Car Forwarding on the Chicago & Mackinac Railroad – Keeping it simple
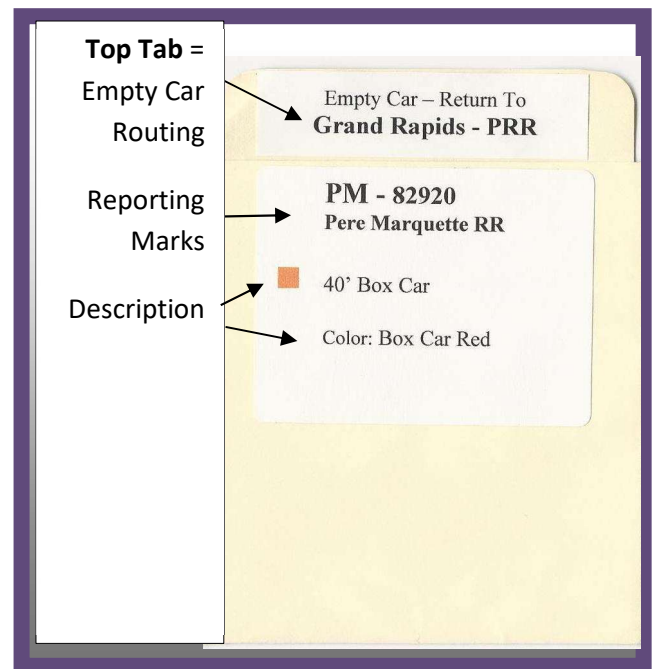
The Chicago & Mackinac Railroad employs a perpetual car forwarding system that results in minimum maintenance and minimum restaging between operating sessions.   CarCards and Waybills (CC&WB) are used to route each piece of rolling stock to its final destination and the "Station Agent's Box" element of the system is the key to perpetual low maintenance operations. I will start with the relatively simple one or two move waybill system then explain the key Agent's Box element.

First our waybills and carcards – Our waybills are made from the ubiquitous 3 x 5 index cards and the car cards are the once ubiquitous library card pockets which, in the past, were found on the inside cover of all library books. By design, the 3 x 5 index cards fit perfectly inside the library card pockets. A carcard sample is to the right.

The philosophy of our car forwarding system is quite simple. We start with the assumption that **every freight car is in one of two states or conditions**: either loaded or empty. We further break down the empty condition into two sub-conditions: **"Empty car Request" or "Empty car returning to its home road"**.

So, our waybills need to deal with freight cars in three different conditions:
1. **Loaded**
2. **Empty Car Returning to Home Road, and**
3. **Empty Car Request**

Top Tab = Empty Car Routing

Reporting Marks

Description

Empty Car – Return To
Grand Rapids - PRR

PM - 82920
Pere Marquette RR

40' Box Car

Color: Box Car Red

[*Note: The system allows for many more complex situations, but that discussion is for another day.*]

As mentioned, we utilize the 3 x 5 index card for the waybill. The most recent iteration of the waybill attempts to loosely emulate a typical real-life waybill, however, very little information on the current waybill is needed to actually deliver the freight car to its proper destination and the rest of the information is just for fun.

We use either one side of the card or both sides of the card to facilitate delivery: 1 or 2 cycle way bill. Let's look at the three types of waybills needed for each freight car state/condition.

First State - Loaded Freight Car –

Normally, a loaded car will be coming onto the layout from staging (either from the north or from the south on the C&M). In staging, an empty car will receive a waybill similar to the one on the left. This is for a refrigerator car and it is to be delivered to the Team Track in Petoskey.

The only two pieces of information on the waybill that are needed to correctly deliver this car are Petoskey and Team Track. All of the other information is strictly eye candy. To the right is that waybill inserted into the carcard. As you can see, only the top portion of the waybill with the important information is visible, Petoskey and the Team Track.

It may be interesting to know that this car was loaded by the California Packing Co. in Tehachapi, how it was routed to Petoskey and what is in the car, but none of that information will affect where this car is going. If the crew is curious as to what is in the car or the car routing, etc., he need only pull the waybill out and take a look. To my recollection, no one has ever done that during the rigors of an operating session.

Coming from staging, once in the yard, the yardmaster will classify this car for the next Petoskey turn and the Petoskey turn will deliver the car to the Team Track. Nice and simple. Now let's look at the empty car waybills.

Second State - Empty car returning to its home road –

This one is the easiest. Using the first example above, the car bound for the Team Track in Petoskey, when that car has been emptied by the consignee, a local turn will pick it up and take it back to the yard for classification to its next destination.

However, upon pickup, the local crew will remove the waybill and read the instruction at the bottom of waybill card. (See how this works in Agent's Box section below). It says "Remove Waybill After Car is Delivered". Upon removal, the "Empty Car – Return To" is uncovered on the top tab of the carcard. This car is now an empty and will normally be directed back to its home road via staging.

Before the next operating session, adding a new waybill with a destination that is on the layout will be needed. The Pere Marquette carcard above is just an example of what an "Empty Car - Return To" tab would look like for a car being returned to the home road via the PRR.

Third State - Empty car for loading –

This car may originate in staging or it may originate in one of the C&M yards (more on that later). This one is also pretty simple, see the Empty Car Order on the left. The ITT Thompson Corp in Petoskey has requested an empty car to be delivered to their company so they can ship out their electronic products to customers. The yardmaster will classify the car for the Petoskey turn and the next Petoskey turn out will deliver the car to the ITT Thompson Corp.

EMPTY CAR ORDER
132- CHICAGO & MACKINAC RR -132
TYPE: XM BOX
STATION: PETOSKEY MI
SHIPPER: ITT THOMPSON

LADING: ELECTRONICS

Turn Over Card
After Delivery

After delivery, the waybill is removed from the carcard and the directions at the bottom of the waybill say "Turn Over Card After Delivery"

The waybill on the right is printed on the back of the Empty Car Order. The car is now a load from ITT Thompson Corp, headed to Cray Computers in Minnesota via the Mackinaw Boat (northern staging). The Petoskey turn will bring that car back to the yard and the yardmaster will classify it for the next Mackinaw City Boat train. After delivery and while the car is in staging, the waybill needs to be removed and replaced with one with a southbound destination.

132 - CHICAGO & MACKINAC RR - 132
FREIGHT WAYBILL
TO BE USED FOR SINGLE CONSIGNMENTS, CARLOAD & LCL

TO STATION	STATE	FROM STATION	STATE
MACKINAW BOAT	MI	PETOSKEY	MI

CONSIGNEE & ADDRESS	SHIPPER
CRAY COMPUTERS	MN	ITT THOMPSON

ROUTE - IN ROUTE ORDER	AAR CLASS OF CAR ORDERED	XM
CM,SOO	LENGTH OF CAR ORDERED	
	WEIGHED	

NO. PKGS   DESCRIPTION OF ARTICLES

ELECTRICAL COMPONENTS

AAR FORM 104

Remove Waybill
After Car is Delivered

At the beginning of each operating session, there are a number of Empty Car Order waybills located at the main classification yard. These are from our online shippers and it is the yardmasters responsibility to fill those car request orders. The yardmaster is authorized to "steal" cars returning to their home roads to fulfil the C&M customers car request. When he finds an appropriate empty car, he inserts the Empty Car Order into the carcard and classifies that car to serve the customer as soon as possible.

Station Agent's Box

The Station Agents Box is the element that keeps the CC&WB system running with little or no between session restaging and maintenance. All local crews and most mainline crews picking up and delivering freight cars need to work with the Station Agent to maintain the perpetual nature of the system

At each station there is a Station Agent's Box full of CC/WB. The Agent's Box consists of a number of tabs or bins (usually 3) filled with CC&WBs. These tabs or bins are: Setout, Hold (or loading/unloading) and Pickup. Whenever a car is picked up or spotted, the crew must deal with the Station Agent. The first thing a local turn does when he/she arrives in town is to consult the Agents Box.
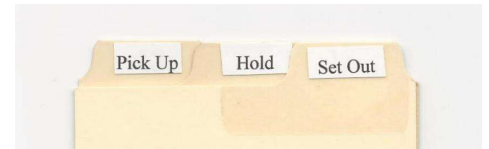
Early every morning, the Station Agent queries all of the customers in town and creates a list of all cars that have been processed by the customers and are ready for pickup. The Agent has placed all of these waybills under the "Pick Up" tab in his box. It is the crew's job to pick up all of those cars and return them to the Grand Rapids Yard. The Agent also determines which customers have requested an empty car for loading and sends those Empty Car Orders down to the Grand Rapids Yardmaster for fulfillment.

Using a local turn crew as an example, the first thing that he/she must do when arriving in a town is to consult the Agent's Box. Basically, the local crew needs to take 4 steps to complete his local turn duties:

1. Pickup all of the cars that are behind the Pick Up tab or bin of the Agent's Box
2. Deliver or spot all of the cars that he brought into town at the appropriate industries
3. Complete his paperwork
4. Return to the yard from which it originated with the cars that were picked up.

Steps 1, 2 & 4 are pretty self-explanatory, however, step number 3 needs some explanation as it is critical to the success of the system. After steps 1 and 2 are complete and the local crew has picked up and delivered the appropriate cars from and to the appropriate industries it is time to do the paperwork which consists of two important tasks:

1. "Work" the Agent's box
2. "Work" your returning train's waybills

"Work" the Agent's Box is relatively straight forward. The crew must move the waybills that are currently in the Hold bin over to the Pickup bin and then move the waybills that are currently in the Setout bin to the Hold bin. Finally, the crew must place the waybills of the cars that he just delivered into the Setout bin. The Agent's box is now ready for the next local turn.

"Work" your returning train's waybills is also pretty straight forward. The crew pulls the waybill out of each carcard and follows the directions at the bottom of the waybill. The waybill instructs to either remove the waybill or turn the waybill over and re-insert it back into the carcard. If the car was originally delivered as a load, then the waybill will instruct to remove the waybill. The car becomes an empty and the "Empty Car – Return To" on the tab of the carcard is displayed. The car is now empty and needs to be returned to its home road (via staging).

If the car was an empty requested by the industry for loading, the waybill will instruct the crew to turn the waybill over and re-insert into the carcard. The car is now a load to be delivered, most likely, to an off-layout destination. (No industry on the C&M uses rail service to ship to other customers on the C&M, as they would use truck delivery for such close customers).

Now the crew can perform step 4 and return to the yard with the cars that he just picked up, all with new destinations. The yardmaster takes over from there.

That is the system and if followed, greatly reduces the setup time and effort for an operating session to simply working the waybills in staging which takes very little time. I randomly select waybills during the staging process which ensures that each local turn will be different from the last and will contain a new set of cars and challenges for the local crew. I have been using this system for hosting over 200 operating sessions and I can assure you that it works.