



Check Box Train Orders

**Dave Clemens
Jim Providenza**

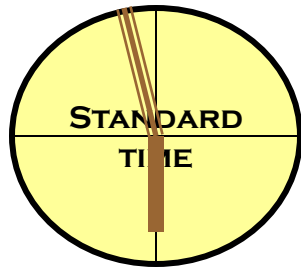
Speeding Up Timetable and Train Order Operations



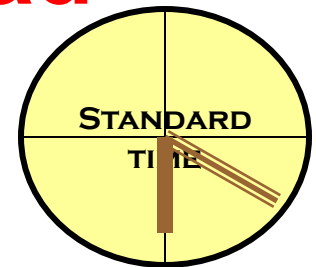
Dave Clemens (advocate)
Jim Providenza (not so much!)

Issues to consider

What ever you can do, the Ops Clock will do much faster.



Need five minutes to write and copy?
You just burned up 20 to 30 minutes (or more) out on the railroad



Issues to consider

Recommendations to Otis McGee's SP Black Butte Subdn dispatchers.

Less is More is the best policy for Train Orders. Issue as few Train Orders as absolutely needed. Issue more, but very simple Train Orders where necessary. Although there are MANY forms of Train Orders, focus on just FOUR – Run or Work Extra, and Meet at or Right-Over.

1. Run Extra: **ENG 1234 RUN EXTRA ALPHA TO MARY**
2. Works Extra: **ENG 1234 WORKS EXTRA FROM 901AM UNTIL 1230PM BETWEEN ALPHA AND BAKER**
3. Setting a Meeting point: **NO 20 MEET EXTRA 5678 WEST AT CHARLIE**
4. Right Over: **EXTRA 5678 WEST HAS RIGHT OVER NO 20 ALPHA TO CHARLIE**

Issues to consider

I used to write ten or fifteen TO's per session at Otis's.



Now I write six or seven by keeping the trains spread out. Yet the railroad is more fluid from beginning to end, and traffic (and operators) keep moving - NOT standing around.

Some solutions

On Jim's Santa Cruz Northern we love to throw a match into the can of gasoline from time to time.

Holiday weekend traffic balloons with more Suntan's running to the beach.

So how do you keep up?





Some solutions

**Keeping the Santa Cruz Northern fluid
Memorial Day weekend**

**Pre-print lots of TO's. Just like when
the DS told his Ops down the line,
“Copy a bunch.”**

Pre-Printed TOs

Santa Cruz Northern RR	
FORM 19	FORM 19
TRAIN ORDER No.	<u>11</u> <u>MAY 23</u> , 19 <u>71</u>
To C. & E.	<u>WESTWARD TRAINS</u>
At: <u>MAC ST</u>	X <u> </u> Opr.: <u>M</u>
	<small>STATION INITIALS TIME</small>
TO C&E: TRAINS ORIGINATING - FALLON EASTWARD TRAINS - SANTA CRUZ	
TRAIN NO 34 LEAVING SANTA CRUZ SATURDAY MAY 24 IS ANNULLED SANTA CRUZ TO MAC ST	
Made: <u>COMPLETE</u>	Time <u>405P</u> Opr. <u>DRC</u>
<small>Each employee addressed must have a copy of this order.</small>	

Santa Cruz Northern RR	
FORM 19	FORM 19
TRAIN ORDER No.	<u>1</u> <u>MAY 24</u> , 19 <u>71</u>
To C. & E.	<u>WESTWARD TRAINS</u>
At: <u>MAC ST</u>	X <u> </u> Opr.: <u>M</u>
	<small>STATION INITIALS TIME</small>
TO C&E: ORIGINATING TRAINS - FALLON ENG WP 803A - SANTA CRUZ	
ENG 803A RUN EXTRA LEAVING SANTA CRUZ AS FOLLOWS WITH RIGHT OVER ALL TRAINS	
LEAVE SANTA CRUZ	501 AM
FALLON	540 AM
DOUGHERTYS	555 AM
E RICA	610 AM
ARRIVE MAC ST	620 AM
Made: <u>COMPLETE</u>	Time <u>405A</u> Opr. <u>DRC</u>
<small>Each employee addressed must have a copy of this order.</small>	



Other solutions

Most recently, Jim had an issue of track work going on at SP Xing.

Do we deal with it as Train Orders?

Nope, having a prototype DS on call encouraged us to create a Division Bulletin.



Some solutions

Santa Cruz Northern RR

DIVISION BULLETIN NO. 207
NOVEMBER 17, 1971
12:07 P.M.

ALL SCN TRAINS ORIGINATING

AUTOMATIC INTERLOCKING SP XING MP 34.2 TEMPORARILY
REMOVED FROM SERVICE. ALL MOVEMENTS AT SP XING SHALL BE
GOVERNED BY SP FLAGMAN. ALL SCN TRAINS MUST APPROACH SP
XING PREPARED TO STOP UNLESS PROCEED SIGNAL FROM FLAGMAN
IS RECEIVED.

YELLOW FLAGS DISPLAYED EASTWARD AT MP 34.5 AND WESTWARD
AT MP 33.9. ALL TRAIN MOVEMENTS BETWEEN MP 33.9 AND MP
34.5 SHALL BE MADE AT RESTRICTED SPEED PREPARED TO STOP
SHORT OF MEN OR EQUIPMENT.

ON PROCEED SIGNAL FROM SP FLAGMAN AT SP XING, TRAINS
SHALL SOUND BELL AND WHISTLE CONTINUOUSLY BETWEEN MP 34.0
AND MP 34.4 UNLESS OTHERWISE PROVIDED.

SUPERVISORY PERSONNEL SHALL ENSURE ALL TRAIN SERVICE,
MAINTENANCE OF WAY, OR OTHER PERSONNEL OPERATING AT, NEAR
OR THROUGH SP XING HAS A COPY OF THIS BULLETIN WHEN ON
DUTY.

SIGNED,

SUPERINTENDENT

JCP

CHIEF TRAIN DISPATCHER

DRC



Issues to consider

But how do you speed up the TO write, copy, repeat process?

Simplify the forms! Here are some prototype solutions.

Issues to consider

Some prototype solutions.

Date San Antonio Oct 22nd 1864


To St. Louis Cond'r Train No. 7

No. 7 run to Phillipsburg

against No. 4

Sig. A. C. Davis

Operator J. C. Crouse



Issues to consider

Some prototype solutions.

TRAIN ORDER C. _____ 156


To _____ Conductor of Train No. _____

at _____

Train No. _____ will run to _____ regardless
of Train No. _____ and after arriving there will be governed by the
rules. The last named train will not pass the point named until
the other has arrived there. In other respects it will be governed
by the rules. Neither train is authorized by this to run ahead of its
own time table time.

Signed by _____

Received by _____ Operator, _____



Issues to consider

Some prototype solutions.

FORM-19

TELEPHONE-TRAIN ORDER

SWAYNE LUMBER CO.
OROVILLE, CALIF.

Train Order No. 1 Date 8-3 1927

To Conductor and Engineer:

Engine No. 6 At Stacyville Station

Engine No. 6 Meet Engine No. 1

At Stacyville

Complete at 6:30 M. Rec'd by [Signature] (Conductor)

[Signature] (Dispatcher)

Conductor and Engineer must each have a copy of this order

M. K. FOSTER CO., INC., OROVILLE

What finally “tore” it for Dave?

I love having the IMR&N in full swing,

**Right up until the clock goes on. And I
find myself an hour (fast clock, of
course) behind.**



Here's Dave's solution

A “Check Box” Train Order.

The DS plays Telegrapher/
Operator doing all the
paperwork, although crews
could easily “copy and
repeat” back if desired.

Form 19	UNION PACIFIC RAILROAD	Form 19
To C. & E.: _____ At: _____ STATION		
ORDER No. _____		
1 <input type="checkbox"/>	_____ ENG _____ RUN EXTRA _____ TO _____	
ORDER No. _____		
2 <input type="checkbox"/>	_____ ENG _____ WORKS EXTRA FROM _____ M UNTIL _____ M BETWEEN _____ AND _____ <input type="checkbox"/> PROTECTING <input type="checkbox"/> NOT PROTECTING AGAINST _____ TRAINS	
3 <input type="checkbox"/> ALL REGULAR TRAINS DUE _____ AT OR BEFORE _____ M HAVE ARRIVED OR LEFT		
ORDER No. _____		
4 <input type="checkbox"/>	_____ NO _____ ENG _____ _____ MAIN TRACK AND MEET _____ _____ AT _____	
ORDER No. _____		
5 <input type="checkbox"/>	_____ ORDER NO _____ IS ANNULLED	
ORDER No. _____		
6 <input type="checkbox"/>	_____ ENG _____ DISPLAY SIGNALS AND RUN _____ NO _____ TO _____	
Made: _____ : _____ M _____ Disp. _____ Each employee addressed must have a copy of this order.		
Form A	UNION PACIFIC RAILROAD CLEARANCE	Form A
_____ Station _____, 19 _____		
To C. and E. _____ Display _____ Signals _____ (Insert "No" or "Green" for each regular Train at initial station)		
I have _____ (if no orders, insert NO) orders for your train as follows:		
Orders	No. _____ No. _____ No. _____	
O.K. at	_____ : _____ M _____ Dispatcher	
Do not leave before _____ : _____ M (Fill in this line only when necessary to comply with Rule 221.)		
Operator _____		
Conductor and each Engineer must have a copy and see that there train is correctly designated above, also that the number of orders, and the number of all orders received, correspond with the numbers inserted above.		

Here's One example

Form	UNION PACIFIC RAILROAD		Form
19			19
To C. & E.: <u>ENG 1388</u> At <u>SPOKANE</u> STATION			
ORDER No.			
1 <input checked="" type="checkbox"/>	<u>SIX</u> <u>ENG 1388</u> RUN EXTRA <u>SPOKANE</u> TO <u>DISHMAN</u>		
ORDER No.			
2 <input checked="" type="checkbox"/>	<u>SEVEN</u> <u>ENG 1388</u> WORKS EXTRA FROM <u>930 A</u> M UNTIL <u>1230 P</u> M BETWEEN <u>NP</u> <u>XING</u> AND <u>DISHMAN</u> <input type="checkbox"/> PROTECTING <input checked="" type="checkbox"/> NOT PROTECTING AGAINST <u>EXTRA</u> TRAINS		
3 <input checked="" type="checkbox"/>	ALL REGULAR TRAINS DUE <u>SPOKANE</u> AT OR BEFORE <u>901 A</u> M HAVE ARRIVED OR LEFT		
ORDER No.			
4 <input type="checkbox"/>	NO <u> </u> ENG <u> </u> MAIN TRACK AND MEET <u> </u> AT <u> </u>		
ORDER No.			
5 <input type="checkbox"/>	<u> </u> ORDER NO <u> </u> IS ANNULLED		
ORDER No.			
6 <input type="checkbox"/>	ENG <u> </u> DISPLAY SIGNALS AND RUN <u> </u> NO <u> </u> TO <u> </u>		
Made <u>COMPLETE 905A</u> M <u>DRC</u> Disp.			
Each employee addressed must have a copy of this order.			
Form	UNION PACIFIC RAILROAD		Form
A	CLEARANCE		A
<u>SPOKANE</u>	Station	<u>AUG 15</u> , 19 <u>52</u>	
To C. and E. <u>ENG 1388</u> Display <u> </u> Signals <u> </u> (Insert "No" or "Green" for each regular Train at initial station)			
I have <u>TWO</u> (if no orders, insert NO) orders for your train as follows:			
Orders	No. <u>SIX</u>	No. <u>SEVEN</u>	No. <u> </u>
O.K. at	<u>911 A</u> M	<u>DRC</u>	Dispatcher
Do not leave before <u> </u> : <u> </u> M			
(Fill in this line only when necessary to comply with Rule 221.)			
Operator <u> </u>			
Conductor and each Engineer must have a copy and see that their train is correctly designated above, also that the number of orders, and the number of all orders received, correspond with the numbers inserted above.			



Reluctantly (VERY)

Jim has will consider the “concept” of pre-printed forms, because...

The “fill in the blanks” forms match the prototype examples.

Just don't expect an operating session on the SCN to have these scattered around the Agent/Operators' desks.

But, just in case....

Reluctantly (Very)

Jim will consider the “concept” of pre-printed forms, **just in case....**

Santa Cruz Northern RR

FORM 19

TRAIN ORDER No. _____, 19____

To: C. & E. _____

At: _____ STATION X _____ INITIALS Opr.: _____ TIME M

Eng _____ run extra _____
Engine # _____ Location _____

to _____
Location _____

Santa Cruz Northern RR

FORM 19

TRAIN ORDER No. _____, 19____

To: C. & E. _____

At: _____ STATION X _____ INITIALS Opr.: _____ TIME M

_____ meet _____ at
Train _____ Train _____

_____ Location _____

Made _____ Time _____ M _____ Opr. _____ CTD

Each employee addressed must have a copy of this order.

Made _____ Time _____ M _____ Opr. _____ CTD

Each employee addressed must have a copy of this order.

Reluctantly (Yes!)

Jim will consider the “concept” of pre-printed forms for others, **just in case....**

Santa Cruz Northern RR

FORM 19

TRAIN ORDER No. _____, 19____

To: C. & E. _____

At: _____ STATION X _____ INITIALS Opr.: _____ TIME M _____

_____ run _____ hours late

Train # _____

Santa Cruz Northern RR

FORM 19

TRAIN ORDER No. _____, 19____

To: C. & E. _____

At: _____ STATION X _____ INITIALS Opr.: _____ TIME M _____

_____ has right over

_____ from _____

Train _____ Location _____

to _____

Location _____

Made _____ Time _____ M _____ Opr. _____ CTD

Each employee addressed must have a copy of this order.

Made _____ Time _____ M _____ Opr. _____ CTD

Each employee addressed must have a copy of this order.



Other Options

Another approach from Byron Henderson.

Timetable and Two (2) Train Orders.

Of the 16 daily train "slots" on the schedule, the owner normally ran only six or seven trains. Train "slots" were annulled in pairs (east & west), with any needed meets established by Train Order.

Other Options

Another approach from Byron Henderson.

Timetable and Two (2) Train Orders.

- Timetable includes more trains than run in a session with scheduled meets
- “Run Late” and “Meet At” pre-printed orders
- Mark off annulled and arrived trains (Register)

Of the 16 daily train "slots" on the schedule, the owner normally ran only six or seven trains. Train “slots” often were annulled in pairs (east & west), with any needed meets established by Train Order.

Other Options

Timetable and Two Train Orders forms.

Orders for Train _____ Engine _____

Order # _____ Train _____
Run _____ late
_____ to _____

Order # _____ Train _____
Meet Train _____
at _____

Order # _____ Train _____
Run _____ late
_____ to _____

Order # _____ Train _____
Meet Train _____
at _____

Order # _____ Train _____
Run _____ late
_____ to _____

Order # _____ Train _____
Meet Train _____
at _____

The following trains are
annulled or have arrived
(draw line through Train #)

1	2	9	10
3	4	11	12
5	6	13	14
7	8	15	16

Order # _____ Train _____
Meet Train _____
at _____

Proceed with caution
through Yard Limits,
prepared to stop

Other Options

Timetable & 2 Train Orders trainsheet.

Dispatcher's record of Train orders issued

Arrived / Annulled

1 Train _____ run _____ late _____ to _____

1 2

Train _____ meet Train _____ at _____

3 4

2 Train _____ run _____ late _____ to _____

5 6

Train _____ meet Train _____ at _____

7 8

3 Train _____ run _____ late _____ to _____

9 10

Train _____ meet Train _____ at _____

11 12

4 Train _____ run _____ late _____ to _____

13 14

Train _____ meet Train _____ at _____

15 16

5 Train _____ run _____ late _____ to _____

Train _____ meet Train _____ at _____

6 Train _____ run _____ late _____ to _____

Train _____ meet Train _____ at _____

7 Train _____ run _____ late _____ to _____

Train _____ meet Train _____ at _____

8 Train _____ run _____ late _____ to _____

Train _____ meet Train _____ at _____

9 Train _____ run _____ late _____ to _____

Train _____ meet Train _____ at _____

10 Train _____ run _____ late _____ to _____

Train _____ meet Train _____ at _____

Other Options

Another approach from Kevin Leyerle.

“Fill in the Blank” approach is similar to Dave’s

MISSOURI - KANSAS - TEXAS RAILROAD COMPANY
OKLAHOMA, KANSAS AND TEXAS RAILROAD COMPANY

CLEARANCE

Station _____ 19 _____

C. & E. _____

I have _____ orders for your train:
(In blank space show total number of orders or, if none, show "No")

Operator will list orders downward in numerical order, starting in left column, speed restriction orders first, old date movement orders next and current movement orders last, first column to be filled before using second and third columns.

OK _____ M _____ Dispr. _____ Opr. _____

Do not leave before _____ M.
(Operator fill in this space only when necessary to comply with Rule 91.)

MISSOURI-KANSAS-TEXAS RAILROAD COMPANY
OKLAHOMA, KANSAS AND TEXAS RAILROAD COMPANY 4801-05/18

TRAIN ORDER No. _____ 19 _____

To C & E _____

At _____

A. [] ENGINE _____ RUN EXTRA FROM _____
TO _____

B. [] ENGINE _____ RUN EXTRA FROM _____
TO _____

C. [] MEET EXTRA _____ AT _____

D. [] EXTRA _____ TAKE SIDING AT _____

E. [] ENGINE _____ WORKS EXTRA BETWEEN _____
AND _____ PROTECTING [] NOT PROTECTING []
AGAINST EXTRA TRAINS OR ENGINES

F. [] _____

Dispr. _____

Made _____ Time _____ M _____ Opr. _____



Other Options

- Pat Flynn:
- “One Legged”
Dispatching on the
WP’s 4th Sub circa
1980
- “There will be no
clerks at Keddie.”

FOURTH SUBDIVISION										
EASTWARD ↓					↑ WESTWARD					
Miles from Oroville Yard	Station Numbers	Mile Post	TIMETABLE NO. 8		SDGS in Feet	Miles from Bieber	SECOND CLASS			
			STATIONS	RULE 6-A			5	7	9	11
							Daily	Daily	Daily	Daily
				FPY						
	281	0.0	KEDDIE	P		111.8				
79.8	6281	6.2	MOCASSIN	P	4208	105.6				
82.2	9281	8.6	CRESCENT MILLS	P	620	103.2				
88.3	15281	14.7	GREENVILLE	YP	4236	97.1				
99.3	25281	25.7	ALMANOR	P	7914	86.1				
108.8	35281	35.2	CLEAR CREEK JCT	P		76.6				
113.0	39281	39.4	WESTWOOD	P	4412	72.4				
117.4	44281	43.8	ROBBERS CREEK	P	7236	68.0	AM 2.15	AM 8.15	PM 2.15	PM 8.15
136.5	63281	62.9	LODGEPOLE	YP	4219	48.9	1.50	7.50	1.50	7.50
150.1	76281	76.5	HALLS FLAT	P	6754	35.3	1.30	7.30	1.30	7.30
168.4	95281	94.8	LITTLE VALLEY	P	4192	17.0	12.40 12.01	6.40 6.00	12.40 12.01	6.40 6.00
185.4	112281	111.8	BIEBER (Yd. Limits)	TO-R-BKYP		0.0	AM	AM	PM	PM

Rule 540. Traffic Control System in effect Keddie to MP 55.8. Westward signal located at MP 57.5 is Distant Signal for Absolute Signal at MP 55.8. Westward trains do not require clearance or train order authority to operate in TCS territory west of Robbers Creek and will be identified as “Extras West”.

Rules T-82-A and 204. Train orders will be issued at Oroville Yard and Portola which affect movement on Fourth Subdivision. Train orders will be issued at Bieber which affect movement on Third Subdivision. Clearance is not required at Keddie. TCS Signals will govern movements between MP 55.8 and Oroville Yard or Portola. Eastward Trains will check with Fourth Sub Dispatcher and Westward Trains with Third Sub Dispatcher to determine they have all applicable Form “Z” orders before leaving Keddie.



Other Options

The WESTERN PACIFIC used

“One-legged Train Orders” on the “Highline”
between Keddie and Bieber connecting to the
GN (BN) via Klamath Falls

In the final days of Train Orders, Dispatcher's issued
“Train Orders via radio” to northbound trains nearing the
end of CTC at Robber's Creek.

Radio Train Orders permitted eliminating the
Agent/Operator positions at Keddie. Bieber Operators
(and traditional Train Orders) continued because Bieber
Operators were also Crew Callers.



Flagman courtesy of
RailsonWheels