

## **Opening Remarks by President Tsuchiya**

*for the JITI Disaster Prevention Workshop  
held in Washington DC on December 6<sup>th</sup>, 2018*

Good afternoon, ladies and gentlemen and thank you very much for attending the “JITI Disaster Prevention Workshop 2018”. I would like to take a moment to extend my sincere welcome to all of you here today.

To set the background for our workshop, large-scale water disasters caused by hurricanes and other storms are occurring more frequently around the world with serious ramifications. Weather readings are showing an increasing tendency toward localized and concentrated heavy rain, and there are growing concerns about the intensified damage from water disasters including river flooding, inland water flooding, and storm surges. These situations are considered “a new stage” of water-related natural disasters and the direction and planning of countermeasures to them is essential.

In the United States, Hurricane Michael was the fiercest storm to hit Florida in 80 years and caused severe damage in the area in 2018. Also, Hurricane Harvey, Irma, and Maria caused extensive damages in 2017. These three storms became three of the top five worst hurricanes in the recorded history of the USA and caused tremendous amounts of damage. With regards to railway infrastructure, in 2012, Hurricane Sandy suffered serious damages to subways in NYC due to the massive inflow of water into stations and tunnels. California also has been greatly affected by natural disasters, with 2018 seeing wide-spread forest fires, torrential rain, and a large-scale landslide that damaged over 500 structures.

In Japan, there are also many examples of natural disasters. In 2018, torrential rain devastated West Japan, and train operators completely or partially suspended operations on more than 100 lines due to the outflow of railroad bridges and the ground under railroad tracks. In 2015, record levels of torrential rains falling in the Kanto and Tohoku regions caused the floodwalls along an approximately 660-foot-long stretch of the Kinugawa River to collapse, resulting in flooding that submerged about 15 square miles of land. Moreover, the Great East Japan Earthquake resulted in the loss of countless number of lives and assets in 2011.

Furthermore, it is expected that one-third of the 23 wards in Tokyo would be flooded in the event of a super typhoon striking Tokyo, which would collapse the banks of the Arakawa river. It is also predicted that a Tokyo inland earthquake and a Nankai trough mega earthquake will occur in the future.

In light of these serious circumstances, JITI has invited experts on the subject from the U.S. and Japan to discuss the most pressing issues, including:

- How can the railway sector use physical equipment or technologies to enforce countermeasures against storms ?
- How can we strengthen the coordination and cooperation among governments, railway operators and other entities ?
- What is the best action for train users when storms are approaching the railways ?
- How can we promote railway countermeasures against earthquakes ?

Before we begin, I would like to briefly introduce our distinguished speakers. First, I would like to introduce Mr. Hampton Hart, Deputy Director for Technological Hazards at the Federal Emergency Management Agency (FEMA). We are honored to have him here speaking with us today.

Our second speaker will be Bill Douglas, who is the Senior Risk Analyst in Risk Management at the LA Metro. We are very grateful that he was able to participate in our workshop today.

Our third and final speaker today, will be Takeshi Kawagoe, Senior Chief Researcher and Head of the Geology Laboratory in the Disaster Prevention Technology Division at the Railway Technical Research Institute (RTRI). We thank him for having travelled from Japan for our workshop.

Furthermore, as an organizer, I hope that today's discussion will create interest in the issue of the development of railway countermeasures against natural disasters.

Finally, I would like to take a moment to thank The Nippon Foundation for its generous support of today's workshop.

Thank you all for coming today. I hope you enjoy the workshop.