Training System for Shinkansen Drivers, the Backbone of Safe and Reliable Transport

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12th July, Session: Standards, Interoperability & Human Factors
Tokaido Shinkansen

- **Operation Area:** Tokyo - Osaka (552.6 km)
- **Ridership:** 386,000 / day (average in 2011)
- **Safety:** No fatalities due to train accidents
- **Reliability:** 0.6 min (average delay per one service)
Integrated Management for HSR

Operation

Rolling Stock

Track & Signaling

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Safety Factors

Mindset
- Discipline
- Diligence

Knowledge & Skill
- Operation Skill
- Safety Rule / Regulation
- Response to Equipment Failures

Working Environment
- Education Center
- On the Job Training (OJT)
- Supervisors’ Support
Introductory Education

Teamwork

Discipline

Manners

Behavior

Raising Safety Awareness
Promoting Employees’ Loyalty
Instructor & Mentor

Instructors at the Classroom

Mentors at the Job Sites

Education Center

On Site
General Education Center (GEC)

Saloon

Dormitory Room

Gymnasium

Dining Room
Educational Facilities at the GEC

Shinkansen General Training Simulator

Driver Training Simulator
Training & Instruction at the Crew Depot

On-board Training/Evaluation

Instruction Using Plastic Model Cars

Simulator Training

Drive Data Recorder

Knowledge and Skill Tests
Education Cycle at the Crew Depot

Instruction Based on Comprehensive Analysis of Individual Crew’s Level

Plan Programs to Understand Crew’s Skills

Review the Training Effect

Level Check through Various Measurement

Repeat This Cycle

Individual Instruction & Training

Analysis Based on Level Check Results

Instruction Based on Comprehensive Analysis of Individual Crew’s Level
Difficult Aspect of Crew Management

Not under Supervisors’ eyes

Report for Work
Preparation

Report for Assignment

Own Depot

Closed Report

Arriving Report

Other Depots

Departing Report
Shinkansen Crew Allocation

More than 1,400 Crew Members in total

- Nagoya Crew Depot: 190
- Osaka First Crew Depot: 290
- Osaka Second Crew Depot: 280
- Tokyo First Crew Depot: 320
- Tokyo Second Crew Depot: 340
- Shin-Osaka
- Kyoto
- Tokyo

386 services per day
Enhancing Safety by the Tailored Coaching Program

Group Management  Supervision Policy for Crew Members

Establish mutual trust through close relationships between crew members and supervisors.
For the Safety

Each crew completes their duties with

Positive Mindset  
Skill & Knowledge

Supportive Environment with Variety of Training Program and Supervision
Career Cycle

Station Staff ➔ Train Conductor ➔ Driver ➔ Station

- Departure Procedure
- Customer Relations
- Departure Procedure
- Safety Operation

Enhance the linkage among diverse positions.

- Response to Equipment Failures
...Thank you for your kind attention