

Presentation before The High Speed Rail Forum held at Rayburn House Building  
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- Recent assignments and relevant experiences:  
Senior Rail Consultant, London, UK: PMC, Public Investment Fund, Riyadh, KSA  
North South Railway Construction Program: Passenger 132 mph, Freight: 70 mph  
Principal Engineer, Bechtel: UK's West Coast Route Modification for 125 mph.  
Director, Program Management, Amtrak: Keystone Corridor Upgrade for 110 mph  
Deputy Director, Commuter Rail, MBTA; Chief Engineer B&M, D&H and MEC.

I wish to thank the organizers of this forum for allowing me to share my domestic and international railway program experiences and professional observations of past 35 years in Passenger and Freight transportation sectors. I have very enjoyed many project successes with large project teams and organizations where there has been long term national commitment by the Railway authorities.

- Recent global high speeds (stop to stop average Miles Per Hour) were reported at:  
France: 173, Japan: 170, Belgium/France/UK: 165, Germany: 153, Spain: 135  
Sweden: 125, UK: 125, South Korea: 125 Italy: 110 USA: 108 China: 100

Improvements on existing lines and proposed new lines are continuously improving speeds on conventional systems- not including maglev.

China, Saudi Arabia and others have undertaken major plans construction of new lines.

- By international standards, US is lagging behind in providing high speed reliable service to our patrons and significant hours, energy being wasted in daily travels locally as well as long distance. During recent natural disasters we were unable to transport people out of damaged areas due to lack of rail service and other reasons. Recent heavy snow conditions also paralyzed our transportation modes, leaving thousands of passengers stranded. These observations clearly indicate that we need to move more aggressively in delivering transportation more efficiently under normal as well as abnormal conditions. We need to conserve energy and reduce air-pollution.
- Global observations clearly indicate High Speed Rail Enterprise must be developed with Federal initiative, commitment of long-term funds (fully or partially) and authority. States can partially support it, but my observation is that their resources are limited and States have to support local rail and road systems.  
I highly recommend formation of "High Speed Rail Authority" at Federal level. This authority must have a long term funding source and program delivery schedule for high speed corridors.
- Private capital can be attracted for participation in new equipment/technology; but global experience indicate very clearly public transportation liability must be limited

borne by public at large. In US, we have spent far too much time on debating this issue and no major system has been installed in providing a much needed High Speed Route or Network as per Global standard.

- Private companies and manufacturers have critical role in bringing latest proven technology, managing design and construction and most importantly delivering program on schedule. We need to create good business environment in transportation sector to create good technology jobs in building high speed train sets in US; very similar to what we do in aerospace/ aviation industry. This will create a major industry sector where new talent can be trained and gainfully employed in manufacturing and maintenance of High Speed equipment. We need to transfer technology by partnering with international companies on long term basis to attract investments and provide training to local workforce.
- It is critical to understand “true capital needs” of existing corridors. In order to provide safe and reliable increased speeds, assets must be replaced based on “Rules of renewal” and not “Fix just in time”. This commitment will require long-term funding and plans and can be managed by Private sector initiatives, investments and organizations for on time program delivery.
- Looking ahead next 10-20 years, “Line Capacity issues” will become critical due to added commuter and long-distance passenger and freight trains. Due to FRA regulations on collision protection, our passenger train sets become as heavy as compared modern sets, requiring more energy for propulsion. For true high speed corridors where speeds above 150 MPH need to be achieved, global experience is to build dedicated corridors with appropriate station facilities. Just as we built Interstate Highway network and fully utilized it, we need to build High Speed Rail network for near future by using the organizational authority of HSRA. Network can be established by building corridor by corridor over next 10-20 years. We must begin this program now so that next generations will have a fast, safe, energy efficient, environmentally sound mode of transportation available and we shall tremendously improve reliability of long distance travel with adequate capacity for future.
- I thank you very much for giving me this opportunity to express my thoughts based on my experiences and observations in US and abroad.