# North Jersey Coast & Morristown Lines: Hoboken & New York - Bay Head & Dover



Release Version 1.1

Whilst we do our utmost to reproduce sounds that are accurate and true-to-life, sometimes these sounds may not completely tally with the user's expectation. Due to the nature of the simulation, it is often not possible to reproduce a completely accurate soundscape for a variety of reasons such as limitations with our current technology and occasional inability to gain meaningful access to the locomotives being created. You should therefore regard the audio reproduction for our locomotives as authentic interpretations rather than perfect recreations.

# 1 ROUTE INFORMATION

## 1.1 The Route

This route extends the existing North Jersey Coast Line route by 40 miles between the historic Hoboken Terminal, along the New Jersey Transit Morristown route, to Dover.

The Morristown Line is one of New Jersey Transit's commuter lines and is one of two branches that run along the Morris and Essex Lines. Out of 60 inbound and 58 outbound daily weekday trains, approximately half use the Kearny Connection to reach Secaucus Junction and New York Penn Station with the other half going to Hoboken Terminal. Passengers can transfer at Newark Broad Street or Summit to reach the other destination.

The Morristown Line east of Dover Station is electrified, using 25 kV, 60 Hz AC overhead catenary wire. Morristown line trains departing for points west of Dover, NJ require diesel locomotives.

There is a frequent service weekdays, with hourly service to/from New York (none going beyond Dover) on weekends.

## 1.2 Route Map


## 1.3 Focus Time Period

The DLC product recreates the route as it operates today.

# 2 GETTING STARTED

## 2.1 Recommended Minimum Hardware Specification

The North Jersey Coast & Morristown Lines route is highly detailed, feature rich and incorporates detailed night lighting. Therefore, it will benefit from a higher PC specification.

- Windows 7 / Windows 8.1
- Processor: 2.8 GHz Core 2 Duo (3.2 GHz Core 2 Duo recommended), AMD Athlon MP
- RAM - 4.0GB
- GFX - 512 MB – 1GB with Pixel Shader 3.0 (AGP PCIe only)

SFX - Direct X 9.0c compatible

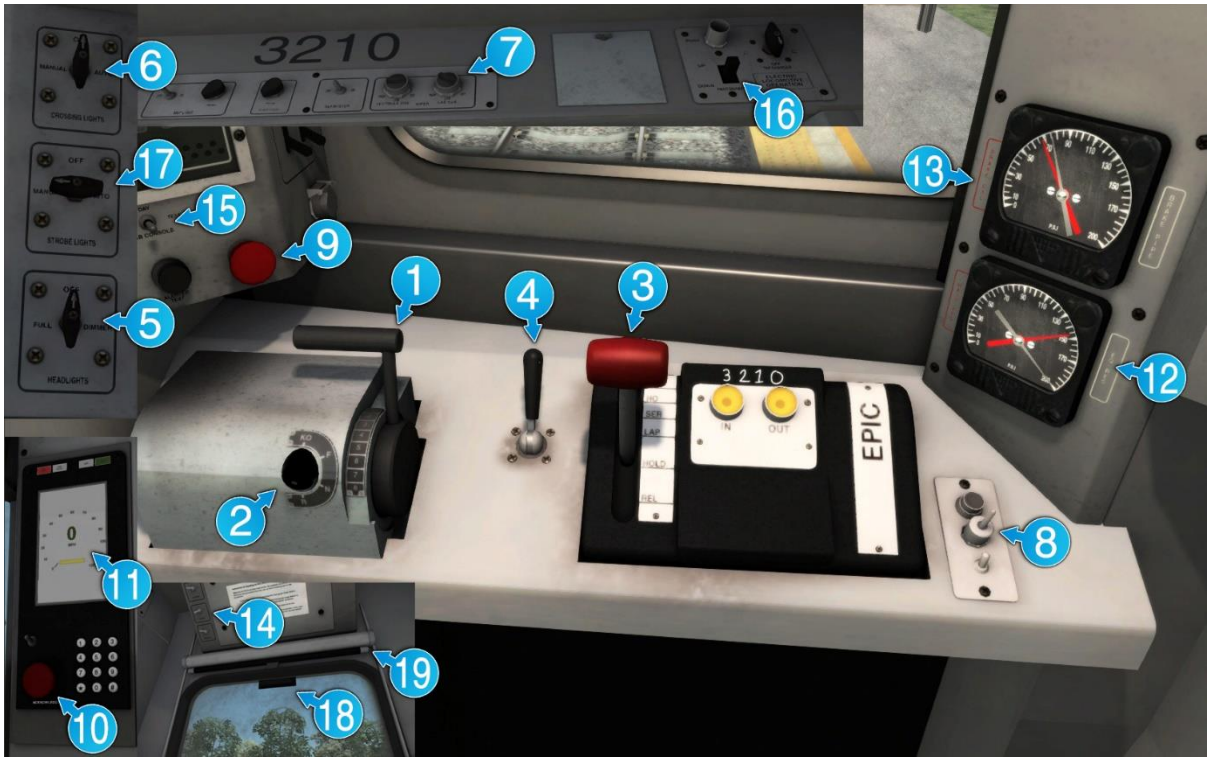
# 3 ROLLING STOCK

## 3.1 Comet IV Cab Car


Based on the Comet III, the Comet IV was bought by New Jersey Transit for the Midtown Direct Service. Comet IV differs from its predecessor as the engineer's side cab door has been removed. It was also equipped with automatic climate control, automated announcements, and digital displays.

In modern day, these Cab cars are no longer allowed to lead a train, but may be used as part of a regular train consist.

### 3.1.1 Cab Controls




| | |
|---|---|
| 1 | Throttle/Brake |
| 2 | Reverser |
| 3 | Train Brake |
| 4 | Horn |
| 5 | Headlights |
| 6 | Ditch Lights |
| 7 | Wipers |
| 8 | Sander |
| 9 | Emergency Brake |
| 10 | Acknowledge |
| 11 | Speedometer |
| 12 | Main/EQ Reservoirs |
| 13 | Brake Cylinder/Brake Pipe |
| 14 | Cab Light |
| 15 | Instrument Lights |
| 16 | Pantograph Up/Down |
| 17 | Strobe Lights |
| 18 | Window |
| 19 | Roller Blind |

## 3.2 NJT ALP-45DP


### 3.2.1 Cab Controls


| | | | |
|---|---|---|---|
| 1 | Combined Throttle/Brake | 12 | Sander |
| 2 | Reverser | 13 | Bell |
| 3 | Auto Brake | 14 | Handbrake |
| 4 | Independent Brake | 15 | Pantograph |
| 5 | Horn | 16 | Acknowledge |
| 6 | Headlights | 17 | Speedometer |
| 7 | Ditch Lights | 18 | Main/EQ Reservoirs |
| 8 | Cab Light | 19 | Brake Cylinder/Brake Pipe |
| 9 | Instrument Lights | 20 | Wheel Slip Light |
| 10 | Fault Acknowledge | 21 | Sander Light |
| 11 | Wipers | | |

## 3.3 NJT ALP-46


### 3.3.1 Cab Controls


| | | | |
|---|---|---|---|
| 1 | Combined Throttle/Brake | 11 | Wipers |
| 2 | Reverser | 12 | Sander |
| 3 | Auto Brake | 13 | Bell |
| 4 | Independent Brake | 14 | Handbrake |
| 5 | Horn | 15 | Pantograph |
| 6 | Headlights | 16 | Acknowledge |
| 7 | Ditch Lights | 17 | Speedometer |
| 8 | Cab Light | 18 | Main/EQ Reservoirs |
| 9 | Instrument Lights | 19 | Brake Cylinder/Brake Pipe |
| 10 | Fault Acknowledge | | |

## 3.4 Comet V Cab Car


### 3.4.1 Cab Controls


| | | | |
|---|---|---|---|
| 1 | Combined Throttle/Brake | 9 | Emergency Brake |
| 2 | Reverser | 10 | Acknowledge |
| 3 | Train Brake | 11 | Speedometer |
| 4 | Horn | 12 | Main/EQ Reservoirs |
| 5 | Headlights | 13 | Brake Cylinder/Brake Pipe |
| 6 | Ditch Lights | 14 | Cab Light |
| 7 | Wipers | 15 | Instrument Lights |
| 8 | Sander | | |

## 3.5 Multi-Level Cab Car


### 3.5.1 Cab Controls


| | |
|---|---|
| 1 | Bell |
| 2 | Acknowledge |
| 3 | Combined Throttle/Brake |
| 4 | Reverser |
| 5 | Horn |
| 6 | Auto Brake |
| 7 | Sander |
| 8 | Headlights |
| 9 | Wipers |
| 10 | Cab Lights |
| 11 | Dial Lights |
| 12 | Pantograph |
| 13 | Sun Blind |
| 14 | Emergency Brake |

## 3.6 Comet IV

## 3.7 Multi-Level Trailer


## 3.8 Multi-Level Special Trailer

# 4 CONTROLS

## 4.1 Locomotive Keyboard Controls

| Key Equivalent | Action |
|---|---|
| D / A | Decrease or Increase Power Handle. |
| S / W | Move Reverser Control Forward or Backward. |
| : / @ | Decrease or Increase the Auto Brake (Train Brake). |
| [ / ] | Decrease or Increase the Independent Brake (Locomotive Brake). |
| < / > | Decrease or Increase the Dynamic Brake. |

## 4.2 General Keyboard Controls

| Key Equivalent | Action |
|---|---|
| T | **Load/Unload.** Press once to load/unload passengers or freight. |
| Ctrl + T | **Close Doors.** Manually close passenger doors. (When loading timer expires) |
| Ctrl + Shift + T | **Manual Doors.** Toggle between automatic and manual door operation. |
| X | **Sander**. Causes sand to be laid on the rails next to the wheels to assist with adhesion. Press to toggle activation. |
| H | **Headlights.** Repeatedly pressing will cycle through headlight states where appropriate. |
| J | **Ditch Light.** Toggle the ditch lights. |
| Ctrl + J<br>Ctrl + Shift + J | **Ditch Light (Comet V).** Increase/decrease the ditch light control cycling between: Off, On and Flashing. |
| V | **Windscreen Wipers**. Press once to switch on and again to switch off. |
| Ctrl + V | **Windscreen Wipers (Intermittent)**. Switch wipers between constant and intermittent mode. |
| Z | **Engine**. Stops and restarts the engine. |
| Ctrl + Shift + Z | **HEP (Head End Power).** Starts and stops the power generation for passenger car heating and lighting. |
| Space | **Horn.** Press once to sound the Horn. |
| B | **Bell.** Sound the Bell |
| / | **Handbrake.** Press to toggle the train Handbrake on and off. |
| L | **Cab Lights.** Toggle the Cab main light on and off. |
| Ctrl + L | **Desk Lights.** Toggle the Cab desk light on and off. |
| I | **Instrument Lights.** Toggle all Instrument Lights |

| Key Equivalent | Action |
|---|---|
| P | **Pantograph.** Raise and lower the selected pantograph.<br>Also starts the power changeover process to Electric mode. |
| Y | **Power Mode.** Start power changeover process. |
| Ctrl + Y | **Power Mode (Auto)**. Toggle automatic power mode changeover. |
| Ctrl + D | **ACSES.** Toggle ACSES in cab signalling system.<br>(Advanced Civil Signal Enforcement System) |
| Ctrl + F | **ATC.** Toggle ATC safety system<br>(Automatic Train Control) |
| Ctrl + 5<br>Ctrl + 6 | **Destinations.** Cycle destination board displays. |
| Ctrl + Shift + C | **Couple manually.** |
| Tab / Ctrl + Tab | Request authority to pass a signal at danger. |

## 4.3 NJ TRANSIT® Electronic Braking System

All driving units featured in this pack utilize the retrofitted NJ TRANSIT® braking system. The system uses a blended mix of dynamic and air braking to achieve smooth and effective braking. The brake notches are as follows;

**Release**: Releases the brake pressure built up in the brake pipe.

**Hold/Lap**: Holds the current brake pressure.

**Service**: Initial brake application.

**Handle Off**: Full service brake application.

**Emergency:** Empties the brake pipe and applies full dynamic brake as a last ditch attempt to stop the train in an emergency situation.

## 4.4 Power Mode changeover process (ALP45-DP).

The track North of Long Branch has overhead power lines, allowing for electric locomotive operation. The track South of Long Branch is a diesel only operation area because there are no overhead lines. The ALP45-DP is capable of both diesel and electric operation, and can be changed between the power modes whilst on the go.

**Switching from Diesel to Electric**, is as simple as using the Pantograph switch. Pushing the switch to raise the pantograph will start the changeover process, during the changeover process the pantograph will be raised and the diesel engine will be shut down.

**Switching from Electric to Diesel**, can be achieved by pressing the Fault Acknowledge button. Pushing the button will start the diesel engine and lower the pantograph during the power changeover process.

Alternatively the keyboard button “Y” can be used to start the changeover process regardless of which power mode the loco is currently running in.

The changeover process can be set to switch automatically when the train passes through the appropriate track area, by pressing “Ctrl-Y”. This will toggle the automatic switchover process. Even with the automatic changeover toggled to active, the process can still be started manually via the cab controls or keyboard.

For the automatic process to work (and for AI units), there are markers placed on the track to indicate the points to start the changeover process. The changeover will show message boxes on the HUD to inform the driver of the changeover process.

*The automatic power mode changeover process is disabled by default.*

## 4.5 Manual Door Control

The Comet V Cabcar and Comet IV coaches have been equipped with a manual door control feature. This will allow for manual closing of the doors, instead of the automatic closing process that is default as standard.

The manual door control can be enabled or disabled with “Ctrl-Shift-T” and the doors themselves can be closed with “Ctrl-T”. The doors cannot be closed within the first few seconds of being opened, or before the scenario door timer has expired. The doors must still be opened with the standard “T” keyboard control or HUD button.

*The manual door control feature is disabled by default.*

# 5 SCENARIOS

***For driving tutorials, please visit the Academy from the main TS2017 menu screen****

## 5.1 01. [ALP-46] Dover and Out: Part 1

Train 6619 is now at New York Penn and is ready for today's service. You will be in charge of this ALP-46 MidTOWN DIRECT service from New York Penn to Dover. Your journey will be as far as Summit, in the first part of this full length run of the Morristown Line.

**Duration:** 45 Minutes
**Difficulty:** Easy

## 5.2 02. [ALP-46] Dover and Out: Part 2

Continuing from Part 1, after having arrived at Summit you will now continue this MidTOWN DIRECT service all the way to Dover where your journey will come to an end.

**Duration:** 45 Minutes
**Difficulty:** Easy

## 5.3 03. [ALP-45DP] The Mile Square Express

All aboard The Mile Square Express! This morning, you will be taking Train 1006 from Dover on a full length express run down to Hoboken, with Denville and Newark Broad Street being the only passenger pick-ups on the way.

**Duration:** 70 Minutes
**Difficulty:** Easy

## 5.4 04. [ALP-46] The Abseil to The Big Apple

Time for the abseil from Summit to New York Penn. You will be in charge of the final MidTOWN DIRECT service of the day, taking Train 6676 through horrid conditions to New York Penn.

**Duration:** 60 Minutes
**Difficulty:** Hard

## 5.5 05. [ALP-46] All Stops Westbound: Part 1

NJ Transit Train 607 is an early morning weekday "reverse commute" schedule operating between Hoboken Terminal and Dover, New Jersey making all stops en route. You are the engineer of Train 607 with an NJT ALP-46 electric as power and a consist of eight Comet cars. In Part 1 of this two-part scenario, you'll proceed to Summit, making 11 scheduled station stops.

**Duration:** 50 Minutes
**Difficulty:** Hard

## 5.6 06. [ALP-46] All Stops Westbound: Part 2

NJ Transit Train 607 is an early morning weekday “reverse commute” schedule operating between Hoboken Terminal and Dover, New Jersey making all stops en route. You are the engineer of Train 607 with an NJT ALP-46 electric as power and a consist of eight Comet cars. In Part 2 of this two-part scenario, you’ll now proceed to Dover with seven more intermediate stops, after having arrived at Summit.

**Duration:** 40 Minutes
**Difficulty:** Medium

## 5.7 07. [ALP-45DP] Dover Semi-Express

NJ Transit Train 645 is a weekday evening rush semi-express which, after departing Hoboken makes a stop at Newark Broad Street, then expresses to Millburn. From Millburn west to Dover the train then makes nine intermediate stops. You are the engineer of NJT Train 645 with ALP-45DP power on an autumn afternoon and as the scenario begins, you are making your station stop at Newark Broad Street.

**Duration:** 60 Minutes
**Difficulty:** Medium

# 6 RAILFAN MODE SCENARIOS

Railfan Mode provides a unique chance to observe and enjoy the operations of trains without the pressure and involvement of driving them. Railfan Mode scenarios are positioned at various key points along the route and provide camera functionality to sit back and watch the action unfold.

These scenarios are located on the **Drive** screen under the **Career** tab.

## 6.1 [RailfanMode] Dover

Located at Dover, observe the operations and passing trains from a good vantage point. See what you can capture as the action unfolds.

**Duration:** 5 Minutes
**Difficulty:** Easy

## 6.2 [RailfanMode] Morristown

Located at Morristown, observe the operations and passing trains from a good vantage point. See what you can capture as the action unfolds.

**Duration:** 10 Minutes
**Difficulty:** Easy

## 6.3 [RailfanMode] Summit

Located at Summit, observe the operations and passing trains from a good vantage point. See what you can capture as the action unfolds.

**Duration:** 5 Minutes
**Difficulty:** Easy

# 7 SIGNALLING

## 7.1 Signalling

The signalling along the North Jersey Coast route is in accordance with the following practices laid out in the NORAC (*Northeast Operating Rules Advisory Committee*) rulebook, which is utilised by a number of North American railroad operators. NJ TRANSIT® are adopters of these rules.

Signalling speeds are defined as follows:

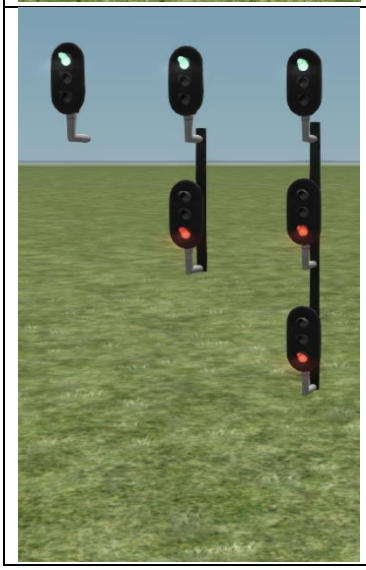
| | |
|---|---|
| **Normal Speed:** | The maximum authorised speed for a section of track. |
| **Limited Speed:** | Passenger trains not to exceed 45mph, freight traffic 40mph. |
| **Medium Speed:** | A speed not exceeding 30mph. |
| **Slow Speed:** | A speed not exceeding 15mph. |
| **Restricted Speed:** | Movement to permit stopping within one half the range of vision and not to exceed 20mph outside of interlocking limits, 15mph within interlocking limits. |

## 7.2 Multi-Aspect Colour Light Signals

The route features 4 types of signal.

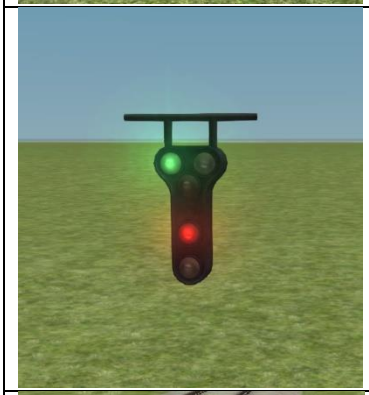

**'Tri-light' signals**

These are prominent along the NJ TRANSIT lines between Hoboken and Bay Head.

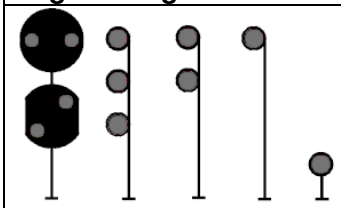


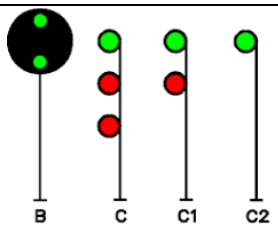
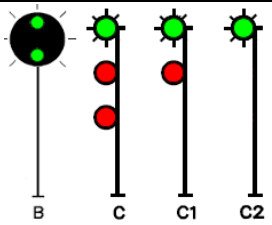
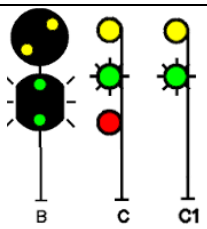
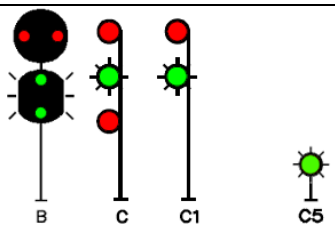
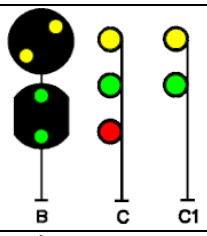
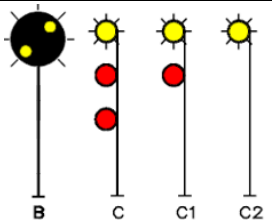
**Colour Position Light (CPL) Signals**

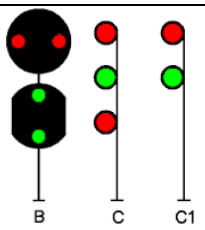
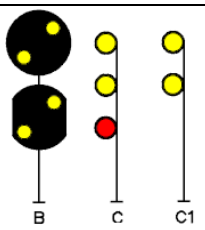
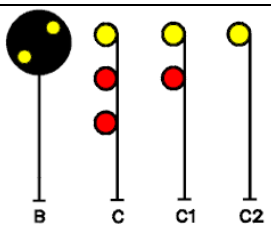
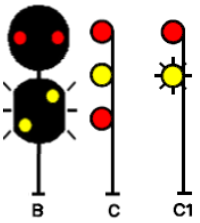
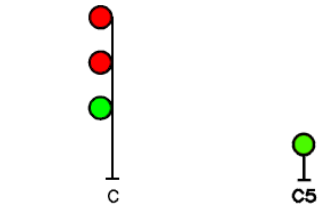
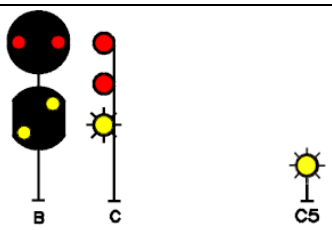
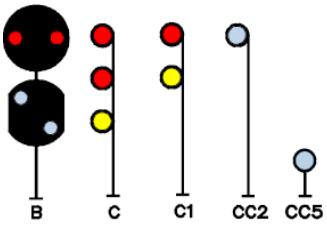
These are prominent along the Morristown line between Newark and Dover.

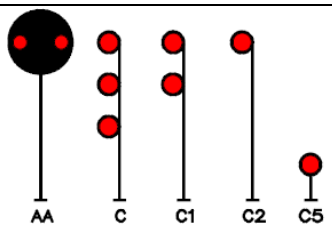
| | |
|---|---|
|  | **Pennsylvania Railroad (PRR) position colour light signals**<br><br>These signals are utilized along the North East Corridor from New York Pennsylvania station. |
|  | **Pennsylvania Railroad high level signals**<br><br>Featured in the New York Pennsylvania station, these compact heads are hung from the ceiling. |
|  | **Ground signals**<br><br>Used in sidings and other non-mainline sections. |

## 7.3 Signal Aspects

| Signal Legend | |
|---|---|
|  | NEC aspects<br>3 Head 'tri-light' signal<br>2 Heads 'tri-light' signal<br>Single Head 'tri-light' signal<br>Ground Signal |

| RULE | ASPECT | INDICATION |
|---|---|---|
| 281<br>Clear |  | Proceed at line speed. |
| 281a<br>Cab Speed |  | Proceed in accordance with cab signal indications. Reduce speed to not exceed 60mph if Cab Speed cab signal is displayed without a signal speed, or if cab signals are not operative. |
| 281b<br>Approach<br>Limited |  | Proceed approaching the next signal at Limited Speed. |
| 281c<br>Limited<br>Clear |  | Proceed at Limited Speed until the entire train clears the interlocking, then proceed at Normal Speed. |
| 282<br>Approach<br>Medium |  | Proceed approaching the next signal at Medium Speed. |
| 282a<br>Advance<br>Approach |  | Proceed, being prepared to stop at the second signal. Trains must begin reduction to Limited Speed as soon as the engine passes the Advance Approach signal. |

| | | |
|---|---|---|
| 283 Medium Clear |  | Proceed at Medium Speed until the entire train clears the interlocking, then proceed at Normal Speed. |
| 284 Approach Slow |  | Proceed approaching the next signal at Slow Speed. Trains must begin reduction to Medium Speed as soon as the engine passes the Approach Slow signal. |
| 285 Approach |  | Proceed, being prepared to stop at the next signal. Trains must begin reduction to Medium Speed as soon as the engine passes the Approach signal. |
| 286 Medium Approach |  | Proceed, being prepared to stop at the next signal. Trains must begin reduction to Medium Speed as soon as the Medium Approach signal is clearly visible. |
| 287 Slow Clear |  | Proceed at Slow Speed until entire the train clears the interlocking, then proceed at Normal Speed. |
| 288 Slow Approach |  | Proceed, being prepared to stop at the next signal. Slow Speed applies until the entire train clears the interlocking, then proceed at Medium Speed. |
| 290 Restricting |  | Proceed at Restricted Speed until the entire train has cleared the interlocking (if the signal is an interlocking signal) and the leading wheels have passed a more favorable fixed signal. Trains with operative cab signals must not increase speed until the train has run one train length or 500 feet (whichever distance is greater) past a location where a more favorable cab signal was received. |

| | | |
|---|---|---|
| 292<br>Stop |  | Stop. |

## 7.4 In-Cab Signalling

The ALP-45 and the Comet Driving Cab features ACSES In-Cab Signalling to interpret signals on the North Jersey Coast. The device informs the driver of any track restrictions through a series of buttons and displays. ACSES can be enabled by pressing Ctrl + D on the keyboard.
When enabled the current signal speed limit is displayed.

In the ALP-45 the speed restriction is displayed above the speedometer. In addition to this, the corresponding button surrounding the speedometer will light up to indicate the current signal restriction the driver is operating under.

1 – Stop (292)
2 – Restricting (290)
3 – Approach (285)
4 – 30 (Medium Speed)
5 – 45 (Limited Speed)
6 – 60 (281a)
8 – 80 (80 mph)
9 – 100 (100 mph)
10 – Maximum Permitted Speed

In the Comet Cab Car the restricted speed is indicated through the green bar around the speedometer and black text in the centre of the dial. In a non-restrictive zone the text becomes green and the green bar disappears. In the event of over-speeding while under a speed restriction, the bar becomes red and tracks the current speed of the driver to inform them they are speeding.

## 7.5 ATC

ATC or Automatic Train Control is featured in both the ALP-45 and the Comet Cab Car. It can be activated with Ctrl + F on the keyboard. ATC is a safety system that will trigger if an over-speeding operation is carried out. The driver has 8 seconds to drop the throttle to 0, apply the train brake to 40% or higher and press the Acknowledge button in the cab (Q on the keyboard) or an emergency brake application will take place.

# 8 CREDITS

Dovetail Games would like to thank the following additional contributors for their input in the creation of North Jersey Coast & Morristown Lines:

Outsource:
Dan Barnett
Kevin McGowan
Ricardo Rivera
Gary Dolzall

Special Thanks:
The members of our Beta forum and community.