The human factor in the operational security of railway transport

Russian Railways
Yuri Mironov
The human factor

Transport company staff

Passengers and visitors

Troublemakers
Sources of negative influence on the safe operation of the transport system

Human factors with an influence on the safe operation of a transport system

Passengers and visitors

Troublemakers

Terrorists
“Human–machine–environment”: mutual influence
NEGATIVE INFLUENCE OF THE ENVIRONMENT ON THE HUMAN

- Noise
- Vibration
- Temperature
- Humidity
- Smell
- Lighting
- Radiation and electromagnetic waves
TYPES OF ERRORS

Error

- In orientation
- In decision making
- In action

Cause of error

- Incomplete information
- Contradictory information
- Lack of information
- Incorrect information
- Mistakes in situation analysis
- Poor evaluation of the situation
- Lack of adaptation to the job
- Lack of knowledge and experience
- Wrong timing
- Wrong sequence of actions
- Wrong choice of action
Discussion of the Leaflet

Leaflet

- Belgian Railways (SNCB)
- Belarusian Railway
- Lithuanian Railways
- European Rail Infrastructure Managers (EIM)
- Colpofer
- International Association of Public Transport working group

Feedback used to improve the draft

No feedback
Practical testing of the Leaflet by Russian Railways

2011

2012 (7 months)

630 drills

7100 participating staff
Dissemination methods and their results

- 20% increase in target audience coverage for information about emergency procedures
- 17% increase in target audience coverage for information regarding steps to be taken in case of a terrorist threat

Most efficient dissemination methods

2011 and 7 months of 2012

- 20% increase in target audience coverage for information about emergency procedures
Thank you for your attention!