High Speed Railway in China

Xing Zeng
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Disclaimers

- I am a citizen of China (PRC)
- Neither me, nor any member of my family, are in any way affiliated with any governmental agencies or corporations that had been participated in the planning, construction, operation, or maintenance of the high speed railways in China
- With regardless of one’s political belief about the current cross-strait relations, Taiwan High Speed Railway is a totally separate system managed by a different entity with incompatible electrical system. It will not be treated as a member of high speed railways in China.
Vehicles
Vehicles (First Generation ~2006)

CRH1A - 200kph
Vehicles (First Generation ~2006)

CRH2A - 200kph
Vehicles (Second Generation ~2008)

CRH2C - 300kph
Vehicles (Second Generation ~2008)

Velaro CN / CRH3C - 350kph (In Design) 300kph (In Practice)
Vehicles (Third Generation ~2010)

Velaro CN / CRH380B - 350kph (In Design) 300kph (In Practice)
Vehicles (Third Generation ~2010)

CRH380A - 350kph (In Design) 300kph (In Practice)
Vehicles (Third Generation ~2010)

Zefiro 380 / CRH380D - 350kph (In Design) 300kph (In Practice)
Vehicles (Fourth Generation ~2016)

China Standardized EMU / CR400AF & CR400BF - 350kph
Timeline of the fastest operation speed

<table>
<thead>
<tr>
<th>Year</th>
<th>Speed (kph)</th>
<th>Series/Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964-Oct</td>
<td>210</td>
<td>0 Series</td>
</tr>
<tr>
<td>1981-Sep</td>
<td>260</td>
<td>TGV Sud-Est</td>
</tr>
<tr>
<td>1983-Sep</td>
<td>270</td>
<td>TGV Sud-Est</td>
</tr>
<tr>
<td>1989-Sep</td>
<td>300</td>
<td>TGV Atlantique</td>
</tr>
<tr>
<td>1997-March</td>
<td>300</td>
<td>500 Series</td>
</tr>
<tr>
<td>2002-August</td>
<td>300</td>
<td>ICE3</td>
</tr>
<tr>
<td>2004-April</td>
<td>300</td>
<td>KTX-I</td>
</tr>
<tr>
<td>2007-Jan</td>
<td>300</td>
<td>THSR 700T</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tokaido Shinkansen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LGV Sud-Est</td>
</tr>
<tr>
<td></td>
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<td>LGV Sud-Est</td>
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<tr>
<td></td>
<td></td>
<td>LGV Atlantique</td>
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<tr>
<td></td>
<td></td>
<td>Sanyo Shinkansen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Koln-Frankfurt HSR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gyeongbu HSR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Taiwan HSR</td>
</tr>
</tbody>
</table>
Timeline of the fastest operation speed

<table>
<thead>
<tr>
<th>Year</th>
<th>Speed</th>
<th>Train Type</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-June</td>
<td>320kph</td>
<td>TGV POS</td>
<td>LGV Est</td>
</tr>
<tr>
<td>2008-August</td>
<td>350kph</td>
<td>CRH3C</td>
<td>Beijing-Tianjin IC</td>
</tr>
<tr>
<td>2011-August</td>
<td>320kph</td>
<td>TGV POS</td>
<td>LGV Est</td>
</tr>
<tr>
<td>2013-March</td>
<td>320kph</td>
<td>E5 Series</td>
<td>Tohoku Shinkansen</td>
</tr>
<tr>
<td>2017-Sep</td>
<td>350kph</td>
<td>CR400AF/CR400BF</td>
<td>Beijing-Shanghai HSR</td>
</tr>
<tr>
<td>TBA</td>
<td>360kph</td>
<td>Zefiro 300</td>
<td>Torino-Milano HSR</td>
</tr>
</tbody>
</table>
Network
Railway map of People's Republic of China
Colored lines showing CRH and other high speed rail services
Last update: 2017-07-10
Network

Beijing-Guangzhou-Shenzhen-Hong Kong

Top Operational Speed: 300kph

Distance: 2230km

≈ Distance Between Vancouver and Minneapolis

≈ Total Length of French LGV Line

Beijing
My Hometown! ^_^ Capital
2nd Largest City in China HQ Baidu

Zhengzhou
Part of iPhone X is manufactured here

Wuhan
6th Largest City in China

Changsha
HQ NUDT

Guangzhou
4th Largest City in China Birthplace of Wechat

Shenzhen
5th Largest City in China HQ Tencent

Hong Kong “Asia's World City”
Network

Beijing-Shanghai
Top Operational Speed: 350kph
Distance: 1302km

AND

Coastal Passageway
Top Operational Speed: 300kph (near Shanghai) 200kph (Rest)
Distance: 1609km
Network

Xuzhou-Lanzhou

Top Operational Speed:
- 300kph (Rest)
- 200kph (Near Lanzhou)

Distance: 1363km

Shanghai
- Largest City in China
- 7th Largest Urban area in the world
- HQ Shanghai Stock Exchange

Xi’an
- Main Historical City

Zhengzhou
- Part of iPhone X is manufactured here

Luoyang
- Another Main Historical City
Network

Shanghai-Wuhan-Chengdu

Top Operational Speed:
- 300kph (Near Shanghai & Chengdu)
- 200kph (Rest)
- 160kph (Near Enshi)

Distance: 2078km

Shanghai
Largest City in China
7th Largest Urban area in the world
HQ Shanghai Stock Exchange

Wuhan
6th Largest City in China

Chengdu
8th Largest City in China
Major Technology Center in Western China
Gateway to Tibet

Chongqing
9th Largest City in China
Network

Shanghai-Kunming

Top Operational Speed: 300kph

Distance: 2066km

Shanghai
Largest City in China
7th Largest Urban area in the world
HQ Shanghai Stock Exchange

Hangzhou
HQ Alibaba
7th Largest Urban area in the world

Changsha
HQ NUDT

Guiyang
Major Aerospace Center in China

Kunming
Major Tourist Center in China
Operation
<table>
<thead>
<tr>
<th>Company</th>
<th>Total Debit (In Billions of USD)</th>
<th>Debt To Asset (Lower the Better)</th>
<th>Debt Coverage Ratio (Higher the Better)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Railway Corporation</td>
<td>710</td>
<td>0.65</td>
<td>0.46</td>
</tr>
<tr>
<td>Deutsche Bahn AG</td>
<td>21</td>
<td>0.31</td>
<td>1.09</td>
</tr>
<tr>
<td>JR Central</td>
<td>26</td>
<td>0.55</td>
<td>2.47</td>
</tr>
</tbody>
</table>
Stations
Stations
Stations
Stations
End