



TRADEWINDS & ATLANTIC RAILROAD

MEMBERSHIP HANDBOOK

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GENERAL POLICIES FOR ALL MEMBERS

Parking: If you arrive for a workday, fun run, or other function when the public is not present, please feel free to park wherever is most convenient. Please do not park outside the fence at any time. Before 10 AM on public run days you may park between the fence and the yard. If you arrive after 10 AM when operations begin, please try not to pass through the driveway in front of the station. If you enter through the main park gate, please park along the road where the public parks.

Never attempt to drive anything with wheels over the tracks except at designated points. Even a lawnmower could cause severe damage to the track.

When walking near the track, try to avoid walking directly on the track or ballast. If you must step or walk on the track, step directly on the ties between the rails. If accompanying guests or public, ask them to not walk on the track. In particular, avoid disturbing the ballast. Children must be asked not to throw ballast at any time; it was put there for a reason and it is dangerous.

Dress code: We do not have a formal dress code, but remember we are "on parade" when the public is present. Let common sense be your guide. This is a railroad; consider the hazards when choosing your attire. Of course, the preferred attire is overalls and an engineer's cap, but second choice would be a TARR shirt and clean, long pants. Shoes should be of leather and have heavy soles when possible. Sandals are never acceptable from a safety standpoint. Short pants and other informal attire are not appropriate when the public is present.

Horses: The north side of Tradewinds Park was donated to Broward County by a horse-lover, and as such there are often horses near the track. Regrettably, these horses are often not very well trained and ridden by people that are not well trained in handling horses. Whether you are driving your vehicle near a horse or running a train, reduce speed to the absolute minimum and don't blow your horn or whistle. Try not to make sudden moves or noises that will startle the horse. A startled horse could easily injure its rider or bystanders, and possibly even damage a train. Horses must never be allowed to step on the tracks, as their hooves will damage the rail.

STATIONMASTERS by Larry Zauder, Chief Stationmaster

THE PRIMARY ROLE OF THE STATIONMASTER IS TO ENSURE THE SAFETY OF ALL PEOPLE IN THE VICINITY OF THE STATION.

With safety always in mind, the role of the Stationmaster is divided into three areas.

- The station environment
- Movement of trains through the station
- Interacting with the public.

Each area will be covered separately below

STATION ENVIRONMENT

The following equipment should be at the platform before 10:00AM on public run days; a stool, ticket box, barn broom, air hose and water hose. After 4:00 PM, all equipment should be safely stored. On Saturday nights all equipment may be stored in the depot. After Sunday, the stool and ticket box go to the depot; the rest goes to the barn.

Before arrival of the public, the platforms should be swept and any debris removed. An inspection of the structure should then be made. Track must be inspected for defects and debris. The water tank should be opened and the water line to it tested. Air and water hoses should be connected. A supply of paper towels is handy for spills.

During the day, keep an eye on the condition of the platform. Persuade the public to use litter baskets and to keep their belongings with them. In general keep the area neat and attractive.

At the end of operations, put everything away and again inspect the area. Report any problems to the Operations Committee.

MOVEMENT OF TRAINS THROUGH THE STATION

The Stationmaster controls all movements of trains through the station during public operating days. Trains should not pull into or depart the station without a signal from the Stationmaster. Trains that are waiting to enter the station may do so only upon signal from the Stationmaster. This is especially important if both station tracks are in use. All trains must use slow speed when in the station area. Slow speed is defined as half the distance required to stop the train short of another train, an obstruction, or people on the track.

When a train is being loaded on an adjacent track, another train may not approach or pass that train. If a train crewmember needs relief, they will inform the Stationmaster who will obtain a replacement. This may necessitate another run before a replacement can be found. If a train crew decides to yard the train, they must inform the Stationmaster who will if necessary or possible find a replacement train. In any event, upon informing the stationmaster, the stationmaster will poll the waiting passengers to determine if anyone is waiting for that specific train. If so, the train crew will try to accommodate these requests. Of course in case of malfunction or emergency, the train will be taken out of service immediately.

When the train is safely loaded, the stationmaster will give the safety instructions and signal the conductor to proceed. The Stationmaster will give the train a running safety check upon departure.

STATIONMASTERS, CONTINUED

INTERACTING WITH THE PUBLIC

Passengers support our club with their donations. It is our responsibility to provide them with a safe, clean and pleasant atmosphere. While special situations may arise from time to time, it is the role of the Stationmaster or any other club member present to assist the public with their enjoyment of the railroad. It is especially important that the Stationmaster makes sure that parents mind their children at all times. No passenger may enter upon the loading platform or the tracks unless specifically told to do so by the Stationmaster or a club member who will assist these passengers.

When a train has entered the station for passenger loading and has stopped, the Stationmaster will open the gate and collect tickets. The Stationmaster must know the safe capacity of each train and load accordingly. Their parent or guardian must hold Young children whose feet do not reach the foot rail, but the child must be seated on the seat, not on the adult's lap. **An adult must accompany children under 10 years of age.** Large or heavy people should be loaded as near to the center of a car as possible. After initial loading, the Stationmaster will inspect the seating arrangements and make adjustments. Specifically, passengers must not straddle between two cars. They must sit square on the seat, never sidesaddle. The car must be balanced meaning if there are only a few people on a car, they must sit between the trucks. Never must they sit over or past the truck bolsters if the load is light.

After properly loading the train, The Stationmaster will give the safety instructions to the passengers as follows:

- All passengers must keep their feet on the foot rails (or footrests in trains so equipped) at all times.
- Passengers must not rock from side to side.
- Passengers must not try to grab any object along the right of way
- If something is dropped, no attempt should be made to retrieve it. Rather the conductor should be told of the loss and its location. The next train will pick it up and return it.
- If a passenger intends to use a camera or camcorder on the trip, the stationmaster will inform him to not lean out over the car side to take a shot. If there is something specific he wants to take he will be invited to walk there for the shot.

The Stationmaster will then signal the conductor to proceed.

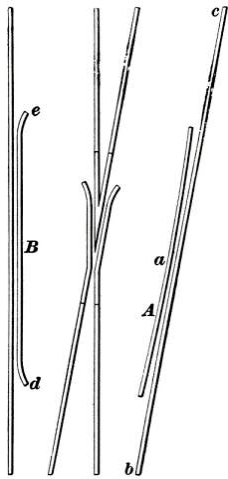
OTHER THINGS TO KNOW

1. Expectant mothers cannot ride the trains, for their own safety.
2. If a passenger wants to ride again, he must buy another ticket and stand on line again.
3. If passengers want to ride a specific train, have them step aside until it is available and load the waiting train.
4. If a group wants to ride together and there is not enough room on the train, have them step aside and continue loading the train.
5. On occasion, special birthday trains are run. They are part of the fun but be aware of them.
6. Passengers with special needs cannot always be accommodated. If the situation arises, determine if the passenger is capable of sitting on the train and understanding the instructions or if someone accompanies them.
7. At all times be friendly and encourage questions. If someone wants more information than you can give, call another member to assist you.
8. Sometimes a passenger will cut in line, try to enter the platform without a ticket or create a disturbance. Try to handle the situation firmly but politely. Explain the problem calmly, with respect and a smile. If that doesn't work, call for help.

CONDUCTORS

SWITCHES

Whether you call them switches or turnouts, we're talking about the things that direct trains to different tracks, not the ones that turn lights on and off. First, some definitions: **Frog.** —The frog is a device by means of which the rail at the turnout curve crosses the rail of the main track. **Frog Number.** —The number of a frog is the ratio of its length to its breadth, i.e., the quotient of its length divided by its breadth. **Points.** — The pointed rails that select which way the wheels will go. **Guard Rails.** — The rails with bent ends inside the regular rails serve to guide the wheels through the frog so they don't hit the point of the frog and derail. **Switch throw.** — The lever and mechanism that moves the points.



We have something like 30 switches at the TARR (give or take a couple), and each one has a frog as it's key ingredient. The picture shows the frog in the center of the diagram where the four rails intersect. The two bent pieces of rail (A and B) across from the frog are the **guard rails**, which serve to guide the flanges of the wheels to the correct side of the **frog point**, formed where the two top middle rails come together at the middle of the frog. Prototype switch frogs are cast from very hard steel, while at the TARR ours are fabricated or cast out of aluminum or steel.

The frog number is simply a way of saying how gently or sharply the diverging track veers away from the main track. The smaller the number, the sharper the curve. Simply put, a switch where the rails that form the frog point are one inch apart six inches away from the frog is a #6 switch. Most switches at the TARR are about #6.

All of our switches are **point-type**, as opposed to the more dangerous but easier to make stub type. The points are just that, pointed pieces of rail that serve as the devices that do the actual directing of the wheels. In addition, all of our points are spring-loaded, unlike most points on real railroads. This gives us the ability to run through a switch that is set incorrectly, as long as the equipment is heavy enough to overcome the springs. If it isn't heavy enough, or if there is debris in the points, a derailment will occur.

Because the points are physically forcing the wheels to change direction, there are huge forces placed on the rails and ties that make up a switch. Therefore, it is imperative that we maintain our switches as well as we possibly can. The area between the points and regular rails, underneath the throw bar and around the springs and switch throw must be kept clear of all debris so the points can move freely. The areas where the points slide must be kept clean and lubricated, preferably with graphite grease. **NEVER** use your fingers to clean out debris between the points. If they are jammed in the wrong position they could spring back and cut your fingers. Use a stick, screwdriver, or pocketknife to clean around moving parts.

A "facing-point switch" means just that - if you are looking at the open, pointed ends of the points, you are looking at a facing-point switch. A trailing-point switch means the points are going away from you. If you are moving towards the 'points', remember this: "**Gap left, go left. Gap right, go right. Gap on both sides, go on the ground.**" This means that the side where there is a gap between the points and the solid rail is the track you are lined for. If there is a "gap" in the switch, which is where the points aren't solidly against one rail or the other, you will "pick" the switch and go on the ground. Always check and re-check to see that the points are set right after you line the switch.

In general, engineers are expected to look ahead and see that switches are properly lined for their train. Mainline switches must be left set for the mainline at all times when passenger trains are operating.

POWER SWITCH POINTERS

The station bypass switch is (for now) the only power-operated, signaled switch on the railroad. If the power has been turned on to the switch and the signal is operating, all the train crew needs to do to operate the switch is to throw the silver lever (on the black box by the crossing) towards the track they wish to travel. The switch will throw in a few seconds and a **green** signal will indicate that the switch is properly lined for the mainline or #1 track. A **yellow** signal indicates the switch is set for the station bypass, or #2 track. The signal **DOES NOT** in any way show if the track ahead is clear. If the signal stays **red**, try throwing the switch the other way and back again. If the signal still does not clear, **STOP** before passing the switch and check the points. There may be something in them or they might need oil or adjustment. If the signal still does not turn **green** and there is no gap in the points and no other obvious defect, proceed and report the problem. **DO NOT** pass a **red** signal when carrying passengers without stopping first!

If the switch is unlocked and thrown by hand it will not work automatically. **Unfortunately, there is no interlock to prevent operation of the switch while a train is passing over it. Because of this, train crews must exercise extreme caution that they don't move the operating lever while a train is passing over the switch.**

Remember, the signal is not intended to show whether the track is clear or not, only which way the switch is lined. Because of this, **engineers must be careful not to run into another train that is still fouling the switch.**

ON THE GROUND!

OK, so you went on the ground anyway. **First**, you need to make sure that trains approaching you are aware of the fact that they must stop (See **Flagging**). This is the responsibility of the conductor, and the engineer must also see to it if there is a danger of a train approaching from the front. Once this is tended to, rerail the equipment. You may need to call for help on this, but remember, **always keep your back straight and lift with your legs**. Once the equipment is back on the rails, see if you can identify what the problem was. Switch? Errant passenger? If you can see the problem, please report it right away. And if you can't see the problem and it happens again, please report it so a more detailed examination of the track can be made. However, improperly balanced loading causes most derailments.

PASSENGER TRAINS

All trains carrying passengers on the TARR must have safety chains or drawbars between each car. Passengers may only be carried in cars designated for that purpose. Any car that has a high center-of-gravity or would trap a passenger's feet in the event of a derailment may not be used to carry passengers. For instance, a Pullman car with seats at roof level would have too high a center-of-gravity, and the car sides would trap the passenger's feet. This car may not be used to haul public passengers. It may be used to haul club members or without passengers. In the event of a derailment, if the passenger can put his feet on the ground they will not panic. If the car sides trap their feet, the passenger may panic and tip the car over.

PASSENGER TRAINS, CONTINUED

Public-carrying passenger trains have priority over all other trains and operations. Every effort should be made to keep passenger trains moving without delay. This means making sure switches are properly lined, derailments promptly cleared, and waiting to enter the mainline from yard or siding until passenger trains have passed.

HAND SIGNALS

Nothing is more basic than signals. No train may leave the station without the proper signal from the conductor, and by golly, if someone gives you a stop signal, you'd better stop. Let's see the three basic hand (or light) signals:



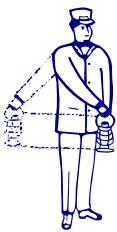
Hand moved up and down vertically

Move Forward



Hand moved in a circle, from the elbow

Back Up



Hand swung from side to side

STOP!

The more vigorously a hand signal is given the faster the action. Backup and go-ahead signals should only be taken from the conductor of your own train. However, a “**STOP**” signal given by anyone should be acted on immediately! It might be a prank but then again, it might not...

RADIO PROCEDURES

Radios help add a great deal of professionalism and safety to our operations, but they are subject to misuse as well. Some clubs use whistles, which are cheap and seldom experience technical problems. But when you mistake someone else's whistle for that of your conductor and start off before your passengers are ready, they aren't much of a help then, are they? They are of no help calling for assistance from the other end of the track, and it is impossible to tell from whistle signals whether the conductor wants you to stop because of an emergency or just that you need to slow down.

We use "FRS" type radios on a channel that gives us the best reception. These radios are available in many stores such as BestBuy, Radio Shack, and Wal-Mart, even grocery stores. Check with the stationmaster before you begin operating to see what channel we are using on any particular day. Engineers in particular should choose a radio (with headset or earphone if needed) that they are able to hear **at all times** over the noise of the locomotive. When purchasing a radio, be careful not to get a model that goes into "forced VOX" operation when the headset is plugged in. Also, be careful not to accidentally put your radio into VOX mode during operations. We try to keep on hand a small supply of radios for those who do not have their own. **All conductors and engineers should have a radio during passenger-hauling operations.**

Radios come with their own set of quirks, though. Sometimes we forget that our passengers can hear what's said and we say things that are, well, embarrassing. Members have been heard to jokingly say, "Ooh, we're going to crash" when a train is really going slowly, but if the public overhears it they don't know you are just kidding. Of course, **please keep radio transmissions limited to railroad business.** Sometimes the radios break, and they can be expensive. So please be careful with them, and be sure that you turn them in at the end of the day. If there is something wrong with yours, don't just stick it back in the box; tag it with a note explaining the trouble you had. "BROKEN" isn't good enough. Did it transmit poorly; did the battery go dead prematurely?

One big problem we experience with the radios is people not identifying themselves when beginning to speak. Now, we don't need to be saying "One Adam-12" and things like that, but when you tell your engineer that you are ready to leave the station, or whatever, specify which train you are talking to. Say, "Train 5 ready to leave station" or "Bill, we are clear to leave the station". Otherwise another engineer might think you are talking to him and move a train that shouldn't be moved.

FLAGGING (WARNING) OTHER TRAINS

If a train has to stop on or fouling the mainline for any reason, it is the first duty of the conductor to make sure that any following trains are aware of the stopped train so they can stop without accident. This is called "flagging". You will have to get off the train and walk back a sufficient distance to make sure the following train has time to see you and stop. If there is a view block or a downgrade, you need to give more warning. At night, have a white light for giving signals. No matter what the reason for stopping, nothing is more important than making sure your train will not be hit by the following train. Make sure the next train is stopped before tending to whatever caused your train to stop.

PASSENGER TRAIN CONDUCTORS

Conductors must never slouch or lay down on a car. They must assist the stationmaster with properly loading the train and ensuring that all passengers know what is expected of them. While the train is in motion, they must be on the lookout for passengers dragging their feet or reaching out for things along the track. If a passenger is seen violating the rules, politely call out to them. If the same passenger continues to break the rules, stop the train and **POLITELY** ask them to comply. If there is any question or if the passenger continues to break the rules, ask them to step off the train and walk back to the station.

ENGINEERS

The basic task of the engineer is to safely and professionally operate the train at the direction of the conductor. The conductor is in charge of the train, so the engineer must **never** start the train without the conductor's OK. The most important thing about running the train is to remember to look ahead. It is very easy to become involved with the locomotive and not look ahead to check to see if switches are properly lined and the route is clear. Each engineer is expected to be able to hear the radio communications from his or her conductor at all times.

BASIC LOCOMOTIVE SAFETY

Some of the Diesel locomotives that belong to the club and to other members are built by E&S Lines of Ellenton, Florida. These locomotives are powered by a 5-hp Honda engine that powers a hydraulic pump, which in turn powers a hydraulic motor in between the axles on each truck. A chain connects the axles of each truck together so all wheels are powered.

Since these locomotives are fueled with gasoline, basic safety considerations must be observed. The engine must be shut off when fueling. The locomotive must be moved away from the public when fueling. Use only 89-octane gas in these engines; do not add oil to the gas.

One identifying characteristic of E&S locomotives is the hydraulic control handle sticking out of the rear of the body. In order to prevent an accident, **the engine must be shut off before you mount or dismount the train.** If you try to mount or dismount with the engine running you could accidentally hit the control and the locomotive will move, possibly causing injury to you or others. Additionally, the engine must be shut off whenever you attempt to rerail cars or otherwise work on or around the train.

Never try to stop a train by dragging your feet. It does nothing to slow the train, digs up the ballast, and you could be severely injured.

WHISTLE OR HORN SIGNALS

When you use whistle or horn signals, you add an extra dimension of enjoyment for our passengers and help prepare them for starting and stopping, which increases safety. A "-" means a long blast, a • means a short blast. Just don't blow so much that it becomes annoying.

•	When moving, stop.
- -	Release brakes, proceed.
• • •	Back up.
- • • -	Approaching track workers
-	Approaching station.
- - • -	Approaching road crossing.