 West SCX-C	Southern California Express	VR⇒SU	0:54
5:20 AM	ATSF X 1/1660 East HLP	Light Helper	SU⇒VR	0:51
8:00 AM	ATSF 1 West Reg-117 CONN	The Scout	VR⇒SU	0:38
9:15 AM	ATSF X 2/1660 East HLP	Light Helper	SU⇒VR	0:53
11:40 AM	ATSF 4/3 West SPL-CONSL	California Limited	VR⇒SU	0:37
1:03 PM	ATSF X 3/1660 East HLP-3	Light Helpers	SU⇒VR	0:49
5:35 PM	ATSF X 134 West 2/88-G2	Freight	VR⇒SU	2:13
8:10 PM	ATSF X 4/1660 East HLP	Light Helper	SU⇒VR	0:55
10:30 PM	ATSF X 1660 West HLP	Light Helper	VR⇒SU	1:42

# A Day in the Life of an Operator



Operator Chard Walker, Summit Depot

© 2015 Stuart A. Forsyth

Howard Eichstadt:

“The movements recorded on the Summit train sheet sometimes total as many as 150 by the end of the day.”

—Eichstadt, Howard. “Cajon Pass :  
Where Trains Descend from Cactus to  
the Groves of the Orange Empire.”  
*Trains* October 1941: 38, 44. Print.



## A Day in the Life of an Operator—Summit, Friday, May 4, 1945, First Trick (Midnight to 8:00 am)

#	Time	Action	Train
1	12:11 AM	Arrived	UP X 3825 East
2	12:21 AM	Departed	UP X 3825 East
3	12:26 AM	Arrived	UP X 3820 East
4	12:29 AM	Departed	UP X 1/2733 West HLP
5	12:35 AM	Departed	UP X 3820 East
6	12:37 AM	Departed	UP X 1/2261 East HLP-2
7	12:46 AM	Arrived	ATSF X 1/162 East 34
8	12:58 AM	Departed	ATSF X 1/162 East 34
9	1:07 AM	Departed	ATSF X 3898 West HLP-2
10	1:08 AM	Arrived	ATSF X 142 West GWS-28
11	1:19 AM	Departed	ATSF X 142 West GWS-28
12	1:58 AM	Arrived	ATSF 2 East
13	2:05 AM	Departed	ATSF 2 East



## A Day in the Life of an Operator—Summit, Friday, May 4, 1945, First Trick (Midnight to 8:00 am)

#	Time	Action	Train
14	2:06 AM	Arrived	ATSF 1/8 East
15	2:09 AM	Departed	ATSF 1/8 East
16	2:10 AM	Departed	ATSF X 3858 East PWR
17	2:12 AM	Departed	ATSF X 1/1627 East HLP
18	2:25 AM	Departed	ATSF X 3140 West HLP
19	2:47 AM	Arrived	ATSF X 3932 West FWDR-2/33-BJ
20	2:48 AM	Arrived	ATSF X 127 East
21	2:58 AM	Departed	ATSF X 127 East
22	3:02 AM	Departed	ATSF X 966 West HLP
23	3:07 AM	Departed	ATSF X 3932 West FWDR-2/33-BJ
24	3:42 AM	Arrived	ATSF 1/24 East
25	3:45 AM	Departed	ATSF 1/24 East
26	3:48 AM	Passed	ATSF 2/24 East
27	3:50 AM	Arrived	UP 223 West
28	3:51 AM	Departed	UP 223 West
29	3:58 AM	Arrived	UP X 3823 West



## A Day in the Life of an Operator—Summit, Friday, May 4, 1945, First Trick (Midnight to 8:00 am)

#	Time	Action	Train
30	4:00 AM	Arrived	UP X 3977 East
31	4:01 AM	Departed	ATSF X 1/956 East HLP-2
32	4:01 AM	Departed	ATSF X 1983 West HLP
33	4:02 AM	Departed	UP X 2710 West HLP
34	4:10 AM	Departed	UP X 3977 East
35	4:10 AM	Departed	UP X 3823 West
36	4:12 AM	Departed	UP X 2708 East HLP
37	4:49 AM	Arrived	ATSF 2/8 East
38	4:52 AM	Departed	ATSF 2/8 East
39	5:00 AM	Arrived	UP 2/23 West MAIN-WMB-29178
40	5:05 AM	Departed	UP X 1/5090 West HLP
41	5:23 AM	Arrived	UP X 3828 East
42	5:30 AM	Departed	UP X 3828 East
43	5:30 AM	Departed	UP 2/23 West MAIN-WMB-29178
44	5:32 AM	Departed	UP X 2711 East HLP
45	5:53 AM	Arrived	UP X 3804 West



# A Day in the Life of an Operator—Summit, Friday, May 4, 1945, First Trick (Midnight to 8:00 am)

#	Time	Action	Train
46	6:06 AM	Arrived	UP 237 West Reg
47	6:08 AM	Departed	UP 237 West Reg
48	6:18 AM	Arrived	ATSF X 104 East NCX
49	6:24 AM	Arrived	ATSF 3/23 West Reg-117 Conn
50	6:27 AM	Departed	ATSF 3/23 West Reg-117 Conn
51	6:28 AM	Departed	ATSF X 104 East NCX
52	6:29 AM	Departed	UP X 5006 West HLP
53	6:32 AM	Departed	ATSF X 3899 East HLP
54	6:34 AM	Departed	UP X 3804 West
55	6:45 AM	Arrived	UP X 3802 West
56	6:48 AM	Departed	UP X 5521 West HLP
57	6:50 AM	Departed	ATSF X 2/1627 East HLP
58	6:51 AM	Departed	UP X 3802 West
59	7:42 AM	Arrived	ATSF X 3852 East 1/88-I-4
60	7:50 AM	Departed	ATSF X 3852 East 1/88-I-4
61	7:51 AM	Arrived	ATSF X 153 West RBX
62	7:55 AM	Departed	ATSF X 1960 West HLP



## A Day in the Life of Three Operators Summit, California, Friday, May 4, 1945

Trick	Hours	Train Movements
First	Midnight to 8 am	62
Second	8 am to 4 pm	71
Third	4 pm to Midnight	101
TOTAL		234*

\*Up 56% from the 150  
Howard Eichstadt noted  
in October 1941

# The Redlands Loop



## Trains on the Redlands Loop (May 1-7, 1945)

#	Train	Day	Departed	Arrived	Time	MPH
1	ATSF X 1983 West Ono Loop	Tue	5:20 pm	9:50 pm	4:30	6.1
2	ATSF X 1983 West 2nd Trip	Wed	12:05 am	5:05 am	5:00	5.5
3	ATSF X 1987 West Ono Loop	Wed	5:45 pm	11:05 pm	5:20	5.2
4	ATSF X 1987 West Ono	Thu	1:10 am	6:15 am	5:05	5.4
5	ATSF X 1987 West	Fri	12:25 am	6:15 am	5:50	4.7
6	ATSF X 1983 West Loop	Fri	5:40 pm	10:15 pm	4:35	6.0
7	ATSF X 1984 West Loop	Sat	11:51 pm	4:55 am	5:04	5.4
8	ATSF X 1983 West 2nd Trip	Sat	1:20 am	5:55 am	4:35	6.0
9	ATSF X 1991 West PUX	Mon	7:10 pm	12:30 am	5:20	5.2
					Average	5:02 5.5



## Traffic on the Redlands Loop (May 1-7, 1945)

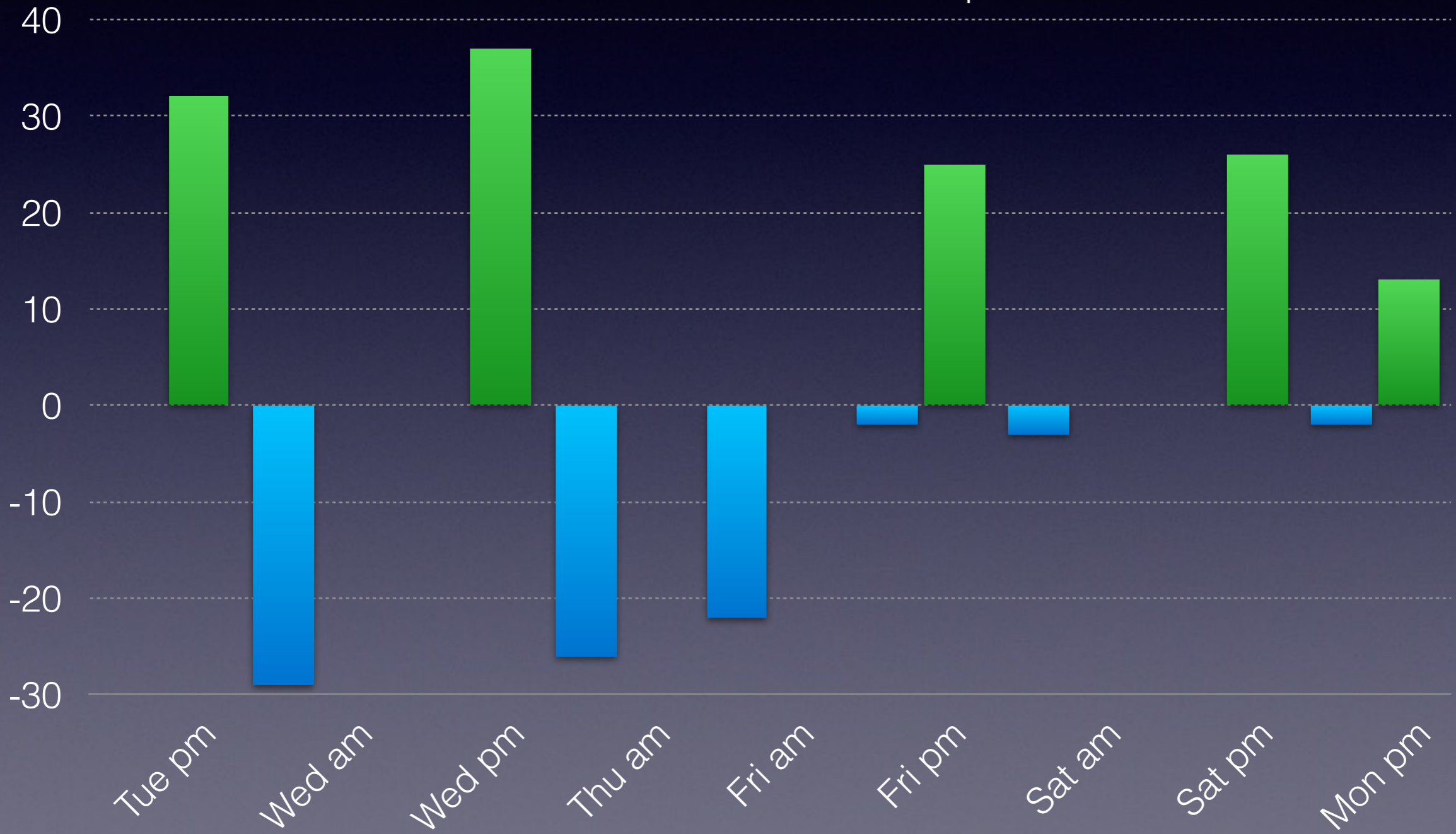
#	Train	Day	Loads*	Empties*	Total Cars*	Tonnage*
1	ATSF X 1983 West Ono Loop	Tue	32		32	1,669
2	ATSF X 1983 West 2nd Trip	Wed	(3)	(26)	29	(901)
3	ATSF X 1987 West Ono Loop	Wed	34	3	37	1,860
4	ATSF X 1987 West Ono	Thu	(1)	(25)	26	(795)
5	ATSF X 1987 West	Fri	(1)	(21)	22	(683)
6	ATSF X 1983 West Loop	Fri	25	(2)	27	1,226
7	ATSF X 1984 West Loop	Sat	(1)	(2)	3	(89)
8	ATSF X 1983 West 2nd Trip	Sat		26	26	699
9	ATSF X 1991 West PUX	Mon	13	(2)	15	545
		Picked up	104	29	133	5,999
		Set Out	6	78	84	2,468
		<b>TOTAL</b>	<b>110</b>	<b>107</b>	<b>217</b>	<b>8,467</b>

\* Numbers in parentheses are set outs



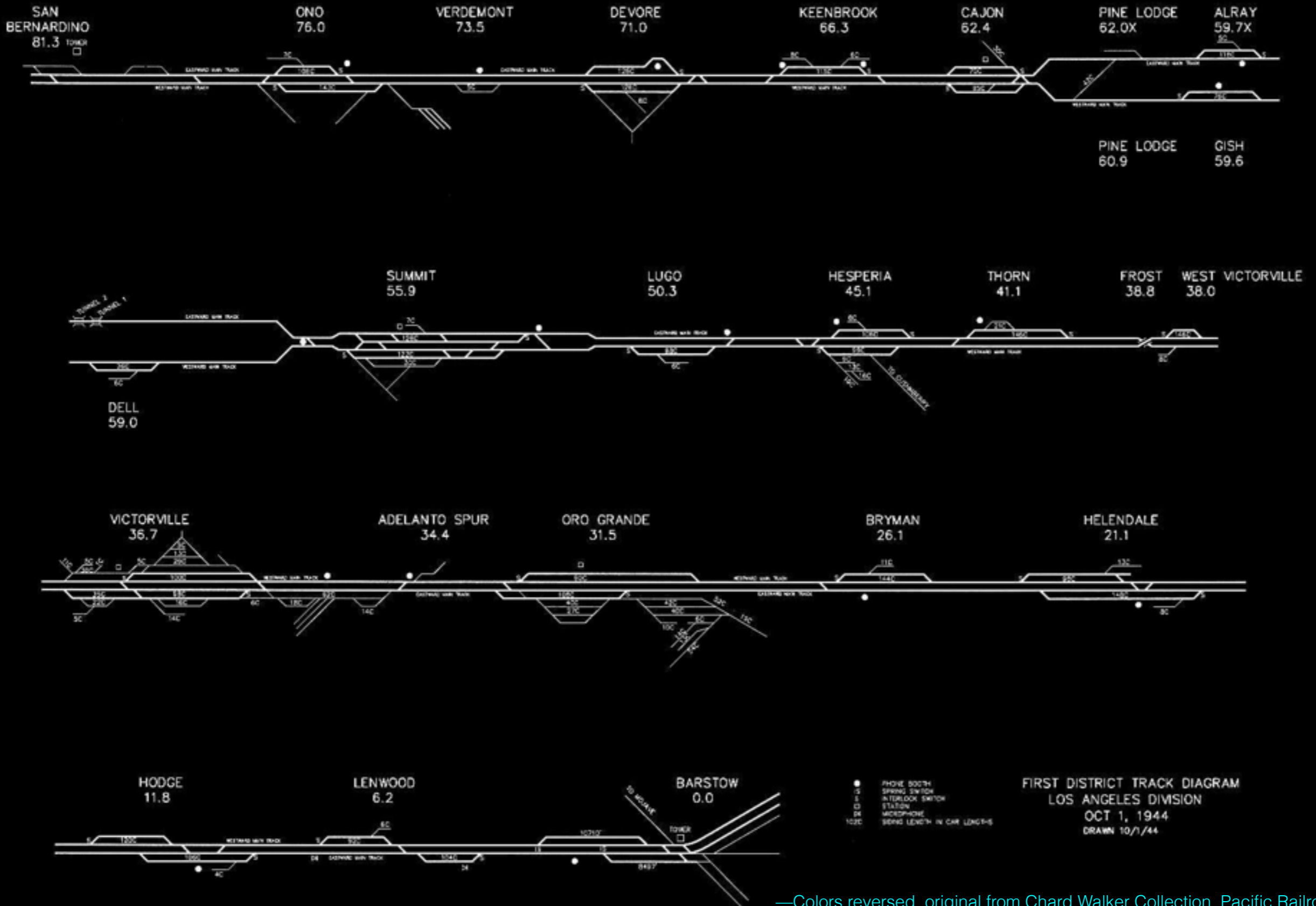
# Cars on the Redlands Loop (May 1-7, 1945)

	Loads	Empties	Totals
Set out	6	78	84
Picked up	104	29	133



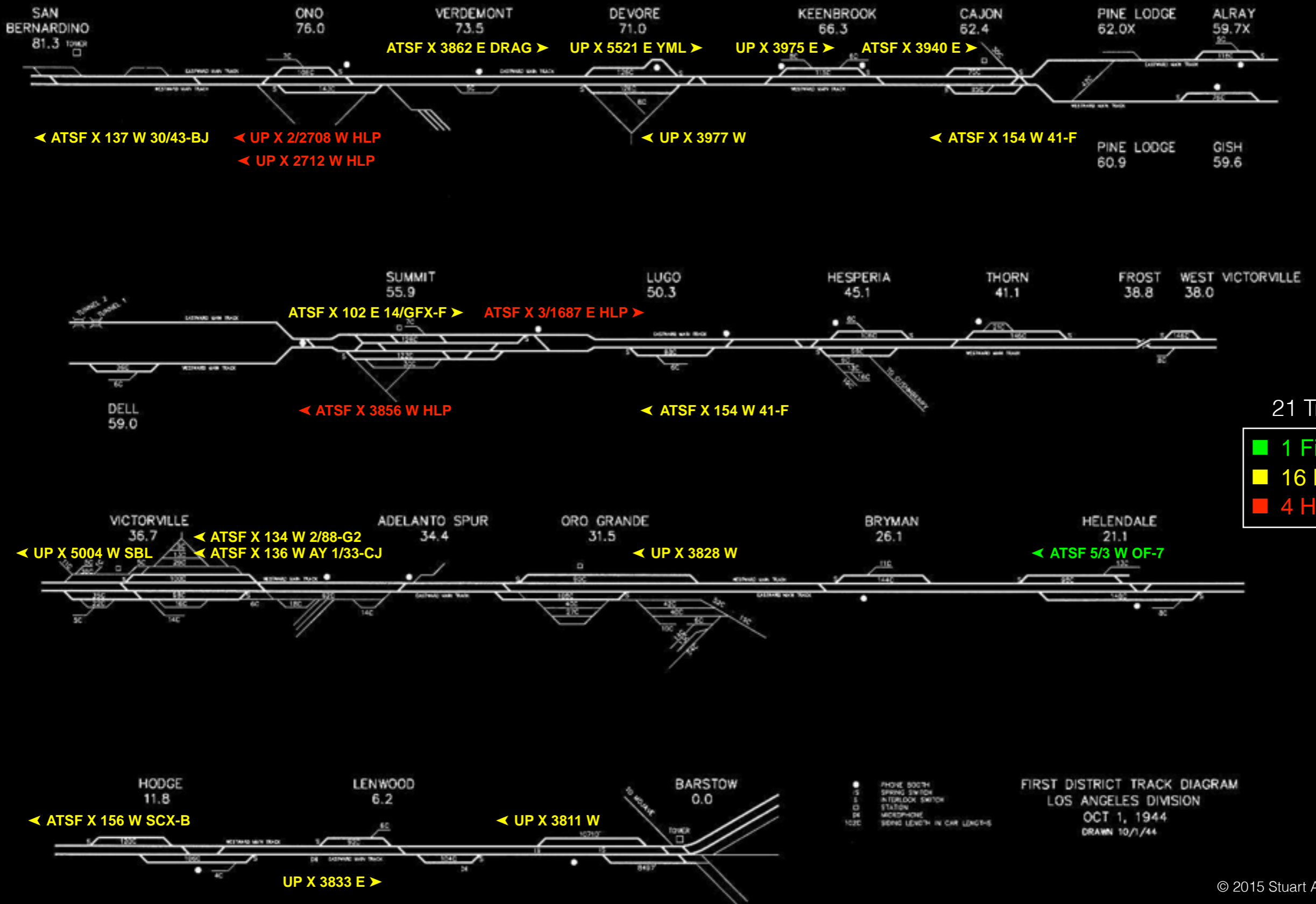
# First District Traffic

# First District Track Diagram



FIRST DISTRICT TRACK DIAGRAM  
LOS ANGELES DIVISION  
OCT 1, 1944  
DRAWN 10/1/44

# The First District at 5:41 pm PWT on May 6, 1945





**May 1-7, 1945**

# **Cajon at War: Seven Days in May 1945**

# What Have We Learned from These Seven Train Sheets?

- The kinds of data that are on a train sheet
- That a database can be built to mine this data for knowledge
- The number, type, length and tonnage of the trains operated
- The train speeds between segments of the railroad
- The types, classes and numbers of the engines operated
- What one helper engine did on one particular day
- All the trains that passed one station in just one trick
- How busy this railroad was towards the end of World War II

# THE END

## Modeling from Train Sheets

... because half of the time it was too dark to take pictures

By Stuart A. Forsyth

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