

Sacramento Model Railroad Historical Society

2-Way radio procedures

Introduction:

This document is to set the standards and procedures for 2-way radio communications during operating sessions on the standard gauge layout.

Background:

During the most recent open house in July it became apparent that we had a problem coordinating the number of trains and they're respective operators on the layout. Although we made a gallant effort using Track Warrant control between dispatchers and the engineer's, the layout eventually bogged down. Some of the problems were not radio related and these will be addressed in another manner. This document will address how we will deal with radio communications themselves.

Goal:

To have clear, concise communications between train operators (engineers), dispatchers, trainmasters, yardmasters and anyone else that needs to use two way radios during operations. We want to keep it simple and easy to use so that we can still have fun while still mimicking a real railroad.

Equipment:

Motorola Talkabout's with headsets. The models at present are the 5500 series. The exact details of these and how to set them up for club operations can be found in the club guidelines elsewhere.

Radio Rules:

A: Wait until others have finished talking. There's nothing more frustrating than having your message "walked on". Be patient and give everyone a chance.

B: Don't yell....If the dispatcher can hear your voice from the other side of the room without his radio, you're too loud. Even though the room is busy and there are a lot of people about, normal conversational tones can be picked up and heard on the radios.

C: Know where you are on the layout and which direction you want to go. Most importantly try to know what you're going to say before you start transmitting. This will help keep the excess chatter to a minimum. Remember, others are waiting to talk just like you.

Initiating movement:

Once you have received permission from the trainmaster to operate a train and your train is ready to depart from the terminal/siding you must contact the dispatcher for authority to depart.

Example:

Eng: "WP 4000 to dispatcher, OVER"

Disp: "Dispatcher, go ahead WP 4000, OVER"

Eng: "WP 4000 ready to depart Portola yard westbound, OVER"

Disp: "WP 4000 you have authority to enter the main at west Portola and depart westbound, OVER"

Eng: "WP 4000 understands I have authority to enter the main and depart Portola, westbound, OVER"

Disp: "WP 4000 that is correct, OVER"

Eng: "WP 4000 OUT"

Disp: "Dispatcher OUT"

You are now a westbound train with authority to enter the dispatcher's territory. As long as you have the authority of the Portola Yardmaster to move in his yard you can now make the necessary switches to move onto the main and proceed. Don't forget to line behind!

This example is a scaled down version of what an actual UP train has to do to enter and occupy the main during a departure. You are first getting the attention of the dispatcher by calling him before you make any requests. This gives him a chance to recognize who you are and what your train is based on the trainmaster's schedule. Once you have his attention you then make the request, he then makes the determination on whether you can go or not. He may give you authority to depart right away or he may have you wait for another train to pass first so pay attention.

You may notice that there is a lot of repeating in this exchange. This is critical on the real railroads and we should think in the same manner. The purpose of all the repeating is to ensure that both parties understand the instructions and that each knows that the other understands as well. It's too easy to think you heard right and proceed incorrectly. On the real

railroad this gets you fired or dead. On our railroad it's not as serious but it can muck things up and get you put in the penalty box or something creative like that. Besides we want to try and mimic the real thing without the destruction.

Here's another example;

You are eastbound at Oroville and have just stopped on a red signal at the east end. You haven't heard from the dispatcher as to why you are stopped. In the real world when this happens you are required by the rules to contact the dispatcher to try and find out why. Sometimes they forget to hit a button on the computer. They are very busy and at times just lose track. With your reminder you can help keep the railroad moving, however it usually means your waiting for another train to clear. He'll let you know.

On our railroad we have the advantage of being able to step around the corner to see for ourselves without having to bother the dispatcher on the radio or send your Conductor walking ahead 5 miles to see what's coming. Even so there will be occasions that formal radio communications are needed.

Eng: "WP 4000 east calling dispatcher, OVER".

Disp: "WP 4000 east, go ahead, OVER"

Eng: "WP 4000 east stopped on a red at east Oroville, OVER"

Disp: "WP 4000 I have 2 westbounds to get by you, OVER"

Eng: "Understand, 2 westbounds, WP 4000 east OUT"

Disp: "OUT"

As you can see this is a little more informal. You are just giving each other a heads-up and still using proper radio protocol. You're not requesting any authority, you're just finding out about how long you'll be there.

Remember, the dispatcher controls all main line authority. Yardmasters are just what the name implies. They are the masters of this small universe and you need they're authority to enter or leave they're yards during full scale running sessions.

If your in a siding like James or Oroville and your ready to enter the main you need to get authority from the dispatcher in the same manner you did when you left the Portola yard. Just remember where you are and that you are already designated a west or east bound train. Be sure to

include the words "west/east bound" as part of your call to the dispatcher.

Remember these simple rules:

Who am I?

Where am I?

Which way am I going?

What's ahead of me?

What's behind me?

And why are my shoes untied?

Keep it simple, be aware of your fellow railroaders, be polite and most of all have fun. Once you are used to communicating on the radio and you're familiar with the layout the trains will run a lot smoother.