

# Chengdu to Suining Highspeed Route for TS 2015



#### **INTRODUCTION:**

Chengdu to Suining Highspeed route for Train Simulator is a passenger dedicated line in southwest China. It is based on real route with enhancements. Starting from Chengdu, capital city of Sichuan Province, the line passes through ShibanTan, Huaikou, Longsheng, Jijin, Zitong, Cangshan, Daying East and ends at Suining, part of Chengdu - Chongqing highspeed line.

The 146km route is built using Chinese highspeed railway standards,trains on the route are capable of running at 350km/h, fastest train (CRH380 Series) takes only 33 mins to finish the journey. Equipped with CTCS3 (China Train Control System) signalling system, both 350km/h and 250km/h trains can run on this route.

While flying on the ground, you can also enjoy the beautiful scenery of Sichuan Basin Area.

# **ROUTE SPECIFICATIONS:**

Route class: China Railway class I Route length:146km mainline and 6km branch line Mainline tracks: 2 Speed limit:300-350km/h for 350km/h train;250km/h for 250km/h train. Parallel distance: 5m Minimum curve radius:5000m





Maximum gradient: 2%

Train type: Electrical, CRH(China railway highspeed) EMU Bridges and tunnels length: >60% of total lengh of the line. Platform length: 450m (16 car consist)

# **ROUTE FEATURES:**

Currently fastest route for Train Simulator Built using Chinese highspeed rail standards Built more than 150 Chinese-featured objects for the route CTCT3 signalling system for both 250km/h and 350km/h trains Beautiful detailed scenery in Sichuan Basin area Standard ,Quick Drive and Freeroam Scenarios included CRH1A EMU included CRH1E EMU included

# **STATIONS**

Chengdu East ShibanTan Huaikou Longsheng Jijin Zitong CangshanZhen Daying East Suining

# **CTCS3 SIGNALLING SYSTEM INTRODUCTION:**

In highspeed railway , train driver is hard to see ground signals, cab signal is very important to guide the driver to drive the train safely.

CTCS3 signalling system is used on Chinese highspeed railways. It looks like as following picture (using a 250km/h train for example).





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By default the Safety system is ON. When your speed is 5km/h higher than the track speed limit (Overspeed) or when you meet a RED signal with speed >45km/h but don't apply brake , emergency brake will be applied.

#### Signal speed introduction



If you meet ONLY a green signal, then you can drive the train at track speed limit. But you should always pay attention to next track speed limit and distance to it, you should adjust train's speed before (next speed limit is lower)or after(next speed limit is higher) you enter next speed limit zone.



When you meet a green signal with signal speed 230, now you should adjust speed of your train below 230km/h before you meet next signal. Usually there is about 2.5km distance of a signal block, but near the station the distance becomes shorter. You have about 30s to adjust the speed before you meet next signal or next speed limit zone.





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Similar as above you should adjust the speed below 200km/h before you meet next signal or next speed limit zone.



Similar as above you should adjust the speed below 160km/h before you meet next signal or next speed limit zone.



Similar as above you should adjust the speed below 90km/h before you meet next signal or next speed limit zone.



Similar as above you should adjust the speed below 45km/h before you meet next signal or next speed limit zone.





Stop immediately or before this signal.

# In simple words, If there is a signal speed, follow the signal speed; if not, follow the track speed.

NOTE 1: The signal speed is just a reference for guiding you driving your train. For example when you running at 250km/h, you will stop at next station, the signal speeds tell you when to brake and how much brake amount should be used to slow down the train properly( Brake too early will be late and Brake too late will cause not enough distance to stop). And also signal speed will keep you a safe distance to the train in front of you or behind you.

So if your speed is higher than the signal speed after you meet next signal, safety system won't be triggered (except signal speed 0).

NOTE 2:Your train's speed should always keep lower than the Track speed limit.

NOTE 3:For 350km/h trains ,Signal speeds are Clear (drive at track speed limit) 300km/h,230km/h,160km/h,90km/h and 45km/h. It's similar as the 250km/h trains.

#### CRH1A EMU INTRORDUCTION

CRH1A is based on Bombardier's Regina family. The train was designed by Sifang and Bombardier, Sweden and originally named C2008.

Each CRH1A consists of 8 first set cars, the batch (CRH1-001A~CRH1-040A)including 2 first class coaches (ZY), 5 second class coaches (ZE) and 1 second class coach/dining car (ZEC).the second batch (CRH1-081A~CRH1-120A) including 2 first class coaches (ZY), 1 first class/second class coaches (ZYE), 4 second class coaches (ZE) and 1 second class coach/dining car (ZEC). The potential maximum speed of CRH1A is 250 km/h (155 mph), but in fact the maximum speed of the initial 40 sets in operation is always restricted by the software of computer control system, so the maximum speed in service is 220 km/h (137 mph).

The first units (CRH1-001A) were delivered on August 30, 2006,[4] the CRH1A sets started service from February 1, 2007 at the Guangzhou -Shenzhen Railway. In July 2010, the Chinese MOR ordered additional 40 sets of CRH1A, The



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designed top operating speed increased to 250 km/h, On September 2010, during test run at Qinshen PDL, top speed of CRH1-081A reach 278 km/h (173 mph).

In September 2012, The MOR issued a revision in the Zefiro contract, which calls for the order of an additional 106 eight car Zefiro 250 (46 sets) and Zefiro 250NG (60 sets) train sets in lieu of the cancellation of the 16 car Zefiro 380 sets. The NG variant is a new model, which will use new materials in order to achieve weight reductions and more efficient operation.

#### **FEATURES**

High detailed models, accurate reproduction of the real train. Custom sounds CTCS -3 Cab signaling system Cab light Cruise mode and Advanced Cruise mode Passenger view on each coach Real time speed display in passenger view Flashing tail light same as the real train

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